

IC

9129

Bureau of Mines Information Circular/1987

Analyses of Natural Gases, 1917-85

By B. J. Moore and Stella Sigler



UNITED STATES DEPARTMENT OF THE INTERIOR

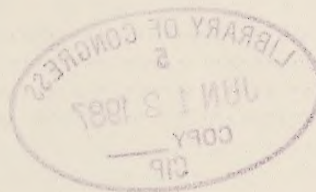


(United States, Bureau of Mines)

Information Circular 9129

Analyses of Natural Gases, 1917-85

By B. J. Moore and Stella Sigler

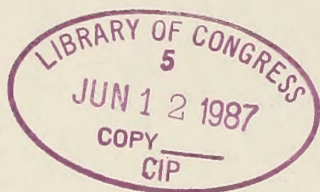


UNITED STATES DEPARTMENT OF THE INTERIOR
Donald Paul Hodel, Secretary

BUREAU OF MINES
Robert C. Horton, Director

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environment and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

TN295
U4
no. 9129



Library of Congress Cataloging-in-Publication Data

Moore, B. J. (Billy J.)

Analyses of natural gases, 1917-85.

(Information circular/United States Department of the Interior, Bureau of Mines; 9129)

Bibliography: p.

Supt. of Docs. no.: I 28.27: 9129

1. Gas, Natural -- Analysis. I. Sigler, Stella. II. Title. III. Series: Information circular (United States. Bureau of Mines); 9129.

TN295.U4

[TP297]

622 s

[553.2'85]

86-607917

CONTENTS

	Page
Abstract	1
Introduction	2
Historical background	2
Helium resources evaluation	3
Methods of analyses	3
Geological provinces of the United States	4
Composition of natural gases and their helium content	5
References	8

ILLUSTRATION

1. Geologic provinces of the United States	6
--	---

TABLES

1. Samples from gas and oil wells in the United States	9
2. Samples from pipelines in the United States	1070
3. Samples from gas and oil wells in foreign countries	1178
4. Samples from pipelines in foreign countries	1193

UNIT OF MEASURE ABBREVIATIONS USED IN THIS REPORT

Bcf	billion cubic feet	mA	milliampere
Btu per cu ft	British thermal unit per cubic foot	Mcfd	thousand cubic feet per day
°C	degree Celsius	mole pct	mole percent
cm ³	cubic centimeter	pct	percent
cm ³ /s	cubic centimeter per second	ppm	part per million
°F	degree Fahrenheit	psia	pound (force) per square inch, absolute
ft	foot	psig	pound (force) per square inch, gauge
in	inch	yr	year

ANALYSES OF NATURAL GASES, 1917-85

B. J. Moore¹ and Stella Sigler²

ABSTRACT

This publication contains 14,242 analyses of gas samples from oil and gas wells and natural gas pipelines in 40 States and 24 foreign countries. These gas samples were collected in the period 1917-85 as part of the Bureau of Mines survey for helium occurrences. The gas analyses contained herein were made by several methods over the period covered. Analytical work on samples collected early in the period was done on the Orsat apparatus. The one-cut apparatus and four-cut fractional distillation equipment were added later. A mass spectrometer was acquired in 1949 and used for all gas analyses made after that time. From 1917 to 1978, helium analyses were made on special helium analytical equipment designed and built by the Bureau of Mines Helium Operations Laboratory. In 1978, this apparatus was replaced in the quantitative helium analysis work by a gas chromatograph.

¹ Petroleum engineer.

² Helium resources survey clerk.

Section of Helium Resources Evaluation, Branch of Helium Resources, Helium Field Operations, Bureau of Mines, Amarillo, TX.

³ Italic numbers in parentheses refer to items in the list of references preceding the tables at the end of this publication.

INTRODUCTION

Since 1917, gas samples from oil and gas wells and natural gas pipelines throughout the United States and other countries with free market economies have been collected by the Bureau of Mines in a continuing search for helium occurrences. Analyses of 14,242 of the samples, which were collected in 40 States and 24 foreign countries, are given in tables 1-4 at the end of this publication.

The Bureau is charged with the responsibility of ensuring a continuing supply of helium to meet essential Government needs, and this survey of the world's natural gas fields is made in connection with this responsibility.

Two previous publications (1-2)³ presented the analyses made through 1974 and 1980; these documents contained 10,562 and 12,554 analyses, respectively. This publication is an update to those compilations.

Most of these analyses have also been published in other Bureau publications. The first of this series of publications,

³ Italic numbers in parentheses refer to items in the list of references preceding the tables at the end of this publication.

Bulletin 486(3), was published in 1951 and was followed by two more bulletins (4-5) published in 1958 and 1963. These three publications contained data on analyses of 5,218 gas samples collected from the beginning of the survey through 1960. Data on gas analyses since 1961 have been published on an annual basis, and 24 Information Circulars (6-29) have presented the analyses of 8,729 gas samples collected through 1984. The present compilation, reviewing 1917-85, was prepared to make available, in one source, information on composition of natural gases throughout the United States and in many other areas of the world. These data are also available in magnetic tape (30).

The helium survey program is conducted by soliciting natural gas samples throughout the United States and other countries with free market economies. Without the assistance of the oil and gas industry, State and national agencies, and many individuals engaged in oil and gas exploration and production, the helium survey with its present scope would be impossible.

HISTORICAL BACKGROUND

The survey to locate helium occurrences throughout the United States has been carried on since the inception of the Government's helium program in 1917. A major goal of this program has been to conserve helium that would otherwise be wasted. Through 1985, more than 17,900 gas samples have been collected and analyzed as a part of this survey. In addition to collecting samples from domestic gasfields, the search was expanded in 1965 to include foreign gasfields. Although several foreign samples had been analyzed prior to 1965, no active solicitation of samples had been made.

World War I caused a flurry of activity and interest in helium production. As a result of this interest, the Government's first helium extraction plant was constructed in Fort Worth, TX, by the Department of the Navy, to process gas from the Petrolia Field in Clay County, TX. Many of the samples collected for the helium survey during 1917-19 were analyzed for helium content only.

A second phase of the helium survey was begun in 1919 and continued until 1933. Samples collected during this period were analyzed by the Orsat combustion method and by a special helium apparatus. One result of this phase of the survey was the discovery of helium-rich gas at the Cliffside Field in Potter County, TX. The Government acquired the gas rights in fee in the Cliffside Field and subsequently built a second Government-owned helium extraction plant near Amarillo, TX, to process this gas. This plant was built by the Bureau of Mines in 1928-29, after the supply of gas to the plant at Fort Worth was nearly depleted.

The helium survey was relatively inactive from July 1933 to April 1941, when World War II began to create an increased demand for helium. The survey was intensified during the war and resulted in the location of sites for four new helium plants in Kansas, New Mexico, and Texas. These plants were built in 1943-44. After World War II, production capacity of the five plants was greater than postwar demand. Because of the excess capacity and a dwindling helium-rich gas supply, the Cunningham, KS, plant was dismantled. The Otis, KS, and Shiprock, NM, plants were placed on standby. The Amarillo, TX, plant operated intermittently from 1945 through 1951, while the Exell, TX, plant operated continuously.

In 1951, an increasing helium demand made it necessary to put the Otis, KS, plant back into production. The Shiprock, NM, plant resumed operations in 1953. Both of these plants were operated continuously until 1968, except for a shutdown of almost a year at Shiprock due to gas supply problems. In 1968, when Bureau of Mines sales of helium decreased markedly, both plants were shut down permanently. The Otis plant was sold, and the Shiprock plant was deeded to the Bureau of Indian Affairs, which turned it over to the Navajo Indian Tribe.

In the 1940's and 1950's, a major helium-rich gas source was being developed in the Oklahoma Panhandle. The Keyes Field was discovered in 1943, and gas samples from wells in the field contained an average of about 2 pct helium. In 1958, the Bureau obtained the exclusive helium processing rights to most of the gas for the life of the field. An extraction plant was built near Keyes, OK, to process Keyes Field gas. The plant began operations in 1959, but ceased gas processing in 1981 because of declining gas supplies and excessive cost of operations. The Amarillo plant ceased gas processing operations in April 1970. In September 1971, the Exell plant stopped processing West Panhandle Field gas, its source of supply since it began operation. Exell now supplies all demand for Bureau helium by purifying the helium that was purchased by the Government and is stored in the Cliffside Field.

In the early 1960's, demand for helium for Government programs continued the growth that started in 1950, while the helium-rich gas resources declined. Because of this decline, Congress passed legislation in 1960 authorizing a helium conservation program and promoting the growth of a private helium industry. The objective of this program was to save for future use about 52 Bcf of helium that would have otherwise been lost as the gas was used for fuel. To implement this program, four long-term contracts were negotiated with private firms for the Government's purchase of helium; these contracts obligated the Government for up to \$47.5 million per year. Five private extraction plants were built adjacent to large natural gas transmission lines in Texas and Kansas. Most of the gas processed was produced from the West Panhandle Field of Texas and the

Hugoton Field in Texas, Oklahoma, and Kansas. These two fields contained the largest known helium reserves in the world. Previous helium resources evaluation work by the Bureau had established that this area was the most promising source for the recovery of helium. Minor volumes of gas were produced from smaller fields in the same area. The extracted helium was stored in the Government-owned Cliffside Field in Potter County, TX. This is the helium now being purified by the Bureau to supply current demand.

Through November 1973 when acceptance of helium

under these contracts ceased, 34.2 Bcf of helium had been stored. As of January 1, 1986, helium stored in the Cliffside Field totaled 37.2 Bcf. This consisted of the 32.7 Bcf of helium purchased, 2.2 Bcf of excess production from Bureau plants, and 2.3 Bcf stored for private companies under separate contracts. In addition to the stored helium, the remaining native gas in Cliffside contains about 3.9 Bcf of helium. Helium is measured at a pressure and temperature base of 14.7 psia and 70° F.

HELIUM RESOURCES EVALUATION

Even though helium resources are more than adequate to supply Government needs at present and for some time in the future, the helium resources evaluation program is continued so that resources can be located that may be required to supply future demands. Experience shows that it takes about 15 yr from the time of discovery to the time of exploitation of a helium resource. Of particular interest are reserves of helium found in gases with low heating values. This gas is not as likely as higher heating value gases to be produced for fuel. Therefore, the helium is effectively "stored" and will be available for extraction when the need arises. These resources are classified as "nondepleting helium reserves" and serve as a backup to the helium stored in the Cliffside Field.

Many of these nondepleting helium reserves are located on Federal lands, and under the standard Government oil and gas lease, helium ownership is reserved to the Federal Government. These reserves are, therefore, under Federal control, and although a lessee may produce the gas with which the helium is associated, the Government has an option to extract, or have extracted, the helium contained in the gas.

When the helium survey was expanded to include foreign gasfields in 1965, it was believed that with the growing importance and use of helium, it was necessary to acquire reasonably detailed and documented knowledge of the helium resources outside the United States. Samples from 24 foreign countries have been received. Most of the analyses of these samples appear in tables 3-4.

The helium resource evaluation program has been carried on in varying degrees of intensity for almost 70 yr. Gas samples from most natural gas fields in the United States and from a few fields in foreign countries have been analyzed. Most of these analyses are presented in tables 1-4. While many of the fields in the gulf coast area have not been sampled for the survey, all major transmission lines carrying gas from that area have been sampled. The helium resource evaluation has accomplished its purpose in that it has identified the helium reserves and resources from which demand has been fully supplied. The evaluation is a continuing Bureau program with the objective of locating adequate supplies to meet future demands.

METHODS OF ANALYSES

The samples collected in the earlier years of the helium survey program were analyzed by the Orsat apparatus with the helium content being determined by a helium apparatus developed by H. P. Cady and D. F. McFarland, early researchers on helium occurrences in natural gases, and improved by Bureau of Mines personnel. In using the Orsat method, the hydrocarbons occurring in natural gases were calculated and reported as methane and ethane; thus, the true distribution of the hydrocarbon components is not known if the gas contained hydrocarbons other than methane and ethane. Because of this, the heating value and specific gravity calculated for samples analyzed before April 1949 are not considered as reliable as those calculated from other methods of analysis. Both the helium apparatus and the Orsat apparatus are described in detail in Bulletin 486 (3).

The one-cut apparatus and the four-cut fractional-distillation analytical equipment were used to analyze a few helium survey samples during the period when the Orsat apparatus was in general use. The one-cut apparatus, also described in Bulletin 486 (3), has all of the units normally found on an Orsat apparatus and, in addition, equipment for separating methane from ethane and the heavier hydrocarbons. An exact methane content is available, but all other hydrocarbons are reported together. The four-cut fractional-distillation apparatus has been described by Shepard and Porter (31).

The previously mentioned helium apparatus developed by Cady and McFarland was replaced by a device, again described in Bulletin 486 (3), that depends on pressure measurement at a constant volume rather than volume measurements at a constant pressure as did the first apparatus.

The mass spectrometer replaced the Orsat apparatus in the helium survey analytical work in 1949. The helium content was calculated from data from the mass spectrometer, but it also continued to be determined on the helium apparatus, which was similar to the helium apparatus described in Bulletin 486 (3) with a few modifications. Both the mass spectrometer and the modified helium apparatus are described in Bulletin 576 (4), a supplement to Bulletin 486 (3).

In 1978, the gas chromatograph replaced the helium apparatus in the quantitative helium analysis work. Currently being used in the analytical procedures are the CEC 21-103C modified mass spectrometer and the 0- to 10-pct helium chromatograph. Gas samples received for the helium survey program are submitted both in glass bottles at atmospheric pressure and in pressurized steel cylinders. The sample gas in the glass bottles is removed by using a water displacement system attached to the gas chromatograph. A 50-cm³ sample is collected for the mass spectrometer analysis while the chromatographic sample loop is purged for the chromatograph helium analysis.

The quantitative gas chromatograph analysis for helium is accomplished at 46° C with two 3/16 in-OD stainless steel columns which are joined with a back-flush valve. The first column is 8 ft long with the first 2 ft packed with Porapak R (80 to 100 mesh) and the last 6 ft packed with activated charcoal (30 to 60 mesh). The second column uses 15 ft of charcoal (30 to 60 mesh) and 2 ft of molecular sieve. The first column is used to remove carbon dioxide, water, oxygen, and nitrogen. A thermister detector is used at 10 mA. Argon is used as the carrier gas at a flow rate of 20 cm³/s. a 2-cm³ sample loop provides a minimum detectable limit of about 18 ppm helium. System accuracy is 0.4 pct relative error at the 1-pct level and 0.15 pct relative error at the 5-pct level.

The mass spectrometer is an apparatus that produces a beam of gaseous ions from a sample, sorts out the resulting mixture of ions according to their mass charge ratios, and provides output signals that are measures of the relative abundance of each component in the sample. The mass spectrometer results are normalized with the helium content ob-

tained from the 0- to 10-pct helium chromatograph after calculation of the digitalized output. The analysis and well information are stored as part of a helium resource computer data base. Individual data sheets are printed for transmission to the well owner.

The completed analysis includes helium, hydrogen, nitrogen, oxygen, argon, carbon dioxide, individual hydrocarbons through pentane, and a composite value for hexanes plus hydrocarbons. A calculated heating value and specific gravity are also included.

The components in the analyses are reported to the nearest 0.1 pct, except helium, which is reported to the nearest 0.01 pct. The word "trace" is used to denote quantities of helium of less than 0.005 pct and quantities of other components of less than 0.05 pct. The percent of hydrogen sulfide reported in each sample may not be completely reliable because of the transfer of the sample over water. Most samples submitted are taken by water displacement, and hydrogen sulfide is highly soluble in water.

GEOLOGICAL PROVINCES OF THE UNITED STATES

The tables include geologic province codes so that each sample source can be located within a specific geologic province as defined by the Committee on Statistics of Drilling of the American Association of Petroleum Geologists (32). This information was added in Information Circular 8749 (21) and is included with all analyses in the publication. These provinces, which are shown in figure 1 and the accompanying list, are delineated by political boundaries for conven-

ience and for accommodation of data processing equipment. The list and figure 1 are taken from Meyer (32). Not all of the provinces shown are gas-producing areas, so many of the codes are not used in this publication. In offshore areas, only one code is used for each State since State or Federal ownership is not always known. Only one code, 972, is used for all wells in Alaska, both onshore and offshore, because of the lack of information on the location of wells in that State.

COMPOSITION OF NATURAL GASES AND THEIR HELIUM CONTENT

The tables included in this section give the results of analyses and related source data on 14,242 gas samples. Tables 1 and 2 show data on samples from the United States, and tables 3 and 4 show samples from foreign countries. The samples are further broken down as to their sources: Those in tables 1 and 3 are from individual gas or oil wells, and those in tables 2 and 4 are from pipeline or multiple-well sources. Some miscellaneous sources, such as water wells or gas seeps, are included with the individual well tables.

The results of some of the analyses made in connection with this program are not included in this compilation. Some reasons for exclusion of analyses are air contamination above permissible levels, incomplete analyses, and maintaining the confidentiality of data that were not released by the company supplying the gas sample. This confidentiality is promised to each company when it is contacted for a gas sample; however, most data are subsequently released for publication or public presentation by the company.

The following lists indicate the sources of the samples listed in the tables.

U.S. SAMPLES

Source	Number of samples	Tables	Source	Number of samples	Tables
Alabama	86	1,2	Montana	233	1,2
Alaska	79	1,2	Nebraska	28	1,2
Arizona	89	1,2	Nevada	7	1
Arkansas	281	1,2	New Jersey	1	1
California	306	1,2	New Mexico	817	1,2
Colorado	636	1,2	New York	113	1,2
Florida	5	1	North Carolina	2	1
Georgia	4	1,2	North Dakota	59	1,2
Idaho	21	1	Ohio	216	1,2
Illinois	21	1	Oklahoma	2,393	1,2
Indiana	41	1,2	Oregon	6	1
Iowa	4	1	Pennsylvania	202	1,2
Kansas	1,669	1,2	South Dakota	5	1,2
Kentucky	101	1,2	Tennessee	17	1,2
Louisiana	540	1,2	Texas	4,206	1,2
Maryland	9	1,2	Utah	360	1,2
Michigan	155	1,2	Virginia	20	1,2
Minnesota	2	1,2	Washington	15	1,2
Mississippi	120	1,2	West Virginia	440	1,2
Missouri	1	1	Wyoming	701	1,2

FOREIGN SAMPLES

Source	Number of samples	Tables	Source	Number of samples	Tables
Argentina	14	3,4	Italy	3	3
Australia	24	3,4	Mexico	31	3,4
Austria	1	3	Netherlands	10	3,4
Bangladesh	1	4	Norway	1	4
Bolivia	13	3	Pakistan	6	3,4
Canada	82	3,4	Peru	1	3
Colombia	3	4	Qatar	3	3
Ethiopia	1	3	Saudi Arabia	2	4
Germany, Fed. Rep. of	3	3	South Africa	1	3
Indonesia	4	4	Taiwan	12	3
Iran	1	3	Thailand	7	3,4
Iraq	3	3	United Kingdom	4	3,4

FIGURE 1. - Geologic provinces of the United States.

PROVINCE CODES FOR FIGURE 1

Code	Province	Code	Province	Code	Province	Code	Province
100	New England Province	530	Wind River Basin	880	Holtna Basin	957	California Pacific offshore—general
110	Adirondack Uplift	535	Green River Basin	885	Arctic Foothills Province	958	California Pacific offshore—State
120	Atlantic Coast Basin	540	Denver Basin	890	Arctic Slope Basin	959	California Pacific offshore—Federal
130	South Georgia-North Florida Sedimentary Province	545	North Park Basin	900	Maine Atlantic offshore—general	960	Oregon Pacific offshore—general
140	South Florida Province	550	South Park Basin	901	Maine Atlantic offshore—State	961	Oregon Pacific offshore—State
150	Piedmont-Blue Ridge Province	555	Eagle Basin	902	Maine Atlantic offshore—Federal	962	Oregon Pacific offshore—Federal
160	Appalachian Basin	560	San Luis Basin	903	New Hampshire Atlantic offshore—general	963	Washington Pacific offshore—general
200	Warrior Basin	565	San Juan Mountain Province	904	New Hampshire Atlantic offshore—State	964	Washington Pacific offshore—State
210	Mid-Gulf Coast Basin	570	Uinta Uplift	905	New Hampshire Atlantic offshore—Federal	965	Washington Pacific offshore—Federal
220	Gulf Coast Basin	575	Uinta Basin	906	Massachusetts Atlantic offshore—general	972	Alaska Arctic offshore—general
230	Arkla Basin	580	San Junn Basin	907	Massachusetts Atlantic offshore—State	973	Alaska Arctic offshore—State
240	Desha Basin	585	Paradox Basin	908	Massachusetts Atlantic offshore—Federal	974	Alaska Arctic offshore—Federal
250	Upper Mississippi Embayment	590	Black Mesa Basin	909	Rhode Island Atlantic offshore—general	975	Alaska Bering Sea offshore—general
260	East Texas Basin	595	Piceance Basin	910	Rhode Island Atlantic offshore—State	976	Alaska Bering Sea offshore—State
300	Cincinnati Arch	600	Northern Cascade Range—Okanagan Province	911	Rhode Island Atlantic offshore—Federal	977	Alaska Bering Sea offshore—Federal
305	Michigan Basin	605	Eastern Columbia Basin	912	Connecticut Atlantic offshore—general	978	Alaska Pacific offshore—general
310	Wisconsin Arch	610	Idaho Mountains Province	913	Connecticut Atlantic offshore—State	979	Alaska Pacific offshore—State
315	Illinois Basin	615	Snake River Basin	914	Connecticut Atlantic offshore—Federal	980	Alaska Pacific offshore—Federal
320	Sioux Uplift	620	Southern Oregon Basin	915	New York Atlantic offshore—general	987	Minnesota Lake Superior offshore
325	Iowa Shelf	625	Great Basin Province	916	New York Atlantic offshore—State	988	Wisconsin Lake Superior offshore
330	Lincoln Anticline	630	Wasatch Uplift	917	New York Atlantic offshore—Federal	989	Michigan Lake Superior offshore
335	Forest City Basin	635	Plateau Sedimentary Province	918	New Jersey Atlantic offshore—general	990	Indiana Lake Michigan offshore
340	Ozark Uplift	640	Mojave Basin	919	New Jersey Atlantic offshore—State	991	Illinois Lake Michigan offshore
345	Arkoma Basin	645	Salton Basin	920	New Jersey Atlantic offshore—Federal	992	Wisconsin Lake Michigan offshore
350	South Oklahoma Folded Belt Province	650	Sierra Nevada Province	921	Delaware Atlantic offshore—general	993	Michigan Lake Michigan offshore
355	Chautauqua Platform	700	Bellingham Basin	922	Delaware Atlantic offshore—State	994	Michigan Lake Huron offshore
360	Anadarko Basin	705	Puget Sound Province	923	Maryland Atlantic offshore—Federal	995	Michigan Lake Erie offshore
365	Cherokee Basin	710	Western Columbia Basin	924	Maryland Atlantic offshore—general	996	Ohio Lake Erie offshore
370	Nemaha Anticline	715	Klamath Mountains Province	925	Maryland Atlantic offshore—State	997	Pennsylvania Lake Erie offshore
375	Sedgwick Basin	720	Eel River Basin	926	Maryland Atlantic offshore—State	998	New York Lake Erie offshore
380	Salina Basin	725	Northern Coast Range Province	927	Virginia Atlantic offshore—general	999	New York Lake Ontario offshore
385	Central Kansas Uplift	730	Sacramento Basin	928	Virginia Atlantic offshore—State		
390	Chadron Arch	735	Santa Cruz Basin	929	Virginia Atlantic offshore—Federal		
395	Williston Basin	740	Coastal Basin	930	North Carolina Atlantic offshore—general		
400	Ouachita Tectonic Belt Province	745	San Joaquin Basin	931	North Carolina Atlantic offshore—State		
405	Kerr Basin	750	Santa Maria Basin	932	North Carolina Atlantic offshore—Federal		
410	Llano Uplift	755	Ventura Basin	933	South Carolina Atlantic offshore—general		
415	Strawn Basin	760	Los Angeles Basin	934	South Carolina Atlantic offshore—State		
420	Fort Worth Syncline	765	Capistrano Basin	935	South Carolina Atlantic offshore—Federal		
425	Bend Arch	800	Heceta Island Area	936	Georgia Atlantic offshore—general		
430	Permian Basin	805	Keku Islands Area	937	Georgia Atlantic offshore—State		
435	Palo Duro Basin	810	Gulf of Alaska Basin	938	Georgia Atlantic offshore—Federal		
440	Amarillo Arch	815	Copper River Basin	939	Florida Atlantic offshore—general		
445	Sierra Grande Uplift	820	Cook Inlet Basin	940	Florida Atlantic offshore—State		
450	Las Animas Arch	830	Kandik Province	941	Florida Atlantic offshore—Federal		
455	Las Vegas-Raton Basin	835	Koyukuk Province	942	Florida Gulf of Mexico offshore—general		
460	Estancia Basin	840	Bristol Bay Basin	943	Florida Gulf of Mexico offshore—State		
465	Orogrande Basin	845	Bethel Basin	944	Florida Gulf of Mexico offshore—Federal		
470	Pedregosa Basin	850	Norton Basin	945	Alabama Gulf of Mexico offshore—general		
475	Basin-and-Range Province	855	Selawik Basin	946	Alabama Gulf of Mexico offshore—State		
500	Sweetgrass Arch	860	Yukon Flats Basin	947	Alabama Gulf of Mexico offshore—Federal		
505	Montana Folded Belt Province	865	Lower Tanana Basin	948	Mississippi Gulf of Mexico offshore—general		
510	Central Montana Uplift	870	Middle Tanana Basin	949	Mississippi Gulf of Mexico offshore—State		
515	Powder River Basin	875	Upper Tanana Basin	950	Mississippi Gulf of Mexico offshore—Federal		
520	Big Horn Basin	880	Innoko Basin	951	Louisiana Gulf of Mexico offshore—general		
525	Yellowstone Province	885	Minchumina Basin	952	Louisiana Gulf of Mexico offshore—State		
		890		953	Louisiana Gulf of Mexico offshore—Federal		
		895		954	Texas Gulf of Mexico offshore—general		
		900		955	Texas Gulf of Mexico offshore—State		
		905		956	Texas Gulf of Mexico offshore—Federal		

REFERENCES

1. Moore, B. J. Analyses of Natural Gases 1917-74. BuMines Computer Printout 1-76, 1976, 889 pp.; NTIS PB 251 202/As.
2. _____. Analyses of Natural Gases 1917-80. BuMines IC 8870, 1982, 1055 pp.
3. Anderson, C. C., and H. H. Hinson. Helium-Bearing Natural Gases of the United States. Analyses and Analytical Methods. BuMines B 486, 1951, 141 pp.
4. Boone, W. J., Jr. Helium-Bearing Natural Gases of the United States. Analyses and Analytical Methods. Supplement to Bull. 486. BuMines B 576, 1958, 117 pp.
5. Munnerlyn, R. D., and R. D. Miller. Helium-Bearing Natural Gases of the United States, Analyses. Second Supplement to Bull. 486. BuMines B 617, 1963, 93 pp.
6. Miller, R. D., and G. P. Norrell. Analyses of Natural Gases of the United States, 1961. BuMines IC 8221, 1964, 148 pp.
7. _____. Analyses of Natural Gases of the United States, 1962. BuMines IC 8239, 1964, 120 pp.
8. _____. Analyses of Natural Gases of the United States, 1963. BuMines IC 8241, 1965, 102 pp.
9. Moore, B. J., R. D. Miller, and R. D. Shrewsbury. Analyses of Natural Gases of the United States, 1964. BuMines IC 8302, 1966 144 pp.
10. Moore, B. J., and R. D. Shrewsbury. Analyses of Natural Gases of the United States, 1965. BuMines IC 8316, 1966 181 pp.
11. _____. Analyses of Natural Gases, 1966. BuMines IC 8356, 1967, 130 pp.
12. _____. Analyses of Natural Gases, 1967. BuMines IC 8395, 1968, 187 pp.
13. Cardwell, L. E., and L. F. Benton. Analyses of Natural Gases, 1968. BuMines IC 8443, 1970, 169 pp.
14. _____. Analyses of Natural Gases, 1969. BuMines IC 8475, 1970, 134 pp.
15. _____. Analyses of Natural Gases, 1970. BuMines IC 8518, 1970, 130 pp.
16. _____. Analyses of Natural Gases, 1971. BuMines IC 8554, 1972, 163 pp.
17. _____. Analyses of Natural Gases, 1972. BuMines IC 8607, 1973, 104 pp.
18. Moore, B. J. Analyses of Natural Gases, 1973. BuMines IC 8658, 1974, 96 pp.
19. _____. Analyses of Natural Gases, 1974. BuMines IC 8684, 1975, 122 pp.
20. _____. Analyses of Natural Gases, 1975. BuMines IC 8717, 1976, 82 pp.
21. _____. Analyses of Natural Gases, 1976. BuMines IC 8749, 1977, 94 pp.
22. _____. Analyses of Natural Gases, 1977. BuMines IC 8780, 1978, 95 pp.
23. _____. Analyses of Natural Gases, 1978. BuMines IC 8810, 1979, 113 pp.
24. _____. Analyses of Natural Gases, 1979. BuMines IC 8833, 1980, 100 pp.
25. _____. Analyses of Natural Gases, 1980. BuMines IC 8856, 1981, 236 pp.
26. Miller, R. D., and F. R. Hertweck, Jr. Analyses of Natural Gases, 1981. BuMines IC 8890, 1982, 84 pp.
27. _____. Analyses of Natural Gases, 1982. BuMines IC 8942, 1983, 100 pp.
28. Hertweck, F. R., and D. D. Fox. Analyses of Natural Gases, 1983. BuMines IC 8993, 1984, 127 pp.
29. Moore, B. J., and J. E. Hamak. Analyses of Natural Gases, 1984. BuMines IC 9046, 1985, 102 pp.
30. Bureau of Mines. Analyses of Natural Gases. Tape available from NTIS. Springfield, VA, PB 85-200350.
31. Shepard, M., and F. Porter. An Improved Method for the Separation of Gas Mixtures by Fractional Distillation at Low Temperatures and Pressures. Ind. and Eng. Chem., v. 15, 1923, pp. 1143-1146.
32. Meyer, R. F. Geologic Provinces Code Map for Computer Use. AAPG Bull., N. 54/7, July 1970, pp. 1301-1305.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

9

INDEX SAMPLE 16156		INDEX SAMPLE 16157		INDEX SAMPLE 16163	
STATE.....	ALABAMA	ALABAMA	ALABAMA	ALABAMA	
COUNTY.....	BALDWIN	BALDWIN	BALDWIN	BALDWIN	
FIELD.....	FOLEY	FOLEY	FOLEY	FOLEY	
WELL NAME.....	NEEKS FOUNDATION 8-2 NO. 1	ROSE WEEK 7-2 NO. 1	ROSE WEEK 7-2 NO. 1	FOLEY DAIRY NO. 1	
LOCATION.....	NOT GIVEN	SEC. 7, T8S, R3E	SEC. 7, T8S, R3E	SEC. 31, T7S, R4E	
OWNER.....	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	
COMPLETED.....	12/19/80	12/12/80	12/12/80	08/01/80	
SAMPLED.....	12/12/80	12/17/80	12/17/80	01/07/81	
FORMATION.....	MIOC-STRAY	MIOC-AMOS	MIOC-AMOS	MIOC-AMOS	
GEOLOGIC PROVINCE CODE.....	210	210	210	210	
DEPTH, FEET.....	1326	1757	1650	1650	
WELLHEAD PRESSURE, PSIG.....	582	790	705	705	
OPEN FLOW, MCFD.....	3700	2600	5700	5700	
COMPONENT, MOLE PCT.....					
METHANE.....	98.1	90.8	97.4	97.4	
ETHANE.....	0.1	0.1	0.1	0.1	
PROpane.....	TRACE	TRACE	TRACE	TRACE	
N-BUTANE.....	TRACE	0.0	0.0	0.0	
ISOBUTANE.....	TRACE	0.0	0.0	0.0	
N-PENTANE.....	TRACE	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.1	0.0	0.0	0.0	
HEXANES PLUS.....	0.1	0.0	0.0	0.0	
NITROGEN.....	1.5	7.4	2.3	2.3	
OXYGEN.....	0.4	0.0	0.1	0.1	
ARGON.....	TRACE	0.1	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	0.1	
HELIUM.....	0.01	0.01	0.02	0.02	
HEATING VALUE.....	1005	922	988	988	
SPECIFIC GRAVITY.....	0.571	0.596	0.566	0.566	
INDEX SAMPLE 16165		INDEX SAMPLE 16747		INDEX SAMPLE 17143	
STATE.....	ALABAMA	ALABAMA	ALABAMA	ALABAMA	
COUNTY.....	BALDWIN	BALDWIN	BALDWIN	BALDWIN	
FIELD.....	FOLEY	FOLEY	FOLEY	FOLEY	
WELL NAME.....	JOHN KRUPINSKI NO. 2	ROSE WEEKS 7-2 NO. 1	ROSE WEEKS 7-2 NO. 1	PAUL KAISER NO. 1	
LOCATION.....	SEC. 31, T7S, R3E	SEC. 7, T8S, R3E	SEC. 7, T8S, R3E	SEC. 7, T8S, R3E	
OWNER.....	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO. (USA)	AMOCO PRODUCTION CO. (USA)	CLAYTON W. WILLIAMS, JR.	
COMPLETED.....	08/05/80	12/12/80	12/12/80	12/12/80	
SAMPLED.....	01/08/81	12/17/80	12/17/80	12/02/83	
FORMATION.....	MIOC-AMOS	NOT GIVEN	NOT GIVEN	MIOC-SAND	
GEOLOGIC PROVINCE CODE.....	210	210	210	210	
DEPTH, FEET.....	1660	1757	1688	1688	
WELLHEAD PRESSURE, PSIG.....	797	797	750	750	
OPEN FLOW, MCFD.....	5400	2600	704	704	
COMPONENT, MOLE PCT.....					
METHANE.....	93.3	97.4	96.7	96.7	
ETHANE.....	0.1	0.1	0.1	0.1	
PROpane.....	TRACE	TRACE	TRACE	TRACE	
N-BUTANE.....	0.0	TRACE	0.0	0.0	
ISOBUTANE.....	TRACE	0.0	0.0	0.0	
N-PENTANE.....	TRACE	TRACE	0.0	0.0	
ISOPENTANE.....	0.0	TRACE	0.0	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	0.0	
HEXANES PLUS.....	0.1	0.1	0.0	0.0	
NITROGEN.....	4.6	1.9	3.2	3.2	
OXYGEN.....	0.4	TRACE	0.0	0.0	
ARGON.....	0.1	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.2	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.4	0.1	0.0	0.0	
HELIUM.....	0.01	0.01	0.01	0.01	
HEATING VALUE.....	952	994	991	991	
SPECIFIC GRAVITY.....	0.593	0.564	0.563	0.563	
INDEX SAMPLE 16673		INDEX SAMPLE 17199		INDEX SAMPLE 17087	
STATE.....	ALABAMA	ALABAMA	ALABAMA	ALABAMA	
COUNTY.....	BALDWIN	BALDWIN	BALDWIN	BALDWIN	
FIELD.....	FOLEY	Oyster Bay	WEEKS BAY S	WEEKS BAY S	
WELL NAME.....	DONALD GRANTHAM 8 35-4 NO. 2	MAX K. LAWRENZ JR-UT-8-1NO-1	S. C. LIPSCOMB UNIT 7-9 NO.1	S. C. LIPSCOMB UNIT 7-9 NO.1	
LOCATION.....	SEC. 36, T7S, R3E	SEC. 8, T9S, R4E	SEC. 7, T8S, R3E	SEC. 7, T8S, R3E	
OWNER.....	AMOCO PRODUCTION CO.	TIDELAND RESOURCES, ET AL.	AMOCO PRODUCTION CO. (USA)	AMOCO PRODUCTION CO. (USA)	
COMPLETED.....	07/17/82	11/17/83	05/17/83	05/17/83	
SAMPLED.....	09/17/82	02/25/84	10/17/83	10/17/83	
FORMATION.....	MIOC-AMOS	MIOC-MEYER	MIOC-AMOS	MIOC-AMOS	
GEOLOGIC PROVINCE CODE.....	210	210	210	210	
DEPTH, FEET.....	1662	1321	1766	1766	
WELLHEAD PRESSURE, PSIG.....	600	425	1040	1040	
OPEN FLOW, MCFD.....	850	1500	625	625	
COMPONENT, MOLE PCT.....					
METHANE.....	97.4	95.4	97.8	97.8	
ETHANE.....	0.1	TRACE	0.1	0.1	
PROpane.....	TRACE	0.0	TRACE	TRACE	
N-BUTANE.....	0.0	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.1	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	0.0	
ISOPENTANE.....	0.0	TRACE	0.0	0.0	
CYCLOPENTANE.....	0.0	TRACE	0.0	0.0	
HEXANES PLUS.....	0.0	TRACE	0.0	0.0	
NITROGEN.....	2.2	3.7	1.9	1.9	
OXYGEN.....	TRACE	0.6	0.0	0.0	
ARGON.....	TRACE	0.1	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	TRACE	0.1	0.1	
HELIUM.....	0.01	0.01	0.01	0.01	
HEATING VALUE.....	989	990	993	993	
SPECIFIC GRAVITY.....	0.564	0.575	0.563	0.563	
INDEX SAMPLE 17019		INDEX SAMPLE 16599		INDEX SAMPLE 12098	
STATE.....	ALABAMA	ALABAMA	ALABAMA	ALABAMA	
COUNTY.....	BLOUNT	ESCAMBIA	ESCAMBIA	ESCAMBIA	
FIELD.....	WILDCAT	816 ESCAMBIA CREEK	816 ESCAMBIA CREEK	FLAMON	
WELL NAME.....	J. MARTIN NO. 30-6	SCOTT PAPER CO. NO. 5-10-2	SCOTT PAPER CO. NO. 5-10-2	E. L. GOODWIN NO. 1	
LOCATION.....	SEC. 30, T13S, R3W	SEC. 5, T1N, R7E	SEC. 5, T1N, R7E	SEC. 18, T1N, R9E	
OWNER.....	J. HANLEY DENTON	EXXON CO., U.S.A.	EXXON CO., U.S.A.	HUMBLE OIL & REFINING CO.	
COMPLETED.....	08/19/83	04/20/82	04/20/82	05/23/69	
SAMPLED.....	08/19/83	07/30/82	07/30/82	10/30/69	
FORMATION.....	MISS-HARTSELLE	JURA-SHACKOVER	JURA-SHACKOVER	JURA-NORPHLET	
GEOLOGIC PROVINCE CODE.....	160	210	210	210	
DEPTH, FEET.....	1180	15400	15400	15430	
WELLHEAD PRESSURE, PSIG.....	400	1650	1650	3985	
OPEN FLOW, MCFD.....	140	8000	8000	NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	92.4	28.9	35.2	35.2	
ETHANE.....	2.4	4.2	5.2	5.2	
PROpane.....	1.1	2.0	3.2	3.2	
N-BUTANE.....	0.5	0.8	1.3	1.3	
ISOBUTANE.....	0.2	0.5	1.0	1.0	
N-PENTANE.....	0.1	0.2	0.6	0.6	
ISOPENTANE.....	0.2	0.3	0.4	0.4	
CYCLOPENTANE.....	TRACE	TRACE	0.2	0.2	
HEXANES PLUS.....	0.1	0.1	0.5	0.5	
NITROGEN.....	2.0	1.8	3.0	3.0	
OXYGEN.....	0.1	0.6	0.0	0.0	
ARGON.....	TRACE	TRACE	0.0	0.0	
HYDROGEN.....	0.0	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	14.6	4.6	4.6	
CARBON DIOXIDE.....	0.1	46.0	44.9	44.9	
HELIUM.....	0.13	0.02	0.02	0.02	
HEATING VALUE.....	1050	384	716	716	
SPECIFIC GRAVITY.....	0.605	1.179	1.162	1.162	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 13 SAMPLE 17211			INDEX 14 SAMPLE 17806			INDEX 15 SAMPLE 17396		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	FAYETTE		FAYETTE			FAYETTE		
FIELD.....	BETHEL CHURCH		BETHEL CHURCH			BLOOMING GROVE		
WELL NAME.....	MADDER-WHITAKER 36-7 NO. 1		KIRKLAND 36-3 NO. 1			CONNORS NO. 18-10		
LOCATION.....	SEC. 36, T14S, R13W		SEC. 36, T14S, R13W			SEC. 18, T15S, R13W		
OWNER.....	CHARLES L. CHERRY & ASSOC.		NEW PRODUCING CO.			TERRA RESOURCES, INC.		
COMPLETED.....	11/07/83		01/09/85			12--/82		
SAMPLED.....	03/15/84		08--/85			08/18/84		
FORMATION.....	MISS-CARTER		MISS-MILLERELLA			MISS-CARTER		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	2267		2253			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1200		800			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		1178			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	96.8		94.4			96.7		
ETHANE.....	1.3		1.3			2.0		
PROpane.....	0.1		0.1			TRACE		
N-BUTANE.....	TRACE		0.1			0.1		
ISOBUTANE.....	TRACE		0.0			0.0		
N-PENTANE.....	TRACE		0.1			0.1		
ISOPENTANE.....	TRACE		0.0			TRACE		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.2			TRACE		
NITROGEN.....	1.6		3.0			0.8		
OXYGEN.....	0.0		0.2			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.2		
HELIUM.....	0.08		0.08			0.06		
HEATING VALUE.....	1005		1004			1023		
SPECIFIC GRAVITY.....	0.567		0.588			0.573		
INDEX 16 SAMPLE 17210			INDEX 17 SAMPLE 17217			INDEX 18 SAMPLE 14966		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	FAYETTE		FAYETTE			FAYETTE		
FIELD.....	BLUFF		BLUFF			DAVIS CHAPEL		
WELL NAME.....	ROBERTSON-REECE NO. 10-3		TAYLOR NO. 10-1			CANNON NO. 33-15		
LOCATION.....	SEC. 10, T14S, R13W		SEC. 10, T14S, R13W			SEC. 33, T14S, R11W		
OWNER.....	CHARLES L. CHERRY & ASSOC.		CHARLES L. CHERRY & ASSOC.			CLEAR PETROLEUM CORP.		
COMPLETED.....	01/26/84		--/--/00			--/--/00		
SAMPLED.....	03/15/84		03/15/84			04--/77		
FORMATION.....	MISS-GILMER		MISS-GILMER			MISS-CARTER		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	1922		2018			2366		
WELLHEAD PRESSURE, PSIG.....	1050		1000			950		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			2600		
COMPONENT, MOLE PCT								
METHANE.....	93.5		96.0			93.7		
ETHANE.....	2.2		1.1			1.6		
PROpane.....	0.7		0.1			0.1		
N-BUTANE.....	0.2		0.1			TRACE		
ISOBUTANE.....	0.1		0.0			TRACE		
N-PENTANE.....	0.1		TRACE			TRACE		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			TRACE		
NITROGEN.....	2.8		2.5			1.2		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.08		0.07			0.10		
HEATING VALUE.....	1024		998			980		
SPECIFIC GRAVITY.....	0.593		0.573			0.598		
INDEX 19 SAMPLE 17605			INDEX 20 SAMPLE 17411			INDEX 21 SAMPLE 15611		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	FAYETTE		FAYETTE			FAYETTE		
FIELD.....	HAPPY HILL		HUBBERTVILLE			MCCRACKEN MOUNTAIN		
WELL NAME.....	CANNON NO. 26-14		STEINER-SCHWAB 17-13 NO. 1			G. D. GRAY NO.		
LOCATION.....	SEC. 26, T13S, R12W		SEC. 17, T14S, R11W			SEC. 21, T16S, R12W		
OWNER.....	CHARLES L. CHERRY & ASSOC.		CHARLES L. CHERRY & ASSOC.			TERRA RESOURCES, INC.		
COMPLETED.....	07/20/84		09/11/84			--/--/80		
SAMPLED.....	02/27/85		09/11/84			04/26/79		
FORMATION.....	MISS-CARTER		MISS-CARTER			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	1997		1844			2313		
WELLHEAD PRESSURE, PSIG.....	835		835			NOT GIVEN		
OPEN FLOW, MCFD.....	900		729			11000		
COMPONENT, MOLE PCT								
METHANE.....	89.9		96.8			92.3		
ETHANE.....	0.4		1.1			4.6		
PROpane.....	0.2		TRACE			0.8		
N-BUTANE.....	0.0		0.0			0.2		
ISOBUTANE.....	0.0		0.0			0.1		
N-PENTANE.....	0.0		0.0			TRACE		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.0		0.0			0.1		
NITROGEN.....	2.0		1.5			1.3		
OXYGEN.....	TRACE		0.1			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.4			0.4		
HELIUM.....	0.05		0.09			0.09		
HEATING VALUE.....	924		1000			1057		
SPECIFIC GRAVITY.....	0.595		0.570			0.604		
INDEX 22 SAMPLE 17468			INDEX 23 SAMPLE 15925			INDEX 24 SAMPLE 16683		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	FAYETTE		FAYETTE			FAYETTE		
FIELD.....	MCCRACKEN MOUNTAIN		MUSGROVE CREEK			MUSGROVE CREEK		
WELL NAME.....	BRANTON NO. 1		SMITH NO. 32-14			WOODWARD 26-9 NO. 1		
LOCATION.....	NOT GIVEN		SEC. 32, T14S, R12W			SEC. 26, T15S, R12W		
OWNER.....	BROWNING & WELCH, INC.		GRACE PETROLEUM CORP.			TERRA RESOURCES, INC.		
COMPLETED.....	09/30/84		08/28/79			04/25/82		
SAMPLED.....	09/30/84		03/20/80			09/30/82		
FORMATION.....	MISS-LEWIS		MISS-CARTER			MISS-CARTER		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	3280		2950			2601		
WELLHEAD PRESSURE, PSIG.....	600		1099			650		
OPEN FLOW, MCFD.....	30		4739			1318		
COMPONENT, MOLE PCT								
METHANE.....	90.7		97.5			95.3		
ETHANE.....	4.9		0.9			2.8		
PROpane.....	1.6		0.1			0.3		
N-BUTANE.....	0.6		0.1			0.0		
ISOBUTANE.....	0.3		0.0			0.0		
N-PENTANE.....	0.2		TRACE			0.0		
ISOPENTANE.....	0.1		TRACE			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.1		TRACE			0.0		
NITROGEN.....	0.8		1.1			0.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		TRACE			TRACE		
HELIUM.....	0.07		0.08			0.11		
HEATING VALUE.....	1100		1010			1024		
SPECIFIC GRAVITY.....	0.625		0.564			0.575		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

11

INDEX SAMPLE 16771		INDEX SAMPLE 17193		INDEX SAMPLE 14747	
STATE.....	ALABAMA	ALABAMA		ALABAMA	
COUNTY.....	FAYETTE	FAYETTE		WILDCAT	
FIELD.....	MUSGROVE CREEK	STUD HORSE CREEK		H. D. HUBBERT NO. 1	
WELL NAME.....	MADISON NO. 29-13	LANNINGHAM NO. 2-15		SEC. 28, T15S, R13W	
LOCATION.....	SEC. 29, T15S, R11W	SEC. 2, T14S, R12W		TERRA PETROLEUM CORP.	
OWNER.....	HOWELL PETROLEUM CORP.	GRACE PETROLEUM CORP.		03/11/75	
COMPLETED.....	09/20/82	03/--/82		08/--/76	
SAMPLED.....	02/15/83	02/--/84		MISS-CARTER	
FORMATION.....	MISS-CARTER	MISS-CARTER		200	
GEOLOGIC PROVINCE CODE.....	200	200		2712	
DEPTH, FEET.....	2713	NOT GIVEN		1100	
WELLHEAD PRESSURE, PSIG.....	1050	NOT GIVEN		2000	
OPEN FLOW, MCFD.....	935	NOT GIVEN			
COMPONENT, MOLE PCT					
METHANE.....	95.1	97.4		98.0	
ETHANE.....	2.5	0.8		0.8	
PROpane.....	0.3	TRACE		0.1	
N-BUTANE.....	0.1	TRACE		0.0	
ISOBUTANE.....	0.0	TRACE		0.0	
N-PENTANE.....	TRACE	TRACE		0.0	
ISOPENTANE.....	TRACE	TRACE		0.0	
CYCLOPENTANE.....	TRACE	TRACE		0.0	
HEXANES PLUS.....	0.1	TRACE		0.0	
NITROGEN.....	1.3	1.5		1.0	
OXYGEN.....	0.0	TRACE		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.3	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.1		TRACE	
HELIUM.....	0.11	0.04		0.08	
HEATING VALUE.....	1025	1001		1010	
SPECIFIC GRAVITY.....	0.579	0.564		0.563	

INDEX SAMPLE 14867		INDEX SAMPLE 15052		INDEX SAMPLE 17460	
STATE.....	ALABAMA	ALABAMA		ALABAMA	
COUNTY.....	FAYETTE	FAYETTE		FRANKLIN	
FIELD.....	WILDCAT	WILDCAT		BLUEGUT CREEK	
WELL NAME.....	A. M. GRIMSLEY NO. 1	J. C. RANDOLPH NO. 1		MASSEY 33-16 NO. 21	
LOCATION.....	SEC. 31, T14S, R13W	SEC. 17, T15S, R12W		SEC. 33, T8S, R15W	
OWNER.....	TERRA RESOURCES, INC.	TERRA RESOURCES, INC.		L. H. JOHNSON & ASSOC.	
COMPLETED.....	08/21/76	--/--/00		02/--/84	
SAMPLED.....	11/17/76	07/13/77		10/--/84	
FORMATION.....	MISS-CARTER	MISS-CARTER		MISS-EVANS	
GEOLOGIC PROVINCE CODE.....	200	200		500	
DEPTH, FEET.....	2696	2570		1120	
WELLHEAD PRESSURE, PSIG.....	1180	1100		475	
OPEN FLOW, MCFD.....	3340	8225		1600	
COMPONENT, MOLE PCT					
METHANE.....	96.3	97.5		97.8	
ETHANE.....	2.2	0.7		0.8	
PROpane.....	0.1	0.4		0.1	
N-BUTANE.....	TRACE	0.0		0.1	
ISOBUTANE.....	0.0	0.0		TRACE	
N-PENTANE.....	0.1	0.0		TRACE	
ISOPENTANE.....	TRACE	0.0		TRACE	
CYCLOPENTANE.....	TRACE	0.0		TRACE	
HEXANES PLUS.....	TRACE	0.0		TRACE	
NITROGEN.....	1.1	1.5		1.3	
OXYGEN.....	0.1	0.1		TRACE	
ARGON.....	TRACE	TRACE		0.1	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		0.1	
HELIUM.....	0.05	0.08		0.07	
HEATING VALUE.....	1022	1003		1004	
SPECIFIC GRAVITY.....	0.574	0.567		0.566	

INDEX SAMPLE 17708		INDEX SAMPLE 16920		INDEX SAMPLE 17191	
STATE.....	ALABAMA	ALABAMA		ALABAMA	
COUNTY.....	JEFFERSON	LAMAR		LAMAR	
FIELD.....	OAK GROVE	ARMSTRONG BRANCH		BEAVERTON	
WELL NAME.....	MURPHY NO. 4-3	ANDERSON NO. 28-8		LOGGINS NO. 4-11	
LOCATION.....	NOT GIVEN	SEC. 28, T13S, R14W		SEC. 4, T13S, R15W	
OWNER.....	UNITED STATES STEEL CORP.	HUGHES & HUGHES OIL & GAS EX		GRACE PETROLEUM CORP.	
COMPLETED.....	10/--/82	04/83		05/--/82	
SAMPLED.....	06/13/85	05/04/83		02/--/84	
FORMATION.....	PENN-POITTSVILLE	MISS-CARTER		MISS-CARTER	
GEOLOGIC PROVINCE CODE.....	160	200		200	
DEPTH, FEET.....	1100	2226		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	200	550		NOT GIVEN	
OPEN FLOW, MCFD.....	110	1550		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	97.8	89.9		97.9	
ETHANE.....	0.0	4.1		0.6	
PROpane.....	0.0	0.9		0.1	
N-BUTANE.....	0.0	0.8		0.0	
ISOBUTANE.....	0.0	0.3		0.0	
N-PENTANE.....	0.0	0.2		0.0	
ISOPENTANE.....	0.0	0.4		0.0	
CYCLOPENTANE.....	0.0	0.1		0.0	
HEXANES PLUS.....	0.0	0.2		0.0	
NITROGEN.....	0.6	1.0		0.1	
OXYGEN.....	0.0	0.1		TRACE	
ARGON.....	1.6	TRACE		TRACE	
HYDROGEN.....	TRACE	0.3		0.0	
HYDROGEN SULFIDE.....	0.0	0.7		0.0	
CARBON DIOXIDE.....	0.1	0.5		0.1	
HELIUM.....	TRACE	0.05		0.07	
HEATING VALUE.....	991	1005		1005	
SPECIFIC GRAVITY.....	0.572	0.636		0.563	

INDEX SAMPLE 15251		INDEX SAMPLE 16500		INDEX SAMPLE 16921	
STATE.....	ALABAMA	ALABAMA		ALABAMA	
COUNTY.....	LAMAR	LAMAR		LAMAR	
FIELD.....	BLOOMING GROVE	BLOOMHORN CREEK		BLOOMHORN CREEK N	
WELL NAME.....	MURPHY AND OLPH NO. 1	KIMBROUGH 22-1 NO. 1		JOHNSON USA NO. 1	
LOCATION.....	SEC. 12, T15S, R14W	SEC. 22, T14S, R14W		NOT GIVEN	
OWNER.....	TERRA RESOURCES, INC.	PRUIT PRODUCTION CO.		HUGHES & HUGHES OIL & GAS EX	
COMPLETED.....	09/09/77	--/--/81		05/04/83	
SAMPLED.....	03/28/78	04/--/82		05/04/83	
FORMATION.....	MISS-CARTER	MISS-MILLERELLA		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	200	200		200	
DEPTH, FEET.....	2812	2362		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1056	503		NOT GIVEN	
OPEN FLOW, MCFD.....	3500	560		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	97.1	93.1		90.8	
ETHANE.....	2.1	3.4		4.6	
PROpane.....	0.1	1.0		1.9	
N-BUTANE.....	0.0	0.7		0.9	
ISOBUTANE.....	0.0	0.2		0.3	
N-PENTANE.....	0.0	0.2		0.1	
ISOPENTANE.....	0.0	0.2		0.4	
CYCLOPENTANE.....	0.0	0.1		0.1	
HEXANES PLUS.....	0.0	0.1		0.2	
NITROGEN.....	0.6	0.7		0.4	
OXYGEN.....	0.1	0.1		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.2	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		0.1	
HELIUM.....	0.03	0.04		0.01	
HEATING VALUE.....	1024	1086		1128	
SPECIFIC GRAVITY.....	0.569	0.611		0.633	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 37 SAMPLE 17510			INDEX 38 SAMPLE 16665			INDEX 39 SAMPLE 14817		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	LAHAR		LAHAR			LAHAR		
FIELD.....	BLOWHORN CREEK N		CROSSVILLE			FAIRVIEW		
WELL NAME.....	STICKMORE 3-10 NO. 1		MURPHY NO. 4-10			OGDEN NO. 9-5		
LOCATION.....	SEC. 3, T14S, R14W		SEC. 4, T15S, R14W			SEC. 9, T14S, R14W		
OWNER.....	GRACE PETROLEUM CORP.		HUGHES & HUGHES OIL & GAS			CLEARLY PETROLEUM CORP.		
COMPLETED.....	09/24/82		09/24/82			10/24/82		
SAMPLED.....	10/27/84		09/24/82			10/24/82		
FORMATION.....	MISS-CARTER		MISS-MILLERELLA			MISS-CARTER		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	NOT GIVEN		2676			2415		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1190			705		
OPEN FLOW, MCFD.....	NOT GIVEN		1547			2005		
COMPONENT, MOLE PCT								
METHANE.....	89.8		32.6			90.0		
ETHANE.....	5.4		3.7			4.4		
PROpane.....	1.9		1.0			1.4		
N-BUTANE.....	0.6		0.3			0.6		
ISOBUTANE.....	0.3		0.2			0.2		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	1.2		1.4			2.2		
OXYGEN.....	TRACE		TRACE			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	0.10		10.9			0.06		
HEATING VALUE.....	1108		1069			1088		
SPECIFIC GRAVITY.....	0.629		0.605			0.626		
INDEX 40 SAMPLE 16501			INDEX 41 SAMPLE 17192			INDEX 42 SAMPLE 17319		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	LAHAR		LAHAR			LAHAR		
FIELD.....	FERNBANK		HELL'S CREEK			LITTLE HELL'S CREEK		
WELL NAME.....	STICKMORE 30-1 NO. 1		BOYETTE NO. 25-7			VERLA HARRISON NO. 16-1		
LOCATION.....	SEC. 30, T17S, R15W		NOT GIVEN			SEC. 16, T15S, R14W		
OWNER.....	PRUET PRODUCTION CO.		GRACE PETROLEUM CORP.			MICHIGAN OIL CO.		
COMPLETED.....	04/27/81		02/27/84			09/16/82		
SAMPLED.....	04/27/81		02/27/84			06/10/84		
FORMATION.....	MISS-LEWIS		MISS-LEWIS			MISS-CARTER		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	4859		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1860		NOT GIVEN			170		
OPEN FLOW, MCFD.....	3050		NOT GIVEN			100		
COMPONENT, MOLE PCT								
METHANE.....	90.8		97.9			82.9		
ETHANE.....	5.3		0.6			5.4		
PROpane.....	0.1		TRACE			3.4		
N-BUTANE.....	TRACE		0.0			2.8		
ISOBUTANE.....	0.2		0.0			1.5		
N-PENTANE.....	0.0		0.0			0.6		
ISOPENTANE.....	0.1		0.0			1.4		
CYCLOPENTANE.....	0.1		0.0			0.4		
HEXANES PLUS.....	0.1		0.0			0.5		
NITROGEN.....	1.2		0.8			1.0		
OXYGEN.....	0.1		0.1			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.5		0.5			TRACE		
HELIUM.....	0.09		0.06			0.06		
HEATING VALUE.....	1037		1002			1296		
SPECIFIC GRAVITY.....	0.611		0.566			0.743		
INDEX 43 SAMPLE 16053			INDEX 44 SAMPLE 16054			INDEX 45 SAMPLE 17748		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	LAHAR		LAHAR			LAHAR		
FIELD.....	MAGEE LAKE		MAGEE LAKE			MCREE LAKE		
WELL NAME.....	SARAH C. SPROUSE NO. 1		SARAH C. SPROUSE NO. 1			CLARENCE DAY NO. 1-1		
LOCATION.....	SEC. 30, T16S, R15W		SEC. 30, T16S, R15W			SEC. 1, T17S, R16W		
OWNER.....	SOUTHLAND ROYALTY CO.		SOUTHLAND ROYALTY CO.			TUCKER OPERATING CO., INC.		
COMPLETED.....	08/08/80		07/27/80			03/29/85		
SAMPLED.....	08/08/80		08/08/80			06/27/85		
FORMATION.....	MISS-CARTER		MISS-LEWIS			MISS-MILLERELLA		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	4265		4820			4140		
WELLHEAD PRESSURE, PSIG.....	900		430			1550		
OPEN FLOW, MCFD.....	2200		665			1588		
COMPONENT, MOLE PCT								
METHANE.....	91.6		97.1			88.3		
ETHANE.....	4.2		7.3			4.8		
PROpane.....	1.4		2.4			2.2		
N-BUTANE.....	0.4		0.0			0.9		
ISOBUTANE.....	0.3		0.3			0.4		
N-PENTANE.....	0.2		0.2			0.4		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			0.3		
HEXANES PLUS.....	0.2		0.2			0.5		
NITROGEN.....	1.0		1.1			1.4		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.5			0.4		
HELIUM.....	0.11		0.08			0.11		
HEATING VALUE.....	1094		1137			1149		
SPECIFIC GRAVITY.....	0.621		0.652			0.661		
INDEX 46 SAMPLE 16181			INDEX 47 SAMPLE 17221			INDEX 48 SAMPLE 17426		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	LAHAR		LAHAR			LAHAR		
FIELD.....	MILLPORT		MILLPORT			MILLPORT		
WELL NAME.....	ODON 11-9 NO. 1		C. C. CUNNINGHAM 7-11 NO. 1			COLEMAN 14-16 NO. 1		
LOCATION.....	SEC. 11, T17S, R15W		NOT GIVEN			SEC. 14, T17S, R15W		
OWNER.....	PRUET PRODUCTION CO.		DOUGLAS EXPLORATION CO., INC.			TXO PRODUCTION CORP.		
COMPLETED.....	12/14/82		12/14/82			12/08/83		
SAMPLED.....	01/28/81		03/23/84			09/24/84		
FORMATION.....	MISS-CARTER		MISS-LEWIS			MISS-LEWIS		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	4326		4602			4550		
WELLHEAD PRESSURE, PSIG.....	1100		950			658		
OPEN FLOW, MCFD.....	2102		NOT GIVEN			1501		
COMPONENT, MOLE PCT								
METHANE.....	89.9		91.0			89.7		
ETHANE.....	4.8		5.3			6.9		
PROpane.....	1.4		1.1			1.2		
N-BUTANE.....	0.6		0.2			0.4		
ISOBUTANE.....	0.1		0.2			0.2		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.4		0.1			0.1		
CYCLOPENTANE.....	0.4		0.1			0.1		
HEXANES PLUS.....	0.5		0.1			0.1		
NITROGEN.....	1.2		1.6			1.0		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.4		0.0			0.0		
CARBON DIOXIDE.....	0.3		TRACE			TRACE		
HELIUM.....	0.10		0.08			0.08		
HEATING VALUE.....	1127		1080			1101		
SPECIFIC GRAVITY.....	0.645		0.614			0.621		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

13

INDEX SAMPLE 17827		INDEX SAMPLE 17842		INDEX SAMPLE 17921	
STATE.....	ALABAMA	ALABAMA		ALABAMA	
COUNTY.....	LAMAR	LAMAR		LAMAR	
FIELD.....	MOUNT ZION	MOUNT ZION		NOT GIVEN	
WELL NAME.....	SPAN 10-13 NO. 1	A-9 PROBST NO. 9-14		MARK-THOMAS NO. 6-6	
LOCATION.....	SEC. 10, T16S, R15W	SEC. 9, T16S, R15W		SEC. 6, T17S, R15W	
OWNER.....	ANDERMAN SMITH OPERATING CO.	PRUITT PRODUCTION CO.		TUCKER OPERATING CO., INC.	
COMPLETED.....	01/6/85	11/01/83		06/29/85	
SAMPLED.....	08/27/85	09/24/85		11/30/85	
FORMATION.....	MISS-LEWIS	CRET-CHANDLER		MISS-MILLERELLA	
GEOLOGIC PROVINCE CODE.....	200	200		200	
DEPTH, FEET.....	4614	3672		4274	
WELLHEAD PRESSURE, PSIG.....	1660	1350		1550	
OPEN FLOW, MCFD.....	1575	770		1532	
COMPONENT, MOLE PCT					
METHANE.....	86.5	85.2		67.5	
ETHANE.....	6.1	7.5		4.1	
PROpane.....	2.4	2.5		1.9	
N-BUTANE.....	0.3	1.0		1.0	
ISOBUTANE.....	0.3	0.4		0.1	
N-PENTANE.....	0.3	0.4		1.5	
ISOPENTANE.....	0.4	0.4		0.0	
CYCLOPENTANE.....	0.2	0.1		1.0	
HEXANES PLUS.....	0.4	0.4		1.8	
NITROGEN.....	2.2	1.5		0.4	
OXYGEN.....	0.2	TRACE		0.1	
ARGON.....	TRACE	TRACE		0.0	
HYDROGEN.....	TRACE	TRACE		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.2		20.7	
HELIUM.....	0.10	0.09		0.08	
HEATING VALUE.....	1149	1171		1039	
SPECIFIC GRAVITY.....	0.663	0.672		0.905	
INDEX SAMPLE 15687		INDEX SAMPLE 17216		INDEX SAMPLE 15745	
STATE.....	ALABAMA	ALABAMA		ALABAMA	
COUNTY.....	LAMAR	LAMAR		LAMAR	
FIELD.....	STAR	WATSON CREEK		WILDCAT	
WELL NAME.....	LE J. HAYES NO. 1	TODD 35-12 NO. 1		MCLAUGHLIN NO. 1	
LOCATION.....	SEC. 2, T16S, R16W	SEC. 35, T14S, R15W		SEC. 34, T13S, R15W	
OWNER.....	SOUTHLAND ROYALTY CO.	CHARLES L. CHERRY & ASSOC.		WARRIOR DRILLING & ENG. CO.	
COMPLETED.....	04/20/79	11/04/83		06/05/79	
SAMPLED.....	07/12/79	03/16/84		09/07/79	
FORMATION.....	MISS-CARTER	MISS-CARTER		MISS-CARTER	
GEOLOGIC PROVINCE CODE.....	200	200		200	
DEPTH, FEET.....	1837	2653		2372	
WELLHEAD PRESSURE, PSIG.....	1621	2000		930	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	89.8	90.7		85.8	
ETHANE.....	5.0	3.9		1.1	
PROpane.....	1.9	2.0		0.4	
N-BUTANE.....	0.6	0.7		0.2	
ISOBUTANE.....	0.4	0.3		TRACE	
N-PENTANE.....	0.3	0.2		0.1	
ISOPENTANE.....	0.3	0.2		0.1	
CYCLOPENTANE.....	0.1	0.2		TRACE	
HEXANES PLUS.....	0.2	0.2		0.1	
NITROGEN.....	1.3	1.3		9.8	
OXYGEN.....	TRACE	0.1		2.2	
ARGON.....	0.0	TRACE		0.1	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	TRACE	TRACE		TRACE	
HELIUM.....	0.10	0.07		0.07	
HEATING VALUE.....	1122	1105		920	
SPECIFIC GRAVITY.....	0.637	0.628		0.626	
INDEX SAMPLE 17461		INDEX SAMPLE 17135		INDEX SAMPLE 17136	
STATE.....	ALABAMA	ALABAMA		ALABAMA	
COUNTY.....	MOBILE	MOBILE		MOBILE	
FIELD.....	WILDCAT	CHUNCHULA		COLD CREEK	
WELL NAME.....	EMERSON 11-4 NO. 21	M. V. KELLY NO. 10-3		NEWMAN NO. 9-11	
LOCATION.....	SEC. 11, T9S, R15W	SEC. 10, T1S, R2W		SEC. 9, T1S, R1W	
OWNER.....	L. B. JOHNSON & ASSOC.	UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.	
COMPLETED.....	02/22/84	06/22/83		04/15/78	
SAMPLED.....	10/27/84	11/10/83		11/10/83	
FORMATION.....	MISS-HARTSELLE	JURA-SNACKOVER		JURA-SNACKOVER	
GEOLOGIC PROVINCE CODE.....	200	210		210	
DEPTH, FEET.....	990	18466		18425	
WELLHEAD PRESSURE, PSIG.....	700	2408		943	
OPEN FLOW, MCFD.....	300	700		324	
COMPONENT, MOLE PCT					
METHANE.....	98.6	62.6		42.1	
ETHANE.....	1.1	15.1		15.5	
PROpane.....	TRACE	5.6		12.7	
N-BUTANE.....	0.0	2.0		3.3	
ISOBUTANE.....	0.0	1.6		1.9	
N-PENTANE.....	0.0	0.7		1.6	
ISOPENTANE.....	0.0	0.3		1.7	
CYCLOPENTANE.....	0.0	0.1		0.3	
HEXANES PLUS.....	0.0	0.1		1.1	
NITROGEN.....	1.1	10.7		13.6	
OXYGEN.....	0.0	TRACE		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	1.6		2.1	
HELIUM.....	0.10	0.11		0.13	
HEATING VALUE.....	1001	1228		1553	
SPECIFIC GRAVITY.....	0.560	0.829		1.071	
INDEX SAMPLE 17256		INDEX SAMPLE 16243		INDEX SAMPLE 17832	
STATE.....	ALABAMA	ALABAMA		ALABAMA	
COUNTY.....	MOBILE	MOBILE		PICKENS	
FIELD.....	DEL CAMP PROSPECT	HAYTERS POND		COAL FIRE CREEK	
WELL NAME.....	F.N.B.-ALTMAYER 22-16 NO. 1	CREOLA MINERALS 33-10 NO. 2		SHELTON NO. 17-6	
LOCATION.....	SEC. 22, T7S, R2W	SEC. 33, T1S, R1W		SEC. 17, T18S, R14W	
OWNER.....	DEL CAMP INC.	GETTY OIL CO.		SOUTHLAND ROYALTY CO.	
COMPLETED.....	12/22/82	01/07/82		08/15/84	
SAMPLED.....	04/10/84	04/21/81		09/12/85	
FORMATION.....	MIOC-AMOS	JURA-SNACKOVER		MISS-CARTER	
GEOLOGIC PROVINCE CODE.....	210	210		200	
DEPTH, FEET.....	1902	18338		4670	
WELLHEAD PRESSURE, PSIG.....	700	2500		1350	
OPEN FLOW, MCFD.....	1138	5100		3114	
COMPONENT, MOLE PCT					
METHANE.....	99.1	67.2		89.2	
ETHANE.....	TRACE	10.8		7.5	
PROpane.....	TRACE	5.1		0.5	
N-BUTANE.....	0.0	1.6		0.1	
ISOBUTANE.....	0.0	1.3		0.4	
N-PENTANE.....	0.0	0.4		0.1	
ISOPENTANE.....	0.0	0.5		0.2	
CYCLOPENTANE.....	0.0	0.1		0.2	
HEXANES PLUS.....	0.0	0.3		0.3	
NITROGEN.....	0.8	5.1		1.0	
OXYGEN.....	0.0	TRACE		0.1	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0	0.9		0.0	
CARBON DIOXIDE.....	TRACE	6.5		0.5	
HELIUM.....	0.01	0.03		0.06	
HEATING VALUE.....	1004	1168		1103	
SPECIFIC GRAVITY.....	0.557	0.819		0.631	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE 15704			INDEX SAMPLE 15705			INDEX SAMPLE 17614		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	TUSCALOOSA		TUSCALOOSA			TUSCALOOSA		
FIELD.....	COAL MINE		COAL MINE			DEERLICK CREEK-COAL		
WELL NAME.....	JIM WALTERS RES. NO. 4		JIM WALTERS RES. NO. 4			DEERLICK CREEK COMP. STA.		
LOCATION.....	OAK GROVE AREA		OAK GROVE AREA			INLET FROM ALL WELLS		
OWNER.....	JIM WALTERS RESOURCES		JIM WALTERS RESOURCES			TRW, INC.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	7--/00		7--/00			03/07/85		
FORMATION.....	PENN-MARY LEE		PENN-MARY LEE			PENN-POTTSVILLE		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			650		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			170000		
COMPONENT, MOLE PCT								
METHANE.....	97.7		97.9			98.7		
ETHANE.....	TRACE		0.1			0.1		
PROPANE.....	TRACE		TRACE			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	1.7		1.5			1.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.05		0.02			0.04		
HEATING VALUE.....	990		994			1002		
SPECIFIC GRAVITY.....	0.564		0.564			0.561		
INDEX SAMPLE 17802			INDEX SAMPLE 17003			INDEX SAMPLE 17004		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	TUSCALOOSA		TUSCALOOSA			TUSCALOOSA		
FIELD.....	DUNN CREEK		LEXINGTON			LEXINGTON		
WELL NAME.....	JAMES GRAHAM BROWN NO.1		REPUBLIC STEEL NO. 23-7			TIERCE NO. 12-3		
LOCATION.....	SEC. 6, T19S, R12W		SEC. 23, T17S, R11W			SEC. 12, T18S, R11W		
OWNER.....	HUNT OIL CO		CARLESS RESOURCES, INC.			CARLESS RESOURCES, INC.		
COMPLETED.....	02/11/85		06/05/81			03/22/83		
SAMPLED.....	--/--/00		08/05/83			08/05/83		
FORMATION.....	MISS-LEWIS		MISS-COATS			MISS-CARTER		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	4967		3078			3994		
WELLHEAD PRESSURE, PSIG.....	1643		1250			1260		
OPEN FLOW, MCFD.....	2500		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.6		91.1			86.9		
ETHANE.....	8.3		0.8			5.8		
PROPANE.....	0.3		0.9			1.4		
N-BUTANE.....	0.1		0.4			0.6		
ISOBUTANE.....	0.2		0.2			0.3		
N-PENTANE.....	0.1		0.1			0.4		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.0			0.3		
NITROGEN.....	1.3		3.3			2.6		
OXYGEN.....	TRACE		0.1			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.4			0.3		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.2		
HELIUM.....	1.0		0.22			0.16		
HEATING VALUE.....	1091		1040			1100		
SPECIFIC GRAVITY.....	0.622		0.609			0.641		
INDEX SAMPLE 17005			INDEX SAMPLE 17410			INDEX SAMPLE 17002		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	TUSCALOOSA		TUSCALOOSA			TUSCALOOSA		
FIELD.....	LEXINGTON		LEXINGTON			NOT GIVEN		
WELL NAME.....	L A HOLMAN LUMBER NO. 10-7		FAUCETT 36-2 NO. 1			SWINDLE NO. 26-A		
LOCATION.....	SEC. 10, T18S, R11W		SEC. 36, T18S, R11W			SEC. 26, T18S, R11W		
OWNER.....	CARLESS RESOURCES, INC.		CARLESS RESOURCES, INC.			CARLESS RESOURCES, INC.		
COMPLETED.....	09/30/83		09/11/84			05/26/83		
SAMPLED.....	08/05/83		08/05/83			08/05/83		
FORMATION.....	MISS-MILLERELLA		MISS-MILLERELLA			MISS-TUSCUMBIA		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	3915		4095			4400		
WELLHEAD PRESSURE, PSIG.....	1420		1630			1580		
OPEN FLOW, MCFD.....	420		840			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	76.9		80.4			83.6		
ETHANE.....	9.9		6.8			7.3		
PROPANE.....	0.7		0.4			0.6		
N-BUTANE.....	0.9		0.4			0.5		
ISOBUTANE.....	0.3		0.3			0.2		
N-PENTANE.....	0.7		0.2			0.1		
ISOPENTANE.....	0.3		0.1			0.3		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	0.8		0.7			0.4		
OXYGEN.....	0.1		TRACE			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.3		0.3			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	1.8		0.09			0.10		
HEATING VALUE.....	1120		1023			1066		
SPECIFIC GRAVITY.....	0.700		0.668			0.652		
INDEX SAMPLE 17403			INDEX SAMPLE 14562			INDEX SAMPLE 14784		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	WALKER		WALKER			WASHINGTON		
FIELD.....	JACKSON		UNNAMED			CHATON		
WELL NAME.....	WARRIOR ENERGY 33-6 NO. 1		FIRST NATIONAL BANK NO. 1			CHATON UNIT NO. 1-2		
LOCATION.....	SEC. 33, T13S, R7W		SEC. 36, T13S, R7W			SEC. 20, T6N, R4W		
OWNER.....	WARRIOR BASIN ENERGY DEV. CO		SHENANDOAH OIL CORP.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	07/77/84		07/77/84			09/20/76		
SAMPLED.....	09/04/84		12/29/75			JURA-SNACKOVER		
FORMATION.....	MISS-HARTSELLE		MISS-HARTSELLE			210		
GEOLOGIC PROVINCE CODE.....	200		200					
DEPTH, FEET.....	1822		1798			16039		
WELLHEAD PRESSURE, PSIG.....	600		778			2200		
OPEN FLOW, MCFD.....	200		2258			3900		
COMPONENT, MOLE PCT								
METHANE.....	96.2		97.6			65.3		
ETHANE.....	0.8		0.4			9.2		
PROPANE.....	0.3		0.1			5.8		
N-BUTANE.....	0.1		0.0			1.1		
ISOBUTANE.....	TRACE		0.0			0.9		
N-PENTANE.....	0.1		0.0			0.3		
ISOPENTANE.....	TRACE		0.0			0.4		
CYCLOPENTANE.....	TRACE		0.0			0.1		
HEXANES PLUS.....	TRACE		0.0			0.2		
NITROGEN.....	2.0		1.8			1.5		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			13.8		
CARBON DIOXIDE.....	0.2		TRACE			3.4		
HELIUM.....	0.04		0.08			0.02		
HEATING VALUE.....	1004		999			0.125		
SPECIFIC GRAVITY.....	0.575		0.569			0.816		

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE 73 4952		INDEX SAMPLE 74 4124		INDEX SAMPLE 75 14033	
STATE.....	ALABAMA	ALABAMA		ALASKA	
COUNTY.....	WASHINGTON	WINSTON		AK PENINSULA	
FIELD.....	NOT GIVEN	NOT GIVEN		NATURAL GAS SEEP	
WELL NAME.....	WATER WELL	FIRST NAT'L BK OF BIRMINGHAM		AREA HOT SPRING	
LOCATION.....	SEC. 24, T4N, R2E	SEC. 18, T12S, R8W		SEC. 2, T29S, R44W (SM)	
OWNER.....	DAISEY FIELDS & HEIRS	GLENN O. ROSE OIL & GAS CO.		STATE OF ALASKA	
COMPLETED.....	--/7/00	02/18/45		--/7/00	
SAMPLED.....	08/29/50	09/28/46		06/24/74	
FORMATION.....	NOT GIVEN	MISS---		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	210	1377		972	
DEPTH, FEET.....	29	1377		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	30	450		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	1000		NOT GIVEN	
COMPONENT, MOLE PCT				NOT GIVEN	
METHANE.....	4.4	94.9		10.1	
ETHANE.....	0.7	1.2		0.4	
PROPANE.....	0.6	---		0.1	
N-BUTANE.....	0.2	---		0.0	
ISOBUTANE.....	TRACE	---		0.0	
N-PENTANE.....	0.1	---		0.0	
ISOPENTANE.....	0.0	---		0.0	
CYCLOPENTANE.....	TRACE	---		0.0	
HEXANES PLUS.....	0.1	---		0.0	
NITROGEN.....	90.0	3.3		23.2	
OXYGEN.....	0.0	0.4		TRACE	
ARGON.....	1.2	---		0.4	
HYDROGEN.....	TRACE	---		0.0	
HYDROGEN SULFIDE.....	---	---		0.0	
CARBON DIOXIDE.....	2.5	0.2		65.3	
HELIUM.....	TRACE	0.10		0.01	
HEATING VALUE.....	93	983		118	
SPECIFIC GRAVITY.....	0.976	0.578		1.293	

INDEX SAMPLE 76 14047		INDEX SAMPLE 77 5374		INDEX SAMPLE 78 13696	
STATE.....	ALASKA	ALASKA		ALASKA	
COUNTY.....	AK PENINSULA	ALASKA FLAT		COLEMAN	
FIELD.....	NATURAL GAS SEEP	NOT GIVEN		NOT GIVEN	
WELL NAME.....	SALMON CREEK	DDH NO. 2		WATER WELL	
LOCATION.....	SEC. 11, T30S, R41W	NOT GIVEN		10 MI. NE HOMER, AK.	
OWNER.....	ALASKA	U.S. GEOLOGICAL SURVEY		UNIVERSITY OF ALASKA	
COMPLETED.....	--/7/00	12/27/52		08/06/73	
SAMPLED.....	07/06/74	12/27/52		08/13/73	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	972	972		972	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		380	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		85	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		13	
COMPONENT, MOLE PCT					
METHANE.....	15.7	73.8		92.5	
ETHANE.....	0.2	0.0		0.0	
PROPANE.....	TRACE	0.6		TRACE	
N-BUTANE.....	0.0	0.0		0.0	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.0		0.0	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.0	0.0		0.0	
HEXANES PLUS.....	0.0	0.0		0.0	
NITROGEN.....	2.5	25.3		7.4	
OXYGEN.....	0.3	0.2		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	81.3	0.0		0.1	
HELIUM.....	0.01	0.03		0.01	
HEATING VALUE.....	163	763		937	
SPECIFIC GRAVITY.....	1.360	0.665		0.586	

INDEX SAMPLE 79 14764		INDEX SAMPLE 80 14777		INDEX SAMPLE 81 14760	
STATE.....	ALASKA	ALASKA		ALASKA	
COUNTY.....	COOK INLET	COOK INLET		COOK INLET	
FIELD.....	COOK INLET BASIN	COOK INLET N		GRANITE POINT	
WELL NAME.....	A-8S	NORTH COOK INLET UNIT A-5		GRANITE POINT NO. 20	
LOCATION.....	SEC. 4, T9N, R13W	SEC. 6, T11N, R9W		SEC. 5, T11N, R11W	
OWNER.....	UNION OIL CO. OF CALIF.	PHILLIPS PETROLEUM CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	11/11/67	08/14/69		05/04/68	
SAMPLED.....	08/06/76	08/06/76		08/06/76	
FORMATION.....	EOCE-TYONEK	EOCE-KENAI		EOCE-TYONEK & HENLOCK	
GEOLOGIC PROVINCE CODE.....	972	972		972	
DEPTH, FEET.....	NOT GIVEN	4450		8690	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1542		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	22230		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	85.1	99.1		67.0	
ETHANE.....	3.4	0.1		10.1	
PROPANE.....	4.5	0.1		10.3	
N-BUTANE.....	1.7	0.0		3.7	
ISOBUTANE.....	0.5	0.0		0.0	
N-PENTANE.....	0.4	0.0		0.6	
ISOPENTANE.....	0.9	0.0		2.1	
CYCLOPENTANE.....	0.2	0.3		0.3	
HEXANES PLUS.....	0.3	0.0		0.7	
NITROGEN.....	1.5	0.6		2.6	
OXYGEN.....	0.1	0.0		0.0	
ARGON.....	TRACE	TRACE		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.5	0.3		0.3	
HELIUM.....	TRACE	TRACE		0.03	
HEATING VALUE.....	1226	1008		1492	
SPECIFIC GRAVITY.....	0.712	0.559		0.892	

INDEX SAMPLE 82 14758		INDEX SAMPLE 83 14759		INDEX SAMPLE 84 14762	
STATE.....	ALASKA	ALASKA		ALASKA	
COUNTY.....	COOK INLET	COOK INLET		COOK INLET	
FIELD.....	MCARTHUR RIVER	MCARTHUR RIVER		MCARTHUR RIVER	
WELL NAME.....	K-17	K-30 SHORT		G-14 SHORT	
LOCATION.....	SEC. 21, T9N, R13W	SEC. 21, T9N, R13W		SEC. 29, T9N, R13W	
OWNER.....	ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.		UNION OIL CO. OF CALIF.	
COMPLETED.....	--/7/73	04/29/70		10/07/68	
SAMPLED.....	08/06/76	08/06/76		08/77/76	
FORMATION.....	EOCE-HENLOCK	EOCE-TYONEK, G		EOCE-TYONEK	
GEOLOGIC PROVINCE CODE.....	972	972		972	
DEPTH, FEET.....	11423	10876		4500	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	70.8	82.3		98.2	
ETHANE.....	5.5	4.7		0.1	
PROPANE.....	6.2	1.8		TRACE	
N-BUTANE.....	2.4	0.1		0.0	
ISOBUTANE.....	0.3	0.4		0.0	
N-PENTANE.....	0.5	0.5		0.0	
ISOPENTANE.....	0.8	0.1		0.0	
CYCLOPENTANE.....	0.1	0.1		0.0	
HEXANES PLUS.....	0.3	4.9		1.5	
NITROGEN.....	10.9	0.0		0.0	
OXYGEN.....	1.0	0.0		TRACE	
ARGON.....	0.1	TRACE		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	TRACE		0.1	
HELIUM.....	TRACE	0.01		TRACE	
HEATING VALUE.....	1176	1178		297	
SPECIFIC GRAVITY.....	0.787	0.710		0.562	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 14776	INDEX SAMPLE 14780	INDEX SAMPLE 14781
STATE.....	ALASKA		ALASKA	ALASKA
COUNTY.....	COOK INLET		COOK INLET	COOK INLET
FIELD.....	MCARTHUR RIVER		MCARTHUR RIVER	MIDDLE GROUND SHOAL
WELL NAME.....	NO. 3 LONG		NO. 3 LONG	NO. 13
LOCATION.....	SEC. 21, T9N, R13W		SEC. 29, T9N, R13W	SEC. 31, T9N, R12W
OWNER.....	ATLANTIC RICHFIELD CO.		UNION OIL CO. OF CALIF.	AMOCO PRODUCTION CO.
COMPLETED.....	04/29/70		03/18/70	01/01/68
SAMPLED.....	08/06/76		08/04/76	08/-/76
FORMATION.....	EOCE-KENAI		EOCE-KENAI	EOCE-KENAI
GEOLOGIC PROVINCE CODE.....	972		972	972
DEPTH, FEET.....	12006		10086	8425
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		726	600
COMPONENT, MOLE PCT				
METHANE.....	80.1	61.3	64.6	
ETHANE.....	4.8	12.1	13.7	
PROPANE.....	1.3	10.5	10.9	
N-BUTANE.....	2.0	2.7	3.6	
ISOBUTANE.....	1.0	1.6	1.8	
N-PENTANE.....	0.4	0.3	0.5	
ISOPENTANE.....	0.5	0.7	1.5	
CYCLOPENTANE.....	0.1	0.1	0.2	
HEXANES PLUS.....	0.2	0.2	0.4	
NITROGEN.....	5.9	10.8	2.6	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	TRACE	
HELIUM.....	0.01	0.01	TRACE	
HEATING VALUE.....	1189	1312	1482	
SPECIFIC GRAVITY.....	0.724	0.855	0.878	
		INDEX SAMPLE 14782	INDEX SAMPLE 14761	INDEX SAMPLE 14766
STATE.....	ALASKA		ALASKA	ALASKA
COUNTY.....	COOK INLET		COOK INLET	COOK INLET
FIELD.....	MIDDLE GROUND SHOAL		NICOLAI CREEK	NICOLAI CREEK
WELL NAME.....	NO. 6		NO. 3	NO. 3
LOCATION.....	SEC. 31, T9N, R12W		SEC. 22, T11N, R12W	SEC. 20, T11N, R12W
OWNER.....	AMOCO PRODUCTION CO.		TEXACO INC.	TEXACO INC.
COMPLETED.....	05/01/76		10/24/66	05/04/67
SAMPLED.....	08/-/76		08/-/76	08/-/76
FORMATION.....	EOCE-TYONEK		EOCE-TYONEK	EOCE-BELUGA & TYONEK
GEOLOGIC PROVINCE CODE.....	972		972	972
DEPTH, FEET.....	5782		3420	1900
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	74.9	98.2	98.1	
ETHANE.....	6.1	0.2	0.1	
PROPANE.....	8.0	0.1	0.1	
N-BUTANE.....	SEC. 3	TRACE	0.0	
ISOBUTANE.....	1.8	TRACE	0.0	
N-PENTANE.....	0.7	0.0	0.0	
ISOPENTANE.....	0.6	0.0	0.0	
CYCLOPENTANE.....	0.2	TRACE	0.0	
HEXANES PLUS.....	0.4	TRACE	0.0	
NITROGEN.....	3.0	1.3	1.4	
OXYGEN.....	0.0	0.0	1.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	TRACE	0.2	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1361	1005	998	
SPECIFIC GRAVITY.....	0.808	0.563	0.563	
		INDEX SAMPLE 14765	INDEX SAMPLE 17286	INDEX SAMPLE 5960
STATE.....	ALASKA		ALASKA	ALASKA
COUNTY.....	COOK INLET		COOK INLET BASIN	COPPER RIVER BASIN
FIELD.....	TRADING BAY NE		MCARTHUR RIVER	ESKER SPRING NE
WELL NAME.....	TS-2		TRADING BAY UNIT NO. G-18DPN	NOT GIVEN
LOCATION.....	SEC. 34, T10N, R13W		SEC. 28, T9N, R13W	U. S. GEOLOGICAL SUR.
OWNER.....	ATLANTIC RICHFIELD CO.		UNION OIL CO. OF CALIF.	NOT GIVEN
COMPLETED.....	08/29/68		11/-/83	-/-/700
SAMPLED.....	08/-/76		05/05/84	09/15/55
FORMATION.....	EOCE-TYONEK & HEMLOCK		MIOC-GRAYLING GAS SAND D-1	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	972		972	972
DEPTH, FEET.....	9015		5690	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		14870	NOT GIVEN
OPEN FLOW, MCFD.....	192		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	69.5	95.9	0.2	
ETHANE.....	5.7	0.1	0.2	
PROPANE.....	7.1	TRACE	0.0	
N-BUTANE.....	SEC. 3	SEC. 3	0.0	
ISOBUTANE.....	2.0	0.0	0.0	
N-PENTANE.....	0.5	0.0	0.0	
ISOPENTANE.....	0.7	0.0	0.0	
CYCLOPENTANE.....	0.1	0.0	0.0	
HEXANES PLUS.....	0.3	0.0	0.0	
NITROGEN.....	11.6	2.6	42.3	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	0.8	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	56.4	
HELIUM.....	0.01	0.14	0.02	
HEATING VALUE.....	1206	983	6	
SPECIFIC GRAVITY.....	0.801	0.567	1.286	
		INDEX SAMPLE 14119	INDEX SAMPLE 14120	INDEX SAMPLE 14121
STATE.....	ALASKA		ALASKA	ALASKA
COUNTY.....	COPPER RIVER BASIN		COPPER RIVER BASIN	COPPER RIVER BASIN
FIELD.....	NATURAL GAS SEEP		NATURAL GAS SEEP	NATURAL GAS SEEP
WELL NAME.....	JOHNSON CREEK SEEP		CROOKED CREEK SEEP	JOHNSON CREEK SEEP
LOCATION.....	SEC. 7, T22S, R21E		SEC. 35, T22S, R19E	SEC. 7, T22S, R21E
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	U.S. BUREAU OF MINES
COMPLETED.....	-/-/700		-/-/700	-/-/700
SAMPLED.....	07/-/74		07/-/74	07/-/74
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	972		972	972
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	96.0	93.1	84.1	
ETHANE.....	TRACE	2.0	0.5	
PROPANE.....	TRACE	0.5	0.1	
N-BUTANE.....	0.0	0.1	TRACE	
ISOBUTANE.....	0.0	0.1	TRACE	
N-PENTANE.....	0.0	0.1	TRACE	
ISOPENTANE.....	0.0	0.1	TRACE	
CYCLOPENTANE.....	0.0	0.1	TRACE	
HEXANES PLUS.....	0.0	0.1	TRACE	
NITROGEN.....	2.0	0.7	5.9	
OXYGEN.....	0.0	0.1	0.1	
ARGON.....	TRACE	TRACE	0.1	
HYDROGEN.....	TRACE	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.9	0.3	0.0	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	972	1000	863	
SPECIFIC GRAVITY.....	0.901	0.608	0.668	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 97 SAMPLE 6503			INDEX 98 SAMPLE 14032			INDEX 99 SAMPLE 8101		
STATE.....	ALASKA		ALASKA			ALASKA		
COUNTY.....	GULKANA LAKE		KEJULIK RIVER			KENAI		
FIELD.....	NOT GIVEN		NATURAL GAS SEEP			KENAI		
WELL NAME.....	LAKE BOTTOM SEEP		KEJULIK RIVER			KENAI UNIT NO. 44-18		
LOCATION.....	COPPER RIVER BASIN		SEC. 34, T26S, R38W (SN)			SEC. 18, T4N, R11W		
OWNER.....	NOT GIVEN		STATE OF ALASKA			OHIO OIL CO.		
COMPLETED.....	--/--/00		--/--/00			01/29/61		
SAMPLED.....	10/--/57		06/24/74			07/12/61		
FORMATION.....	NOT GIVEN		NOT GIVEN			EOCE-KENAI		
GEOLOGIC PROVINCE CODE.....	972		972			972		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			4798		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1895		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			32000		
COMPONENT, MOLE PCT								
METHANE.....	56.2		73.6			98.9		
ETHANE.....	0.0		TRACE			0.2		
PROPANE.....	0.2		TRACE			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	1.3		25.8			0.7		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	0.1		0.5			TRACE		
HYDROGEN.....	TRACE		0.8			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.4		TRACE			0.1		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	5.94		746			1005		
SPECIFIC GRAVITY.....	0.746		0.664			0.559		
INDEX 100 SAMPLE 11258			INDEX 101 SAMPLE 11210			INDEX 102 SAMPLE 10573		
STATE.....	ALASKA		ALASKA			ALASKA		
COUNTY.....	KENAI		KENAI BOROUGH			KENAI BOROUGH		
FIELD.....	KENAI		BEAVER CREEK			NICOLAI CREEK		
WELL NAME.....	DEEP TEST NO. 1		BEAVER CREEK NO. 1-A			NICOLAI CREEK STATE NO. 1		
LOCATION.....	KALIFONSKI BEACH		SEC. 33, T7N, R10W			SEC. 30, T11N, R12W		
OWNER.....	UNION OIL CO. OF CALIF.		MARATHON OIL CO.			TEXACO INC., ET AL.		
COMPLETED.....	11/13/67		08/01/67			04/28/66		
SAMPLED.....	01/28/68		11/05/68			05/14/66		
FORMATION.....	EOCE-KENAI D		EOCE-KENAI U			EOCE-KENAI U		
GEOLOGIC PROVINCE CODE.....	972		972			972		
DEPTH, FEET.....	9230		5420			3420		
WELLHEAD PRESSURE, PSIG.....	3620		1863			1531		
OPEN FLOW, MCFD.....	NOT GIVEN		26164			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	97.5		98.3			96.2		
ETHANE.....	0.2		0.1			0.1		
PROPANE.....	0.2		TRACE			0.0		
N-BUTANE.....	TRACE		0.0			0.0		
ISOBUTANE.....	0.2		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.0		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	0.2		0.0			0.0		
HEXANES PLUS.....	0.1		0.0			0.0		
NITROGEN.....	0.9		1.4			3.4		
OXYGEN.....	0.1		0.1			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		TRACE			0.1		
HELIUM.....	TRACE		0.02			0.01		
HEATING VALUE.....	10.29		998			976		
SPECIFIC GRAVITY.....	0.578		0.561			0.570		
INDEX 103 SAMPLE 9968			INDEX 104 SAMPLE 10589			INDEX 105 SAMPLE 14771		
STATE.....	ALASKA		ALASKA			ALASKA		
COUNTY.....	KENAI BOROUGH		KENAI PENINSULA			KENAI PENINSULA		
FIELD.....	WILDCAT		FALLS CREEK			KENAI		
WELL NAME.....	BIRCH HILL UNIT 22-25		FALLS CREEK NO. 1			NO. 41-7		
LOCATION.....	SEC. 25, T9N, R9W		SEC. 1, T1N, R13W			SEC. 7, T4N, R11W		
OWNER.....	STANDARD OIL CO. OF CALIF.		STANDARD OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.		
COMPLETED.....	06/09/65		04/24/61			--/--/00		
SAMPLED.....	06/24/65		05/27/66			08/05/76		
FORMATION.....	EOCE-KENAI		EOCE-KENAI			EOCE-TYONEK		
GEOLOGIC PROVINCE CODE.....	972		972			972		
DEPTH, FEET.....	8205		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1029		NOT GIVEN			2200		
OPEN FLOW, MCFD.....	17500		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	98.6		99.1			98.8		
ETHANE.....	0.1		0.2			0.3		
PROPANE.....	0.3		0.3			0.1		
N-BUTANE.....	0.1		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.7		0.3			0.6		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	TRACE		0.01			0.2		
HEATING VALUE.....	1014		1015			TRACE		
SPECIFIC GRAVITY.....	0.564		0.561			0.561		
INDEX 106 SAMPLE 14783			INDEX 107 SAMPLE 14772			INDEX 108 SAMPLE 9537		
STATE.....	ALASKA		ALASKA			ALASKA		
COUNTY.....	KENAI PENINSULA		KENAI PENINSULA			KENAI PENINSULA		
FIELD.....	KENAI		STERLING			KENAI		
WELL NAME.....	NO. 34-31		NO. 43-9			SWANSON RIVER		
LOCATION.....	SEC. 31, T5N, R11W		SEC. 9, T5N, R10W			SWANSON RIVER NO. 212-27		
OWNER.....	UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.			SEC. 27		
COMPLETED.....	11/23/59		07/05/63			STANDARD OIL CO. OF CALIF.		
SAMPLED.....	08/05/76		08/05/76			10/06/61		
FORMATION.....	EOCE-KENAI		EOCE-KENAI			EOCE-KENAI		
GEOLOGIC PROVINCE CODE.....	972		972			972		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			7625		
WELLHEAD PRESSURE, PSIG.....	1500		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	98.7		98.3			97.5		
ETHANE.....	0.1		0.2			0.2		
PROPANE.....	TRACE		TRACE			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	1.0		1.4			1.8		
OXYGEN.....	0.0		0.0			0.3		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1002		999			994		
SPECIFIC GRAVITY.....	0.559		0.562			0.566		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE	109 9538	INDEX SAMPLE	110 14291	INDEX SAMPLE	111 11554
STATE.....	ALASKA	ALASKA	ALASKA	ALASKA	
COUNTY.....	KENAI PENINSULA	N. SLOPE	N. SLOPE	N. SLOPE	
FIELD.....	SWANSON RIVER	IKO BAY	PRUDHOE BAY	PRUDHOE BAY	
WELL NAME.....	SOLDTNA CREEK NO. 234-9	IKO NO. 1	PRUDHOE NO. 1	PRUDHOE NO. 1	
LOCATION.....	SEC. 8	SEC. 15, T21N, R16W	SEC. 15, T21N, R16W	SEC. 15, T21N, R16W	
OWNER.....	STANDARD OIL CO. OF CALIF.	U.S. NAVY	U.S. NAVY	U.S. NAVY	
COMPLETED.....	02/24/72	03/09/75	03/09/75	03/09/75	
SAMPLED.....	08/05/74	03/09/75	03/09/75	03/09/75	
FORMATION.....	COCE-KENAI	NOT GIVEN	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	972	972	972	972	
DEPTH, FEET.....	5834	NOT GIVEN	NOT GIVEN	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	98.7	95.7	78.8	78.8	
ETHANE.....	0.0	1.9	5.2	5.2	
PROpane.....	0.0	0.4	1.8	1.8	
N-BUTANE.....	0.0	0.1	0.6	0.6	
ISOBUTANE.....	0.0	0.1	TRACE	TRACE	
N-PENTANE.....	0.0	TRACE	TRACE	TRACE	
ISOPENTANE.....	0.0	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	0.0	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.0	TRACE	TRACE	TRACE	
NITROGEN.....	1.0	0.7	0.8	0.8	
OXYGEN.....	0.1	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	0.1	0.1	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	12.4	12.4	
HELIUM.....	TRACE	0.04	0.02	0.02	
HEATING VALUE.....	1000	1031	972	972	
SPECIFIC GRAVITY.....	0.561	0.575	0.737	0.737	
INDEX SAMPLE	112 12307	INDEX SAMPLE	113 12308	INDEX SAMPLE	114 9429
STATE.....	ALASKA	ALASKA	ALASKA	ALASKA	
COUNTY.....	N. SLOPE	N. SLOPE	N. SLOPE	N. SLOPE	
FIELD.....	PRUDHOE BAY	PRUDHOE BAY	PRUDHOE BAY	PRUDHOE BAY	
WELL NAME.....	PRUDHOE BAY STATE NO. 1	SEC. 10, T11N, R14E	SEC. 10, T11N, R14E	SEC. 10, T11N, R14E	
LOCATION.....	SEC. 10, T11N, R14E	SEC. 10, T11N, R14E	SEC. 10, T11N, R14E	SEC. 10, T11N, R14E	
OWNER.....	ARCO & HUMBLE OIL & REFINING	ARCO & HUMBLE OIL & REFINING	ARCO & HUMBLE OIL & REFINING	ARCO & HUMBLE OIL & REFINING	
COMPLETED.....	05/05/70	04/09/70	04/09/70	04/09/70	
SAMPLED.....	05/05/70	04/09/70	04/09/70	04/09/70	
FORMATION.....	PERM-SADLEROCHIT	PERM-SADLEROCHIT	PERM-SADLEROCHIT	PERM-SADLEROCHIT	
GEOLOGIC PROVINCE CODE.....	972	972	972	972	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	78.3	73.7	97.8	97.8	
ETHANE.....	5.2	7.1	0.9	0.9	
PROpane.....	0.3	0.1	0.2	0.2	
N-BUTANE.....	0.8	0.7	0.0	0.0	
ISOBUTANE.....	0.3	0.4	0.0	0.0	
N-PENTANE.....	0.2	0.2	0.0	0.0	
ISOPENTANE.....	0.1	0.1	0.0	0.0	
CYCLOPENTANE.....	TRACE	0.1	0.0	0.0	
HEXANES PLUS.....	0.2	0.2	0.0	0.0	
NITROGEN.....	0.9	0.2	1.0	1.0	
OXYGEN.....	TRACE	TRACE	0.0	0.0	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	11.7	14.1	0.1	0.1	
HELIUM.....	0.02	0.01	0.03	0.03	
HEATING VALUE.....	1007	1018	1012	1012	
SPECIFIC GRAVITY.....	0.748	0.788	0.566	0.566	
INDEX SAMPLE	115 9430	INDEX SAMPLE	116 11460	INDEX SAMPLE	117 12558
STATE.....	ALASKA	ALASKA	ALASKA	ALASKA	
COUNTY.....	N. SLOPE-NPR4	N. SLOPE-NPR4	N. SLOPE-NPR4	N. SLOPE-NPR4	
FIELD.....	BARROW S	BARROW S	BARROW S	BARROW S	
WELL NAME.....	NO. 6	NO. 6	NO. 6	NO. 6	
LOCATION.....	SEC. 14, T22N, R18W	SEC. 14, T22N, R18W	SEC. 14, T22N, R18W	SEC. 14, T22N, R18W	
OWNER.....	OFFICE OF NAVAL PET. RESERVE	U.S. NAVY	U.S. NAVY	U.S. NAVY	
COMPLETED.....	03/24/74	04/02/68	04/02/68	04/02/68	
SAMPLED.....	07/01/64	04/25/68	04/25/68	04/04/70	
FORMATION.....	JURA---	JURA---	JURA---	JURA---	
GEOLOGIC PROVINCE CODE.....	972	972	972	972	
DEPTH, FEET.....	2363	2240	2040	2040	
WELLHEAD PRESSURE, PSIG.....	980	960	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	8200	400	166	166	
COMPONENT, MOLE PCT					
METHANE.....	97.9	98.1	98.4	98.4	
ETHANE.....	0.9	1.1	0.6	0.6	
PROpane.....	0.1	0.1	TRACE	TRACE	
N-BUTANE.....	0.0	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	0.0	
NITROGEN.....	0.9	0.6	0.9	0.9	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	TRACE	0.0	0.0	
HELIUM.....	0.03	0.02	0.03	0.03	
HEATING VALUE.....	1010	1015	1008	1008	
SPECIFIC GRAVITY.....	0.564	0.563	0.561	0.561	
INDEX SAMPLE	118 13980	INDEX SAMPLE	119 13985	INDEX SAMPLE	120 14003
STATE.....	ALASKA	ALASKA	ALASKA	ALASKA	
COUNTY.....	N. SLOPE-NPR4	N. SLOPE-NPR4	N. SLOPE-NPR4	N. SLOPE-NPR4	
FIELD.....	SOUTH BARROW EAST	SOUTH BARROW EAST	SOUTH BARROW EAST	SOUTH BARROW EAST	
WELL NAME.....	BARROW S NO. 12	BARROW S NO. 12	BARROW S NO. 12	BARROW S NO. 12	
LOCATION.....	SEC. 25, T22N, R17W	SEC. 25, T22N, R17W	SEC. 25, T22N, R17W	SEC. 25, T22N, R17W	
OWNER.....	U.S. NAVY	U.S. NAVY	U.S. NAVY	U.S. NAVY	
COMPLETED.....	--/--/00	--/--/00	--/--/00	--/--/00	
SAMPLED.....	04/21/74	04/21/74	04/21/74	04/21/74	
FORMATION.....	JURA-BARROW L	JURA-BARROW L	JURA-BARROW L	JURA-BARROW L	
GEOLOGIC PROVINCE CODE.....	972	972	972	972	
DEPTH, FEET.....	2087	NOT GIVEN	2087	2087	
WELLHEAD PRESSURE, PSIG.....	810	300	810	810	
OPEN FLOW, MCFD.....	500	NOT GIVEN	500	500	
COMPONENT, MOLE PCT					
METHANE.....	87.3	87.8	90.6	90.6	
ETHANE.....	0.4	0.4	0.7	0.7	
PROpane.....	0.1	TRACE	TRACE	TRACE	
N-BUTANE.....	0.1	0.1	0.1	0.1	
ISOBUTANE.....	0.1	TRACE	TRACE	TRACE	
N-PENTANE.....	TRACE	TRACE	TRACE	TRACE	
ISOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	TRACE	TRACE	TRACE	
NITROGEN.....	0.9	7.7	5.6	5.6	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.1	0.3	0.3	
HELIUM.....	3.74	3.69	2.60	2.60	
HEATING VALUE.....	1010	1015	938	938	
SPECIFIC GRAVITY.....	0.584	0.577	0.577	0.577	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

19

		INDEX SAMPLE 15889	INDEX SAMPLE 15890	INDEX SAMPLE 15891
STATE.....	ALASKA	ALASKA	ALASKA	ALASKA
COUNTY.....	N SLOPE-NPR4	N SLOPE-NPR4	N SLOPE-NPR4	N SLOPE-NPR4
FIELD.....	SOUTH BARROW EAST	SOUTH BARROW EAST	SOUTH BARROW EAST	SOUTH BARROW EAST
WELL NAME.....	BARROW NO. 19	BARROW S NO. 12	BARROW NO. 17	BARROW NO. 17
LOCATION.....	SEC. 23, T22N, R17E	SEC. 25, T22N, R17W	SEC. 30, T22N, R16W	SEC. 30, T22N, R16W
OWNER.....	HUSKY OIL NPR OPERATIONS INC	HUSKY OIL NPR OPERATIONS INC	HUSKY OIL NPR OPERATIONS INC	HUSKY OIL NPR OPERATIONS INC
COMPLETED.....	05/16/79	05/04/74	04/13/78	04/13/78
SAMPLED.....	01/17/80	01/17/80	01/17/80	01/17/80
FORMATION.....	JURA-BARROW L	JURA-BARROW L	JURA-BARROW L	JURA-BARROW L
GEOLOGIC PROVINCE CODE.....	972	972	972	972
DEPTH, FEET.....	2050	2050	2100	2100
WELLHEAD PRESSURE, PSIG.....	1000	1000	1000	1000
OPEN FLOW, MCFD.....	7220	350	2960	2960
COMPONENT, MOLE PCT				
METHANE.....	86.1	83.5	94.9	94.9
ETHANE.....	0.5	0.4	0.9	0.9
PROPANE.....	TRACE	0.2	0.5	0.5
N-BUTANE.....	0.1	0.7	0.2	0.2
ISOBUTANE.....	0.0	0.1	0.1	0.1
N-PENTANE.....	TRACE	0.6	0.1	0.1
ISOPENTANE.....	0.1	0.9	0.0	0.0
CYCLOPENTANE.....	TRACE	0.1	0.1	0.1
HEXANES PLUS.....	TRACE	0.5	0.2	0.2
NITROGEN.....	11.8	0.8	3.1	3.1
OXYGEN.....	0.0	TRACE	TRACE	TRACE
ARGON.....	TRACE	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	TRACE	TRACE	TRACE
HELIUM.....	1.22	4.22	0.13	0.13
HEATING VALUE.....	804	974	1014	1014
SPECIFIC GRAVITY.....	0.604	0.630	0.587	0.587
		INDEX SAMPLE 15892	INDEX SAMPLE 16787	INDEX SAMPLE 16788
STATE.....	ALASKA	ALASKA	ALASKA	ALASKA
COUNTY.....	N SLOPE-NPR4	N SLOPE-NPR4	N SLOPE-NPR4	N SLOPE-NPR4
FIELD.....	SOUTH BARROW EAST	SOUTH BARROW EAST	SOUTH BARROW EAST	SOUTH BARROW EAST
WELL NAME.....	BARROW NO. 14	BARROW S NO. 15	BARROW NO. 14	BARROW NO. 14
LOCATION.....	SEC. 25, T22N, R17W	NOT GIVEN	SEC. 25, T22N, R17W	SEC. 25, T22N, R17W
OWNER.....	HUSKY OIL NPR OPERATIONS INC	U.S. GEOLOGICAL SURVEY	U.S. GEOLOGICAL SURVEY	U.S. GEOLOGICAL SURVEY
COMPLETED.....	03/03/77	03/18/80	03/03/77	03/03/77
SAMPLED.....	01/17/83	03/01/83	03/01/83	03/01/83
FORMATION.....	JURA-BARROW L	JURA-BARROW U	JURA-BARROW L	JURA-BARROW L
GEOLOGIC PROVINCE CODE.....	972	972	972	972
DEPTH, FEET.....	2050	2110	2057	2057
WELLHEAD PRESSURE, PSIG.....	1000	905	855	855
OPEN FLOW, MCFD.....	3700	1700	2300	2300
COMPONENT, MOLE PCT				
METHANE.....	94.3	97.8	96.4	96.4
ETHANE.....	2.2	0.9	0.4	0.4
PROPANE.....	2.0	0.1	TRACE	TRACE
N-BUTANE.....	0.8	0.0	0.2	0.2
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.1	0.1
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	TRACE	TRACE
HEXANES PLUS.....	0.0	0.0	0.1	0.1
NITROGEN.....	0.0	0.4	2.2	2.2
OXYGEN.....	0.6	0.0	0.0	0.0
ARGON.....	TRACE	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.2	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.0	0.1	0.2	0.2
HELIUM.....	0.05	0.03	0.05	0.05
HEATING VALUE.....	1074	1010	1005	1005
SPECIFIC GRAVITY.....	0.600	0.563	0.575	0.575
		INDEX SAMPLE 16789	INDEX SAMPLE 16790	INDEX SAMPLE 16858
STATE.....	ALASKA	ALASKA	ALASKA	ALASKA
COUNTY.....	N SLOPE-NPR4	N SLOPE-NPR4	N SLOPE-NPR4	N SLOPE-NPR4
FIELD.....	SOUTH BARROW EAST	SOUTH BARROW EAST	SOUTH BARROW EAST	SOUTH BARROW EAST
WELL NAME.....	BARROW NO. 19	BARROW S NO. 12	BARROW NO. 19	BARROW NO. 19
LOCATION.....	NOT GIVEN	SEC. 26, T22N, R17W	SEC. 23, T22N, R17E	SEC. 23, T22N, R17E
OWNER.....	U.S. GEOLOGICAL SURVEY	U.S. GEOLOGICAL SURVEY	U.S. GEOLOGICAL SURVEY	U.S. GEOLOGICAL SURVEY
COMPLETED.....	10/14/80	04/05/84	05/16/78	05/16/78
SAMPLED.....	03/01/83	03/01/83	03/29/83	03/29/83
FORMATION.....	JURA-BARROW L	JURA-BARROW L	JURA-BARROW L	JURA-BARROW L
GEOLOGIC PROVINCE CODE.....	972	972	972	972
DEPTH, FEET.....	2052	2031	1988	1988
WELLHEAD PRESSURE, PSIG.....	845	855	850	850
OPEN FLOW, MCFD.....	1400	360	7700	7700
COMPONENT, MOLE PCT				
METHANE.....	94.9	89.0	89.1	89.1
ETHANE.....	0.5	0.6	0.7	0.7
PROPANE.....	TRACE	0.2	0.0	0.0
N-BUTANE.....	0.2	0.0	0.1	0.1
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.1	0.1	0.0	0.0
ISOPENTANE.....	0.1	0.1	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	6.8	TRACE	TRACE
NITROGEN.....	3.6	0.1	9.0	9.0
OXYGEN.....	0.0	0.1	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.2	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.2	0.2	0.2
HELIUM.....	0.8	2.4	0.43	0.43
HEATING VALUE.....	985	933	923	923
SPECIFIC GRAVITY.....	0.579	0.587	0.597	0.597
		INDEX SAMPLE 16250	INDEX SAMPLE 10703	INDEX SAMPLE 14048
STATE.....	ALASKA	ALASKA	ALASKA	ALASKA
COUNTY.....	N SLOPE-NPR4	NOT GIVEN	NOT GIVEN	NOT GIVEN
FIELD.....	WALAKPA NO. 2	EXPLORATORY	GAS SEEP	GAS SEEP
WELL NAME.....	WALAKPA NO. 2	NORTH FORK NO. 41-35	OIL CREEK	OIL CREEK
LOCATION.....	SEC. 31, T20N, R19W	SEC. 35, T4S, R14W	SEC. 3, T29S, R40W	SEC. 3, T29S, R40W
OWNER.....	U.S. GEOLOGICAL SURVEY	STANDARD OIL CO. OF CALIF.	NOT GIVEN	NOT GIVEN
COMPLETED.....	12/20/65	12/20/65	12/20/65	12/20/65
SAMPLED.....	02/11/81	01/19/66	07/06/74	07/06/74
FORMATION.....	CRET-NOT GIVEN	EOCE-KENAI	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	972	972	972	972
DEPTH, FEET.....	2606	8025	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	2813	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	4500	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	97.0	98.1	91.2	91.2
ETHANE.....	2.0	0.3	TRACE	TRACE
PROPANE.....	0.5	0.1	TRACE	TRACE
N-BUTANE.....	0.2	0.0	0.0	0.0
ISOBUTANE.....	TRACE	0.0	0.0	0.0
N-PENTANE.....	TRACE	0.0	0.0	0.0
ISOPENTANE.....	TRACE	0.0	0.0	0.0
CYCLOPENTANE.....	TRACE	0.0	0.0	0.0
HEXANES PLUS.....	TRACE	0.0	0.0	0.0
NITROGEN.....	0.2	0.0	6.7	6.7
OXYGEN.....	TRACE	0.0	TRACE	TRACE
ARGON.....	TRACE	TRACE	0.1	0.1
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.2	1.9	1.9
HELIUM.....	0.2	TRACE	TRACE	TRACE
HEATING VALUE.....	1038	1092	924	924
SPECIFIC GRAVITY.....	0.574	0.560	0.601	0.601

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 133 SAMPLE 14050			INDEX 134 SAMPLE 10752			INDEX 135 SAMPLE 13372		
STATE.....	ALASKA		ALASKA			ALASKA		
COUNTY.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FIELD.....	GAS SEEP		IVAN RIVER			KATALLA		
WELL NAME.....	BLUF CREEK GAS SEEP		IVAN RIVER NO. 44-1			KATALLA NATURAL GAS SEEP		
LOCATION.....	SEC. 13, T29S, R44W		SEC. 1, T13N, R9W			SEC. 36, T19S, R5E		
OWNER.....	NOT GIVEN		STANDARD OIL CO. OF CALIF.			STANDARD OIL CO. OF CALIF.		
COMPLETED.....	--/--/00		10/08/66			--/--/00		
SAMPLED.....	07/06/74		10/08/66			08/14/72		
FORMATION.....	NOT GIVEN		EOCE-KENAI			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	972		972			972		
DEPTH, FEET.....	NOT GIVEN		7935			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		5465			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		5600			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	7.2		98.9			64.3		
ETHANE.....	0.0		0.1			13.4		
PROPANE.....	TRACE		TRACE			10.6		
N-BUTANE.....	0.0		0.0			0.1		
ISOBUTANE.....	0.0		0.0			2.8		
N-PENTANE.....	0.0		0.0			0.6		
ISOPENTANE.....	0.0		0.0			0.4		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.0		0.0			0.3		
NITROGEN.....	20.6		0.8			0.8		
OXYGEN.....	1.4		0.1			0.0		
ARGON.....	0.3		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	70.1		0.1			3.6		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	73		1004			1429		
SPECIFIC GRAVITY.....	1.335		0.560			0.865		

INDEX 136 SAMPLE 4388			INDEX 137 SAMPLE 4389			INDEX 138 SAMPLE 5335		
STATE.....	ALASKA		ALASKA			ALASKA		
COUNTY.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FIELD.....	NAVAL PET. RESERVE NO. 4		NAVAL PET. RESERVE NO. 4			NOT GIVEN		
WELL NAME.....	SAMPLE NO. 1		SAMPLE NO. 2			NATURAL GAS SEEP		
LOCATION.....	NOT GIVEN		NOT GIVEN			COPPER RIVER BASIN		
OWNER.....	OFFICE OF NAVAL PET. RESERVE		OFFICE OF NAVAL PET. RESERVE			U.S. GEOLOGICAL SURVEY		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	12/01/77		12/01/77			--/--/00		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	972		972			972		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	99.8		99.0			48.6		
ETHANE.....	0.0		0.0			0.2		
PROPANE.....	---		---			0.0		
N-BUTANE.....	---		---			0.0		
ISOBUTANE.....	---		---			TRACE		
N-PENTANE.....	---		---			0.0		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			0.0		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	0.0		0.0			50.6		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	---		---			0.1		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		1.0			0.2		
HELIUM.....	0.02		0.02			0.12		
HEATING VALUE.....	1011		1063			496		
SPECIFIC GRAVITY.....	0.556		0.564			0.767		

INDEX 139 SAMPLE 7672			INDEX 140 SAMPLE 7673			INDEX 141 SAMPLE 7733		
STATE.....	ALASKA		ALASKA			ALASKA		
COUNTY.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	60 ANI-0-229		60 ANI-0-224D			TOLSONA NO. 1		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	U.S. GEOLOGICAL SURVEY		U.S. GEOLOGICAL SURVEY			U.S. GEOLOGICAL SURVEY		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	09/15/60		09/15/60			11/01/60		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	972		972			972		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	58.2		44.6			63.4		
ETHANE.....	0.0		0.0			TRACE		
PROPANE.....	0.1		0.1			0.1		
N-BUTANE.....	0.0		0.0			TRACE		
ISOBUTANE.....	0.0		0.0			TRACE		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		TRACE			TRACE		
NITROGEN.....	40.4		55.0			35.9		
OXYGEN.....	0.1		TRACE			0.1		
ARGON.....	0.2		0.1			0.1		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.1			0.2		
HELIUM.....	0.10		TRACE			0.10		
HEATING VALUE.....	592		454			645		
SPECIFIC GRAVITY.....	0.733		0.784			0.706		

INDEX 142 SAMPLE 13278			INDEX 143 SAMPLE 13371			INDEX 144 SAMPLE 13373		
STATE.....	ALASKA		ALASKA			ALASKA		
COUNTY.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	KEMIK NO. 1		NATURAL GAS SEEP			ROTHBUN NO. 101		
LOCATION.....	SEC. 17, T1N, R20E		SEC. 13, T18S, R6E			BERING LAKE		
OWNER.....	FOREST TIL CORP.		NOT GIVEN			U.S. FOREST SERVICE		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	06/11/72		08/14/72			08/14/72		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	972		972			972		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	96.4		94.8			71.3		
ETHANE.....	0.3		TRACE			0.1		
PROPANE.....	0.1		TRACE			TRACE		
N-BUTANE.....	0.0		0.0			TRACE		
ISOBUTANE.....	0.0		0.0			TRACE		
N-PENTANE.....	0.0		0.0			TRACE		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			TRACE		
NITROGEN.....	1.2		4.3			27.2		
OXYGEN.....	0.1		0.5			0.8		
ARGON.....	TRACE		0.1			0.5		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.2			0.0		
CARBON DIOXIDE.....	2.0		0.2			0.1		
HELIUM.....	0.02		TRACE			0.01		
HEATING VALUE.....	984		960			724		
SPECIFIC GRAVITY.....	0.582		0.577			0.677		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

21

INDEX 145 SAMPLE 11547		INDEX 146 SAMPLE 9422		INDEX 147 SAMPLE 13642	
STATE.....	ALASKA	ALASKA		ALASKA	
COUNTY.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
FIELD.....	PRUDHOE BAY	STERLING		WELLS CREEK AREA	
WELL NAME.....	PRUDHOE BAY STATE NO. 1	STERLING NO. 23-15		WELLS CREEK NO. 1	
LOCATION.....	NOT GIVEN	SEC. 15, T15N, R10W		SEC. 11, T6S, R24W	
OWNER.....	ATLANTIC RICHFIELD CO.	UNION OIL CO. OF CALIF.		NOT GIVEN	
COMPLETED.....	--/--/15	07/11/51		--/--/703	
SAMPLED.....	--/--/00	06/30/54		06/14/73	
FORMATION.....	NOT GIVEN	FOCE-KENAI		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	972	972		972	
DEPTH, FEET.....	NOT GIVEN	5254		1000	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1964		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	36000		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	70.6	97.7		79.2	
ETHANE.....	4.8	0.1		0.0	
PROPANE.....	2.1	TRACE		TRACE	
N-BUTANE.....	0.9	0.0		0.0	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.0		0.0	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.0	0.0		0.0	
HEXANES PLUS.....	0.0	0.0		0.0	
NITROGEN.....	2.2	2.0		20.4	
OXYGEN.....	2.1	0.0		0.0	
ARGON.....	2.2	TRACE		0.2	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	10.0	0.1		0.3	
HELIUM.....	0.02	TRACE		0.01	
HEATING VALUE.....	885	991		802	
SPECIFIC GRAVITY.....	0.761	0.564		0.641	
INDEX 148 SAMPLE 13641		INDEX 149 SAMPLE 14051		INDEX 150 SAMPLE 14118	
STATE.....	ALASKA	ALASKA		ALASKA	
COUNTY.....	NOT GIVEN	SEWARD MERIDIAN		SEWARD MERIDIAN	
FIELD.....	WILDCAT	GAS SEEP		NOT GIVEN	
WELL NAME.....	SALMON CREEK NO. 2	GAS ROCKS		WARFIELD SEEP	
LOCATION.....	SEC. 10, T30S, R41W (SM)	SEC. 9, T27S, R44W		SEC. 20, T18N, R3W	
OWNER.....	NOT GIVEN	STATE OF ALASKA		U.S. BUREAU OF MINES	
COMPLETED.....	03/--/40	--/--/00		--/--/700	
SAMPLED.....	06/25/73	07/06/74		07/03/74	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	972	972		972	
DEPTH, FEET.....	7500	NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	18.9	0.1		77.1	
ETHANE.....	0.2	0.0		0.0	
PROPANE.....	0.1	TRACE		TRACE	
N-BUTANE.....	0.0	0.0		0.0	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.0		0.0	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.0	0.0		0.0	
HEXANES PLUS.....	0.0	0.0		0.0	
NITROGEN.....	3.0	12.3		22.4	
OXYGEN.....	0.4	3.0		0.2	
ARGON.....	0.0	0.2		0.1	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	77.3	84.5		0.2	
HELIUM.....	0.01	TRACE		0.03	
HEATING VALUE.....	199	1		781	
SPECIFIC GRAVITY.....	1.324	1.447		0.651	
INDEX 151 SAMPLE 5338		INDEX 152 SAMPLE 6135		INDEX 153 SAMPLE 13217	
STATE.....	ALASKA	ARIZONA		ARIZONA	
COUNTY.....	YAKUTAGE REEF	APACHE		APACHE	
FIELD.....	NOT GIVEN	BLACK ROCK		BLACK ROCK	
WELL NAME.....	SAMPLE NO. 52, AMR 110	BETA PEAK NO. 1		MONSANTO-NAVAJO NO. A-1	
LOCATION.....	NOT GIVEN	SEC. 19, T41N, R31E		SEC. 21, T40N, R29E	
OWNER.....	U.S. GEOLOGICAL SURVEY	EL PASO NATURAL GAS CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	08/19/56	08/19/56		09/14/71	
SAMPLED.....	--/--/00	08/27/56		05/23/72	
FORMATION.....	NOT GIVEN	PENN-PARADOX		PENN-PINKERTON	
GEOLOGIC PROVINCE CODE.....	590	590		590	
DEPTH, FEET.....	NOT GIVEN	5080		5553	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1847		1350	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		7400	
COMPONENT, MOLE PCT					
METHANE.....	87.9	71.2		80.1	
ETHANE.....	0.1	5.9		5.3	
PROPANE.....	0.0	1.1		2.6	
N-BUTANE.....	0.0	0.6		0.8	
ISOBUTANE.....	0.1	0.5		0.4	
N-PENTANE.....	0.0	0.5		0.3	
ISOPENTANE.....	0.0	0.1		0.2	
CYCLOPENTANE.....	TRACE	0.1		0.1	
HEXANES PLUS.....	0.0	0.3		0.1	
NITROGEN.....	10.6	12.1		7.3	
OXYGEN.....	0.2	0.1		0.0	
ARGON.....	0.2	0.1		TRACE	
HYDROGEN.....	0.0	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.8	4.1		2.1	
HELIUM.....	TRACE	0.88		0.57	
HEATING VALUE.....	895	0.748		1045	
SPECIFIC GRAVITY.....	0.610	0.748		0.687	
INDEX 154 SAMPLE 13484		INDEX 155 SAMPLE 13485		INDEX 156 SAMPLE 5600	
STATE.....	ARIZONA	ARIZONA		ARIZONA	
COUNTY.....	APACHE	APACHE		APACHE	
FIELD.....	BLACK ROCK	BLACK ROCK		BOUNDARY BUTTE E	
WELL NAME.....	NAVAJO NO. 1-15	NAVAJO NO. 1-15		E. BOUNDARY BUTTE NO. 1	
LOCATION.....	SEC. 15, T40N, R29E	SEC. 15, T40N, R29E		SEC. 15, T41N, R29E	
OWNER.....	UNIVERSAL RESOURCES CORP.	UNIVERSAL RESOURCES CORP.		SHELL OIL CO.	
COMPLETED.....	01/18/73	01/18/73		--/--/00	
SAMPLED.....	12/03/72	12/03/72		03/17/54	
FORMATION.....	PENN-PARADOX	PENN-PARADOX		PENN-HERMOSA	
GEOLOGIC PROVINCE CODE.....	590	590		590	
DEPTH, FEET.....	5282	5282		4884	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	78.9	80.9		87.0	
ETHANE.....	5.1	5.2		4.9	
PROPANE.....	2.7	2.6		2.6	
N-BUTANE.....	0.9	0.9		0.8	
ISOBUTANE.....	0.6	0.6		0.4	
N-PENTANE.....	0.5	0.3		0.3	
ISOPENTANE.....	0.0	0.1		0.2	
CYCLOPENTANE.....	0.1	0.1		0.1	
HEXANES PLUS.....	0.3	0.3		0.3	
NITROGEN.....	8.2	5.7		3.0	
OXYGEN.....	0.5	TRACE		0.0	
ARGON.....	0.1	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	1.8	1.7		0.1	
HELIUM.....	0.51	0.53		0.40	
HEATING VALUE.....	895	0.57		1118	
SPECIFIC GRAVITY.....	0.702	0.687		0.654	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	157 5674			INDEX SAMPLE	158 5679			INDEX SAMPLE	159 5681
STATE.....	ARIZONA			ARIZONA				ARIZONA			
COUNTY.....	APACHE			APACHE				APACHE			
FIELD.....	BOUNDARY BUTTE E			BOUNDARY BUTTE E				BOUNDARY BUTTE E			
WELL NAME.....	BOUNDARY BUTTE E NO. 2			BOUNDARY BUTTE E NO. 2				BOUNDARY BUTTE E NO. 2			
LOCATION.....	SEC. 3, T41N, R28E			SEC. 3, T41N, R28E				SEC. 3, T41N, R28E			
OWNER.....	SHELL OIL CO.			SHELL OIL CO.				SHELL OIL CO.			
COMPLETED.....	--/-/00			--/-/00				--/-/00			
SAMPLED.....	08/17/54			08/21/54				08/29/54			
FORMATION.....	PENN-HERMOSA U			PENN-HERMOSA				PENN-PARADOX			
GEOLOGIC PROVINCE CODE.....	590			590				590			
DEPTH, FEET.....	4601			4620				4974			
WELLHEAD PRESSURE, PSIG.....	453			1500				NOT GIVEN			
OPEN FLOW, MCFD.....	2700			85				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	75.9			76.0				70.8			
ETHANE.....	5.0			4.1				3.0			
PROPANE.....	1.9			0.9				0.1			
N-BUTANE.....	1.0			0.4				0.1			
ISOBUTANE.....	0.9			0.4				0.2			
N-PENTANE.....	0.2			0.1				TRACE			
ISOPENTANE.....	0.6			0.3				0.1			
CYCLOPENTANE.....	0.6			0.1				0.1			
HEXANES PLUS.....	1.3			0.2				0.1			
NITROGEN.....	9.8			11.0				8.6			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	TRACE			0.1				0.1			
HYDROGEN.....	0.1			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.6			5.1				15.4			
HELIUM.....	1.83			1.10				1.10			
HEATING VALUE.....	1113			925				797			
SPECIFIC GRAVITY.....	0.745			0.701				0.761			
		INDEX SAMPLE	160 5682			INDEX SAMPLE	161 5695			INDEX SAMPLE	162 5718
STATE.....	ARIZONA			ARIZONA				ARIZONA			
COUNTY.....	APACHE			APACHE				APACHE			
FIELD.....	BOUNDARY BUTTE E			BOUNDARY BUTTE E				BOUNDARY BUTTE E			
WELL NAME.....	BOUNDARY BUTTE E NO. 2			BOUNDARY BUTTE E NO. 2				BOUNDARY BUTTE E NO. 2			
LOCATION.....	SEC. 3, T41N, R28E			SEC. 3, T41N, R28E				SEC. 3, T41N, R29E			
OWNER.....	SHELL OIL CO.			SHELL OIL CO.				SHELL OIL CO.			
COMPLETED.....	--/-/00			--/-/00				--/-/00			
SAMPLED.....	08/31/54			09/27/54				10/07/54			
FORMATION.....	PENN-HERMOSA			PENN-HERMOSA				PENN-HERMOSA			
GEOLOGIC PROVINCE CODE.....	590			590				590			
DEPTH, FEET.....	5190			4740				4886			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				115			
COMPONENT, MOLE PCT.....											
METHANE.....	85.2			86.6				72.7			
ETHANE.....	3.1			3.2				4.2			
PROPANE.....	0.5			1.7				3.3			
N-BUTANE.....	0.2			0.4				1.9			
ISOBUTANE.....	0.3			0.5				1.0			
N-PENTANE.....	0.1			0.2				0.6			
ISOPENTANE.....	0.1			0.2				0.9			
CYCLOPENTANE.....	TRACE			0.1				0.2			
HEXANES PLUS.....	0.1			0.2				0.7			
NITROGEN.....	8.1			6.3				4.6			
OXYGEN.....	TRACE			0.0				TRACE			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.1			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.3				9.4			
HELIUM.....	1.02			0.3				0.34			
HEATING VALUE.....	975			1040				1103			
SPECIFIC GRAVITY.....	0.619			0.639				0.810			
		INDEX SAMPLE	163 5948			INDEX SAMPLE	164 5959			INDEX SAMPLE	165 7362
STATE.....	ARIZONA			ARIZONA				ARIZONA			
COUNTY.....	APACHE			APACHE				APACHE			
FIELD.....	BOUNDARY BUTTE E			BOUNDARY BUTTE E				BOUNDARY BUTTE E			
WELL NAME.....	NAVAJO INDIANS NO. 1			NAVAJO INDIAN TRIBE NO. 1				888 NO. 23-11			
LOCATION.....	SEC. 4, T41N, R28E			SEC. 4, T41N, R28E				SEC. 11, T41N, R28E			
OWNER.....	HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.				SHELL OIL CO.			
COMPLETED.....	--/-/00			--/-/00				04/25/59			
SAMPLED.....	10/05/55			10/25/55				01/21/60			
FORMATION.....	MISS-LEADVILLE			PENN-PARADOX				PENN-HERMOSA U			
GEOLOGIC PROVINCE CODE.....	590			590				590			
DEPTH, FEET.....	5570			4806				4460			
WELLHEAD PRESSURE, PSIG.....	1540			NOT GIVEN				1120			
OPEN FLOW, MCFD.....	4261			4385				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	43.7			70.3				84.5			
ETHANE.....	2.5			3.6				4.4			
PROPANE.....	1.9			1.7				1.9			
N-BUTANE.....	0.3			0.5				0.4			
ISOBUTANE.....	TRACE			0.3				0.2			
N-PENTANE.....	0.1			0.2				0.1			
ISOPENTANE.....	0.0			0.0				TRACE			
CYCLOPENTANE.....	TRACE			0.1				TRACE			
HEXANES PLUS.....	0.1			0.2				TRACE			
NITROGEN.....	36.9			8.2				7.2			
OXYGEN.....	1.6			0.0				0.0			
ARGON.....	0.3			0.1				0.1			
HYDROGEN.....	0.0			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.1				0.0			
CARBON DIOXIDE.....	9.6			13.8				0.2			
HELIUM.....	3.79			1.00				0.80			
HEATING VALUE.....	533			871				1009			
SPECIFIC GRAVITY.....	0.827			0.778				0.634			
		INDEX SAMPLE	166 10964			INDEX SAMPLE	167 10967			INDEX SAMPLE	168 10971
STATE.....	ARIZONA			ARIZONA				ARIZONA			
COUNTY.....	APACHE			APACHE				APACHE			
FIELD.....	DINEH BI KEYAH			DINEH BI KEYAH				DINEH BI KEYAH			
WELL NAME.....	NAVAJO TRACT 140 NO. 1			NAVAJO TRACT 140 NO. 1				NAVAJO TRACT 87 NO. 1			
LOCATION.....	SEC. 8, T35N, R30E			SEC. 8, T35N, R30E				SEC. 23, T36N, R29E			
OWNER.....	HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.				HUMBLE OIL & REFINING CO.			
COMPLETED.....	--/-/00			--/-/00				--/-/00			
SAMPLED.....	05/23/67			05/25/67				05/26/67			
FORMATION.....	DEVO-MCCRACKEN			DEVO-ANETH				DEVO-MCCRACKEN			
GEOLOGIC PROVINCE CODE.....	590			590				590			
DEPTH, FEET.....	4532			4663				5223			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	1500			60				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	2.2			3.4				3.1			
ETHANE.....	0.2			0.5				0.4			
PROPANE.....	0.1			0.2				0.2			
N-BUTANE.....	0.2			0.2				0.1			
ISOBUTANE.....	0.0			0.0				0.0			
N-PENTANE.....	0.0			0.0				0.0			
ISOPENTANE.....	0.0			0.0				0.0			
CYCLOPENTANE.....	0.0			0.0				0.0			
HEXANES PLUS.....	0.0			0.0				0.0			
NITROGEN.....	83.4			75.7				78.8			
OXYGEN.....	0.0			0.0				0.3			
ARGON.....	0.0			0.0				0.8			
HYDROGEN.....	0.0			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	7.8			11.1				10.6			
HELIUM.....	5.18			5.23				5.58			
HEATING VALUE.....	35			47				47			
SPECIFIC GRAVITY.....	0.964			0.980				0.973			

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

23

		INDEX SAMPLE 1169	INDEX SAMPLE 1170	INDEX SAMPLE 1171
STATE.....	ARIZONA		ARIZONA	ARIZONA
COUNTY.....	APACHE		APACHE	APACHE
FIELD.....	DINEH BI KEYAH		DINEH BI KEYAH	DINEH BI KEYAH
WELL NAME.....	NAVAJO TRACT 88 NO. 1		NAVAJO TRACT 88 NO. 1	NAVAJO TRACT 88 NO. 2
LOCATION.....	SEC. 25, T36N, R29E		SEC. 25, T36N, R29E	SEC. 25, T36N, R29E
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	09/20/67		08/24/68	--/--/00
SAMPLED.....	09/21/67		09/26/67	--/--/00
FORMATION.....	PENN-SILL		PENN-SILL	DEVO-MCCRACKEN
GEOLOGIC PROVINCE CODE.....	590		590	590
DEPTH, FEET.....	3407		3407	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	620		620	NOT GIVEN
OPEN FLOW, MCFD.....	250		2919	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	24.0	23.9	2.7	
ETHANE.....	3.7	3.8	0.4	
PROPANE.....	2.2	0.7	0.1	
N-BUTANE.....	0.6	0.7	0.2	
ISOBUTANE.....	0.3	0.4	0.0	
N-PENTANE.....	0.2	TRACE	0.0	
ISOPENTANE.....	0.1	0.3	0.0	
CYCLOPENTANE.....	TRACE	0.1	0.0	
HEXANES PLUS.....	0.1	6.8	0.0	
NITROGEN.....	63.5	0.0	78.1	
OXYGEN.....	0.0	0.5	0.1	
ARGON.....	0.6	0.1	0.8	
HYDROGEN.....	0.2	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	12.6	
HELIUM.....	4.39	4.04	5.16	
HEATING VALUE.....	413	423	44	
SPECIFIC GRAVITY.....	0.865	0.872	0.992	
		INDEX SAMPLE 1172	INDEX SAMPLE 1173	INDEX SAMPLE 1174
STATE.....	ARIZONA		ARIZONA	ARIZONA
COUNTY.....	APACHE		APACHE	APACHE
FIELD.....	DINEH BI KEYAH		DINEH BI KEYAH	DINEH BI KEYAH
WELL NAME.....	NAVAJO TRACT 88 NO. 2		NAVAJO TRACT 88 NO. 1	NAVAJO TRACT 88-3
LOCATION.....	SEC. 25, T36N, R29E		SEC. 25, T36N, R29E	SEC. 36, T36N, R29E
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	--/--/00		--/--/00	01/31/68
SAMPLED.....	10/03/67		10/03/67	01/31/68
FORMATION.....	DEVO-MCCRACKEN		PENN-SILL	PENN-SILL
GEOLOGIC PROVINCE CODE.....	590		590	590
DEPTH, FEET.....	4625		3407	3692
WELLHEAD PRESSURE, PSIG.....	737		625	580
OPEN FLOW, MCFD.....	2		2900	2163
COMPONENT, MOLE PCT				
METHANE.....	2.7	23.3	30.2	
ETHANE.....	0.4	3.9	4.5	
PROPANE.....	0.1	2.0	3.2	
N-BUTANE.....	0.3	0.7	1.3	
ISOBUTANE.....	0.0	0.2	1.1	
N-PENTANE.....	0.0	0.2	0.5	
ISOPENTANE.....	0.0	0.2	0.6	
CYCLOPENTANE.....	0.0	0.1	0.4	
HEXANES PLUS.....	0.0	0.1	53.8	
NITROGEN.....	77.3	63.9	0.0	
OXYGEN.....	0.0	0.9	0.0	
ARGON.....	0.8	0.6	0.5	
HYDROGEN.....	0.0	0.1	TRACE	
HYDROGEN SULFIDE.....	0.0	0.1	TRACE	
CARBON DIOXIDE.....	13.3	0.1	TRACE	
HELIUM.....	5.17	4.57	3.74	
HEATING VALUE.....	47	414	625	
SPECIFIC GRAVITY.....	1.001	0.874	0.891	
		INDEX SAMPLE 1175	INDEX SAMPLE 1176	INDEX SAMPLE 1177
STATE.....	ARIZONA		ARIZONA	ARIZONA
COUNTY.....	APACHE		APACHE	APACHE
FIELD.....	DINEH BI KEYAH		DINEH BI KEYAH	DINEH BI KEYAH
WELL NAME.....	NAVAJO TRACT 151 NO. 1		NAVAJO TRACT 151 NO. 1	NAVAJO TRACT 151 NO. 1
LOCATION.....	SEC. 35, T35N, R30E		SEC. 35, T35N, R30E	SEC. 35, T35N, R30E
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	05/11/68		05/11/68	05/11/68
SAMPLED.....	05/11/68		04/26/68	04/22/68
FORMATION.....	DEVO-MCCRACKEN		DEVO-ANETH	DEVO-ANETH
GEOLOGIC PROVINCE CODE.....	590		590	590
DEPTH, FEET.....	3695		3788	3836
WELLHEAD PRESSURE, PSIG.....	950		790	790
OPEN FLOW, MCFD.....	1500		2500	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	0.3	0.2	0.2	
ETHANE.....	0.0	0.0	0.0	
PROPANE.....	TRACE	TRACE	TRACE	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	90.9	92.6	94.2	
OXYGEN.....	0.0	0.3	0.0	
ARGON.....	0.9	0.0	0.9	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	3.1	0.0	0.0	
HELIUM.....	4.81	4.59	3.11	
HEATING VALUE.....	3	2	2	
SPECIFIC GRAVITY.....	0.947	0.939	0.958	
		INDEX SAMPLE 1178	INDEX SAMPLE 1179	INDEX SAMPLE 1180
STATE.....	ARIZONA		ARIZONA	ARIZONA
COUNTY.....	APACHE		APACHE	APACHE
FIELD.....	DINEH BI KEYAH		DINEH BI KEYAH	DINEH BI KEYAH
WELL NAME.....	NAVAJO TRACT 140 NO. 1		NAVAJO TRACT 146 NO. 1	NAVAJO 84
LOCATION.....	SEC. 8, T35N, R30E		SEC. 15, T35N, R30E	SEC. 36, T4N, R7W
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	SULF OIL CORP.
COMPLETED.....	05/23/68		07/16/68	--/--/02
SAMPLED.....	05/23/68		06/03/69	06/26/69
FORMATION.....	DEVO-MCCRACKEN		DEVO-MCCRACKEN	DEVO-ANETH
GEOLOGIC PROVINCE CODE.....	590		590	590
DEPTH, FEET.....	4570		3832	1930
WELLHEAD PRESSURE, PSIG.....	702		50	NOT GIVEN
OPEN FLOW, MCFD.....	1600		370	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	2.0	0.3	TRACE	
ETHANE.....	0.3	0.0	0.0	
PROPANE.....	0.2	0.1	TRACE	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	84.4	89.6	94.8	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	0.8	0.9	0.6	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	7.2	4.2	0.1	
HELIUM.....	5.08	4.40	4.32	
HEATING VALUE.....	31	7	0	
SPECIFIC GRAVITY.....	0.962	0.953	0.934	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	181 7274		INDEX SAMPLE	182 7584		INDEX SAMPLE	183 7585
STATE.....	ARIZONA			ARIZONA			ARIZONA	
COUNTY.....	APACHE			APACHE			APACHE	
FIELD.....	DRY MESA			DRY MESA			DRY MESA	
WELL NAME.....	NAVAJO TRACT 138 NO. 1			NAVAJO TRACT 138 NO. 3			NAVAJO TRACT 138 NO. 3	
LOCATION.....	SEC. 11, T40N, R28E			SEC. 2, T40N, R28E			SEC. 2, T40N, R28E	
OWNER.....	TEXAS PACIFIC COAL & OIL CO.			TEXAS PACIFIC COAL & OIL CO.			TEXAS PACIFIC COAL & OIL CO.	
COMPLETED.....	07/28/59			--/--/00			--/--/00	
SAMPLED.....	11/03/59			06/18/60			06/18/60	
FORMATION.....	MISS-			MISS-			MISS-	
GEOLOGIC PROVINCE CODE.....	590			590			590	
DEPTH, FEET.....	5565			5324			5324	
WELLHEAD PRESSURE, PSIG.....	17			NOT GIVEN			NOT GIVEN	
OPEN FLOW, MCFD.....	32			NOT GIVEN			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	37.0	-----		41.5	-----		42.5	-----
ETHANE.....	4.6	-----		15.3	-----		15.3	-----
PROPANE.....	1.9	-----		16.1	-----		15.7	-----
N-BUTANE.....	1.3	-----		7.3	-----		6.8	-----
ISOBUTANE.....	1.1	-----		1.5	-----		1.5	-----
N-PENTANE.....	0.2	-----		2.1	-----		1.8	-----
ISOPENTANE.....	1.6	-----		1.7	-----		1.7	-----
CYCLOPENTANE.....	0.3	-----		0.4	-----		0.3	-----
HEXANES PLUS.....	0.8	-----		1.1	-----		0.9	-----
NITROGEN.....	43.3	-----		12.2	-----		13.1	-----
OXYGEN.....	TRACE	-----		TRACE	-----		0.1	-----
ARGON.....	0.2	-----		0.1	-----		0.2	-----
HYDROGEN.....	0.1	-----		0.3	-----		0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----		0.0	-----
CARBON DIOXIDE.....	0.0	-----		TRACE	-----		0.1	-----
HELIUM.....	2.60	-----		0.30	-----		0.30	-----
HEATING VALUE.....	717	-----		1644	-----		1599	-----
SPECIFIC GRAVITY.....	0.910	-----		1.081	-----		1.067	-----

	INDEX SAMPLE	184 7775		INDEX SAMPLE	185 11263		INDEX SAMPLE	186 11204
STATE.....	ARIZONA			ARIZONA			ARIZONA	
COUNTY.....	APACHE			APACHE			APACHE	
FIELD.....	NAVAJO SPRINGS			NAVAJO SPRINGS			NAVAJO SPRINGS	
WELL NAME.....	SANTA FE NO. 8			SANTA FE NO. 21			SANTA FE NO. 8	
LOCATION.....	SEC. 25, T20N, R27E			SEC. 31, T20N, R28E			SEC. 25, T20N, R27E	
OWNER.....	CREST OIL CO.			APACHE DRILLING CO.			APACHE DRILLING CO.	
COMPLETED.....	11/20/60			09/13/67			11/21/60	
SAMPLED.....	11/16/60			10/31/67			10/31/67	
FORMATION.....	PERM-COCONINO			TRIA-SHINARUMP			PERM-COCONINO	
GEOLOGIC PROVINCE CODE.....	590			590			590	
DEPTH, FEET.....	1356			1172			1351	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			134			199	
OPEN FLOW, MCFD.....	NOT GIVEN			177			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	0.1			0.1			TRACE	
ETHANE.....	TRACE			0.1			0.1	
PROPANE.....	TRACE			0.0			0.0	
N-BUTANE.....	0.0			0.0			0.0	
ISOBUTANE.....	0.0			0.0			0.0	
N-PENTANE.....	0.0			0.0			0.0	
ISOPENTANE.....	0.0			0.0			0.0	
CYCLOPENTANE.....	0.0			0.0			0.0	
HEXANES PLUS.....	0.0			0.0			0.0	
NITROGEN.....	88.8			80.5			88.9	
OXYGEN.....	0.0			0.0			0.0	
ARGON.....	0.7			0.8			0.7	
HYDROGEN.....	TRACE			0.0			0.0	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.0			0.0			0.7	
HELIUM.....	9.80			8.91			9.68	
HEATING VALUE.....	1			2			2	
SPECIFIC GRAVITY.....	0.892			0.953			0.895	

	INDEX SAMPLE	187 12527		INDEX SAMPLE	188 12528		INDEX SAMPLE	189 6925
STATE.....	ARIZONA			ARIZONA			ARIZONA	
COUNTY.....	APACHE			APACHE			APACHE	
FIELD.....	NAVAJO SPRINGS E			NAVAJO SPRINGS E			NOT GIVEN	
WELL NAME.....	SANTA FE-EE NO. 21-A			ANCON 21-1			STATE NO. 1	
LOCATION.....	SEC. 31, T20N, R28E			SEC. 31, T20N, R28E			SEC. 20, T9N, R31E	
OWNER.....	WESTERN HELIUM CORP.			WESTERN HELIUM CORP.			MAC BELCHER	
COMPLETED.....	09/15/70			10/18/65			06/17/59	
SAMPLED.....	10/05/70			10/05/70			--/--/00	
FORMATION.....	PERM-COCONINO			TRIA-SHINARUMP			NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	590			590			590	
DEPTH, FEET.....	1232			1196			NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	131			124			NOT GIVEN	
OPEN FLOW, MCFD.....	470			610			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	TRACE			0.0			0.1	
ETHANE.....	0.0			0.0			0.1	
PROPANE.....	0.0			0.0			0.0	
N-BUTANE.....	0.0			0.0			0.0	
ISOBUTANE.....	0.0			0.0			0.0	
N-PENTANE.....	0.0			0.0			0.0	
ISOPENTANE.....	0.0			0.0			0.0	
CYCLOPENTANE.....	0.0			0.0			0.0	
HEXANES PLUS.....	0.0			0.0			0.0	
NITROGEN.....	89.8			89.5			12.0	
OXYGEN.....	0.1			TRACE			0.1	
ARGON.....	0.8			0.8			0.3	
HYDROGEN.....	0.0			0.0			0.1	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.7			0.4			87.3	
HELIUM.....	8.73			9.23			0.17	
HEATING VALUE.....	0			0			3	
SPECIFIC GRAVITY.....	0.903			0.895			1.458	

	INDEX SAMPLE	190 7803		INDEX SAMPLE	191 7913		INDEX SAMPLE	192 8513
STATE.....	ARIZONA		ARIZONA		ARIZONA		ARIZONA	
COUNTY.....	APACHE		APACHE		APACHE		APACHE	
FIELD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
WELL NAME.....	WATER WELL NO. 2		NO. 2		BITA PEAK NO. 1		BITA PEAK NO. 1	
LOCATION.....	NOT GIVEN		SEC. 3, T36N, R29E		SEC. 19, T41N, R31E		SEC. 19, T41N, R31E	
OWNER.....	U.S. BUREAU OF INDIAN AFFAIR		U.S. BUREAU OF INDIAN AFFAIR		EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	04/23/60		04/23/60		04/27/56		04/27/56	
SAMPLED.....	12/22/60		03/24/61		04/16/62		04/16/62	
FORMATION.....	NOT GIVEN		NOT GIVEN		PENN-PARADOX		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	590		590		590		590	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		5080		5080	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		1847		1847	
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		399		399	
COMPONENT, MOLE PCT								
METHANE.....	4.5	-----	4.6	-----	72.4	-----	72.4	-----
ETHANE.....	0.4	-----	0.4	-----	5.5	-----	5.5	-----
PROPANE.....	0.3	-----	0.1	-----	0.3	-----	0.3	-----
N-BUTANE.....	0.0	-----	0.0	-----	0.9	-----	0.9	-----
ISOBUTANE.....	0.0	-----	0.0	-----	0.3	-----	0.3	-----
N-PENTANE.....	0.0	-----	0.0	-----	0.2	-----	0.2	-----
ISOPENTANE.....	0.0	-----	0.0	-----	0.2	-----	0.2	-----
CYCLOPENTANE.....	0.0	-----	0.0	-----	TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----	0.0	-----	0.1	-----	0.1	-----
NITROGEN.....	89.0	-----	88.9	-----	11.7	-----	11.7	-----
OXYGEN.....	TRACE	-----	0.1	-----	0.1	-----	0.1	-----
ARGON.....	0.7	-----	0.7	-----	0.1	-----	0.1	-----
HYDROGEN.....	TRACE	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----	0.1	-----	4.3	-----	4.3	-----
HELIUM.....	5.00	-----	5.10	-----	0.88	-----	0.88	-----
HEATING VALUE.....	61	-----	56	-----	980	-----	980	-----
SPECIFIC GRAVITY.....	0.911	-----	0.910	-----	0.731	-----	0.731	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

25

	INDEX SAMPLE 11689	INDEX SAMPLE 11690	INDEX SAMPLE 195 4840
STATE.....	ARIZONA	ARIZONA	ARIZONA
COUNTY.....	APACHE	APACHE	APACHE
FIELD.....	NOT GIVEN	NOT GIVEN	PINTA
WELL NAME.....	SANTA FE NO. 8X	SANTA FE NO. 1	MACIE NO. 1
LOCATION.....	SEC. 25, T20N, R27E	SEC. 25, T20N, R27E	SEC. 34, T20N, R26E
OWNER.....	CREST - ARIZONA HELIUM	CREST - ARIZONA HELIUM	KIPLING PETROLEUM CO.
COMPLETED.....	11/29/59	11/08/58	--/--/00
SAMPLED.....	11/25/68	11/26/68	05/08/50
FORMATION.....	PERM-COCONINO	PERM-COCONINO	TRIA-SHINARUMP
GEOLOGIC PROVINCE CODE.....	590	590	590
DEPTH, FEET.....	134.5	1225	775
WELLHEAD PRESSURE, PSIG.....	200	135	NOT GIVEN
OPEN FLOW, MCFD.....	299	470	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	0.1	TRACE	3.2
ETHANE.....	0.0	0.0	2.3
PROpane.....	0.0	0.0	---
N-BUTANE.....	0.0	0.0	---
ISOBUTANE.....	0.0	0.0	---
N-PENTANE.....	0.0	0.0	---
ISOPENTANE.....	0.0	0.0	---
CYCLOPENTANE.....	0.0	0.0	---
HEXANES PLUS.....	0.0	0.0	---
NITROGEN.....	88.8	90.0	86.6
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	0.6	0.8	---
HYDROGEN.....	0.0	0.0	---
HYDROGEN SULFIDE.....	0.0	0.0	---
CARBON DIOXIDE.....	0.5	0.7	0.6
HELIUM.....	9.99	8.61	7.30
HEATING VALUE.....	0.1	0.0	74
SPECIFIC GRAVITY.....	0.883	0.904	0.893

	INDEX SAMPLE 4841	INDEX SAMPLE 4842	INDEX SAMPLE 198 4908
STATE.....	ARIZONA	ARIZONA	ARIZONA
COUNTY.....	APACHE	APACHE	APACHE
FIELD.....	PINTA	PINTA	PINTA
WELL NAME.....	MACIE NO. 1	MACIE NO. 1	MACIE NO. 1
LOCATION.....	SEC. 34, T20N, R26E	SEC. 34, T20N, R26E	SEC. 34, T20N, R26E
OWNER.....	KIPLING PETROLEUM CO.	KIPLING PETROLEUM CO.	KIPLING PETROLEUM CO.
COMPLETED.....	--/--/00	--/--/00	--/--/00
SAMPLED.....	05/09/50	05/26/50	06/10/50
FORMATION.....	TRIA-SHINARUMP	PERM-COCONINO	PERM-COCONINO
GEOLOGIC PROVINCE CODE.....	590	590	590
DEPTH, FEET.....	780	1032	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	50000	50000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	0.9	1.0	0.3
ETHANE.....	0.1	0.1	0.1
PROpane.....	TRACE	0.1	0.1
N-BUTANE.....	0.1	0.1	0.1
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	90.8	89.1	89.4
OXYGEN.....	0.3	0.0	0.3
ARGON.....	0.6	0.7	0.7
HYDROGEN.....	TRACE	TRACE	---
HYDROGEN SULFIDE.....	---	---	---
CARBON DIOXIDE.....	0.3	0.9	0.9
HELIUM.....	6.99	8.09	8.19
HEATING VALUE.....	16	10	10
SPECIFIC GRAVITY.....	0.912	0.907	0.909

	INDEX SAMPLE 4909	INDEX SAMPLE 5651	INDEX SAMPLE 201 8599
STATE.....	ARIZONA	ARIZONA	ARIZONA
COUNTY.....	APACHE	APACHE	APACHE
FIELD.....	PINTA	PINTA	PINTA
WELL NAME.....	MACIE NO. 1	MACIE NO. 1	SANTA FE NO. 13
LOCATION.....	SEC. 34, T20N, R26E	SEC. 34, T20N, R26E	SEC. 31, T20N, R27E
OWNER.....	KIPLING PETROLEUM CO.	ARIZONA GAS & CHEMICAL CORP.	EASTERN PETROLEUM CO.
COMPLETED.....	--/--/00	--/--/50	06/25/62
SAMPLED.....	06/10/50	07/23/54	06/25/62
FORMATION.....	TRIA-SHINARUMP	PERM-COCONINO	PERM-COCONINO
GEOLOGIC PROVINCE CODE.....	590	590	590
DEPTH, FEET.....	NOT GIVEN	1032	977
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	98	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	2800	1300
COMPONENT, MOLE PCT			
METHANE.....	0.2	TRACE	0.1
ETHANE.....	TRACE	0.0	0.0
PROpane.....	0.1	0.0	0.1
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	88.1	89.8	89.6
OXYGEN.....	2.9	TRACE	0.5
ARGON.....	0.7	0.6	0.8
HYDROGEN.....	---	TRACE	TRACE
HYDROGEN SULFIDE.....	---	0.0	0.0
CARBON DIOXIDE.....	1.1	8.40	0.9
HELIUM.....	6.85	0	8.16
HEATING VALUE.....	4	0	4
SPECIFIC GRAVITY.....	0.923	0.905	0.910

	INDEX SAMPLE 8615	INDEX SAMPLE 8616	INDEX SAMPLE 204 8643
STATE.....	ARIZONA	ARIZONA	ARIZONA
COUNTY.....	APACHE	APACHE	APACHE
FIELD.....	PINTA	PINTA	PINTA
WELL NAME.....	HORTENSTINE NO. 1-9	STATE NO. 1	HORTENSTINE NO. 1-9
LOCATION.....	SEC. 14, T19N, R26E	SEC. 14, T19N, R26E	SEC. 9, T19N, R26E
OWNER.....	RAW OIL CO.	RAW OIL CO.	RAW OIL CO.
COMPLETED.....	--/--/00	--/--/00	--/--/00
SAMPLED.....	07/25/52	06/12/62	08/21/62
FORMATION.....	TRIA-CHINLE	TRIA-CHINLE	TRIA-CHINLE
GEOLOGIC PROVINCE CODE.....	590	590	590
DEPTH, FEET.....	732	773	732
WELLHEAD PRESSURE, PSIG.....	125	164	40
OPEN FLOW, MCFD.....	NOT GIVEN	150	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	TRACE	TRACE	TRACE
ETHANE.....	0.0	0.0	0.0
PROpane.....	0.0	0.0	0.1
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	TRACE
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	TRACE
NITROGEN.....	75.1	93.6	90.4
OXYGEN.....	TRACE	TRACE	0.1
ARGON.....	0.4	0.4	0.5
HYDROGEN.....	20.4	0.0	0.3
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.0
HELIUM.....	4.02	5.75	8.58
HEATING VALUE.....	66	0	4
SPECIFIC GRAVITY.....	0.753	0.920	0.896

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 205			INDEX 206			INDEX 207		
SAMPLE 8583			SAMPLE 6131			SAMPLE 9164		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	APACHE		APACHE			APACHE		
FIELD.....	PINTA S		RED MESA			TEEC NOS POS		
WELL NAME.....	STATE NO. 1		NAVAJO NO. A-1			NAVAJO TRIBAL O		
LOCATION.....	SEC. 14, T19N, R26E		SEC. 22, T41N, R28E			SEC. 23, T41N, R30E		
OWNER.....	RAM OIL CO.		FRANCO-WESTERN OIL CO.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	03/05/62		--/--/00			06/26/63		
SAMPLED.....	06/12/62		08/28/56			11/14/63		
FORMATION.....	TRIA-CHINLE BASAL		PENN-PARADOX			PENN-LSHAY		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	773		NOT GIVEN			5122		
WELLHEAD PRESSURE, PSIG.....	164		NOT GIVEN			1759		
OPEN FLOW, MCFD.....	180		NOT GIVEN			5818		
COMPONENT, MOLE PCT.....								
METHANE.....	TRACE		28.5			69.1		
ETHANE.....	0.0		10.5			3.7		
PROPANE.....	0.0		15.8			1.9		
N-BUTANE.....	0.0		13.7			0.8		
ISOBUTANE.....	0.0		5.4			TRACE		
N-PENTANE.....	0.0		5.9			0.3		
ISOPENTANE.....	0.0		5.9			0.1		
CYCLOPENTANE.....	0.0		0.7			0.1		
HEXANES PLUS.....	0.0		3.5			0.3		
NITROGEN.....	93.9		0.1			11.2		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.4		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		7.9			11.1		
HELIUM.....	5.56		0.01			1.20		
HEATING VALUE.....	0		2301			879		
SPECIFIC GRAVITY.....	0.923		1.484			0.771		
INDEX 203			INDEX 209			INDEX 210		
SAMPLE 6132			SAMPLE 11240			SAMPLE 11560		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	APACHE		APACHE			APACHE		
FIELD.....	TOH ATIN N		TOHACHE WASH			TOHACHE WASH		
WELL NAME.....	NAVAJO Z NO. A-1		NAVAJO Z NO. 1			NAVAJO Z NO. 1		
LOCATION.....	SEC. 32, T41N, R28E		SEC. 36, T41N, R30E			SEC. 36, T41N, R30E		
OWNER.....	FRANCO-WESTERN OIL CO.		TEKACO INC.			ATRCO INDUSTRIAL GASES		
COMPLETED.....	08/21/56		--/--/00			01/17/67		
SAMPLED.....	08/--/56		--/--/00			06/--/68		
FORMATION.....	PENN-PARADOX		MISS-LEADVILLE			MISS-LEADVILLE		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	5359		NOT GIVEN			6270		
WELLHEAD PRESSURE, PSIG.....	1850		NOT GIVEN			693		
OPEN FLOW, MCFD.....	7450		NOT GIVEN			3203		
COMPONENT, MOLE PCT.....								
METHANE.....	35.5		14.6			14.8		
ETHANE.....	9.6		1.0			1.1		
PROPANE.....	15.5		0.4			0.4		
N-BUTANE.....	11.1		0.2			0.3		
ISOBUTANE.....	5.8		0.2			TRACE		
N-PENTANE.....	5.1		0.2			0.3		
ISOPENTANE.....	4.5		TRACE			0.0		
CYCLOPENTANE.....	0.9		TRACE			0.1		
HEXANES PLUS.....	3.3		0.2			0.5		
NITROGEN.....	0.3		53.1			53.0		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	6.0		0.6			0.6		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	7.8		23.5			23.0		
HELIUM.....	0.10		5.84			5.99		
HEATING VALUE.....	2143		208			222		
SPECIFIC GRAVITY.....	1.386		1.006			1.006		
INDEX 211			INDEX 212			INDEX 213		
SAMPLE 11887			SAMPLE 12633			SAMPLE 6166		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	APACHE		APACHE			APACHE		
FIELD.....	TOHACHE WASH		TOHACHE WASH			WILDCAT		
WELL NAME.....	NAVAJO Z NO. 1		NAVAJO Z NO. 1			MACIE NO. 3		
LOCATION.....	SEC. 36, T41N, R30E		SEC. 36, T41N, R30E			SEC. 34, T20N, R26E		
OWNER.....	TEKACO INC.		TEKACO INC.			KERR-MCGEE CORP.		
COMPLETED.....	07/17/50		07/17/60			10/20/56		
SAMPLED.....	05/19/69		08/27/69			10/24/56		
FORMATION.....	MISS-LEADVILLE		MISS-LEADVILLE			PERM-COCONINO		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	6270		6270			1000		
WELLHEAD PRESSURE, PSIG.....	1357		NOT GIVEN			99		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			2500		
COMPONENT, MOLE PCT.....								
METHANE.....	15.1		14.7			0.1		
ETHANE.....	1.1		0.9			0.0		
PROPANE.....	0.6		0.2			0.0		
N-BUTANE.....	0.2		0.2			0.0		
ISOBUTANE.....	0.2		0.1			0.0		
N-PENTANE.....	0.2		0.3			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.2			0.0		
HEXANES PLUS.....	0.2		0.1			0.0		
NITROGEN.....	53.4		54.1			90.0		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.7		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	22.3		22.1			0.9		
HELIUM.....	6.08		5.1			8.25		
HEATING VALUE.....	220		217			1		
SPECIFIC GRAVITY.....	0.999		1.001			0.906		
INDEX 214			INDEX 215			INDEX 216		
SAMPLE 6327			SAMPLE 7028			SAMPLE 7071		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	APACHE		APACHE			APACHE		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	STATE NO. 4		CHAMBERS-SANDERS NO. 2			CHAMBERS-SANDERS NO. 2		
LOCATION.....	SEC. 32, T20N, R26E		SEC. 27, T21N, R28E			SEC. 27, T21N, R28E		
OWNER.....	KERR-MCGEE OIL IND., INC.		JAMES G. BROWN & ASSOC.			JAMES G. BROWN & ASSOC.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	05/11/57		04/20/59			05/09/59		
FORMATION.....	PERM-COCONINO		PERM-COCONINO			PERM-COCONINO		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	NOT GIVEN		542			542		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	0.2		TRACE			TRACE		
ETHANE.....	TRACE		0.0			0.0		
PROPANE.....	0.0		0.0			0.0		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	90.1		93.6			94.1		
OXYGEN.....	0.1		0.0			2.9		
ARGON.....	0.4		1.2			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		2.30			1.50		
HELIUM.....	4.70		0			0		
HEATING VALUE.....	2		0			0		
SPECIFIC GRAVITY.....	0.900		0.968			0.964		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 217 SAMPLE 7089			INDEX 218 SAMPLE 7146			INDEX 219 SAMPLE 7539		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	APACHE		APACHE			APACHE		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	NAVAJO NO. 1-138		STATE NO. 1-28			SANTA FE NO. 2		
LOCATION.....	SEC. 11, T40N, R26E		SEC. 28, T20N, R26E			SEC. 33, T20N, R27E		
OWNER.....	TEXAS PACIFIC COAL & OIL CO.		EASTERN PETROLEUM CO.			CREST OIL CO.		
COMPLETED.....	06/06/59		07/1/59			05/09/60		
SAMPLED.....	PENN-PARADDOX		PERM-COCONINO			PERM-COCONINO		
FORMATION.....	590		590			590		
GEOLOGIC PROVINCE CODE.....	5045		NOT GIVEN			1063		
DEPTH, FEET.....	1450		NOT GIVEN			105		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			589		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN					
COMPONENT, MOLE PCT								
METHANE.....	80.5		0.1			0.2		
ETHANE.....	5.2		0.0			TRACE		
PROPANE.....	3.3		0.1			0.1		
N-BUTANE.....	0.8		0.0			0.0		
ISOBUTANE.....	0.7		0.0			0.0		
N-PENTANE.....	0.4		0.0			0.0		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	0.4		0.0			0.0		
HEXANES PLUS.....	0.9		0.0			0.0		
NITROGEN.....	4.0		89.6			89.9		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	0.0		0.6			0.7		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.5		0.9			0.9		
HELIUM.....	0.40		9.50			8.16		
HEATING VALUE.....	123		3			5		
SPECIFIC GRAVITY.....	0.722		0.904			0.908		
INDEX 220 SAMPLE 7668			INDEX 221 SAMPLE 8050			INDEX 222 SAMPLE 8664		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	APACHE		APACHE			APACHE		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	STATE NO. 1-6		NAVAJO 7 NO. 1			SANTA FE NO. 7		
LOCATION.....	SEC. 6, T19N, R26E		SEC. 7, T40N, R29E			SEC. 6, T19N, R27E		
OWNER.....	EASTERN PETROLEUM CO.		ATLANTIC REFINING CO.			CREST OIL CO.		
COMPLETED.....	09/03/60		06/30/60			09/07/62		
SAMPLED.....	08/07/60		06/30/61			09/05/62		
FORMATION.....	TRIA-CHINLE		MISS-L			PERM-COCONINO		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	675		5604			1044		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1100			120		
OPEN FLOW, MCFD.....	NOT GIVEN		500			185		
COMPONENT, MOLE PCT								
METHANE.....	0.2		11.5			0.0		
ETHANE.....	0.0		1.5			0.0		
PROPANE.....	0.3		1.3			0.0		
N-BUTANE.....	TRACE		0.4			0.0		
ISOBUTANE.....	0.0		0.3			0.0		
N-PENTANE.....	0.0		0.1			0.0		
ISOPENTANE.....	0.0		0.1			0.0		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	0.0		TRACE			0.0		
NITROGEN.....	95.6		76.3			90.6		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	1.1		0.4			0.5		
HYDROGEN.....	2.6		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		2.9			0.8		
HELIUM.....	0.20		5.10			8.03		
HEATING VALUE.....	18		209			0		
SPECIFIC GRAVITY.....	0.948		0.914			0.907		
INDEX 223 SAMPLE 10408			INDEX 224 SAMPLE 10409			INDEX 225 SAMPLE 10410		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	APACHE		APACHE			APACHE		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	SANTA FE NO. 8		ANCON 21			RAM NO. 1-14		
LOCATION.....	SEC. 25, T20N, R27E		SEC. 31, T20N, R28E			SEC. 19, T19N, R26E		
OWNER.....	CREST OIL CO.		EASTERN PETROLEUM CO.			APACHE DRILLING CO.		
COMPLETED.....	11/21/59		10/18/59			03/01/62		
SAMPLED.....	01/21/66		01/21/66			01/21/66		
FORMATION.....	PERM-COCONINO		TRIA-CHINLE			TRIA-CHINLE		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	1372		1196			806		
WELLHEAD PRESSURE, PSIG.....	206		136			165		
OPEN FLOW, MCFD.....	1720		210					
COMPONENT, MOLE PCT								
METHANE.....	TRACE		0.1			TRACE		
ETHANE.....	0.0		0.0			0.0		
PROPANE.....	0.0		0.0			0.0		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	89.0		64.8			93.8		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	0.7		0.0			0.5		
HYDROGEN.....	0.0		0.7			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		27.0			0.2		
HELIUM.....	9.50		64.80			2.39		
HEATING VALUE.....	0		1			0		
SPECIFIC GRAVITY.....	0.895		1.058			0.925		
INDEX 226 SAMPLE 11691			INDEX 227 SAMPLE 11944			INDEX 228 SAMPLE 11980		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	APACHE		APACHE			APACHE		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	SPURLOCK NO. 1		NAVAJO BW			NAVAJO CS NO. 1		
LOCATION.....	SEC. 3, T17N, R26E		SEC. 36, T4N, R7W			SEC. 34, T37N, R30E		
OWNER.....	CREST ARIZONA HELIUM		GULF OIL CORP.			GULF OIL CORP.		
COMPLETED.....	11/26/68		06/25/69			07/19/69		
SAMPLED.....	07/01		06/25/69			07/19/69		
FORMATION.....	PERM-SUPAI		DEVO-MCCRACKEN			PENN-HERMOSA		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	1450		1806			3650		
WELLHEAD PRESSURE, PSIG.....	30		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	0.0		0.1			4.1		
ETHANE.....	0.0		0.0			0.6		
PROPANE.....	TRACE		TRACE			0.3		
N-BUTANE.....	0.0		0.0			0.1		
ISOBUTANE.....	0.0		0.0			0.2		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.0		0.0			0.2		
NITROGEN.....	99.2		93.8			85.8		
OXYGEN.....	0.0		0.3			TRACE		
ARGON.....	0.1		0.0			1.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.05		0.1			TRACE		
HELIUM.....	0.2		5.22			7.43		
HEATING VALUE.....	0		1			88		
SPECIFIC GRAVITY.....	0.961		0.927			0.905		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 229 SAMPLE 11995			INDEX 230 SAMPLE 12395			INDEX 231 SAMPLE 1011		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	APACHE		APACHE			NAVAJO		
FIELD.....	WILDCAT		WILDCAT			HOLBROOK		
WELL NAME.....	NAVAJO C-2		NAVAJO NO. 1-6			TAYLOR-FULLER NO. 1		
LOCATION.....	SEC. 21, T29N, R24E		SEC. 6, T36N, R30E			SEC. 21, T17N, R20E		
OWNER.....	GULF OIL CORP.		UNION TEXAS PETROLEUM CORP.			GREAT BASIN OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	08/17/69		08/31/70			03/07/25		
FORMATION.....	DEVO-ELBERT		CRET-BARKER CREEK			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	4475		3337			3590		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		15			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			100		
COMPONENT, MOLE PCT								
METHANE.....	0.2		3.3			TRACE		
ETHANE.....	0.0		0.5			TRACE		
PROPANE.....	0.1		0.4			---		
N-BUTANE.....	0.0		0.3			---		
ISOBUTANE.....	0.0		0.0			---		
N-PENTANE.....	0.0		0.0			---		
ISOPENTANE.....	0.0		0.0			---		
CYCLOPENTANE.....	0.0		0.0			---		
HEXANES PLUS.....	0.0		59.0			---		
NITROGEN.....	90.3		79.1			19.0		
OXYGEN.....	2.7		0.0			0.5		
ARGON.....	1.4		0.7			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		7.9			79.4		
HELIUM.....	5.19		4.74			1.07		
HEATING VALUE.....	3		85			0		
SPECIFIC GRAVITY.....	0.935		0.971			1.405		
INDEX 232 SAMPLE 996			INDEX 233 SAMPLE 7243			INDEX 234 SAMPLE 8570		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	NAVAJO		NAVAJO			NAVAJO		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	TAYLOR-FULLER NO. 1		AZTEC LAND & CATTLE CO. NO-2			L. M. LOCKHART NO. 1		
LOCATION.....	SEC. 21, T17N, R20E		NOT GIVEN			SEC. 33, T14N, R20E		
OWNER.....	GREAT BASIN OIL CO.		LYDIA JOHNSON			L. M. LOCKHART		
COMPLETED.....	--/--/00		--/--/00			06/05/49		
SAMPLED.....	02/19/25		NOT GIVEN			08/25/62		
FORMATION.....	NOT GIVEN		NOT GIVEN			PERM-FORT APACHE		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			1678		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	---		3.3			23.8		
ETHANE.....	---		0.4			3.2		
PROPANE.....	---		1.1			0.3		
N-BUTANE.....	---		TRACE			0.3		
ISOBUTANE.....	---		TRACE			TRACE		
N-PENTANE.....	---		TRACE			0.1		
ISOPENTANE.....	---		TRACE			TRACE		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		TRACE			70.7		
NITROGEN.....	18.9		90.1			TRACE		
OXYGEN.....	0.4		TRACE			0.1		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.1		
CARBON DIOXIDE.....	79.5		5.9			0.27		
HELIUM.....	1.12		0.10			357		
HEATING VALUE.....	0		4			0.888		
SPECIFIC GRAVITY.....	1.404		0.984					
INDEX 235 SAMPLE 9078			INDEX 236 SAMPLE 7077			INDEX 237 SAMPLE 9060		
STATE.....	ARIZONA		ARIZONA			ARIZONA		
COUNTY.....	NAVAJO		NAVAJO			NAVAJO		
FIELD.....	PENANCE		WILDCAT			WILDCAT		
WELL NAME.....	NEW HUMAN FED. NO. 1X		NEW MEXICO & ARIZONA NO. 1			FREE NO. 1		
LOCATION.....	SEC. 30, T18N, R20E		SEC. 25, T12N, R23E			SEC. 27, T17N, R22E		
OWNER.....	BEN HUNT		PAN AMERICAN PETROLEUM CORP.			NEW MEXICO-ARIZONA LAND CO.		
COMPLETED.....	--/--/50		--/--/00			--/--/00		
SAMPLED.....	09/07/63		05/14/59			08/02/63		
FORMATION.....	PERM-COCONINO		PENN-			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	590		590			590		
DEPTH, FEET.....	1556		NOT GIVEN			1007		
WELLHEAD PRESSURE, PSIG.....	25		NOT GIVEN			364		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	3.8		0.8			0.0		
ETHANE.....	0.3		0.0			0.0		
PROPANE.....	0.1		0.0			0.0		
N-BUTANE.....	TRACE		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	93.4		98.4			96.8		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.1		1.0			0.1		
HYDROGEN.....	0.4		0.9			0.6		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		2.8			2.4		
HELIUM.....	1.20		TRACE			0.10		
HEATING VALUE.....	40		---			---		
SPECIFIC GRAVITY.....	0.943		0.975			0.975		
INDEX 238 SAMPLE 9532			INDEX 239 SAMPLE 7329			INDEX 240 SAMPLE 2832		
STATE.....	ARIZONA		ARKANSAS			ARKANSAS		
COUNTY.....	NAVAJO		CLEBURNE			COLUMBIA		
FIELD.....	WILDCAT		QUITMAN			BIG CREEK		
WELL NAME.....	SEC. 4-ARIZ. LAND CO. NO. C-1		R.A. EVANS NO. 1			PETTY STAVE NO. 1		
LOCATION.....	SEC. 27, T18N, R23E		SEC. 4, T19N, R11W			SEC. 4, T17S, R21W		
OWNER.....	FRANKLIN ASTON & FAIR, INC.		BEARD OIL CO.			STANDARD OIL CO. OF LA.		
COMPLETED.....	06/20/63		01/06/59			12/23/39		
SAMPLED.....	08/07/64		01/07/60			02/21/40		
FORMATION.....	TRIA-SHINARUMP		PENN-ATOKA			JURA-SHACKOVER		
GEOLOGIC PROVINCE CODE.....	590		345			230		
DEPTH, FEET.....	200		1960			7956		
WELLHEAD PRESSURE, PSIG.....	40		740			3730		
OPEN FLOW, MCFD.....	NOT GIVEN		430			50000		
COMPONENT, MOLE PCT								
METHANE.....	0.3		98.6			45.6		
ETHANE.....	0.0		0.8			17.0		
PROPANE.....	0.1		0.2			---		
N-BUTANE.....	0.0		0.0			---		
ISOBUTANE.....	0.0		0.0			---		
N-PENTANE.....	0.0		0.0			---		
ISOPENTANE.....	0.0		0.0			---		
CYCLOPENTANE.....	TRACE		0.0			---		
HEXANES PLUS.....	TRACE		0.0			---		
NITROGEN.....	93.5		0.3			33.7		
OXYGEN.....	0.2		0.0			0.6		
ARGON.....	0.4		0.0			---		
HYDROGEN.....	0.1		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		TRACE			3.1		
HELIUM.....	5.13		0.10			0.11		
HEATING VALUE.....	40		1018			767		
SPECIFIC GRAVITY.....	0.926		0.561			0.811		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

29

INDEX SAMPLE 241 3170		INDEX SAMPLE 242 13888		INDEX SAMPLE 243 3171	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	COLUMBIA	COUNTY.....	COLUMBIA	COUNTY.....	COLUMBIA
FIELD.....	BIG CREEK	FIELD.....	CHALYBEAT SPRINGS	FIELD.....	DORCHEAT
WELL NAME.....	PETTY STAVE NO. 1	WELL NAME.....	DELIC UNIT NO. 1	WELL NAME.....	SAYERS NO. 1
LOCATION.....	SEC. 8, T17S, R21W	LOCATION.....	SEC. 35, T19S, R19W	LOCATION.....	T18S, R22W
OWNER.....	CARTER OIL CO.	OWNER.....	AMOCO PRODUCTION CO.	OWNER.....	MCALISTER FUEL CO.
COMPLETED.....	12/~/39	COMPLETED.....	10/17/73	COMPLETED.....	--/~/00
SAMPLED.....	02/14/42	SAMPLED.....	01/31/74	SAMPLED.....	02/14/42
FORMATION.....	JURA-SHACKOVER	FORMATION.....	JURA-SHACKOVER	FORMATION.....	JURA-SHACKOVER
GEOLOGIC PROVINCE CODE.....	230	GEOLOGIC PROVINCE CODE.....	230	GEOLOGIC PROVINCE CODE.....	230
DEPTH, FEET.....	7956	DEPTH, FEET.....	9959	DEPTH, FEET.....	8850
WELLHEAD PRESSURE, PSIG.....	3723	WELLHEAD PRESSURE, PSIG.....	2100	WELLHEAD PRESSURE, PSIG.....	3569
OPEN FLOW, MCFD.....	6000	OPEN FLOW, MCFD.....	595	OPEN FLOW, MCFD.....	1166
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	22.3	METHANE.....	83.6	METHANE.....	25.3
ETHANE.....	61.6	ETHANE.....	6.7	ETHANE.....	65.2
PROPANE.....	---	PROPANE.....	2.9	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	1.1	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	0.0	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	0.3	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	0.0	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	0.2	HEXANES PLUS.....	---
NITROGEN.....	9.3	NITROGEN.....	2.5	NITROGEN.....	1.2
OXYGEN.....	0.3	OXYGEN.....	TRACE	OXYGEN.....	0.3
ARGON.....	---	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	6.5	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	8.0
HELIUM.....	0.00	HELIUM.....	0.03	HELIUM.....	0.00
HEATING VALUE.....	1330	HEATING VALUE.....	1157	HEATING VALUE.....	1425
SPECIFIC GRAVITY.....	0.963	SPECIFIC GRAVITY.....	0.689	SPECIFIC GRAVITY.....	0.962

INDEX SAMPLE 244 3168		INDEX SAMPLE 245 2833		INDEX SAMPLE 246 4934	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	COLUMBIA	COUNTY.....	COLUMBIA	COUNTY.....	COLUMBIA
FIELD.....	MALEDONIA	FIELD.....	VILLAGE	FIELD.....	VARNOCK SPRINGS
WELL NAME.....	MCALISTER FUEL CO.	WELL NAME.....	W. P. PHILLIPS NO. 1 & 2	WELL NAME.....	PHILLIPS-SHOCKLEE NO. A-1
LOCATION.....	T18S, R21W	LOCATION.....	SEC. 15, T17S, R19W	LOCATION.....	SEC. 33, T16S, R19W
OWNER.....	MCALISTER FUEL CO.	OWNER.....	STANDARD OIL CO.	OWNER.....	MCALISTER FUEL CO.
COMPLETED.....	07/08/41	COMPLETED.....	05/27/38	COMPLETED.....	12/08/49
SAMPLED.....	04/14/42	SAMPLED.....	02/26/40	SAMPLED.....	08/29/50
FORMATION.....	JURA-SHACKOVER	FORMATION.....	JURA-SHACKOVER	FORMATION.....	JURA-SHACKOVER
GEOLOGIC PROVINCE CODE.....	230	GEOLOGIC PROVINCE CODE.....	230	GEOLOGIC PROVINCE CODE.....	230
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	7387	DEPTH, FEET.....	7396
WELLHEAD PRESSURE, PSIG.....	4030	WELLHEAD PRESSURE, PSIG.....	3320	WELLHEAD PRESSURE, PSIG.....	2900
OPEN FLOW, MCFD.....	2025	OPEN FLOW, MCFD.....	600	OPEN FLOW, MCFD.....	1000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	69.7	METHANE.....	44.5	METHANE.....	57.1
ETHANE.....	18.3	ETHANE.....	34.3	ETHANE.....	6.0
PROPANE.....	---	PROPANE.....	---	PROPANE.....	2.7
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	1.1
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	0.7
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	0.3
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	0.2
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	0.4
NITROGEN.....	6.7	NITROGEN.....	16.5	NITROGEN.....	28.3
OXYGEN.....	0.4	OXYGEN.....	0.5	OXYGEN.....	0.1
ARGON.....	---	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	4.9	CARBON DIOXIDE.....	3.6	CARBON DIOXIDE.....	3.1
HELIUM.....	0.04	HELIUM.....	0.05	HELIUM.....	0.08
HEATING VALUE.....	1034	HEATING VALUE.....	1074	HEATING VALUE.....	856
SPECIFIC GRAVITY.....	0.723	SPECIFIC GRAVITY.....	0.833	SPECIFIC GRAVITY.....	0.806

INDEX SAMPLE 247 11157		INDEX SAMPLE 248 11214		INDEX SAMPLE 249 6755	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	CONWAY	COUNTY.....	CONWAY	COUNTY.....	CONWAY
FIELD.....	BLICK	FIELD.....	BLICK	FIELD.....	JERUSALEM
WELL NAME.....	J. L. CARR NO. 1	WELL NAME.....	J. L. CARR NO. 1-T	WELL NAME.....	RHEA SPEARS UNIT NO. 1
LOCATION.....	SEC. 4, T8N, R16W	LOCATION.....	SEC. 4, T8N, R16W	LOCATION.....	SEC. 28, T9N, R17W
OWNER.....	SUNRAY OX OIL CO.	OWNER.....	SUNRAY OX OIL CO.	OWNER.....	CARTER OIL CO.
COMPLETED.....	04/15/67	COMPLETED.....	04/15/67	COMPLETED.....	04/01/58
SAMPLED.....	10/08/67	SAMPLED.....	11/07/67	SAMPLED.....	07/21/58
FORMATION.....	PENN-BARTON A	FORMATION.....	PENN-BARTON B	FORMATION.....	PENN-BARTON B
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	2299	DEPTH, FEET.....	2356	DEPTH, FEET.....	2100
WELLHEAD PRESSURE, PSIG.....	1000	WELLHEAD PRESSURE, PSIG.....	967	WELLHEAD PRESSURE, PSIG.....	880
OPEN FLOW, MCFD.....	17559	OPEN FLOW, MCFD.....	13200	OPEN FLOW, MCFD.....	15830
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.6	METHANE.....	97.3	METHANE.....	94.4
ETHANE.....	0.1	ETHANE.....	0.8	ETHANE.....	0.0
PROPANE.....	TRACE	PROPANE.....	0.0	PROPANE.....	0.2
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	1.6	NITROGEN.....	0.2	NITROGEN.....	4.8
OXYGEN.....	0.1	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.0
HELIUM.....	0.27	HELIUM.....	0.25	HELIUM.....	0.30
HEATING VALUE.....	990	HEATING VALUE.....	971	HEATING VALUE.....	971
SPECIFIC GRAVITY.....	0.564	SPECIFIC GRAVITY.....	0.566	SPECIFIC GRAVITY.....	0.580

INDEX SAMPLE 250 7319		INDEX SAMPLE 251 16934		INDEX SAMPLE 252 16935	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	CONWAY	COUNTY.....	CONWAY	COUNTY.....	CONWAY
FIELD.....	OLD HICKORY	FIELD.....	OLD HICKORY	FIELD.....	OLD HICKORY
WELL NAME.....	BEARHART BARRETT NO. 1	WELL NAME.....	MASSINGILL NO. 1-15	WELL NAME.....	MASSINGILL NO. 1-15
LOCATION.....	SEC. 22, T8N, R17W	LOCATION.....	SEC. 15, T8N, R17W	LOCATION.....	SEC. 15, T8N, R17W
OWNER.....	BEARD OIL CO.	OWNER.....	HAWKINS OIL & GAS, INC.	OWNER.....	HAWKINS OIL & GAS, INC.
COMPLETED.....	09/28/58	COMPLETED.....	09/09/82	COMPLETED.....	09/09/82
SAMPLED.....	12/21/59	SAMPLED.....	05/15/83	SAMPLED.....	05/15/83
FORMATION.....	PENN-BARTON	FORMATION.....	PENN-BARTON A	FORMATION.....	PENN-MCGUIRE
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	2873	DEPTH, FEET.....	2678	DEPTH, FEET.....	2016
WELLHEAD PRESSURE, PSIG.....	1245	WELLHEAD PRESSURE, PSIG.....	750	WELLHEAD PRESSURE, PSIG.....	260
OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	3420	OPEN FLOW, MCFD.....	570
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.6	METHANE.....	89.6	METHANE.....	84.5
ETHANE.....	0.6	ETHANE.....	0.6	ETHANE.....	0.5
PROPANE.....	0.0	PROPANE.....	TRACE	PROPANE.....	TRACE
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	5.6	NITROGEN.....	8.1	NITROGEN.....	13.3
OXYGEN.....	0.4	OXYGEN.....	0.4	OXYGEN.....	0.9
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.5	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.40	HELIUM.....	0.45	HELIUM.....	0.44
HEATING VALUE.....	949	HEATING VALUE.....	949	HEATING VALUE.....	866
SPECIFIC GRAVITY.....	0.586	SPECIFIC GRAVITY.....	0.593	SPECIFIC GRAVITY.....	0.614

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 253 SAMPLE 10975			INDEX 254 SAMPLE 10978			INDEX 255 SAMPLE 10980		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	CRAWFORD		CRAWFORD			CRAWFORD		
FIELD.....	ALMA		ALMA			ALMA		
WELL NAME.....	EARL ROSS UNIT NO. 1-C		EARL ROSS UNIT NO. 1			EARL ROSS UNIT NO. 1		
LOCATION.....	SEC. 18, T9N, R30W		SEC. 18, T9N, R30W			SEC. 18, T9N, R30W		
OWNER.....	TENNECO OIL CO.		TENNECO OIL CO.			TENNECO OIL CO.		
COMPLETED.....	12/30/66		12/30/66			12/30/66		
SAMPLED.....	7/00		7/00			7/00		
FORMATION.....	PENN-CASEY		PENN-HALE			PENN-DUNN A		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	4252		5492			4480		
WELLHEAD PRESSURE, PSIG.....	590		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	3650		8400			13799		
COMPONENT, MOLE PCT								
METHANE.....	95.9		97.1			98.0		
ETHANE.....	1.3		1.0			1.1		
PROPANE.....	0.1		TRACE			TRACE		
N-BUTANE.....	0.0		0.1			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.1			0.0		
ISOPENTANE.....	0.0		TRACE			0.0		
CYCLOPENTANE.....	0.0		0.1			0.0		
HEXANES PLUS.....	0.0		0.1			0.0		
NITROGEN.....	1.9		0.8			0.4		
OXYGEN.....	99.8		0.2			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.5			0.4		
HELIUM.....	0.07		0.05			0.05		
HEATING VALUE.....	998		1018			1012		
SPECIFIC GRAVITY.....	0.573		0.576			0.565		

INDEX 256 SAMPLE 12933			INDEX 257 SAMPLE 14517			INDEX 258 SAMPLE 14518		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	CRAWFORD		CRAWFORD			CRAWFORD		
FIELD.....	DYER		DYER			DYER		
WELL NAME.....	ALEXANDER NO. 3		LETHA CHANCELLOR NO. 1			LETHA CHANCELLOR NO. 1		
LOCATION.....	SEC. 3, T9N, R29W		SEC. 3, T10N, R29W			SEC. 3, T10N, R29W		
OWNER.....	ARKANSAS LOUISIANA GAS CO.		WESTRANS PETROLEUM, INC.			WESTRANS PETROLEUM, INC.		
COMPLETED.....	05/04/71		04/06/75			04/06/75		
SAMPLED.....	07/21/71		10/25/75			10/25/75		
FORMATION.....	PENN-CASEY		PENN-DUNN A			PENN-BARTON		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	4882		4820			4890		
WELLHEAD PRESSURE, PSIG.....	1075		1243			1110		
OPEN FLOW, MCFD.....	4100		19243			18337		
COMPONENT, MOLE PCT								
METHANE.....	97.9		97.3			89.0		
ETHANE.....	0.9		1.2			1.1		
PROPANE.....	0.2		0.1			0.1		
N-BUTANE.....	0.0		TRACE			0.0		
ISOBUTANE.....	0.0		TRACE			TRACE		
N-PENTANE.....	0.0		TRACE			0.0		
ISOPENTANE.....	0.0		TRACE			TRACE		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		TRACE			TRACE		
NITROGEN.....	0.8		0.6			7.2		
OXYGEN.....	0.0		0.0			1.6		
ARGON.....	0.0		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.5			0.6		
HELIUM.....	0.13		0.07			0.07		
HEATING VALUE.....	1013		1010			924		
SPECIFIC GRAVITY.....	0.566		0.569			0.605		

INDEX 259 SAMPLE 10876			INDEX 260 SAMPLE 9831			INDEX 261 SAMPLE 16710		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	CRAWFORD		CRAWFORD			CRAWFORD		
FIELD.....	HOLLIS LAKE		KIBLER-WILLIAMS			KIBLER-WILLIAMS		
WELL NAME.....	T. W. ARNOLD NO. 1-T		MCVEY NO. 1			CLAUDE HEADERS NO. 2-14		
LOCATION.....	SEC. 14, T8N, R31W		SEC. 13, T9N, R30W			SEC. 14, T9N, R30W		
OWNER.....	STEPHENS PRODUCTION CO.		GULF OIL CORP.			GULF OIL EXPL. & PROD. CO.		
COMPLETED.....	11/02/66		01/22/65			04/06/82		
SAMPLED.....	02/22/67		03/30/65			10/18/82		
FORMATION.....	PENN-SPIRO		PENN-HALE			PENN-PAUL BARTON		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	5388		5601			6041		
WELLHEAD PRESSURE, PSIG.....	952		1788			1156		
OPEN FLOW, MCFD.....	6400		4750			24.5		
COMPONENT, MOLE PCT								
METHANE.....	95.8		97.5			96.9		
ETHANE.....	1.1		0.3			1.3		
PROPANE.....	0.1		0.0			0.2		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	1.6		0.4			0.3		
OXYGEN.....	0.2		0.0			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.0		0.6			0.9		
HELIUM.....	0.07		1.05			0.06		
HEATING VALUE.....	993		1015			1011		
SPECIFIC GRAVITY.....	0.577		0.570			0.571		

INDEX 262 SAMPLE 16897			INDEX 263 SAMPLE 16759			INDEX 264 SAMPLE 16760		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	CRAWFORD		CRAWFORD			CRAWFORD		
FIELD.....	DRUDY		WILDCAT			WILDCAT		
WELL NAME.....	PHILLIPS NO. 1-30		BROWN NO. 1-21			BROWN NO. 1-21		
LOCATION.....	SEC. 30, T10N, R31W		SEC. 21, T10N, R32W			SEC. 21, T10N, R32W		
OWNER.....	CRUCO HYDROCARBONS, INC.		CARLYLE PETROLEUM CO.			CARLYLE PETROLEUM CO.		
COMPLETED.....	12/15/82		02/03/83			02/03/83		
SAMPLED.....	04/29/83		02/03/83			02/03/83		
FORMATION.....	PENN-DUNN C		MISS-BOONE			PENN-HALE L		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	1586		2310			2148		
WELLHEAD PRESSURE, PSIG.....	900		995			NOT GIVEN		
OPEN FLOW, MCFD.....	1664		NOT GIVEN			3840		
COMPONENT, MOLE PCT								
METHANE.....	90.1		89.6			94.1		
ETHANE.....	1.9		2.2			2.7		
PROPANE.....	0.3		0.4			0.4		
N-BUTANE.....	0.1		0.1			0.1		
ISOBUTANE.....	TRACE		TRACE			0.1		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	TRACE		0.1			0.0		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	6.7		6.0			TRACE		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.3		0.3			0.4		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.6			TRACE		
HELIUM.....	0.39		0.19			0.19		
HEATING VALUE.....	964		975			1024		
SPECIFIC GRAVITY.....	0.599		0.605			0.582		

•• CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 •• DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 265 SAMPLE 9971			INDEX 266 SAMPLE 9972			INDEX 267 SAMPLE 11558		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	FRANKLIN		FRANKLIN			FRANKLIN		
FIELD.....	AETNA		AETNA			AETNA		
WELL NAME.....	HUNT-HEMBREE NO. 2		HUNT-HEMBREE NO. 2			R. H. SMITH UNIT NO. 1		
LOCATION.....	SEC. 11, T8N, R26W		SEC. 11, T8N, R26W			SEC. 19, T9N, R26W		
OWNER.....	ARKANSAS LOUISIANA GAS CO.		ARKANSAS LOUISIANA GAS CO.			TENNECO OIL CO.		
COMPLETED.....	07/24/64		07/24/64			12/13/67		
SAMPLED.....	07/14/65		07/14/65			06/28/68		
FORMATION.....	PENN-ATOKA		PENN-ATOKA			PENN-DUNN A		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	4282		4509			4742		
WELLHEAD PRESSURE, PSIG.....	1045		1126			718		
OPEN FLOW, MCFD.....	1875		6500			111		
COMPONENT, MOLE PCT.....								
METHANE.....	98.0	-----	97.8	-----		98.0	-----	
ETHANE.....	1.0	-----	0.8	-----		0.9	-----	
PROPANE.....	0.2	-----	0.3	-----		0.1	-----	
N-BUTANE.....	0.0	-----	0.0	-----		0.0	-----	
ISOBUTANE.....	0.0	-----	0.0	-----		0.0	-----	
N-PENTANE.....	0.0	-----	0.0	-----		0.0	-----	
ISOPENTANE.....	0.0	-----	0.0	-----		0.0	-----	
CYCLOPENTANE.....	0.0	-----	0.0	-----		0.0	-----	
HEXANES PLUS.....	0.0	-----	0.0	-----		0.0	-----	
NITROGEN.....	0.5	-----	0.2	-----		0.3	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.7	-----		0.5	-----	
HELIUM.....	0.14	-----	0.20	-----		0.05	-----	
HEATING VALUE.....	1016	-----	1013	-----		1012	-----	
SPECIFIC GRAVITY.....	0.563	-----	0.568	-----		0.565	-----	
INDEX 268 SAMPLE 11559			INDEX 269 SAMPLE 10270			INDEX 270 SAMPLE 10271		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	FRANKLIN		FRANKLIN			FRANKLIN		
FIELD.....	AETNA		ALTUS			ALTUS		
WELL NAME.....	R. H. SMITH UNIT NO. 1		WESTERN COAL CO. NO. 1			WESTERN COAL CO. NO. 1		
LOCATION.....	SEC. 19, T9N, R26W		SEC. 23, T9N, R26W			SEC. 34, T9N, R26W		
OWNER.....	TENNECO OIL CO.		HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	12/13/67		06/05/65			06/05/64		
SAMPLED.....	06/28/68		11/03/65			11/03/65		
FORMATION.....	PENN-BARTON		PENN-DUNN & SPIRO			PENN-BARTON		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	4834		4865			4353		
WELLHEAD PRESSURE, PSIG.....	925		956			1125		
OPEN FLOW, MCFD.....	10307		2700			2700		
COMPONENT, MOLE PCT.....								
METHANE.....	97.8	-----	97.3	-----		95.0	-----	
ETHANE.....	1.0	-----	1.0	-----		1.0	-----	
PROPANE.....	0.1	-----	0.2	-----		0.2	-----	
N-BUTANE.....	0.0	-----	0.1	-----		0.0	-----	
ISOBUTANE.....	0.0	-----	TRACE	-----		0.0	-----	
N-PENTANE.....	0.0	-----	0.1	-----		0.0	-----	
ISOPENTANE.....	0.0	-----	TRACE	-----		0.0	-----	
CYCLOPENTANE.....	0.0	-----	TRACE	-----		0.0	-----	
HEXANES PLUS.....	0.0	-----	0.1	-----		0.0	-----	
NITROGEN.....	0.4	-----	0.7	-----		2.9	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.7	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.4	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.0	-----		0.1	-----	
HELIUM.....	0.05	-----	0.09	-----		0.10	-----	
HEATING VALUE.....	1013	-----	1023	-----		985	-----	
SPECIFIC GRAVITY.....	0.563	-----	0.573	-----		0.578	-----	
INDEX 271 SAMPLE 11144			INDEX 272 SAMPLE 16871			INDEX 273 SAMPLE 17490		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	FRANKLIN		FRANKLIN			FRANKLIN		
FIELD.....	OCHSNER		ALTUS			ROOSEVILLE		
WELL NAME.....	SEC. 24, T9N, R26W		BESS O'KANE NO. 1-36			BRADLEY NO. 1-28		
LOCATION.....	ARKANSAS WESTERN GAS CO.		SEC. 36, T9N, R26W			SEC. 28, T7N, R28W		
OWNER.....	ARKANSAS WESTERN GAS CO.		GULF OIL EXPL. & PROD. CO.			STEPHENS PRODUCTION CO.		
COMPLETED.....	10/02/67		07/19/67			10/17/82		
SAMPLED.....	08/27/77		03/09/83			10/17/84		
FORMATION.....	ORDO-JENKINS		PENN-TACKETT			PENN-CARPENTER L		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	4285		3110			5283		
WELLHEAD PRESSURE, PSIG.....	1133		1098			1541		
OPEN FLOW, MCFD.....	3500		5981			2900		
COMPONENT, MOLE PCT.....								
METHANE.....	98.0	-----	97.7	-----		96.6	-----	
ETHANE.....	1.1	-----	0.9	-----		1.1	-----	
PROPANE.....	0.0	-----	0.1	-----		0.1	-----	
N-BUTANE.....	0.0	-----	0.0	-----		0.0	-----	
ISOBUTANE.....	0.0	-----	0.0	-----		0.0	-----	
N-PENTANE.....	0.0	-----	0.0	-----		0.0	-----	
ISOPENTANE.....	0.0	-----	0.0	-----		0.0	-----	
CYCLOPENTANE.....	0.0	-----	0.0	-----		0.0	-----	
HEXANES PLUS.....	0.0	-----	0.0	-----		0.0	-----	
NITROGEN.....	0.4	-----	0.6	-----		1.2	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.1	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.4	-----	0.2	-----		0.7	-----	
HELIUM.....	0.11	-----	0.61	-----		0.09	-----	
HEATING VALUE.....	1015	-----	1009	-----		1001	-----	
SPECIFIC GRAVITY.....	0.567	-----	0.563	-----		0.572	-----	
INDEX 274 SAMPLE 6358			INDEX 275 SAMPLE 6521			INDEX 276 SAMPLE 10520		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	FRANKLIN		FRANKLIN			FRANKLIN		
FIELD.....	CECIL		CECIL			CECIL		
WELL NAME.....	JEFF TAYLOR NO. 1		EDWARD C. EVANS NO. 1			SAM HARDING NO. 1		
LOCATION.....	SEC. 33, T9N, R28W		SEC. 4, T8N, R28W			SEC. 9, T9N, R27W		
OWNER.....	ARKANSAS LOUISIANA GAS CO.		STEPHENS, INC.			ARKANSAS LOUISIANA GAS CO.		
COMPLETED.....	05/26/57		12/21/57			03/23/66		
SAMPLED.....	08/27/77		03/17/78			04/12/66		
FORMATION.....	PENN-ATOKA		PENN-ATOKA			PENN-HALE		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	4374		4510			4450		
WELLHEAD PRESSURE, PSIG.....	1000		1015			1600		
OPEN FLOW, MCFD.....	13700		24000			2200		
COMPONENT, MOLE PCT.....								
METHANE.....	97.9	-----	97.8	-----		97.1	-----	
ETHANE.....	1.2	-----	1.3	-----		1.3	-----	
PROPANE.....	TRACE	-----	0.2	-----		0.2	-----	
N-BUTANE.....	0.0	-----	0.0	-----		0.0	-----	
ISOBUTANE.....	TRACE	-----	0.0	-----		0.0	-----	
N-PENTANE.....	0.0	-----	0.0	-----		0.0	-----	
ISOPENTANE.....	0.0	-----	0.0	-----		0.0	-----	
CYCLOPENTANE.....	0.0	-----	0.0	-----		0.0	-----	
HEXANES PLUS.....	0.0	-----	TRACE	-----		0.0	-----	
NITROGEN.....	0.3	-----	0.3	-----		0.9	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.4	-----	
HELIUM.....	0.08	-----	0.10	-----		0.04	-----	
HEATING VALUE.....	1014	-----	1019	-----		1012	-----	
SPECIFIC GRAVITY.....	0.561	-----	0.566	-----		0.570	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 277 SAMPLE 10521		INDEX 278 SAMPLE 10522		INDEX 279 SAMPLE 11200	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN
FIELD.....	CECIL	FIELD.....	CECIL	FIELD.....	CECIL
WELL NAME.....	SAM HARDING NO. 1	WELL NAME.....	SAM HARDING NO. 1	WELL NAME.....	J. C. JONES NO. 1
LOCATION.....	SEC. 8, T9N, R27W	LOCATION.....	SEC. 8, T9N, R27W	LOCATION.....	SEC. 32, T10N, R27W
OWNER.....	LOUISIANA GAS CO.	OWNER.....	LOUISIANA GAS CO.	OWNER.....	ARKANSAS WESTERN GAS CO.
COMPLETED.....	03/23/66	COMPLETED.....	03/23/66	COMPLETED.....	04/04/67
SAMPLED.....	04/12/66	SAMPLED.....	04/12/66	SAMPLED.....	11/01/67
FORMATION.....	PENN-DUNN A & C	FORMATION.....	PENN-DUNN A & C	FORMATION.....	PENN-DUNN A & C
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	4070	DEPTH, FEET.....	3100	DEPTH, FEET.....	3758
WELLHEAD PRESSURE, PSIG.....	1000	WELLHEAD PRESSURE, PSIG.....	1000	WELLHEAD PRESSURE, PSIG.....	873
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	755
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.2	METHANE.....	98.6	METHANE.....	98.5
ETHANE.....	1.0	ETHANE.....	1.0	ETHANE.....	0.8
PROPANE.....	0.2	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.3	NITROGEN.....	0.2	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1
HELIUM.....	0.10	HELIUM.....	0.09	HELIUM.....	0.12
HEATING VALUE.....	1018	HEATING VALUE.....	1019	HEATING VALUE.....	1015
SPECIFIC GRAVITY.....	0.564	SPECIFIC GRAVITY.....	0.561	SPECIFIC GRAVITY.....	0.562
INDEX 280 SAMPLE 11201		INDEX 281 SAMPLE 17933		INDEX 282 SAMPLE 14932	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN
FIELD.....	CECIL	FIELD.....	CECIL	FIELD.....	JETHRO
WELL NAME.....	J. C. JONES NO. 1	WELL NAME.....	JOHNSON NO. 2-T	WELL NAME.....	CARR NO. 1
LOCATION.....	SEC. 32, T10N, R27W	LOCATION.....	SEC. 20, T9N, R28 W	LOCATION.....	SEC. 21, T11N, R27W
OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	ARKONA PRODUCTION CO.	OWNER.....	ARKANSAS WESTERN GAS CO.
COMPLETED.....	04/04/67	COMPLETED.....	03/12/65	COMPLETED.....	03/08/76
SAMPLED.....	11/01/67	SAMPLED.....	12/17/85	SAMPLED.....	03/09/77
FORMATION.....	PENN-CASEY	FORMATION.....	PENN-SPIRO	FORMATION.....	PENN-DUNN A
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	3434	DEPTH, FEET.....	3622	DEPTH, FEET.....	1600
WELLHEAD PRESSURE, PSIG.....	946	WELLHEAD PRESSURE, PSIG.....	3600	WELLHEAD PRESSURE, PSIG.....	494
OPEN FLOW, MCFD.....	21000	OPEN FLOW, MCFD.....	1010	OPEN FLOW, MCFD.....	3500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.0	METHANE.....	96.8	METHANE.....	98.0
ETHANE.....	1.0	ETHANE.....	1.4	ETHANE.....	0.9
PROPANE.....	0.1	PROPANE.....	0.2	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	TRACE
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	TRACE
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE
NITROGEN.....	0.5	NITROGEN.....	1.0	NITROGEN.....	0.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.4	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.09	HELIUM.....	0.07	HELIUM.....	0.09
HEATING VALUE.....	1014	HEATING VALUE.....	1011	HEATING VALUE.....	1011
SPECIFIC GRAVITY.....	0.564	SPECIFIC GRAVITY.....	0.570	SPECIFIC GRAVITY.....	0.563
INDEX 283 SAMPLE 10898		INDEX 284 SAMPLE 10899		INDEX 285 SAMPLE 17547	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN
FIELD.....	LONE ELM	FIELD.....	LONE ELM	FIELD.....	LONE ELM
WELL NAME.....	NOEL LEWIS NO. 1	WELL NAME.....	NOEL LEWIS NO. 1-T	WELL NAME.....	KIRBY NO. 1-8
LOCATION.....	SEC. 28, T10N, R28W	LOCATION.....	SEC. 28, T10N, R28W	LOCATION.....	SEC. 8, T10N, R21W
OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	TENNECO OIL CO.
COMPLETED.....	11/11/66	COMPLETED.....	11/11/66	COMPLETED.....	02/19/84
SAMPLED.....	12/14/84	SAMPLED.....	12/14/84	SAMPLED.....	12/14/84
FORMATION.....	PENN-CASEY & HENSON	FORMATION.....	PENN-KELLY	FORMATION.....	PENN-FRIEBERG
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	3041	DEPTH, FEET.....	3967	DEPTH, FEET.....	2042
WELLHEAD PRESSURE, PSIG.....	580	WELLHEAD PRESSURE, PSIG.....	1160	WELLHEAD PRESSURE, PSIG.....	850
OPEN FLOW, MCFD.....	4000	OPEN FLOW, MCFD.....	5400	OPEN FLOW, MCFD.....	2712
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.2	METHANE.....	98.0	METHANE.....	98.0
ETHANE.....	1.0	ETHANE.....	1.0	ETHANE.....	0.9
PROPANE.....	0.1	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.4	NITROGEN.....	0.5	NITROGEN.....	0.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.11	HELIUM.....	0.12	HELIUM.....	0.10
HEATING VALUE.....	1015	HEATING VALUE.....	1013	HEATING VALUE.....	1012
SPECIFIC GRAVITY.....	0.564	SPECIFIC GRAVITY.....	0.563	SPECIFIC GRAVITY.....	0.563
INDEX 286 SAMPLE 17548		INDEX 287 SAMPLE 17629		INDEX 288 SAMPLE 9037	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN
FIELD.....	LONE ELM	FIELD.....	LONE ELM	FIELD.....	PETER PENDER
WELL NAME.....	KIRBY NO. 1-8	WELL NAME.....	MCCLURKIN NO. 2	WELL NAME.....	G. F. TERRY
LOCATION.....	SEC. 8, T10N, R21W	LOCATION.....	SEC. 8, T10N, R28W	LOCATION.....	SEC. 16, T0N, R28W
OWNER.....	TENNECO OIL CO.	OWNER.....	SECO, INC.	OWNER.....	MOBIL OIL CO.
COMPLETED.....	02/09/84	COMPLETED.....	05/02/84	COMPLETED.....	10/09/62
SAMPLED.....	12/14/84	SAMPLED.....	03/22/85	SAMPLED.....	07/06/63
FORMATION.....	PENN-CECIL SPIRO	FORMATION.....	ORDO-JENKINS	FORMATION.....	PENN-HALE
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	2653	DEPTH, FEET.....	2700	DEPTH, FEET.....	7396
WELLHEAD PRESSURE, PSIG.....	850	WELLHEAD PRESSURE, PSIG.....	777	WELLHEAD PRESSURE, PSIG.....	1875
OPEN FLOW, MCFD.....	1150	OPEN FLOW, MCFD.....	3171	OPEN FLOW, MCFD.....	1900
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.8	METHANE.....	98.2	METHANE.....	97.0
ETHANE.....	0.9	ETHANE.....	0.8	ETHANE.....	1.1
PROPANE.....	0.1	PROPANE.....	0.1	PROPANE.....	0.3
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.9	NITROGEN.....	0.7	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	1.0
HELIUM.....	0.10	HELIUM.....	0.10	HELIUM.....	0.10
HEATING VALUE.....	1010	HEATING VALUE.....	1013	HEATING VALUE.....	1010
SPECIFIC GRAVITY.....	0.564	SPECIFIC GRAVITY.....	0.564	SPECIFIC GRAVITY.....	0.574

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

33

INDEX 289 SAMPLE 9038		INDEX 290 SAMPLE 11681		INDEX 291 SAMPLE 16315	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN
FIELD.....	PETER PENDER	FIELD.....	PETER PENDER	FIELD.....	PETER PENDER
WELL NAME.....	MARTHA MCGEE	WELL NAME.....	FLANAGAN NO. 1	WELL NAME.....	TURNER NO. 1
LOCATION.....	SEC. 21, T8N, R28W	LOCATION.....	SEC. 21, T8N, R28W	LOCATION.....	SEC. 3, T7N, R28W
OWNER.....	MOBIL OIL CO.	OWNER.....	GULF OIL CORP.	OWNER.....	ARKLA EXPLORATION CO.
COMPLETED.....	11/09/61	COMPLETED.....	08/05/68	COMPLETED.....	12/05/80
SAMPLED.....	07/06/63	SAMPLED.....	11/06/68	SAMPLED.....	08/20/81
FORMATION.....	PENN-HALE	FORMATION.....	PENN-CARPENTER	FORMATION.....	ORDO-VIOLA
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	6574	DEPTH, FEET.....	3315	DEPTH, FEET.....	9990
WELLHEAD PRESSURE, PSIG.....	1725	WELLHEAD PRESSURE, PSIG.....	767	WELLHEAD PRESSURE, PSIG.....	3400
OPEN FLOW, MCFD.....	4400	OPEN FLOW, MCFD.....	9550	OPEN FLOW, MCFD.....	4500
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	97.0	METHANE.....	98.1	METHANE.....	95.4
ETHANE.....	1.1	ETHANE.....	1.0	ETHANE.....	0.9
PROPANE.....	0.1	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.6	NITROGEN.....	0.4	NITROGEN.....	0.9
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.5
HELIUM.....	0.10	HELIUM.....	0.09	HELIUM.....	0.12
HEATING VALUE.....	1005	HEATING VALUE.....	1015	HEATING VALUE.....	985
SPECIFIC GRAVITY.....	0.572	SPECIFIC GRAVITY.....	0.563	SPECIFIC GRAVITY.....	0.587
INDEX 292 SAMPLE 16316		INDEX 293 SAMPLE 10973		INDEX 294 SAMPLE 10974	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN
FIELD.....	PETER PENDER	FIELD.....	POSSUMTROT	FIELD.....	POSSUMTROT
WELL NAME.....	TURNER NO. 1	WELL NAME.....	FRED CANNON UNIT NO. 1	WELL NAME.....	CARL STRONG UNIT NO. 1
LOCATION.....	SEC. 3, T7N, R28W	LOCATION.....	SEC. 8, T10N, R27W	LOCATION.....	SEC. 10, T10N, R27W
OWNER.....	ARKLA EXPLORATION CO.	OWNER.....	TENNECO OIL CO.	OWNER.....	TENNECO OIL CO.
COMPLETED.....	12/05/80	COMPLETED.....	12/03/66	COMPLETED.....	01/03/67
SAMPLED.....	08/20/81	SAMPLED.....	--/--/00	SAMPLED.....	--/--/00
FORMATION.....	PENN-HALE	FORMATION.....	PENN-HALE	FORMATION.....	PENN-BRENTWOOD
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	5000	DEPTH, FEET.....	4667	DEPTH, FEET.....	4711
WELLHEAD PRESSURE, PSIG.....	1700	WELLHEAD PRESSURE, PSIG.....	1040	WELLHEAD PRESSURE, PSIG.....	1150
OPEN FLOW, MCFD.....	600	OPEN FLOW, MCFD.....	10500	OPEN FLOW, MCFD.....	280
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	95.5	METHANE.....	97.6	METHANE.....	97.2
ETHANE.....	0.9	ETHANE.....	0.9	ETHANE.....	0.9
PROPANE.....	0.1	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.7	NITROGEN.....	0.7	NITROGEN.....	0.9
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.7	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.2
HELIUM.....	0.12	HELIUM.....	0.09	HELIUM.....	0.07
HEATING VALUE.....	986	HEATING VALUE.....	1007	HEATING VALUE.....	1011
SPECIFIC GRAVITY.....	0.589	SPECIFIC GRAVITY.....	0.566	SPECIFIC GRAVITY.....	0.567
INDEX 295 SAMPLE 10976		INDEX 296 SAMPLE 10977		INDEX 297 SAMPLE 10979	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN
FIELD.....	POSSUMTROT	FIELD.....	POSSUMTROT	FIELD.....	POSSUMTROT
WELL NAME.....	ROBBIE BLACK UNIT NO. 1	WELL NAME.....	ROBBIE BLACK UNIT NO. 1	WELL NAME.....	ROBBIE BLACK UNIT NO. 1
LOCATION.....	SEC. 7, T10N, R27W	LOCATION.....	SEC. 7, T10N, R27W	LOCATION.....	SEC. 7, T10N, R27W
OWNER.....	TENNECO OIL CO.	OWNER.....	TENNECO OIL CO.	OWNER.....	TENNECO OIL CO.
COMPLETED.....	01/03/67	COMPLETED.....	01/03/67	COMPLETED.....	01/03/67
SAMPLED.....	--/--/00	SAMPLED.....	--/--/00	SAMPLED.....	--/--/00
FORMATION.....	PENN-DUNN A	FORMATION.....	PENN-BARTON R	FORMATION.....	PENN-CASEY
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	3506	DEPTH, FEET.....	3580	DEPTH, FEET.....	3182
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	930
OPEN FLOW, MCFD.....	14000	OPEN FLOW, MCFD.....	7400	OPEN FLOW, MCFD.....	6474
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	98.1	METHANE.....	91.8	METHANE.....	95.1
ETHANE.....	1.0	ETHANE.....	0.9	ETHANE.....	1.1
PROPANE.....	TRACE	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.5	NITROGEN.....	1.3	NITROGEN.....	2.9
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.6
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.10	HELIUM.....	0.08	HELIUM.....	0.08
HEATING VALUE.....	1012	HEATING VALUE.....	984	HEATING VALUE.....	986
SPECIFIC GRAVITY.....	0.562	SPECIFIC GRAVITY.....	0.593	SPECIFIC GRAVITY.....	0.577
INDEX 298 SAMPLE 14703		INDEX 299 SAMPLE 15997		INDEX 300 SAMPLE 16228	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN
FIELD.....	ROCK CREEK	FIELD.....	ROCK CREEK	FIELD.....	ROSS
WELL NAME.....	WALTON NO. 1-32	WELL NAME.....	FLAMBUANT NO. 1-15	WELL NAME.....	J. A. CROOTS NO. 2
LOCATION.....	SEC. 32, T11N, R26W	LOCATION.....	SEC. 15, T11N, R26W	LOCATION.....	SEC. 16, T9N, R21W
OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	SEECO, INC.	OWNER.....	ARKANSAS LOUISIANA GAS CO.
COMPLETED.....	05/14/76	COMPLETED.....	03/19/80	COMPLETED.....	01/19/81
SAMPLED.....	06/6/76	SAMPLED.....	07/02/80	SAMPLED.....	04/06/81
FORMATION.....	MISS-WEDINGTON	FORMATION.....	PENN-CANNON	FORMATION.....	PENN-RUSSELL
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	2560	DEPTH, FEET.....	2258	DEPTH, FEET.....	3621
WELLHEAD PRESSURE, PSIG.....	999	WELLHEAD PRESSURE, PSIG.....	596	WELLHEAD PRESSURE, PSIG.....	1500
OPEN FLOW, MCFD.....	1600	OPEN FLOW, MCFD.....	925	OPEN FLOW, MCFD.....	2200
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	97.0	METHANE.....	97.3	METHANE.....	97.6
ETHANE.....	0.9	ETHANE.....	1.3	ETHANE.....	1.1
PROPANE.....	0.1	PROPANE.....	0.2	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	TRACE
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE
NITROGEN.....	1.8	NITROGEN.....	1.0	NITROGEN.....	0.7
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3
HELIUM.....	0.14	HELIUM.....	0.12	HELIUM.....	0.10
HEATING VALUE.....	1000	HEATING VALUE.....	984	HEATING VALUE.....	1011
SPECIFIC GRAVITY.....	0.568	SPECIFIC GRAVITY.....	0.568	SPECIFIC GRAVITY.....	0.566

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 14942	INDEX SAMPLE 14944	INDEX SAMPLE 17635
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	FRANKLIN		FRANKLIN	FRANKLIN
FIELD.....	VESTA		VESTA	WATALULA
WELL NAME.....	ALLEN W. KING NO. 1		ALLEN W. KING NO. 1	HUDSON NO. 1-6
LOCATION.....	SEC. 29, T 8N, R28W		SEC. 29, T 8N, R28W	SEC. 6, T10N, R27W
OWNER.....	STEPHENS PRODUCTION CO.		STEPHENS PRODUCTION CO.	SEECO, INC.
COMPLETED.....	04/14/76		04/14/76	01/13/84
SAMPLED.....	03/17/77		03/17/77	03/22/85
FORMATION.....	PERM-ALMA		PENN-HALE	PENN-CASEY
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	2513		7600	3068
WELLHEAD PRESSURE, PSIG.....	1015		2377	740
OPEN FLOW, MCFD.....	2200		2750	240
COMPONENT, MOLE PCT.....				
METHANE.....	96.3	96.8	97.9	
ETHANE.....	1.6	1.6	1.1	
PROPANE.....	0.2	0.2	0.1	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.7	0.0	0.7	
OXYGEN.....	0.1	0.0	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.1	1.1	0.1	
HELIUM.....	0.07	0.08	0.09	
HEATING VALUE.....	1009	1014	1014	
SPECIFIC GRAVITY.....	0.579	0.576	0.565	
		INDEX SAMPLE 17637	INDEX SAMPLE 5939	INDEX SAMPLE 10873
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	FRANKLIN		FRANKLIN	FRANKLIN
FIELD.....	WATALULA		WHITE OAK	WHITE OAK
WELL NAME.....	HUDSON NO. 1-6		WOOLSEY	CONATSER UNIT NO. 1-C
LOCATION.....	SEC. 6, T10N, R27W		SEC. 13, T10N, R27W	SEC. 17, T10N, R27W
OWNER.....	SEECO, INC.		ARKANSAS WESTERN GAS CO.	TENNECO OIL CO.
COMPLETED.....	01/13/84		07/31/55	10/11/66
SAMPLED.....	03/22/85		09/06/55	02/20/67
FORMATION.....	PENN-BARTON, PAUL		PENN-ATOKA-BYNUM	PENN-BYNUM
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	3614		3173	2851
WELLHEAD PRESSURE, PSIG.....	1095		942	728
OPEN FLOW, MCFD.....	340		5000	6700
COMPONENT, MOLE PCT.....				
METHANE.....	97.8	98.3	98.1	
ETHANE.....	1.4	1.0	1.0	
PROPANE.....	0.1	0.2	0.1	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.9	0.3	0.6	
OXYGEN.....	0.1	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	
HELIUM.....	0.08	0.10	0.09	
HEATING VALUE.....	1018	1019	1014	
SPECIFIC GRAVITY.....	0.565	0.563	0.563	
		INDEX SAMPLE 10874	INDEX SAMPLE 17829	INDEX SAMPLE 9671
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	FRANKLIN		FRANKLIN	FRANKLIN
FIELD.....	WHITE OAK		WHITE OAK	WILDCAT
WELL NAME.....	CONATSER UNIT NO. 1-C		HUGGINS NO. 2-T	H. E. FLANAGAN NO. 1
LOCATION.....	SEC. 17, T10N, R27W		SEC. 15, T10N, R27W	SEC. 8, T7N, R28W
OWNER.....	TENNECO OIL CO.		SEECO, INC.	ARKANSAS LOUISIANA GAS CO.
COMPLETED.....	10/11/65		05/02/85	09/23/64
SAMPLED.....	02/20/67		09/12/85	12/14/64
FORMATION.....	PENN-BRENTWOOD		PENN-HALE M	PERM-MORRIS
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	4244		4931	4931
WELLHEAD PRESSURE, PSIG.....	1669		1660	1800
OPEN FLOW, MCFD.....	2275		11908	1040
COMPONENT, MOLE PCT.....				
METHANE.....	97.7	97.8	97.7	
ETHANE.....	1.3	1.2	1.3	
PROPANE.....	0.1	0.1	0.3	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.5	0.4	0.3	
OXYGEN.....	0.0	0.0	0.2	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.3	0.3	
HELIUM.....	0.06	0.05	0.08	
HEATING VALUE.....	1016	1015	1021	
SPECIFIC GRAVITY.....	0.565	0.565	0.568	
		INDEX SAMPLE 310	INDEX SAMPLE 311	INDEX SAMPLE 312
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	JOHNSON		JOHNSON	JOHNSON
FIELD.....	ALTUS		ALTUS	BATSON
WELL NAME.....	WOODROW HOING NO. 1-28		WOODROW HOING NO. 1-28	FED. ESS263 NO. 1
LOCATION.....	SEC. 28, T9N, R25W		SEC. 28, T9N, R25W	SEC. 14, T11N, R25W
OWNER.....	TENNECO OIL CO.		TENNECO OIL CO.	ARKANSAS WESTERN GAS CO.
COMPLETED.....	03/18/74		03/18/74	02/15/74
SAMPLED.....	04/26/74		04/26/74	04/26/74
FORMATION.....	PENN-TACKETT		PENN-ATOKA	PENN-CANNON
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	2709		5706	1706
WELLHEAD PRESSURE, PSIG.....	1625		1625	320
OPEN FLOW, MCFD.....	3158		3542	1100
COMPONENT, MOLE PCT.....				
METHANE.....	97.8	97.8	98.0	
ETHANE.....	1.0	1.0	0.1	
PROPANE.....	0.1	0.1	TRACE	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.5	0.5	1.6	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.3	0.1	
HELIUM.....	0.12	0.12	0.13	
HEATING VALUE.....	1012	1012	995	
SPECIFIC GRAVITY.....	0.564	0.564	0.563	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

85

INDEX 313 SAMPLE 13991		INDEX 314 SAMPLE 13992		INDEX 315 SAMPLE 13993	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	JOHNSON	COUNTY.....	JOHNSON	COUNTY.....	JOHNSON
FIELD.....	BATSON	FIELD.....	BATSON	FIELD.....	BATSON
WELL NAME.....	FED. ES5263 NO. 1	WELL NAME.....	FED. ES4068 NO. 1	WELL NAME.....	FED. ES5276 NO. 1
LOCATION.....	SEC. 14, T11N, R25W	LOCATION.....	SEC. 28, T12N, R24W	LOCATION.....	SEC. 33, T12N, R24W
OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	ARKANSAS WESTERN GAS CO.
COMPLETED.....	02/15/74	COMPLETED.....	03/05/74	COMPLETED.....	04/19/74
SAMPLED.....	04/26/74	SAMPLED.....	04/26/74	SAMPLED.....	04/26/74
FORMATION.....	PENN-HALE M	FORMATION.....	MISS-BOONE U	FORMATION.....	PENN-BRENTWOOD
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	1906	DEPTH, FEET.....	2280	DEPTH, FEET.....	1408
WELLHEAD PRESSURE, PSIG.....	500	WELLHEAD PRESSURE, PSIG.....	790	WELLHEAD PRESSURE, PSIG.....	300
OPEN FLOW, MCFD.....	2500	OPEN FLOW, MCFD.....	2000	OPEN FLOW, MCFD.....	2000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.0	METHANE.....	90.1	METHANE.....	97.8
ETHANE.....	0.1	ETHANE.....	1.5	ETHANE.....	TRACE
PROpane.....	TRACE	PROpane.....	0.2	PROpane.....	TRACE
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.6	NITROGEN.....	7.7	NITROGEN.....	1.7
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.2
HELIUM.....	0.12	HELIUM.....	0.25	HELIUM.....	0.13
HEATING VALUE.....	995	HEATING VALUE.....	947	HEATING VALUE.....	991
SPECIFIC GRAVITY.....	0.562	SPECIFIC GRAVITY.....	0.595	SPECIFIC GRAVITY.....	0.563

INDEX 316 SAMPLE 13994		INDEX 317 SAMPLE 13995		INDEX 318 SAMPLE 14000	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	JOHNSON	COUNTY.....	JOHNSON	COUNTY.....	JOHNSON
FIELD.....	BATSON	FIELD.....	BATSON	FIELD.....	BATSON
WELL NAME.....	FED. ES5262	WELL NAME.....	COOPER NO. 1	WELL NAME.....	FED. ES5269 NO. 1
LOCATION.....	SEC. 12, T11N, R25W	LOCATION.....	SEC. 15, T11N, R25W	LOCATION.....	SEC. 13, T11N, R25W
OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	ARKANSAS WESTERN GAS CO.
COMPLETED.....	12/8/73	COMPLETED.....	11/2/73	COMPLETED.....	10/25/73
SAMPLED.....	04/26/74	SAMPLED.....	04/26/74	SAMPLED.....	04/26/74
FORMATION.....	MISS-BOONE U	FORMATION.....	PENN-ATOKA	FORMATION.....	PENN-ORR
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	2578	DEPTH, FEET.....	1404	DEPTH, FEET.....	1482
WELLHEAD PRESSURE, PSIG.....	820	WELLHEAD PRESSURE, PSIG.....	156	WELLHEAD PRESSURE, PSIG.....	300
OPEN FLOW, MCFD.....	7600	OPEN FLOW, MCFD.....	1000	OPEN FLOW, MCFD.....	1000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.2	METHANE.....	97.9	METHANE.....	98.1
ETHANE.....	1.7	ETHANE.....	0.2	ETHANE.....	0.1
PROpane.....	0.1	PROpane.....	TRACE	PROpane.....	TRACE
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	6.5	NITROGEN.....	1.2	NITROGEN.....	1.5
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.26	HELIUM.....	0.13	HELIUM.....	0.12
HEATING VALUE.....	957	HEATING VALUE.....	995	HEATING VALUE.....	996
SPECIFIC GRAVITY.....	0.591	SPECIFIC GRAVITY.....	0.563	SPECIFIC GRAVITY.....	0.561

INDEX 319 SAMPLE 15120		INDEX 320 SAMPLE 16297		INDEX 321 SAMPLE 16298	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	JOHNSON	COUNTY.....	JOHNSON	COUNTY.....	JOHNSON
FIELD.....	BATSON	FIELD.....	BATSON	FIELD.....	BATSON
WELL NAME.....	BIDLER BROTHERS NO. 1	WELL NAME.....	WOOTEN-FEDERAL NO. 1	WELL NAME.....	WOOTEN-FEDERAL NO. 1
LOCATION.....	SEC. 8, T11N, R24W	LOCATION.....	SEC. 10, T11N, R25W	LOCATION.....	SEC. 10, T11N, R25W
OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	SEECO, INC.	OWNER.....	SEECO, INC.
COMPLETED.....	09/21/77	COMPLETED.....	07/22/81	COMPLETED.....	07/22/81
SAMPLED.....	10/13/77	SAMPLED.....	07/21/81	SAMPLED.....	07/21/81
FORMATION.....	PENN-SELLS	FORMATION.....	PENN-ATOKA-ORR	FORMATION.....	PENN-ATOKA-PATTERSON
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	1015	DEPTH, FEET.....	1418	DEPTH, FEET.....	1264
WELLHEAD PRESSURE, PSIG.....	1116	WELLHEAD PRESSURE, PSIG.....	323	WELLHEAD PRESSURE, PSIG.....	225
OPEN FLOW, MCFD.....	290	OPEN FLOW, MCFD.....	890	OPEN FLOW, MCFD.....	734
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.6	METHANE.....	97.9	METHANE.....	98.1
ETHANE.....	0.2	ETHANE.....	0.3	ETHANE.....	0.1
PROpane.....	TRACE	PROpane.....	TRACE	PROpane.....	TRACE
N-BUTANE.....	TRACE	N-BUTANE.....	TRACE	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	1.6	NITROGEN.....	1.4	NITROGEN.....	1.5
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.11	HELIUM.....	0.11	HELIUM.....	0.12
HEATING VALUE.....	997	HEATING VALUE.....	1006	HEATING VALUE.....	996
SPECIFIC GRAVITY.....	0.565	SPECIFIC GRAVITY.....	0.567	SPECIFIC GRAVITY.....	0.561

INDEX 322 SAMPLE 16299		INDEX 323 SAMPLE 13997		INDEX 324 SAMPLE 14001	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	JOHNSON	COUNTY.....	JOHNSON	COUNTY.....	JOHNSON
FIELD.....	BATSON	FIELD.....	BATSON-OZONE	FIELD.....	BATSON-OZONE
WELL NAME.....	WOOTEN-FEDERAL NO. 1	WELL NAME.....	MOORE NO. 1	WELL NAME.....	PAYNE NO. 1
LOCATION.....	SEC. 10, T11N, R25W	LOCATION.....	SEC. 6, T11N, R23W	LOCATION.....	NOT GIVEN
OWNER.....	SEECO, INC.	OWNER.....	ARKANSAS WESTERN GAS CO.	OWNER.....	ARKANSAS WESTERN GAS CO.
COMPLETED.....	07/22/81	COMPLETED.....	02/12/74	COMPLETED.....	03/15/74
SAMPLED.....	07/21/81	SAMPLED.....	04/26/74	SAMPLED.....	04/26/74
FORMATION.....	PENN-MORROW & CANNON	FORMATION.....	PENN-HALE	FORMATION.....	PENN-ORR
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	1580	DEPTH, FEET.....	2278	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	384	WELLHEAD PRESSURE, PSIG.....	420	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	1300	OPEN FLOW, MCFD.....	1300	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.7	METHANE.....	98.8	METHANE.....	84.9
ETHANE.....	0.1	ETHANE.....	0.2	ETHANE.....	TRACE
PROpane.....	0.1	PROpane.....	TRACE	PROpane.....	TRACE
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.6	NITROGEN.....	0.7	NITROGEN.....	10.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	2.4
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	2.2
HELIUM.....	0.12	HELIUM.....	0.09	HELIUM.....	0.09
HEATING VALUE.....	999	HEATING VALUE.....	1005	HEATING VALUE.....	860
SPECIFIC GRAVITY.....	0.563	SPECIFIC GRAVITY.....	0.558	SPECIFIC GRAVITY.....	0.631

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	325 1625		INDEX SAMPLE	326 1778		INDEX SAMPLE	327 4004
STATE.....	ARKANSAS		STATE.....	ARKANSAS		STATE.....	ARKANSAS	
COUNTY.....	JOHNSON		COUNTY.....	JOHNSON		COUNTY.....	JOHNSON	
FIELD.....	CLARKSVILLE		FIELD.....	CLARKSVILLE		FIELD.....	CLARKSVILLE	
WELL NAME.....	NOT GIVEN		WELL NAME.....	MCPHERSON NO. 1		WELL NAME.....	S. M. HUDSON UNIT NO. 1	
LOCATION.....	SEC. 14, T10N, R24W		LOCATION.....	SEC. 10, T11N, R24W		LOCATION.....	SEC. 15, T10N, R24W	
OWNER.....	EMPIRE OIL & REFINING CO.		OWNER.....	ARKANSAS NATURAL GAS CORP.		OWNER.....	ARKANSAS LOUISIANA GAS CO.	
COMPLETED.....	08/-/27		COMPLETED.....	05/11/29		COMPLETED.....	12/26/44	
SAMPLED.....	03/23/28		SAMPLED.....	05/18/29		SAMPLED.....	--/--/00	
FORMATION.....	NOT GIVEN		FORMATION.....	PENN-ATOKA		FORMATION.....	PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	345		GEOLOGIC PROVINCE CODE.....	345		GEOLOGIC PROVINCE CODE.....	345	
DEPTH, FEET.....	3012		DEPTH, FEET.....	3345		DEPTH, FEET.....	3400	
WELLHEAD PRESSURE, PSIG.....	1250		WELLHEAD PRESSURE, PSIG.....	1000		WELLHEAD PRESSURE, PSIG.....	1372	
OPEN FLOW, MCFD.....	16000		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	2400	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	96.0		METHANE.....	98.5		METHANE.....	98.7	
ETHANE.....	2.3		ETHANE.....	0.6		ETHANE.....	0.4	
PROPANE.....	---		PROPANE.....	---		PROPANE.....	---	
N-BUTANE.....	---		N-BUTANE.....	---		N-BUTANE.....	---	
ISOBUTANE.....	---		ISOBUTANE.....	---		ISOBUTANE.....	---	
N-PENTANE.....	---		N-PENTANE.....	---		N-PENTANE.....	---	
ISOPENTANE.....	---		ISOPENTANE.....	---		ISOPENTANE.....	---	
CYCLOPENTANE.....	---		CYCLOPENTANE.....	---		CYCLOPENTANE.....	---	
HEXANES PLUS.....	---		HEXANES PLUS.....	---		HEXANES PLUS.....	---	
NITROGEN.....	1.1		NITROGEN.....	0.6		NITROGEN.....	0.1	
OXYGEN.....	0.3		OXYGEN.....	0.1		OXYGEN.....	0.2	
ARGON.....	---		ARGON.....	---		ARGON.....	---	
HYDROGEN.....	---		HYDROGEN.....	---		HYDROGEN.....	---	
HYDROGEN SULFIDE**.....	---		HYDROGEN SULFIDE**.....	---		HYDROGEN SULFIDE**.....	---	
CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.5	
HELIUM.....	0.04		HELIUM.....	0.06		HELIUM.....	0.06	
HEATING VALUE.....	1011		HEATING VALUE.....	1009		HEATING VALUE.....	1007	
SPECIFIC GRAVITY.....	0.575		SPECIFIC GRAVITY.....	0.562		SPECIFIC GRAVITY.....	0.562	
	INDEX SAMPLE	328 11129		INDEX SAMPLE	329 11130		INDEX SAMPLE	330 11225
STATE.....	ARKANSAS		STATE.....	ARKANSAS		STATE.....	ARKANSAS	
COUNTY.....	JOHNSON		COUNTY.....	JOHNSON		COUNTY.....	JOHNSON	
FIELD.....	CLARKSVILLE		FIELD.....	CLARKSVILLE		FIELD.....	CLARKSVILLE	
WELL NAME.....	BLACKBURN NO. 1-C		WELL NAME.....	BLACKBURN NO. 1-C		WELL NAME.....	GROVER POTEET UNIT NO. 1	
LOCATION.....	SEC. 16, T10N, R24W		LOCATION.....	SEC. 16, T10N, R24W		LOCATION.....	SEC. 16, T10N, R24W	
OWNER.....	J. M. HUBER CORP.		OWNER.....	J. M. HUBER CORP.		OWNER.....	TENNECO OIL CO.	
COMPLETED.....	10/29/65		COMPLETED.....	05/03/67		COMPLETED.....	05/03/67	
SAMPLED.....	--/--/00		SAMPLED.....	--/--/00		SAMPLED.....	--/--/00	
FORMATION.....	PENN-ATOKA & HUDSON		FORMATION.....	PENN-HALE		FORMATION.....	PENN-HUDSON	
GEOLOGIC PROVINCE CODE.....	345		GEOLOGIC PROVINCE CODE.....	345		GEOLOGIC PROVINCE CODE.....	345	
DEPTH, FEET.....	2516		DEPTH, FEET.....	3586		DEPTH, FEET.....	2430	
WELLHEAD PRESSURE, PSIG.....	857		WELLHEAD PRESSURE, PSIG.....	1317		WELLHEAD PRESSURE, PSIG.....	714	
OPEN FLOW, MCFD.....	12300		OPEN FLOW, MCFD.....	3400		OPEN FLOW, MCFD.....	147	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	95.8		METHANE.....	97.3		METHANE.....	97.5	
ETHANE.....	1.0		ETHANE.....	1.1		ETHANE.....	0.9	
PROPANE.....	0.1		PROPANE.....	0.1		PROPANE.....	TRACE	
N-BUTANE.....	0.0		N-BUTANE.....	0.0		N-BUTANE.....	0.0	
ISOBUTANE.....	0.0		ISOBUTANE.....	0.0		ISOBUTANE.....	0.0	
N-PENTANE.....	0.0		N-PENTANE.....	0.0		N-PENTANE.....	0.0	
ISOPENTANE.....	0.0		ISOPENTANE.....	0.0		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	0.0	
HEXANES PLUS.....	0.0		HEXANES PLUS.....	0.0		HEXANES PLUS.....	0.0	
NITROGEN.....	2.4		NITROGEN.....	1.0		NITROGEN.....	0.8	
OXYGEN.....	0.4		OXYGEN.....	0.0		OXYGEN.....	0.1	
ARGON.....	TRACE		ARGON.....	TRACE		ARGON.....	TRACE	
HYDROGEN.....	0.1		HYDROGEN.....	0.1		HYDROGEN.....	0.3	
HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0	
CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.2	
HELIUM.....	0.00		HELIUM.....	0.06		HELIUM.....	0.09	
HEATING VALUE.....	991		HEATING VALUE.....	1008		HEATING VALUE.....	1005	
SPECIFIC GRAVITY.....	0.574		SPECIFIC GRAVITY.....	0.567		SPECIFIC GRAVITY.....	0.562	
	INDEX SAMPLE	331 14179		INDEX SAMPLE	332 16105		INDEX SAMPLE	333 17859
STATE.....	ARKANSAS		STATE.....	ARKANSAS		STATE.....	ARKANSAS	
COUNTY.....	JOHNSON		COUNTY.....	JOHNSON		COUNTY.....	JOHNSON	
FIELD.....	COAL HILL		FIELD.....	COAL HILL		FIELD.....	HUNT	
WELL NAME.....	J. G. HOINS NO. 1-20		WELL NAME.....	GREENWOOD NO. 2-31		WELL NAME.....	PEABODY COAL NO. 1	
LOCATION.....	SEC. 20, T9N, R25W		LOCATION.....	SEC. 31, T10N, R25W		LOCATION.....	SEC. 12, T10N, R25W	
OWNER.....	TENNECO OIL CO.		OWNER.....	SOUTHERN UNION EXPL. CO.		OWNER.....	TKO PRODUCTION CORP.	
COMPLETED.....	03/18/74		COMPLETED.....	01/15/80		COMPLETED.....	11/11/84	
SAMPLED.....	10/12/74		SAMPLED.....	01/22/80		SAMPLED.....	10/03/85	
FORMATION.....	PENN-CASEY		FORMATION.....	PENN-DUNN A		FORMATION.....	PENN-HALE L	
GEOLOGIC PROVINCE CODE.....	345		GEOLOGIC PROVINCE CODE.....	345		GEOLOGIC PROVINCE CODE.....	345	
DEPTH, FEET.....	3655		DEPTH, FEET.....	3420		DEPTH, FEET.....	4280	
WELLHEAD PRESSURE, PSIG.....	1350		WELLHEAD PRESSURE, PSIG.....	1141		WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	
OPEN FLOW, MCFD.....	3732		OPEN FLOW, MCFD.....	6449		OPEN FLOW, MCFD.....	2631	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	97.8		METHANE.....	98.5		METHANE.....	97.5	
ETHANE.....	1.1		ETHANE.....	0.8		ETHANE.....	1.0	
PROPANE.....	0.1		PROPANE.....	0.1		PROPANE.....	0.1	
N-BUTANE.....	TRACE		N-BUTANE.....	0.0		N-BUTANE.....	0.0	
ISOBUTANE.....	TRACE		ISOBUTANE.....	0.0		ISOBUTANE.....	0.0	
N-PENTANE.....	TRACE		N-PENTANE.....	0.0		N-PENTANE.....	0.0	
ISOPENTANE.....	TRACE		ISOPENTANE.....	0.0		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	0.0	
HEXANES PLUS.....	TRACE		HEXANES PLUS.....	0.0		HEXANES PLUS.....	0.0	
NITROGEN.....	0.5		NITROGEN.....	0.3		NITROGEN.....	0.8	
OXYGEN.....	0.0		OXYGEN.....	0.0		OXYGEN.....	TRACE	
ARGON.....	TRACE		ARGON.....	0.0		ARGON.....	TRACE	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.5	
HELIUM.....	0.13		HELIUM.....	0.12		HELIUM.....	0.10	
HEATING VALUE.....	1013		HEATING VALUE.....	1017		HEATING VALUE.....	1008	
SPECIFIC GRAVITY.....	0.562		SPECIFIC GRAVITY.....	0.562		SPECIFIC GRAVITY.....	0.568	
	INDEX SAMPLE	334 6854		INDEX SAMPLE	335 15021		INDEX SAMPLE	336 16325
STATE.....	ARKANSAS		STATE.....	ARKANSAS		STATE.....	ARKANSAS	
COUNTY.....	JOHNSON		COUNTY.....	JOHNSON		COUNTY.....	JOHNSON	
FIELD.....	KNOXVILLE		FIELD.....	KNOXVILLE		FIELD.....	KNOXVILLE	
WELL NAME.....	TACKETT NO. 1		WELL NAME.....	STOKES NO. 1-35		WELL NAME.....	DIXON NO. 1	
LOCATION.....	SEC. 2, T8N, R22W		LOCATION.....	SEC. 35, T9N, R23W		LOCATION.....	SEC. 2, T9N, R22W	
OWNER.....	GULF OIL CORP.		OWNER.....	TENNECO OIL CO.		OWNER.....	OXLEY PETROLEUM CO.	
COMPLETED.....	12/31/57		COMPLETED.....	10/-/76		COMPLETED.....	08/29/81	
SAMPLED.....	06/04/58		SAMPLED.....	06/08/77		SAMPLED.....	08/29/81	
FORMATION.....	PENN-TACKETT		FORMATION.....	PENN-ARECI		FORMATION.....	PENN-ALLEN L	
GEOLOGIC PROVINCE CODE.....	345		GEOLOGIC PROVINCE CODE.....	345		GEOLOGIC PROVINCE CODE.....	345	
DEPTH, FEET.....	3308		DEPTH, FEET.....	4648		DEPTH, FEET.....	6060	
WELLHEAD PRESSURE, PSIG.....	427		WELLHEAD PRESSURE, PSIG.....	840		WELLHEAD PRESSURE, PSIG.....	1380	
OPEN FLOW, MCFD.....	8		OPEN FLOW, MCFD.....	4963		OPEN FLOW, MCFD.....	3961	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	97.9		METHANE.....	98.0		METHANE.....	96.6	
ETHANE.....	0.9		ETHANE.....	1.2		ETHANE.....	1.1	
PROPANE.....	0.1		PROPANE.....	0.1		PROPANE.....	0.2	
N-BUTANE.....	0.0		N-BUTANE.....	0.0		N-BUTANE.....	0.0	
ISOBUTANE.....	0.0		ISOBUTANE.....	0.0		ISOBUTANE.....	0.0	
N-PENTANE.....	0.0		N-PENTANE.....	0.0		N-PENTANE.....	0.0	
ISOPENTANE.....	0.0		ISOPENTANE.....	0.0		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	0.0	
HEXANES PLUS.....	0.0		HEXANES PLUS.....	0.0		HEXANES PLUS.....	0.0	
NITROGEN.....	0.2		NITROGEN.....	0.4		NITROGEN.....	0.4	
OXYGEN.....	TRACE		OXYGEN.....	TRACE		OXYGEN.....	TRACE	
ARGON.....	0.0		ARGON.....	0.1		ARGON.....	0.0	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0	
CARBON DIOXIDE.....	0.6		CARBON DIOXIDE.....	TRACE		CARBON DIOXIDE.....	1.4	
HELIUM.....	0.20		HELIUM.....	0.13		HELIUM.....	0.18	
HEATING VALUE.....	1010		HEATING VALUE.....	1017		HEATING VALUE.....	1003	
SPECIFIC GRAVITY.....	0.565		SPECIFIC GRAVITY.....	0.562		SPECIFIC GRAVITY.....	0.576	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 337 SAMPLE 16327		INDEX 338 SAMPLE 17665		INDEX 339 SAMPLE 15087	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	JOHNSON	COUNTY.....	JOHNSON	COUNTY.....	JOHNSON
FIELD.....	KNOXVILLE	FIELD.....	KNOXVILLE	FIELD.....	LINVILLE
WELL NAME.....	DIXON NO. 1	WELL NAME.....	BILLIE WITTENAUER NO. 1	WELL NAME.....	G. PAYNE NO. 1-24
LOCATION.....	SEC. 29, T9N, R22W	LOCATION.....	SEC. 15, T8N, R22W	LOCATION.....	SEC. 24, T11N, R25W
OWNER.....	OIL PETROLEUM CO.	OWNER.....	SUN EXPLORATION & PRODUCTION	OWNER.....	OIL DEVELOPMENT CO. OF UTAH
COMPLETED.....	08/29/81	COMPLETED.....	02/02/83	COMPLETED.....	--/--/00
SAMPLED.....	08/29/81	SAMPLED.....	09/19/83	SAMPLED.....	08/30/77
FORMATION.....	PENN-MCGUIRE	FORMATION.....	PENN-TACKETT	FORMATION.....	PENN-ORR
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	5784	DEPTH, FEET.....	3537	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1430	WELLHEAD PRESSURE, PSIG.....	366	WELLHEAD PRESSURE, PSIG.....	265
OPEN FLOW, MCFD.....	2233	OPEN FLOW, MCFD.....	1813	OPEN FLOW, MCFD.....	664
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.7	METHANE.....	92.5	METHANE.....	98.4
ETHANE.....	1.0	ETHANE.....	0.9	ETHANE.....	0.2
PROPANE.....	0.1	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.6	NITROGEN.....	5.6	NITROGEN.....	1.1
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.3	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.17	HELIUM.....	0.17	HELIUM.....	0.13
HEATING VALUE.....	1000	HEATING VALUE.....	958	HEATING VALUE.....	1003
SPECIFIC GRAVITY.....	0.574	SPECIFIC GRAVITY.....	0.580	SPECIFIC GRAVITY.....	0.561
INDEX 340 SAMPLE 15088		INDEX 341 SAMPLE 15124		INDEX 342 SAMPLE 5019	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	JOHNSON	COUNTY.....	JOHNSON	COUNTY.....	JOHNSON
FIELD.....	LINVILLE	FIELD.....	LINVILLE	FIELD.....	LOW GAP
WELL NAME.....	G. PAYNE NO. 1-24	WELL NAME.....	G. PAYNE NO. 1-24	WELL NAME.....	LOW GAP UNIT NO. 1
LOCATION.....	SEC. 24, T11N, R25W	LOCATION.....	JOHNSON	LOCATION.....	SEC. 17, T11N, R24W
OWNER.....	OIL DEVELOPMENT CO. OF UTAH	OWNER.....	OIL DEVELOPMENT CO. OF UTAH	OWNER.....	PURE OIL CO.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	08/30/77	SAMPLED.....	10/17/77	SAMPLED.....	03/06/51
FORMATION.....	PENN-PATTERSON	FORMATION.....	PENN-HALE	FORMATION.....	PENN-ATOKA
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	1427
WELLHEAD PRESSURE, PSIG.....	241	WELLHEAD PRESSURE, PSIG.....	510	WELLHEAD PRESSURE, PSIG.....	195
OPEN FLOW, MCFD.....	1838	OPEN FLOW, MCFD.....	2031	OPEN FLOW, MCFD.....	728
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.4	METHANE.....	98.1	METHANE.....	98.0
ETHANE.....	0.2	ETHANE.....	0.1	ETHANE.....	0.3
PROPANE.....	0.1	PROPANE.....	TRACE	PROPANE.....	0.1
N-BUTANE.....	0.2	N-BUTANE.....	0.0	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	1.4	NITROGEN.....	1.5	NITROGEN.....	1.1
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.0
HELIUM.....	0.13	HELIUM.....	0.11	HELIUM.....	0.11
HEATING VALUE.....	1011	HEATING VALUE.....	1011	HEATING VALUE.....	1011
SPECIFIC GRAVITY.....	0.571	SPECIFIC GRAVITY.....	0.563	SPECIFIC GRAVITY.....	0.564
INDEX 343 SAMPLE 5138		INDEX 344 SAMPLE 5390		INDEX 345 SAMPLE 5391	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	JOHNSON	COUNTY.....	JOHNSON	COUNTY.....	JOHNSON
FIELD.....	LOW GAP	FIELD.....	LOW GAP	FIELD.....	LOW GAP
WELL NAME.....	NO. 2	WELL NAME.....	LOW GAP UNIT NO. 4-A	WELL NAME.....	LOW GAP NO. 3
LOCATION.....	SEC. 33, T12N, R24W	LOCATION.....	SEC. 30, T11N, R23W	LOCATION.....	SEC. 30, T11N, R24W
OWNER.....	PURE OIL CO.	OWNER.....	PURE OIL CO.	OWNER.....	PURE OIL CO. & BIG CHIEF DRI
COMPLETED.....	06/21/51	COMPLETED.....	10/04/52	COMPLETED.....	04/23/52
SAMPLED.....	09/18/51	SAMPLED.....	02/06/53	SAMPLED.....	02/06/53
FORMATION.....	PENN-ATOKA	FORMATION.....	PENN-HALE	FORMATION.....	PENN-HALE
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	1273	DEPTH, FEET.....	2324	DEPTH, FEET.....	1295
WELLHEAD PRESSURE, PSIG.....	250	WELLHEAD PRESSURE, PSIG.....	510	WELLHEAD PRESSURE, PSIG.....	495
OPEN FLOW, MCFD.....	566	OPEN FLOW, MCFD.....	1300	OPEN FLOW, MCFD.....	462
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.4	METHANE.....	98.9	METHANE.....	98.5
ETHANE.....	TRACE	ETHANE.....	0.3	ETHANE.....	0.1
PROPANE.....	0.1	PROPANE.....	0.0	PROPANE.....	0.0
N-BUTANE.....	0.1	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.8	NITROGEN.....	0.7	NITROGEN.....	1.2
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.2
HELIUM.....	0.12	HELIUM.....	0.10	HELIUM.....	0.11
HEATING VALUE.....	1001	HEATING VALUE.....	1007	HEATING VALUE.....	1000
SPECIFIC GRAVITY.....	0.571	SPECIFIC GRAVITY.....	0.558	SPECIFIC GRAVITY.....	0.562
INDEX 346 SAMPLE 8671		INDEX 347 SAMPLE 17803		INDEX 348 SAMPLE 15543	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	JOHNSON	COUNTY.....	JOHNSON	COUNTY.....	JOHNSON
FIELD.....	LOW GAP	FIELD.....	LOW GAP	FIELD.....	LUTHERVILLE
WELL NAME.....	NORTH LOW GAP NO. 2	WELL NAME.....	WEBB "C" NO. 1	WELL NAME.....	LEAVILLE NO. 1-25
LOCATION.....	SEC. 14, T11N, R25W	LOCATION.....	SEC. 25, T10N, R23W	LOCATION.....	SEC. 25, T10N, R22W
OWNER.....	PETROLEUM CO.	OWNER.....	PHILIPSON PRODUCTION CORP.	OWNER.....	SECOCO, INC.
COMPLETED.....	05/28/62	COMPLETED.....	12/29/84	COMPLETED.....	08/11/78
SAMPLED.....	09/13/62	SAMPLED.....	08/11/85	SAMPLED.....	12/19/78
FORMATION.....	PENN-ATOKA	FORMATION.....	PENN-DUNN & BARTON	FORMATION.....	PENN-ATOKA ORR
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	1504	DEPTH, FEET.....	3473	DEPTH, FEET.....	4380
WELLHEAD PRESSURE, PSIG.....	261	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1650
OPEN FLOW, MCFD.....	1900	OPEN FLOW, MCFD.....	460	OPEN FLOW, MCFD.....	3000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.1	METHANE.....	97.1	METHANE.....	96.1
ETHANE.....	0.5	ETHANE.....	1.1	ETHANE.....	1.1
PROPANE.....	0.1	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	2.8	NITROGEN.....	1.0	NITROGEN.....	2.1
OXYGEN.....	0.3	OXYGEN.....	0.2	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3
HELIUM.....	0.13	HELIUM.....	0.12	HELIUM.....	0.08
HEATING VALUE.....	985	HEATING VALUE.....	1004	HEATING VALUE.....	996
SPECIFIC GRAVITY.....	0.578	SPECIFIC GRAVITY.....	0.566	SPECIFIC GRAVITY.....	0.572

•• CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 •• DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 349 SAMPLE 2322			INDEX 350 SAMPLE 13996			INDEX 351 SAMPLE 13998		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	JOHNSON		JOHNSON			JOHNSON		
FIELD.....	NOT GIVEN		OZONE			OZONE		
WELL NAME.....	COLLIER NO. 1		MOORE NO. 1-C			TAYLOR NO. 1-T		
LOCATION.....	SEC. 21, T9N, R25W		SEC. 6, T11N, R23W			SEC. 1, T11N, R24W		
OWNER.....	RIVER VALLEY GAS CO.		ARKANSAS WESTERN GAS CO.			ARKANSAS WESTERN GAS CO.		
COMPLETED.....	7/70		02/12/74			02/19/74		
SAMPLED.....	05/09/31		04/26/74			04/26/74		
FORMATION.....	NOT GIVEN		PENN-DUNN C			MISS-BOONE U		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	1965		1376			2620		
WELLHEAD PRESSURE, PSIG.....	600		120			820		
OPEN FLOW, MCFD.....	NOT GIVEN		900			600		
COMPONENT, MOLE PCT.....								
METHANE.....	98.9		98.0			96.7		
ETHANE.....	0.3		0.3			1.3		
PROPANE.....	0.0		0.1			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.4		1.2			1.7		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		TRACE			TRACE		
HELIUM.....	0.17		0.0			0.10		
HEATING VALUE.....	1007		1001			1005		
SPECIFIC GRAVITY.....	0.561		0.561			0.568		
INDEX 352 SAMPLE 13999			INDEX 353 SAMPLE 14847			INDEX 354 SAMPLE 11126		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	JOHNSON		JOHNSON			JOHNSON		
FIELD.....	OZONE		OZONE			ROSS		
WELL NAME.....	TAYLOR NO. 1-C		LEONARD ADAMS NO. 1-10			REYNOLDS NO. 1		
LOCATION.....	SEC. 1, T11N, R24W		SEC. 10, T11N, R24W			SEC. 10, T9N, R22W		
OWNER.....	ARKANSAS WESTERN GAS CO.		ARKANSAS WESTERN GAS CO.			GULF OIL CORP.		
COMPLETED.....	02/19/74		08/13/76			11/07/66		
SAMPLED.....	04/26/74		10/27/76			09/11/67		
FORMATION.....	PENN-ORR		PENN-PATTERSON			PENN-ALLEN		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	1439		1658			4478		
WELLHEAD PRESSURE, PSIG.....	245		244			1185		
OPEN FLOW, MCFD.....	3000		500			19200		
COMPONENT, MOLE PCT.....								
METHANE.....	96.4		97.9			85.1		
ETHANE.....	1.4		0.2			1.1		
PROPANE.....	0.0		TRACE			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	1.7		1.0			10.3		
OXYGEN.....	0.1		0.1			2.5		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		TRACE			0.6		
HELIUM.....	0.10		0.3			0.07		
HEATING VALUE.....	1004		994			804		
SPECIFIC GRAVITY.....	0.571		0.562			0.623		
INDEX 355 SAMPLE 11127			INDEX 356 SAMPLE 16953			INDEX 357 SAMPLE 17223		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	JOHNSON		JOHNSON			JOHNSON		
FIELD.....	ROSS		ROSS			ROSS		
WELL NAME.....	REYNOLDS NO. 1		HARGRAVE NO. 2-8			CASTLEBERRY NO. 1-7		
LOCATION.....	SEC. 10, T9N, R22W		SEC. 8, T9N, R22W			SEC. 7, T9N, R22W		
OWNER.....	GULF OIL CORP.		HAMKINS OIL & GAS, INC.			SANTA FE ENERGY CO.		
COMPLETED.....	11/07/66		05/17/83			12/-/82		
SAMPLED.....	09/11/67		05/17/83			03/27/84		
FORMATION.....	PENN-MCGUIRE		PENN-HALE			PENN-MCGUIRE		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	4320		4316			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1185		1880			1190		
OPEN FLOW, MCFD.....	8800		3273			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	97.4		96.7			97.8		
ETHANE.....	1.2		1.3			1.3		
PROPANE.....	0.1		0.1			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.7		0.5			0.1		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.4			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.9			0.2		
HELIUM.....	0.09		0.11			0.09		
HEATING VALUE.....	1011		1007			1017		
SPECIFIC GRAVITY.....	0.569		0.570			0.566		
INDEX 358 SAMPLE 11224			INDEX 359 SAMPLE 12121			INDEX 360 SAMPLE 16878		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	JOHNSON		JOHNSON			JOHNSON		
FIELD.....	SCRANTON		SCRANTON			SCRANTON		
WELL NAME.....	R. L. ANDERSON UNIT NO. 1		YEAGER NO. 1-C			MC ALESTER FUEL NO. 2-31		
LOCATION.....	SEC. 29, T9N, R24W		SEC. 29, T9N, R24W			SEC. 1, T9N, R24W		
OWNER.....	TENNECO OIL CO.		LEBEN DRILLING, INC.			GULF OIL EXPL. & PROD. CO.		
COMPLETED.....	02/22/67		02/19/69			11/22/82		
SAMPLED.....	7/70		11/20/69			03/09/83		
FORMATION.....	PENN-BARTON		PENN-DUNN B			PENN-HALE		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	6415		5376			6538		
WELLHEAD PRESSURE, PSIG.....	1565		1439			1182		
OPEN FLOW, MCFD.....	4100		2050			6818		
COMPONENT, MOLE PCT.....								
METHANE.....	96.4		94.5			95.5		
ETHANE.....	1.1		1.1			1.2		
PROPANE.....	0.1		0.1			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.7		2.5			0.5		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.4		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.4		1.1			2.1		
HELIUM.....	0.11		0.06			0.09		
HEATING VALUE.....	999		980			993		
SPECIFIC GRAVITY.....	0.577		0.584			0.581		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

39

		INDEX SAMPLE 361 17422	INDEX SAMPLE 362 17398	INDEX SAMPLE 363 17684
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	JOHNSON	JOHNSON	JOHNSON	JOHNSON
FIELD.....	SCRANTON	SILEX	SILEX	SILEX
WELL NAME.....	U S A NO. 1-32	SEC. 21, T10N, R21W	SEC. 31, T10N, R21W	ALDERSON A NO. 31-1
LOCATION.....	SEC. 32, T9N, R24W	ARKANSAS LOUISIANA GAS CO.	SEC. 31, T10N, R21W	ALEXANDER ENERGY CORP.
OWNER.....	HAWKINS OIL & GAS, INC.	01/08/84	01/08/85	01/05/85
COMPLETED.....	09/-/84	08/31/84	-/-/80	-/-/80
SAMPLED.....	09/-/84	PENN-KELLY	PENN-HALE	PENN-HALE
FORMATION.....	PENN-KELLY & HALE M	345	345	345
GEOLOGIC PROVINCE CODE.....	345	2848	5900	5900
DEPTH, FEET.....	1725	1100	NOT GIVEN	5478
WELLHEAD PRESSURE, PSIG.....	1358	3421		
OPEN FLOW, MCFD.....	1181			
COMPONENT, MOLE PCT				
METHANE.....	96.5	96.1	97.7	97.7
ETHANE.....	1.2	1.1	1.3	1.3
PROPANE.....	0.1	TRACE	0.2	0.2
N-BUTANE.....	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0
NITROGEN.....	0.3	2.2	0.5	0.5
OXYGEN.....	TRACE	0.2	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.8	0.3	0.1	0.1
HELIUM.....	0.14	0.11	0.10	0.10
HEATING VALUE.....	1002	993	1019	1019
SPECIFIC GRAVITY.....	0.560	0.573	0.563	0.563
		INDEX SAMPLE 364 9681	INDEX SAMPLE 365 10914	INDEX SAMPLE 366 10915
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	JOHNSON	JOHNSON	JOHNSON	JOHNSON
FIELD.....	SPADRA	SPADRA	SPADRA	SPADRA
WELL NAME.....	J. R. ROGERS NO. 1	NEW JERSEY ZINC CO. NO. 1	NEW JERSEY ZINC CO. NO. 1	NEW JERSEY ZINC CO. NO. 1
LOCATION.....	SEC. 23, T9N, R24W	SEC. 8, T9N, R23W	SEC. 8, T9N, R23W	SEC. 8, T9N, R23W
OWNER.....	ARKANSAS LOUISIANA GAS CO.	GULF OIL CORP.	GULF OIL CORP.	GULF OIL CORP.
COMPLETED.....	10/29/64	09/21/66	09/21/66	09/21/66
SAMPLED.....	01/06/65	04/03/67	04/03/67	04/03/67
FORMATION.....	PENN-CARPENTER	PENN-MCGUIRE	PENN-MCGUIRE	PENN-CASEY
GEOLOGIC PROVINCE CODE.....	345	345	345	345
DEPTH, FEET.....	2127	5168	4798	4798
WELLHEAD PRESSURE, PSIG.....	1200	1200	834	834
OPEN FLOW, MCFD.....	2400	18500	85	85
COMPONENT, MOLE PCT				
METHANE.....	98.6	97.2	98.4	98.4
ETHANE.....	0.6	1.0	1.0	1.0
PROPANE.....	0.1	0.1	0.1	0.1
N-BUTANE.....	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0
NITROGEN.....	0.4	0.8	0.3	0.3
OXYGEN.....	TRACE	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.5	0.0	0.0
HELIUM.....	0.16	0.10	0.13	0.13
HEATING VALUE.....	1012	1005	1017	1017
SPECIFIC GRAVITY.....	0.560	0.572	0.561	0.561
		INDEX SAMPLE 367 11707	INDEX SAMPLE 368 11796	INDEX SAMPLE 369 11797
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	JOHNSON	JOHNSON	JOHNSON	JOHNSON
FIELD.....	SPADRA	SPADRA	SPADRA	SPADRA
WELL NAME.....	EARL WHITE NO. 1	TED MELTON NO. 1	TED MELTON NO. 1	TED MELTON NO. 1
LOCATION.....	SEC. 4, T9N, R23W	SEC. 23, T9N, R23W	SEC. 23, T9N, R23W	SEC. 23, T9N, R23W
OWNER.....	GULF OIL CORP.	SUN OIL CO., DX DIVISION	SUN OIL CO., DX DIVISION	SUN OIL CO., DX DIVISION
COMPLETED.....	02/21/67	04/08/68	04/08/68	04/08/68
SAMPLED.....	12/02/68	03/18/69	03/18/69	03/18/69
FORMATION.....	PENN-CASEY	PENN-MCGUIRE	PENN-MCGUIRE	PENN-CARPENTER C
GEOLOGIC PROVINCE CODE.....	345	345	345	345
DEPTH, FEET.....	4776	6221	2672	2672
WELLHEAD PRESSURE, PSIG.....	1534	1434	402	402
OPEN FLOW, MCFD.....	2701	7900	1280	1280
COMPONENT, MOLE PCT				
METHANE.....	97.7	97.4	97.5	97.5
ETHANE.....	1.3	1.0	0.7	0.7
PROPANE.....	0.1	0.1	TRACE	TRACE
N-BUTANE.....	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0
NITROGEN.....	0.4	0.5	0.7	0.7
OXYGEN.....	0.0	0.1	0.1	0.1
ARGON.....	0.0	TRACE	0.0	0.0
HYDROGEN.....	0.1	0.0	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.6	0.7	0.7
HELIUM.....	0.08	0.18	0.16	0.16
HEATING VALUE.....	1016	1008	1001	1001
SPECIFIC GRAVITY.....	0.567	0.568	0.567	0.567
		INDEX SAMPLE 370 11817	INDEX SAMPLE 371 16572	INDEX SAMPLE 372 6809
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	JOHNSON	JOHNSON	JOHNSON	JOHNSON
FIELD.....	SPADRA	SPADRA	SPADRA	UNION CITY
WELL NAME.....	TED MELTON NO. 2	HURLEY ENTERPRISE NO. 1-20	HURLEY ENTERPRISE NO. 1-20	BEN HARDGRAVES
LOCATION.....	SEC. 23, T9N, R23W	SEC. 20, T9N, R23W	SEC. 20, T9N, R23W	SEC. 5, T9N, R24W
OWNER.....	SUN OIL CO., DX DIVISION	HAWKINS OIL & GAS, INC.	HAWKINS OIL & GAS, INC.	STEPHENS PRODUCTION CO.
COMPLETED.....	03/18/69	07/22/81	07/22/81	06/17/87
SAMPLED.....	03/18/69	07/08/82	07/08/82	09/24/88
FORMATION.....	PENN-GLASSY U	PENN-BARTON & DUNN	PENN-BARTON & DUNN	PENN-ATOKA KELLY
GEOLOGIC PROVINCE CODE.....	345	345	345	345
DEPTH, FEET.....	2913	6790	4659	4659
WELLHEAD PRESSURE, PSIG.....	402	893	1940	1940
OPEN FLOW, MCFD.....	293000	3112	25	25
COMPONENT, MOLE PCT				
METHANE.....	96.4	96.9	97.0	97.0
ETHANE.....	0.7	1.3	1.5	1.5
PROPANE.....	0.1	0.1	0.2	0.2
N-BUTANE.....	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0
NITROGEN.....	1.6	0.3	0.6	0.6
OXYGEN.....	0.4	0.1	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.2	0.1	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	1.1	0.4	0.4
HELIUM.....	0.17	0.07	0.10	0.10
HEATING VALUE.....	1022	1002	1015	1015
SPECIFIC GRAVITY.....	0.571	0.572	0.570	0.570

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 373 13298	INDEX SAMPLE 374 13498	INDEX SAMPLE 375 17206
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	JOHNSON		JOHNSON	JOHNSON
FIELD.....	UNION CITY		UNION CITY	UNION CITY
WELL NAME.....	FELKINS BRYANT NO. 1		BAXTER-CARTER NO. 2	OZARK REAL ESTATE NO. 2
LOCATION.....	SEC. 2, T9N, R24W		SEC. 7, T9N, R24W	SEC. 14, T9N, R24W
OWNER.....	DIAI JNO SHAMROCK CORP.		STEPHENS PRODUCTION CO.	ARKOMA PRODUCTION CO.
COMPLETED.....	04/11/72		02/08/72	12/15/83
SAMPLED.....	07/14/72		01/02/73	03/13/84
FORMATION.....	PENN-KELLY-DRR		PENN-CASEY	PENN-BARTON
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	6200		3831	5600
WELLHEAD PRESSURE, PSIG.....	1875		1405	1850
OPEN FLOW, MCFD.....	25500		25000	10000
COMPONENT, MOLE PCT.....				
METHANE.....	97.1	98.2	97.1	97.1
ETHANE.....	1.4	1.0	1.2	1.2
PROPANE.....	0.1	0.1	0.1	0.1
N-BUTANE.....	0.0	0.0	0.0	TRACE
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	TRACE
ISOPENTANE.....	0.0	0.0	0.0	TRACE
CYCLOPENTANE.....	0.0	0.0	0.0	TRACE
HEXANES PLUS.....	0.0	0.0	0.0	TRACE
NITROGEN.....	0.4	0.3	0.5	0.5
OXYGEN.....	0.0	0.0	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.9	0.3	0.9	0.9
HELIUM.....	0.06	0.10	0.07	0.07
HEATING VALUE.....	1011	1015	1008	1008
SPECIFIC GRAVITY.....	0.572	0.564	0.572	0.572
		INDEX SAMPLE 376 11402	INDEX SAMPLE 377 17556	INDEX SAMPLE 378 17557
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	JOHNSON		LAFAYETTE	LAFAYETTE
FIELD.....	WILDCAT		KEOUN CREEK	KEOUN CREEK
WELL NAME.....	JOHNSON NO. 1		GLADY BURTON MOORE NO. 1	C. W. MC DONALD NO. 1
LOCATION.....	SEC. 28, T10N, R22W		SEC. 33, T19S, R23W	SEC. 32, T19S, R23W
OWNER.....	W. A. MONCRIEF		CUMMINS AND WALKER OIL CO.	CUMMINS AND WALKER OIL CO.
COMPLETED.....	03/20/68		01/25/85	12/08/85
SAMPLED.....	03/20/68		01/07/85	01/07/85
FORMATION.....	PENN-BARTON A		JURA-SHACKOVER	JURA-SHACKOVER
GEOLOGIC PROVINCE CODE.....	345		230	230
DEPTH, FEET.....	3900		10906	10991
WELLHEAD PRESSURE, PSIG.....	1575		2565	2552
OPEN FLOW, MCFD.....	2500		2021	1072
COMPONENT, MOLE PCT.....				
METHANE.....	97.2	86.2	84.9	84.9
ETHANE.....	1.0	4.7	4.8	4.8
PROPANE.....	0.1	0.2	2.4	2.4
N-BUTANE.....	0.0	1.0	1.2	1.2
ISOBUTANE.....	0.0	1.0	1.3	1.3
N-PENTANE.....	0.0	0.5	0.7	0.7
ISOPENTANE.....	0.0	0.2	0.1	0.1
CYCLOPENTANE.....	0.0	0.1	0.2	0.2
HEXANES PLUS.....	0.0	0.7	1.2	1.2
NITROGEN.....	2.3	1.5	1.3	1.3
OXYGEN.....	0.0	TRACE	TRACE	TRACE
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	1.8	1.8	1.8
HELIUM.....	0.18	0.02	0.02	0.02
HEATING VALUE.....	1005	1151	1196	1196
SPECIFIC GRAVITY.....	0.567	0.686	0.711	0.711
		INDEX SAMPLE 379 9583	INDEX SAMPLE 380 3164	INDEX SAMPLE 381 17208
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	LAFAYETTE		LAFAYETTE	LAFAYETTE
FIELD.....	LAKE ERLING		MCKAMEE	MCKAMEE
WELL NAME.....	INTERNATIONAL PAPER NO. 4		MCNELIS NO. 1	MABRY NO. 1
LOCATION.....	SEC. 36, T19S, R24W		SEC. 28, T17S, R23W	SEC. 24, T16S, R24W
OWNER.....	AUSTRAL OIL CO., INC.		BARNSDALL OIL CO.	GOLDSBERRY OPERATING CO., IN
COMPLETED.....	11/08/63		01/7/42	10/18/83
SAMPLED.....	10/03/64		02/10/46	03/13/84
FORMATION.....	JURA-SHACKOVER		JURA-SHACKOVER	JURA-SHACKOVER
GEOLOGIC PROVINCE CODE.....	230		230	230
DEPTH, FEET.....	11043		9200	7942
WELLHEAD PRESSURE, PSIG.....	3174		4242	324
OPEN FLOW, MCFD.....	NOT GIVEN		1600	1000
COMPONENT, MOLE PCT.....				
METHANE.....	86.5	34.4	65.4	65.4
ETHANE.....	4.8	48.6	6.9	6.9
PROPANE.....	2.5	---	3.6	3.6
N-BUTANE.....	0.0	---	0.5	0.5
ISOBUTANE.....	0.8	---	1.5	1.5
N-PENTANE.....	0.5	---	0.6	0.6
ISOPENTANE.....	0.0	---	0.7	0.7
CYCLOPENTANE.....	TRACE	---	TRACE	TRACE
HEXANES PLUS.....	0.4	---	0.3	0.3
NITROGEN.....	1.6	3.6	17.1	17.1
OXYGEN.....	0.1	0.3	0.3	0.3
ARGON.....	0.0	---	TRACE	TRACE
HYDROGEN.....	0.0	---	0.0	0.0
HYDROGEN SULFIDE.....	0.0	---	0.0	0.0
CARBON DIOXIDE.....	1.6	13.1	2.2	2.2
HELIUM.....	TRACE	0.00	0.08	0.08
HEATING VALUE.....	1138	1119	1052	1052
SPECIFIC GRAVITY.....	0.677	0.939	0.794	0.794
		INDEX SAMPLE 382 6853	INDEX SAMPLE 383 17154	INDEX SAMPLE 384 17155
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	LOGAN		LOGAN	LOGAN
FIELD.....	BOONEVILLE		BOONEVILLE	BOONEVILLE
WELL NAME.....	BORUM NO. 1		LEFTWICH NO. 1	LEFTWICH NO. 1
LOCATION.....	SEC. 18, T6N, R28W		SEC. 30, T6N, R28W	SEC. 30, T6N, R28W
OWNER.....	GULF OIL CORP.		EXXON CO., U.S.A.	EXXON CO., U.S.A.
COMPLETED.....	01/25/58		01/12/84	01/12/84
SAMPLED.....	11/05/58		11/12/84	11/12/84
FORMATION.....	PENN-ATOKA		PENN-BORUM U&L	PERM-ALMA
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	1888		1297	4952
WELLHEAD PRESSURE, PSIG.....	1625		310	1100
OPEN FLOW, MCFD.....	3		1442	1713
COMPONENT, MOLE PCT.....				
METHANE.....	97.4	97.0	93.7	93.7
ETHANE.....	1.7	0.9	1.4	1.4
PROPANE.....	0.2	TRACE	0.1	0.1
N-BUTANE.....	0.0	TRACE	TRACE	TRACE
ISOBUTANE.....	0.0	0.0	TRACE	TRACE
N-PENTANE.....	0.0	TRACE	TRACE	TRACE
ISOPENTANE.....	0.0	TRACE	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	0.3	0.3
HEXANES PLUS.....	TRACE	0.1	0.2	0.2
NITROGEN.....	TRACE	1.6	0.9	0.9
OXYGEN.....	TRACE	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	0.0	0.0
HYDROGEN.....	0.2	0.1	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	TRACE	TRACE	TRACE
HELIUM.....	0.10	0.06	0.09	0.09
HEATING VALUE.....	1023	1004	998	998
SPECIFIC GRAVITY.....	0.566	0.566	0.587	0.587

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 385 SAMPLE 9973			INDEX 386 SAMPLE 17539			INDEX 387 SAMPLE 17816		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	CAULKSVILLE		CAULKSVILLE			CAULKSVILLE		
WELL NAME.....	JOHN EKS MEIRS NO. 1		BEASLEY CATTLE CO. NO. 1C			WATSON #1 NO. 1		
LOCATION.....	SEC. 4, T7N, R27W		SEC. 30, T7N, R27W			SEC. 20, T7N, R27W		
OWNER.....	ARKANSAS LOUISIANA GAS CO.		TXO PRODUCTION CORP.			TXO PRODUCTION CORP.		
COMPLETED.....	06/08/84		09/30/84			05/02/85		
SAMPLED.....	07/14/85		12/10/84			08/22/85		
FORMATION.....	PENN-ORR		PENN-ALMA UPPER			PENN-CARPENTER B		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	8190		2930			4698		
WELLHEAD PRESSURE, PSIG.....	1675		1320			750		
OPEN FLOW, MCFD.....	3650		2277			355		
COMPONENT, MOLE PCT								
METHANE.....	95.5		96.8			97.0		
ETHANE.....	1.2		1.3			2.0		
PROPANE.....	0.2		0.1			0.3		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.3		0.0			0.3		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.2			0.4		
HELIUM.....	0.08		0.04			0.06		
HEATING VALUE.....	1021		1006			1026		
SPECIFIC GRAVITY.....	0.589		0.569			0.572		
INDEX 388 SAMPLE 7298			INDEX 389 SAMPLE 17164			INDEX 390 SAMPLE 17167		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	CHISMVILLE		CHISMVILLE			CHISMVILLE		
WELL NAME.....	BETH WILLIAMS NO. 1		LOWDER GU NO. 1			CHISMVILLE NO. 4		
LOCATION.....	SEC. 7, T6N, R27W		SEC. 2, T6N, R28W			SEC. 8, T6N, R27W		
OWNER.....	ANDERSON-PRICHARD OIL CORP.		EXXON CO., U.S.A.			EXXON CO., U.S.A.		
COMPLETED.....	04/04/59		06/15/83			10/12/83		
SAMPLED.....	12/02/85		01/25/84			01/27/84		
FORMATION.....	PENN-ATOKA		PENN-NICHOLS			PENN-TURNER L&U		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	1131		5391			2444		
WELLHEAD PRESSURE, PSIG.....	315		2150			1468		
OPEN FLOW, MCFD.....	1100		15353			2065		
COMPONENT, MOLE PCT								
METHANE.....	98.1		95.0			95.0		
ETHANE.....	1.1		1.9			1.4		
PROPANE.....	0.3		0.2			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	TRACE		0.0			0.0		
NITROGEN.....	0.2		1.5			3.2		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			TRACE		
HELIUM.....	0.10		0.05			0.07		
HEATING VALUE.....	1021		1012			991		
SPECIFIC GRAVITY.....	0.564		0.574			0.575		
INDEX 391 SAMPLE 17224			INDEX 392 SAMPLE 16720			INDEX 393 SAMPLE 11653		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	CHISMVILLE		DELAWARE			MANSFIELD		
WELL NAME.....	ISAACS		CHARLES NO. 1-33			WORTH JAMES NO. 1		
LOCATION.....	SEC. 4, T6N, R26W		SEC. 33, T8N, R22W			SEC. 31, T5N, R29W		
OWNER.....	WACO CO. INC.		WADSON PETROLEUM CO.			J. C. TRAHAN DRILLING CONT.		
COMPLETED.....	10/21/83		04/-/81			01/03/68		
SAMPLED.....	03/21/84		11/05/82			09/20/68		
FORMATION.....	PENN-ATOKA		PENN-CARPENTER			PENN-HARTFORD		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	5876		NOT GIVEN			6414		
WELLHEAD PRESSURE, PSIG.....	1942		447			1723		
OPEN FLOW, MCFD.....	2200		3397			5308		
COMPONENT, MOLE PCT								
METHANE.....	60.8		93.1			97.4		
ETHANE.....	0.9		0.9			1.4		
PROPANE.....	0.1		0.1			0.2		
N-BUTANE.....	0.0		TRACE			0.0		
ISOBUTANE.....	0.0		TRACE			0.0		
N-PENTANE.....	0.0		TRACE			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.1			0.0		
NITROGEN.....	37.4		TRACE			0.0		
OXYGEN.....	0.1		4.1			0.3		
ARGON.....	0.1		0.2			0.0		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	TRACE		0.1			TRACE		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.5		1.1			0.6		
HEATING VALUE.....	635		0.13			0.06		
SPECIFIC GRAVITY.....	0.720		0.590			1017		
INDEX 394 SAMPLE 11654			INDEX 395 SAMPLE 10402			INDEX 396 SAMPLE 17630		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	MANSFIELD		NOT GIVEN			NOT GIVEN		
WELL NAME.....	WORTH JAMES NO. 1		SANATORIUM NO. 1			ISAACS NO. 1-4		
LOCATION.....	SEC. 31, T5N, R29W		SEC. 28, T5N, R28W			SEC. 4, T6N, R26W		
OWNER.....	J. C. TRAHAN DRILLING CONT.		HIDWEST OIL CORP.			SOUTHWESTERN ENERGY PROD. CO		
COMPLETED.....	09/20/68		01/04/68			09/21/83		
SAMPLED.....	03/21/84		02/17/66			03/21/85		
FORMATION.....	EOCE-MANSFIELD		PENN-ATOKA			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	2336		2592			5876		
WELLHEAD PRESSURE, PSIG.....	300		282			1957		
OPEN FLOW, MCFD.....	400		461			2200		
COMPONENT, MOLE PCT								
METHANE.....	97.7		98.0			59.5		
ETHANE.....	0.9		1.1			0.8		
PROPANE.....	0.1		0.2			0.1		
N-BUTANE.....	0.0		0.2			0.0		
ISOBUTANE.....	TRACE		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	0.1		0.0			0.0		
HEXANES PLUS.....	0.2		0.0			0.0		
NITROGEN.....	0.3		0.0			38.8		
OXYGEN.....	0.1		0.0			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.4		
HELIUM.....	0.07		0.08			0.04		
HEATING VALUE.....	624		1024			620		
SPECIFIC GRAVITY.....	0.574		0.565			0.722		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 397 SAMPLE 6855			INDEX 398 SAMPLE 16631			INDEX 399 SAMPLE 16632		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	PARIS		PARIS			PARIS		
WELL NAME.....	HEMBREE NO. 1		WOOD NO-1-T			WOOD NO-1-T		
LOCATION.....	SEC. 13, T8N, R26W		SEC. 8, T8N, R25W			SEC. 8, T8N, R25W		
OWNER.....	GULF OIL CORP.		ARKONA PRODUCTION CO.			ARKONA PRODUCTION CO.		
COMPLETED.....	03/06/58		12/29/81			12/29/81		
SAMPLED.....	11/04/58		09/03/82			09/03/82		
FORMATION.....	PENN-ATOKA BASAL		PENN-DUNN C			PENN-BARTON R		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	7274		6198			6023		
WELLHEAD PRESSURE, PSIG.....	1675		1110			1050		
OPEN FLOW, MCFD.....	2		700			800		
COMPONENT, MOLE PCT.....								
METHANE.....	96.5		94.7			95.6		
ETHANE.....	1.2		0.8			0.9		
PROPANE.....	0.2		0.1			0.1		
N-BUTANE.....	TRACE		0.1			0.0		
ISOBUTANE.....	TRACE		0.0			0.0		
N-PENTANE.....	TRACE		0.1			0.0		
ISOPENTANE.....	0.1		TRACE			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.1		TRACE			0.0		
NITROGEN.....	0.3		2.1			1.4		
OXYGEN.....	TRACE		0.5			0.3		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		1.3			1.4		
HEATING VALUE.....	0.03		0.15			0.15		
SPECIFIC GRAVITY.....	0.580		0.586			0.579		
INDEX 400 SAMPLE 15938			INDEX 401 SAMPLE 17476			INDEX 402 SAMPLE 17792		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	PRAIRIE VIEW		SCRANTON			SCRANTON		
WELL NAME.....	MIDLAND OIL CORP. NO. 1		KERN NO. 1			THOMPSON L NO. 2		
LOCATION.....	SEC. 22, T8N, R24W		SEC. 34, T9N, R24W			SEC. 12, T8N, R25W		
OWNER.....	SANTA FE ENERGY CO.		TXO PRODUCTION CORP.			TXO PRODUCTION CORP.		
COMPLETED.....	04/16/80		09/26/83			05/20/85		
SAMPLED.....	04/16/80		10/10/84			07/29/85		
FORMATION.....	PENN-ORR		PENN-CARPENTER			PENN-ARECI		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	6477		2040			4251		
WELLHEAD PRESSURE, PSIG.....	650		500			880		
OPEN FLOW, MCFD.....	2113		1500			2400		
COMPONENT, MOLE PCT.....								
METHANE.....	94.9		93.9			97.7		
ETHANE.....	0.9		0.7			1.0		
PROPANE.....	0.1		TRACE			0.1		
N-BUTANE.....	SEC. 1		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	TRACE		0.0			0.0		
NITROGEN.....	0.9		4.8			0.4		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.2			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.6		TRACE			0.5		
HEATING VALUE.....	0.27		0.16			0.16		
SPECIFIC GRAVITY.....	0.591		0.575			0.565		
INDEX 403 SAMPLE 6852			INDEX 404 SAMPLE 7300			INDEX 405 SAMPLE 1985		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	LOGAN		LOGAN			MADISON		
FIELD.....	SPADRA		WILDCAT			WILDCAT		
WELL NAME.....	ARECI NO. 1		BIRCH NO. 1			BANKS NO. 1		
LOCATION.....	SEC. 2, T9N, R23W		SEC. 2, T6N, R27W			SEC. 6, T16N, R27W		
OWNER.....	GULF OIL CORP.		ANDERSON-PRICHARD OIL CORP.			INDEPENDENT OIL & GAS CO.		
COMPLETED.....	07/17/58		11/01/59			7/70		
SAMPLED.....	11/04/58		11/30/59			04/07/30		
FORMATION.....	PENN-ATOKA		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	5574		5818			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	950		1960			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		2000			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	97.3		97.5			92.6		
ETHANE.....	1.3		1.4			1.1		
PROPANE.....	0.2		TRACE			---		
N-BUTANE.....	SEC. 0		TRACE			---		
ISOBUTANE.....	0.0		0.0			---		
N-PENTANE.....	0.0		TRACE			---		
ISOPENTANE.....	0.0		0.0			---		
CYCLOPENTANE.....	0.0		TRACE			---		
HEXANES PLUS.....	0.0		TRACE			---		
NITROGEN.....	0.1		0.3			5.8		
OXYGEN.....	TRACE		TRACE			0.2		
ARGON.....	0.0		0.0			---		
HYDROGEN.....	0.0		TRACE			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	1.1		0.0			0.3		
HEATING VALUE.....	0.10		0.10			TRACE		
SPECIFIC GRAVITY.....	0.574		0.566			0.588		
INDEX 406 SAMPLE 17608			INDEX 407 SAMPLE 5966			INDEX 408 SAMPLE 15578		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	MILLER		MILLER			MILLER		
FIELD.....	BLOOMBURG		FOUKE			GENOA		
WELL NAME.....	BRACKMAN NO. 1		E. H. SILBERBERG NO. 1			ROSA WEEK NO. 1		
LOCATION.....	SEC. 19, T8S, R28W		SEC. 36, T16S, R27W			SEC. 16, T16S, R27W		
OWNER.....	MARSHALL EXPLORATION, INC.		CARTER OIL CO.			AMERICAN PETROFINA CO.		
COMPLETED.....	01/08/85		08/08/55			05/16/78		
SAMPLED.....	03/07/85		11/01/55			03/05/79		
FORMATION.....	JURA-SACKOVER		JURA-SACKOVER			JURA-SACKOVER		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	10632		8977			7823		
WELLHEAD PRESSURE, PSIG.....	1000		197			2750		
OPEN FLOW, MCFD.....	3000		3050			3250		
COMPONENT, MOLE PCT.....								
METHANE.....	64.4		55.4			43.2		
ETHANE.....	11.1		4.1			4.3		
PROPANE.....	4.7		2.4			2.5		
N-BUTANE.....	2.1		0.8			0.9		
ISOBUTANE.....	1.0		0.6			0.7		
N-PENTANE.....	0.7		0.3			0.2		
ISOPENTANE.....	0.5		0.2			0.3		
CYCLOPENTANE.....	0.1		0.2			TRACE		
HEXANES PLUS.....	0.5		0.3			0.2		
NITROGEN.....	4.4		29.1			45.7		
OXYGEN.....	0.3		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE.....	6.8		0.6			0.0		
CARBON DIOXIDE.....	3.2		3.9			1.8		
HEATING VALUE.....	0.02		0.08			0.12		
SPECIFIC GRAVITY.....	0.834		0.819			0.845		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

43

		INDEX SAMPLE 409 15579	INDEX SAMPLE 410 3607	INDEX SAMPLE 411 9009
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	MILLER		MILLER	POPE
FIELD.....	GENOA		NOT GIVEN	BOOGER HOLLOW
WELL NAME.....	MCINCH NO. 1		LENA ORR NO. 1	A. F. JONES NO. 1
LOCATION.....	SEC. 17, T16S, R27W		SEC. 3, T16S, R28W	SEC. 31, T10N, R20W
OWNER.....	AMERICAN PETROFINA CO.		CARTER OIL CO.	SUN OIL CO.
COMPLETED.....	11/12/77		7/7/70	01/15/62
SAMPLED.....	03/05/79		10/08/82	06/11/63
FORMATION.....	JURA-SNACKOVER		JURA-SNACKOVER	PENN-ALLEN U
GEOLOGIC PROVINCE CODE.....	230		230	345
DEPTH, FEET.....	7900		7343	3223
WELLHEAD PRESSURE, PSIG.....	2741		2600	1000
OPEN FLOW, MCFD.....	7500		21000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	42.9	59.6	98.3	
ETHANE.....	4.3	0.0	0.9	
PROPANE.....	2.6	---	0.1	
N-BUTANE.....	3.0	---	0.0	
ISOBUTANE.....	0.7	---	0.0	
N-PENTANE.....	0.2	---	0.0	
ISOPENTANE.....	0.3	---	0.0	
CYCLOPENTANE.....	TRACE	---	0.0	
HEXANES PLUS.....	0.1	---	0.0	
NITROGEN.....	45.8	38.7	0.5	
ARGON.....	TRACE	---	0.0	
HYDROGEN.....	TRACE	---	0.0	
HYDROGEN SULFIDE.....	0.0	---	0.0	
CARBON DIOXIDE.....	0.8	1.0	0.2	
HELIUM.....	0.12	0.09	0.10	
HEATING VALUE.....	663	604	1014	
SPECIFIC GRAVITY.....	0.843	0.727	0.564	
		INDEX SAMPLE 412 13393	INDEX SAMPLE 413 13394	INDEX SAMPLE 414 7637
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	POPE		POPE	POPE
FIELD.....	BOOGER HOLLOW		BOOGER HOLLOW	DOVER
WELL NAME.....	ARTHUR NO. 1		ARTHUR NO. 1	JOHN P. GRAHAM NO. 1
LOCATION.....	SEC. 33, T10N, R20W		SEC. 19, T9N, R19W	SEC. 19, T9N, R19W
OWNER.....	FERGUSON OIL CO., INC.		FERGUSON OIL CO., INC.	HUMBLE OIL & REFINING CO.
COMPLETED.....	07/18/72		07/18/72	04/24/60
SAMPLED.....	09/22/72		09/22/72	08/10/60
FORMATION.....	PENN-BARTON B		PENN-BARTON A	PENN-HALE
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	3170	3094	3992	
WELLHEAD PRESSURE, PSIG.....	1300	1310	1690	
OPEN FLOW, MCFD.....	43120	49171	13	
COMPONENT, MOLE PCT				
METHANE.....	97.6	97.7	97.6	
ETHANE.....	0.1	---	---	
PROPANE.....	0.1	0.1	0.2	
N-BUTANE.....	TRACE	TRACE	0.0	
ISOBUTANE.....	0.0	---	0.0	
N-PENTANE.....	TRACE	TRACE	0.0	
ISOPENTANE.....	TRACE	TRACE	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	TRACE	TRACE	0.0	
NITROGEN.....	0.8	0.8	0.5	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.3	
CARBON DIOXIDE.....	0.2	0.2	0.0	
HELIUM.....	0.09	0.11	0.10	
HEATING VALUE.....	1011	1012	1015	
SPECIFIC GRAVITY.....	0.565	0.566	0.564	
		INDEX SAMPLE 415 11151	INDEX SAMPLE 416 11202	INDEX SAMPLE 417 11648
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	POPE		POPE	POPE
FIELD.....	DOVER		DOVER	DOVER
WELL NAME.....	JESSIE JENNINGS NO. 1		KINGSLOW NO. 1	NEWTON POWERS NO. 1
LOCATION.....	SEC. 3, T9N, R19W		SEC. 10, T8N, R20W	SEC. 9, T9N, R20W
OWNER.....	SKELLY OIL CO.		SUNRAY OX OIL CO.	DIAMOND SHAMROCK CORP.
COMPLETED.....	07/15/66		07/13/66	06/05/68
SAMPLED.....	09/20/67		10/26/67	09/15/68
FORMATION.....	PENN-ATOKA		PENN-ALLEN	PENN-MCGUIRE
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	2155	NOT GIVEN	3324	
WELLHEAD PRESSURE, PSIG.....	710	1154	932	
OPEN FLOW, MCFD.....	7800	528	6350	
COMPONENT, MOLE PCT				
METHANE.....	97.7	96.9	94.0	
ETHANE.....	1.0	1.6	0.9	
PROPANE.....	0.1	0.1	TRACE	
N-BUTANE.....	0.0	0.0	---	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.7	0.5	4.0	
ARGON.....	0.0	0.0	0.7	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.6	0.0	
HELIUM.....	0.13	0.11	0.08	
HEATING VALUE.....	1010	1018	968	
SPECIFIC GRAVITY.....	0.565	0.573	0.579	
		INDEX SAMPLE 418 15645	INDEX SAMPLE 419 17555	INDEX SAMPLE 420 17810
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	POPE		POPE	POPE
FIELD.....	DOVER		DOVER	DOVER
WELL NAME.....	DOVER NO. 1		DOVER NO. 1	FREEMAN "C" NO. 2
LOCATION.....	SEC. 35, T9N, R20W		SEC. 26, T9N, R20W	SEC. 3L, T10N, R20W
OWNER.....	RESERVE OIL, INC.		TXO PRODUCTION CORP.	TXO PRODUCTION CORP.
COMPLETED.....	06/06/71		12/17/84	05/20/85
SAMPLED.....	06/06/71		12/17/84	08/13/85
FORMATION.....	PENN-SPIRO & ATOKA		PENN-DUNN A	PENN-BARTON A
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	4656	4158	4251	
WELLHEAD PRESSURE, PSIG.....	1660	650	NOT GIVEN	
OPEN FLOW, MCFD.....	3000	500	2988	
COMPONENT, MOLE PCT				
METHANE.....	87.8	98.1	86.0	
ETHANE.....	1.2	0.9	1.0	
PROPANE.....	0.1	0.1	0.1	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	8.4	0.5	10.3	
ARGON.....	0.1	0.1	0.2	
HYDROGEN.....	TRACE	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.3	0.1	
HELIUM.....	0.11	0.14	0.12	
HEATING VALUE.....	914	892	892	
SPECIFIC GRAVITY.....	0.609	0.566	0.618	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 68 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 17811	INDEX SAMPLE 17812	INDEX SAMPLE 15516
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	POPE		POPE	POPE
FIELD.....	DOVER		FERGERTSON	KNOXVILLE
WELL NAME.....	BIBLER "C" NO. 1		BLAIR LAWS NO. 4-3	DORN UNIT NO. 1-C
LOCATION.....	SEC. 25, T10N, R21W		SEC. 4, T8N, R20W	SEC. 33, T9N, R21W
OWNER.....	TXO PRODUCTION CORP.		TEXACO PRODUCING INC.	SAMSON RESOURCES CO.
COMPLETED.....	04/10/84		04/30/85	07/31/78
SAMPLED.....	08/13/85		08/15/85	10/10/78
FORMATION.....	PENN-PENTERS		PENN-DUNN B & PAUL BARTON	PENN-TACKETT
GEOLOGIC PROVINCE CODE...	345		345	345
DEPTH, FEET.....	4438		1866	3178
WELLHEAD PRESSURE, PSIG...	215		1060	655
OPEN FLOW, MCFD.....	1600		2827	5300
COMPONENT, MOLE PCT.....				
METHANE.....	95.1	94.1	96.7	
ETHANE.....	0.9	1.0	1.1	
PROPANE.....	0.1	0.1	0.2	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	1.8	4.4	1.0	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	0.1	0.2	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.0	0.1	0.5	
HELIUM.....	0.10	0.18	0.23	
HEATING VALUE.....	982	974	1005	
SPECIFIC GRAVITY.....	0.586	0.578	0.568	
		INDEX SAMPLE 15955	INDEX SAMPLE 15956	INDEX SAMPLE 17569
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	POPE		POPE	POPE
FIELD.....	KNOXVILLE		KNOXVILLE	MASSARD
WELL NAME.....	MARTIN NO. 1		MARTIN NO. 1	AIRPORT "B3" NO. 1
LOCATION.....	SEC. 32, T8N, R21W		SEC. 32, T8N, R21W	SEC. 34, T8N, R22W
OWNER.....	SAMSON RESOURCES CO.		SAMSON RESOURCES CO.	HANNA OIL & GAS CO.
COMPLETED.....	11/15/79		11/15/79	--/--/00
SAMPLED.....	04/24/80		04/24/80	01/18/85
FORMATION.....	PENN-ARECI		PENN-ARECI	DEW-HUNTON
GEOLOGIC PROVINCE CODE...	345		345	345
DEPTH, FEET.....	3710		3730	6066
WELLHEAD PRESSURE, PSIG...	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	2200		NOT GIVEN	5385
COMPONENT, MOLE PCT.....				
METHANE.....	93.6	83.6	88.7	
ETHANE.....	1.6	1.4	1.1	
PROPANE.....	0.2	0.2	0.1	
N-BUTANE.....	TRACE	TRACE	0.0	
ISOBUTANE.....	TRACE	TRACE	0.0	
N-PENTANE.....	0.0	TRACE	0.0	
ISOPENTANE.....	TRACE	TRACE	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	TRACE	TRACE	0.0	
NITROGEN.....	3.5	11.5	8.6	
OXYGEN.....	0.8	3.0	0.4	
ARGON.....	TRACE	0.1	0.1	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	0.7	
HELIUM.....	0.14	0.12	0.31	
HEATING VALUE.....	982	877	921	
SPECIFIC GRAVITY.....	0.582	0.627	0.605	
		INDEX SAMPLE 6560	INDEX SAMPLE 15964	INDEX SAMPLE 15965
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	POPE		POPE	POPE
FIELD.....	MORELAND		MORELAND	MORELAND
WELL NAME.....	C. A. RAINWATER NO. 1		W. G. BLACKWELL NO. 1-T	W. G. BLACKWELL NO. 1
LOCATION.....	SEC. 11, T8N, R19W		SEC. 7, T8N, R19W	SEC. 7, T8N, R19W
OWNER.....	MURPHY CORP.		CHARLES E. MCRAE & ASSOC.	CHARLES E. MCRAE & ASSOC.
COMPLETED.....	01/19/58		03/14/80	03/14/80
SAMPLED.....	04/21/58		05/16/80	05/16/80
FORMATION.....	PENN-ATOKA		PENN-CLINE	PENN-MCGUIRE
GEOLOGIC PROVINCE CODE...	345		345	345
DEPTH, FEET.....	3914		5535	4358
WELLHEAD PRESSURE, PSIG...	1500		2025	1425
OPEN FLOW, MCFD.....	20500		1883	9998
COMPONENT, MOLE PCT.....				
METHANE.....	97.9	97.5	97.1	
ETHANE.....	1.0	1.1	1.0	
PROPANE.....	0.1	0.1	0.1	
N-BUTANE.....	TRACE	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	TRACE	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.5	0.8	0.9	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	TRACE	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.3	0.7	
HELIUM.....	0.10	0.10	0.09	
HEATING VALUE.....	1012	1010	1004	
SPECIFIC GRAVITY.....	0.563	0.566	0.570	
		INDEX SAMPLE 16087	INDEX SAMPLE 16454	INDEX SAMPLE 17623
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	POPE		POPE	POPE
FIELD.....	MORELAND		MORELAND	MORELAND
WELL NAME.....	CAMMIE WIRDEN NO. 9-1		CHARLES E. MCRAE & ASSOC.	JERRY LOCK NO. 1-17
LOCATION.....	SEC. 9, T8N, R19W		SEC. 8, T8N, R19W	SEC. 17, T8N, R19W
OWNER.....	GETTY OIL CO.		CHARLES E. MCRAE & ASSOC.	CHARLES E. MCRAE & ASSOC.
COMPLETED.....	09/25/80		12/15/80	06/28/83
SAMPLED.....	09/25/80		03/17/82	02/15/85
FORMATION.....	NOT GIVEN		PENN-HALE	PENN-HALE M
GEOLOGIC PROVINCE CODE...	345		345	345
DEPTH, FEET.....	NOT GIVEN		5081	6503
WELLHEAD PRESSURE, PSIG...	NOT GIVEN		1600	1525
OPEN FLOW, MCFD.....	NOT GIVEN		1000	26620
COMPONENT, MOLE PCT.....				
METHANE.....	91.5	97.6	96.1	
ETHANE.....	1.0	1.3	0.9	
PROPANE.....	0.1	0.1	0.0	
N-BUTANE.....	TRACE	0.0	0.0	
ISOBUTANE.....	TRACE	0.0	0.0	
N-PENTANE.....	TRACE	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	TRACE	0.0	0.0	
HEXANES PLUS.....	TRACE	0.0	0.0	
NITROGEN.....	6.7	0.7	0.0	
OXYGEN.....	0.2	0.1	0.3	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	TRACE	1.0	
HELIUM.....	0.08	0.09	0.11	
HEATING VALUE.....	947	1015	992	
SPECIFIC GRAVITY.....	0.591	0.564	0.576	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

45

	INDEX SAMPLE 433 7975	INDEX SAMPLE 434 10086	INDEX SAMPLE 435 10087
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	POPE	POPE	POPE
FIELD.....	NEW HOPE	NEW HOPE	NEW HOPE
WELL NAME.....	IDA JONES NO. 1	ALICE SMITH UNIT NO. 1	ALICE SMITH UNIT NO. 1
LOCATION.....	SEC. 18, T9N, R20W	SEC. 17, T9N, R20W	SEC. 17, T9N, R20W
OWNER.....	GULF OIL CORP.	GULF OIL CORP.	GULF OIL CORP.
COMPLETED.....	01/27/61	08/21/64	08/21/64
SAMPLED.....	05/10/61	08/24/65	08/24/65
FORMATION.....	PENN-CASEY	PENN-HALE	PENN-BARTON & ATOKA
GEOLOGIC PROVINCE CODE.....	345	345	345
DEPTH, FEET.....	3063	4200	3789
WELLHEAD PRESSURE, PSIG.....	871	1604	1778
OPEN FLOW, MCFD.....	5300	1642	3657
COMPONENT, MOLE PCT			
METHANE.....	97.7	97.7	98.2
ETHANE.....	1.0	1.1	1.0
PROPANE.....	0.2	0.0	0.0
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	0.4	0.6	0.5
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.0	TRACE	0.0
HYDROGEN.....	0.1	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.5	0.2
HELIUM.....	0.10	0.06	0.06
HEATING VALUE.....	1013	1009	1013
SPECIFIC GRAVITY.....	0.567	0.567	0.563

	INDEX SAMPLE 436 10088	INDEX SAMPLE 437 16427	INDEX SAMPLE 438 17801
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	POPE	POPE	POPE
FIELD.....	NEW HOPE	OAK GROVE	OAK GROVE
WELL NAME.....	ALICE SMITH UNIT NO. 1	TEAGUE NO. 21-1	HOWARD NO. 2
LOCATION.....	SEC. 17, T9N, R20W	SEC. 21, T8N, R18W	SEC. 26, T8N, R18W
OWNER.....	GULF OIL CORP.	TOWNER PETROLEUM CO.	REVERE CORP.
COMPLETED.....	08/21/64	01/24/82	03/28/85
SAMPLED.....	08/24/65	01/24/82	08/08/85
FORMATION.....	PENN-BARTON	PENN-BARTON	PENN-MCGUIRE
GEOLOGIC PROVINCE CODE.....	345	345	345
DEPTH, FEET.....	3729	4692	4421
WELLHEAD PRESSURE, PSIG.....	1488	1556	1157
OPEN FLOW, MCFD.....	4513	3000	7652
COMPONENT, MOLE PCT			
METHANE.....	97.6	94.2	93.5
ETHANE.....	0.0	0.8	0.9
PROPANE.....	0.0	0.1	0.0
N-BUTANE.....	0.0	0.0	1.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.3
CYCLOPENTANE.....	0.0	0.0	0.2
HEXANES PLUS.....	0.0	0.1	0.2
NITROGEN.....	1.0	4.1	2.9
OXYGEN.....	0.0	0.1	0.1
ARGON.....	TRACE	0.1	0.1
HYDROGEN.....	0.0	TRACE	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.4	0.8
HELIUM.....	0.14	0.29	0.36
HEATING VALUE.....	1007	971	1024
SPECIFIC GRAVITY.....	0.565	0.581	0.608

	INDEX SAMPLE 439 13207	INDEX SAMPLE 440 13208	INDEX SAMPLE 441 16770
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	POPE	POPE	POPE
FIELD.....	ROSS	ROSS	ROSS
WELL NAME.....	EUBANKS NO. 1	EUBANKS NO. 1	HOOREFE NO. 2
LOCATION.....	SEC. 11, T9N, R21W	SEC. 11, T9N, R21W	SEC. 22, T9N, R21W
OWNER.....	FERGUSON OIL CO., INC.	FERGUSON OIL CO., INC.	HILLIARD OIL & GAS, INC.
COMPLETED.....	02/02/72	02/02/72	10/08/82
SAMPLED.....	05/13/72	05/13/72	02/14/83
FORMATION.....	PENN-ALLEN	PENN-SPIRO	PENN-TACKETT
GEOLOGIC PROVINCE CODE.....	345	345	345
DEPTH, FEET.....	4120	4390	2400
WELLHEAD PRESSURE, PSIG.....	1725	1654	630
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	8300
COMPONENT, MOLE PCT			
METHANE.....	97.8	97.6	97.8
ETHANE.....	1.3	0.9	1.1
PROPANE.....	0.1	0.0	0.1
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	0.4	0.9	0.9
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.2	0.4
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.5	0.1
HELIUM.....	0.08	0.08	0.10
HEATING VALUE.....	1017	1014	1014
SPECIFIC GRAVITY.....	0.566	0.565	0.561

	INDEX SAMPLE 442 17885	INDEX SAMPLE 443 5742	INDEX SAMPLE 444 7662
STATE.....	ARKANSAS	ARKANSAS	ARKANSAS
COUNTY.....	POPE	POPE	POPE
FIELD.....	ROSS	RUSSELLVILLE	SCOTTSVILLE
WELL NAME.....	SCOTIA BROWN NO. 1	BARTON NO. 1	S. C. LEE ESTATE NO. 1
LOCATION.....	SEC. 12, T9N, R21W	SEC. 10, T8N, R19W	SEC. 4, T9N, R19W
OWNER.....	TXO PRODUCTION CORP.	MURPHY CORP.	MURPHY CORP.
COMPLETED.....	06/24/85	12/07/54	08/17/60
SAMPLED.....	08/24/85	12/10/54	09/02/60
FORMATION.....	PENN-HALE M & B	PENN-ATOKA	PENN-HALE
GEOLOGIC PROVINCE CODE.....	345	345	345
DEPTH, FEET.....	5320	4000	1936
WELLHEAD PRESSURE, PSIG.....	1880	NOT GIVEN	803
OPEN FLOW, MCFD.....	995	7600	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	97.4	97.4	81.1
ETHANE.....	1.3	1.0	0.0
PROPANE.....	0.1	0.2	0.0
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	TRACE	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	0.5	0.9	14.9
OXYGEN.....	0.0	0.1	3.4
ARGON.....	TRACE	TRACE	0.2
HYDROGEN.....	TRACE	TRACE	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.6	0.2	0.1
HELIUM.....	0.05	0.10	0.10
HEATING VALUE.....	1011	1010	822
SPECIFIC GRAVITY.....	0.569	0.567	0.636

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	445 3796	INDEX SAMPLE	446 14558	INDEX SAMPLE	447 17529
STATE.....	ARKANSAS			ARKANSAS		ARKANSAS	
COUNTY.....	POPE			POPE		POPE	
FIELD.....	SILEX			SILEX		SILEX	
WELL NAME.....	LADD & STRONG NO. 1			SILEX 6-U. NO. 3		SILEX NO. 7	
LOCATION.....	SEC. 22, T10N, R21W			SEC. 22, T10N, R21W		SEC. 22, T10N, T21W	
OWNER.....	ARKANSAS LOUISIANA GAS CO.			ARKANSAS LOUISIANA GAS CO.		ARKLA GAS CO.	
COMPLETED.....	07/07/44			04/06/75		04/06/84	
SAMPLED.....	04/25/44			01/14/76		11/30/84	
FORMATION.....	PENN-ATOKA			PENN-KELLY		PENN-HUDSON	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	2861			2814		2174	
WELLHEAD PRESSURE, PSIG.....	560			1100		940	
OPEN FLOW, MCFD.....	6250			6782		1074	
COMPONENT, MOLE PCT.....							
METHANE.....	95.0			97.9		97.9	
ETHANE.....	1.4			1.0		1.0	
PROpane.....	---			TRACE		TRACE	
N-BUTANE.....	---			0.0		0.0	
ISOBUTANE.....	---			0.0		0.0	
N-PENTANE.....	---			0.0		0.0	
ISOPENTANE.....	---			0.0		0.0	
CYCLOPENTANE.....	---			0.0		0.0	
HEXANES PLUS.....	---			0.0		0.0	
NITROGEN.....	3.0			0.8		0.8	
OXYGEN.....	0.3			0.0		0.0	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.13			0.10		0.10	
HEATING VALUE.....	987			1010		1010	
SPECIFIC GRAVITY.....	0.577			0.563		0.563	
		INDEX SAMPLE	448 17530	INDEX SAMPLE	449 10403	INDEX SAMPLE	450 11502
STATE.....	ARKANSAS			ARKANSAS		ARKANSAS	
COUNTY.....	POPE			SCOTT		SCOTT	
FIELD.....	SILEX			HANSFIELD		HANSFIELD	
WELL NAME.....	SILEX NO. 7			HARP NO. 1		QUICK NO. 1	
LOCATION.....	SEC. 22, T10N, R21W			SEC. 4, T4N, R30E		SEC. 25, T5N, R30W	
OWNER.....	ARKLA GAS CO.			MIDWEST OIL CORP.		MIDWEST OIL CORP.	
COMPLETED.....	04/06/84			11/12/65		10/01/67	
SAMPLED.....	11/30/84			02/17/66		05/16/68	
FORMATION.....	PENN-KELLY			PENN-HARTFORD		PENN-HARTFORD	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	2770			5788		6250	
WELLHEAD PRESSURE, PSIG.....	1115			2392		2450	
OPEN FLOW, MCFD.....	7774			3200		11506	
COMPONENT, MOLE PCT.....							
METHANE.....	97.4			96.7		97.1	
ETHANE.....	1.0			1.6		1.4	
PROpane.....	TRACE			0.2		0.2	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	1.2			0.6		0.4	
OXYGEN.....	1.1			0.9		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	TRACE			0.0		TRACE	
HYDROGEN SULFIDE.....	0.1			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.7		0.7	
HELIUM.....	0.10			0.06		0.06	
HEATING VALUE.....	1005			1016		1014	
SPECIFIC GRAVITY.....	0.565			0.574		0.571	
		INDEX SAMPLE	451 16220	INDEX SAMPLE	452 8597	INDEX SAMPLE	453 10034
STATE.....	ARKANSAS			ARKANSAS		ARKANSAS	
COUNTY.....	SCOTT			SEBASTIAN		SEBASTIAN	
FIELD.....	HANSFIELD			BONANZA		BONANZA	
WELL NAME.....	GLASS NO. 1			WESTERN COAL & MINING NO. 1		HAMILTON 1-12	
LOCATION.....	SEC. 27, T5N, R30W			SEC. 36, T7N, R32W		SEC. 12, T6N, R32W	
OWNER.....	TEXAS OIL & GAS CORP.			SHELL OIL CO.		SHELL OIL CO.	
COMPLETED.....	01/15/81			04/02/62		02/19/64	
SAMPLED.....	03/24/81			07/26/62		08/04/65	
FORMATION.....	PENN-HARTFORD			DEVON-HUNTON		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	6200			7936		3933	
WELLHEAD PRESSURE, PSIG.....	1525			1059		1100	
OPEN FLOW, MCFD.....	1500			6000		3690	
COMPONENT, MOLE PCT.....							
METHANE.....	97.1			92.8		97.5	
ETHANE.....	1.5			2.1		1.2	
PROpane.....	0.3			0.4		0.3	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			TRACE		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			TRACE		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.4			3.0		0.4	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	TRACE			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.5		0.5	
HELIUM.....	0.09			0.12		0.07	
HEATING VALUE.....	1018			988		1017	
SPECIFIC GRAVITY.....	0.573			0.595		0.569	
		INDEX SAMPLE	454 10037	INDEX SAMPLE	455 10201	INDEX SAMPLE	456 16368
STATE.....	ARKANSAS			ARKANSAS		ARKANSAS	
COUNTY.....	SEBASTIAN			SEBASTIAN		SEBASTIAN	
FIELD.....	BONANZA			BONANZA		BONANZA	
WELL NAME.....	JOHNSON 2-10			HAMILTON NO. 1-12A		KERSEY NO. 1	
LOCATION.....	SEC. 10, T6N, R32W			SEC. 12, T6N, R32W		SEC. 4, T6N, R31W	
OWNER.....	SHELL OIL CO.			SHELL OIL CO.		ARKLA EXPLORATION CO.	
COMPLETED.....	02/06/65			02/19/64		04/20/81	
SAMPLED.....	08/04/65			10/07/65		10/27/81	
FORMATION.....	PENN-HALE			PENN-SPIRO		PENN-ATOKA A	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	7304			3933		9000	
WELLHEAD PRESSURE, PSIG.....	4120			700		1125	
OPEN FLOW, MCFD.....						6196	
COMPONENT, MOLE PCT.....							
METHANE.....	94.8			95.4		97.5	
ETHANE.....	0.9			1.3		1.5	
PROpane.....	0.3			0.3		0.2	
N-BUTANE.....	0.0			0.0		TRACE	
ISOBUTANE.....	0.0			0.0		TRACE	
N-PENTANE.....	0.0			0.0		TRACE	
ISOPENTANE.....	0.0			0.0		TRACE	
CYCLOPENTANE.....	0.0			0.0		TRACE	
HEXANES PLUS.....	0.0			0.0		1.1	
NITROGEN.....	1.7			0.5		0.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		0.0	
HELIUM.....	0.10			0.11		0.05	
HEATING VALUE.....	984			992		1025	
SPECIFIC GRAVITY.....	0.590			0.590		0.570	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

47

INDEX 457 SAMPLE 16369		INDEX 458 SAMPLE 16593		INDEX 459 SAMPLE 17778	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	SEBASTIAN	COUNTY.....	SEBASTIAN	COUNTY.....	SEBASTIAN
FIELD.....	BOONANZA	FIELD.....	BOONANZA	FIELD.....	BOONANZA
WELL NAME.....	KERSEY NO. 1	WELL NAME.....	REVERE TROTTER NO. 1	WELL NAME.....	STEPHENS #6 NO. 1
LOCATION.....	SEC. 4, T6N, R31W	LOCATION.....	SEC. 12, T6N, R32W	LOCATION.....	SEC. 27, T7N, R31W
OWNER.....	ARKLA EXPLORATION CO.	OWNER.....	REVERE CORP.	OWNER.....	TXO PRODUCTION CORP.
COMPLETED.....	04/20/81	COMPLETED.....	07/-/82	COMPLETED.....	03/11/85
SAMPLED.....	10/26/81	SAMPLED.....	07/20/82	SAMPLED.....	07/01/85
FORMATION.....	PENN-ATOKA B	FORMATION.....	PENN-ATOKA U	FORMATION.....	PENN-ORR
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	9000	DEPTH, FEET.....	3488	DEPTH, FEET.....	7323
WELLHEAD PRESSURE, PSIG.....	1170	WELLHEAD PRESSURE, PSIG.....	360	WELLHEAD PRESSURE, PSIG.....	1000
OPEN FLOW, MCFD.....	153187	OPEN FLOW, MCFD.....	1750	OPEN FLOW, MCFD.....	500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.7	METHANE.....	97.4	METHANE.....	77.0
ETHANE.....	1.5	ETHANE.....	1.3	ETHANE.....	0.8
PROPANE.....	0.2	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.2	NITROGEN.....	0.2	NITROGEN.....	19.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	2.2
HELIUM.....	0.05	HELIUM.....	0.06	HELIUM.....	0.07
HEATING VALUE.....	1022	HEATING VALUE.....	1013	HEATING VALUE.....	797
SPECIFIC GRAVITY.....	0.569	SPECIFIC GRAVITY.....	0.568	SPECIFIC GRAVITY.....	0.662
INDEX 460 SAMPLE 6856		INDEX 461 SAMPLE 17153		INDEX 462 SAMPLE 9983	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	SEBASTIAN	COUNTY.....	SEBASTIAN	COUNTY.....	SEBASTIAN
FIELD.....	BOONEVILLE	FIELD.....	BOONEVILLE	FIELD.....	EWING
WELL NAME.....	P. J. WILLIAMS NO. 1	WELL NAME.....	BOONEVILLE NO. 1	WELL NAME.....	FRANK WRIGHT UNIT NO. 1
LOCATION.....	SEC. 13, T6N, R29W	LOCATION.....	SEC. 23, T6N, R29W	LOCATION.....	SEC. 13, T8N, R30W
OWNER.....	GULF OIL CORP.	OWNER.....	EXXON CO., U.S.A.	OWNER.....	STEPHENS PRODUCTION CO.
COMPLETED.....	05/08/58	COMPLETED.....	01/08/58	COMPLETED.....	03/03/64
SAMPLED.....	11/05/58	SAMPLED.....	01/12/84	SAMPLED.....	07/19/65
FORMATION.....	PENN-ATOKA	FORMATION.....	PENN-BORUM L	FORMATION.....	PENN-BARTON
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	1470	DEPTH, FEET.....	5777	DEPTH, FEET.....	6152
WELLHEAD PRESSURE, PSIG.....	375	WELLHEAD PRESSURE, PSIG.....	1560	WELLHEAD PRESSURE, PSIG.....	832
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	3788	OPEN FLOW, MCFD.....	7500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.3	METHANE.....	82.2	METHANE.....	97.6
ETHANE.....	1.6	ETHANE.....	1.3	ETHANE.....	0.9
PROPANE.....	0.2	PROPANE.....	0.2	PROPANE.....	0.3
N-BUTANE.....	TRACE	N-BUTANE.....	TRACE	N-BUTANE.....	0.0
ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.0
N-PENTANE.....	0.4	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	0.0	NITROGEN.....	15.6	NITROGEN.....	0.3
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.2	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.8
HELIUM.....	0.03	HELIUM.....	0.06	HELIUM.....	0.12
HEATING VALUE.....	1050	HEATING VALUE.....	868	HEATING VALUE.....	1013
SPECIFIC GRAVITY.....	0.578	SPECIFIC GRAVITY.....	0.634	SPECIFIC GRAVITY.....	0.570
INDEX 463 SAMPLE 13177		INDEX 464 SAMPLE 13178		INDEX 465 SAMPLE 13501	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	SEBASTIAN	COUNTY.....	SEBASTIAN	COUNTY.....	SEBASTIAN
FIELD.....	EWING	FIELD.....	EWING	FIELD.....	EWING
WELL NAME.....	A. E. WILSON NO. 2	WELL NAME.....	A. E. WILSON NO. 2	WELL NAME.....	BONNIE STEWART NO. 1
LOCATION.....	SEC. 4, T8N, R29W	LOCATION.....	SEC. 4, T8N, R29W	LOCATION.....	SEC. 2, T7N, R30W
OWNER.....	GULF OIL CO.-U.S.	OWNER.....	GULF OIL CO.-U.S.	OWNER.....	STEPHENS PRODUCTION CO.
COMPLETED.....	06/04/71	COMPLETED.....	06/04/71	COMPLETED.....	02/14/72
SAMPLED.....	04/03/72	SAMPLED.....	04/03/72	SAMPLED.....	01/02/73
FORMATION.....	PENN-DUNN C	FORMATION.....	PENN-DUNN A	FORMATION.....	PENN-MALE
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	6875
WELLHEAD PRESSURE, PSIG.....	921	WELLHEAD PRESSURE, PSIG.....	11033	WELLHEAD PRESSURE, PSIG.....	2184
OPEN FLOW, MCFD.....	400	OPEN FLOW, MCFD.....	11033	OPEN FLOW, MCFD.....	7000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.6	METHANE.....	98.0	METHANE.....	97.3
ETHANE.....	1.0	ETHANE.....	0.9	ETHANE.....	1.3
PROPANE.....	0.1	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	TRACE	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.3	NITROGEN.....	0.3	NITROGEN.....	0.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.9
HELIUM.....	0.09	HELIUM.....	0.09	HELIUM.....	0.05
HEATING VALUE.....	1009	HEATING VALUE.....	1011	HEATING VALUE.....	1012
SPECIFIC GRAVITY.....	0.567	SPECIFIC GRAVITY.....	0.565	SPECIFIC GRAVITY.....	0.571
INDEX 466 SAMPLE 13502		INDEX 467 SAMPLE 13503		INDEX 468 SAMPLE 12641	
STATE.....	ARKANSAS	STATE.....	ARKANSAS	STATE.....	ARKANSAS
COUNTY.....	SEBASTIAN	COUNTY.....	SEBASTIAN	COUNTY.....	SEBASTIAN
FIELD.....	EWING	FIELD.....	EWING	FIELD.....	EXCELSIOR
WELL NAME.....	BONNIE STEWART NO. 1	WELL NAME.....	BONNIE STEWART NO. 1	WELL NAME.....	PLUNKETT NO. 1
LOCATION.....	20 IN. DISCHARGE	LOCATION.....	SEC. 2, T7N, R30W	LOCATION.....	SEC. 29, T6N, R31W
OWNER.....	STEPHENS PRODUCTION CO.	OWNER.....	STEPHENS PRODUCTION CO.	OWNER.....	PERKINS OIL CO., INC.
COMPLETED.....	02/14/72	COMPLETED.....	02/14/72	COMPLETED.....	06/30/70
SAMPLED.....	01/02/73	SAMPLED.....	01/02/73	SAMPLED.....	01/21/71
FORMATION.....	PENN-MORRIS	FORMATION.....	PENN-BARTON R	FORMATION.....	PENN-ATOKA
GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	3529	DEPTH, FEET.....	5767	DEPTH, FEET.....	5400
WELLHEAD PRESSURE, PSIG.....	612	WELLHEAD PRESSURE, PSIG.....	1112	WELLHEAD PRESSURE, PSIG.....	1809
OPEN FLOW, MCFD.....	4100	OPEN FLOW, MCFD.....	5700	OPEN FLOW, MCFD.....	7000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.7	METHANE.....	97.1	METHANE.....	97.2
ETHANE.....	1.3	ETHANE.....	1.3	ETHANE.....	1.5
PROPANE.....	0.1	PROPANE.....	0.2	PROPANE.....	0.2
N-BUTANE.....	0.0	N-BUTANE.....	TRACE	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.0
NITROGEN.....	0.3	NITROGEN.....	0.4	NITROGEN.....	0.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.8
HELIUM.....	0.07	HELIUM.....	0.09	HELIUM.....	0.06
HEATING VALUE.....	1016	HEATING VALUE.....	1012	HEATING VALUE.....	1017
SPECIFIC GRAVITY.....	0.566	SPECIFIC GRAVITY.....	0.568	SPECIFIC GRAVITY.....	0.573

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 469 7970	INDEX SAMPLE 470 17491	INDEX SAMPLE 471 17492
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	SEBASTIAN		SEBASTIAN	SEBASTIAN
FIELD.....	GRAGE		GRAGE	GREENWOOD
WELL NAME.....	A. M. DUCKETT NO. 1		FRENCH NO. 1-33	PEERLESS COAL NO. 2-13
LOCATION.....	SEC. 20, T6N, R29W		SEC. 33, T6N, R29W	SEC. 13, T6N, R31W
OWNER.....	GULF OIL CORP.		STEPHENS PRODUCTION CO.	STEPHENS PRODUCTION CO.
COMPLETED.....	05/11/61		11/05/82	11/16/82
SAMPLED.....	05/11/61		10/17/84	10/17/84
FORMATION.....	PENN-NICHOLS		PENN-NICHOLS	PENN-BORUM
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	4183		3642	6029
WELLHEAD PRESSURE, PSIG.....	1901		1190	1543
OPEN FLOW, MCFD.....	20000		3450	3025
COMPONENT, MOLE PCT				
METHANE.....	97.5		96.5	95.1
ETHANE.....	1.8		1.1	1.1
PROPANE.....	0.1		0.1	0.1
N-BUTANE.....	TRACE		0.0	0.0
ISOBUTANE.....	TRACE		0.0	0.0
N-PENTANE.....	TRACE		0.0	0.0
ISOPENTANE.....	0.0		0.0	0.0
CYCLOPENTANE.....	0.0		0.0	0.0
HEXANES PLUS.....	TRACE		0.0	0.0
NITROGEN.....	TRACE		1.2	2.4
OXYGEN.....	0.0		0.1	0.3
ARGON.....	0.0		TRACE	TRACE
HYDROGEN.....	0.1		0.1	0.1
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.3		0.7	0.6
HELIUM.....	0.03		0.09	0.02
HEATING VALUE.....	1023		1001	986
SPECIFIC GRAVITY.....	0.565		0.572	0.579
		INDEX SAMPLE 472 17855	INDEX SAMPLE 473 17857	INDEX SAMPLE 474 17858
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	SEBASTIAN		SEBASTIAN	SEBASTIAN
FIELD.....	GREENWOOD		GREENWOOD	GREENWOOD
WELL NAME.....	OPEE NO. 1		JOHNSON "AH" NO. 1-C	JOHNSON "AH" NO. 1-T
LOCATION.....	SEC. 3, T6N, R30W		SEC. 6, T6N, R30W	SEC. 6, T6N, R30W
OWNER.....	TXO PRODUCTION CORP.		TXO PRODUCTION CORP.	TXO PRODUCTION CORP.
COMPLETED.....	05/10/85		02/28/85	02/28/85
SAMPLED.....	09/25/85		09/25/85	09/25/85
FORMATION.....	PENN-NICHOLS		PENN-ALMA U	PENN-ALMA U
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	6455		2070	2070
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	1300		4000	4000
COMPONENT, MOLE PCT				
METHANE.....	81.4		98.5	96.5
ETHANE.....	1.1		0.1	1.4
PROPANE.....	0.2		0.1	0.1
N-BUTANE.....	0.0		0.0	0.0
ISOBUTANE.....	0.0		0.0	0.0
N-PENTANE.....	0.0		0.0	0.0
ISOPENTANE.....	0.0		0.0	0.0
CYCLOPENTANE.....	0.0		0.0	0.0
HEXANES PLUS.....	0.0		0.0	0.0
NITROGEN.....	16.6		0.3	1.6
OXYGEN.....	0.0		0.0	0.1
ARGON.....	TRACE		0.0	TRACE
HYDROGEN.....	TRACE		0.1	0.1
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.5		TRACE	0.2
HELIUM.....	0.05		0.09	0.06
HEATING VALUE.....	849		1017	1006
SPECIFIC GRAVITY.....	0.634		0.560	0.571
		INDEX SAMPLE 475 15940	INDEX SAMPLE 476 2277	INDEX SAMPLE 477 6286
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	SEBASTIAN		SEBASTIAN	SEBASTIAN
FIELD.....	HOLLIS LAKE		LAVACA	MASSARD
WELL NAME.....	FT. CHAFFEE FED. NO. 2		LAWRENCE WRIGHT NO. 1	MARY FISHER ALLEN NO. 1
LOCATION.....	SEC. 26, R31W, R31W		SEC. 29, T8, R30	SEC. 30, T8N, R31W
OWNER.....	GULF OIL EXPL. & PROD. CO.		OZARK NATURAL GAS CO.	STEPHENS PRODUCTION CO.
COMPLETED.....	01/29/80		12/2/80	01/15/57
SAMPLED.....	04/16/80		02/18/31	04/01/57
FORMATION.....	PENN-SPIRO		PENN-ATOKA	PENN-HALE
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	5737		2820	5392
WELLHEAD PRESSURE, PSIG.....	987		280	1600
OPEN FLOW, MCFD.....	2803		5000	27000
COMPONENT, MOLE PCT				
METHANE.....	96.5		98.5	96.4
ETHANE.....	1.3		0.0	1.2
PROPANE.....	0.2		0.0	0.0
N-BUTANE.....	0.0		0.0	0.0
ISOBUTANE.....	TRACE		0.0	0.0
N-PENTANE.....	0.0		0.0	0.0
ISOPENTANE.....	0.0		0.0	0.0
CYCLOPENTANE.....	0.1		0.0	0.0
HEXANES PLUS.....	0.1		0.0	0.0
NITROGEN.....	0.4		0.8	1.4
OXYGEN.....	TRACE		0.1	0.1
ARGON.....	0.0		0.0	0.0
HYDROGEN.....	TRACE		0.0	0.0
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	1.2		0.6	0.9
HELIUM.....	0.07		0.08	0.08
HEATING VALUE.....	1015		998	998
SPECIFIC GRAVITY.....	0.579		0.564	0.576
		INDEX SAMPLE 478 6731	INDEX SAMPLE 479 8020	INDEX SAMPLE 480 16334
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	SEBASTIAN		SEBASTIAN	SEBASTIAN
FIELD.....	MASSARD		MASSARD	MASSARD
WELL NAME.....	THOMAS HORAN		PIGG NO. 1	ATKINSON #81 NO. 1
LOCATION.....	SEC. 19, T8N, R31W		SEC. 31, T8N, R31W	SEC. 34, T8N, R32W
OWNER.....	FORT SMITH GAS CORP.		STEPHENS PRODUCTION CO.	HAWNA OIL AND GAS CO.
COMPLETED.....	03/11/58		01/24/61	04/28/81
SAMPLED.....	07/15/58		06/11/61	09/09/81
FORMATION.....	PENN-ATOKA BASAL		PENN-SPIRO	PENN-SPIRO & DEVO-PENTERS
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	5150		5424	5210
WELLHEAD PRESSURE, PSIG.....	905		670	3474
OPEN FLOW, MCFD.....	4000		16500	5276
COMPONENT, MOLE PCT				
METHANE.....	97.3		96.6	90.1
ETHANE.....	1.2		1.2	1.5
PROPANE.....	0.0		0.1	0.2
N-BUTANE.....	0.0		0.0	0.6
ISOBUTANE.....	0.0		0.0	0.0
N-PENTANE.....	0.0		0.0	0.0
ISOPENTANE.....	0.0		0.0	0.0
CYCLOPENTANE.....	0.0		0.0	0.0
HEXANES PLUS.....	TRACE		0.0	0.0
NITROGEN.....	0.5		0.5	1.1
OXYGEN.....	0.0		TRACE	TRACE
ARGON.....	TRACE		TRACE	0.1
HYDROGEN.....	0.0		0.0	0.0
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.9		1.5	0.6
HELIUM.....	0.10		0.10	0.30
HEATING VALUE.....	1007		995	995
SPECIFIC GRAVITY.....	0.571		0.578	0.598

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

49

		INDEX SAMPLE	481 17511	INDEX SAMPLE	482 17512	INDEX SAMPLE	483 11221
STATE.....	ARKANSAS			ARKANSAS		ARKANSAS	
COUNTY.....	SEBASTIAN			SEBASTIAN		SEBASTIAN	
FIELD.....	MASSARD			MASSARD		URSULA	
WELL NAME.....	LARCO UPPER TBG.			LARCO LOWER TBG.		EARL WHITE NO. 1	
LOCATION.....	SEC. 21, T8N, R32W			SEC. 21, T8N, R32W		SEC. 2, T7N, R29W	
OWNER.....	TKO PRODUCTION CORP.			TKO PRODUCTION CORP.		GULF OIL CORP.	
COMPLETED.....	--/--/00			--/--/00		02/21/67	
SAMPLED.....	10/26/84			10/26/84		11/06/67	
FORMATION.....	PENN-ORR			PENN-PENTERS		PENN-CARPENTER	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	5992			6970		3064	
WELLHEAD PRESSURE, PSIG.....	2637			1000		268	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		5500	
COMPONENT, MOLE PCT							
METHANE.....	90.9			94.8		97.5	
ETHANE.....	1.6			1.3		1.4	
PROPANE.....	0.1			0.1		0.2	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	6.3			2.5		0.3	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	10.2			TRACE		0.0	
HYDROGEN.....	0.1			0.2		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		0.5	
HELIUM.....	0.25			0.13		0.08	
HEATING VALUE.....	952			987		1018	
SPECIFIC GRAVITY.....	0.592			0.579		0.569	
		INDEX SAMPLE	484 14415	INDEX SAMPLE	485 14416	INDEX SAMPLE	486 16066
STATE.....	ARKANSAS			ARKANSAS		ARKANSAS	
COUNTY.....	SEBASTIAN			SEBASTIAN		SEBASTIAN	
FIELD.....	WITCHERVILLE			WITCHERVILLE		WITCHERVILLE	
WELL NAME.....	CARTER NO. 1			CARTER NO. 1		FRANKLIN-HOLLAND NO. 1	
LOCATION.....	SEC. 26, T6N, R31W			SEC. 26, T6N, R31W		SEC. 31, T6N, R30W	
OWNER.....	ARKLA EXPLORATION CO.			ARKLA EXPLORATION CO.		ARKLA EXPLORATION CO.	
COMPLETED.....	03/10/75			03/10/75		07/21/80	
SAMPLED.....	07/17/75			07/17/75		09/16/80	
FORMATION.....	PENN-TURNER U			PENN-TURNER L		PENN-BORUM	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	3581			3776		4500	
WELLHEAD PRESSURE, PSIG.....	5550			1075		760	
OPEN FLOW, MCFD.....	1200			2100		5428	
COMPONENT, MOLE PCT							
METHANE.....	97.7			97.8		96.9	
ETHANE.....	1.4			1.3		1.1	
PROPANE.....	0.2			0.1		0.1	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.3			0.3		1.7	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.4		TRACE	
HELIUM.....	0.07			0.07		0.08	
HEATING VALUE.....	1020			1019		1004	
SPECIFIC GRAVITY.....	0.567			0.568		0.567	
		INDEX SAMPLE	487 16067	INDEX SAMPLE	488 618	INDEX SAMPLE	489 619
STATE.....	ARKANSAS			ARKANSAS		ARKANSAS	
COUNTY.....	SEBASTIAN			SEBASTIAN		UNION	
FIELD.....	WITCHERVILLE			EL DORADO		EL DORADO	
WELL NAME.....	FRANKLIN-HOLLAND NO. 1			EL DORADO		HEARTHSTONE	
LOCATION.....	SEC. 31, T6N, R30W			SEC. 31, T15S, R17W		SEC. 26, T16S, R17W	
OWNER.....	ARKLA EXPLORATION CO.			EL DORADO NATURAL GAS CO.		EL DORADO NATURAL GAS CO.	
COMPLETED.....	07/21/80			03/--/72		05/--/72	
SAMPLED.....	07/16/80			07/17/75		07/17/75	
FORMATION.....	PENN-TURNER			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	345			230		230	
DEPTH, FEET.....	3573			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			250		250	
OPEN FLOW, MCFD.....	5598			25		15	
COMPONENT, MOLE PCT							
METHANE.....	95.2			87.0		87.3	
ETHANE.....	1.9			11.7		11.5	
PROPANE.....	0.2			--		--	
N-BUTANE.....	0.0			--		--	
ISOBUTANE.....	0.0			--		--	
N-PENTANE.....	0.0			--		--	
ISOPENTANE.....	0.0			--		--	
CYCLOPENTANE.....	0.0			--		--	
HEXANES PLUS.....	0.0			--		--	
NITROGEN.....	2.6			0.8		0.8	
OXYGEN.....	0.0			0.3		0.2	
ARGON.....	TRACE			--		--	
HYDROGEN.....	0.0			--		--	
HYDROGEN SULFIDE.....	0.0			--		--	
CARBON DIOXIDE.....	TRACE			0.2		0.1	
HELIUM.....	0.05			0.01		0.01	
HEATING VALUE.....	1004			1091		1090	
SPECIFIC GRAVITY.....	0.576			0.619		0.616	
		INDEX SAMPLE	490 5650	INDEX SAMPLE	491 17815	INDEX SAMPLE	492 5787
STATE.....	ARKANSAS			ARKANSAS		ARKANSAS	
COUNTY.....	UNION			UNION		UNION	
FIELD.....	MTBANK S			HOGG		RAINBOW S	
WELL NAME.....	UNION SAW MILL NO. 8-7			FIRST LAND & TIMBER NO.1-7		A. A. JERRY NO. 1	
LOCATION.....	SEC. 35, T18S, R14W			SEC. 35, T18S, R14W		SEC. 29, T17S, R14W	
OWNER.....	LANTON OIL CORP.			MAY PETROLEUM, INC.		SPARTAN DRILLING CO.	
COMPLETED.....	04/08/54			107--/84		12/23/54	
SAMPLED.....	07/01/54			08/22/85		03/01/55	
FORMATION.....	CRET-OZAN			JURA-COTTON VALLEY		CRET-TUSCALOOSA	
GEOLOGIC PROVINCE CODE.....	230			230		230	
DEPTH, FEET.....	2663			6720		3080	
WELLHEAD PRESSURE, PSIG.....	1261			980		1150	
OPEN FLOW, MCFD.....	NOT GIVEN			230		15000	
COMPONENT, MOLE PCT							
METHANE.....	90.4			77.9		93.7	
ETHANE.....	3.5			8.5		1.0	
PROPANE.....	1.2			3.6		0.4	
N-BUTANE.....	0.4			1.6		0.1	
ISOBUTANE.....	0.4			1.0		0.4	
N-PENTANE.....	0.1			0.6		0.1	
ISOPENTANE.....	0.1			0.4		0.0	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.2			0.8		0.3	
NITROGEN.....	3.3			4.3		3.8	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.1			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.0		0.0	
HELIUM.....	0.05			0.03		0.05	
HEATING VALUE.....	1056			1223		1018	
SPECIFIC GRAVITY.....	0.618			0.744		0.599	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 493			INDEX 494			INDEX 495		
SAMPLE 3163			SAMPLE 3169			SAMPLE 7289		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	UNION		UNION			UNION		
FIELD.....	SCHULER		SCHULER			ST. LONG N		
WELL NAME.....	SEWELL NO. 3		SEPARATOR 36			OLIN D NO. 1		
LOCATION.....	SEC. 10, T18S, R18W		SEC. 7, T18S, R18W			SEC. 19, T18S, R12W		
OWNER.....	LIION OIL & REFINING CO.		SCHULER UNIT			CADDO OIL CO., INC.		
COMPLETED.....	01/16/39		10/10/38			10/31/58		
SAMPLED.....	02/14/42		02/14/42			10/10/59		
FORMATION.....	JURA-SMACKOVER		JURA-JONES			CRET-MACATOCH		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	7659		7608			2300		
WELLHEAD PRESSURE, PSIG.....	3390		1500			925		
OPEN FLOW, MCFD.....	140		NOT GIVEN			280		
COMPONENT, MOLE PCT.....								
METHANE.....	61.3		64.5			91.3		
ETHANE.....	22.7		23.7			2.5		
PROPANE.....	---		---			0.6		
N-BUTANE.....	---		---			0.2		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			TRACE		
ISOPENTANE.....	---		---			0.2		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.2		
NITROGEN.....	11.5		8.8			4.4		
OXYGEN.....	0.4		1.1			TRACE		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			0.0		
CARBON DIOXIDE.....	4.1		1.9			0.0		
HELIUM.....	TRACE		0.00			0.05		
HEATING VALUE.....	1028		1078			1025		
SPECIFIC GRAVITY.....	0.756		0.733			0.608		
INDEX 496			INDEX 497			INDEX 498		
SAMPLE 17636			SAMPLE 9554			SAMPLE 4448		
STATE.....	ARKANSAS		ARKANSAS			ARKANSAS		
COUNTY.....	WASHINGTON		WASHINGTON			YELL		
FIELD.....	BRENTWOOD		NOT GIVEN			WILDCAT		
WELL NAME.....	WRLTA NO. 2		WATER WELL			NO. 1		
LOCATION.....	SEC. 32, T14N, R29W		SEC. 30, T14N, R29W			SEC. 2, T6N, R21W		
OWNER.....	KATY ENERGY CORP.		R. W. JACKSON			VAM WESLEY		
COMPLETED.....	12/-/83		--/-/58			--/-/24		
SAMPLED.....	03/26/85		08/21/64			04/15/48		
FORMATION.....	RISSE-MEDINOTON		DEVO-SYLAHORE			PEWNI-ATOKA		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	930		420			1910		
WELLHEAD PRESSURE, PSIG.....	45		100			35		
OPEN FLOW, MCFD.....	20		200			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	76.9		84.0			97.3		
ETHANE.....	0.8		1.8			1.0		
PROPANE.....	2.1		2.3			---		
N-BUTANE.....	0.5		0.4			---		
ISOBUTANE.....	0.3		---			---		
N-PENTANE.....	12.1		TRACE			---		
ISOPENTANE.....	0.1		0.2			---		
CYCLOPENTANE.....	TRACE		TRACE			---		
HEXANES PLUS.....	0.1		0.1			---		
NITROGEN.....	9.9		2.0			0.8		
OXYGEN.....	2.2		0.0			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	TRACE		0.0			---		
HYDROGEN SULFIDE**.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.8		0.2			0.6		
HELIUM.....	0.05		0.08			0.04		
HEATING VALUE.....	996		1134			1004		
SPECIFIC GRAVITY.....	0.689		0.656			0.570		
INDEX 499			INDEX 500			INDEX 501		
SAMPLE 4422			SAMPLE 4123			SAMPLE 4424		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	BUTTE		BUTTE			BUTTE		
FIELD.....	LLANO SECO		DURHAM AREA			DURHAM AREA		
WELL NAME.....	TOWNE NO. 1		DONOHUE FEE NO. 1			MAHL CORN NO. 1		
LOCATION.....	SEC. 18, T20N, R1E		SEC. 6, T20N, R1E			SEC. 32, T21N, R1E		
OWNER.....	SUPERIOR OIL CO.		STANDARD OIL CO. OF CALIF.			STANDARD OIL CO. OF CALIF.		
COMPLETED.....	12/03/47		07/17/46			06/10/47		
SAMPLED.....	02/01/48		10/15/46			01/30/48		
FORMATION.....	NOT GIVEN		NOT GIVEN			EOCE-CAPAY		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	2175		2140			2090		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		915			930		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			4000		
COMPONENT, MOLE PCT.....								
METHANE.....	67.6		66.2			69.2		
ETHANE.....	1.4		1.8			0.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	29.9		30.5			29.7		
OXYGEN.....	0.8		0.9			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.6			0.3		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	710		703			708		
SPECIFIC GRAVITY.....	0.692		0.700			0.684		
INDEX 502			INDEX 503			INDEX 504		
SAMPLE 11522			SAMPLE 5141			SAMPLE 7421		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	BUTTE		BUTTE			COLUSA		
FIELD.....	LLANO SECO		NOT GIVEN			ARBUCKLE		
WELL NAME.....	BUTTE LLANO SECO NO. 1		WID GOOSE NO. 1			UNIT R NO. 1		
LOCATION.....	SEC. 34, T20N, R1W		SEC. 17, T17N, R1E			SEC. 34, T14N, R2W		
OWNER.....	CALIFORNIA TIME PETROLEUM CO		HONOLULU OIL CORP.			OCCIDENTAL PETROLEUM CORP.		
COMPLETED.....	09/05/67		12/14/51			--/-/60		
SAMPLED.....	05/21/68		NOT GIVEN			05/-/60		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	730		NOT GIVEN			730		
DEPTH, FEET.....	1787		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	676		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	84.4		79.1			95.8		
ETHANE.....	0.0		0.1			0.4		
PROPANE.....	---		---			0.1		
N-BUTANE.....	0.0		0.1			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.1			0.0		
ISOPENTANE.....	0.0		---			0.0		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	0.0		0.1			0.0		
NITROGEN.....	15.4		20.2			3.6		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	0.0		TRACE			---		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	855		819			981		
SPECIFIC GRAVITY.....	0.618		0.647			0.573		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

51

INDEX 503 SAMPLE 17585			INDEX 506 SAMPLE 17300			INDEX 507 SAMPLE 17301		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	COLUSA		COLUSA			COLUSA		
FIELD.....	ARBuckle N		BOUNCE CREEK			BOUNCE CREEK		
WELL NAME.....	ZUMWALT NO. 1		TORRES NO. 24-1			TORRES NO. 24-1		
LOCATION.....	SEC. 10, T14N, R2W		SEC. 24, T18N, R2W			SEC. 24, T18N, R2W		
OWNER.....	NORTHERN MICHIGAN EXPL. CO.		ARKOMA PRODUCTION CO.			ARKOMA PRODUCTION CO.		
COMPLETED.....	05/05/83		12/23/83			12/23/83		
SAMPLED.....	02/01/85		05/23/84			05/23/84		
FORMATION.....	CRET-FORBES		CRET-FORBES LOWER ZONE TBG.			CRET-FORBES UPPER ZONE CSG.		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	6957		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	2000		3751			3210		
OPEN FLOW, MCFD.....	3456		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	97.1		97.2			96.8		
ETHANE.....	0.3		0.2			0.3		
PROPANE.....	TRACE		TRACE			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	2.4		2.5			2.8		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	989		988			986		
SPECIFIC GRAVITY.....	0.567		0.565			0.567		
INDEX 508 SAMPLE 7623			INDEX 509 SAMPLE 3711			INDEX 510 SAMPLE 16255		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	COLUSA		COLUSA			COLUSA		
FIELD.....	BUCKEYE		BUCKEYE			GRIMES		
WELL NAME.....	WILKINS UNIT B-1		CAPITAL NO. 1			POUNDSTONE NO. 24-1		
LOCATION.....	SEC. 13, T13N, R1W		SEC. 15, T16N, R1W			SEC. 24, T14N, R1W		
OWNER.....	WESTERN GULF OIL CO.		GENERAL PETROLEUM CORP.			TEHNECO OIL CO.		
COMPLETED.....	07/27/60		12/01/80			12/01/80		
SAMPLED.....	07/27/60		12/22/43			05/01/81		
FORMATION.....	CRET-		CRET-			CRET-FORBES		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	8112		2919			6979		
WELLHEAD PRESSURE, PSIG.....	4330		1300			3200		
OPEN FLOW, MCFD.....	13000		620			2000		
COMPONENT, MOLE PCT								
METHANE.....	97.3		78.7			98.9		
ETHANE.....	0.7		0.9			0.3		
PROPANE.....	0.1		---			TRACE		
N-BUTANE.....	0.0		---			0.0		
ISOBUTANE.....	TRACE		---			0.0		
N-PENTANE.....	0.0		---			0.0		
ISOPENTANE.....	TRACE		---			0.0		
CYCLOPENTANE.....	TRACE		---			0.0		
HEXANES PLUS.....	TRACE		---			0.0		
NITROGEN.....	0.4		20.2			0.7		
OXYGEN.....	TRACE		0.2			0.0		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	0.2		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.1		
HELIUM.....	0.02		TRACE			TRACE		
HEATING VALUE.....	1001		813			1007		
SPECIFIC GRAVITY.....	0.565		0.643			0.560		
INDEX 511 SAMPLE 12330			INDEX 512 SAMPLE 15815			INDEX 513 SAMPLE 7929		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	COLUSA		COLUSA			COLUSA		
FIELD.....	GRIMES SE		GRIMES SW			NOT GIVEN		
WELL NAME.....	BROWNING NO. 1		ARBuckle ROAD NO. 1			SAHREITER NO. 1		
LOCATION.....	SEC. 21, T14N, R1E		SEC. 7, T14N, R1E			SEC. 4, T14N, R1W		
OWNER.....	KING RESOURCES CO.		GAS PRODUCING ENTERPRISES			OCCIDENTAL PETROLEUM CORP.		
COMPLETED.....	03/26/69		01/2/79			--/700		
SAMPLED.....	07/01/70		10/24/79			05/11/61		
FORMATION.....	CRET-FORBES		CRET-FORBES			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	8107		3378			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		5087			NOT GIVEN		
OPEN FLOW, MCFD.....	10100		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	99.0		99.2			89.8		
ETHANE.....	0.2		0.2			0.4		
PROPANE.....	TRACE		TRACE			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.7		0.5			0.7		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1005		1008			919		
SPECIFIC GRAVITY.....	0.559		0.598			0.599		
INDEX 514 SAMPLE 10867			INDEX 515 SAMPLE 10868			INDEX 516 SAMPLE 16222		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	COLUSA		COLUSA			CONTRA COSTA		
FIELD.....	WILDCAT		WILDCAT			BRENTWOOD E		
WELL NAME.....	HALSEY NO. 1-3		STEIDLHAYER NO. 1-10			WESTERN-ENOS-NUNN NO. 1		
LOCATION.....	SEC. 8, T15N, R3E		SEC. 10, T15N, R3E			SEC. 8, T14N, R3E		
OWNER.....	GREAT BASINS PETROLEUM CO.		GREAT BASINS PETROLEUM CO.			NATURAL GAS CORP. OF CALIF.		
COMPLETED.....	--/700		--/700			03/28/80		
SAMPLED.....	02/08/67		02/08/67			03/27/81		
FORMATION.....	NOT GIVEN		NOT GIVEN			EOCE-MEGANOS		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	NOT GIVEN		8103			8230		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			2300		
OPEN FLOW, MCFD.....	NOT GIVEN		4090			28000		
COMPONENT, MOLE PCT								
METHANE.....	91.1		92.5			92.7		
ETHANE.....	0.6		0.5			3.8		
PROPANE.....	0.1		TRACE			1.3		
N-BUTANE.....	0.0		0.1			0.3		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			TRACE		
ISOPENTANE.....	0.0		0.0			0.3		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.0		0.0			0.1		
NITROGEN.....	8.0		6.7			0.8		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	936		949			1079		
SPECIFIC GRAVITY.....	0.598		0.585			0.611		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	517 17428	INDEX SAMPLE	518 17429	INDEX SAMPLE	519 8893
STATE	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY	CONTRA COSTA			CONTRA COSTA		CONTRA COSTA	
FIELD	BRENTWOOD E			BRENTWOOD E		CONCORD	
WELL NAME	NGC-CESA NO. 1			NGC-KYSH NO. 1		BOYLAN NO. 1	
LOCATION	SEC. 1, T1N, R2E			SEC. 6, T1N, R3E		SEC. 24, T2N, R2W	
OWNER	WESTERN CONTINENTAL OPER. CO			WESTERN CONTINENTAL OPER. CO		STANDARD OIL CO. OF CALIF.	
COMPLETED	05/17/83			05/--/84		12/23/62	
SAMPLED	09/24/84			09/24/84		03/19/63	
FORMATION	CRET-MASSIVE 3RD ZONE			NOT GIVEN		CRET-FORBES	
GEOLOGIC PROVINCE CODE	730			730		730	
DEPTH, FEET	8000			8357		2208	
WELLHEAD PRESSURE, PSIG	750			720		1139	
OPEN FLOW, MCFD	490			NOT GIVEN		2700	
COMPONENT, MOLE PCT							
METHANE	92.6			92.6		97.8	
ETHANE	4.1			4.2		1.1	
PROPANE	1.2			1.3		TRACE	
N-BUTANE	0.3			0.3		0.0	
ISOBUTANE	0.3			0.2		0.0	
N-PENTANE	0.0			TRACE		0.0	
ISOPENTANE	0.3			0.3		0.0	
CYCLOPENTANE	0.2			0.1		0.0	
HEXANES PLUS	0.2			0.1		0.0	
NITROGEN	0.4			0.4		2.1	
OXYGEN	TRACE			TRACE		0.0	
ARGON	0.0			TRACE		0.0	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE*	0.0			0.0		0.0	
CARBON DIOXIDE	0.4			0.4		0.0	
HELIUM	TRACE			TRACE		0.0	
HEATING VALUE	1093			1086		991	
SPECIFIC GRAVITY	0.616			0.611		0.564	
		INDEX SAMPLE	520 13198	INDEX SAMPLE	521 16730	INDEX SAMPLE	522 17310
STATE	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY	CONTRA COSTA			CONTRA COSTA		CONTRA COSTA	
FIELD	DUTCH LOUGH			DUTCH LOUGH		LOS MEDANOS	
WELL NAME	UNION STEFFENSON NO. 1			LOO NO. 1 REDRILL NO. 4		NEELY NO. 1	
LOCATION	SEC. 8, T2N, R3E			SEC. 31, T2N, R3E		SEC. 8, T2N, R1W	
OWNER	TRI-VALLEY OIL & GAS CO.			ATLANTIC OIL CO.		CHEVRON U.S.A., INC.	
COMPLETED	08/29/71			08/28/81		10/01/83	
SAMPLED	04/24/72			12/13/82		05/--/84	
FORMATION	EOCE-MEDANOS			CRET-MASSIVE 3RD ZONE		EOCE-DOMENGINE	
GEOLOGIC PROVINCE CODE	730			730		730	
DEPTH, FEET	7269			8034		3135	
WELLHEAD PRESSURE, PSIG	2035			2862		800	
OPEN FLOW, MCFD	9000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	91.5			90.4		95.8	
ETHANE	3.1			3.6		2.4	
PROPANE	0.2			0.2		0.3	
N-BUTANE	0.2			0.2		0.1	
ISOBUTANE	0.3			0.4		TRACE	
N-PENTANE	0.0			0.0		TRACE	
ISOPENTANE	0.6			1.5		TRACE	
CYCLOPENTANE	0.3			0.8		TRACE	
HEXANES PLUS	0.4			0.6		TRACE	
NITROGEN	2.0			0.7		1.1	
OXYGEN	TRACE			TRACE		TRACE	
ARGON	0.0			0.0		TRACE	
HYDROGEN	0.0			0.2		0.0	
HYDROGEN SULFIDE*	0.0			0.0		0.0	
CARBON DIOXIDE	0.3			0.5		0.2	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE	1088			1157		1025	
SPECIFIC GRAVITY	0.627			0.659		0.577	
		INDEX SAMPLE	523 17681	INDEX SAMPLE	524 16233	INDEX SAMPLE	525 11627
STATE	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY	CONTRA COSTA			CONTRA COSTA		CONTRA COSTA	
FIELD	LOS MEDANOS			OAKLEY S		RIVER BREAK	
WELL NAME	PEERY NO. 1			NGC-NUNN NO. 1		MASSONI-DEHARTINI NO. 1	
LOCATION	SEC. 8, T2N, R1W			SEC. 7, T1N, R3E		SEC. 27, T2N, R2E	
OWNER	CHEVRON U.S.A., INC.			WESTERN CONTINENTAL OPER. CO		GREAT YELLOWSTONE CORP.	
COMPLETED	08/24/83			--/700		06/18/68	
SAMPLED	05/23/85			04/--/81		08/26/68	
FORMATION	EOCE-DOMENGINE			NOT GIVEN		TERT-MASSIVE	
GEOLOGIC PROVINCE CODE	730			730		730	
DEPTH, FEET	2630			NOT GIVEN		5523	
WELLHEAD PRESSURE, PSIG	850			NOT GIVEN		2246	
OPEN FLOW, MCFD	1800			NOT GIVEN		3700	
COMPONENT, MOLE PCT							
METHANE	97.9			90.5		92.6	
ETHANE	0.3			3.9		3.5	
PROPANE	0.1			0.3		0.7	
N-BUTANE	0.0			0.3		0.6	
ISOBUTANE	0.0			0.2		0.4	
N-PENTANE	0.0			0.0		0.3	
ISOPENTANE	0.0			TRACE		TRACE	
CYCLOPENTANE	0.0			0.1		0.1	
HEXANES PLUS	0.0			0.1		0.2	
NITROGEN	1.2			2.5		0.5	
OXYGEN	0.0			0.5		0.0	
ARGON	0.0			TRACE		0.0	
HYDROGEN	0.0			0.0		TRACE	
HYDROGEN SULFIDE*	0.0			0.0		0.0	
CARBON DIOXIDE	0.5			0.4		0.0	
HELIUM	TRACE			TRACE		0.01	
HEATING VALUE	1000			TRACE		1105	
SPECIFIC GRAVITY	0.567			0.619		0.618	
		INDEX SAMPLE	526 11628	INDEX SAMPLE	527 16226	INDEX SAMPLE	528 7237
STATE	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY	CONTRA COSTA			CONTRA COSTA		CONTRA COSTA	
FIELD	RIVER BREAK			RIVER BREAK		WILLOW PASS	
WELL NAME	TRANSAMERICA NO. 1			SMITH NO. 1		FARLA UNIT NO. 1	
LOCATION	SEC. 3, T1N, R2E			SEC. 35, T2N, R2E		SEC. 21, T2N, R1W	
OWNER	GREAT YELLOWSTONE CORP.			WESTERN CONTINENTAL CO.		TRICO OIL & GAS CO.	
COMPLETED	06/22/68			09/06/80		05/31/59	
SAMPLED	08/26/68			04/06/80		10/01/59	
FORMATION	-WILLIAMSON			TERT-MASSIVE		EOCE	
GEOLOGIC PROVINCE CODE	730			730		730	
DEPTH, FEET	4297			5416		1714	
WELLHEAD PRESSURE, PSIG	1835			NOT GIVEN		625	
OPEN FLOW, MCFD	1900			3500		4300	
COMPONENT, MOLE PCT							
METHANE	93.5			93.4		53.5	
ETHANE	3.3			3.6		0.1	
PROPANE	1.0			1.2		0.0	
N-BUTANE	0.3			0.3		0.0	
ISOBUTANE	0.0			0.2		0.0	
N-PENTANE	0.2			TRACE		0.0	
ISOPENTANE	0.1			0.2		0.0	
CYCLOPENTANE	0.1			0.1		0.0	
HEXANES PLUS	0.3			0.1		0.0	
NITROGEN	1.2			0.9		40.7	
OXYGEN	0.0			0.0		TRACE	
ARGON	TRACE			TRACE		0.4	
HYDROGEN	TRACE			0.0		1.1	
HYDROGEN SULFIDE*	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.1		4.1	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE	1074			1076		547	
SPECIFIC GRAVITY	0.605			0.605		0.760	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

53

INDEX 529			INDEX 530			INDEX 531		
SAMPLE 7238			SAMPLE 7239			SAMPLE 4088		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	CONTRA COSTA		CONTRA COSTA			FRESNO		
FIELD.....	WILLOW PASS		WILLOW PASS			BURREL		
WELL NAME.....	FARIA UNIT NO. 2		FARIA UNIT NO. 3			BURREL NO. 68-35		
LOCATION.....	SEC. 21, T2N, R1W		SEC. 21, T2N, R1W			SEC. 35, T16S, R18E		
OWNER.....	TRICO OIL & GAS CO.		TRICO OIL & GAS CO.			GENERAL PET. CORP. OF CALIF.		
COMPLETED.....	07/28/59		08/11/59			10/26/43		
SAMPLED.....	10/01/59		10/01/59			02/23/45		
FORMATION.....	EOCE-		EOCE-			R10C-		
GEOLOGIC PROVINCE CODE.....	730		730			745		
DEPTH, FEET.....	1498		1570			6484		
WELLHEAD PRESSURE, PSIG.....	510		620			860		
OPEN FLOW, MCFD.....	1500		3000			183		
COMPONENT, MOLE PCT								
METHANE.....	98.6		98.2			69.0		
ETHANE.....	TRACE		0.1			24.8		
PROPANE.....	0.2		0.0			---		
N-BUTANE.....	0.0		0.0			---		
ISOBUTANE.....	0.0		0.0			---		
N-PENTANE.....	0.0		0.0			---		
ISOPENTANE.....	0.0		0.0			---		
CYCLOPENTANE.....	0.0		0.0			---		
HEXANES PLUS.....	0.0		0.0			---		
NITROGEN.....	1.1		1.5			4.5		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.0		0.2			1.7		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1004		997			1143		
SPECIFIC GRAVITY.....	0.560		0.563			0.712		
INDEX 532			INDEX 533			INDEX 534		
SAMPLE 3850			SAMPLE 3721			SAMPLE 4090		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	FRESNO		FRESNO			FRESNO		
FIELD.....	COALINGA		JACALITOS DOME			NOT GIVEN		
WELL NAME.....	21-17E		WELL 67-17E			NO. 21-21E		
LOCATION.....	SEC. 17, T21S, R15E		SEC. 17, T21N, R15E			SEC. 21, T21S, R15E		
OWNER.....	STANDARD OIL CO. OF CALIF.		STANDARD OIL CO. OF CALIF.			STANDARD OIL CO. OF CALIF.		
COMPLETED.....	04/18/44		02/01/48			---		
SAMPLED.....	04/29/44		---			---		
FORMATION.....	MIOC-TEMLOR		MIOC-TEMLOR			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	3173		3700			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	6580		4392			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	77.5		80.6			10.6		
ETHANE.....	20.4		17.3			5.2		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	0.0		1.7			75.4		
OXYGEN.....	1.0		0.3			0.0		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.1		0.1			8.8		
HELIUM.....	0.00		TRACE			0.00		
HEATING VALUE.....	1151		1157			201		
SPECIFIC GRAVITY.....	0.672		0.650			0.977		
INDEX 535			INDEX 536			INDEX 537		
SAMPLE 3800			SAMPLE 14057			SAMPLE 10518		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	FRESNO		FRESNO			FRESNO		
FIELD.....	RAISIN CITY		SAN JOAQUIN			SAN JOAQUIN NW		
WELL NAME.....	SUN-PUTNAM NO. 1-1		TEED NO. 1			TEED NO. 1		
LOCATION.....	SEC. 10, T15S, R17E		NOT GIVEN			SEC. 23, T15S, R16E		
OWNER.....	SHELL OIL CO.		TEXACO INC.			TEXACO & SUPERIOR		
COMPLETED.....	10/04/43		---			11/01/65		
SAMPLED.....	04/14/44		07/09/74			03/29/66		
FORMATION.....	MIOC-		NOT GIVEN			EOCE-		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	4975		NOT GIVEN			6794		
WELLHEAD PRESSURE, PSIG.....	600		1600			2550		
OPEN FLOW, MCFD.....	150		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	95.2		97.1			97.4		
ETHANE.....	1.5		0.8			0.8		
PROPANE.....	---		0.2			0.2		
N-BUTANE.....	---		TRACE			0.1		
ISOBUTANE.....	---		0.1			0.0		
N-PENTANE.....	---		0.0			0.0		
ISOPENTANE.....	---		0.0			0.0		
CYCLOPENTANE.....	---		0.1			0.0		
HEXANES PLUS.....	---		TRACE			0.0		
NITROGEN.....	0.0		1.5			0.4		
OXYGEN.....	1.4		0.0			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	1.9		0.1			0.1		
HELIUM.....	0.00		0.01			0.02		
HEATING VALUE.....	991		991			1010		
SPECIFIC GRAVITY.....	0.588		0.573			0.569		
INDEX 538			INDEX 539			INDEX 540		
SAMPLE 10871			SAMPLE 7399			SAMPLE 10961		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	GLENN		GLENN			GLENN		
FIELD.....	BLACK BUTTE		CAPAY RANCHO			MALTON		
WELL NAME.....	SUN-PUTNAM NO. 1		MODA NO. 54-10			MALTON UNIT 1 NO. 1		
LOCATION.....	SEC. 1, T22N, R4W		SEC. 10, T22N, R2W			SEC. 5, T22N, R3E		
OWNER.....	MCCULLOCH OIL CORP. OF CALIF		MOBIL OIL CORP.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	01/11/65		08/21/59			09/15/64		
SAMPLED.....	02/10/67		02/10/67			05/12/67		
FORMATION.....	CRET-FORBES		PLIO-TEHAMA			CRET-FORBES		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	4320		1710			3581		
WELLHEAD PRESSURE, PSIG.....	2332		714			1759		
OPEN FLOW, MCFD.....	9600		12700			1220		
COMPONENT, MOLE PCT								
METHANE.....	97.9		83.9			98.6		
ETHANE.....	0.3		0.0			0.2		
PROPANE.....	0.0		0.1			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	1.7		15.8			0.9		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.1		
HELIUM.....	0.01		0.02			TRACE		
HEATING VALUE.....	997		852			1002		
SPECIFIC GRAVITY.....	0.567		0.621			0.560		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	541 3747	INDEX SAMPLE	542 3748	INDEX SAMPLE	543 17626
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	GLENN			GLENN		GLENN	
FIELD.....	ORD BEND			ORD BEND		ORLAND	
WELL NAME.....	KNIGHT NO. 1			CAPAY GRANT COMM.-1 NO. 2		WHITE NO. 1	
LOCATION.....	SEC. 13, T21N, R2W			SEC. 13, T21N, R2W		SEC. 29, T22N, R3W	
OWNER.....	SUPERIOR OIL CO.			SUPERIOR OIL CO.		NATURAL GAS CORP. OF CALIF.	
COMPLETED.....	08/24/43			03/02/44		10/14/84	
SAMPLED.....	04/29/44			04/29/44		03/16/85	
FORMATION.....	CRET-KIONE			CRET-KIONE		CRET-KIONE	
GEOLOGIC PROVINCE CODE.....	730			730		730	
DEPTH, FEET.....	3653			3670		6375	
WELLHEAD PRESSURE, PSIG.....	1480			1500		780	
OPEN FLOW, MCFD.....	4150			4550		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	90.6			88.4		91.0	
ETHANE.....	0.0			0.0		0.0	
PROPANE.....	---			---		0.0	
N-BUTANE.....	---			---		0.0	
ISOBUTANE.....	---			---		0.0	
N-PENTANE.....	---			---		0.0	
ISOPENTANE.....	---			---		0.0	
CYCLOPENTANE.....	---			---		0.0	
HEXANES PLUS.....	---			---		0.0	
NITROGEN.....	8.9			11.2		8.9	
OXYGEN.....	0.5			0.4		0.0	
ARGON.....	---			---		TRACE	
HYDROGEN.....	---			---		0.0	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	0.00			0.00		0.1	
HELIUM.....	918			895		0.01	
HEATING VALUE.....				0.603		922	
SPECIFIC GRAVITY.....	0.594					0.592	
		INDEX SAMPLE	544 16543	INDEX SAMPLE	545 15706	INDEX SAMPLE	546 2778
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	GLENN			GLENN		HUMBOLDT	
FIELD.....	PRINCETON			RANCHO CAPAY		TOMPKINS HILL	
WELL NAME.....	TORRES NO. 1-18			WELDBEN EDDINS NO. 1		EUREKA NO. 2	
LOCATION.....	SEC. 18, T18N, R1W			SEC. 14, T22N, R2W		SEC. 22, T3N, R1W	
OWNER.....	JORDAN OIL & GAS CO.			GULF OIL CORP.		TEXAS CO.	
COMPLETED.....	--/782			--/700		07/18/37	
SAMPLED.....	06/10/82			07/23/79		11/29/37	
FORMATION.....	NOT GIVEN			CRET-FORBES		PLIO-	
GEOLOGIC PROVINCE CODE.....	730			730		720	
DEPTH, FEET.....	NOT GIVEN			5354		4010	
WELLHEAD PRESSURE, PSIG.....	950			2402		2386	
OPEN FLOW, MCFD.....	905			5100		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	86.7			97.8		96.9	
ETHANE.....	TRACE			---		1.3	
PROPANE.....	---			TRACE		---	
N-BUTANE.....	0.0			0.0		---	
ISOBUTANE.....	0.0			0.0		---	
N-PENTANE.....	0.0			0.0		---	
ISOPENTANE.....	0.0			0.0		---	
CYCLOPENTANE.....	0.0			0.0		---	
HEXANES PLUS.....	0.0			0.0		---	
NITROGEN.....	13.1			1.8		1.4	
OXYGEN.....	TRACE			TRACE		0.2	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.1			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.1			0.1		0.2	
HELIUM.....	TRACE			TRACE		0.00	
HEATING VALUE.....	879			994		1005	
SPECIFIC GRAVITY.....	0.609			0.563		0.570	
		INDEX SAMPLE	547 4283	INDEX SAMPLE	548 5970	INDEX SAMPLE	549 4797
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	HUMBOLDT			INTO		KERN	
FIELD.....	TOMPKINS HILL			NOT GIVEN		ANTELOPE PLAINS	
WELL NAME.....	HOLMES-EUREKA NO. 3			WATER WELL		BOLTON 83	
LOCATION.....	SEC. 22, T3N, R1W			NOT GIVEN		SEC. 27, T27S, R19E	
OWNER.....	TEXAS CO.			ELMO R. JENKINS		INDEPENDENT EXPLORATION CO.	
COMPLETED.....	10/10/46			--/700		03/05/49	
SAMPLED.....	03/11/47			NOT GIVEN		10/24/49	
FORMATION.....	PLIO-			NOT GIVEN		EOCE-	
GEOLOGIC PROVINCE CODE.....	720			625		745	
DEPTH, FEET.....	3940			NOT GIVEN		3203	
WELLHEAD PRESSURE, PSIG.....	1700			NOT GIVEN		350	
OPEN FLOW, MCFD.....	1500			NOT GIVEN		200	
COMPONENT, MOLE PCT.....							
METHANE.....	95.6			5.1		97.1	
ETHANE.....	1.2			0.1		1.5	
PROPANE.....	---			0.0		0.5	
N-BUTANE.....	---			0.0		0.1	
ISOBUTANE.....	---			0.0		0.0	
N-PENTANE.....	---			0.0		0.0	
ISOPENTANE.....	---			0.0		0.0	
CYCLOPENTANE.....	---			0.0		TRACE	
HEXANES PLUS.....	---			0.0		0.1	
NITROGEN.....	1.8			34.1		0.3	
OXYGEN.....	0.8			TRACE		TRACE	
ARGON.....	---			0.4		TRACE	
HYDROGEN.....	---			TRACE		0.0	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.6			60.2		0.2	
HELIUM.....	TRACE			0.16		TRACE	
HEATING VALUE.....	990			53		1036	
SPECIFIC GRAVITY.....	0.578			1.285		0.575	
		INDEX SAMPLE	550 5168	INDEX SAMPLE	551 12694	INDEX SAMPLE	552 16524
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	KERN			KERN		KERN	
FIELD.....	BELGIAN ANTICLINE			BELGIAN ANTICLINE		BOWERBANK	
WELL NAME.....	TULARE FEE NO. 1			USL-62-25		SALISBURY NO. 3	
LOCATION.....	SEC. 19, T30S, R22E			NOT GIVEN		SEC. 7, T29S, R24E	
OWNER.....	OHIO OIL CO.			NORRIS OIL CO.		TEXACO U.S.A.	
COMPLETED.....	11/14/51			--/710		04/05/81	
SAMPLED.....	02/28/52			02/--/71		05/24/82	
FORMATION.....	EOCE-			EOCE-POINT OF ROCKS 2ND		PLIO-HYA 2ND & ROOT U	
GEOLOGIC PROVINCE CODE.....	745			745		745	
DEPTH, FEET.....	6544			5400		3418	
WELLHEAD PRESSURE, PSIG.....	3100			NOT GIVEN		900	
OPEN FLOW, MCFD.....	10000			4000		310	
COMPONENT, MOLE PCT.....							
METHANE.....	93.1			86.9		99.1	
ETHANE.....	3.5			6.0		0.1	
PROPANE.....	0.5			0.2		TRACE	
N-BUTANE.....	0.5			0.8		0.0	
ISOBUTANE.....	TRACE			0.7		0.0	
N-PENTANE.....	0.1			0.2		0.0	
ISOPENTANE.....	0.1			0.4		0.0	
CYCLOPENTANE.....	TRACE			0.1		0.0	
HEXANES PLUS.....	0.2			0.2		0.0	
NITROGEN.....	0.7			0.8		0.6	
OXYGEN.....	0.1			0.1		0.1	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.8		0.1	
HELIUM.....	TRACE			1.001		TRACE	
HEATING VALUE.....	1082			1061		1086	
SPECIFIC GRAVITY.....	0.607			0.670		0.559	

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

65

INDEX 553 SAMPLE 1958			INDEX 554 SAMPLE 2758			INDEX 555 SAMPLE 4859		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	KERN		KERN			KERN		
FIELD.....	BUTTON WILLOW		BUTTON WILLOW			BUTTON WILLOW		
WELL NAME.....	HARRIS NO. 1		KERN NO. 4			NO. CL 27-6		
LOCATION.....	SEC. 8, T28S, R23E		SEC. 5, T28S, R23E			SEC. 5, T28S, R23E		
OWNER.....	MILHAM EXPLORATION CO.		SEABOARD OIL CO.			STANDARD OIL CO. OF CALIF.		
COMPLETED.....	02/28/29		04/07/28			10/13/49		
SAMPLED.....	03/14/30		06/25/37			02/21/50		
FORMATION.....	PLIO-PASO ROBLES		PLIO-MYA			PLIO-SAN JOAQUIN		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	2450		2483			3403		
WELLHEAD PRESSURE, PSIG.....	1040		1050			950		
OPEN FLOW, MCFD.....	NOT GIVEN		8200			400		
COMPONENT, MOLE PCT								
METHANE.....	97.8		97.4			98.1		
ETHANE.....	0.6		0.0			0.4		
PROPANE.....	---		---			0.3		
N-BUTANE.....	---		---			0.2		
ISOBUTANE.....	---		---			0.0		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.2		
NITROGEN.....	0.6		1.5			0.4		
OXYGEN.....	0.3		0.6			0.1		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			TRACE		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.8		0.5			0.0		
HELIUM.....	0.00		TRACE			TRACE		
HEATING VALUE.....	1001		987			1034		
SPECIFIC GRAVITY.....	0.570		0.569			0.573		
INDEX 556 SAMPLE 15318			INDEX 557 SAMPLE 4109			INDEX 558 SAMPLE 5219		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	KERN		KERN			KERN		
FIELD.....	CAL CANAL		ELK HILLS			ELK HILLS		
WELL NAME.....	CHEVRON CAL CANAL NO. 1		NO. 86-22R			NO. X-55		
LOCATION.....	SEC. 31, T28S, R22E		SEC. 31, T30S, R23E			SEC. 30, T30S, R23E		
OWNER.....	OCCIDENTAL EXPL. & PROD. CO.		OFFICE OF NAVAL PET. RESERVE			STANDARD OIL CO. OF CALIF.		
COMPLETED.....	09/09/77		05/03/46			01/10/52		
SAMPLED.....	07/12/78		08/-/46			02/28/52		
FORMATION.....	MIOC-STEVENS		PLIO-SUB MULINIA ZONE			MIOC-CARNEROS		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	11050		2526			9330		
WELLHEAD PRESSURE, PSIG.....	1100		913			4198		
OPEN FLOW, MCFD.....	2200		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.0		95.1			83.1		
ETHANE.....	0.4		3.0			8.4		
PROPANE.....	5.6		---			3.2		
N-BUTANE.....	2.4		---			0.8		
ISOBUTANE.....	1.4		---			0.4		
N-PENTANE.....	0.8		---			0.2		
ISOPENTANE.....	1.3		---			0.2		
CYCLOPENTANE.....	0.5		---			0.0		
HEXANES PLUS.....	0.9		---			0.1		
NITROGEN.....	0.2		1.3			0.7		
OXYGEN.....	TRACE		0.4			0.1		
ARGON.....	0.0		0.3			0.0		
HYDROGEN.....	0.1		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			TRACE		
HELIUM.....	1332		1017			1138		
HEATING VALUE.....	0.825		0.579			0.687		
SPECIFIC GRAVITY.....								
INDEX 559 SAMPLE 9302			INDEX 560 SAMPLE 5653			INDEX 561 SAMPLE 4222		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	KERN		KERN			KERN		
FIELD.....	JOHNS COLONY		JOHNS RANCH			WICKITRICK AREA		
WELL NAME.....	KCL 55 NO. 28		HANCOCK NO. 25 A-7			WEST PET NO. 1		
LOCATION.....	SEC. 22, T29S, R26E		SEC. 7, T30S, R21E			SEC. 29, T30S, R22E		
OWNER.....	STANDARD OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.			TEXAS CO.		
COMPLETED.....	11/08/63		04/23/54			10/21/46		
SAMPLED.....	04/14/64		07/21/54			01/10/47		
FORMATION.....	MIOC-STEVENS		MIOC-PHACOIDES			MIOC-OCEANIC		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	6968		1502			5173		
WELLHEAD PRESSURE, PSIG.....	2625		408			2651		
OPEN FLOW, MCFD.....	8000		NOT GIVEN			2080		
COMPONENT, MOLE PCT								
METHANE.....	86.5		94.9			74.7		
ETHANE.....	5.0		2.6			8.3		
PROPANE.....	1.4		---			---		
N-BUTANE.....	1.3		0.2			---		
ISOBUTANE.....	0.9		0.1			---		
N-PENTANE.....	0.4		0.0			---		
ISOPENTANE.....	0.3		0.2			---		
CYCLOPENTANE.....	0.4		TRACE			---		
HEXANES PLUS.....	0.7		TRACE			---		
NITROGEN.....	0.5		0.0			2.5		
OXYGEN.....	TRACE		0.0			1.5		
ARGON.....	0.0		0.0			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.1			---		
CARBON DIOXIDE.....	0.5		0.5			13.0		
HELIUM.....	TRACE		0.03			0.01		
HEATING VALUE.....	1209		1090			905		
SPECIFIC GRAVITY.....	0.691		0.589			0.741		
INDEX 562 SAMPLE 1957			INDEX 563 SAMPLE 1622			INDEX 564 SAMPLE 3726		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	KERN		KERN			KERN		
FIELD.....	MIDWAY		MIDWAY-SUNSET			MOUNT POSO		
WELL NAME.....	NOT GIVEN		NOT GIVEN			WEDDER NO. 1-18		
LOCATION.....	SEC. 1, T32S, R23E		NOT GIVEN			SEC. 18, T27S, R28E		
OWNER.....	STANDARD OIL CO. OF CALIF.		MIDWAY GAS CO.			DWIGHT G. WEDDER		
COMPLETED.....	03/14/30		03/23/28			12/27/43		
SAMPLED.....	03/14/30		NOT GIVEN			03/19/44		
FORMATION.....	PLIO-ETCHEGOIN		NOT GIVEN			MIOC-L		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	2500		NOT GIVEN			2440		
WELLHEAD PRESSURE, PSIG.....	300		300			650		
OPEN FLOW, MCFD.....	6000		NOT GIVEN			5000		
COMPONENT, MOLE PCT								
METHANE.....	55.9		75.9			98.1		
ETHANE.....	20.8		10.7			0.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	10.0		---			0.9		
OXYGEN.....	1.7		1.1			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	11.7		8.8			0.6		
HELIUM.....	0.00		0.00			0.00		
HEATING VALUE.....	939		---			994		
SPECIFIC GRAVITY.....	0.823		0.713			0.566		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	565 2757		INDEX SAMPLE	566 5801		INDEX SAMPLE	567 7706
STATE.....	CALIFORNIA		STATE.....	CALIFORNIA		STATE.....	CALIFORNIA	
COUNTY.....	KERN		COUNTY.....	KERN		COUNTY.....	KERN	
FIELD.....	SEMI-TROPIC		FIELD.....	SHAFTER		FIELD.....	SHALE FLATS AREA	
WELL NAME.....	CONTINENTAL 63-15		WELL NAME.....	LOESS NO. 63-18		WELL NAME.....	UNIT NO. 15	
LOCATION.....	SEC. 15, T27S, R23E		LOCATION.....	SEC. 18, T28S, R25E		LOCATION.....	SEC. 9, T27S, R19E	
OWNER.....	SEABOARD OIL CO.		OWNER.....	TWA CAPITAL CO. & GEOCHEMICA		OWNER.....	SHELL OIL CO., ET AL.	
COMPLETED.....	07/16/53		COMPLETED.....	12/10/54		COMPLETED.....	07/13/60	
SAMPLED.....	06/28/37		SAMPLED.....	04/08/55		SAMPLED.....	10/06/60	
FORMATION.....	MIOC-		FORMATION.....	PLIO-ETCHEGOIN		FORMATION.....	EOCE-M	
GEOLOGIC PROVINCE CODE.....	745		GEOLOGIC PROVINCE CODE.....	745		GEOLOGIC PROVINCE CODE.....	745	
DEPTH, FEET.....	2395		DEPTH, FEET.....	4315		DEPTH, FEET.....	2805	
WELLHEAD PRESSURE, PSIG.....	750		WELLHEAD PRESSURE, PSIG.....	1686		WELLHEAD PRESSURE, PSIG.....	1094	
OPEN FLOW, MCFD.....	17028		OPEN FLOW, MCFD.....	3000		OPEN FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	97.1		METHANE.....	99.3		METHANE.....	98.6	
ETHANE.....	0.0		ETHANE.....	0.1		ETHANE.....	0.8	
PROPANE.....	---		PROPANE.....	---		PROPANE.....	---	
N-BUTANE.....	---		N-BUTANE.....	TRACE		N-BUTANE.....	---	
ISOBUTANE.....	---		ISOBUTANE.....	0.0		ISOBUTANE.....	---	
N-PENTANE.....	---		N-PENTANE.....	TRACE		N-PENTANE.....	---	
ISOPENTANE.....	0.1/2/08		ISOPENTANE.....	0.0		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	---		CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	---	
HEXANES PLUS.....	---		HEXANES PLUS.....	TRACE		HEXANES PLUS.....	---	
NITROGEN.....	1.7		NITROGEN.....	0.0		NITROGEN.....	0.3	
OXYGEN.....	0.6		OXYGEN.....	0.0		OXYGEN.....	---	
ARGON.....	---		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	---		HYDROGEN.....	0.1		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---	
CARBON DIOXIDE.....	0.6		CARBON DIOXIDE.....	0.0		CARBON DIOXIDE.....	0.1	
HELIUM.....	TRACE		HELIUM.....	0.15		HELIUM.....	0.02	
HEATING VALUE.....	984		HEATING VALUE.....	1015		HEATING VALUE.....	1013	
SPECIFIC GRAVITY.....	0.571		SPECIFIC GRAVITY.....	0.557		SPECIFIC GRAVITY.....	0.559	
	INDEX SAMPLE	568 4419		INDEX SAMPLE	569 8312		INDEX SAMPLE	570 4872
STATE.....	CALIFORNIA		STATE.....	CALIFORNIA		STATE.....	CALIFORNIA	
COUNTY.....	KERN		COUNTY.....	KERN		COUNTY.....	KINGS	
FIELD.....	SHEEP SPRINGS		FIELD.....	TEN SECTION		FIELD.....	HARVESTER	
WELL NAME.....	CYRILIC NO. 12A		WELL NAME.....	KCL-46-46-33		WELL NAME.....	HARVESTER UNIT NO. 1	
LOCATION.....	SEC. 21, T29S, R21E		LOCATION.....	SEC. 3, T30S, R26E		LOCATION.....	SEC. 11, T23S, R21E	
OWNER.....	INDEPENDENT EXPLORATION CO.		OWNER.....	STANDARD OIL CO. OF CALIF.		OWNER.....	SHELL OIL CO.	
COMPLETED.....	10/09/47		COMPLETED.....	08/77-61		COMPLETED.....	02/01/50	
SAMPLED.....	01/12/48		SAMPLED.....	11/12/61		SAMPLED.....	04/13/50	
FORMATION.....	NOT GIVEN		FORMATION.....	MIOC-U		FORMATION.....	PLIO-MYA	
GEOLOGIC PROVINCE CODE.....	745		GEOLOGIC PROVINCE CODE.....	745		GEOLOGIC PROVINCE CODE.....	745	
DEPTH, FEET.....	4692		DEPTH, FEET.....	8073		DEPTH, FEET.....	2797	
WELLHEAD PRESSURE, PSIG.....	1900		WELLHEAD PRESSURE, PSIG.....	157		WELLHEAD PRESSURE, PSIG.....	1230	
OPEN FLOW, MCFD.....	5000		OPEN FLOW, MCFD.....	450		OPEN FLOW, MCFD.....	4150	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	78.3		METHANE.....	82.4		METHANE.....	98.6	
ETHANE.....	19.7		ETHANE.....	7.7		ETHANE.....	0.3	
PROPANE.....	---		PROPANE.....	4.8		PROPANE.....	0.1	
N-BUTANE.....	---		N-BUTANE.....	0.7		N-BUTANE.....	0.1	
ISOBUTANE.....	---		ISOBUTANE.....	1.1		ISOBUTANE.....	0.0	
N-PENTANE.....	---		N-PENTANE.....	0.3		N-PENTANE.....	0.1	
ISOPENTANE.....	---		ISOPENTANE.....	0.3		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	---		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	---	
HEXANES PLUS.....	---		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.1	
NITROGEN.....	1.4		NITROGEN.....	0.5		NITROGEN.....	0.7	
OXYGEN.....	0.2		OXYGEN.....	---		OXYGEN.....	0.1	
ARGON.....	---		ARGON.....	0.0		ARGON.....	---	
HYDROGEN.....	---		HYDROGEN.....	0.0		HYDROGEN.....	---	
HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	---	
CARBON DIOXIDE.....	0.4		CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.0	
HELIUM.....	TRACE		HELIUM.....	0.01		HELIUM.....	---	
HEATING VALUE.....	1146		HEATING VALUE.....	1240		HEATING VALUE.....	1018	
SPECIFIC GRAVITY.....	0.663		SPECIFIC GRAVITY.....	0.716		SPECIFIC GRAVITY.....	0.567	
	INDEX SAMPLE	571 4688		INDEX SAMPLE	572 1936		INDEX SAMPLE	573 1959
STATE.....	CALIFORNIA		STATE.....	CALIFORNIA		STATE.....	CALIFORNIA	
COUNTY.....	KINGS		COUNTY.....	KINGS		COUNTY.....	KINGS	
FIELD.....	KETTLEMAN		FIELD.....	KETTLEMAN HILLS		FIELD.....	KETTLEMAN HILLS	
WELL NAME.....	S. F. & F. L. NO. 68-42		WELL NAME.....	NO. 8		WELL NAME.....	NO. 8	
LOCATION.....	SEC. 4, T22S, R17E		LOCATION.....	SEC. 1, T22S, R17E		LOCATION.....	SEC. 1, T22S, R17E	
OWNER.....	STANDARD OIL CO. OF CALIF.		OWNER.....	STANDARD OIL CO. OF CALIF.		OWNER.....	STANDARD OIL CO. OF CALIF.	
COMPLETED.....	--/--/00		COMPLETED.....	12/30/29		COMPLETED.....	12/26/29	
SAMPLED.....	04/08/49		SAMPLED.....	02/17/30		SAMPLED.....	03/14/30	
FORMATION.....	MIOC-L		FORMATION.....	MIOC-TEMBLOR		FORMATION.....	MIOC-TEMBLOR	
GEOLOGIC PROVINCE CODE.....	745		GEOLOGIC PROVINCE CODE.....	745		GEOLOGIC PROVINCE CODE.....	745	
DEPTH, FEET.....	10487		DEPTH, FEET.....	6100		DEPTH, FEET.....	6100	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	2300	
OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	108000		OPEN FLOW, MCFD.....	101000	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	83.9		METHANE.....	66.7		METHANE.....	65.2	
ETHANE.....	7.9		ETHANE.....	30.6		ETHANE.....	30.5	
PROPANE.....	3.3		PROPANE.....	---		PROPANE.....	---	
N-BUTANE.....	0.5		N-BUTANE.....	---		N-BUTANE.....	---	
ISOBUTANE.....	0.5		ISOBUTANE.....	---		ISOBUTANE.....	---	
N-PENTANE.....	0.3		N-PENTANE.....	---		N-PENTANE.....	---	
ISOPENTANE.....	0.6		ISOPENTANE.....	---		ISOPENTANE.....	---	
CYCLOPENTANE.....	---		CYCLOPENTANE.....	---		CYCLOPENTANE.....	---	
HEXANES PLUS.....	0.5		HEXANES PLUS.....	---		HEXANES PLUS.....	---	
NITROGEN.....	0.2		NITROGEN.....	1.9		NITROGEN.....	3.7	
OXYGEN.....	TRACE		OXYGEN.....	0.2		OXYGEN.....	0.3	
ARGON.....	---		ARGON.....	---		ARGON.....	---	
HYDROGEN.....	---		HYDROGEN.....	---		HYDROGEN.....	---	
HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---	
CARBON DIOXIDE.....	1.5		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.3	
HELIUM.....	TRACE		HELIUM.....	0.00		HELIUM.....	0.00	
HEATING VALUE.....	1204		HEATING VALUE.....	1274		HEATING VALUE.....	1207	
SPECIFIC GRAVITY.....	0.699		SPECIFIC GRAVITY.....	0.715		SPECIFIC GRAVITY.....	0.725	
	INDEX SAMPLE	574 4716		INDEX SAMPLE	575 5593		INDEX SAMPLE	576 5594
STATE.....	CALIFORNIA		STATE.....	CALIFORNIA		STATE.....	CALIFORNIA	
COUNTY.....	KINGS		COUNTY.....	KINGS		COUNTY.....	KINGS	
FIELD.....	KETTLEMAN MIDDLE DOME		FIELD.....	MCCLURE VALLEY		FIELD.....	MCCLURE VALLEY	
WELL NAME.....	S. F. & F. L. NO. 68-42		WELL NAME.....	AL80 NO. 22-13X		WELL NAME.....	AL80 NO. 22-13X	
LOCATION.....	SEC. 13, T24S, R19E		LOCATION.....	SEC. 13, T24S, R17E		LOCATION.....	SEC. 13, T24S, R17E	
OWNER.....	STANDARD OIL CO. OF CALIF.		OWNER.....	STANDARD OIL CO. OF CALIF.		OWNER.....	STANDARD OIL CO. OF CALIF.	
COMPLETED.....	--/--/00		COMPLETED.....	--/--/00		COMPLETED.....	--/--/00	
SAMPLED.....	07/08/49		SAMPLED.....	02/06/54		SAMPLED.....	02/07/54	
FORMATION.....	MIOC-L		FORMATION.....	NOT GIVEN		FORMATION.....	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	745		GEOLOGIC PROVINCE CODE.....	745		GEOLOGIC PROVINCE CODE.....	745	
DEPTH, FEET.....	10805		DEPTH, FEET.....	3551		DEPTH, FEET.....	3611	
WELLHEAD PRESSURE, PSIG.....	6500		WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	1500	
OPEN FLOW, MCFD.....	70		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	75.1		METHANE.....	96.6		METHANE.....	96.6	
ETHANE.....	8.7		ETHANE.....	0.8		ETHANE.....	1.8	
PROPANE.....	5.7		PROPANE.....	0.9		PROPANE.....	0.8	
N-BUTANE.....	2.7		N-BUTANE.....	TRACE		N-BUTANE.....	0.1	
ISOBUTANE.....	0.2		ISOBUTANE.....	0.0		ISOBUTANE.....	0.1	
N-PENTANE.....	1.2		N-PENTANE.....	0.1		N-PENTANE.....	0.1	
ISOPENTANE.....	0.5		ISOPENTANE.....	0.0		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	0.3		CYCLOPENTANE.....	---		CYCLOPENTANE.....	---	
HEXANES PLUS.....	0.3		HEXANES PLUS.....	---		HEXANES PLUS.....	---	
NITROGEN.....	0.9		NITROGEN.....	0.4		NITROGEN.....	0.4	
OXYGEN.....	0.0		OXYGEN.....	---		OXYGEN.....	---	
ARGON.....	0.0		ARGON.....	---		ARGON.....	---	
HYDROGEN.....	0.0		HYDROGEN.....	---		HYDROGEN.....	---	
HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---	
CARBON DIOXIDE.....	2.4		CARBON DIOXIDE.....	0.0		CARBON DIOXIDE.....	0.0	
HELIUM.....	TRACE		HELIUM.....	0.01		HELIUM.....	0.0	
HEATING VALUE.....	1345		HEATING VALUE.....	0.575		HEATING VALUE.....	1038	
SPECIFIC GRAVITY.....	0.815		SPECIFIC GRAVITY.....	---		SPECIFIC GRAVITY.....	0.575	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

57

INDEX 577 SAMPLE 2548			INDEX 578 SAMPLE 4119			INDEX 579 SAMPLE 4598		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	KINGS		KINGS			LOS ANGELES		
FIELD.....	NOT GIVEN		TRICO			ALISO CANYON		
WELL NAME.....	WISHON-WATSON CO. WELL		DISCOMBE COMMUNITY NO. 1			FREW NO. 1-5		
LOCATION.....	SEC. 7, T23S, R20E		SEC. 1, T24S, R22E			SEC. 29, T3N, R16W		
OWNER.....	WISHON-WATSON CO.		STANDARD OIL CO. OF CALIF.			STANDARD OIL CO. OF CALIF.		
COMPLETED.....	--/--/00		08/05/46			07/29/48		
SAMPLED.....	09/09/32		10/--/46			10/25/48		
FORMATION.....	NOT GIVEN		PLIO-			MIOC-		
GEOLOGIC PROVINCE CODE.....	745		745			760		
DEPTH, FEET.....	1241		2468			8360		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1130			3350		
OPEN FLOW, MCFD.....	NOT GIVEN		3000			300		
COMPONENT, MOLE PCT								
METHANE.....	97.1		99.2			82.2		
ETHANE.....	1.0		0.0			16.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	0.5		0.0			0.6		
OXYGEN.....	0.5		0.4			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.9		0.4			0.2		
HELIUM.....	0.00		TRACE			TRACE		
HEATING VALUE.....	1002		1005			1134		
SPECIFIC GRAVITY.....	0.573		0.561			0.643		
INDEX 580 SAMPLE 903			INDEX 581 SAMPLE 904			INDEX 582 SAMPLE 905		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	LOS ANGELES		LOS ANGELES			LOS ANGELES		
FIELD.....	DOMINGUEZ		DOMINGUEZ			DOMINGUEZ		
WELL NAME.....	CALLENDER NO. 1		CALLENDER NO. 2			REYER NO. 4		
LOCATION.....	SEC. 33, T35, R13W		SEC. 33, T35, R13W			SEC. 33, T35, R13W		
OWNER.....	UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	07/07/24		07/07/24			07/07/24		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	760		760			760		
DEPTH, FEET.....	4090		4365			4355		
WELLHEAD PRESSURE, PSIG.....	83		87			32		
OPEN FLOW, MCFD.....	887000		4752			5853		
COMPONENT, MOLE PCT								
METHANE.....	64.6		68.6			59.4		
ETHANE.....	33.1		29.5			37.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	1.2		0.8			1.3		
OXYGEN.....	0.7		0.6			0.8		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.3			0.4		
HELIUM.....	0.00		0.00			0.00		
HEATING VALUE.....	1248		1224			1279		
SPECIFIC GRAVITY.....	0.726		0.709			0.753		
INDEX 583 SAMPLE 1967			INDEX 584 SAMPLE 1968			INDEX 585 SAMPLE 1960		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	LOS ANGELES		LOS ANGELES			LOS ANGELES		
FIELD.....	INGLEWOOD		INGLEWOOD			SANTA FE SPRINGS		
WELL NAME.....	WALKER 1-3		WALKERS 1-16			WALKER NO. 11		
LOCATION.....	SEC. 17, T2S, R14W		SEC. 1, T2S, R14W			SEC. 6, T3S, R11W		
OWNER.....	UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.		
COMPLETED.....	09/21/29		--/--/00			06/25/29		
SAMPLED.....	03/17/30		02/11/30			03/14/30		
FORMATION.....	PLIO-VICKERS		PLIO-VICKERS & MACHADO			PLIO-CONNELL		
GEOLOGIC PROVINCE CODE.....	760		760			760		
DEPTH, FEET.....	1671		1473			6296		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	92.3		84.9			66.5		
ETHANE.....	5.0		10.0			32.7		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	1.0		0.6			0.0		
OXYGEN.....	0.3		0.3			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.9		2.3			0.5		
HELIUM.....	0.00		0.00			0.00		
HEATING VALUE.....	1025		1035			1260		
SPECIFIC GRAVITY.....	0.591		0.639			0.723		
INDEX 586 SAMPLE 1961			INDEX 587 SAMPLE 1963			INDEX 588 SAMPLE 2681		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	LOS ANGELES		LOS ANGELES			MADERA		
FIELD.....	SANTA FE SPRINGS		SEAL BEACH			CHONCHILLA		
WELL NAME.....	WALKER NO. 19		NOT GIVEN			CHONCHILLA NO. 1		
LOCATION.....	SEC. 6, T3S, R11W		NOT GIVEN			SEC. 7, T10S, R14E		
OWNER.....	STANDARD OIL CO. OF CALIF.		STANDARD OIL CO. OF CALIF.			PURE OIL CO.		
COMPLETED.....	09/21/29		--/--/00			11/13/34		
SAMPLED.....	03/15/30		03/17/30			11/20/34		
FORMATION.....	PLIO-CLARKE		PLIO-			CRET-		
GEOLOGIC PROVINCE CODE.....	760		760			745		
DEPTH, FEET.....	7720		4800			7765		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			3000		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			16000		
COMPONENT, MOLE PCT								
METHANE.....	66.6		64.6			39.0		
ETHANE.....	32.7		12.0			1.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	0.3		20.4			58.9		
OXYGEN.....	0.3		2.9			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.0		
HELIUM.....	0.00		0.00			0.02		
HEATING VALUE.....	1261		862			427		
SPECIFIC GRAVITY.....	0.722		0.718			0.808		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 589 SAMPLE 5447			INDEX 590 SAMPLE 3801			INDEX 591 SAMPLE 3773		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	MADERA		MADERA			MADERA		
FIELD.....	CHOMCHILLA		GILL AREA HERMINGHAUS			MOFFAT AREA		
WELL NAME.....	REDMAN-STONE 1-7		GILL NO. 38-18			MOFFAT NO. 1-7		
LOCATION.....	SEC. 7, T10S, R14E		SEC. 18, T13S, R16E			SEC. 7, T12S, R15E		
OWNER.....	TIDEWATER ASSOC. OIL CO.		SHELL OIL CO.			TEXAS CO.		
COMPLETED.....	02/01/53		12/08/43			09/16/43		
SAMPLED.....	04/17/53		04/14/44			04/05/44		
FORMATION.....	MIOC-ZILCH		EOCE-M			EOCE-DOMENGINE		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	2610		4410			3920		
WELLHEAD PRESSURE, PSIG.....	1050		1805			1750		
OPEN FLOW, MCFD.....	1000		NOT GIVEN			6000		
COMPONENT, MOLE PCT								
METHANE.....	88.2		88.6			91.2		
ETHANE.....	TRACE		1.4			0.0		
PROPANE.....	0.0		---			---		
N-BUTANE.....	0.0		---			---		
ISOBUTANE.....	0.0		---			---		
N-PENTANE.....	0.0		---			---		
ISOPENTANE.....	0.0		---			---		
CYCLOPENTANE.....	0.0		---			---		
HEXANES PLUS.....	0.0		---			---		
NITROGEN.....	11.5		9.5			8.3		
OXYGEN.....	0.1		0.4			0.4		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.1		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.02		0.00			0.00		
HEATING VALUE.....	894		923			924		
SPECIFIC GRAVITY.....	0.603		0.604			0.592		
INDEX 592 SAMPLE 2704			INDEX 593 SAMPLE 11190			INDEX 594 SAMPLE 2529		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	MADERA		MENDOCINO			MERCED		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	CHOMCHILLA NO. 1		EEL-GLINN NO. 9-CORE HOLE			GEORGE BLOSS		
LOCATION.....	SEC. 7, T10S, R14E		SEC. 1, T21N, R10W			SEC. 14, T8S, R13E		
OWNER.....	PURE OIL CO.		CALIF. DEPT. WATER RESOURCES			SAN JOAQUIN LIGHT & POWER CO		
COMPLETED.....	11/14/34		--/--/00			--/--/00		
SAMPLED.....	05/21/35		--/--/00			--/--/00		
FORMATION.....	CRET-		JURA-FRANCISCAN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	745		725			745		
DEPTH, FEET.....	7768		1350			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1440		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	10000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	38.5		90.5			71.3		
ETHANE.....	1.9		0.1			0.6		
PROPANE.....	---		0.0			---		
N-BUTANE.....	---		0.0			---		
ISOBUTANE.....	---		0.0			---		
N-PENTANE.....	---		0.0			---		
ISOPENTANE.....	---		0.0			---		
CYCLOPENTANE.....	---		0.0			---		
HEXANES PLUS.....	---		0.0			---		
NITROGEN.....	59.0		5.1			27.5		
OXYGEN.....	0.6		0.0			0.3		
ARGON.....	---		0.1			---		
HYDROGEN.....	---		0.1			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.0		TRACE			0.3		
HELIUM.....	0.00		0.06			0.01		
HEATING VALUE.....	424		934			733		
SPECIFIC GRAVITY.....	0.811		0.558			0.676		
INDEX 595 SAMPLE 14313			INDEX 596 SAMPLE 15739			INDEX 597 SAMPLE 17683		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	MERCED		MERCED			MERCED		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	PACHECO TUNNEL		SLOPE IN LAKE			SLOPE INDICATOR HOLE SI-6		
LOCATION.....	SEC. 14, T10S, R7E		SEC. 18, T10S, R9E			O'NEILL PUMPING PLANT		
OWNER.....	U.S. BUREAU OF RECLAMATION		U.S. BUREAU OF RECLAMATION			U.S. BUREAU OF RECLAMATION		
COMPLETED.....	--/--/00		--/--/00			10/28/80		
SAMPLED.....	03/26/75		08/28/79			05/15/85		
FORMATION.....	JURA-FRANCISCAN		PLIO-PLEISTOCENE			CRET-MARINE		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			130		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	35.1		40.8			37.2		
ETHANE.....	0.1		0.1			0.4		
PROPANE.....	TRACE		TRACE			TRACE		
N-BUTANE.....	---		0.0			0.0		
ISOBUTANE.....	0.1		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	TRACE		0.0			0.0		
NITROGEN.....	63.6		54.8			34.2		
OXYGEN.....	0.0		0.0			0.5		
ARGON.....	0.8		0.7			0.1		
HYDROGEN.....	0.0		0.0			57.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		3.6			0.9		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	365		415			571		
SPECIFIC GRAVITY.....	0.834		0.822			0.302		
INDEX 598 SAMPLE 15969			INDEX 599 SAMPLE 4603			INDEX 600 SAMPLE 955		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	MERCED		MONTREY			NAPA		
FIELD.....	O'NEILL FOREBAY DAM		SAN ARDO			BERRYESSA		
WELL NAME.....	6.5 DEEP		ERRINTI NO. 73			NO. 5		
LOCATION.....	DOWNSTREAM OF DAM		SEC. 11, T23S, R10E			SEC. 7, T8N, R3W		
OWNER.....	U.S. BUREAU OF RECLAMATION		JERGINS OIL CO.			GRIFFITHS OIL CO.		
COMPLETED.....	--/--/00		07/2/48			--/--/00		
SAMPLED.....	05/08/80		10/21/48			12/26/24		
FORMATION.....	UNKN-ALLUVIAN		MIOC-U			CRET-		
GEOLOGIC PROVINCE CODE.....	745		740			725		
DEPTH, FEET.....	2		1954			3360		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		875			160		
OPEN FLOW, MCFD.....	NOT GIVEN		100			2000		
COMPONENT, MOLE PCT								
METHANE.....	1.1		94.2			96.1		
ETHANE.....	0.1		2.7			0.0		
PROPANE.....	TRACE		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	0.1		---			---		
N-PENTANE.....	TRACE		---			---		
ISOPENTANE.....	0.0		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	94.7		0.1			2.7		
OXYGEN.....	0.0		0.3			0.7		
ARGON.....	0.8		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	3.0		2.7			0.4		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	365		1003			571		
SPECIFIC GRAVITY.....	0.985		0.596			0.573		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

89

		INDEX SAMPLE	601 1624	INDEX SAMPLE	602 7647	INDEX SAMPLE	603 7661
STATE	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY	ORANGE			ORANGE		ORANGE	
FIELD	HUNTINGTON BEACH			SUNSET BEACH		YORBA LINDA	
WELL NAME	NOT GIVEN			BOARD OF SUPV. NO. 1		MID CONTINENT NO. 3A	
LOCATION	NOT GIVEN			SEC. 29, T5S, R11W		SEC. 16, T3S, R9W	
OWNER	MIDWAY GAS CO.			GOLDEN WEST OIL CORP.		MID COUNTIES OIL CORP.	
COMPLETED	7/7-700			10/21/55		10/30/56	
SAMPLED	03/23/28			08/12/60		08/18/60	
FORMATION	NOT GIVEN			MIOC-		PLIO-L	
GEOLOGIC PROVINCE CODE	760			760		760	
DEPTH, FEET	NOT GIVEN			7720		2560	
WELLHEAD PRESSURE, PSIG	80			1800		610	
OPEN FLOW, MCFD	NOT GIVEN			5000		300	
COMPONENT, MOLE PCT							
METHANE	67.3			71.3		86.2	
ETHANE	24.4			6.5		0.6	
PROPANE	---			7.6		0.0	
N-BUTANE	---			4.5		0.1	
ISOBUTANE	---			0.9		0.3	
N-PENTANE	02/32			05/4		TRACE	
ISOPENTANE	---			2.2		0.1	
CYCLOPENTANE	---			1.7		TRACE	
HEXANES PLUS	---			1.6		0.1	
NITROGEN	3.9			0.0		1.3	
OXYGEN	0.9			TRACE		0.2	
ARGON	---			0.0		TRACE	
HYDROGEN	---			0.0		0.0	
HYDROGEN SULFIDE**	---			0.0		0.0	
CARBON DIOXIDE	3.5			2.2		11.0	
HELIUM	0.00			TRACE		TRACE	
HEATING VALUE*	1119			1518		907	
SPECIFIC GRAVITY	0.730			0.906		0.681	
		INDEX SAMPLE	604 2555	INDEX SAMPLE	605 5464	INDEX SAMPLE	606 4912
STATE	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY	RIVERSIDE			SACRAMENTO		SACRAMENTO	
FIELD	NOT GIVEN			FREEPORT		ISLETON	
WELL NAME	NOT GIVEN			STMS COMMUNITY NO. 1		GARDNER NO. 1	
LOCATION	SEC. 35, T3S, R2W			SEC. 19, T7N, R5E		SEC. 35, T4N, R3E	
OWNER	FACEMEYER			STANDARD OIL CO. OF CALIF.		BRAZOS OIL & GAS CO.	
COMPLETED	02/2/52			05/22/52		05/18/48	
SAMPLED	10/07/32			05/01/53		05/29/50	
FORMATION	NOT GIVEN			CRET-		EOCE-CAPAY	
GEOLOGIC PROVINCE CODE	645			730		730	
DEPTH, FEET	NOT GIVEN			5778		4494	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			1881		1700	
OPEN FLOW, MCFD	NOT GIVEN			2000		1000	
COMPONENT, MOLE PCT							
METHANE	91.7			87.8		94.6	
ETHANE	0.0			0.6		2.6	
PROPANE	---			0.0		0.6	
N-BUTANE	---			0.0		0.1	
ISOBUTANE	---			0.0		0.0	
N-PENTANE	---			0.0		TRACE	
ISOPENTANE	---			0.0		0.1	
CYCLOPENTANE	---			0.0		TRACE	
HEXANES PLUS	---			0.0		0.0	
NITROGEN	4.7			11.0		1.6	
OXYGEN	0.6			TRACE		0.1	
ARGON	---			0.0		TRACE	
HYDROGEN	---			0.0		---	
HYDROGEN SULFIDE**	---			0.0		---	
CARBON DIOXIDE	3.0			0.0		0.1	
HELIUM	0.00			TRACE		TRACE	
HEATING VALUE*	929			916		1031	
SPECIFIC GRAVITY	0.606			0.609		0.584	
		INDEX SAMPLE	607 4917	INDEX SAMPLE	608 17612	INDEX SAMPLE	609 10294
STATE	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY	SACRAMENTO			SACRAMENTO		SACRAMENTO	
FIELD	ISLETON			NOT GIVEN		POPPY RIDGE	
WELL NAME	MARIA NO. 1			NOT GIVEN		ATKISON NO. 1	
LOCATION	SEC. 9, T3N, R3E			NOT GIVEN		SEC. 9, T6N, R5E	
OWNER	BRAZOS OIL & GAS CO.			U.S. BUREAU OF RECLAMATION		WILSON L. JOHNSTON	
COMPLETED	07/14/48			02/08/85		01/01/62	
SAMPLED	05/23/50			03/11/85		11/11/65	
FORMATION	EOCE-MIDLAND			NOT GIVEN		CRET-F ZONE	
GEOLOGIC PROVINCE CODE	730			730		730	
DEPTH, FEET	4595			NOT GIVEN		7300	
WELLHEAD PRESSURE, PSIG	1623			NOT GIVEN		2600	
OPEN FLOW, MCFD	500			NOT GIVEN		2500	
COMPONENT, MOLE PCT							
METHANE	94.2			69.7		72.4	
ETHANE	2.8			TRACE		0.3	
PROPANE	0.7			TRACE		0.0	
N-BUTANE	0.4			0.0		0.0	
ISOBUTANE	0.0			0.0		0.0	
N-PENTANE	0.2			0.0		0.0	
ISOPENTANE	0.0			0.0		0.0	
CYCLOPENTANE	TRACE			0.0		0.0	
HEXANES PLUS	0.2			0.0		0.0	
NITROGEN	1.4			16.2		27.3	
OXYGEN	0.1			0.3		0.0	
ARGON	0.0			0.0		0.0	
HYDROGEN	---			0.0		0.0	
HYDROGEN SULFIDE**	---			0.0		0.0	
CARBON DIOXIDE	0.1			1.0		0.0	
HELIUM	TRACE			TRACE		0.04	
HEATING VALUE*	1054			712		739	
SPECIFIC GRAVITY	0.598			0.753		0.669	
		INDEX SAMPLE	610 16719	INDEX SAMPLE	611 10944	INDEX SAMPLE	612 16552
STATE	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY	SACRAMENTO			SACRAMENTO		SACRAMENTO	
FIELD	SACRAMENTO AIRPORT			SHERMAN ISLAND		STONE LAKE	
WELL NAME	CHILTON NO. 1-2			REYNOLDS UNIT 1 NO. 4		ELLISOTT RANCH NO. 1-73	
LOCATION	SEC. 21, T9N, R3E			SEC. 2, T2N, R2E		SEC. 1, T6N, R4E	
OWNER	SHELL CALIFORNIA PROD., INC.			ACCIDENTAL PETROLEUM CORP.		ARGO PETROLEUM CORP.	
COMPLETED	05/04/82			09/14/66		06/15/82	
SAMPLED	11/30/82			04/16/67		06/15/82	
FORMATION	CRET-MORENO			PALE-ANDERSON		NOT GIVEN	
GEOLOGIC PROVINCE CODE	730			730		730	
DEPTH, FEET	3000			6185		NOT GIVEN	
WELLHEAD PRESSURE, PSIG	1338			2450		1100	
OPEN FLOW, MCFD	500			6842		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	70.3			93.7		87.3	
ETHANE	TRACE			0.8		0.3	
PROPANE	0.1			0.5		0.1	
N-BUTANE	0.2			0.2		0.0	
ISOBUTANE	TRACE			0.1		0.0	
N-PENTANE	0.1			0.0		0.0	
ISOPENTANE	0.2			0.1		0.0	
CYCLOPENTANE	0.1			0.1		0.0	
HEXANES PLUS	0.2			0.1		0.0	
NITROGEN	28.5			3.3		12.0	
OXYGEN	0.1			0.0		0.0	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.1			TRACE		0.1	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	TRACE			0.1		0.2	
HELIUM	0.01			TRACE		TRACE	
HEATING VALUE*	749			1018		893	
SPECIFIC GRAVITY	0.688			0.594		0.608	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	613 7088	INDEX SAMPLE	614 1620	INDEX SAMPLE	615 9536
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	SACRAMENTO			SAN BERNARDINO		SAN BERNARDINO	
FIELD.....	WALNUT GROVE			BREA		NOT GIVEN	
WELL NAME.....	FONG UNIT NO. 1			NOT GIVEN		NOT GIVEN	
LOCATION.....	SEC. 2, T4N, R4E			NOT GIVEN		SEC. 11, T1N, R4W	
OWNER.....	BRAZOS OIL & GAS CO.			MIDWAY GAS CO.		CAMPUS CRUSADE FOR CHRIST	
COMPLETED.....	04/19/59			--/--/00		05/--/53	
SAMPLED.....	06/04/59			03/23/28		08/13/64	
FORMATION.....	EOCE-MEGANOS			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	730			640		640	
DEPTH, FEET.....	4566			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1800			250		NOT GIVEN	
OPEN FLOW, MCFD.....	11000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	95.4			65.3		0.3	
ETHANE.....	0.2			31.7		0.0	
PROPANE.....	0.0			---		0.0	
N-BUTANE.....	0.0			---		0.0	
ISOBUTANE.....	0.0			---		0.0	
N-PENTANE.....	0.0			---		0.0	
ISOPENTANE.....	0.0			---		0.0	
CYCLOPENTANE.....	0.0			---		0.0	
HEXANES PLUS.....	0.0			---		0.0	
NITROGEN.....	4.4			1.2		98.1	
OXYGEN.....	0.0			0.3		0.0	
ARGON.....	TRACE			---		1.4	
HYDROGEN.....	0.0			---		TRACE	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.1			0.5		0.1	
HELIUM.....	0.01			0.00		0.15	
HEATING VALUE.....	970			1240		---	
SPECIFIC GRAVITY.....	0.575			0.723		0.972	
		INDEX SAMPLE	616 10429	INDEX SAMPLE	617 16326	INDEX SAMPLE	618 3751
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	SAN JOAQUIN			SAN JOAQUIN		SAN JOAQUIN	
FIELD.....	BOULDER ISLAND			BUTES-COLDHANT		LODI	
WELL NAME.....	WEST CAL. CAN. NO. 6			COLDHANT NO. 15--44		COMMUNITY 9 NO. 1	
LOCATION.....	SEC. 7, T3N, R4E			SEC. 15, T3N, R5E		SEC. 9, T4N, R7E	
OWNER.....	SIGNAL OIL & GAS CO.			ARGO PETROLEUM CORP.		AMERADA PETROLEUM CORP.	
COMPLETED.....	10/01/65			08/28/81		04/03/43	
SAMPLED.....	02/28/66			08/31/81		04/01/44	
FORMATION.....	EOCE-CAPAY			CRET-STARKEY		EOCE-DOMENGINE	
GEOLOGIC PROVINCE CODE.....	730			730		730	
DEPTH, FEET.....	4300			NOT GIVEN		2240	
WELLHEAD PRESSURE, PSIG.....	1725			NOT GIVEN		934	
OPEN FLOW, MCFD.....	3800			2525		5000	
COMPONENT, MOLE PCT							
METHANE.....	92.4			91.6		71.7	
ETHANE.....	0.4			0.2		2.8	
PROPANE.....	0.1			TRACE		---	
N-BUTANE.....	0.0			0.0		---	
ISOBUTANE.....	0.0			0.0		---	
N-PENTANE.....	0.0			0.0		---	
ISOPENTANE.....	0.0			0.0		---	
CYCLOPENTANE.....	0.0			0.0		---	
HEXANES PLUS.....	0.0			0.0		---	
NITROGEN.....	7.1			8.1		25.1	
OXYGEN.....	0.0			0.0		0.4	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	TRACE			TRACE		0.0	
HELIUM.....	0.01			0.01		0.00	
HEATING VALUE.....	946			0.31		777	
SPECIFIC GRAVITY.....	0.587			0.588		0.674	
		INDEX SAMPLE	619 3753	INDEX SAMPLE	620 7599	INDEX SAMPLE	621 7600
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	SAN JOAQUIN			SAN JOAQUIN		SAN JOAQUIN	
FIELD.....	LODI			MCNULLEN RANCH		MCNULLEN RANCH	
WELL NAME.....	COMMUNITY 10 NO. 1			SIGMET-WHITING 66-23		SIGMET-PERRIN 33-25	
LOCATION.....	SEC. 10, T4N, R7E			SEC. 23, T2S, R6E		SEC. 25, T2S, R7E	
OWNER.....	AMERADA PETROLEUM CORP.			GREAT BASINS PETROLEUM CO.		GREAT BASINS PETROLEUM CO.	
COMPLETED.....	06/15/43			05/05/60		05/27/60	
SAMPLED.....	04/01/44			07/10/60		07/10/60	
FORMATION.....	EOCE-DOMENGINE			CRET-TRACY 1ST		CRET-TRACY 1ST	
GEOLOGIC PROVINCE CODE.....	730			730		730	
DEPTH, FEET.....	2300			5925		5266	
WELLHEAD PRESSURE, PSIG.....	935			2400		2200	
OPEN FLOW, MCFD.....	5000			5000		10000	
COMPONENT, MOLE PCT							
METHANE.....	75.0			84.8		84.9	
ETHANE.....	0.0			0.7		0.7	
PROPANE.....	---			0.6		0.1	
N-BUTANE.....	---			TRACE		TRACE	
ISOBUTANE.....	---			0.0		TRACE	
N-PENTANE.....	---			0.1		TRACE	
ISOPENTANE.....	---			0.1		0.1	
CYCLOPENTANE.....	---			TRACE		0.1	
HEXANES PLUS.....	---			0.1		0.1	
NITROGEN.....	24.7			13.4		13.8	
OXYGEN.....	0.2			TRACE		TRACE	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			0.2		0.1	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.0		0.1	
HELIUM.....	0.00			0.01		0.01	
HEATING VALUE.....	760			897		889	
SPECIFIC GRAVITY.....	0.658			0.622		0.623	
		INDEX SAMPLE	622 2549	INDEX SAMPLE	623 2715	INDEX SAMPLE	624 11445
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	SAN JOAQUIN			SAN JOAQUIN		SAN JOAQUIN	
FIELD.....	NOT GIVEN			NOT GIVEN		RIPON W	
WELL NAME.....	SAN JOAQUIN LIGHT&POWER CO.			F. O. L. NO. 2		ALPINE-GREAT BASIN NO. 1-28	
LOCATION.....	CITY OF STOCKTON			SEC. 28, T2S, R7E		SEC. 28, T2S, R7E	
OWNER.....	PACIFIC GAS & ELECTRIC CO.			AMERADA PETROLEUM CORP.		GREAT BASINS PETROLEUM CO.	
COMPLETED.....	--/--/00			--/--/00		12/29/67	
SAMPLED.....	09/12/32			12/13/35		04/10/68	
FORMATION.....	NOT GIVEN			CRET-TRACY		CRET-BLEWETT	
GEOLOGIC PROVINCE CODE.....	730			730		730	
DEPTH, FEET.....	3000			4003		5125	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1550		2040	
OPEN FLOW, MCFD.....	NOT GIVEN			12000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	66.0			86.2		85.6	
ETHANE.....	1.0			---		0.8	
PROPANE.....	---			---		0.2	
N-BUTANE.....	---			---		0.1	
ISOBUTANE.....	---			---		0.0	
N-PENTANE.....	---			---		0.1	
ISOPENTANE.....	---			---		0.1	
CYCLOPENTANE.....	---			---		0.1	
HEXANES PLUS.....	---			---		0.1	
NITROGEN.....	30.1			10.6		12.6	
OXYGEN.....	2.1			0.2		0.2	
ARGON.....	---			---		TRACE	
HYDROGEN.....	---			---		TRACE	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	0.8			0.0		0.0	
HELIUM.....	TRACE			0.01		0.01	
HEATING VALUE.....	697			927		907	
SPECIFIC GRAVITY.....	0.703			0.614		0.624	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

61

INDEX 625 SAMPLE 10858			INDEX 626 SAMPLE 7449			INDEX 627 SAMPLE 9216		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	SAN JOAQUIN		SAN JOAQUIN			SAN JOAQUIN		
FIELD.....	ROBERTS ISLAND		STATEN ISLAND			STATEN ISLAND		
WELL NAME.....	DE CARLI NO. 2-3		M & T NO. 2			MILTON & TOWNE A NO. 1		
LOCATION.....	SEC. 3, T1N, R5E		SEC. 14, T4N, R4E			SEC. 13, T4N, R4E, MDB&M SUR		
OWNER.....	ARCADY OIL CO.		SUNRAY-BRAZOS-VISTARIO			BRAZOS OIL & GAS CO.		
COMPLETED.....	08/10/59		08/10/59			08/18/63		
SAMPLED.....	01/31/67		02/14/60			01/07/64		
FORMATION.....	-DE CARLI		PENN-WEWOKA M			CRET-WINTERS		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	6495		4096			8463		
WELLHEAD PRESSURE, PSIG.....	2500		1625			3365		
OPEN FLOW, MCFD.....	NOT GIVEN		8600			28000		
COMPONENT, MOLE PCT								
METHANE.....	92.4		92.5			90.5		
ETHANE.....	0.5		0.2			0.5		
PROPANE.....	0.1		TRACE			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		TRACE			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	7.0		7.0			8.8		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.1		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	948		941			928		
SPECIFIC GRAVITY.....	0.587		0.584			0.595		
INDEX 628 SAMPLE 2731			INDEX 629 SAMPLE 3752			INDEX 630 SAMPLE 14626		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	SAN JOAQUIN		SAN JOAQUIN			SAN JOAQUIN		
FIELD.....	STOCKTON		THORNTON			UNION ISLAND		
WELL NAME.....	MCDONALD ISL. FARMS NO. 1		MC GILLIVRAY COMM. NO. 1			YAMADA NO. 1		
LOCATION.....	SEC. 25, T2N, R4E		SEC. 25, T5N, R5E			SEC. 16, T1S, R5E		
OWNER.....	STANDARD OIL CO. OF CALIF.		AMERADA PETROLEUM CORP.			UNION OIL CO. OF CALIF.		
COMPLETED.....	05/30/36		03/08/44			03/-/75		
SAMPLED.....	09/16/36		04/01/44			04/01/76		
FORMATION.....	EOCE		EOCE-CAPAY			CRET-WINTERS		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	5176		3333			10000		
WELLHEAD PRESSURE, PSIG.....	2086		1382			4250		
OPEN FLOW, MCFD.....	26647		5000			7000		
COMPONENT, MOLE PCT								
METHANE.....	93.6		92.2			87.0		
ETHANE.....	0.0		0.9			0.4		
PROPANE.....	---		---			0.1		
N-BUTANE.....	---		---			0.0		
ISOBUTANE.....	---		---			0.0		
N-PENTANE.....	---		---			0.0		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			0.0		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	5.5		6.7			11.8		
OXYGEN.....	0.7		0.2			0.1		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.6		
HELIUM.....	0.02		0.00			TRACE		
HEATING VALUE.....	948		950			891		
SPECIFIC GRAVITY.....	0.583		0.588			0.612		
INDEX 631 SAMPLE 11237			INDEX 632 SAMPLE 2764			INDEX 633 SAMPLE 1970		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	SAN JOAQUIN		SAN LUIS OBISPO			SANTA BARBARA		
FIELD.....	VERNALIS		TEMOR			WOOD		
WELL NAME.....	NAVARRA NO. 1		TEMOR OIL CO. NO. 1			BLUE GOOSE		
LOCATION.....	SEC. 29, T3S, R6E		SEC. 22, T31S, R21E			SEC. 16, T4N, R29W		
OWNER.....	M. S. STRANGHAN		STANDARD OIL CO. OF CALIF.			STANDARD GASOLINE CO.		
COMPLETED.....	-/-/00		-/-/00			11/16/29		
SAMPLED.....	12/06/67		09/04/37			03/18/30		
FORMATION.....	NOT GIVEN		MIOC-VAGUEROS			MIOC-VAGUEROS		
GEOLOGIC PROVINCE CODE.....	730		740			750		
DEPTH, FEET.....	NOT GIVEN		3045			3435		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		165			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		18			2500		
COMPONENT, MOLE PCT								
METHANE.....	88.7		76.8			56.8		
ETHANE.....	0.6		18.9			42.3		
PROPANE.....	0.1		---			---		
N-BUTANE.....	0.0		---			---		
ISOBUTANE.....	0.0		---			---		
N-PENTANE.....	0.0		---			---		
ISOPENTANE.....	0.0		---			---		
CYCLOPENTANE.....	0.0		---			---		
HEXANES PLUS.....	0.0		---			---		
NITROGEN.....	10.4		3.5			0.4		
OXYGEN.....	0.1		0.6			0.3		
ARGON.....	TRACE		---			---		
HYDROGEN.....	TRACE		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		0.2			0.2		
HELIUM.....	0.01		---			0.00		
HEATING VALUE.....	912		1117			1333		
SPECIFIC GRAVITY.....	0.603		0.668			0.769		
INDEX 634 SAMPLE 2565			INDEX 635 SAMPLE 17831			INDEX 636 SAMPLE 14419		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	SANTA BARBARA		SANTA BARBARA			SHASTA		
FIELD.....	GOLTA		MOLINO			NOT GIVEN		
WELL NAME.....	NO. 1		MOLINO NO. 7			DRAINAGE HOLE		
LOCATION.....	SEC. 21, T4N, R28W		SEC. 8, T4N, R31W			WHISKEYTOWN DAMSITE		
OWNER.....	GENERAL PETROLEUM CORP. OF C		PHILLIPS PETROLEUM CO.			U.S. BUREAU OF RECLAMATION		
COMPLETED.....	07/18/33		07/18/33			-/-/65		
SAMPLED.....	09/18/32		09/16/85			07/23/75		
FORMATION.....	NOT GIVEN		EOCE-MATILJA			DEMO-		
GEOLOGIC PROVINCE CODE.....	750		750			715		
DEPTH, FEET.....	4182		10195			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1680		4300			NOT GIVEN		
OPEN FLOW, MCFD.....	58000		25000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	90.6		88.5			68.4		
ETHANE.....	8.5		5.5			0.1		
PROPANE.....	---		0.3			TRACE		
N-BUTANE.....	---		0.7			0.0		
ISOBUTANE.....	---		0.5			0.0		
N-PENTANE.....	---		0.3			0.0		
ISOPENTANE.....	---		0.4			0.0		
CYCLOPENTANE.....	---		0.2			0.0		
HEXANES PLUS.....	---		0.5			0.0		
NITROGEN.....	0.2		1.0			30.7		
OXYGEN.....	0.7		0.1			0.0		
ARGON.....	---		TRACE			0.3		
HYDROGEN.....	---		TRACE			0.0		
HYDROGEN SULFIDE.....	---		0.0			TRACE		
CARBON DIOXIDE.....	0.0		0.2			0.5		
HELIUM.....	0.00		---			0.01		
HEATING VALUE.....	1079		1149			695		
SPECIFIC GRAVITY.....	0.601		0.655			0.694		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 637 SAMPLE 16575			INDEX 638 SAMPLE 2771			INDEX 639 SAMPLE 4011		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	SISKIYOU		SISKIYOU			SOLANO		
FIELD.....	WHISKEYTOWN DAM		NOT GIVEN			CACHE SLOUGH AREA		
WELL NAME.....	TUNNEL OUTLET AT DAM		GAS SEEP AT BOGUS CREEK			CAL. PAC. CORP. NO. 2		
LOCATION.....	OUTLET WORK TUNNEL - SEEP		SEC. 24, T4N, R5W			SEC. 6, T4N, R3E		
OWNER.....	U.S. BUREAU OF RECLAMATION		RL B. BRADLEY			STANDARD OIL CO. OF CALIF.		
COMPLETED.....	--/--/00		--/--/00			03/02/45		
SAMPLED.....	06/-/82		11/01/37			04/26/45		
FORMATION.....	DEVO-DALAKALA METARHYOLITE		DLE-1 TUFFA			EOCE-MIDLAND		
GEOLOGIC PROVINCE CODE.....	715		715			730		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			4810		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1598		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			10000		
COMPONENT, MOLE PCT								
METHANE.....	8.9	---	0.0	---		90.2	---	
ETHANE.....	TRACE	---	0.0	---		3.6	---	
PROPANE.....	0.0	---	---	---		---	---	
N-BUTANE.....	0.0	---	---	---		---	---	
ISOBUTANE.....	0.0	---	---	---		---	---	
N-PENTANE.....	0.0	---	---	---		---	---	
ISOPENTANE.....	0.0	---	---	---		---	---	
CYCLOPENTANE.....	0.0	---	---	---		---	---	
HEXANES PLUS.....	0.0	---	---	---		---	---	
NITROGEN.....	72.1	---	4.2	---		6.0	---	
OXYGEN.....	16.3	---	0.2	---		0.2	---	
ARGON.....	0.9	---	---	---		---	---	
HYDROGEN.....	TRACE	---	---	---		---	---	
HYDROGEN SULFIDE.....	TRACE	---	---	---		---	---	
CARBON DIOXIDE.....	1.9	---	95.6	---		0.0	---	
HELIUM.....	TRACE	---	0.00	---		TRACE	---	
HEATING VALUE.....	111	---	---	---		978	---	
SPECIFIC GRAVITY.....	0.989	---	1.505	---		0.598	---	
INDEX 640 SAMPLE 4613			INDEX 641 SAMPLE 11106			INDEX 642 SAMPLE 16936		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	SOLANO		SOLANO			SOLANO		
FIELD.....	DENVERTON		DENVERTON			DIXON CREEK		
WELL NAME.....	PETERSON NO. 1		LAMBIE NO. 1			SCHROEDER UNIT NO. 1		
LOCATION.....	SEC. 25, T5N, R1W		SEC. 9, T4N, R1E			SEC. 9, T7N, R1E, N08&N		
OWNER.....	HONOLULU OIL CORP.		HONOLULU OIL CORP.			HILLIARD OIL & GAS, INC.		
COMPLETED.....	08/27/48		08/13/67			12/29/82		
SAMPLED.....	11/02/48		09/08/67			03/31/83		
FORMATION.....	EOCE-L		EOCE-ANDERSON-WAGENET			CRET-WINTERS		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	1425	---	8587	---		6326	---	
WELLHEAD PRESSURE, PSIG.....	900	---	200	---		2410	---	
OPEN FLOW, MCFD.....	NOT GIVEN	---	2000	---		3536	---	
COMPONENT, MOLE PCT								
METHANE.....	68.2	---	91.5	---		87.8	---	
ETHANE.....	18.2	---	0.9	---		3.2	---	
PROPANE.....	---	---	0.9	---		1.3	---	
N-BUTANE.....	---	---	0.2	---		0.3	---	
ISOBUTANE.....	---	---	0.2	---		0.2	---	
N-PENTANE.....	---	---	0.1	---		0.1	---	
ISOPENTANE.....	---	---	0.2	---		0.2	---	
CYCLOPENTANE.....	---	---	0.1	---		0.1	---	
HEXANES PLUS.....	---	---	0.1	---		0.1	---	
NITROGEN.....	13.0	---	3.7	---		6.3	---	
OXYGEN.....	0.0	---	0.0	---		0.0	---	
ARGON.....	0.3	---	TRACE	---		TRACE	---	
HYDROGEN.....	---	---	TRACE	---		0.3	---	
HYDROGEN SULFIDE.....	---	---	0.0	---		0.0	---	
CARBON DIOXIDE.....	0.3	---	0.4	---		0.1	---	
HELIUM.....	TRACE	---	TRACE	---		0.01	---	
HEATING VALUE.....	1022	---	1032	---		1020	---	
SPECIFIC GRAVITY.....	0.703	---	0.612	---		0.626	---	
INDEX 643 SAMPLE 4010			INDEX 644 SAMPLE 4371			INDEX 645 SAMPLE 11302		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	SOLANO		SOLANO			SOLANO		
FIELD.....	KIRBY HILL		KIRBY HILL			LINDSEY SLOUGH		
WELL NAME.....	LAMBIE NO. 1A		WAGENET NO. 2			PETERSEN ESTATE NO. 2		
LOCATION.....	SEC. 24, T4N, R1W		SEC. 19, T4N, R1E			SEC. 34, T5N, R2E		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			AMERADA PETROLEUM CORP.		
COMPLETED.....	01/10/45		04/30/47			--/--/00		
SAMPLED.....	04/13/45		10/13/47			--/--/00		
FORMATION.....	EOCE-		EOCE-			CRET-PETERSON		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	2273	---	5398	---		9057	---	
WELLHEAD PRESSURE, PSIG.....	1128	---	2360	---		NOT GIVEN	---	
OPEN FLOW, MCFD.....	3980	---	17500	---		4728	---	
COMPONENT, MOLE PCT								
METHANE.....	97.0	---	89.1	---		90.7	---	
ETHANE.....	0.4	---	5.3	---		3.3	---	
PROPANE.....	---	---	---	---		0.3	---	
N-BUTANE.....	---	---	---	---		0.4	---	
ISOBUTANE.....	---	---	---	---		0.1	---	
N-PENTANE.....	---	---	---	---		0.1	---	
ISOPENTANE.....	---	---	---	---		0.4	---	
CYCLOPENTANE.....	---	---	---	---		0.2	---	
HEXANES PLUS.....	---	---	---	---		0.1	---	
NITROGEN.....	1.3	---	4.5	---		2.5	---	
OXYGEN.....	0.8	---	0.3	---		0.0	---	
ARGON.....	---	---	---	---		TRACE	---	
HYDROGEN.....	---	---	---	---		0.0	---	
HYDROGEN SULFIDE.....	---	---	---	---		0.0	---	
CARBON DIOXIDE.....	0.5	---	0.2	---		0.4	---	
HELIUM.....	TRACE	---	TRACE	---		0.01	---	
HEATING VALUE.....	990	---	1008	---		1069	---	
SPECIFIC GRAVITY.....	0.571	---	0.606	---		0.622	---	
INDEX 646 SAMPLE 11303			INDEX 647 SAMPLE 15996			INDEX 648 SAMPLE 4226		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	SOLANO		SOLANO			SOLANO		
FIELD.....	LINDSEY SLOUGH		LINDSEY SLOUGH			MAINE PRATIE		
WELL NAME.....	PETERSEN ESTATE NO. 2		HASTING RANCH NO. 1-21			I & L WINEMAN		
LOCATION.....	SEC. 34, T5N, R2E		SEC. 21, T 5N, R 2E			SEC. 26, T6N, R2E		
OWNER.....	AMERADA PETROLEUM CORP.		MCON OIL & GAS CORP.			AMERADA PETROLEUM CORP.		
COMPLETED.....	--/--/00		01/28/60			03/02/45		
SAMPLED.....	--/--/00		06/27/80			12/27/46		
FORMATION.....	--K-1 ZONE		CRET-PETERSON			EOCE-CAPAY		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	10122	---	9335	---		4763	---	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	---	3250	---		1911	---	
OPEN FLOW, MCFD.....	5232	---	16000	---		6000	---	
COMPONENT, MOLE PCT								
METHANE.....	86.7	---	91.7	---		97.3	---	
ETHANE.....	4.2	---	4.3	---		0.6	---	
PROPANE.....	1.4	---	1.4	---		---	---	
N-BUTANE.....	0.4	---	0.3	---		---	---	
ISOBUTANE.....	0.2	---	0.2	---		---	---	
N-PENTANE.....	0.0	---	0.2	---		---	---	
ISOPENTANE.....	0.6	---	0.2	---		---	---	
CYCLOPENTANE.....	0.1	---	0.1	---		---	---	
HEXANES PLUS.....	0.1	---	0.1	---		---	---	
NITROGEN.....	5.2	---	1.8	---		1.4	---	
OXYGEN.....	0.8	---	TRACE	---		0.3	---	
ARGON.....	0.1	---	TRACE	---		---	---	
HYDROGEN.....	0.0	---	0.0	---		---	---	
HYDROGEN SULFIDE.....	0.0	---	0.0	---		---	---	
CARBON DIOXIDE.....	0.2	---	0.0	---		---	---	
HELIUM.....	TRACE	---	TRACE	---		0.01	---	
HEATING VALUE.....	1045	---	1083	---		996	---	
SPECIFIC GRAVITY.....	0.643	---	0.615	---		0.569	---	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

63

INDEX 649 SAMPLE 10620		INDEX 650 SAMPLE 10621		INDEX 651 SAMPLE 11471	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	SOLANO	COUNTY.....	SOLANO	COUNTY.....	SOLANO
FIELD.....	MAINE PRAIRIE	FIELD.....	MAINE PRAIRIE	FIELD.....	HILLAR W
WELL NAME.....	MILLER UNIT NO. 1	WELL NAME.....	MILLER UNIT NO. 1	WELL NAME.....	CAMPBELL RANCH NO. 1
LOCATION.....	SEC. 3, T5N, R2E	LOCATION.....	SEC. 3, T5N, R2E	LOCATION.....	SEC. 4, T6N, R2E
OWNER.....	AMERADA PETROLEUM CORP.	OWNER.....	AMERADA PETROLEUM CORP.	OWNER.....	AMERADA PETROLEUM CORP.
COMPLETED.....	09/10/65	COMPLETED.....	09/10/65	COMPLETED.....	10/25/68
SAMPLED.....	06/13/66	SAMPLED.....	06/13/66	SAMPLED.....	05/09/68
FORMATION.....	EOCE-MARTINEZ	FORMATION.....	EOCE-MARTINEZ	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730
DEPTH, FEET.....	6550	DEPTH, FEET.....	6425	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	2142	WELLHEAD PRESSURE, PSIG.....	2255	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	91.0	METHANE.....	91.1	METHANE.....	93.1
ETHANE.....	3.7	ETHANE.....	3.8	ETHANE.....	1.8
PROPANE.....	1.4	PROPANE.....	1.3	PROPANE.....	TRACE
N-BUTANE.....	0.4	N-BUTANE.....	0.3	N-BUTANE.....	0.0
ISOBUTANE.....	0.2	ISOBUTANE.....	0.3	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	0.5	ISOPENTANE.....	0.3	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.0
NITROGEN.....	2.0	NITROGEN.....	1.9	NITROGEN.....	4.9
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	0.02	HELIUM.....	0.01
HEATING VALUE.....	1098	HEATING VALUE.....	1090	HEATING VALUE.....	976
SPECIFIC GRAVITY.....	0.630	SPECIFIC GRAVITY.....	0.624	SPECIFIC GRAVITY.....	0.584
INDEX 652 SAMPLE 16639		INDEX 653 SAMPLE 2730		INDEX 654 SAMPLE 11424	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	SOLANO	COUNTY.....	SOLANO	COUNTY.....	SOLANO
FIELD.....	NOT GIVEN	FIELD.....	RIO VISTA	FIELD.....	RIO VISTA
WELL NAME.....	BOTTOM MUD IN RESERVOIR	WELL NAME.....	EMIGH NO. 1	WELL NAME.....	EMIGH NO. 12
LOCATION.....	SOLANO RES. ON PUTACH CR.	LOCATION.....	SEC. 26, T4N, R2E	LOCATION.....	SEC. 27, T4N, R2E
OWNER.....	U.S. BUREAU OF RECLAMATION	OWNER.....	AMERADA PETROLEUM CORP.	OWNER.....	AMERADA PETROLEUM CORP.
COMPLETED.....	09/07/82	COMPLETED.....	09/16/36	COMPLETED.....	01/15/68
SAMPLED.....	HOLO-	SAMPLED.....	EOCE-EMIGH	SAMPLED.....	03/29/68
FORMATION.....	730	FORMATION.....	730	FORMATION.....	CRET-MCCORMICK
GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	4278	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1724	WELLHEAD PRESSURE, PSIG.....	2500
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	81255	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	36.9	METHANE.....	94.7	METHANE.....	93.2
ETHANE.....	TRACE	ETHANE.....	3.1	ETHANE.....	3.4
PROPANE.....	0.0	PROPANE.....	0.0	PROPANE.....	1.0
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.4
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	59.7	NITROGEN.....	1.6	NITROGEN.....	1.5
OXYGEN.....	1.7	OXYGEN.....	0.4	OXYGEN.....	0.0
ARGON.....	0.8	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	TRACE	HELIUM.....	0.00	HELIUM.....	TRACE
HEATING VALUE.....	374	HEATING VALUE.....	1015	HEATING VALUE.....	1062
SPECIFIC GRAVITY.....	0.824	SPECIFIC GRAVITY.....	0.581	SPECIFIC GRAVITY.....	0.603
INDEX 655 SAMPLE 11212		INDEX 656 SAMPLE 11213		INDEX 657 SAMPLE 3749	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	SOLANO	COUNTY.....	SOLANO	COUNTY.....	SOLANO
FIELD.....	SHERMAN ISLAND	FIELD.....	SHERMAN ISLAND	FIELD.....	WILDCAT
WELL NAME.....	DECKER ISLAND UNIT 1, NO. 2	WELL NAME.....	DECKER ISLAND UNIT 1, NO. 1	WELL NAME.....	S. O. HONKER COMM. 1-A
LOCATION.....	SEC. 27, T3N, R2E	LOCATION.....	SEC. 27, T3N, R2E	LOCATION.....	SEC. 5, T3N, R1W
OWNER.....	SIGNAL OIL & GAS CO.	OWNER.....	SIGNAL OIL & GAS CO.	OWNER.....	STANDARD OIL CO. OF CALIF.
COMPLETED.....	09/17/66	COMPLETED.....	09/17/66	COMPLETED.....	7/7/70
SAMPLED.....	11/06/67	SAMPLED.....	11/06/67	SAMPLED.....	03/29/44
FORMATION.....	PALE-ANDERSON	FORMATION.....	EOCE-HAMILTON	FORMATION.....	EOCE-
GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730
DEPTH, FEET.....	6165	DEPTH, FEET.....	6165	DEPTH, FEET.....	7190
WELLHEAD PRESSURE, PSIG.....	2250	WELLHEAD PRESSURE, PSIG.....	2250	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	93.3	METHANE.....	94.9	METHANE.....	88.2
ETHANE.....	1.9	ETHANE.....	1.3	ETHANE.....	7.1
PROPANE.....	0.5	PROPANE.....	TRACE	PROPANE.....	0.0
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.2	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.25	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	3.3	NITROGEN.....	3.5	NITROGEN.....	3.9
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.2	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.5
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	0.00
HEATING VALUE.....	1028	HEATING VALUE.....	985	HEATING VALUE.....	1021
SPECIFIC GRAVITY.....	0.600	SPECIFIC GRAVITY.....	0.574	SPECIFIC GRAVITY.....	0.612
INDEX 658 SAMPLE 17882		INDEX 659 SAMPLE 2434		INDEX 660 SAMPLE 2616	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	SOLANO	COUNTY.....	STANISLAUS	COUNTY.....	SUTTER
FIELD.....	WINTERS	FIELD.....	WATERFORD	FIELD.....	MARYSVILLE BUTTES
WELL NAME.....	MARGARET EDWARDS NO. 1	WELL NAME.....	WATERFORD NO. 1	WELL NAME.....	BUTTES NO.
LOCATION.....	SEC. 34, T3N, R1E	LOCATION.....	SEC. 34, T3N, R1E	LOCATION.....	SEC. 35, T16N, R1E
OWNER.....	HILLIARD OIL & GAS, INC.	OWNER.....	J. A. WENGER & ASSOC.	OWNER.....	BUTTES OILFIELDS, INC.
COMPLETED.....	05/04/84	COMPLETED.....	7/7/70	COMPLETED.....	02/02/33
SAMPLED.....	10/24/85	SAMPLED.....	11/09/31	SAMPLED.....	04/18/33
FORMATION.....	CRET-STARKEY	FORMATION.....	NOT GIVEN	FORMATION.....	CRET-CHICO
GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	745	GEOLOGIC PROVINCE CODE.....	730
DEPTH, FEET.....	4572	DEPTH, FEET.....	390	DEPTH, FEET.....	2100
WELLHEAD PRESSURE, PSIG.....	1755	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1235
OPEN FLOW, MCFD.....	1389	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	3961
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	95.0	METHANE.....	46.8	METHANE.....	96.5
ETHANE.....	0.9	ETHANE.....	0.5	ETHANE.....	0.8
PROPANE.....	0.1	PROPANE.....	0.0	PROPANE.....	0.0
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	3.9	NITROGEN.....	51.5	NITROGEN.....	1.8
OXYGEN.....	TRACE	OXYGEN.....	0.6	OXYGEN.....	0.8
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.1
HELIUM.....	0.02	HELIUM.....	TRACE	HELIUM.....	0.00
HEATING VALUE.....	981	HEATING VALUE.....	483	HEATING VALUE.....	992
SPECIFIC GRAVITY.....	0.577	SPECIFIC GRAVITY.....	0.779	SPECIFIC GRAVITY.....	0.571

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 661 2747	INDEX SAMPLE 662 16999	INDEX SAMPLE 663 11363
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	SUTTER		SUTTER	SUTTER
FIELD.....	MARYSVILLE BUTTES		NOT GIVEN	SUTTER BUTTES
WELL NAME.....	SOPHIA DAVIS NO. 1		O.P. 1- MC LURE NO. 1-5	BUTTES COMMUNITY 2 NO. 81
LOCATION.....	SEC. 2, T15N, R1E		SEC. 5, T14N, R2E	SEC. 31, T15N, R1E
OWNER.....	BUTTES OILFIELDS, INC.		NATURAL GAS CORP. OF CALIF.	SANTA FE DRILLING CO.
COMPLETED.....	02/09/43		--/--/82	09/02/67
SAMPLED.....	03/12/37		08/--/83	03/03/68
FORMATION.....	CRET-CHICO		CRET-F ZONE	CRET-FORBES
GEOLOGIC PROVINCE CODE.....	730		730	730
DEPTH, FEET.....	2450		6082	6390
WELLHEAD PRESSURE, PSIG.....	1420		2420	4000
OPEN FLOW, MCFD.....	3425		1463	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	82.5	93.4	97.2	97.2
ETHANE.....	0.0	0.2	0.3	0.3
PROPANE.....	---	TRACE	TRACE	TRACE
N-BUTANE.....	---	0.0	0.0	0.0
ISOBUTANE.....	---	0.0	0.0	0.0
N-PENTANE.....	---	0.0	0.0	0.0
ISOPENTANE.....	---	0.0	0.0	0.0
CYCLOPENTANE.....	---	0.0	0.0	0.0
HEXANES PLUS.....	---	0.0	0.0	0.0
NITROGEN.....	13.3	5.9	2.4	2.4
OXYGEN.....	3.9	0.1	0.0	0.0
ARGON.....	---	TRACE	TRACE	TRACE
HYDROGEN.....	---	0.3	0.0	0.0
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.1	TRACE	TRACE
HELIUM.....	TRACE	TRACE	TRACE	TRACE
HEATING VALUE.....	836	951	990	990
SPECIFIC GRAVITY.....	0.634	0.580	0.565	0.565
		INDEX SAMPLE 664 17218	INDEX SAMPLE 665 3984	INDEX SAMPLE 666 4056
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	SUTTER		TEHAMA	TEHAMA
FIELD.....	TISDALE		CORNING	CORNING
WELL NAME.....	SEAWARD-SHANNON NO. 1-32		SALDUBHERE NO. 1	SALDUBHERE NO. 1
LOCATION.....	SEC. 32, T15N, R2E		SEC. 12, T24N, R3W	SEC. 12, T24N, R3W
OWNER.....	NATURAL GAS CORP. OF CALIF.		SUPERIOR OIL CO.	SUPERIOR OIL CO.
COMPLETED.....	02/21/84		10/21/44	10/21/45
SAMPLED.....	03/14/84		01/10/45	01/31/45
FORMATION.....	CRET-FORBES		PLIO-TEHAMA	PLIO-TEHAMA
GEOLOGIC PROVINCE CODE.....	730		730	730
DEPTH, FEET.....	6062		1387	1070
WELLHEAD PRESSURE, PSIG.....	3059		660	560
OPEN FLOW, MCFD.....	NOT GIVEN		17	17000
COMPONENT, MOLE PCT				
METHANE.....	97.9	74.6	66.7	66.7
ETHANE.....	0.2	24.4	3.9	3.9
PROPANE.....	0.0	---	---	---
N-BUTANE.....	TRACE	---	0.0	0.0
ISOBUTANE.....	0.0	---	---	---
N-PENTANE.....	0.1	---	---	---
ISOPENTANE.....	0.0	---	---	---
CYCLOPENTANE.....	TRACE	---	---	---
HEXANES PLUS.....	TRACE	---	---	---
NITROGEN.....	1.5	0.0	29.2	29.2
OXYGEN.....	TRACE	0.6	0.0	0.0
ARGON.....	TRACE	---	---	---
HYDROGEN.....	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	---
CARBON DIOXIDE.....	0.1	0.4	0.2	0.2
HELIUM.....	TRACE	0.00	0.03	0.03
HEATING VALUE.....	1000	1193	746	746
SPECIFIC GRAVITY.....	0.563	0.682	0.696	0.696
		INDEX SAMPLE 667 4057	INDEX SAMPLE 668 5250	INDEX SAMPLE 669 5251
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	TEHAMA		TEHAMA	TEHAMA
FIELD.....	CORNING		CORNING	CORNING
WELL NAME.....	SALDUBHERE NO. 1		CORNING COMMUNITY NO. 1A	CORNING COMMUNITY NO. 1-A
LOCATION.....	SEC. 12, T24N, R3W		SEC. 12, T24N, R6W	SEC. 12, T24N, R3W
OWNER.....	SUPERIOR OIL CO.		BUTTES OILFIELDS, INC.	BUTTES OILFIELDS, INC.
COMPLETED.....	10/21/45		07/09/49	07/09/49
SAMPLED.....	08/31/45		05/24/52	05/24/52
FORMATION.....	PLIO-TEHAMA		PLIO-TEHAMA	PLIO-TEHAMA
GEOLOGIC PROVINCE CODE.....	730		730	730
DEPTH, FEET.....	1070		1427	1427
WELLHEAD PRESSURE, PSIG.....	670		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	17000		16760	16760
COMPONENT, MOLE PCT				
METHANE.....	75.0	75.1	75.1	75.1
ETHANE.....	1.1	0.0	TRACE	TRACE
PROPANE.....	---	TRACE	TRACE	TRACE
N-BUTANE.....	---	0.1	0.0	0.0
ISOBUTANE.....	---	0.0	0.0	0.0
N-PENTANE.....	---	0.0	0.0	0.0
ISOPENTANE.....	---	0.0	0.0	0.0
CYCLOPENTANE.....	---	0.1	TRACE	TRACE
HEXANES PLUS.....	---	0.1	24.8	24.8
NITROGEN.....	23.8	24.5	TRACE	TRACE
OXYGEN.....	0.0	TRACE	TRACE	TRACE
ARGON.....	---	0.0	0.0	0.0
HYDROGEN.....	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---
CARBON DIOXIDE.....	0.1	0.1	0.1	0.1
HELIUM.....	0.01	0.01	0.10	0.10
HEATING VALUE.....	779	770	761	761
SPECIFIC GRAVITY.....	0.659	0.660	0.658	0.658
		INDEX SAMPLE 670 5252	INDEX SAMPLE 671 5253	INDEX SAMPLE 672 5258
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	TEHAMA		TEHAMA	TEHAMA
FIELD.....	CORNING		CORNING	CORNING S
WELL NAME.....	CORNING COMMUNITY NO. 1		CORNING COMMUNITY NO. 1	WELL NO. 8
LOCATION.....	SEC. 12, T24N, R3W		SEC. 12, T24N, R3W	SEC. 31, T24N, R2W
OWNER.....	BUTTES OILFIELDS, INC.		BUTTES OILFIELDS, INC.	BUTTES OILFIELDS, INC.
COMPLETED.....	06/12/49		--/--/00	--/--/00
SAMPLED.....	05/24/52		06/25/52	06/25/52
FORMATION.....	PLIO-TEHAMA		PLIO-TEHAMA	PLIO-TEHAMA
GEOLOGIC PROVINCE CODE.....	730		730	730
DEPTH, FEET.....	1407		1407	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	75.6	75.1	84.8	84.8
ETHANE.....	0.0	TRACE	0.1	0.1
PROPANE.....	TRACE	TRACE	0.1	0.1
N-BUTANE.....	0.0	0.1	0.1	0.1
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	TRACE	TRACE
CYCLOPENTANE.....	0.0	0.1	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.1	14.7	14.7
NITROGEN.....	24.4	24.5	0.1	0.1
OXYGEN.....	TRACE	0.0	0.0	0.0
ARGON.....	0.0	0.0	0.0	0.0
HYDROGEN.....	---	---	---	---
HYDROGEN SULFIDE.....	0.0	0.1	0.02	0.02
CARBON DIOXIDE.....	0.0	0.01	867	867
HELIUM.....	0.01	0.661	0.620	0.620
HEATING VALUE.....	766			
SPECIFIC GRAVITY.....	0.655			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

65

		INDEX SAMPLE 673 10557	INDEX SAMPLE 674 11098	INDEX SAMPLE 675 11099
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	TEHAMA	TEHAMA	TEHAMA	TEHAMA
FIELD.....	CORNING S	RICE CREEK	RICE CREEK	RICE CREEK
WELL NAME.....	STATE UNIT NO. 1	LEPP NO. 1	ZIMMERMAN A-1	ZIMMERMAN A-1
LOCATION.....	SEC. 12, T23N, R3W	NOT GIVEN	SEC. 23, T23N, R3W	SEC. 23, T23N, R3W
OWNER.....	BUTTES GAS & OIL CO.	MCCULLOCH OIL CORP. OF CALIF	MCCULLOCH OIL CORP. OF CALIF	MCCULLOCH OIL CORP. OF CALIF
COMPLETED.....	02/20/66	08/01/66	07/01/66	07/01/66
SAMPLED.....	05/02/66	09/07/67	09/07/67	09/07/67
FORMATION.....	CRET-KIONE	CRET-FORBES	CRET-FORBES	CRET-FORBES
GEOLOGIC PROVINCE CODE.....	730	730	730	730
DEPTH, FEET.....	2446	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1010	2390	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	94.8	96.3	97.5	97.5
ETHANE.....	0.0	0.2	0.2	0.2
PROPANE.....	0.0	TRACE	TRACE	TRACE
N-BUTANE.....	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0
NITROGEN.....	5.2	2.9	1.9	1.9
OXYGEN.....	0.0	0.6	0.4	0.4
ARGON.....	0.0	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	TRACE	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.0	TRACE	TRACE	TRACE
HELIUM.....	0.01	0.01	0.04	0.04
HEATING VALUE.....	960	979	991	991
SPECIFIC GRAVITY.....	0.576	0.570	0.565	0.565
		INDEX SAMPLE 676 16084	INDEX SAMPLE 677 4089	INDEX SAMPLE 678 3930
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	TEHAMA	TULARE	VENTURA	VENTURA
FIELD.....	RICE CREEK E	TRICO	NOT GIVEN	NOT GIVEN
WELL NAME.....	BETTCOURT NO.1	ATWELL ISLAND COMM. NO. 1	LEONARD WELL	LEONARD WELL
LOCATION.....	SEC. 28, T23N, R2W	SEC. 7, T24S, R23E	NOT GIVEN	NOT GIVEN
OWNER.....	OXY PETROLEUM, INC.	STANDARD OIL CO. OF CALIF.	JAMES LEONARD INVESTMENT CO.	JAMES LEONARD INVESTMENT CO.
COMPLETED.....	--/--/80	10/14/45	03/-/44	03/-/44
SAMPLED.....	09/29/80	10/15/45	09/20/44	09/20/44
FORMATION.....	CRET-FORBES	PLIO-SAN JOAQUIN M	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730	745	755	755
DEPTH, FEET.....	4946	3168	428	428
WELLHEAD PRESSURE, PSIG.....	2220	1400	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	2762	24000	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	94.5	98.2	64.8	64.8
ETHANE.....	0.4	1.4	---	---
PROPANE.....	TRACE	---	---	---
N-BUTANE.....	TRACE	---	---	---
ISOBUTANE.....	TRACE	---	---	---
N-PENTANE.....	TRACE	---	---	---
ISOPENTANE.....	0.0	---	---	---
CYCLOPENTANE.....	TRACE	---	---	---
HEXANES PLUS.....	TRACE	---	---	---
NITROGEN.....	4.8	0.0	33.1	33.1
OXYGEN.....	TRACE	0.0	---	---
ARGON.....	TRACE	---	---	---
HYDROGEN.....	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	---
CARBON DIOXIDE.....	TRACE	0.4	2.0	2.0
HELIUM.....	0.02	0.00	0.02	0.02
HEATING VALUE.....	964	1020	656	656
SPECIFIC GRAVITY.....	0.575	0.565	0.711	0.711
		INDEX SAMPLE 679 2221	INDEX SAMPLE 680 1621	INDEX SAMPLE 681 1623
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	VENTURA	VENTURA	VENTURA	VENTURA
FIELD.....	PIRU	VENTURA	VENTURA	VENTURA
WELL NAME.....	SNOW NO. 1 A	NOT GIVEN	NOT GIVEN	NOT GIVEN
LOCATION.....	SEC. 14, T14N, R18W	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	BOLSA CHICA OIL CORP.	VENTURA FUEL CO.	VENTURA FUEL CO.	VENTURA FUEL CO.
COMPLETED.....	08/19/30	--/--/00	--/--/00	--/--/00
SAMPLED.....	10/20/30	03/23/28	03/23/28	03/23/28
FORMATION.....	MIOC-	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	755	755	755	755
DEPTH, FEET.....	2496	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	350	375	375
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	73.1	81.9	82.9	82.9
ETHANE.....	12.1	17.5	16.5	16.5
PROPANE.....	---	---	---	---
N-BUTANE.....	---	---	---	---
ISOBUTANE.....	---	---	---	---
N-PENTANE.....	---	---	---	---
ISOPENTANE.....	---	---	---	---
CYCLOPENTANE.....	---	---	---	---
HEXANES PLUS.....	---	---	---	---
NITROGEN.....	0.6	0.1	0.2	0.2
OXYGEN.....	0.1	0.2	0.2	0.2
ARGON.....	---	---	---	---
HYDROGEN.....	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---
CARBON DIOXIDE.....	14.2	0.3	0.3	0.3
HELIUM.....	0.00	0.00	0.00	0.00
HEATING VALUE.....	957	1143	1135	1135
SPECIFIC GRAVITY.....	0.756	0.645	0.641	0.641
		INDEX SAMPLE 682 10716	INDEX SAMPLE 683 10921	INDEX SAMPLE 684 4432
STATE.....	CALIFORNIA	CALIFORNIA	CALIFORNIA	CALIFORNIA
COUNTY.....	YOLO	YOLO	YOLO	YOLO
FIELD.....	CLARKSBURG	CLARKSBURG	CLARKSBURG	CLARKSBURG
WELL NAME.....	SHERMAN UNIT NO. 5	PARSONS UNIT ONE NO. 1	DONAHUE NO. 1	DONAHUE NO. 1
LOCATION.....	SEC. 32, T7N, R4E	SEC. 24, T7N, R3E	SEC. 22, T11N, R1W	SEC. 22, T11N, R1W
OWNER.....	OCCIDENTAL PETROLEUM CORP.	OCCIDENTAL PETROLEUM CORP.	SUPERIOR OIL CO.	SUPERIOR OIL CO.
COMPLETED.....	06/20/66	11/05/66	01/20/48	01/20/48
SAMPLED.....	09/12/66	--/--/00	01/24/48	01/24/48
FORMATION.....	CRET-FORBES	CRET-WINTERS	EOCE-	EOCE-
GEOLOGIC PROVINCE CODE.....	730	730	730	730
DEPTH, FEET.....	11064	7300	2480	2480
WELLHEAD PRESSURE, PSIG.....	4050	NOT GIVEN	1075	1075
OPEN FLOW, MCFD.....	1122	5102	5000	5000
COMPONENT, MOLE PCT				
METHANE.....	87.2	87.3	93.7	93.7
ETHANE.....	0.4	0.8	0.7	0.7
PROPANE.....	0.1	---	---	---
N-BUTANE.....	0.0	0.0	---	---
ISOBUTANE.....	0.0	0.0	---	---
N-PENTANE.....	0.0	0.0	---	---
ISOPENTANE.....	0.0	0.0	---	---
CYCLOPENTANE.....	0.0	0.0	---	---
HEXANES PLUS.....	0.0	0.0	---	---
NITROGEN.....	12.1	11.7	5.0	5.0
OXYGEN.....	0.1	TRACE	0.3	0.3
ARGON.....	TRACE	TRACE	---	---
HYDROGEN.....	0.0	0.0	---	---
HYDROGEN SULFIDE.....	0.0	0.1	---	---
CARBON DIOXIDE.....	TRACE	TRACE	0.3	0.3
HELIUM.....	894	901	0.01	0.01
HEATING VALUE.....	894	901	962	962
SPECIFIC GRAVITY.....	0.610	0.609	0.583	0.583

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 685 SAMPLE 4599			INDEX 686 SAMPLE 4877			INDEX 687 SAMPLE 9909		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	YOLO		YOLO			YOLO		
FIELD.....	DUNNIGAN HILLS		DUNNIGAN HILLS			FAIRFIELD KNOLLS		
WELL NAME.....	HERMLE NO. 1		DUNNIGAN UNIT NO. 1			CORCORAN 33-4		
LOCATION.....	SEC. 22, T11N, R1W		SEC. 27, T11N, R1W			SEC. 33, T9N, R1E		
OWNER.....	STANDARD OIL CO. OF CALIF.		TEXAS CO.			FRANCO-WESTERN OIL CO.		
COMPLETED.....	07/29/48		09/27/47			04/01/64		
SAMPLED.....	10/28/48		04/29/50			05/26/65		
FORMATION.....	HERMLE		CRET-U			CRET-NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	2472		2630			5187		
WELLHEAD PRESSURE, PSIG.....	900		1080			1918		
OPEN FLOW, MCFD.....	3450		750			23200		
COMPONENT, MOLE PCT.....								
METHANE.....	94.3		94.9			90.7		
ETHANE.....	0.5		0.1			0.5		
PROpane.....	---		0.1			0.1		
N-BUTANE.....	---		0.1			0.0		
ISOBUTANE.....	---		0.0			0.0		
N-PENTANE.....	---		0.0			0.0		
ISOPENTANE.....	---		0.0			0.0		
CYCLOPENTANE.....	---		TRACE			0.0		
HEXANES PLUS.....	---		0.1			0.0		
NITROGEN.....	4.7		4.6			8.6		
OXYGEN.....	0.3		0.1			TRACE		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		---			0.6		
HYDROGEN SULFIDE**.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.0		
HELIUM.....	0.01		0.02			0.02		
HEATING VALUE*.....	964		974			930		
SPECIFIC GRAVITY.....	0.580		0.581			0.593		

INDEX 688 SAMPLE 10694			INDEX 689 SAMPLE 16225			INDEX 690 SAMPLE 4680		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	YOLO		YOLO			YOLO		
FIELD.....	GREEN UNIT		WILLAR			PLEASANT CREEK		
WELL NAME.....	UNIT NO. 2		ARCO-MOUND FARMS NO. 1			UNIT NO. 3-1		
LOCATION.....	SEC. 21, T6N, R4E		SEC. 17, T6N, R3E			SEC. 8, T8N, R1W		
OWNER.....	UNION OIL CO. OF CALIF.		HILLIARD OIL & GAS, INC.			SHELL OIL CO.		
COMPLETED.....	04/2/56		10/01/73			12/22/48		
SAMPLED.....	08/09/66		04/03/81			02/10/49		
FORMATION.....	COURTLAND		CRET-WINTERS			CRET-U		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	7400		7649			2783		
WELLHEAD PRESSURE, PSIG.....	2900		2654			NOT GIVEN		
OPEN FLOW, MCFD.....	10000		3512			9500		
COMPONENT, MOLE PCT.....								
METHANE.....	87.5		82.8			90.4		
ETHANE.....	1.3		0.8			0.3		
PROpane.....	0.5		0.1			0.1		
N-BUTANE.....	0.0		TRACE			0.0		
ISOBUTANE.....	0.0		TRACE			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.1			0.0		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	0.0		TRACE			0.0		
NITROGEN.....	10.6		16.0			8.5		
OXYGEN.....	0.0		TRACE			0.4		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	---		---			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			---		
CARBON DIOXIDE.....	TRACE		0.1			0.2		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE*.....	923		860			824		
SPECIFIC GRAVITY.....	0.610		0.628			0.596		

INDEX 691 SAMPLE 4801			INDEX 692 SAMPLE 12145			INDEX 693 SAMPLE 13189		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	YOLO		YOLO			YOLO		
FIELD.....	PLEASANT CREEK		SAXON			SAXON		
WELL NAME.....	UNIT NO. 4-1		1 C-GLIDE COLBY NO. 5			1 C-GLIDE NO. 1		
LOCATION.....	SEC. 8, T8N, R1W		SEC. 29, T7N, R3E			SEC. 17, T7N, R3E		
OWNER.....	SHELL OIL CO.		SIGNAL OIL & GAS CO.			SIGNAL OIL & GAS CO.		
COMPLETED.....	06/28/43		09/02/69			11/04/71		
SAMPLED.....	10/02/49		11/13/69			04/11/72		
FORMATION.....	CRET-		CRET-STARKEY			CRET-WINTERS		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	2712		6260			6817		
WELLHEAD PRESSURE, PSIG.....	1259		2412			2657		
OPEN FLOW, MCFD.....	9900		4800			2600		
COMPONENT, MOLE PCT.....								
METHANE.....	92.2		77.9			85.8		
ETHANE.....	0.3		0.7			0.8		
PROpane.....	0.2		0.2			0.2		
N-BUTANE.....	0.1		0.0			TRACE		
ISOBUTANE.....	0.0		0.0			0.1		
N-PENTANE.....	0.0		0.0			TRACE		
ISOPENTANE.....	0.1		0.0			TRACE		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			TRACE		
NITROGEN.....	6.9		19.9			12.9		
OXYGEN.....	TRACE		1.1			0.0		
ARGON.....	0.0		0.1			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			TRACE		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE*.....	951		807			892		
SPECIFIC GRAVITY.....	0.592		0.650			0.614		

INDEX 694 SAMPLE 11161			INDEX 695 SAMPLE 11833			INDEX 696 SAMPLE 4228		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	YOLO		YOLO			YOLO		
FIELD.....	TODHUNTER LAKE		TODHUNTER LAKE			WINTERS		
WELL NAME.....	REAVIS & BAKER NO. 1		1 C-GLIDE NO. 1			UNIT NO. 1		
LOCATION.....	SEC. 33, T9N, R3E		SEC. 27, T9N, R3E			SEC. 19, T8N, R1E		
OWNER.....	GETTY OIL CO.		GETTY OIL CO.			SHELL OIL CO.		
COMPLETED.....	06/10/67		04/25/69			09/30/46		
SAMPLED.....	10/11/67		04/22/69			02/28/47		
FORMATION.....	CRET-STARKEY		NOT GIVEN			EOCE-		
GEOLOGIC PROVINCE CODE.....	730		730			730		
DEPTH, FEET.....	3993		NOT GIVEN			4960		
WELLHEAD PRESSURE, PSIG.....	1650		1550			2030		
OPEN FLOW, MCFD.....	4750		NOT GIVEN			4500		
COMPONENT, MOLE PCT.....								
METHANE.....	86.6		87.0			87.4		
ETHANE.....	0.2		0.0			2.5		
PROpane.....	0.1		TRACE			---		
N-BUTANE.....	0.0		---			---		
ISOBUTANE.....	0.0		0.0			---		
N-PENTANE.....	0.0		0.0			---		
ISOPENTANE.....	0.0		0.0			---		
CYCLOPENTANE.....	0.0		0.0			---		
HEXANES PLUS.....	0.0		0.0			---		
NITROGEN.....	12.9		12.9			9.0		
OXYGEN.....	0.1		0.0			0.5		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.6		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE*.....	884		807			930		
SPECIFIC GRAVITY.....	0.611		0.607			0.613		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

67

INDEX 697		INDEX 698		INDEX 699	
SAMPLE 5271		SAMPLE 13634		SAMPLE 5872	
STATE.....	CALIFORNIA	COLORADO	COLORADO	COLORADO	
COUNTY.....	YOLO	ADAMS	ADAMS	ADAMS	
FIELD.....	WINTERS	AMBUSH	BEACON	COORDES	
WELL NAME.....	WINTERS COMMUNITY NO. 1	CHAMPLIN 75 AMOCO C NO. 1	SEC. 19, T2S, R64W	SEC. 7, T1S, R57W	
LOCATION.....	SEC. 19, T2S, R1W	AMOCO PRODUCTION CO.	LION OIL CO.	05/11/55	
OWNER.....	MOHAWK PETROLEUM CORP.	04/22/73	07/11/55	07/11/55	
COMPLETED.....	06/21/52	06/22/73	06/22/73	06/22/73	
SAMPLED.....	07/20/52	06/22/73	06/22/73	06/22/73	
FORMATION.....	CRET-MCCUNE	CRET-MUDDY J	CRET-MUDDY J	CRET-DAKOTA D	
GEOLOGIC PROVINCE CODE.....	730	540	540	540	
DEPTH, FEET.....	5000	8006	5762	5762	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1825	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	2306	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	83.4	74.4	69.3	69.3	
ETHANE.....	1.4	12.1	7.4	7.4	
PROPANE.....	0.2	5.8	9.2	9.2	
N-BUTANE.....	0.0	1.4	4.1	4.1	
ISOBUTANE.....	0.0	0.0	1.6	1.6	
N-PENTANE.....	0.0	0.4	1.0	1.0	
ISOPENTANE.....	0.0	0.6	1.4	1.4	
CYCLOPENTANE.....	TRACE	0.2	0.4	0.4	
HEXANES PLUS.....	TRACE	0.4	0.8	0.8	
NITROGEN.....	14.9	1.9	3.6	3.6	
OXYGEN.....	TRACE	0.0	TRACE	TRACE	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	TRACE	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.02	1.8	1.1	1.1	
HELIUM.....	0.879	0.03	0.05	0.05	
HEATING VALUE.....	879	1269	1424	1424	
SPECIFIC GRAVITY.....	0.627	0.765	0.868	0.868	
INDEX 700		INDEX 701		INDEX 702	
SAMPLE 15008		SAMPLE 10457		SAMPLE 10574	
STATE.....	COLORADO	COLORADO	COLORADO	COLORADO	
COUNTY.....	ADAMS	ADAMS	ADAMS	ADAMS	
FIELD.....	CHIEFTAN	DEER TRAIL	DEER TRAIL	DEER TRAIL	
WELL NAME.....	AMOCO CHAMPLIN NO. 67D-1	LEASURE NO. 1	LEASURE NO. 1	LEASURE NO. 1	
LOCATION.....	SEC. 21, T2S, R63W	SEC. 24, T2S, R6W	SEC. 24, T2S, R6W	SEC. 24, T2S, R6W	
OWNER.....	AMOCO PRODUCTION CO.	PETROLEUM, INC.	PETROLEUM, INC.	PETROLEUM, INC.	
COMPLETED.....	07/18/75	11/11/65	11/11/65	11/11/65	
SAMPLED.....	05/23/77	03/08/66	05/19/66	05/19/66	
FORMATION.....	CRET-DAKOTA J	CRET-DAKOTA J	CRET-DAKOTA J	CRET-DAKOTA J	
GEOLOGIC PROVINCE CODE.....	540	540	540	540	
DEPTH, FEET.....	7606	6234	6234	6234	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	900	900	900	
OPEN FLOW, MCFD.....	3938	1998	1998	1998	
COMPONENT, MOLE PCT					
METHANE.....	73.9	76.1	73.2	73.2	
ETHANE.....	12.9	12.4	11.8	11.8	
PROPANE.....	6.0	5.7	6.6	6.6	
N-BUTANE.....	1.7	1.3	1.8	1.8	
ISOBUTANE.....	0.7	1.0	1.0	1.0	
N-PENTANE.....	0.5	0.3	0.4	0.4	
ISOPENTANE.....	0.5	0.1	0.4	0.4	
CYCLOPENTANE.....	0.1	TRACE	0.1	0.1	
HEXANES PLUS.....	0.3	TRACE	0.2	0.2	
NITROGEN.....	2.1	3.5	3.5	3.5	
OXYGEN.....	TRACE	TRACE	0.1	0.1	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.8	1.1	1.0	1.0	
HELIUM.....	0.04	TRACE	0.08	0.08	
HEATING VALUE.....	1269	1207	1267	1267	
SPECIFIC GRAVITY.....	0.767	0.732	0.767	0.767	
INDEX 703		INDEX 704		INDEX 705	
SAMPLE 13488		SAMPLE 13668		SAMPLE 5678	
STATE.....	COLORADO	COLORADO	COLORADO	COLORADO	
COUNTY.....	ADAMS	ADAMS	ADAMS	ADAMS	
FIELD.....	HOLSTER	HOLSTER	HOLSTER	HOLSTER	
WELL NAME.....	STATE OF COLORADO A-B NO. 1	UPRR-PAN AM D NO. 1	UPRR-PAN AM D NO. 1	UPRR-PAN AM D NO. 1	
LOCATION.....	SEC. 16, T2S, R66W	SEC. 33, T3S, R61W	SEC. 33, T3S, R61W	SEC. 27, T2S, R59W	
OWNER.....	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	
COMPLETED.....	04/03/72	02/06/73	02/06/73	02/06/73	
SAMPLED.....	12/19/72	08/03/73	08/03/73	08/03/73	
FORMATION.....	CRET-MUDDY J	CRET-MUDDY J	CRET-MUDDY J	CRET-MUDDY J	
GEOLOGIC PROVINCE CODE.....	540	540	540	540	
DEPTH, FEET.....	8362	6824	6245	6245	
WELLHEAD PRESSURE, PSIG.....	1900	NOT GIVEN	1500	1500	
OPEN FLOW, MCFD.....	NOT GIVEN	2101	2700	2700	
COMPONENT, MOLE PCT					
METHANE.....	73.4	73.5	77.6	77.6	
ETHANE.....	14.2	7.8	10.7	10.7	
PROPANE.....	5.6	8.4	4.9	4.9	
N-BUTANE.....	1.5	2.1	1.2	1.2	
ISOBUTANE.....	0.8	0.9	0.7	0.7	
N-PENTANE.....	0.3	0.3	0.3	0.3	
ISOPENTANE.....	0.6	0.1	0.1	0.1	
CYCLOPENTANE.....	0.1	TRACE	0.1	0.1	
HEXANES PLUS.....	0.2	0.1	0.3	0.3	
NITROGEN.....	0.5	2.8	2.8	2.8	
OXYGEN.....	0.1	TRACE	TRACE	TRACE	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.1	1.0	0.8	0.8	
HELIUM.....	0.02	0.05	0.06	0.06	
HEATING VALUE.....	1278	1218	1218	1218	
SPECIFIC GRAVITY.....	0.763	0.767	0.726	0.726	
INDEX 706		INDEX 707		INDEX 708	
SAMPLE 5151		SAMPLE 13644		SAMPLE 7094	
STATE.....	COLORADO	COLORADO	COLORADO	COLORADO	
COUNTY.....	ADAMS	ADAMS	ADAMS	ADAMS	
FIELD.....	LITTLE BEAVER	LONGBRANCH	LONGBRANCH	LONGBRANCH	
WELL NAME.....	SCRITSMIRE NO. 1	MOBEL NO. A-1	MOBEL NO. A-1	MOBEL NO. A-1	
LOCATION.....	SEC. 19, T2S, R57W	SEC. 22, T2S, R62W	SEC. 22, T2S, R62W	SEC. 19, T1S, R57W	
OWNER.....	SNOWDEN-TUCKER, ET AL.	MIDWEST OIL CORP.	MIDWEST OIL CORP.	ANCORA CORP.	
COMPLETED.....	06/15/51	09/14/72	09/14/72	06/13/59	
SAMPLED.....	06/15/51	07/11/73	07/11/73	06/13/59	
FORMATION.....	CRET---	CRET-DAKOTA J	CRET-DAKOTA J	CRET-DAKOTA J 2ND BENCH	
GEOLOGIC PROVINCE CODE.....	540	540	540	540	
DEPTH, FEET.....	5269	7117	5768	5768	
WELLHEAD PRESSURE, PSIG.....	760	1600	1180	1180	
OPEN FLOW, MCFD.....	1000	8300	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	67.1	76.1	77.0	77.0	
ETHANE.....	12.7	11.2	10.3	10.3	
PROPANE.....	11.2	6.2	5.6	5.6	
N-BUTANE.....	1.6	1.0	1.4	1.4	
ISOBUTANE.....	1.0	0.7	0.8	0.8	
N-PENTANE.....	0.1	0.3	0.2	0.2	
ISOPENTANE.....	0.0	0.1	0.4	0.4	
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.2	0.1	0.1	
NITROGEN.....	5.7	2.0	3.2	3.2	
OXYGEN.....	TRACE	0.0	TRACE	TRACE	
ARGON.....	0.0	0.0	0.1	0.1	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	1.5	0.8	0.8	
CARBON DIOXIDE.....	0.3	0.04	0.05	0.05	
HELIUM.....	0.995	12.4	12.15	12.15	
HEATING VALUE.....	1297	0.746	0.729	0.729	
SPECIFIC GRAVITY.....	0.880				

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	709 13601	INDEX SAMPLE	710 12415	INDEX SAMPLE	711 14390
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	ADAMS			ADAMS		ADAMS	
FIELD.....	PYRAMID			RIMROCK		THIRD CREEK	
WELL NAME.....	MURPHY NO. 1-8			UPRR-SAUTER NO. 1		STATE-A NO. 5	
LOCATION.....	SEC. 8, T1S, R60W			SEC. 23, T2S, R60W		SEC. 36, T1S, R66W	
OWNER.....	SUNDANCE OIL CO.			ENERGY MINERALS CORP.		ROCK EXPLORATION CO.	
COMPLETED.....	09/01/72			12/24/69		05/02/74	
SAMPLED.....	05/22/73			09/11/70		06/17/75	
FORMATION.....	CRET-DAKOTA D			CRET-DAKOTA J		CRET-DAKOTA J	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	6400			6360		8178	
WELLHEAD PRESSURE, PSIG.....	1280			1600		NOT GIVEN	
OPEN FLOW, MCFD.....	2375			1800		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	77.0			75.1		71.3	
ETHANE.....	11.5			11.5		13.1	
PROPANE.....	7.1			6.3		6.7	
N-BUTANE.....	2.0			1.7		1.6	
ISOBUTANE.....	0.8			0.9		0.8	
N-PENTANE.....	0.4			0.5		0.4	
ISOPENTANE.....	0.2			0.3		0.4	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.3		0.3	
NITROGEN.....	4.6			2.3		1.2	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.2			TRACE		0.0	
HYDROGEN.....	0.0			0.1		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.8			0.9		2.0	
HELIUM.....	0.06			0.04		0.02	
HEATING VALUE.....	1211			1272		1301	
SPECIFIC GRAVITY.....	0.743			0.756		0.781	
		INDEX SAMPLE	712 12838	INDEX SAMPLE	713 5676	INDEX SAMPLE	714 3001
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	ADAMS			ADAMS		ALAMOSA	
FIELD.....	TOTEN			WILDCAT		NOT GIVEN	
WELL NAME.....	UPRR 48 PAN AM NO. 1			GEORGE E. LEASURE NO. 1		WATER WELL	
LOCATION.....	SEC. 17, T2S, R62W			SEC. 17, T2S, R59W		SEC. 32, T40N, R11E	
OWNER.....	AWOCO PRODUCTION CO.			GINTHER, WARREN, & GINTHER		J. H. CROW	
COMPLETED.....	01/13/71			--/--/00		10/01/40	
SAMPLED.....	05/25/71			08/03/54		11/22/41	
FORMATION.....	CRET-MUDDY J			CRET-DAKOTA J		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	540			540		560	
DEPTH, FEET.....	7270			6255		540	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1500		NOT GIVEN	
OPEN FLOW, MCFD.....	3870			2800		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	74.3			64.4		95.6	
ETHANE.....	11.7			9.2		0.0	
PROPANE.....	6.5			4.7		---	
N-BUTANE.....	1.5			2.7		---	
ISOBUTANE.....	0.8			2.2		---	
N-PENTANE.....	0.3			0.2		---	
ISOPENTANE.....	0.2			3.2		---	
CYCLOPENTANE.....	0.1			0.8		---	
HEXANES PLUS.....	0.2			5.3		---	
NITROGEN.....	3.2			3.6		2.5	
OXYGEN.....	0.0			TRACE		0.2	
ARGON.....	0.0			0.0		---	
HYDROGEN.....	TRACE			TRACE		---	
HYDROGEN SULFIDE**.....	0.0			0.0		---	
CARBON DIOXIDE.....	1.2			0.6		1.7	
HELIUM.....	0.05			0.04		0.00	
HEATING VALUE.....	1244			1612		968	
SPECIFIC GRAVITY.....	0.754			0.974		0.582	
		INDEX SAMPLE	715 3579	INDEX SAMPLE	716 17360	INDEX SAMPLE	717 17912
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	ALAMOSA			ARAPAHOE		ARAPAHOE	
FIELD.....	NOT GIVEN			CHALICE		CHINOOK	
WELL NAME.....	CROW			COLUMBINE STATE NO. 1		RHINE NO. 12-29	
LOCATION.....	SEC. 32, T39N, R11E			SEC. 16, T4S, R64W		SEC. 29, T5S, R62W	
OWNER.....	J. H. CROW			GERBER ENERGY CORP.		ROCKY MOUNTAIN PROD. CO.	
COMPLETED.....	--/--/00			02/05/83		02/--/85	
SAMPLED.....	--/--/00			07/26/84		11/12/85	
FORMATION.....	NOT GIVEN			CRET-DAKOTA J		CRET-MUDDY J	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	NOT GIVEN			8088		7518	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1850		1500	
OPEN FLOW, MCFD.....	NOT GIVEN			500		600	
COMPONENT, MOLE PCT							
METHANE.....	90.7			69.9		74.8	
ETHANE.....	0.5			13.7		11.5	
PROPANE.....	---			2.1		5.7	
N-BUTANE.....	---			2.1		1.8	
ISOBUTANE.....	---			1.0		0.4	
N-PENTANE.....	0.3			0.2		0.7	
ISOPENTANE.....	---			0.9		0.3	
CYCLOPENTANE.....	---			0.3		0.1	
HEXANES PLUS.....	6.2			0.6		0.3	
NITROGEN.....	1.5			2.4		2.3	
OXYGEN.....	---			TRACE		TRACE	
ARGON.....	---			0.0		TRACE	
HYDROGEN.....	---			0.0		0.1	
HYDROGEN SULFIDE**.....	---			0.0		0.0	
CARBON DIOXIDE.....	1.1			2.7		1.9	
HELIUM.....	0.00			0.03		0.05	
HEATING VALUE.....	928			1339		1248	
SPECIFIC GRAVITY.....	0.601			0.818		0.757	
		INDEX SAMPLE	718 12887	INDEX SAMPLE	719 13602	INDEX SAMPLE	720 12778
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	ARAPAHOE			ARAPAHOE		ARAPAHOE	
FIELD.....	LATISO			PEACE PIPE		PEORIA	
WELL NAME.....	VAN MATRE NO. 1			HERSKIND NO. 1		C. J. JOHNSON "B" NO. 4	
LOCATION.....	SEC. 24, T5S, R61W			SEC. 2, T5S, R62W		SEC. 20, T4S, R60W	
OWNER.....	TEXACO INC.			BROWNLEE, WALLACE & ARMSTRON		SUN OIL CO.	
COMPLETED.....	03/25/72			04/17/72		02/16/72	
SAMPLED.....	06/16/71			05/29/73		04/15/71	
FORMATION.....	CRET-DAKOTA J			CRET-DAKOTA J		CRET-DAKOTA J	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	6750			7200		6469	
WELLHEAD PRESSURE, PSIG.....	1450			1600		1470	
OPEN FLOW, MCFD.....	16736			7000		2002	
COMPONENT, MOLE PCT							
METHANE.....	73.0			75.4		71.5	
ETHANE.....	11.7			11.4		11.2	
PROPANE.....	6.6			6.0		5.0	
N-BUTANE.....	1.5			1.6		1.4	
ISOBUTANE.....	0.5			0.7		0.7	
N-PENTANE.....	0.4			0.4		0.2	
ISOPENTANE.....	0.5			0.4		0.6	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.3		0.3	
NITROGEN.....	6.9			6.9		6.9	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			1.6		1.0	
HELIUM.....	0.07			0.05		0.06	
HEATING VALUE.....	1241			1244		1205	
SPECIFIC GRAVITY.....	0.758			0.752		0.765	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

69

INDEX SAMPLE 12706		INDEX SAMPLE 16319		INDEX SAMPLE 4540	
STATE.....	COLORADO	COLORADO		COLORADO	
COUNTY.....	ARAPAHOE	ARAPAHOE		ARCHULETA	
FIELD.....	PEOLA N	POLLEN		CHROMO	
WELL NAME.....	PRICE NO. 1	PRITCHETTE GREEN A NO. 1		YEAKLEY ECHLER NO. 1	
LOCATION.....	SEC. 14, T4S, R60W	SEC. 8, T4S, R62W		SEC. 10, T32S, R2E	
OWNER.....	TOM VESSELS, JR.	AROCO PRODUCTION CO.		YEAKLEY OIL CO.	
COMPLETED.....	04/10/70	05/--/80		11/--/78	
SAMPLED.....	03/09/71	08/20/81		08/--/48	
FORMATION.....	CRET-DAKOTA J	CRET-HUDDY J		CRET-MANCOS	
GEOLOGIC PROVINCE CODE.....	540	540		580	
DEPTH, FEET.....	6334	7400		407	
WELLHEAD PRESSURE, PSIG.....	1480	NOT GIVEN		35	
OPEN FLOW, MCFD.....	2558	2500		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	71.3	57.9		80.2	
ETHANE.....	10.9	13.7		16.8	
PROPANE.....	5.6	13.9		---	
N-BUTANE.....	1.7	4.2		---	
ISOBUTANE.....	1.0	1.6		---	
N-PENTANE.....	0.7	0.8		---	
ISOPENTANE.....	0.4	1.0		---	
CYCLOPENTANE.....	0.6	0.2		---	
HEXANES PLUS.....	1.4	0.4		---	
NITROGEN.....	1.8	1.7		1.9	
OXYGEN.....	0.0	TRACE		0.2	
ARGON.....	0.0	TRACE		---	
HYDROGEN.....	0.0	TRACE		---	
HYDROGEN SULFIDE.....	0.0	0.0		---	
CARBON DIOXIDE.....	0.6	2.5		0.8	
HELIUM.....	0.06	0.01		0.10	
HEATING VALUE.....	1321	1529		1113	
SPECIFIC GRAVITY.....	0.808	0.939		0.654	

INDEX SAMPLE 4541		INDEX SAMPLE 9137		INDEX SAMPLE 8180	
STATE.....	COLORADO	COLORADO		COLORADO	
COUNTY.....	ARCHULETA	ARCHULETA		ARCHULETA	
FIELD.....	CHROMO	SAN JUAN-CHAMA PROJECT		WILDCAT	
WELL NAME.....	YEAKLEY CRAWLEY NO. 1	TEST HOLE NO. 108		SCHOMBURG NO. 1	
LOCATION.....	SEC. 8, T32S, R2E	NOT GIVEN		SEC. 14, T34N, S0. UTE LINE	
OWNER.....	YEAKLEY OIL CO.	U.S. BUREAU OF RECLAMATION		BIG HORN-POWDER RIVER CORP.	
COMPLETED.....	08/01/48	07/63		--/--/00	
SAMPLED.....	08/--/48	10/22/63		08/22/61	
FORMATION.....	NOT GIVEN	CRET-LEWIS		CRET-LEWIS	
GEOLOGIC PROVINCE CODE.....	580	580		580	
DEPTH, FEET.....	1410	1027		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	200	NOT GIVEN		50	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		5	
COMPONENT, MOLE PCT					
METHANE.....	83.8	88.0		90.5	
ETHANE.....	12.4	2.5		6.8	
PROPANE.....	---	1.5		1.7	
N-BUTANE.....	---	---		0.3	
ISOBUTANE.....	---	TRACE		0.3	
N-PENTANE.....	---	0.1		TRACE	
ISOPENTANE.....	---	0.1		0.1	
CYCLOPENTANE.....	---	TRACE		TRACE	
HEXANES PLUS.....	---	0.1		0.1	
NITROGEN.....	2.9	4.7		0.2	
OXYGEN.....	0.2	0.2		TRACE	
ARGON.....	---	0.1		0.0	
HYDROGEN.....	---	0.0		0.0	
HYDROGEN SULFIDE.....	---	0.0		0.0	
CARBON DIOXIDE.....	0.4	1.7		0.1	
HELIUM.....	0.25	0.00		TRACE	
HEATING VALUE.....	1071	1006		1112	
SPECIFIC GRAVITY.....	0.631	0.636		0.621	

INDEX SAMPLE 8535		INDEX SAMPLE 8875		INDEX SAMPLE 8876	
STATE.....	COLORADO	COLORADO		COLORADO	
COUNTY.....	BACA	BACA		BACA	
FIELD.....	FLANK	FLANK		FLANK	
WELL NAME.....	COLVIN NO. 1-8	PRIDEMORE NO. 1		PRIDEMORE NO. 2	
LOCATION.....	SEC. 13, T34S, R42W	SEC. 8, T34S, R42W		SEC. 9, T34S, R42W	
OWNER.....	SHELL OIL CO.	KERR-MCGEE OIL IND., INC.		KERR-MCGEE OIL IND., INC.	
COMPLETED.....	03/05/62	10/01/61		01/21/62	
SAMPLED.....	05/04/62	02/13/63		02/13/63	
FORMATION.....	PENN-CHEROKEE	PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	4102	4607		4528	
WELLHEAD PRESSURE, PSIG.....	825	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	6	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	64.7	67.8		68.6	
ETHANE.....	7.1	9.9		7.0	
PROPANE.....	4.2	4.5		4.4	
N-BUTANE.....	1.1	1.3		1.0	
ISOBUTANE.....	0.4	0.3		0.5	
N-PENTANE.....	0.3	0.4		0.2	
ISOPENTANE.....	0.3	0.5		0.2	
CYCLOPENTANE.....	0.1	0.1		0.1	
HEXANES PLUS.....	0.2	0.3		0.2	
NITROGEN.....	21.1	17.1		16.8	
OXYGEN.....	TRACE	0.0		0.1	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.2		0.2	
HELIUM.....	0.44	0.70		0.60	
HEATING VALUE.....	982	1039		1016	
SPECIFIC GRAVITY.....	0.759	0.755		0.739	

INDEX SAMPLE 8578		INDEX SAMPLE 8884		INDEX SAMPLE 5591	
STATE.....	COLORADO	COLORADO		COLORADO	
COUNTY.....	BACA	BACA		BACA	
FIELD.....	FLANK NW	FLANK NW		GREENWOOD	
WELL NAME.....	GRIFFITH NO. 1	GRIFFITH NO. 1		AMERADA NO. 1 NEW	
LOCATION.....	SEC. 13, T33S, R43W	SEC. 9, T34S, R42W		SEC. 33, T32S, R41W	
OWNER.....	POST OIL PROP., LTD.	KERRY FREE OIL IND., INC.		AMERADA PETROLEUM CORP.	
COMPLETED.....	06/01/62	10/23/61		01/23/54	
SAMPLED.....	07/02/62	02/13/63		01/30/54	
FORMATION.....	PENN-TOPEKA	PENN-MORROW		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	3158	4504		3106	
WELLHEAD PRESSURE, PSIG.....	407	NOT GIVEN		440	
OPEN FLOW, MCFD.....	2400	7300		2900	
COMPONENT, MOLE PCT					
METHANE.....	62.8	67.0		65.5	
ETHANE.....	3.2	6.2		6.6	
PROPANE.....	3.2	6.0		3.4	
N-BUTANE.....	1.0	1.0		1.1	
ISOBUTANE.....	0.4	0.3		0.4	
N-PENTANE.....	0.2	0.3		0.3	
ISOPENTANE.....	0.2	0.5		0.1	
CYCLOPENTANE.....	0.1	TRACE		TRACE	
HEXANES PLUS.....	0.2	TRACE		1.1	
NITROGEN.....	26.1	19.6		21.4	
OXYGEN.....	TRACE	0.6		0.2	
ARGON.....	TRACE	TRACE		0.1	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	TRACE		0.2	
HELIUM.....	0.68	0.70		0.51	
HEATING VALUE.....	889	964		943	
SPECIFIC GRAVITY.....	0.755	0.738		0.744	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	733 5616	INDEX SAMPLE	734 5652	INDEX SAMPLE	735 6537
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	BACA			BACA		BACA	
FIELD.....	GREENWOOD			GREENWOOD		GREENWOOD	
WELL NAME.....	CF. A. NEWMAN NO. 1			SCHWEIZER NO. 1		R. H. PRIDE UNIT NO. 1	
LOCATION.....	SEC. 12, T32S, R42W			SEC. 19, T32S, R41W		SEC. 23, T33S, R42W	
OWNER.....	AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.	
COMPLETED.....	02/24/54			04/04/54		12/31/58	
SAMPLED.....	04/05/54			07/22/54		03/29/58	
FORMATION.....	PENN-LANSING			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3068			3150		2985	
WELLHEAD PRESSURE, PSIG.....	430			435		320	
OPEN FLOW, MCFD.....	2000			13000		1426	
COMPONENT, MOLE PCT							
METHANE.....	62.8			64.5		64.0	
ETHANE.....	5.4			6.3		5.8	
PROPANE.....	3.3			3.6		3.1	
N-BUTANE.....	0.9			1.1		0.9	
ISOBUTANE.....	0.3			0.5		0.5	
N-PENTANE.....	0.2			0.3		0.3	
ISOPENTANE.....	0.1			0.1		0.1	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	25.8			22.8		24.3	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	0.1			TRACE		0.1	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.2	
HELIUM.....	0.63			0.56		0.60	
HEATING VALUE.....	0.877			0.940		0.907	
SPECIFIC GRAVITY.....	0.746			0.751		0.749	

		INDEX SAMPLE	736 7157	INDEX SAMPLE	737 7908	INDEX SAMPLE	738 7909
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	BACA			BACA		BACA	
FIELD.....	GREENWOOD			GREENWOOD		GREENWOOD	
WELL NAME.....	STATE HOLT NO. 1			WRIGHT NO. 1		WATKINS A-1	
LOCATION.....	SEC. 15, T35S, R41W			SEC. 9, T33S, R41W		SEC. 20, T32S, R41W	
OWNER.....	FRONTIER REFINING CO.			HORIZON OIL & GAS CO.		HORIZON OIL & GAS CO.	
COMPLETED.....	06/08/59			01/07/61		01/07/61	
SAMPLED.....	08/-/59			03/15/61		03/15/61	
FORMATION.....	PENN-TOPEKA			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2863			3003		3139	
WELLHEAD PRESSURE, PSIG.....	425			441		289	
OPEN FLOW, MCFD.....	1390			1550		1670	
COMPONENT, MOLE PCT							
METHANE.....	56.1			69.8		65.0	
ETHANE.....	6.0			6.7		6.2	
PROPANE.....	2.5			3.6		3.8	
N-BUTANE.....	1.1			0.8		0.5	
ISOBUTANE.....	0.7			0.6		0.6	
N-PENTANE.....	TRACE			0.2		0.3	
ISOPENTANE.....	0.8			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	31.4			17.5		22.5	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.80			0.50		0.60	
HEATING VALUE.....	0.841			0.986		0.932	
SPECIFIC GRAVITY.....	0.783			0.724		0.743	

		INDEX SAMPLE	739 8774	INDEX SAMPLE	740 8061	INDEX SAMPLE	741 8063
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	BACA			BACA		BACA	
FIELD.....	GREENWOOD			WIDOWAY		WIDOWAY	
WELL NAME.....	MOORE A			COGBURN NO. 1		BAUMAN A-1	
LOCATION.....	SEC. 24, T34S, R42W			SEC. 22, T33S, R42W		SEC. 2, T33S, R42W	
OWNER.....	HORIZON OIL & GAS CO.			HORIZON OIL & GAS CO.		HORIZON OIL & GAS CO.	
COMPLETED.....	11/15/62			07/28/60		04/09/61	
SAMPLED.....	10/19/62			02/17/61		05/05/61	
FORMATION.....	PENN-TOPEKA			PENN-MORROW U		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2770			4666		3124	
WELLHEAD PRESSURE, PSIG.....	406			965		396	
OPEN FLOW, MCFD.....	1550			7000		5600	
COMPONENT, MOLE PCT							
METHANE.....	67.7			68.0		63.8	
ETHANE.....	5.9			4.2		6.5	
PROPANE.....	3.8			4.2		3.7	
N-BUTANE.....	1.2			0.8		1.0	
ISOBUTANE.....	0.3			0.6		0.6	
N-PENTANE.....	0.3			0.1		0.3	
ISOPENTANE.....	0.3			0.1		0.1	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	19.2			18.2		23.3	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.2	
HELIUM.....	0.50			0.50		0.40	
HEATING VALUE.....	0.987			0.988		0.940	
SPECIFIC GRAVITY.....	0.744			0.733		0.758	

		INDEX SAMPLE	742 4052	INDEX SAMPLE	743 4197	INDEX SAMPLE	744 4198
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	BACA			BACA		BACA	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	BORE HOLE NO. F614			INGLE NO. 1		INGLE NO. 1	
LOCATION.....	SEC. 20, T29S, R50W			SEC. 27, T29S, R50W		SEC. 27, T29S, R50W	
OWNER.....	SKELLY OIL CO.			J. M. HUBER CORP.		SHARPLES OIL CORP.	
COMPLETED.....	-/-/00			-/-/00		-/-/00	
SAMPLED.....	07/25/45			01/-/47		02/11/47	
FORMATION.....	JURA-EXETER			PENN-		PENN-	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	210			4466		4332	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	0.0			1.9		0.0	
ETHANE.....	0.0			0.0		1.2	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.6			7.0		0.3	
OXYGEN.....	0.0			0.0		1.1	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	99.4			91.0		97.3	
HELIUM.....	TRACE			0.13		0.05	
HEATING VALUE.....	0			19		22	
SPECIFIC GRAVITY.....	1.526			1.470		1.515	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

71

INDEX 745 SAMPLE 4199		INDEX 746 SAMPLE 8773		INDEX 747 SAMPLE 9878	
STATE.....	COLORADO	COLORADO		COLORADO	
COUNTY.....	BACA	BACA		BACA	
FIELD.....	NOT GIVEN	NOT GIVEN		PLAYA	
WELL NAME.....	JACOBSON NO. 1	MOORE A 1-24		EASTMAN NO. 1-4	
LOCATION.....	NOT GIVEN	SEC. 24, T32S, R42W		SEC. 4, T32S, R44W	
OWNER.....	SHARPLES OIL CORP.	HORIZON OIL & GAS CO.		HORIZON OIL & GAS CO.	
COMPLETED.....	--/--/00	11/15/62		12/09/64	
SAMPLED.....	02/11/67	06/16/66		04/23/65	
FORMATION.....	NOT GIVEN	PERM-RED CAVE		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	1214		3354	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	330		416	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		788	
COMPONENT, MOLE PCT					
METHANE.....	2.1	23.3		59.3	
ETHANE.....	0.0	1.1		5.3	
PROPANE.....	---	0.8		3.7	
N-BUTANE.....	---	0.4		1.0	
ISOBUTANE.....	---	0.3		0.6	
N-PENTANE.....	---	0.1		0.3	
ISOPENTANE.....	---	0.2		0.1	
CYCLOPENTANE.....	---	TRACE		TRACE	
HEXANES PLUS.....	---	0.1		0.2	
NITROGEN.....	6.6	71.2		26.8	
OXYGEN.....	1.3	TRACE		TRACE	
ARGON.....	---	0.2		0.1	
HYDROGEN.....	---	0.1		0.0	
HYDROGEN SULFIDE.....	---	---		0.0	
CARBON DIOXIDE.....	90.0	TRACE		1.0	
HELIUM.....	0.02	2.14		0.71	
HEATING VALUE.....	21	314		873	
SPECIFIC GRAVITY.....	1.466	0.870		0.780	
INDEX 748 SAMPLE 10796		INDEX 749 SAMPLE 6517		INDEX 750 SAMPLE 6558	
STATE.....	COLORADO	COLORADO		COLORADO	
COUNTY.....	BACA	BACA		BACA	
FIELD.....	PLAYA	PRAIRIE DOG		PRAIRIE DOG	
WELL NAME.....	ELLIS NO. 1-1	FED. LAND BANK NO. 1		COPENHAVER NO. 1	
LOCATION.....	SEC. 1, T32S, R44W	SEC. 31, T34S, R44W		SEC. 6, T35N, R44W	
OWNER.....	HORIZON OIL & GAS CO.	SHELL OIL CO.		SHELL OIL CO.	
COMPLETED.....	09/06/66	--/--/00		04/20/58	
SAMPLED.....	11/30/66	02/02/58		05/--/58	
FORMATION.....	PENN-TOPEKA	PENN-CHEROKEE		PENN-HARTON	
GEOLOGIC PROVINCE CODE.....	360	560		360	
DEPTH, FEET.....	3221	4256		4049	
WELLHEAD PRESSURE, PSIG.....	400	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	17200	NOT GIVEN		2200	
COMPONENT, MOLE PCT					
METHANE.....	61.5	63.2		63.0	
ETHANE.....	3.5	3.1		7.9	
PROPANE.....	3.8	3.1		3.9	
N-BUTANE.....	1.1	0.9		1.0	
ISOBUTANE.....	0.3	0.5		0.5	
N-PENTANE.....	0.1	0.2		0.2	
ISOPENTANE.....	0.3	0.2		0.1	
CYCLOPENTANE.....	TRACE	0.1		0.1	
HEXANES PLUS.....	0.1	0.2		0.2	
NITROGEN.....	26.4	22.9		22.6	
OXYGEN.....	0.1	TRACE		0.1	
ARGON.....	0.1	TRACE		TRACE	
HYDROGEN.....	0.0	TRACE		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.9		0.2	
HELIUM.....	0.70	0.40		0.40	
HEATING VALUE.....	890	930		958	
SPECIFIC GRAVITY.....	0.760	0.758		0.763	
INDEX 751 SAMPLE 10819		INDEX 752 SAMPLE 10622		INDEX 753 SAMPLE 10922	
STATE.....	COLORADO	COLORADO		COLORADO	
COUNTY.....	BACA	BACA		BACA	
FIELD.....	PRAIRIE DOG	VILLAS		VILLAS	
WELL NAME.....	OLIVE F. LANTZ D NO. 1-12	OLIVER NO. 1-18		STATE ST. JOHN NO. 1-36	
LOCATION.....	SEC. 12, T35S, R45W	SEC. 18, T31S, R44W		SEC. 36, T30S, R45W	
OWNER.....	W. C. MCBRIDE, INC.	DAVIS DRILLING, INC.		W. C. MCBRIDE, INC.	
COMPLETED.....	11/07/66	06/16/66		--/--/00	
SAMPLED.....	12/15/66	06/16/66		04/14/67	
FORMATION.....	PENN-CHEROKEE	PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	8204	3234		3294	
WELLHEAD PRESSURE, PSIG.....	860	420		440	
OPEN FLOW, MCFD.....	3087	8900		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	56.9	55.9		43.5	
ETHANE.....	6.3	5.4		5.7	
PROPANE.....	7.1	5.7		1.3	
N-BUTANE.....	1.0	1.0		0.7	
ISOBUTANE.....	0.2	0.5		0.2	
N-PENTANE.....	0.2	0.1		0.4	
ISOPENTANE.....	0.5	0.2		0.6	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.1	TRACE		0.2	
NITROGEN.....	31.0	32.7		42.6	
OXYGEN.....	0.1	0.0		0.0	
ARGON.....	TRACE	0.1		0.1	
HYDROGEN.....	0.0	0.7		0.3	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		0.4	
HELIUM.....	0.48	0.90		1.25	
HEATING VALUE.....	745	742		742	
SPECIFIC GRAVITY.....	0.778	0.777		0.846	
INDEX 754 SAMPLE 11076		INDEX 755 SAMPLE 7870		INDEX 756 SAMPLE 7915	
STATE.....	COLORADO	COLORADO		COLORADO	
COUNTY.....	BACA	BACA		BACA	
FIELD.....	VILLAS	WALSH		WALSH	
WELL NAME.....	ROLLINS-RUTHERFORD B NO.1-20	BURCHFIELD NO. 1		BURCHFIELD NO. 1	
LOCATION.....	SEC. 20, T31S, R44W	SEC. 4, T32S, R43W		SEC. 4, T32S, R43W	
OWNER.....	W. C. MCBRIDE, INC.	KEITH L. RISING		GERMANY INVESTMENT CO.	
COMPLETED.....	05/18/67	02/14/61		02/24/61	
SAMPLED.....	08/26/67	02/14/61		04/13/61	
FORMATION.....	PENN-TOPEKA	PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	3245		3245	
WELLHEAD PRESSURE, PSIG.....	440	427		425	
OPEN FLOW, MCFD.....	6160	1625		2500	
COMPONENT, MOLE PCT					
METHANE.....	57.5	56.3		67.1	
ETHANE.....	5.3	5.9		6.9	
PROPANE.....	3.5	3.8		4.6	
N-BUTANE.....	1.1	1.2		1.5	
ISOBUTANE.....	0.5	0.5		0.7	
N-PENTANE.....	0.3	0.3		0.3	
ISOPENTANE.....	0.2	0.3		0.3	
CYCLOPENTANE.....	TRACE	TRACE		0.1	
HEXANES PLUS.....	0.2	0.2		0.2	
NITROGEN.....	30.0	30.5		17.4	
OXYGEN.....	TRACE	TRACE		0.0	
ARGON.....	0.1	0.1		0.1	
HYDROGEN.....	TRACE	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.9		0.0	
CARBON DIOXIDE.....	0.4	0.2		0.1	
HELIUM.....	0.81	0.20		0.80	
HEATING VALUE.....	754	859		1037	
SPECIFIC GRAVITY.....	0.779	0.785		0.757	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	757 7916	INDEX SAMPLE	758 8055	INDEX SAMPLE	759 8665
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	BACA			BACA		BACA	
FIELD.....	WALSH			WALSH		WALSH	
WELL NAME.....	GRIFFIN ESTATE NO. 1			KOELSCH		HOLT NO. 1-3	
LOCATION.....	SEC. 17, T32S, R43W			SEC. 20, T32S, R43W		SEC. 3, T32S, R43W	
OWNER.....	GERMANY INVESTMENT CO.			DAVIS DRILLING, INC.		DAVIS DRILLING, INC.	
COMPLETED.....	04/15/61			06/30/61		--/--/00	
SAMPLED.....	04/13/61			06/20/61		08/27/62	
FORMATION.....	PENN-TOPEKA			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3252			3265		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	440			430		NOT GIVEN	
OPEN FLOW, MCFD.....	6000			1500		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	63.0			58.9		56.1	
ETHANE.....	5.9			5.4		5.4	
PROPANE.....	3.7			3.6		3.7	
N-BUTANE.....	1.1			1.3		1.1	
ISOBUTANE.....	0.5			0.5		0.5	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.2			0.2		0.2	
CYCLOPENTANE.....	18.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	24.6			28.3		31.1	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.1		0.1	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.7	
HELIUM.....	0.60			0.80		0.69	
HEATING VALUE*.....	925			882		833	
SPECIFIC GRAVITY.....	0.759			0.776		0.783	
		INDEX SAMPLE	760 5926	INDEX SAMPLE	761 8906	INDEX SAMPLE	762 6137
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	BENT			BENT		BENT	
FIELD.....	BENTS FORT			HASTY		LUBERS	
WELL NAME.....	CORDES & OBERLANDER NO. 1			U.S.A. NO. 1-15		EARL A NO. 1	
LOCATION.....	SEC. 21, T21S, R51W			SEC. 7, T23S, R50W		SEC. 15, T22S, R49W	
OWNER.....	STANBURY OIL CO.			FRANKFORT OIL CO.		HARTINGTON, MARSH & WAGNER	
COMPLETED.....	06/18/55			11/20/62		09/02/56	
SAMPLED.....	08/30/55			03/25/63		08/31/56	
FORMATION.....	PENN-MORROW			PENN-ATOKA		PENN-CHEROKEE	
GEOLOGIC PROVINCE CODE.....	450			450		450	
DEPTH, FEET.....	5208			4677		4331	
WELLHEAD PRESSURE, PSIG.....	1200			1120		NOT GIVEN	
OPEN FLOW, MCFD.....	2500			1120		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	72.3			66.1		64.5	
ETHANE.....	12.9			10.3		12.3	
PROPANE.....	5.7			5.7		5.4	
N-BUTANE.....	1.6			1.3		1.4	
ISOBUTANE.....	1.1			0.7		0.7	
N-PENTANE.....	0.5			0.3		0.3	
ISOPENTANE.....	0.6			0.1		0.3	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.0			0.1		0.1	
NITROGEN.....	4.1			14.8		14.1	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.2		0.2	
HELIUM.....	0.15			0.28		0.21	
HEATING VALUE*.....	1283			1095		1135	
SPECIFIC GRAVITY.....	0.775			0.767		0.783	
		INDEX SAMPLE	763 8581	INDEX SAMPLE	764 16328	INDEX SAMPLE	765 17166
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	BENT			BENT		BENT	
FIELD.....	MCCLAVE			MCCLAVE		WLOCAT	
WELL NAME.....	WALLERT STATE UNIT NO. 1			KICKING BIRD NO. 21-16		EARL HOFFMAN NO. 1	
LOCATION.....	SEC. 5, T21S, R48W			SEC. 16, T21S, R48W		SEC. 31, T22S, R48W	
OWNER.....	FRANKFORT OIL CO.			MRT EXPLORATION CO.		MURFIN DRILLING CO.	
COMPLETED.....	01/29/62			08/05/80		12/--/82	
SAMPLED.....	06/16/62			09/01/81		01/--/84	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	450			450		450	
DEPTH, FEET.....	4654			4719		4609	
WELLHEAD PRESSURE, PSIG.....	790			920		NOT GIVEN	
OPEN FLOW, MCFD.....	725			2283		1080	
COMPONENT, MOLE PCT							
METHANE.....	68.5			69.1		65.8	
ETHANE.....	13.6			12.6		7.6	
PROPANE.....	7.1			5.7		2.0	
N-BUTANE.....	1.6			1.2		0.3	
ISOBUTANE.....	0.7			0.7		0.3	
N-PENTANE.....	0.7			0.2		0.3	
ISOPENTANE.....	0.3			0.4		0.2	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.2		0.2	
NITROGEN.....	7.4			9.3		22.2	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.5		0.0	
HELIUM.....	0.18			0.27		0.36	
HEATING VALUE*.....	1225			1170		911	
SPECIFIC GRAVITY.....	0.774			0.760		0.729	
		INDEX SAMPLE	766 16768	INDEX SAMPLE	767 16726	INDEX SAMPLE	768 17408
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	BOULDER			BOULDER		BOULDER	
FIELD.....	BOULDER VALLEY			WATTENBERG		WLOCAT	
WELL NAME.....	FUTHEY NO. 2			LABER K UNIT NO. 1		HOUSE NO. 1-36	
LOCATION.....	SEC. 25, T1N, R69W			SEC. 24, T2N, R69W		SEC. 36, T2N, R70W	
OWNER.....	CENTENNIAL PETROLEUM, INC.			VESSELS OIL AND GAS CO.		MARTIN EXPL. MGMT. CORP.	
COMPLETED.....	07/26/83			12/06/82		04/20/83	
SAMPLED.....	02/10/83			12/06/82		09/--/84	
FORMATION.....	CRET-DAKOTA J			CRET-DAKOTA J		CRET-CODELL	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	8368			8000		7382	
WELLHEAD PRESSURE, PSIG.....	700			1280		NOT GIVEN	
OPEN FLOW, MCFD.....	200			560		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.6			85.1		70.8	
ETHANE.....	9.6			8.0		14.3	
PROPANE.....	2.4			2.0		2.0	
N-BUTANE.....	0.5			0.6		2.3	
ISOBUTANE.....	0.6			0.3		1.1	
N-PENTANE.....	0.2			0.1		0.5	
ISOPENTANE.....	0.4			0.3		0.5	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.0	
NITROGEN.....	0.5			0.5		1.6	
OXYGEN.....	0.0			TRACE		0.2	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.3			0.2		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	3.5			2.4		1.4	
HELIUM.....	0.02			0.02		0.02	
HEATING VALUE*.....	1139			1129		1353	
SPECIFIC GRAVITY.....	0.696			0.671		0.798	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

73

INDEX 769 SAMPLE 15331			INDEX 770 SAMPLE 16510			INDEX 771 SAMPLE 15477		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	ARAPAHO		ARAPAHO			CHEYENNE		
WELL NAME.....	CHAMPLIN FUNK NO. 1		CHAMPLIN 41-31 NO. 1-A			CHAMPLIN-PELTON B NO. 1		
LOCATION.....	SEC. 23, T14S, R42W		SEC. 31, T12S, R44W			SEC. 3, T14S, R44W		
OWNER.....	TEXAS OIL & GAS CORP.		CHAMPLIN PETROLEUM CO.			MULL DRILLING CO., INC.		
COMPLETED.....	07/03/77		07/31/81			--/--/00		
SAMPLED.....	07/20/78		04/28/82			11/03/78		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	5063		5314			5397		
WELLHEAD PRESSURE, PSIG.....	866		825			NOT GIVEN		
OPEN FLOW, MCFD.....	8399		1720			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	26.5		22.3			9.9		
ETHANE.....	2.1		2.4			1.3		
PROPANE.....	1.5		1.1			2.1		
N-BUTANE.....	0.6		1.1			1.9		
ISOBUTANE.....	0.5		0.4			1.2		
N-PENTANE.....	0.2		0.4			1.0		
ISOPENTANE.....	0.3		0.4			1.0		
CYCLOPENTANE.....	0.1		0.2			0.2		
HEXANES PLUS.....	0.2		0.3			0.8		
NITROGEN.....	63.9		63.9			66.1		
OXYGEN.....	0.1		TRACE			0.2		
ARGON.....	0.2		0.4			1.0		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		0.8			1.8		
HELIUM.....	2.46		5.20			11.40		
HEATING VALUE.....	1117		831			417		
SPECIFIC GRAVITY.....	0.881		0.889			0.943		
INDEX 772 SAMPLE 16912			INDEX 773 SAMPLE 16917			INDEX 774 SAMPLE 16937		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	CHEYENNE WELLS		CHEYENNE WELLS			CHEYENNE WELLS		
WELL NAME.....	CHAMPLIN NO. 124 AMOCO A BATT		CHAMPLIN NO. 124 AMOCO C2			CHAMPLIN 360 AMOCO "A" NO. 1		
LOCATION.....	SEC. 33, T13S, R44W		SEC. 31, T13S, R44W			T13S, R44W		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	--/--/83		--/--/83			--/--/83		
SAMPLED.....	05/03/83		05/03/83			05/02/83		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	17.4		12.6			9.2		
ETHANE.....	3.6		1.8			3.0		
PROPANE.....	6.1		2.7			25.5		
N-BUTANE.....	2.9		1.9			20.9		
ISOBUTANE.....	3.1		1.7			10.2		
N-PENTANE.....	3.2		1.9			3.7		
ISOPENTANE.....	4.9		2.0			1.4		
CYCLOPENTANE.....	0.8		0.5			1.3		
HEXANES PLUS.....	2.3		2.5			2.6		
NITROGEN.....	45.0		61.7			10.0		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.8		1.3			0.1		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	TRACE		0.0			1.8		
CARBON DIOXIDE.....	3.3		2.5			1.7		
HELIUM.....	2.63		3.06			0.12		
HEATING VALUE.....	1230		700			2605		
SPECIFIC GRAVITY.....	1.227		1.086			1.713		
INDEX 775 SAMPLE 16916			INDEX 776 SAMPLE 16919			INDEX 777 SAMPLE 16915		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	GOLDEN SPIKE		GOLDEN SPIKE			GROUSE		
WELL NAME.....	LOWE NO. 1		UPRR NO. 1-1			LOWE NO. 4		
LOCATION.....	SEC. 12, T16S, R45W		SEC. 1, T16S, R45W			SEC. 26, T15S, R46W		
OWNER.....	INXCO OIL CO.		INXCO OIL CO.			TXO PRODUCTION CORP.		
COMPLETED.....	01/29/69		--/--/83			10/26/82		
SAMPLED.....	05/03/83		05/03/83			05/03/83		
FORMATION.....	MISS-SPERGEN		MISS-SPERGEN			MISS-SPERGEN		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	5455		NOT GIVEN			5572		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			3		
COMPONENT, MOLE PCT								
METHANE.....	11.4		11.7			16.7		
ETHANE.....	2.8		1.0			17.2		
PROPANE.....	2.6		9.8			24.1		
N-BUTANE.....	2.4		12.9			9.9		
ISOBUTANE.....	1.2		10.6			4.0		
N-PENTANE.....	1.4		8.1			1.9		
ISOPENTANE.....	1.5		10.7			5.6		
CYCLOPENTANE.....	0.5		0.6			0.3		
HEXANES PLUS.....	1.3		0.5			1.7		
NITROGEN.....	64.0		25.7			16.9		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.8		10.3			0.3		
HYDROGEN.....	TRACE		TRACE			0.1		
HYDROGEN SULFIDE.....	TRACE		0.0			0.0		
CARBON DIOXIDE.....	5.0		1.5			0.9		
HELIUM.....	5.08		1.66			0.80		
HEATING VALUE.....	546		2118			1970		
SPECIFIC GRAVITY.....	0.994		1.580			1.352		
INDEX 778 SAMPLE 16939			INDEX 779 SAMPLE 16938			INDEX 780 SAMPLE 16944		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	LOWE NO. 2		LADDER CREEK			LADDER CREEK		
WELL NAME.....	SEC. 26, T15S, R46W		MILLER K B NO. 2			UPRR BAUGHMAN FARMS		
LOCATION.....	TXO PRODUCTION CORP.		SEC. 12, T15S, R45W			NOT GIVEN		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			INXCO OIL CO.		
COMPLETED.....	02/13/81		--/--/83			--/--/83		
SAMPLED.....	05/03/83		05/04/83			05/04/83		
FORMATION.....	MISS-SPERGEN		MISS-SPERGEN			MISS-SPERGEN		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	5460		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	16.3		11.7			11.3		
ETHANE.....	16.4		2.2			2.5		
PROPANE.....	26.3		1.0			9.9		
N-BUTANE.....	11.8		4.3			5.7		
ISOBUTANE.....	4.4		2.2			3.0		
N-PENTANE.....	3.3		1.0			2.8		
ISOPENTANE.....	4.0		3.1			4.3		
CYCLOPENTANE.....	0.2		0.8			1.1		
HEXANES PLUS.....	1.4		61.0			52.9		
NITROGEN.....	TRACE		TRACE			0.3		
OXYGEN.....	0.2		0.4			0.6		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.8		1.0			1.6		
CARBON DIOXIDE.....	0.8		4.4			5.18		
HELIUM.....	69		854			1094		
HEATING VALUE.....	2071		1.121			1.203		
SPECIFIC GRAVITY.....	1.387							

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 781 SAMPLE 16946			INDEX 782 SAMPLE 16947			INDEX 783 SAMPLE 16231		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	LADDER CREEK		LADDER CREEK			SORRENTO		
WELL NAME.....	ROOT NO. 24-7		BAUGHMAN A NO. 2			MCCORMICK NO. 3		
LOCATION.....	SEC. 3, T15S, R45W		NOT GIVEN			SEC. 3, T14S, R49W		
OWNER.....	CHAMPLIN PETROLEUM CO.		PHILLIPS PETROLEUM CO.			CHAMPLIN PETROLEUM CO.		
COMPLETED.....	--/--/83		--/--/83			107--/80		
SAMPLED.....	05/04/83		05/04/83			04/06/81		
FORMATION.....	MISS-SPERGEN		MISS-SPERGEN			PENN-MORROW GAS CAP		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			5450		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	12.4		14.2			38.7		
ETHANE.....	3.6		2.1			8.5		
PROPANE.....	9.3		5.2			9.2		
N-BUTANE.....	10.6		6.4			3.3		
ISOBUTANE.....	4.4		2.4			0.2		
N-PENTANE.....	5.1		3.6			0.8		
ISOPENTANE.....	7.5		5.1			0.8		
CYCLOPENTANE.....	0.7		0.6			0.2		
HEXANES PLUS.....	2.9		2.3			0.4		
NITROGEN.....	40.1		49.1			33.5		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.3		0.7			0.2		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.4		0.6			0.6		
HELIUM.....	1.71		5.61			1.46		
HEATING VALUE.....	1651		1125			1049		
SPECIFIC GRAVITY.....	1.396		1.195			0.945		
INDEX 784 SAMPLE 16573			INDEX 785 SAMPLE 16941			INDEX 786 SAMPLE 16942		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	SORRENTO		SORRENTO			SORRENTO		
WELL NAME.....	MCCORMICK B NO. 2		MC CORMICK NO. 12			MC CORMICK NO. 5		
LOCATION.....	SEC. 10, T14S, R49W		SEC. 9, T14S, R49W			SEC. 3, T14S, R49W		
OWNER.....	MULL DRILLING CO., INC.		CHAMPLIN PETROLEUM CO.			CHAMPLIN PETROLEUM CO.		
COMPLETED.....	07/12/82		--/--/83			--/--/83		
SAMPLED.....	07/12/82		05/04/83			05/04/83		
FORMATION.....	PENN-MORROW GAS CAP		PENN-HARMATON			PENN-MORROW GAS CAP		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	5454		NOT GIVEN			5482		
WELLHEAD PRESSURE, PSIG.....	700		NOT GIVEN			280		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			0.3		
COMPONENT, MOLE PCT								
METHANE.....	41.3		28.1			38.2		
ETHANE.....	7.1		1.7			8.1		
PROPANE.....	4.6		16.8			6.7		
N-BUTANE.....	1.3		6.3			2.9		
ISOBUTANE.....	0.4		2.7			0.9		
N-PENTANE.....	0.3		0.7			0.7		
ISOPENTANE.....	0.2		3.0			1.3		
CYCLOPENTANE.....	TRACE		0.4			0.3		
HEXANES PLUS.....	0.1		1.1			0.3		
NITROGEN.....	42.2		23.0			37.7		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.2		0.7			0.2		
HYDROGEN.....	0.2		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.1			0.0		
CARBON DIOXIDE.....	0.1		1.0			0.8		
HELIUM.....	1.98		0.28			1.72		
HEATING VALUE.....	749		1582			957		
SPECIFIC GRAVITY.....	0.841		1.171			0.934		
INDEX 787 SAMPLE 16943			INDEX 788 SAMPLE 16945			INDEX 789 SAMPLE 16948		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	SORRENTO		SORRENTO			SORRENTO		
WELL NAME.....	MC CORMICK NO.'S 5, 6, 7, & 8		MC CORMICK SEC. 34 BATT.			MC CORMICK NO. 3		
LOCATION.....	SEC. 3, T14S, R49W		SEC. 33, T13S, R49W			SEC. 3, T14S, R49W		
OWNER.....	CHAMPLIN PETROLEUM CO.		CHAMPLIN PETROLEUM CO.			CHAMPLIN PETROLEUM CO.		
COMPLETED.....	--/7/80		--/7/80			--/7/83		
SAMPLED.....	05/04/83		05/04/83			05/04/83		
FORMATION.....	PENN-MORROW GAS CAP		PENN-MORROW, SOLUTION & GAS CAP			PENN-MORROW GAS CAP		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	38.5		37.8			39.4		
ETHANE.....	8.3		11.5			8.0		
PROPANE.....	8.7		1.4			2.0		
N-BUTANE.....	2.8		5.2			2.4		
ISOBUTANE.....	0.8		1.6			0.7		
N-PENTANE.....	0.6		1.0			0.0		
ISOPENTANE.....	1.1		2.1			1.0		
CYCLOPENTANE.....	0.1		0.3			0.2		
HEXANES PLUS.....	0.6		0.6			0.3		
NITROGEN.....	37.9		26.4			38.6		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.2		0.2			0.2		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		1.0			0.8		
HELIUM.....	1.71		1.0			1.76		
HEATING VALUE.....	925		1289			898		
SPECIFIC GRAVITY.....	0.917		1.026			0.905		
INDEX 790 SAMPLE 16949			INDEX 791 SAMPLE 16748			INDEX 792 SAMPLE 2759		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		CHEYENNE			DELTA		
FIELD.....	SORRENTO		WILDCAT			BLACK CANYON		
WELL NAME.....	MC CORMICK NO. 31-9		AMOCO-CHAMPLIN 558-A-1			NO. 1		
LOCATION.....	SEC. 9, T14S, R49W		SEC. 17, T12S, R44W			SEC. 6, T15S, R94W		
OWNER.....	CHAMPLIN PETROLEUM CO.		AMOCO PRODUCTION CO. (USA)			BILLSTROM BROTHERS		
COMPLETED.....	09/11/80		--/06/83			047--/36		
SAMPLED.....	05/04/83		01/06/83			12/--/36		
FORMATION.....	PENN-MORROW GAS CAP		PENN-MORROW			JURA-MORRISON		
GEOLOGIC PROVINCE CODE.....	450		450			595		
DEPTH, FEET.....	5494		5432			375		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		690			35		
OPEN FLOW, MCFD.....	118		2010			280		
COMPONENT, MOLE PCT								
METHANE.....	39.5		22.3			0.0		
ETHANE.....	7.9		2.2			2.0		
PROPANE.....	2.7		1.7			---		
N-BUTANE.....	2.2		1.1			---		
ISOBUTANE.....	0.6		0.5			---		
N-PENTANE.....	0.9		0.5			---		
ISOPENTANE.....	0.2		0.1			---		
CYCLOPENTANE.....	0.3		0.3			---		
HEXANES PLUS.....	0.3		0.3			---		
NITROGEN.....	39.1		64.6			14.3		
OXYGEN.....	TRACE		0.3			0.1		
ARGON.....	0.2		0.4			---		
HYDROGEN.....	0.1		0.1			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.8		0.7			82.3		
HELIUM.....	1.80		4.81			1.26		
HEATING VALUE.....	867		427			367		
SPECIFIC GRAVITY.....	0.893		0.894			1.421		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	793 2348	INDEX SAMPLE	794 2821	INDEX SAMPLE	795 8755
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	DELTA			DELTA		DOLORES	
FIELD.....	NOT GIVEN			NOT GIVEN		DOE CANYON	
WELL NAME.....	NOT GIVEN			GAS SEEP		DOE CANYON NO. 1	
LOCATION.....	SEC. 13, T15S, R96W			SEC. 29, T14, R98W		SEC. 13, T40N, R18W	
OWNER.....	HOLLY SUGAR CO.			CHARLOTTE RAMBO		HUMBLE OIL & REFINING CO.	
COMPLETED.....	01/01/25			--/--/00		12/02/62	
SAMPLED.....	05/01/31			07/02/39		11/06/62	
FORMATION.....	595 -SHALE			NOT GIVEN		MISS--	
GEOLOGIC PROVINCE CODE.....	595			595		585	
DEPTH, FEET.....	152			NOT GIVEN		8366	
WELLHEAD PRESSURE, PSIG.....	35			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	87.5			55.3		1.1	
ETHANE.....	10.4			1.1		0.1	
PROpane.....	---			---		0.1	
N-BUTANE.....	---			---		TRACE	
ISOBUTANE.....	---			---		TRACE	
N-PENTANE.....	---			---		TRACE	
ISOPENTANE.....	---			---		0.0	
CYCLOPENTANE.....	---			---		TRACE	
HEXANES PLUS.....	1.2			3.6		0.1	
NITROGEN.....	0.3			2.5		5.2	
ARGON.....	---			---		0.0	
OXYGEN.....	---			---		0.1	
HYDROGEN.....	---			---		0.0	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	0.6			5.2		92.6	
HELIUM.....	0.2			TRACE		0.65	
HEATING VALUE.....	1093			590		21	
SPECIFIC GRAVITY.....	0.618			0.770		1.480	
		INDEX SAMPLE	796 8761	INDEX SAMPLE	797 7927	INDEX SAMPLE	798 16515
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	DOLORES			DOLORES		DOLORES	
FIELD.....	DOE CANYON			GLADE CANYON		NOT GIVEN	
WELL NAME.....	DOE CANYON NO. 1			GLADE CANYON UNIT NO. 1		FED. NO. 1-35	
LOCATION.....	SEC. 13, T40N, R18W			SEC. 13, T40N, R17W		SEC. 35, T40N, R16W	
OWNER.....	HUMBLE OIL & REFINING CO.			SINCLAIR OIL & GAS CO.		SANTA FE ENERGY CO.	
COMPLETED.....	12/02/62			--/--/00		02/17/81	
SAMPLED.....	11/11/62			04/07/61		05/06/82	
FORMATION.....	MISS--			MISS-DEVO		PENN-HERMOSA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8366			9140		5254	
WELLHEAD PRESSURE, PSIG.....	2560			1445		1025	
OPEN FLOW, MCFD.....	5690			NOT GIVEN		200	
COMPONENT, MOLE PCT							
METHANE.....	1.5			1.0		88.1	
ETHANE.....	0.1			0.2		4.0	
PROpane.....	0.1			0.0		0.7	
N-BUTANE.....	0.0			TRACE		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			TRACE		0.0	
HEXANES PLUS.....	0.0			TRACE		0.0	
NITROGEN.....	0.8			2.5		6.8	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	0.1			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	90.4			95.8		0.1	
HELIUM.....	0.88			0.30		0.07	
HEATING VALUE.....	1.462			1.497		983	
SPECIFIC GRAVITY.....						0.609	
		INDEX SAMPLE	799 16960	INDEX SAMPLE	800 17705	INDEX SAMPLE	801 6462
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	DOLORES			DOLORES		DOLORES	
FIELD.....	PAPPOSE CANYON			PAPPOSE CANYON		WILDCAT	
WELL NAME.....	DUNCAN NO. 44-7			WARREN NO. 1-15		GLADE NO. 1	
LOCATION.....	SEC. 7, T39N, R19W			SEC. 16, T39N, R19W		SEC. 1, T41N, R17W	
OWNER.....	RAYMOND T. DUNCAN			SANSON RESOURCES CO.		CARTER OIL CO.	
COMPLETED.....	05/27/83			--/--/00		--/--/00	
SAMPLED.....	09/27/83			06/12/83		12/11/57	
FORMATION.....	PENN-DESERT CREEK			PENN-DESERT CREEK		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5900			6280		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2600		NOT GIVEN	
OPEN FLOW, MCFD.....	175			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	63.1			77.7		98.4	
ETHANE.....	17.7			11.9		0.3	
PROpane.....	9.6			4.9		TRACE	
N-BUTANE.....	3.0			1.5		TRACE	
ISOBUTANE.....	1.7			0.9		0.0	
N-PENTANE.....	0.4			0.4		TRACE	
ISOPENTANE.....	1.4			0.4		0.0	
CYCLOPENTANE.....	0.5			TRACE		0.1	
HEXANES PLUS.....	0.5			0.2		0.1	
NITROGEN.....	1.8			1.9		0.9	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.2			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.02		0.0	
HELIUM.....	0.01			1253		0.01	
HEATING VALUE.....	1475			0.729		1011	
SPECIFIC GRAVITY.....	0.870					0.563	
		INDEX SAMPLE	802 12285	INDEX SAMPLE	803 7516	INDEX SAMPLE	804 7518
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	IRON HORSE			SAFELT		SAFELT	
FIELD.....	SABO 13-20			BAXTER PASS S		BAXTER PASS S	
WELL NAME.....	SEC. 20, T6S, R62W			GOVT. BUTTRAM NO. 1		NO. 2-20	
LOCATION.....	SABO OIL CO., ET AL.			SEC. 30, T5S, R102W		SEC. 20, T5S, R102W	
OWNER.....	12/23/58			ARGO OIL CORP.		ARGO OIL CORP.	
COMPLETED.....	04/20/70			12/23/58		10/27/59	
SAMPLED.....	06/04/70			04/20/60		04/20/60	
FORMATION.....	CRET-DAKOTA J			JURA-MORRISON		JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	540			595		595	
DEPTH, FEET.....	7638			5934		6959	
WELLHEAD PRESSURE, PSIG.....	1502			1609		1481	
OPEN FLOW, MCFD.....	1000			1000		2075	
COMPONENT, MOLE PCT							
METHANE.....	70.6			63.1		62.1	
ETHANE.....	11.9			7.4		2.9	
PROpane.....	7.2			2.3		2.1	
N-BUTANE.....	1.8			0.4		0.3	
ISOBUTANE.....	0.4			TRACE		0.0	
N-PENTANE.....	0.2			0.1		0.1	
ISOPENTANE.....	0.7			0.0		0.0	
CYCLOPENTANE.....	0.2			TRACE		0.0	
HEXANES PLUS.....	4.3			26.9		28.7	
NITROGEN.....	0.0			TRACE		0.0	
ARGON.....	0.0			0.1		0.1	
HYDROGEN.....	0.3			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.0		0.0	
HELIUM.....	0.04			0.80		0.90	
HEATING VALUE.....	1256			783		755	
SPECIFIC GRAVITY.....	0.782			0.741		0.742	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

•• DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

77

		INDEX SAMPLE 10581	INDEX SAMPLE 10582	INDEX SAMPLE 16423
STATE.....	COLORADO		COLORADO	COLORADO
COUNTY.....	GARFIELD		GARFIELD	GARFIELD
FIELD.....	DIVIDE CREEK		DIVIDE CREEK	DOUGLAS PASS
WELL NAME.....	DIVIDE CREEK UNIT 12L		DIVIDE CREEK UNIT 12U	DOUGLAS PASS USA NO. 20-15
LOCATION.....	SEC. 9, T8S, R91W		SEC. 9, T8S, R91W	SEC. 20, T5S, R102W
OWNER.....	SUN OIL CO.		SUN OIL CO.	TENNECO OIL EXPL. & PROD. CO
COMPLETED.....	08/12/65		08/12/65	06/11/81
SAMPLED.....	05/25/66		05/25/66	02/02/82
FORMATION.....	CRET-DIVIDE CREEK L		CRET-DIVIDE CREEK U	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	595		595	595
DEPTH, FEET.....	4947		4651	5976
WELLHEAD PRESSURE, PSIG.....	1500		1500	1240
OPEN FLOW, MCFD.....	600		600	1200
COMPONENT, MOLE PCT				
METHANE.....	95.5	96.6	70.9	
ETHANE.....	1.6	0.8	3.8	
PROPANE.....	0.8	0.5	1.2	
N-BUTANE.....	0.2	0.1	0.4	
ISOBUTANE.....	TRACE	0.0	0.2	
N-PENTANE.....	0.1	0.0	0.1	
ISOPENTANE.....	TRACE	0.0	0.1	
CYCLOPENTANE.....	TRACE	0.0	TRACE	
HEXANES PLUS.....	0.1	0.0	0.1	
NITROGEN.....	0.1	0.1	16.7	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	0.0	0.0	0.1	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.5	0.0	5.2	
HELIUM.....	TRACE	TRACE	0.87	
HEATING VALUE.....	1033	1009	852	
SPECIFIC GRAVITY.....	0.592	0.584	0.716	
		INDEX SAMPLE 1162	INDEX SAMPLE 1326	INDEX SAMPLE 2214
STATE.....	COLORADO		COLORADO	COLORADO
COUNTY.....	GARFIELD		GARFIELD	GARFIELD
FIELD.....	GARSA		GARSA	GARSA
WELL NAME.....	NOT GIVEN		GARSA NO. 1	GARSA NO. 1
LOCATION.....	SEC. 5, T8S, R102W		SEC. 5, T8S, R102W	SEC. 8, T8S, R102W
OWNER.....	6TPSY OIL CO.		6TPSY OIL CO.	FULTON PETROLEUM CO.
COMPLETED.....	09/25/25		09/25/25	09/25/30
SAMPLED.....	10/12/25		11/19/26	10/07/30
FORMATION.....	NOT GIVEN		JURA-MCELMO	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	595		595	595
DEPTH, FEET.....	3130		3760	2857
WELLHEAD PRESSURE, PSIG.....	900		1250	825
OPEN FLOW, MCFD.....	18893		22000	18000
COMPONENT, MOLE PCT				
METHANE.....	65.0	19.7	49.8	
ETHANE.....	4.2	4.4	2.1	
PROPANE.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	10.4	14.3	12.1	
OXYGEN.....	0.4	0.3	0.1	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	20.0	61.1	35.6	
HELIUM.....	0.24	0.30	0.31	
HEATING VALUE.....	734	784	582	
SPECIFIC GRAVITY.....	0.816	1.232	0.961	
		INDEX SAMPLE 823	INDEX SAMPLE 8867	INDEX SAMPLE 8868
STATE.....	COLORADO		COLORADO	COLORADO
COUNTY.....	GARFIELD		GARFIELD	GARFIELD
FIELD.....	GARSA		GARSA	GARSA
WELL NAME.....	GARSA NO. 1		GARSA NO. 1	GARSA NO. 1
LOCATION.....	SEC. 6, T8S, R102W		SEC. 6, T8S, R102W	SEC. 8, T8S, R102W
OWNER.....	STANDARD URANIUM CORP.		KERR-MCGEE OIL IND., INC.	KERR-MCGEE OIL IND., INC.
COMPLETED.....	10/06/56		02/14/56	02/14/56
SAMPLED.....	11/25/56		02/14/56	02/14/56
FORMATION.....	JURA-MORRISON		JURA-ENTRADA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	595		595	595
DEPTH, FEET.....	3085		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	865		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	18000		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	93.6	20.5	70.4	
ETHANE.....	1.1	0.7	1.0	
PROPANE.....	0.0	0.3	0.3	
N-BUTANE.....	0.1	0.0	0.0	
ISOBUTANE.....	0.0	0.0	TRACE	
N-PENTANE.....	0.0	0.1	TRACE	
ISOPENTANE.....	0.0	TRACE	TRACE	
CYCLOPENTANE.....	0.0	TRACE	TRACE	
HEXANES PLUS.....	0.0	0.1	0.1	
NITROGEN.....	0.1	19.6	7.0	
OXYGEN.....	TRACE	0.1	TRACE	
ARGON.....	TRACE	0.2	TRACE	
HYDROGEN.....	0.2	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.3	57.6	20.8	
HELIUM.....	0.11	0.46	0.21	
HEATING VALUE.....	753	753	752	
SPECIFIC GRAVITY.....	0.595	1.209	0.799	
		INDEX SAMPLE 16461	INDEX SAMPLE 10366	INDEX SAMPLE 8040
STATE.....	COLORADO		COLORADO	COLORADO
COUNTY.....	GARFIELD		GARFIELD	GARFIELD
FIELD.....	GASAWAY UNIT		MAN CREEK AREA	PRAIRIE CANYON
WELL NAME.....	SHEFFIELD UNIT 1-17		JAKE SHAFER NO. 1	NO. 1
LOCATION.....	SEC. 12, T6S, R99W		SEC. 12, T7S, R93W	SEC. 19, T7S, R104W
OWNER.....	NUCORP ENERGY, INC.		CHEVRON OIL CO.	MONOLULU OIL CORP.
COMPLETED.....	11/01/81		02/01/66	--/700
SAMPLED.....	03/23/82		06/21/61	06/21/61
FORMATION.....	CRET-DAKOTA		CRET-MESAVERDE	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	595		595	595
DEPTH, FEET.....	8850		6778	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1000		1400	860
OPEN FLOW, MCFD.....	NOT GIVEN		700	1083
COMPONENT, MOLE PCT				
METHANE.....	93.4	86.5	90.4	
ETHANE.....	0.1	6.8	4.8	
PROPANE.....	TRACE	2.0	1.8	
N-BUTANE.....	0.0	0.3	0.3	
ISOBUTANE.....	0.0	0.1	0.3	
N-PENTANE.....	0.0	0.1	0.2	
ISOPENTANE.....	0.0	TRACE	TRACE	
CYCLOPENTANE.....	0.0	TRACE	TRACE	
HEXANES PLUS.....	0.0	0.1	0.2	
NITROGEN.....	0.2	0.0	1.2	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	6.3	0.0	0.6	
HELIUM.....	TRACE	TRACE	0.10	
HEATING VALUE.....	948	1074	1088	
SPECIFIC GRAVITY.....	0.617	0.656	0.624	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	829 14233		INDEX SAMPLE	830 7325		INDEX SAMPLE	831 14678
STATE.....	COLORADO			COLORADO			COLORADO	
COUNTY.....	GARFIELD			GARFIELD			GARFIELD	
FIELD.....	PRAIRIE CANYON			PRAIRIE CANYON NW			ROCK CANYON	
WELL NAME.....	P-C FED. NO. 1			GOVT. NO. 2			NO. 1-14	
LOCATION.....	SEC. 17, T7S, R104W			SEC. 31, T7S, R104W			SEC. 14, T5S, R102W	
OWNER.....	BELCO PETROLEUM CORP.			AMERICAN METAL CLIMAX, INC.			SWEET PEA OIL & GAS CO.	
COMPLETED.....	11/27/73			10/07/58			06/14/73	
SAMPLED.....	11/20/74			12/21/59			05/-/76	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA BASAL			CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	595			595			595	
DEPTH, FEET.....	4810			3880			6601	
WELLHEAD PRESSURE, PSIG.....	853			860			245	
OPEN FLOW, MCFD.....	2122			1070			540	
COMPONENT, MOLE PCT.....								
METHANE.....	85.3			89.8			80.7	
ETHANE.....	5.0			4.4			6.3	
PROPANE.....	1.9			0.9			2.5	
N-BUTANE.....	0.4			0.3			0.7	
ISOBUTANE.....	0.7			0.4			0.4	
N-PENTANE.....	0.1			TRACE			0.2	
ISOPENTANE.....	0.4			0.2			0.3	
CYCLOPENTANE.....	0.1			TRACE			0.1	
HEXANES PLUS.....	0.5			0.1			0.2	
NITROGEN.....	3.5			2.6			5.1	
OXYGEN.....	TRACE			TRACE			TRACE	
ARGON.....	0.1			0.0			0.0	
HYDROGEN.....	TRACE			0.0			0.0	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	1.7			0.9			3.0	
HELIUM.....	0.28			0.20			0.44	
HEATING VALUE.....	1091			1049			1068	
SPECIFIC GRAVITY.....	0.669			0.620			0.692	
	INDEX	832		INDEX	833		INDEX	834
	SAMPLE	8689		SAMPLE	8692		SAMPLE	8693
STATE.....	COLORADO			COLORADO			COLORADO	
COUNTY.....	GARFIELD			GARFIELD			GARFIELD	
FIELD.....	RULISON			RULISON			RULISON	
WELL NAME.....	JUHAN-FED. NO. 1			GROSS-HAHNEWALD NO. 1			JUHAN NO. 1	
LOCATION.....	SEC. 25, T6S, R94W			SEC. 8, T7S, R94W			SEC. 26, T6S, R94W	
OWNER.....	SOUTHERN UNION PRODUCTION CO			SOUTHERN UNION PRODUCTION CO			SOUTHERN UNION PRODUCTION CO	
COMPLETED.....	06/29/57			12/08/60			09/26/56	
SAMPLED.....	09/20/62			09/20/62			09/20/62	
FORMATION.....	CRET-MESAVERDE			CRET-MESAVERDE			CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	595			595			595	
DEPTH, FEET.....	4624			6180			5066	
WELLHEAD PRESSURE, PSIG.....	1786			1778			2200	
OPEN FLOW, MCFD.....	1064			1253			1537	
COMPONENT, MOLE PCT.....								
METHANE.....	95.1			91.7			89.4	
ETHANE.....	4.4			4.4			6.6	
PROPANE.....	0.8			1.1			1.9	
N-BUTANE.....	0.2			0.2			0.5	
ISOBUTANE.....	0.2			0.3			0.5	
N-PENTANE.....	TRACE			0.1			0.1	
ISOPENTANE.....	0.1			0.2			0.1	
CYCLOPENTANE.....	TRACE			0.1			TRACE	
HEXANES PLUS.....	TRACE			0.1			0.1	
NITROGEN.....	0.0			0.8			0.7	
OXYGEN.....	TRACE			0.1			TRACE	
ARGON.....	0.0			0.0			0.0	
HYDROGEN.....	0.1			0.1			0.1	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.1			0.8			0.1	
HELIUM.....	0.01			0.01			0.01	
HEATING VALUE.....	1063			1075			1121	
SPECIFIC GRAVITY.....	0.588			0.616			0.632	
	INDEX	835		INDEX	836		INDEX	837
	SAMPLE	11790		SAMPLE	17599		SAMPLE	6400
STATE.....	COLORADO			COLORADO			COLORADO	
COUNTY.....	GARFIELD			GARFIELD			GARFIELD	
FIELD.....	RULISON			RULISON			SOUTH CANYON	
WELL NAME.....	HAYWARD NO. 25-95			RULISON NO. 161			SOUTH CANYON FED. NO. 2	
LOCATION.....	SEC. 25, T7S, R95W			SEC. 12, T6S, R94W			SEC. 35, T6S, R104W	
OWNER.....	AUSTAL OIL CO., INC.			GALLIANS EXPLORATION CO.			GULF OIL CORP.	
COMPLETED.....	05/06/68			04/16/84			04/22/57	
SAMPLED.....	--/-/00			02/21/85			08/15/57	
FORMATION.....	CRET-MESAVERDE			EOCE-WASATCH			CRET-DAKOTA-BUCKHORN	
GEOLOGIC PROVINCE CODE.....	595			595			595	
DEPTH, FEET.....	7302			1461			3938	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			390			736	
OPEN FLOW, MCFD.....	15			NOT GIVEN			2520	
COMPONENT, MOLE PCT.....								
METHANE.....	90.1			96.7			72.1	
ETHANE.....	4.5			2.6			4.4	
PROPANE.....	1.2			0.2			0.0	
N-BUTANE.....	0.2			0.1			0.1	
ISOBUTANE.....	0.3			0.0			0.1	
N-PENTANE.....	TRACE			TRACE			0.1	
ISOPENTANE.....	0.2			TRACE			0.1	
CYCLOPENTANE.....	0.1			TRACE			TRACE	
HEXANES PLUS.....	0.2			TRACE			0.1	
NITROGEN.....	0.1			0.4			16.2	
OXYGEN.....	0.0			TRACE			TRACE	
ARGON.....	0.0			TRACE			0.1	
HYDROGEN.....	TRACE			TRACE			0.2	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	2.8			TRACE			8.4	
HELIUM.....	0.01			0.01			0.90	
HEATING VALUE.....	1066			1031			776	
SPECIFIC GRAVITY.....	0.634			0.570			0.714	
	INDEX	838		INDEX	839		INDEX	840
	SAMPLE	6565		SAMPLE	15110		SAMPLE	15111
STATE.....	COLORADO			COLORADO			COLORADO	
COUNTY.....	GARFIELD			GARFIELD			GARFIELD	
FIELD.....	SOUTH CANYON			SOUTH CANYON			SOUTH CANYON	
WELL NAME.....	SOUTH CANYON FED. NO. 3			PALMER NO. 2-23			PALMER NO. 23-12	
LOCATION.....	SEC. 7, T7S, R103W			SEC. 23, T7S, R104W			SEC. 23, T7S, R104W	
OWNER.....	GULF OIL CORP.			PALMER OIL & GAS CO.			PALMER OIL & GAS CO.	
COMPLETED.....	12/31/57			07/-/77			03/-/77	
SAMPLED.....	04/25/58			09/27/77			09/27/77	
FORMATION.....	CRET-DAKOTA-BUCKHORN			CRET-DAKOTA			CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	595			595			595	
DEPTH, FEET.....	3840			3900			3700	
WELLHEAD PRESSURE, PSIG.....	857			635			840	
OPEN FLOW, MCFD.....	1440			NOT GIVEN			NOT GIVEN	
COMPONENT, MOLE PCT.....								
METHANE.....	69.7			76.3			72.6	
ETHANE.....	3.2			3.6			3.6	
PROPANE.....	0.1			1.1			1.2	
N-BUTANE.....	0.4			0.3			0.5	
ISOBUTANE.....	0.2			0.2			0.3	
N-PENTANE.....	0.1			0.1			0.2	
ISOPENTANE.....	0.1			0.1			0.2	
CYCLOPENTANE.....	TRACE			TRACE			TRACE	
HEXANES PLUS.....	0.1			TRACE			0.2	
NITROGEN.....	11.7			11.1			10.1	
OXYGEN.....	TRACE			0.0			0.0	
ARGON.....	0.1			0.1			0.1	
HYDROGEN.....	0.1			0.1			0.0	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	11.5			6.2			10.6	
HELIUM.....	0.70			0.66			0.53	
HEATING VALUE.....	826			897			885	
SPECIFIC GRAVITY.....	0.759			0.701			0.753	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

79

		INDEX SAMPLE 841 15113	INDEX SAMPLE 842 15114	INDEX SAMPLE 843 15878
STATE.....	COLORADO		COLORADO	COLORADO
COUNTY.....	GARFIELD		GARFIELD	GARFIELD
FIELD.....	SOUTH CANYON		SOUTH CANYON	SOUTH CANYON
WELL NAME.....	PALMER NO. 27-11		PALMER NO. 27-8	FED. NO. 1-15
LOCATION.....	SEC. 27, T7S, R104W		SEC. 27, T7S, R104W	SEC. 15, T8S, R105W
OWNER.....	PALMER OIL & GAS CO.		PALMER OIL & GAS CO.	TENNECO OIL CO.
COMPLETED.....	06/--/77		04/--/76	06/09/79
SAMPLED.....	09/27/77		09/27/77	01/08/80
FORMATION.....	CRET-DAKOTA & JURA-MORRISON		CRET-DAKOTA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	595		595	595
DEPTH, FEET.....	3700		3700	3738
WELLHEAD PRESSURE, PSIG.....	840		830	910
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	740
COMPONENT, MOLE PCT				
METHANE.....	70.0	71.2	90.8	
ETHANE.....	3.2	3.4	4.6	
PROPANE.....	1.0	1.0	1.4	
N-BUTANE.....	0.3	0.3	0.3	
ISOBUTANE.....	0.2	0.2	0.3	
N-PENTANE.....	0.1	0.1	0.2	
ISOPENTANE.....	0.1	0.1	0.1	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.1	0.2	0.1	
NITROGEN.....	10.8	11.9	1.2	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	0.1	0.1	TRACE	
HYDROGEN.....	0.0	0.4	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.8	
CARBON DIOXIDE.....	13.4	10.7	0.8	
HELIUM.....	0.59	0.57	0.10	
HEATING VALUE.....	823	849	1077	
SPECIFIC GRAVITY.....	0.767	0.756	0.621	
		INDEX SAMPLE 844 16130	INDEX SAMPLE 845 5274	INDEX SAMPLE 846 5744
STATE.....	COLORADO		COLORADO	COLORADO
COUNTY.....	GARFIELD		GARFIELD	GARFIELD
FIELD.....	SOUTH CANYON		TWIN BUTTES	TWIN BUTTES
WELL NAME.....	FED. NO. 9-6		FED. NO. 1	TWIN BUTTES NO. 4
LOCATION.....	SEC. 9, T7S, R104W		SEC. 24, T5S, R102W	SEC. 13, T5S, R102W
OWNER.....	TEENEC OIL CO.		GREENBRIER OIL CO.	EL PASO NATURAL GAS CO.
COMPLETED.....	12/18/79		07/18/81	09/02/84
SAMPLED.....	11/06/80		07/29/82	12/14/84
FORMATION.....	CRET-DAKOTA		JURA-ENTRADA	JURA-MORRISON
GEOLOGIC PROVINCE CODE.....	595		595	595
DEPTH, FEET.....	6320	7136	2385	
WELLHEAD PRESSURE, PSIG.....	900	1780	1640	
OPEN FLOW, MCFD.....	3000	3000	NOT GIVEN	
COMPONENT, MOLE PCT				
METHANE.....	65.4	87.1	91.6	
ETHANE.....	3.4	1.3	2.1	
PROPANE.....	1.0	0.6	0.7	
N-BUTANE.....	0.3	0.0	0.1	
ISOBUTANE.....	0.1	0.1	TRACE	
N-PENTANE.....	0.0	0.0	TRACE	
ISOPENTANE.....	0.1	0.0	0.0	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.0	TRACE	
NITROGEN.....	24.1	4.2	3.4	
OXYGEN.....	TRACE	0.1	0.1	
ARGON.....	0.1	0.1	TRACE	
HYDROGEN.....	0.1	0.1	0.0	
HYDROGEN SULFIDE**.....	0.0	--	0.0	
CARBON DIOXIDE.....	4.7	6.4	1.5	
HELIUM.....	0.72	0.32	0.30	
HEATING VALUE.....	777	919	987	
SPECIFIC GRAVITY.....	0.737	0.646	0.600	
		INDEX SAMPLE 847 16516	INDEX SAMPLE 848 16517	INDEX SAMPLE 849 16718
STATE.....	COLORADO		COLORADO	COLORADO
COUNTY.....	GARFIELD		GARFIELD	GARFIELD
FIELD.....	UNDESIGNATED		UNDESIGNATED	UNDESIGNATED
WELL NAME.....	U.S.A. NO. 1-5 LW		U.S.A. NO. 1-6 LW	U.S.A. NO. 1-6 LW
LOCATION.....	SEC. 5, T8S, R97W		SEC. 5, T8S, R97W	SEC. 5, T8S, R97W
OWNER.....	COORS ENERGY CO.		COORS ENERGY CO.	COORS ENERGY CO.
COMPLETED.....	07/08/81		07/26/80	07/26/80
SAMPLED.....	05/11/82		11/24/82	11/24/82
FORMATION.....	CRET-COZZETTE CORCORAN		CRET-COZZETTE CORCORAN	CRET-COZZETTE CORCORAN
GEOLOGIC PROVINCE CODE.....	595		595	595
DEPTH, FEET.....	4331	4333	4333	
WELLHEAD PRESSURE, PSIG.....	1075	1354	NOT GIVEN	
OPEN FLOW, MCFD.....	338	8873	455	
COMPONENT, MOLE PCT				
METHANE.....	87.5	83.7	86.7	
ETHANE.....	6.6	5.4	6.9	
PROPANE.....	2.0	2.0	2.4	
N-BUTANE.....	0.4	0.4	0.5	
ISOBUTANE.....	0.4	0.6	0.5	
N-PENTANE.....	0.1	0.3	0.1	
ISOPENTANE.....	0.2	0.5	0.4	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.2	0.4	0.3	
NITROGEN.....	0.4	4.0	0.2	
OXYGEN.....	0.1	1.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.1	1.4	1.8	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	777	1099	1139	
SPECIFIC GRAVITY.....	0.655	0.684	0.664	
		INDEX SAMPLE 850 663	INDEX SAMPLE 851 1052	INDEX SAMPLE 852 14434
STATE.....	COLORADO		COLORADO	COLORADO
COUNTY.....	GUNNISON		HUERFANO	HUERFANO
FIELD.....	NOT GIVEN		NOT GIVEN	SHEEP MOUNTAIN
WELL NAME.....	RADIOACTIVE HOT SPRING WATER		LA VITA	KOSCOVE NO. 1
LOCATION.....	HAWTH. HOT SPRINGS		U.S.A. NO. T29S, R69W	SEC. 15, T2TS, R70W
OWNER.....	STITZER BROS.		PANMCO EXPLORATION CO.	ATLANTIC RICHFIELD CO.
COMPLETED.....	--/7-700		--/7-700	07/11/74
SAMPLED.....	05/01/82		05/01/82	08/02/75
FORMATION.....	NOT GIVEN		NOT GIVEN	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	595		455	455
DEPTH, FEET.....	4	1165	3344	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	700	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	46000	
COMPONENT, MOLE PCT				
METHANE.....	0.0	77.7	1.8	
ETHANE.....	0.0	17.7	0.2	
PROPANE.....	---	---	0.1	
N-BUTANE.....	---	---	0.0	
ISOBUTANE.....	---	---	0.0	
N-PENTANE.....	---	---	0.0	
ISOPENTANE.....	---	---	0.0	
CYCLOPENTANE.....	---	---	0.0	
HEXANES PLUS.....	---	---	0.0	
NITROGEN.....	99.0	3.5	0.6	
OXYGEN.....	0.5	0.7	0.0	
ARGON.....	---	---	TRACE	
HYDROGEN.....	---	---	TRACE	
HYDROGEN SULFIDE**.....	---	---	0.0	
CARBON DIOXIDE.....	0.4	0.4	97.3	
HELIUM.....	0.11	0.05	0.03	
HEATING VALUE.....	0	1104	24	
SPECIFIC GRAVITY.....	0.969	0.664	1.507	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 14909	INDEX SAMPLE 14962	INDEX SAMPLE 15072
STATE.....	COLORADO			
COUNTY.....	HUERFANO			
FIELD.....	SHEEP MOUNTAIN			
WELL NAME.....	SHEEP MOUNTAIN UNIT NO. 7-9			
LOCATION.....	SEC. 9, T27S, R70W			
OWNER.....	ATLANTIC RICHFIELD CO.			
COMPLETED.....	02/-/76			
SAMPLED.....	02/15/77			
FORMATION.....	CRET-DAKOTA			
GEOLOGIC PROVINCE CODE.....	455			
DEPTH, FEET.....	3380	3380	3078	
WELLHEAD PRESSURE, PSIG.....	739	680	696	
OPEN FLOW, MCFD.....	11500	11500	8000	
COMPONENT, MOLE PCT.....				
METHANE.....	24.5	17.6	1.8	
ETHANE.....	0.5	0.5	0.2	
PROPANE.....	TRACE	0.0	0.1	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	10.9	6.5	0.2	
OXYGEN.....	0.2	0.0	TRACE	
ARGON.....	0.2	0.2	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	62.9	74.8	97.7	
HELIUM.....	0.54	0.41	0.03	
HEATING VALUE.....	259	187	24	
SPECIFIC GRAVITY.....	1.216	1.313	1.509	
		INDEX SAMPLE 15073	INDEX SAMPLE 15074	INDEX SAMPLE 16785
STATE.....	COLORADO			
COUNTY.....	HUERFANO			
FIELD.....	SHEEP MOUNTAIN			
WELL NAME.....	SHEEP MOUNTAIN NO. 7			
LOCATION.....	SEC. 9, T27S, R70W			
OWNER.....	ATLANTIC RICHFIELD CO.			
COMPLETED.....	02/-/76			
SAMPLED.....	07/21/77			
FORMATION.....	CRET-DAKOTA			
GEOLOGIC PROVINCE CODE.....	455			
DEPTH, FEET.....	3380	3380	5320	
WELLHEAD PRESSURE, PSIG.....	680	680	NOT GIVEN	
OPEN FLOW, MCFD.....	11500	11500	9800	
COMPONENT, MOLE PCT.....				
METHANE.....	6.1	3.4	1.6	
ETHANE.....	0.3	0.2	0.2	
PROPANE.....	0.1	0.0	0.0	
N-BUTANE.....	0.0	0.0	0.1	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.1	
CYCLOPENTANE.....	0.0	0.0	TRACE	
HEXANES PLUS.....	0.0	0.0	TRACE	
NITROGEN.....	2.1	0.1	1.3	
OXYGEN.....	0.1	0.1	0.1	
ARGON.....	0.1	0.1	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	91.1	95.0	96.6	
HELIUM.....	0.12	0.08	0.25	
HEATING VALUE.....	70	41	27	
SPECIFIC GRAVITY.....	1.454	1.488	1.506	
		INDEX SAMPLE 16984	INDEX SAMPLE 16985	INDEX SAMPLE 16987
STATE.....	COLORADO			
COUNTY.....	HUERFANO			
FIELD.....	SHEEP MOUNTAIN			
WELL NAME.....	NO. 4-4-F			
LOCATION.....	SEC. 9, T27S, R70W			
OWNER.....	ARCO OIL & GAS CO.			
COMPLETED.....	07/-/80			
SAMPLED.....	07/18/83			
FORMATION.....	CRET-DAKOTA			
GEOLOGIC PROVINCE CODE.....	455			
DEPTH, FEET.....	3850	4000	3222	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	850	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	12300	NOT GIVEN	
COMPONENT, MOLE PCT.....				
METHANE.....	1.6	1.4	1.5	
ETHANE.....	0.2	0.2	0.2	
PROPANE.....	TRACE	TRACE	TRACE	
N-BUTANE.....	0.1	0.0	TRACE	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.1	TRACE	TRACE	
ISOPENTANE.....	0.0	TRACE	0.0	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	TRACE	0.1	0.1	
NITROGEN.....	1.2	1.2	1.2	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	96.6	96.9	96.8	
HELIUM.....	0.03	0.03	0.03	
HEATING VALUE.....	27	24	24	
SPECIFIC GRAVITY.....	1.505	1.506	1.505	
		INDEX SAMPLE 16990	INDEX SAMPLE 16991	INDEX SAMPLE 16992
STATE.....	COLORADO			
COUNTY.....	HUERFANO			
FIELD.....	SHEEP MOUNTAIN			
WELL NAME.....	NO. 5-15-F			
LOCATION.....	SEC. 15, T27S, R70W			
OWNER.....	ARCO OIL & GAS CO.			
COMPLETED.....	05/29/82			
SAMPLED.....	07/25/83			
FORMATION.....	CRET-DAKOTA			
GEOLOGIC PROVINCE CODE.....	455			
DEPTH, FEET.....	3250	3480	2750	
WELLHEAD PRESSURE, PSIG.....	850	731	900	
OPEN FLOW, MCFD.....	10600	11500	13000	
COMPONENT, MOLE PCT.....				
METHANE.....	1.6	1.4	1.6	
ETHANE.....	0.2	0.2	0.2	
PROPANE.....	0.1	0.0	0.0	
N-BUTANE.....	0.0	0.1	0.1	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.1	0.1	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	TRACE	TRACE	
HEXANES PLUS.....	0.0	0.1	0.1	
NITROGEN.....	1.1	1.0	1.1	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	97.0	97.0	96.6	
HELIUM.....	0.03	0.03	0.03	
HEATING VALUE.....	22	33	33	
SPECIFIC GRAVITY.....	1.506	1.510	1.506	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

81

		INDEX SAMPLE	865 16993	INDEX SAMPLE	866 17047	INDEX SAMPLE	867 9033
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	HUERFANO			HUERFANO		JACKSON	
FIELD.....	SHEEP MOUNTAIN			SHEEP MOUNTAIN		CANADIAN RIVER	
WELL NAME.....	NO. 2-10-0			NO. 6-15-1		GOVT. LANDRON NO. 1-A	
LOCATION.....	SEC. 15, T27S, R70W			SEC. 15, T27S, R70W		SEC. 7, T9N, R80W	
OWNER.....	ARCO OIL & GAS CO.			ARCO OIL & GAS CO.		TEXACO, INC.	
COMPLETED.....	07/12/82			11/19/82		09/12/83	
SAMPLED.....	07/25/83			09/02/83		06/04/83	
FORMATION.....	JURA-ENTRADA			CRET-DAKOTA		CRET-LAKOTA	
GEOLOGIC PROVINCE CODE.....	545			450		545	
DEPTH, FEET.....	3975			NOT GIVEN		5717	
WELLHEAD PRESSURE, PSIG.....	920			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	20700			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	1.4			1.5		0.3	
ETHANE.....	0.2			0.2		0.3	
PROPANE.....	0.0			0.1		0.2	
N-BUTANE.....	0.2			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.3			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.1			0.0		0.1	
NITROGEN.....	1.0			1.2		2.5	
OXYGEN.....	TRACE			TRACE		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.9			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	96.7			96.9		96.3	
HELIUM.....	0.0			TRACE		0.10	
HEATING VALUE.....	42			21		19	
SPECIFIC GRAVITY.....	1.513			1.505		1.509	
		INDEX SAMPLE	868 1352	INDEX SAMPLE	869 1863	INDEX SAMPLE	870 1824
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	JACKSON			JACKSON		JACKSON	
FIELD.....	MCCALLUM N			MCCALLUM N		MCCALLUM S	
WELL NAME.....	GLYNDEN SPRINGS NO. 1			SHIRMAN NO. 1		HOYE NO. 1	
LOCATION.....	SEC. 12, T9N, R79W			SEC. 12, T9N, R79W		SEC. 30, T9N, R76S	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	--/--/00			12/--/00		--/--/00	
SAMPLED.....	02/23/87			09/19/88		08/03/89	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	545			545		545	
DEPTH, FEET.....	5113			5113		4985	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1000		800	
OPEN FLOW, MCFD.....	NOT GIVEN			20000		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	2.7			0.5		0.0	
ETHANE.....	1.9			4.0		0.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	2.9			3.3		2.6	
OXYGEN.....	0.3			---		0.0	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	91.8			92.1		97.5	
HELIUM.....	0.13			0.14		0.08	
HEATING VALUE.....	61			---		---	
SPECIFIC GRAVITY.....	1.473			1.486		1.516	
		INDEX SAMPLE	871 2716	INDEX SAMPLE	872 16262	INDEX SAMPLE	873 17375
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	JACKSON			JACKSON		JACKSON	
FIELD.....	MCCALLUM S			MCCALLUM S		MCCALLUM S	
WELL NAME.....	HOYE NO. 3			CONOCO-FEDERAL NO. 21-6		CONOCO FED. 8-3 UNIT NO. 1	
LOCATION.....	SEC. 34, T9N, R78W			SEC. 21, T9N, R78W		SEC. 8, T9N, R78W	
OWNER.....	CONTINENTAL OIL CO.			CONOCO, INC.		CONOCO, INC.	
COMPLETED.....	--/--/00			01/23/81		09/11/83	
SAMPLED.....	11/12/85			09/21/81		08/09/84	
FORMATION.....	CRET-DAKOTA			CRET-MUDDY & DAKOTA		CRET-LAKOTA	
GEOLOGIC PROVINCE CODE.....	545			545		545	
DEPTH, FEET.....	5079			5538		5308	
WELLHEAD PRESSURE, PSIG.....	600			710		760	
OPEN FLOW, MCFD.....	6500			2000		8652	
COMPONENT, MOLE PCT.....							
METHANE.....	4.9			3.5		13.1	
ETHANE.....	1.6			0.2		0.3	
PROPANE.....	---			0.1		TRACE	
N-BUTANE.....	---			0.1		0.1	
ISOBUTANE.....	---			TRACE		0.0	
N-PENTANE.....	---			TRACE		0.1	
ISOPENTANE.....	---			0.0		TRACE	
CYCLOPENTANE.....	---			0.1		TRACE	
HEXANES PLUS.....	---			0.1		0.1	
NITROGEN.....	1.9			3.7		14.0	
OXYGEN.....	0.0			0.3		TRACE	
ARGON.....	---			0.1		0.2	
HYDROGEN.....	---			TRACE		0.8	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	91.3			91.8		70.2	
HELIUM.....	0.32			0.17		1.01	
HEATING VALUE.....	78			55		153	
SPECIFIC GRAVITY.....	1.459			1.475		1.297	
		INDEX SAMPLE	874 6857	INDEX SAMPLE	875 10225	INDEX SAMPLE	876 10279
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	JACKSON			KIOWA		KIOWA	
FIELD.....	NOT GIVEN			BRANDON		BRANDON	
WELL NAME.....	BALLINGER FED. NO. 1			HARRISON NO. 1		HARRISON NO. 1	
LOCATION.....	SEC. 8, T9N, R78W			SEC. 9, T19S, R45W		SEC. 9, T19S, R45W	
OWNER.....	FRONT PETROLEUM CO.			FRONT PETROLEUM CO.		FRONT PETROLEUM CO.	
COMPLETED.....	10/25/58			09/01/65		09/01/65	
SAMPLED.....	10/29/58			09/25/65		11/09/65	
FORMATION.....	CRET-MUDDY, DAKOTA & LAKOTA			MISS-LINE		MISS-WARSAW	
GEOLOGIC PROVINCE CODE.....	545			450		450	
DEPTH, FEET.....	5111			4780		4774	
WELLHEAD PRESSURE, PSIG.....	910			892		892	
OPEN FLOW, MCFD.....	14650			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	4.1			16.7		16.0	
ETHANE.....	0.3			7.9		2.6	
PROPANE.....	0.6			3.8		3.5	
N-BUTANE.....	0.1			1.1		2.2	
ISOBUTANE.....	0.0			1.1		0.7	
N-PENTANE.....	TRACE			0.8		1.2	
ISOPENTANE.....	0.0			0.2		2.0	
CYCLOPENTANE.....	TRACE			0.2		0.3	
HEXANES PLUS.....	0.1			0.1		2.3	
NITROGEN.....	4.1			42.7		56.6	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			0.0		0.7	
HYDROGEN.....	TRACE			0.0		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	90.9			14.2		7.1	
HELIUM.....	0.20			2.4		4.53	
HEATING VALUE.....	71			898		664	
SPECIFIC GRAVITY.....	1.462			1.169		1.058	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 877 SAMPLE 10623			INDEX 878 SAMPLE 10624			INDEX 879 SAMPLE 13187		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	BRANDON		BRANDON			CAVALRY		
WELL NAME.....	DANSON NO. 1		DANSON NO. 1			WEAR-KITCH NO. 1		
LOCATION.....	SEC. 4, T19S, R45W		SEC. 4, T19S, R45W			SEC. 34, T18S, R45W		
OWNER.....	FREMONT PETROLEUM CO.		FREMONT PETROLEUM CO.			INEXCO OIL CO.		
COMPLETED.....	--/--/03		--/--/08			04/08/72		
SAMPLED.....	--/--/00		--/--/00			04/13/72		
FORMATION.....	MISS-ST. LOUIS		MISS-			MISS---		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	4552		4566			4663		
WELLHEAD PRESSURE, PSIG.....	718		580			NOT GIVEN		
OPEN FLOW, MCFD.....	1450		440			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	24.3		24.1			28.7		
ETHANE.....	3.0		3.1			3.8		
PROPANE.....	2.9		2.9			3.6		
N-BUTANE.....	1.2		1.4			1.7		
ISOBUTANE.....	1.1		0.9			0.9		
N-PENTANE.....	0.4		0.7			0.7		
ISOPENTANE.....	0.2		0.3			0.0		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.4		0.4			0.4		
NITROGEN.....	60.6		60.5			54.6		
OXYGEN.....	0.0		0.0			0.6		
ARGON.....	0.2		0.2			0.2		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.7		1.6			1.8		
HELIUM.....	3.90		3.78			2.59		
HEATING VALUE.....	503		519			611		
SPECIFIC GRAVITY.....	0.909		0.916			0.919		
INDEX 880 SAMPLE 13188			INDEX 881 SAMPLE 17386			INDEX 882 SAMPLE 17695		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	CAVALRY		HASWELL			HASWELL		
WELL NAME.....	WEAR-KITCH NO. 1		FRAZEE NO. 2-31			LAS ANIMAS NO. 1-1		
LOCATION.....	SEC. 34, T18S, R45W		SEC. 31, T18S, R50W			SEC. 1, T19S, R51W		
OWNER.....	INEXCO OIL CO.		SAMSON OIL CO.			SAMSON OIL CO.		
COMPLETED.....	04/08/72		01/--/83			05/19/84		
SAMPLED.....	04/13/72		08/16/84			05/27/85		
FORMATION.....	MISS-		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	4663		5151			5147		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		7090			1010		
OPEN FLOW, MCFD.....	NOT GIVEN		627			3749		
COMPONENT, MOLE PCT								
METHANE.....	28.7		67.8			70.4		
ETHANE.....	4.0		13.8			12.7		
PROPANE.....	3.9		7.1			6.5		
N-BUTANE.....	1.0		1.8			1.7		
ISOBUTANE.....	1.0		0.8			0.8		
N-PENTANE.....	0.7		0.4			0.0		
ISOPENTANE.....	0.5		0.2			0.3		
CYCLOPENTANE.....	16.2		TRACE			0.1		
HEXANES PLUS.....	0.5		0.1			0.2		
NITROGEN.....	54.7		6.6			6.2		
OXYGEN.....	0.6		0.0			0.0		
ARGON.....	0.2		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.8		0.8			0.5		
HELIUM.....	2.00		0.57			0.51		
HEATING VALUE.....	646		1237			1221		
SPECIFIC GRAVITY.....	0.939		0.780			0.761		
INDEX 883 SAMPLE 11846			INDEX 884 SAMPLE 16886			INDEX 885 SAMPLE 5287		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	LEFT HAND		LEFT HAND			MCCLAVE		
WELL NAME.....	MERRICK E NO. 1		WEAR TRUST NO. 1-20			STATE MCCLAVE		
LOCATION.....	SEC. 23, T18S, R47W		SEC. 20, T18S, R47W			SEC. 11, T20S, R49W		
OWNER.....	CHAMPTON PETROLEUM CO.		MURKIN DRILLING CO.			CONTINENTAL OIL CO.		
COMPLETED.....	02/13/69		04/21/83			--/--/00		
SAMPLED.....	04/30/69		04/21/83			10/07/52		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	4964		5025			4872		
WELLHEAD PRESSURE, PSIG.....	837		180			1015		
OPEN FLOW, MCFD.....	1850		1000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	68.7		58.4			72.0		
ETHANE.....	9.7		12.1			11.2		
PROPANE.....	4.3		4.2			4.4		
N-BUTANE.....	1.3		1.6			0.8		
ISOBUTANE.....	0.1		0.7			0.0		
N-PENTANE.....	0.6		0.4			0.2		
ISOPENTANE.....	0.2		0.8			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.4		0.2			0.2		
NITROGEN.....	12.4		10.7			9.4		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.9		TRACE			TRACE		
HYDROGEN.....	TRACE		2.8			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.4		
CARBON DIOXIDE.....	0.6		0.7			0.39		
HELIUM.....	0.78		0.72			0.39		
HEATING VALUE.....	1117		1005			1126		
SPECIFIC GRAVITY.....	0.762		0.834			0.732		
INDEX 886 SAMPLE 6161			INDEX 887 SAMPLE 6276			INDEX 888 SAMPLE 6297		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	MCCLAVE		MCCLAVE			MCCLAVE		
WELL NAME.....	LYNN A NO. 1		M. H. MORSE A-1			STATE A-1		
LOCATION.....	SEC. 13, T20S, R49W		SEC. 28, T20S, R48W			SEC. 34, T19S, R48W		
OWNER.....	D. D. HARRINGTON		D. D. HARRINGTON			D. D. HARRINGTON		
COMPLETED.....	--/--/00		02/28/57			03/30/57		
SAMPLED.....	10/12/56		03/03/57			03/29/57		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	4834		4728			4711		
WELLHEAD PRESSURE, PSIG.....	880		890			970		
OPEN FLOW, MCFD.....	5000		5010			867		
COMPONENT, MOLE PCT								
METHANE.....	73.2		73.8			70.5		
ETHANE.....	10.7		12.1			11.5		
PROPANE.....	5.8		4.1			5.3		
N-BUTANE.....	1.0		0.8			1.2		
ISOBUTANE.....	0.5		0.6			0.6		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.4		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.2			0.3		
NITROGEN.....	7.6		7.5			8.9		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.9		0.0			0.1		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.2		
HELIUM.....	0.39		0.25			0.48		
HEATING VALUE.....	1170		1140			1163		
SPECIFIC GRAVITY.....	0.735		0.723			0.747		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 889			INDEX 890			INDEX 891		
SAMPLE 7468			SAMPLE 7469			SAMPLE 7645		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	MCCLAVE		MCCLAVE			MCCLAVE		
WELL NAME.....	STATE NO. 1-16		MCCLAVE NO. 1			STATE-PILES NO. 1		
LOCATION.....	SEC. 16, T20S, R48W		SEC. 30, T20S, R48W			SEC. 12, T20S, R49W		
OWNER.....	FRANKFORT OIL CO.		FRANKFORT OIL CO.			FRANKFORT OIL CO.		
COMPLETED.....	07/01/59		12/18/59			05/19/60		
SAMPLED.....	06/--/60		03/29/60			08/14/60		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	4725		4835			4835		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		873			900		
OPEN FLOW, MCFD.....	5450		1590			20000		
COMPONENT, MOLE PCT								
METHANE.....	74.2		74.2			72.5		
ETHANE.....	11.2		11.4			11.7		
PROPANE.....	4.0		3.9			4.2		
N-BUTANE.....	0.8		0.7			1.0		
ISOBUTANE.....	0.6		0.6			0.5		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	8.0		8.2			8.0		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.4		
HELIUM.....	0.30		0.40			0.40		
HEATING VALUE.....	1121		119			1145		
SPECIFIC GRAVITY.....	0.713		0.712			0.730		
INDEX 892			INDEX 893			INDEX 894		
SAMPLE 7646			SAMPLE 11128			SAMPLE 17920		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	MCCLAVE		MCCLAVE			SAL LAKE		
WELL NAME.....	OFF UNIT NO. 1		WEISBERGER A NO. 1			FRATZEE NO. 1		
LOCATION.....	SEC. 21, T20S, R48W		SEC. 29, T19S, R48W			SEC. 10, T19S, R50W		
OWNER.....	FRANKFORT OIL CO.		CABOT CORP.			TXO PRODUCTION CORP.		
COMPLETED.....	12/21/59		05/18/67			10/20/84		
SAMPLED.....	08/16/60		03/22/67			11/26/85		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	4745		4629			5258		
WELLHEAD PRESSURE, PSIG.....	900		991			820		
OPEN FLOW, MCFD.....	1700		1050			2816		
COMPONENT, MOLE PCT								
METHANE.....	72.6		65.7			60.7		
ETHANE.....	11.7		10.5			9.3		
PROPANE.....	4.6		6.5			4.4		
N-BUTANE.....	0.1		2.0			0.3		
ISOBUTANE.....	0.5		1.1			0.3		
N-PENTANE.....	0.2		0.5			0.4		
ISOPENTANE.....	0.2		0.4			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.7			0.1		
NITROGEN.....	8.0		10.8			20.6		
OXYGEN.....	TRACE		0.0			0.1		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.4			0.7		
HELIUM.....	0.40		0.37			1.60		
HEATING VALUE.....	1146		1246			980		
SPECIFIC GRAVITY.....	0.730		0.821			0.768		
INDEX 895			INDEX 896			INDEX 897		
SAMPLE 6219			SAMPLE 6514			SAMPLE 16911		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	KIOWA		KIOWA			KIT CARSON		
FIELD.....	WILDCAT		WILDCAT			LOOKOUT		
WELL NAME.....	WAGNER NO. 1		ERRAMUSPE NO. A-1			HICKS NO. B-1		
LOCATION.....	SEC. 31, T23S, R49W		SEC. 34, T20S, R48W			SEC. 24, T11S, R45W		
OWNER.....	D. D. HARRINGTON		D. D. HARRINGTON			TXO PRODUCTION CORP.		
COMPLETED.....	--/--/00		--/--/00			08/04/77		
SAMPLED.....	09/05/56		02/23/58			05/03/83		
FORMATION.....	PENN-HARMATON		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	450		450			540		
DEPTH, FEET.....	4990		4761			5360		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		871			816		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			5662		
COMPONENT, MOLE PCT								
METHANE.....	69.5		73.8			24.2		
ETHANE.....	4.3		11.3			2.9		
PROPANE.....	1.3		4.3			1.3		
N-BUTANE.....	0.3		0.9			0.7		
ISOBUTANE.....	0.7		0.5			0.2		
N-PENTANE.....	0.0		0.2			0.2		
ISOPENTANE.....	0.4		0.2			0.4		
CYCLOPENTANE.....	0.0		0.1			0.1		
HEXANES PLUS.....	0.0		0.2			0.2		
NITROGEN.....	23.4		7.7			65.9		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		0.0			0.3		
HYDROGEN.....	0.3		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.5			1.0		
HELIUM.....	0.52		0.20			3.49		
HEATING VALUE.....	843		1147			383		
SPECIFIC GRAVITY.....	0.694		0.729			0.878		
INDEX 898			INDEX 899			INDEX 900		
SAMPLE 16914			SAMPLE 16918			SAMPLE 16940		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	KIT CARSON		KIT CARSON			KIT CARSON		
FIELD.....	LOOKOUT		LOOKOUT			LOOKOUT		
WELL NAME.....	PIERSON NO. J-3		CHAMPLIN PIERSON NO. 1			CHAMPLIN KIRSCHMER NO. 1		
LOCATION.....	SEC. 20, T11S, R44W		SEC. 19, T11S, R44W			SEC. 21, T11S, R44W		
OWNER.....	TXO PRODUCTION CORP.		TXO PRODUCTION CORP.			TXO PRODUCTION CORP.		
COMPLETED.....	05/20/78		02/01/78			--/--/83		
SAMPLED.....	05/02/83		05/03/83			05/02/83		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	5348		5374			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	588		796			NOT GIVEN		
OPEN FLOW, MCFD.....	1388		3821			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	21.4		23.9			20.9		
ETHANE.....	1.7		1.7			1.6		
PROPANE.....	1.3		1.5			1.3		
N-BUTANE.....	0.8		0.8			0.8		
ISOBUTANE.....	0.3		0.4			0.3		
N-PENTANE.....	0.3		0.5			0.3		
ISOPENTANE.....	0.4		0.5			0.4		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	68.4		65.7			68.7		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	0.3		0.3			0.3		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.9			0.8		
HELIUM.....	4.01		40.51			4.16		
HEATING VALUE.....	359		404			352		
SPECIFIC GRAVITY.....	0.886		0.887			0.886		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	901 9707			INDEX SAMPLE	902 6354			INDEX SAMPLE	903 6464
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	KIT CARSON			LA PLATA				LA PLATA			
FIELD.....	SMOKY HILL			ALKALI GULCH				ALKALI GULCH			
WELL NAME.....	LOVE NO. 2			CATER NO. 11-32				BUTLER NO. 44-28			
LOCATION.....	SEC. 11, T11S, R46W			SEC. 32, T34N, R12W				SEC. 28, T34N, R12W			
OWNER.....	CONTINENTAL OIL CO.			GENERAL PETROLEUM CORP.				GENERAL PETROLEUM CORP.			
COMPLETED.....	01/18/63			05/17/57				11/13/57			
SAMPLED.....	01/18/65			07/20/57				12/23/57			
FORMATION.....	PENN-MORROW			PENN-PARADOX				PENN-PARADOX			
GEOLOGIC PROVINCE CODE.....	540			580				580			
DEPTH, FEET.....	5477			9420				9526			
WELLHEAD PRESSURE, PSIG.....	780			NOT GIVEN				3187			
OPEN FLOW, MCFD.....	3000			36000				23000			
COMPONENT, MOLE PCT											
METHANE.....	19.6	-----		94.3	-----			93.4	-----		
ETHANE.....	1.9	-----		0.1	-----			0.1	-----		
PROPANE.....	1.1	-----		0.0	-----			0.0	-----		
N-BUTANE.....	0.6	-----		0.0	-----			0.1	-----		
ISOBUTANE.....	0.2	-----		0.0	-----			0.0	-----		
N-PENTANE.....	0.2	-----		0.0	-----			0.0	-----		
ISOPENTANE.....	0.2	-----		0.0	-----			0.0	-----		
CYCLOPENTANE.....	TRACE	-----		0.0	-----			TRACE	-----		
HEXANES PLUS.....	0.2	-----		0.0	-----			TRACE	-----		
NITROGEN.....	70.6	-----		0.0	-----			0.4	-----		
OXYGEN.....	TRACE	-----		0.0	-----			TRACE	-----		
ARGON.....	0.3	-----		TRACE	-----			0.0	-----		
HYDROGEN.....	0.0	-----		0.0	-----			0.2	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	0.8	-----		5.0	-----			5.5	-----		
HELIUM.....	4.28	-----		0.17	-----			0.20	-----		
HEATING VALUE.....	515	-----		952	-----			952	-----		
SPECIFIC GRAVITY.....	0.883	-----		0.601	-----			0.609	-----		
		INDEX SAMPLE	904 4660			INDEX SAMPLE	905 4785			INDEX SAMPLE	906 3635
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LA PLATA			LA PLATA				LA PLATA			
FIELD.....	BARKER CREEK			BARKER CREEK				BONDAD			
WELL NAME.....	DELHI NO. 2			DELHI NO. 3				SPATTER BONDAD NO. 1			
LOCATION.....	SEC. 3, T32N, R13W			SEC. 2, T32N, R14W				SEC. 31, T33N, R9W			
OWNER.....	DELHI OIL CORP.			DELHI OIL CORP.				NICK SPATTER			
COMPLETED.....	--/--/00			08/30/49				--/--/00			
SAMPLED.....	04/05/49			09/10/49				04/09/43			
FORMATION.....	PENN-PARADOX			PENN-PARADOX				CRET-PICTURED CLIFFS			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	NOT GIVEN			9654				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2700				NOT GIVEN			
OPEN FLOW, MCFD.....	125000			172				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	84.1	-----		84.0	-----			95.7	-----		
ETHANE.....	1.1	-----		1.2	-----			0.5	-----		
PROPANE.....	0.4	-----		0.4	-----			-----	-----		
N-BUTANE.....	0.1	-----		0.2	-----			-----	-----		
ISOBUTANE.....	0.2	-----		0.0	-----			-----	-----		
N-PENTANE.....	0.0	-----		0.1	-----			-----	-----		
ISOPENTANE.....	0.0	-----		0.1	-----			-----	-----		
CYCLOPENTANE.....	0.0	-----		TRACE	-----			-----	-----		
HEXANES PLUS.....	0.0	-----		0.0	-----			-----	-----		
NITROGEN.....	1.6	-----		1.4	-----			0.0	-----		
OXYGEN.....	0.1	-----		TRACE	-----			0.3	-----		
ARGON.....	0.1	-----		TRACE	-----			-----	-----		
HYDROGEN.....	0.5	-----		TRACE	-----			-----	-----		
HYDROGEN SULFIDE.....	0.0	-----		-----	-----			-----	-----		
CARBON DIOXIDE.....	11.6	-----		12.1	-----			3.5	-----		
HELIUM.....	0.22	-----		0.21	-----			TRACE	-----		
HEATING VALUE.....	894	-----		903	-----			978	-----		
SPECIFIC GRAVITY.....	0.685	-----		0.694	-----			0.593	-----		
		INDEX SAMPLE	907 6254			INDEX SAMPLE	908 5792			INDEX SAMPLE	909 5063
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LA PLATA			LA PLATA				LA PLATA			
FIELD.....	BONDAD E			FRUITLAND				IGNACIO			
WELL NAME.....	SOUTHERN UTE 33-10 NO. 2-35			PUBCO UTE NO. 1				UTE INDIANS 8 NO. 2			
LOCATION.....	SEC. 35, T33N, R10W			SEC. 9, T33N, R9W				SEC. 21, T33N, R7W			
OWNER.....	UTAH SALTING, REFINING & MI			PUBCO DEVELOPMENT, INC.				STANOLIND OIL & GAS CO.			
COMPLETED.....	10/09/56			11/18/54				02/28/51			
SAMPLED.....	02/15/57			03/16/55				06/27/51			
FORMATION.....	CRET-MESAVERDE			CRET-FRUITLAND				CRET-PICTURED CLIFFS			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	5092			2540				2465			
WELLHEAD PRESSURE, PSIG.....	1796			1244				1494			
OPEN FLOW, MCFD.....	8724			2438				2350			
COMPONENT, MOLE PCT											
METHANE.....	95.3	-----		98.2	-----			98.0	-----		
ETHANE.....	2.2	-----		0.1	-----			0.4	-----		
PROPANE.....	0.5	-----		0.0	-----			0.1	-----		
N-BUTANE.....	0.0	-----		TRACE	-----			0.1	-----		
ISOBUTANE.....	0.0	-----		0.0	-----			0.0	-----		
N-PENTANE.....	0.0	-----		0.0	-----			0.0	-----		
ISOPENTANE.....	0.0	-----		0.0	-----			TRACE	-----		
CYCLOPENTANE.....	0.0	-----		0.0	-----			TRACE	-----		
HEXANES PLUS.....	TRACE	-----		0.0	-----			0.6	-----		
NITROGEN.....	0.2	-----		0.3	-----			0.9	-----		
OXYGEN.....	0.1	-----		TRACE	-----			0.3	-----		
ARGON.....	0.0	-----		TRACE	-----			TRACE	-----		
HYDROGEN.....	0.0	-----		0.0	-----			TRACE	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.1	-----			TRACE	-----		
CARBON DIOXIDE.....	1.6	-----		0.0	-----			0.2	-----		
HELIUM.....	TRACE	-----		TRACE	-----			TRACE	-----		
HEATING VALUE.....	1019	-----		997	-----			1008	-----		
SPECIFIC GRAVITY.....	0.587	-----		0.565	-----			0.566	-----		
		INDEX SAMPLE	910 5257			INDEX SAMPLE	911 5440			INDEX SAMPLE	912 7218
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LA PLATA			LA PLATA				LA PLATA			
FIELD.....	IGNACIO			IGNACIO				IGNACIO			
WELL NAME.....	MELTON NO. 1			TIFFANY 6.U. 8-1				ADA NO. 1			
LOCATION.....	SEC. 18, T33N, R8W			SEC. 35, T33N, R7W				SEC. 25, T33N, R11W			
OWNER.....	EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.				MORRISANTO CHEMICAL CO.			
COMPLETED.....	08/29/51			12/23/52				01/07/59			
SAMPLED.....	06/27/52			04/02/53				09/11/59			
FORMATION.....	CRET-DAKOTA BASAL			CRET-FRUITLAND				CRET-MESAVERDE			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	7830			2346				4740			
WELLHEAD PRESSURE, PSIG.....	12736			1450				1172			
OPEN FLOW, MCFD.....	17000			2350				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	94.9	-----		95.9	-----			89.7	-----		
ETHANE.....	0.2	-----		0.3	-----			3.9	-----		
PROPANE.....	0.1	-----		0.0	-----			0.5	-----		
N-BUTANE.....	0.1	-----		TRACE	-----			0.1	-----		
ISOBUTANE.....	0.0	-----		0.0	-----			0.5	-----		
N-PENTANE.....	0.0	-----		0.1	-----			0.0	-----		
ISOPENTANE.....	0.0	-----		0.0	-----			0.3	-----		
CYCLOPENTANE.....	TRACE	-----		TRACE	-----			TRACE	-----		
HEXANES PLUS.....	0.0	-----		0.0	-----			0.1	-----		
NITROGEN.....	0.6	-----		0.4	-----			2.8	-----		
OXYGEN.....	0.1	-----		0.1	-----			0.0	-----		
ARGON.....	0.0	-----		0.0	-----			0.0	-----		
HYDROGEN.....	TRACE	-----		TRACE	-----			0.0	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			1.9	-----		
CARBON DIOXIDE.....	4.0	-----		3.1	-----			TRACE	-----		
HELIUM.....	0.01	-----		TRACE	-----			0.20	-----		
HEATING VALUE.....	971	-----		986	-----			1042	-----		
SPECIFIC GRAVITY.....	0.600	-----		0.593	-----			0.619	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

85

		INDEX SAMPLE	913 16508	INDEX SAMPLE	914 7737	INDEX SAMPLE	915 8067
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	LA PLATA			LA PLATA		LA PLATA	
FIELD.....	IGNACIO-BLANCO			IGNACIO-BLANCO		IGNACIO-BLANCO	
WELL NAME.....	GEARHART NO. 1-31			SOUTHERN UTE NO. 2		COLORADO 32-7 NO. 2	
LOCATION.....	SEC. 31, T35N, R7W			SEC. 16, T32N, R7W		SEC. 10, T32N, R7W	
OWNER.....	WATKINS NORTH AMERICA, INC.			W. F. SARKE		EL PASO NATURAL GAS CO.	
COMPLETED.....	11/7/00			10/03/60		05/02/61	
SAMPLED.....	04/30/82			10/23/60		07/11/61	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7396			7718		5452	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2800		1184	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		3649	
COMPONENT, MOLE PCT							
METHANE.....	94.2			93.6		94.5	
ETHANE.....	TRACE			0.0		0.0	
PROPANE.....	0.0			0.0		0.0	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.4			0.8		0.0	
OXYGEN.....	0.1			0.1		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	TRACE			0.2		0.0	
HYDROGEN SULFIDE**.....	0.0			0.1		0.0	
CARBON DIOXIDE.....	0.3			0.1		0.0	
HELIUM.....	TRACE			0.01		0.01	
HEATING VALUE.....	954			951		1027	
SPECIFIC GRAVITY.....	0.608			0.607		0.596	

		INDEX SAMPLE	916 8729	INDEX SAMPLE	917 15928	INDEX SAMPLE	918 15929
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	LA PLATA			LA PLATA		LA PLATA	
FIELD.....	IGNACIO-BLANCO			IGNACIO-BLANCO		IGNACIO-BLANCO	
WELL NAME.....	NO. 32-7 1-11			SOUTHERN UTE NO. 30-1		SOUTHERN UTE NO. 30-1	
LOCATION.....	SEC. 11, T32N, R7W			SEC. 30, T33N, R9W		SEC. 30, T33N, R9W	
OWNER.....	ASPERN CAUDE PURCHASING CO.			ARC OIL & GAS CO.		ARC OIL & GAS CO.	
COMPLETED.....	11/06/59			08/23/78		08/23/78	
SAMPLED.....	10/18/62			03/31/80		03/31/80	
FORMATION.....	CRET-MESAVERDE			CRET-MESAVERDE		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	5430			5109		2868	
WELLHEAD PRESSURE, PSIG.....	800			1106		1333	
OPEN FLOW, MCFD.....	2758			2140		269	
COMPONENT, MOLE PCT							
METHANE.....	95.0			95.2		90.6	
ETHANE.....	0.3			1.8		4.5	
PROPANE.....	0.4			0.0		0.2	
N-BUTANE.....	0.1			0.1		0.2	
ISOBUTANE.....	TRACE			TRACE		0.4	
N-PENTANE.....	TRACE			TRACE		0.1	
ISOPENTANE.....	TRACE			TRACE		0.2	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	TRACE			0.1		0.1	
NITROGEN.....	0.1			0.1		0.2	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.7			2.5		2.5	
HELIUM.....	0.01			TRACE		TRACE	
HEATING VALUE.....	1021			1010		1071	
SPECIFIC GRAVITY.....	0.588			0.594		0.634	

		INDEX SAMPLE	919 5291	INDEX SAMPLE	920 17484	INDEX SAMPLE	921 5721
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	LA PLATA			LA PLATA		LA PLATA	
FIELD.....	LA PLATA			NIOBRARA		NIOBRARA	
WELL NAME.....	SEC. 15, T32N, R11W			UTE INDIAN NO. 1-11		NOT GIVEN	
LOCATION.....	SEC. 15, T32N, R11W			SEC. 11, T33N, R11W		VIRBETH LAND NO. 1	
OWNER.....	SOUTHERN UNION GAS CO.			MORIL OIL CORP.		SEC. 22, T32N, R11W	
COMPLETED.....	05/08/52			11/7/00		SOUTHERN UNION GAS CO.	
SAMPLED.....	08/23/52			10/10/84		09/03/54	
FORMATION.....	CRET-POINT LOOKOUT			CRET-NIOBRARA		10/7/54	
GEOLOGIC PROVINCE CODE.....	580			580		NOT GIVEN	
DEPTH, FEET.....	5330			NOT GIVEN		5295	
WELLHEAD PRESSURE, PSIG.....	972			400		NOT GIVEN	
OPEN FLOW, MCFD.....	1710			NOT GIVEN		3000	
COMPONENT, MOLE PCT							
METHANE.....	85.8			87.1		87.7	
ETHANE.....	7.8			5.5		7.0	
PROPANE.....	2.9			2.7		2.0	
N-BUTANE.....	0.6			0.5		0.5	
ISOBUTANE.....	0.5			0.5		0.5	
N-PENTANE.....	0.2			0.2		0.0	
ISOPENTANE.....	0.2			0.1		0.3	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	0.2			0.4		0.2	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	0.0			0.1		0.0	
HYDROGEN.....	TRACE			0.0		0.1	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.2			2.7		1.4	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1132			1125		1125	
SPECIFIC GRAVITY.....	0.567			0.662		0.648	

		INDEX SAMPLE	922 8881	INDEX SAMPLE	923 16882	INDEX SAMPLE	924 5310
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	LA PLATA			LA PLATA		LA PLATA	
FIELD.....	RED MESA			RED MESA		WILDCAT	
WELL NAME.....	DUDDLEY NO. 1			WEST ALKALI GULCH NO. 1		HARMON NO. 1	
LOCATION.....	SEC. 2, T33N, R12W			SEC. 2, T33N, R13W		SEC. 17, T33N, R9W	
OWNER.....	HATHAWAY CO.			DAVIS OIL CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	03/01/61			09/21/82		05/26/52	
SAMPLED.....	12/31/62			04/16/83		11/07/52	
FORMATION.....	CRET-MESAVERDE			PENN-DESERT CREEK		CRET-U	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	900			2670		2605	
WELLHEAD PRESSURE, PSIG.....	500			2600		1300	
OPEN FLOW, MCFD.....	200			210		100	
COMPONENT, MOLE PCT							
METHANE.....	98.3			95.8		96.4	
ETHANE.....	0.1			1.3		0.2	
PROPANE.....	TRACE			0.3		0.0	
N-BUTANE.....	TRACE			0.2		TRACE	
ISOBUTANE.....	TRACE			0.1		0.0	
N-PENTANE.....	TRACE			0.1		0.0	
ISOPENTANE.....	TRACE			0.1		0.0	
CYCLOPENTANE.....	TRACE			TRACE		0.0	
HEXANES PLUS.....	TRACE			0.1		0.0	
NITROGEN.....	0.3			1.1		0.3	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			0.2		0.8	
HYDROGEN SULFIDE**.....	0.0			0.6		0.0	
CARBON DIOXIDE.....	1.1			0.6		3.1	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	958			1026		980	
SPECIFIC GRAVITY.....	0.566			0.588		0.587	

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 925			INDEX 926			INDEX 927		
SAMPLE 8678			SAMPLE 13227			SAMPLE 2143		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	LA PLATA		LA PLATA			LARIMER		
FIELD.....	WILDCAT		WILDCAT			BERTHOUD		
WELL NAME.....	ANIMAS NO. 2-11		UTE NO. 1			STATE NO. 2		
LOCATION.....	SEC. 11, T33N, R10W		SEC. 24, T33N, R14W			SEC. 15, T4N, R69W		
OWNER.....	COMPASS EXPLORATION, INC.		NORRIS OIL CO.			FIVE SQUARE OIL & GAS CO.		
COMPLETED.....	03/09/62		03/01/72			07/01/25		
SAMPLED.....	09/27/62		06/04/72			09/15/30		
FORMATION.....	CRET-FRUITLAND		PENN-HERMOSA			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	580		580			540		
DEPTH, FEET.....	2133		9766			3750		
WELLHEAD PRESSURE, PSIG.....	1248		2965			125		
OPEN FLOW, MCFD.....	399		3500			450		
COMPONENT, MOLE PCT								
METHANE.....	96.6	-----	82.7	-----		63.7	-----	
ETHANE.....	0.6	-----	0.4	-----		31.5	-----	
PROPANE.....	0.1	-----	0.2	-----		---	-----	
N-BUTANE.....	0.1	-----	0.1	-----		---	-----	
ISOBUTANE.....	TRACE	-----	0.2	-----		---	-----	
N-PENTANE.....	TRACE	-----	0.1	-----		---	-----	
ISOPENTANE.....	TRACE	-----	---	-----		---	-----	
CYCLOPENTANE.....	0.0	-----	TRACE	-----		---	-----	
HEXANES PLUS.....	0.0	-----	0.2	-----		---	-----	
NITROGEN.....	0.1	-----	0.7	-----		4.2	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.3	-----	
ARGON.....	0.0	-----	TRACE	-----		---	-----	
HYDROGEN.....	0.2	-----	0.1	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	5.9	-----		---	-----	
CARBON DIOXIDE.....	2.3	-----	9.2	-----		0.2	-----	
HELIUM.....	TRACE	-----	0.17	-----		0.03	-----	
HEATING VALUE.....	995	-----	913	-----		1210	-----	
SPECIFIC GRAVITY.....	0.582	-----	0.698	-----		0.731	-----	

INDEX 928			INDEX 929			INDEX 930		
SAMPLE 2192			SAMPLE 855			SAMPLE 1783		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	LARIMER		LARIMER			LARIMER		
FIELD.....	BERTHOUD		WELLINGTON			WELLINGTON		
WELL NAME.....	FAGAN NO. 1		DISCOVERY			NITCHELL NO. 1		
LOCATION.....	SEC. 17, T4N, R69W		SEC. 3, T10N, R68W			SEC. 6, T9N, R68W		
OWNER.....	FIVE SQUARE OIL & GAS CO.		UNION OIL CO. OF CALIF.			CONTINENTAL OIL CO.		
COMPLETED.....	07/04/26		---/---/00			---/---/00		
SAMPLED.....	07/06/30		03/02/24			05/20/23		
FORMATION.....	CRET-FRONTIER		CRET-DAKOTA			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	2910		4275			4216		
WELLHEAD PRESSURE, PSIG.....	1300		975			975		
OPEN FLOW, MCFD.....	850		85000			67000		
COMPONENT, MOLE PCT								
METHANE.....	76.7	-----	86.1	-----		84.3	-----	
ETHANE.....	21.9	-----	9.8	-----		14.3	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	0.8	-----	2.0	-----		0.4	-----	
OXYGEN.....	0.2	-----	0.2	-----		0.1	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.4	-----	1.7	-----		0.9	-----	
HELIUM.....	0.04	-----	0.01	-----		TRACE	-----	
HEATING VALUE.....	1169	-----	1048	-----		1110	-----	
SPECIFIC GRAVITY.....	0.671	-----	0.628	-----		0.636	-----	

INDEX 931			INDEX 932			INDEX 933		
SAMPLE 1093			SAMPLE 1094			SAMPLE 1889		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	LAS ANIMAS		LAS ANIMAS			LAS ANIMAS		
FIELD.....	GARCIA		GARCIA			MODEL		
WELL NAME.....	SANDOVAL RANCH		SANDOVAL RANCH			COWDREY NOS. 1 & 2		
LOCATION.....	SEC. 9, T34S, R62W		SEC. 9, T34S, R62W			SEC. 35, T29S, R60W		
OWNER.....	CARLOS SANDOVAL		MOUNTAIN STATES OIL CORP.			HELIUM CO.		
COMPLETED.....	---/---/96		---/---/00			09/---/29		
SAMPLED.....	07/03/25		07/03/25			11/02/29		
FORMATION.....	CRET-APISHAPA		CRET-APISHAPA			PERM-RED BEDS		
GEOLOGIC PROVINCE CODE.....	455		455			455		
DEPTH, FEET.....	NOT GIVEN		850			900		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			13		
OPEN FLOW, MCFD.....	50		100000			1000		
COMPONENT, MOLE PCT								
METHANE.....	53.5	-----	28.6	-----		0.0	-----	
ETHANE.....	31.2	-----	6.5	-----		0.0	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	6.7	-----	---	-----		79.7	-----	
OXYGEN.....	0.3	-----	0.3	-----		0.9	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	2.1	-----	---	-----		---	-----	
HELIUM.....	TRACE	-----	TRACE	-----		12.2	-----	
HEATING VALUE.....	1209	-----	1517	-----		7.18	-----	
SPECIFIC GRAVITY.....	0.790	-----	0.920	-----		0	-----	

INDEX 934			INDEX 935			INDEX 936		
SAMPLE 1914			SAMPLE 3108			SAMPLE 3109		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	LAS ANIMAS		LAS ANIMAS			LAS ANIMAS		
FIELD.....	MODEL		MODEL			MODEL		
WELL NAME.....	HUFF NO. 1		VAN VLIET NO. 1			COWDREY NO. 1		
LOCATION.....	SEC. 35, T29S, R60W		SEC. 1, T30S, R60W			SEC. 35, T29S, R60W		
OWNER.....	HELIUM CO.		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	09/---/29		---/---/00			---/---/00		
SAMPLED.....	12/21/29		03/06/42			03/06/42		
FORMATION.....	PERM-LYONS		JURA			JURA		
GEOLOGIC PROVINCE CODE.....	455		455			455		
DEPTH, FEET.....	1004		950			855		
WELLHEAD PRESSURE, PSIG.....	10		11			11		
OPEN FLOW, MCFD.....	1000		75			270		
COMPONENT, MOLE PCT								
METHANE.....	0.0	-----	0.1	-----		0.1	-----	
ETHANE.....	0.0	-----	0.0	-----		0.0	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	77.4	-----	77.9	-----		75.7	-----	
OXYGEN.....	0.2	-----	0.3	-----		2.7	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	1.4	-----	1.9	-----		13.9	-----	
HELIUM.....	8.34	-----	7.83	-----		7.59	-----	
HEATING VALUE.....	0	-----	1	-----		1	-----	
SPECIFIC GRAVITY.....	0.979	-----	0.981	-----		0.986	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

87

		INDEX SAMPLE	937 3110			INDEX SAMPLE	938 3111			INDEX SAMPLE	939 8676
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LAS ANIMAS			LAS ANIMAS				LAS ANIMAS			
FIELD.....	MODEL			MODEL				MODEL			
WELL NAME.....	CONDREY NO. 2			CONDREY NO. 3				HOFF HEIRS NO. 2			
LOCATION.....	SEC. 35, T29S, R60W			SEC. 35, T29S, R60W				SEC. 35, T29S, R60W			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				ROBERT E. THORPE, SR.			
COMPLETED.....	--/--/00			--/--/00				05/15/62			
SAMPLED.....	03/05/42			03/05/42				09/27/62			
FORMATION.....	JURA-			JURA-				PERM-LYONS			
GEOLOGIC PROVINCE CODE.....	455			455				455			
DEPTH, FEET.....	941			1091				980			
WELLHEAD PRESSURE, PSIG.....	11			11				10			
OPEN FLOW, MCFD.....	183			480				50			
COMPONENT, MOLE PCT											
METHANE.....	0.1	-----		0.2	-----			TRACE	-----		
ETHANE.....	0.0	-----		0.0	-----			TRACE	-----		
PROpane.....	---	-----		---	-----			0.2	-----		
N-BUTANE.....	---	-----		---	-----			0.0	-----		
ISOBUTANE.....	---	-----		---	-----			0.0	-----		
N-PENTANE.....	---	-----		---	-----			0.0	-----		
ISOPENTANE.....	---	-----		---	-----			0.0	-----		
CYCLOPENTANE.....	---	-----		---	-----			0.0	-----		
HEXANES PLUS.....	---	-----		---	-----			0.0	-----		
NITROGEN.....	72.1	-----		76.6	-----			75.8	-----		
OXYGEN.....	1.6	-----		1.7	-----			0.6	-----		
ARGON.....	---	-----		---	-----			0.7	-----		
HYDROGEN.....	---	-----		---	-----			TRACE	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			0.0	-----		
CARBON DIOXIDE.....	14.3	-----		14.8	-----			15.4	-----		
HELIUM.....	7.93	-----		6.70	-----			7.19	-----		
HEATING VALUE.....	1	-----		2	-----			0.5	-----		
SPECIFIC GRAVITY.....	0.945	-----		0.996	-----			0.998	-----		
		INDEX	940			INDEX	941			INDEX	942
		SAMPLE	5488			SAMPLE	5489			SAMPLE	5490
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LAS ANIMAS			LAS ANIMAS				LAS ANIMAS			
FIELD.....	NINA VIEW			NINA VIEW				NINA VIEW			
WELL NAME.....	WELL NO. 2			WELL NO. 3				WELL NO. 4			
LOCATION.....	SEC. 7, T28S, R52W			SEC. 7, T28S, R52W				SEC. 7, T28S, R52W			
OWNER.....	NELSON-MOORE DEVELOPMENT CO.			NELSON-MOORE DEVELOPMENT CO.				NELSON-MOORE DEVELOPMENT CO.			
COMPLETED.....	--/--/00			09/--/52				09/--/52			
SAMPLED.....	03/30/53			03/30/53				03/30/53			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	455			455				455			
DEPTH, FEET.....	485			880				819			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	3500			627				768			
COMPONENT, MOLE PCT											
METHANE.....	0.2	-----		0.0	-----			0.0	-----		
ETHANE.....	0.1	-----		TRACE	-----			TRACE	-----		
PROpane.....	0.0	-----		0.0	-----			0.0	-----		
N-BUTANE.....	0.0	-----		0.0	-----			0.0	-----		
ISOBUTANE.....	0.0	-----		0.0	-----			0.0	-----		
N-PENTANE.....	0.0	-----		0.0	-----			0.0	-----		
ISOPENTANE.....	0.0	-----		0.0	-----			0.0	-----		
CYCLOPENTANE.....	0.0	-----		0.0	-----			0.0	-----		
HEXANES PLUS.....	0.0	-----		0.0	-----			0.0	-----		
NITROGEN.....	3.0	-----		3.0	-----			2.2	-----		
OXYGEN.....	TRACE	-----		TRACE	-----			0.1	-----		
ARGON.....	TRACE	-----		TRACE	-----			TRACE	-----		
HYDROGEN.....	TRACE	-----		0.0	-----			0.0	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	96.6	-----		96.7	-----			97.6	-----		
HELIUM.....	0.11	-----		0.13	-----			0.06	-----		
HEATING VALUE.....	4	-----		0	-----			0	-----		
SPECIFIC GRAVITY.....	1.508	-----		1.509	-----			1.515	-----		
		INDEX	943			INDEX	944			INDEX	945
		SAMPLE	2449			SAMPLE	2450			SAMPLE	15817
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LAS ANIMAS			LAS ANIMAS				LAS ANIMAS			
FIELD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELL NAME.....	BRUMLEY NO. 1			KING NO. 1				MOBIL CT-79-8-9C			
LOCATION.....	SEC. 8, T29S, R51W			SEC. 1, T28S, R53W				SEC. 9, T33S, R65W			
OWNER.....	U.S. BUREAU OF MINES			NOT GIVEN				MOBIL OIL CORP.			
COMPLETED.....	--/--/14			--/--/16				--/--/00			
SAMPLED.....	04/24/31			04/24/31				10/--/79			
FORMATION.....	PERM-GLORIETA			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	455			455				455			
DEPTH, FEET.....	425			125				1192			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	0.0	-----		0.0	-----			93.7	-----		
ETHANE.....	0.0	-----		0.0	-----			TRACE	-----		
PROpane.....	---	-----		---	-----			TRACE	-----		
N-BUTANE.....	---	-----		---	-----			0.0	-----		
ISOBUTANE.....	---	-----		---	-----			0.0	-----		
N-PENTANE.....	---	-----		---	-----			0.0	-----		
ISOPENTANE.....	---	-----		---	-----			0.0	-----		
CYCLOPENTANE.....	---	-----		---	-----			0.0	-----		
HEXANES PLUS.....	---	-----		---	-----			0.0	-----		
NITROGEN.....	1.1	-----		3.8	-----			4.6	-----		
OXYGEN.....	0.1	-----		0.2	-----			0.4	-----		
ARGON.....	---	-----		---	-----			0.1	-----		
HYDROGEN.....	---	-----		---	-----			0.0	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			0.0	-----		
CARBON DIOXIDE.....	98.8	-----		99.9	-----			1.1	-----		
HELIUM.....	TRACE	-----		0.08	-----			TRACE	-----		
HEATING VALUE.....	0	-----		0	-----			949	-----		
SPECIFIC GRAVITY.....	1.522	-----		1.505	-----			0.587	-----		
		INDEX	946			INDEX	947			INDEX	948
		SAMPLE	1160			SAMPLE	1735			SAMPLE	8950
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LAS ANIMAS			LAS ANIMAS				LAS ANIMAS			
FIELD.....	SAN FRANCISCO CREEK			SAN FRANCISCO CREEK				STRATIGRAPHIC TEST			
WELL NAME.....	NO. 1			SANDOVAL NO. 2				GOVT. TRUE NO. 1			
LOCATION.....	SEC. 4, T34S, R62W			SEC. 4, T34S, R62W				SEC. 30, T28S, R56W			
OWNER.....	MOUNTAIN STATES OIL CORP.			MOUNTAIN STATES OIL CORP.				TEXACO INC.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	09/26/25			04/06/29				04/29/63			
FORMATION.....	NOT GIVEN			NOT GIVEN				PERM-LYONS			
GEOLOGIC PROVINCE CODE.....	455			455				455			
DEPTH, FEET.....	1300			NOT GIVEN				1015			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				3			
COMPONENT, MOLE PCT											
METHANE.....	44.5	-----		15.1	-----			0.0	-----		
ETHANE.....	38.5	-----		75.5	-----			0.0	-----		
PROpane.....	---	-----		---	-----			0.0	-----		
N-BUTANE.....	---	-----		---	-----			0.0	-----		
ISOBUTANE.....	---	-----		---	-----			0.0	-----		
N-PENTANE.....	---	-----		---	-----			0.0	-----		
ISOPENTANE.....	---	-----		---	-----			0.0	-----		
CYCLOPENTANE.....	---	-----		---	-----			0.0	-----		
HEXANES PLUS.....	---	-----		---	-----			0.0	-----		
NITROGEN.....	12.7	-----		3.7	-----			73.7	-----		
OXYGEN.....	1.5	-----		0.6	-----			0.0	-----		
ARGON.....	---	-----		---	-----			0.9	-----		
HYDROGEN.....	---	-----		---	-----			0.0	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			0.0	-----		
CARBON DIOXIDE.....	2.8	-----		3.1	-----			14.6	-----		
HELIUM.....	TRACE	-----		TRACE	-----			8.80	-----		
HEATING VALUE.....	1141	-----		1506	-----			0	-----		
SPECIFIC GRAVITY.....	0.833	-----		0.966	-----			0.980	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	949 5566		INDEX SAMPLE	950 11542		INDEX SAMPLE	951 5016
STATE.....	COLORADO		COLORADO		COLORADO			
COUNTY.....	LAS ANIMAS		LOGAN		LOGAN			
FIELD.....	WILCOAT		ARMSTRONG		ARMSTRONG			
WELL NAME.....	MOCK NO. 1		ROBERTS NO. 1		T. P. LINDE NO. 1			
LOCATION.....	SEC. 29, T34S, R59W		SEC. 30, T11N, R53W		SEC. 23, T11N, R53W			
OWNER.....	BAKER & TAYLOR DRILLING CO.		FRANK WALSH		BRITISH AMERICAN OIL PROD. C			
COMPLETED.....	--/--/00		01/15/68		12/15/50			
SAMPLED.....	11/20/53		06/14/68		02/14/51			
FORMATION.....	NOT GIVEN		CRET-DAKOTA D		CRET-DAKOTA D			
GEOLOGIC PROVINCE CODE.....	455		540		540			
DEPTH, FEET.....	2390		5060		5256			
WELLHEAD PRESSURE, PSIG.....	200		950		1242			
OPEN FLOW, MCFD.....	50		2600		4500			
COMPONENT, MOLE PCT.....								
METHANE.....	0.1		79.2		79.9			
ETHANE.....	1.5		7.4		7.3			
PROPANE.....	---		6.4		5.0			
N-BUTANE.....	---		1.9		1.4			
ISOBUTANE.....	---		0.2		0.5			
N-PENTANE.....	---		0.5		0.2			
ISOPENTANE.....	---		0.2		0.1			
CYCLOPENTANE.....	---		0.1		TRACE			
HEXANES PLUS.....	---		0.3		0.2			
NITROGEN.....	88.3		5.0		4.2			
OXYGEN.....	0.2		0.0		0.1			
ARGON.....	---		TRACE		TRACE			
HYDROGEN.....	---		0.0		0.0			
HYDROGEN SULFIDE.....	---		0.0		---			
CARBON DIOXIDE.....	7.7		1.1		0.6			
HELIUM.....	2.20		0.08		0.08			
HEATING VALUE.....	28		1202		1160			
SPECIFIC GRAVITY.....	0.993		0.744		0.706			
	INDEX	952		INDEX	953		INDEX	954
	SAMPLE	6243		SAMPLE	6244		SAMPLE	16215
STATE.....	COLORADO		COLORADO		COLORADO			
COUNTY.....	LOGAN		LOGAN		LOGAN			
FIELD.....	ARMSTRONG		ARMSTRONG		BIG SANDY			
WELL NAME.....	LINDE NO. 1		EDMOND STRANGE NO. 1		BUDIN NO. 15			
LOCATION.....	SEC. 23, T11N, R53W		SEC. 24, T11N, R53W		SEC. 2, T8N, R55W			
OWNER.....	BRITISH AMERICAN OIL PROD. C		BRITISH AMERICAN OIL PROD. C		OKWAS OIL CO.			
COMPLETED.....	09/19/50		08/26/51		01/24/79			
SAMPLED.....	01/25/57		01/25/57		03/--/81			
FORMATION.....	CRET-DAKOTA J		CRET-DAKOTA D		CRET-DAKOTA J			
GEOLOGIC PROVINCE CODE.....	540		540		540			
DEPTH, FEET.....	5256		5221		5312			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		1003			
OPEN FLOW, MCFD.....	2882		1550		2341			
COMPONENT, MOLE PCT.....								
METHANE.....	79.1		78.7		77.2			
ETHANE.....	7.5		7.6		9.2			
PROPANE.....	4.9		4.6		5.6			
N-BUTANE.....	1.5		1.6		1.5			
ISOBUTANE.....	0.8		0.9		0.7			
N-PENTANE.....	0.3		0.3		0.3			
ISOPENTANE.....	0.2		0.4		0.6			
CYCLOPENTANE.....	0.1		0.1		0.1			
HEXANES PLUS.....	0.2		0.2		0.3			
NITROGEN.....	4.2		4.4		3.3			
OXYGEN.....	TRACE		TRACE		0.0			
ARGON.....	0.0		0.0		TRACE			
HYDROGEN.....	0.0		0.0		0.0			
HYDROGEN SULFIDE.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	1.1		1.1		1.5			
HELIUM.....	0.08		0.08		0.06			
HEATING VALUE.....	1176		1181		1215			
SPECIFIC GRAVITY.....	0.720		0.725		0.741			
	INDEX	955		INDEX	956		INDEX	957
	SAMPLE	5789		SAMPLE	17420		SAMPLE	5455
STATE.....	COLORADO		COLORADO		COLORADO			
COUNTY.....	LOGAN		LOGAN		LOGAN			
FIELD.....	COYOTE		DAILEY		DALE			
WELL NAME.....	STATE 694 A-1		FINNIGSMIER NO. 4-1		BREWER A NO. 1			
LOCATION.....	SEC. 12, T6N, R53W		SEC. 4, T8N, R48W		SEC. 19, T8N, R53W			
OWNER.....	SHELL OIL CO.		KEE EXPLORATION INC.		SHELL OIL CO.			
COMPLETED.....	01/01/55		10/01/82		--/--/00			
SAMPLED.....	03/07/55		09/--/84		04/14/53			
FORMATION.....	CRET-MUDDY		CRET-DAKOTA J		CRET-MUDDY			
GEOLOGIC PROVINCE CODE.....	540		540		540			
DEPTH, FEET.....	4525		4111		4656			
WELLHEAD PRESSURE, PSIG.....	1070		180		NOT GIVEN			
OPEN FLOW, MCFD.....	2250		2500		NOT GIVEN			
COMPONENT, MOLE PCT.....								
METHANE.....	89.8		89.5		79.1			
ETHANE.....	2.5		3.4		6.6			
PROPANE.....	1.5		3.2		5.8			
N-BUTANE.....	0.6		TRACE		2.0			
ISOBUTANE.....	0.6		0.6		0.7			
N-PENTANE.....	0.2		TRACE		0.5			
ISOPENTANE.....	0.3		0.4		0.6			
CYCLOPENTANE.....	0.1		0.3		0.2			
HEXANES PLUS.....	0.2		0.2		0.4			
NITROGEN.....	2.5		3.5		4.2			
OXYGEN.....	TRACE		TRACE		TRACE			
ARGON.....	0.0		0.4		TRACE			
HYDROGEN.....	0.1		0.0		0.0			
HYDROGEN SULFIDE.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	1.4		1.3		0.6			
HELIUM.....	0.03		0.04		0.07			
HEATING VALUE.....	1070		1037		1210			
SPECIFIC GRAVITY.....	0.639		0.633		0.733			
	INDEX	958		INDEX	959		INDEX	960
	SAMPLE	5460		SAMPLE	17503		SAMPLE	7491
STATE.....	COLORADO		COLORADO		COLORADO			
COUNTY.....	LOGAN		LOGAN		LOGAN			
FIELD.....	DALE		FRENCHMAN CREEK		HADFIELD			
WELL NAME.....	KNIFTON A NO. 1		HOMEKRENOVILLE NO. 1		ETSENACH NO. 1			
LOCATION.....	SEC. 23, T8N, R53W		SEC. 1, T7N, R51W		SEC. 17N, R52W			
OWNER.....	SHELL OIL CO.		ARCO OIL & GAS CO.		PETROLEUM, INC.			
COMPLETED.....	01/15/50		01/25/84		05/09/59			
SAMPLED.....	04/15/53		10/11/84		04/07/60			
FORMATION.....	CRET-DAKOTA		CRET-DAKOTA J		CRET-DAKOTA			
GEOLOGIC PROVINCE CODE.....	540		540		540			
DEPTH, FEET.....	4756		4712		4378			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		860		900			
OPEN FLOW, MCFD.....	NOT GIVEN		1750		350			
COMPONENT, MOLE PCT.....								
METHANE.....	77.3		92.3		86.5			
ETHANE.....	9.3		1.8		4.0			
PROPANE.....	5.4		0.3		3.9			
N-BUTANE.....	1.6		0.7		1.6			
ISOBUTANE.....	0.7		0.7		0.6			
N-PENTANE.....	0.5		0.0		0.1			
ISOPENTANE.....	0.3		0.7		1.4			
CYCLOPENTANE.....	0.1		0.2		0.3			
HEXANES PLUS.....	0.3		0.2		0.4			
NITROGEN.....	3.9		2.6		0.4			
OXYGEN.....	0.0		TRACE		0.0			
ARGON.....	TRACE		TRACE		0.0			
HYDROGEN.....	0.0		0.1		0.0			
HYDROGEN SULFIDE.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	0.6		0.9		1.2			
HELIUM.....	0.06		0.04		0.03			
HEATING VALUE.....	1221		1050		1206			
SPECIFIC GRAVITY.....	0.736		0.619		0.699			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

89

		INDEX SAMPLE	961 17680			INDEX SAMPLE	962 5456			INDEX SAMPLE	963 5152
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LOGAN			LOGAN				LOGAN			
FIELD.....	HORSETAIL N			LUFT				MOUNT HOPE			
WELL NAME.....	SANDS NO. 1-35			C. LUFT, JR. NO. 1-6				GREEN A NO. 5			
LOCATION.....	SEC. 35, T10N, R54W			SEC. 17, T8N, R53W				SEC. 30, T9N, R53W			
OWNER.....	INDUSTRIAL GAS SERVICES, INC			SHELL OIL CO.				SHELL OIL CO.			
COMPLETED.....	12/16/83			7/7/80				05/01/51			
SAMPLED.....	05/17/85			04/15/53				08/10/51			
FORMATION.....	CRET-D SAND			CRET-MUDDY				CRET---			
GEOLOGIC PROVINCE CODE.....	540			540				540			
DEPTH, FEET.....	4947			NOT GIVEN				4863			
WELLHEAD PRESSURE, PSIG.....	150			NOT GIVEN				290			
OPEN FLOW, MCFD.....	200			NOT GIVEN				173			
COMPONENT, MOLE PCT											
METHANE.....	75.4			73.5				75.5			
ETHANE.....	6.0			7.8				6.7			
PROPANE.....	7.0			7.4				8.0			
N-BUTANE.....	2.9			3.5				3.0			
ISOBUTANE.....	0.7			1.1				0.9			
N-PENTANE.....	0.6			0.8				0.4			
ISOPENTANE.....	1.1			0.9				0.6			
CYCLOPENTANE.....	0.1			0.2				0.1			
HEXANES PLUS.....	0.4			0.4				0.2			
NITROGEN.....	4.0			3.7				4.1			
ARGON.....	TRACE			TRACE				0.1			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.0			0.0				0.0			
HELIUM.....	1.6			0.7				0.4			
HEATING VALUE.....	0.07			0.05				0.06			
SPECIFIC GRAVITY.....	0.785			0.806				0.775			

		INDEX SAMPLE	964 5458			INDEX SAMPLE	965 5459			INDEX SAMPLE	966 5145
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LOGAN			LOGAN				LOGAN			
FIELD.....	MOUNT HOPE			MOUNT HOPE				PADRONI			
WELL NAME.....	GREEN A NO. 8			GREEN A, NO. 20				GOULD NO. 1			
LOCATION.....	SEC. 30, T9N, R53W			SEC. 30, T9N, R53W				SEC. 20, T9N, R52W			
OWNER.....	SHELL OIL CO.			SHELL OIL CO.				TEXAS CO.			
COMPLETED.....	7/7/80			7/7/80				07/08/51			
SAMPLED.....	04/07/53			04/07/53				08/08/51			
FORMATION.....	CRET-MUDDY			CRET-DAKOTA				CRET-DAKOTA			
GEOLOGIC PROVINCE CODE.....	540			540				540			
DEPTH, FEET.....	4865			4935				4625			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				1125			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				4000			
COMPONENT, MOLE PCT											
METHANE.....	74.9			73.2				78.4			
ETHANE.....	7.7			7.9				7.7			
PROPANE.....	8.3			7.4				5.2			
N-BUTANE.....	0.7			3.0				1.3			
ISOBUTANE.....	0.4			0.9				0.6			
N-PENTANE.....	0.7			0.9				0.3			
ISOPENTANE.....	0.3			0.8				TRACE			
CYCLOPENTANE.....	0.1			0.1				0.2			
HEXANES PLUS.....	0.5			0.6				TRACE			
NITROGEN.....	3.1			3.9				5.8			
ARGON.....	TRACE			TRACE				0.1			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.0			0.0				0.0			
HELIUM.....	0.03			0.04				0.07			
HEATING VALUE.....	1306			1331				1159			
SPECIFIC GRAVITY.....	0.783			0.806				0.708			

		INDEX SAMPLE	967 5871			INDEX SAMPLE	968 13210			INDEX SAMPLE	969 17718
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LOGAN			LOGAN				LOGAN			
FIELD.....	PAWNEE CREEK N			PEAVY				RAYMER CREEK			
WELL NAME.....	BRACHTENBACH NO. 1			PEAVY NO. 1				RAYMER CREEK NO. 1-22			
LOCATION.....	SEC. 26, T8N, R54W			SEC. 30, T12N, R55W				SEC. 22, T8N, R55W			
OWNER.....	ADEN OIL CO.			RAYMOND OIL CO., INC.				POWER RESOURCES CORP.			
COMPLETED.....	05/13/55			7/7/80				7/7/80			
SAMPLED.....	07/09/55			05/10/72				06/18/85			
FORMATION.....	CRET-DAKOTA J			CRET-DAKOTA D				CRET-D SAND			
GEOLOGIC PROVINCE CODE.....	540			540				540			
DEPTH, FEET.....	5110			5958				5239			
WELLHEAD PRESSURE, PSIG.....	1170			830				630			
OPEN FLOW, MCFD.....	7550			3500				250			
COMPONENT, MOLE PCT											
METHANE.....	78.6			77.8				72.5			
ETHANE.....	7.8			7.9				7.0			
PROPANE.....	4.9			6.8				7.4			
N-BUTANE.....	1.3			1.9				3.1			
ISOBUTANE.....	0.6			0.6				1.1			
N-PENTANE.....	0.3			0.3				0.7			
ISOPENTANE.....	0.3			0.2				0.8			
CYCLOPENTANE.....	0.1			TRACE				0.2			
HEXANES PLUS.....	0.2			4.7				0.4			
NITROGEN.....	5.1			4.7				5.4			
ARGON.....	TRACE			0.0				0.1			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.3			TRACE				TRACE			
CARBON DIOXIDE.....	0.0			0.0				0.0			
HELIUM.....	0.6			1.7				1.1			
HEATING VALUE.....	1168			1181				1286			
SPECIFIC GRAVITY.....	0.715			0.738				0.802			

		INDEX SAMPLE	970 5454			INDEX SAMPLE	971 5461			INDEX SAMPLE	972 5950
STATE.....	COLORADO			COLORADO				COLORADO			
COUNTY.....	LOGAN			LOGAN				LOGAN			
FIELD.....	SPRINGDALE			SPRINGDALE				STERLING			
WELL NAME.....	CHRISTNER NO. 1			H. HAAS JR. NO. 1				STATE NO. 1			
LOCATION.....	SEC. 15, T8N, R53W			SEC. 10, T8N, R53W				SEC. 2, T7N, R52W			
OWNER.....	SHELL OIL CO.			SHELL OIL CO.				DIEHLER & OLESON			
COMPLETED.....	04/22/53			7/7/80				05/26/55			
SAMPLED.....	04/22/53			04/15/53				10/17/55			
FORMATION.....	CRET-DAKOTA J			CRET-DAKOTA J				CRET-DAKOTA J			
GEOLOGIC PROVINCE CODE.....	540			540				540			
DEPTH, FEET.....	4830			4768				4504			
WELLHEAD PRESSURE, PSIG.....	94			NOT GIVEN				1068			
OPEN FLOW, MCFD.....	2902			NOT GIVEN				1921			
COMPONENT, MOLE PCT											
METHANE.....	79.7			78.4				91.3			
ETHANE.....	8.7			7.0				3.0			
PROPANE.....	4.3			4.9				0.3			
N-BUTANE.....	1.1			2.2				0.1			
ISOBUTANE.....	0.4			0.7				0.3			
N-PENTANE.....	0.3			0.4				0.0			
ISOPENTANE.....	0.2			0.4				0.1			
CYCLOPENTANE.....	0.1			0.1				TRACE			
HEXANES PLUS.....	0.1			3.9				0.1			
NITROGEN.....	4.4			0.0				3.3			
ARGON.....	TRACE			0.0				TRACE			
HYDROGEN.....	TRACE			0.0				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.6			0.6				1.3			
HELIUM.....	0.10			0.07				0.05			
HEATING VALUE.....	1156			1228				1009			
SPECIFIC GRAVITY.....	0.701			0.741				0.608			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 973			INDEX 974			INDEX 975		
SAMPLE 13599			SAMPLE 13362			SAMPLE 5149		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	TWIN MILLS		VAQUERO			WALKER		
WELL NAME.....	STATE-LUFF NO. 1		POSPIC NO. 1			C. F. GREEN NO. 1		
LOCATION.....	SEC. 19, T7N, R51W		SEC. 4, T7N, R52W			SEC. 20, T9N, R53W		
OWNER.....	SOTEXCO, INC.		PATRICK A. DOMENY			BRITISH AMERICAN OIL PROD. C		
COMPLETED.....	09/08/71		08/20/72			01/~/75		
SAMPLED.....	05/21/73		08/24/72			08/29/51		
FORMATION.....	CRET-DAKOTA J		CRET-DAKOTA J			CRET-DAKOTA J		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	4591		4432			4949		
WELLHEAD PRESSURE, PSIG.....	310		750			NOT GIVEN		
OPEN FLOW, MCFD.....	5000		1940			3670		
COMPONENT, MOLE PCT								
METHANE.....	91.0		90.4			79.9		
ETHANE.....	2.2		4.2			8.2		
PROPANE.....	0.2		0.3			4.4		
N-BUTANE.....	TRACE		TRACE			1.1		
ISOBUTANE.....	0.4		0.4			0.5		
N-PENTANE.....	TRACE		0.1			0.2		
ISOPENTANE.....	0.0		0.0			0.3		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	5.3		3.5			4.3		
OXYGEN.....	0.0		0.0			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.6		0.9			0.6		
HELIUM.....	0.05		0.05			0.07		
HEATING VALUE.....	989		1022			1159		
SPECIFIC GRAVITY.....	0.605		0.611			0.702		

INDEX 976			INDEX 977			INDEX 978		
SAMPLE 7076			SAMPLE 8921			SAMPLE 13643		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	AMEN-DERMER NO. 1		FED. NO. 1			SHERMAN NO. 1		
LOCATION.....	SEC. 7, T7N, R52W		SEC. 4, T6N, R52W			SEC. 9, T7N, R51W		
OWNER.....	PETROLEUM, INC.		PATRICK A. DOMENY			THOMAS B. BURNS		
COMPLETED.....	03/16/59		12/27/62			05/01/73		
SAMPLED.....	02/9/53		04/08/63			07/~/73		
FORMATION.....	CRET-DAKOTA		CRET-DAKOTA D			CRET-DAKOTA J		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	4398		4468			4560		
WELLHEAD PRESSURE, PSIG.....	850		1350			1094		
OPEN FLOW, MCFD.....	500		1350			4800		
COMPONENT, MOLE PCT								
METHANE.....	86.1		85.5			93.1		
ETHANE.....	3.3		3.4			2.1		
PROPANE.....	3.4		3.1			0.2		
N-BUTANE.....	1.7		1.6			0.0		
ISOBUTANE.....	0.8		0.6			0.5		
N-PENTANE.....	0.4		0.3			0.0		
ISOPENTANE.....	0.6		0.7			0.2		
CYCLOPENTANE.....	0.2		TRACE			TRACE		
HEXANES PLUS.....	0.5		0.3			0.1		
NITROGEN.....	1.5		4.0			2.1		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.3			1.5		
HELIUM.....	0.03		TRACE			0.04		
HEATING VALUE.....	1180		1140			1021		
SPECIFIC GRAVITY.....	0.694		0.681			0.605		

INDEX 979			INDEX 980			INDEX 981		
SAMPLE 4817			SAMPLE 16711			SAMPLE 16744		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	ASBURY CREEK		MESA			MESA		
FIELD.....	ASBURY CREEK		BRONCO FLATS			BRONCO FLATS		
WELL NAME.....	ASBURY CREEK UNIT WELL NO. 1		U.S.A. NO. 1-14 HC			U.S.A. NO. 1-18 JC		
LOCATION.....	SEC. 35, T9S, R101W		SEC. 14, T9S, R98W			SEC. 18, T9S, R98W		
OWNER.....	AMERADA PETROLEUM CORP.		COORS ENERGY CO.			COORS ENERGY CO.		
COMPLETED.....	12/13/49		04/23/82			01/05/83		
SAMPLED.....	11/08/49		11/22/82			01/05/83		
FORMATION.....	CRET-BURRO CANYON		CRET-DAKOTA-MORRISON			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	2915		7156			6631		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1700			2750		
OPEN FLOW, MCFD.....	31		840			507		
COMPONENT, MOLE PCT								
METHANE.....	85.2		83.4			82.8		
ETHANE.....	1.1		0.2			2.7		
PROPANE.....	0.3		TRACE			2.8		
N-BUTANE.....	TRACE		0.0			0.6		
ISOBUTANE.....	0.1		0.0			0.6		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.0		0.0			0.3		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			0.2		
NITROGEN.....	6.0		2.3			0.4		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.2		
HYDROGEN SULFIDE**.....	6.7		0.0			0.0		
CARBON DIOXIDE.....	0.36		5.0			2.1		
HELIUM.....	894		0.27			0.02		
HEATING VALUE.....	894		444			1154		
SPECIFIC GRAVITY.....	0.654		1.087			0.681		

INDEX 982			INDEX 983			INDEX 984		
SAMPLE 8210			SAMPLE 8211			SAMPLE 8212		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CAMEO		CAMEO			CAMEO		
FIELD.....	FED. C NO. 1		FED. C NO. 1			FED. C NO. 1		
WELL NAME.....	SEC. 35, T9S, R99W		SEC. 35, T9S, R99W			SEC. 35, T9S, R99W		
LOCATION.....	AMASSADOR OIL CORP.		AMASSADOR OIL CORP.			AMASSADOR OIL CORP.		
OWNER.....	09/17/61		09/18/61			09/22/61		
COMPLETED.....	09/17/61		09/18/61			09/22/61		
SAMPLED.....	09/17/61		09/18/61			09/22/61		
FORMATION.....	CRET-MORRISON U		CRET-DAKOTA L			CRET-DAKOTA U		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	6399		6320			6222		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1500			1500		
OPEN FLOW, MCFD.....	NOT GIVEN		8900			800		
COMPONENT, MOLE PCT								
METHANE.....	93.6		93.7			89.9		
ETHANE.....	2.2		0.5			2.0		
PROPANE.....	0.2		0.3			0.6		
N-BUTANE.....	TRACE		TRACE			0.1		
ISOBUTANE.....	TRACE		TRACE			0.2		
N-PENTANE.....	0.0		TRACE			TRACE		
ISOPENTANE.....	0.0		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		TRACE			0.1		
NITROGEN.....	2.8		2.2			3.3		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.8		2.0			3.4		
HELIUM.....	0.21		0.18			0.21		
HEATING VALUE.....	975		987			977		
SPECIFIC GRAVITY.....	0.591		0.594			0.622		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

91

		INDEX SAMPLE	985 16745	INDEX SAMPLE	986 15818	INDEX SAMPLE	987 15820
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MESA			MESA		MESA	
FIELD.....	CAMEO			CORE NO. 2		CORE NO. 3	
WELL NAME.....	U.S.A. NO. 1-5 MR			VEGA UNIT NO. 3		VEGA UNIT NO. 3	
LOCATION.....	SEC. 5, T11S, R98W			SEC. 10, T10S, R93W		SEC. 10, T10S, R93W	
OWNER.....	COORS ENERGY CO.			EXXON CO., U.S.A.		EXXON CO., U.S.A.	
COMPLETED.....	01/06/83			--/--/00		--/--/00	
SAMPLED.....	01/06/83			08/--/79		08/--/79	
FORMATION.....	CRET-DAKOTA L			CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	4871			7587		7592	
WELLHEAD PRESSURE, PSIG.....	1580			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	1000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	80.6			82.1		85.9	
ETHANE.....	5.1			5.3		4.6	
PROPANE.....	1.4			0.3		0.3	
N-BUTANE.....	0.3			0.1		0.0	
ISOBUTANE.....	0.1			0.0		0.0	
N-PENTANE.....	0.1			0.0		0.0	
ISOPENTANE.....	0.1			0.1		0.0	
CYCLOPENTANE.....	0.1			TRACE		0.0	
HEXANES PLUS.....	0.2			TRACE		0.0	
NITROGEN.....	10.6			4.6		2.3	
OXYGEN.....	TRACE			MS-2		0.0	
ARGON.....	0.1			0.1		TRACE	
HYDROGEN.....	0.4			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.3		6.8	
HELIUM.....	0.70			TRACE		TRACE	
HEATING VALUE.....	982			942		960	
SPECIFIC GRAVITY.....	0.652			0.600		0.655	
		INDEX SAMPLE	988 17177	INDEX SAMPLE	989 7596	INDEX SAMPLE	990 8315
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MESA			MESA		MESA	
FIELD.....	COYOTE WASH			DIVIDE CREEK		FRUITA	
WELL NAME.....	CAMP GULCH NO. 1-24			DIVIDE CREEK NO. 9		CHRISTIANA NO. 1	
LOCATION.....	SEC. 24, T8S, R103W			SEC. 22, T8S, R91W		SEC. 9, T9S, R101W	
OWNER.....	AMBRA OIL & GAS CO.			SUN OIL CO.		FRONTIER REFINING CO.	
COMPLETED.....	09/--/83			07/01/60		03/08/61	
SAMPLED.....	02/10/84			07/08/60		12/07/61	
FORMATION.....	CRET-DAKOTA			CRET-MESAVERDE		CRET-BUCKHORN	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	2900			4622		2599	
WELLHEAD PRESSURE, PSIG.....	1800			1550		825	
OPEN FLOW, MCFD.....	500			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.9			95.1		83.3	
ETHANE.....	0.9			0.5		0.9	
PROPANE.....	1.8			0.5		0.8	
N-BUTANE.....	0.5			0.1		0.1	
ISOBUTANE.....	0.3			0.1		0.0	
N-PENTANE.....	0.1			TRACE		TRACE	
ISOPENTANE.....	0.1			TRACE		0.0	
CYCLOPENTANE.....	TRACE			TRACE		0.0	
HEXANES PLUS.....	0.0			TRACE		0.0	
NITROGEN.....	10.5			0.0		1.1	
OXYGEN.....	0.0			TRACE		0.2	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			0.2		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			3.0		13.4	
HELIUM.....	0.26			0.01		0.23	
HEATING VALUE.....	989			1005		884	
SPECIFIC GRAVITY.....	0.660			0.598		0.704	
		INDEX SAMPLE	991 5504	INDEX SAMPLE	992 16404	INDEX SAMPLE	993 13665
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MESA			MESA		MESA	
FIELD.....	GARMESA NO. 1			HUNTERS CANYON		MITCHELL ENERGY AREA	
WELL NAME.....	SEC. 8, T8S, R102W			HUNTERS CANYON UNIT NO. 6		FED. NO. 1-1	
LOCATION.....	KERR-MCREE OIL IND., INC.			SEC. 30, T8S, R100W		SEC. 1, T1N, R1W	
OWNER.....				WALTER S. FEES, JR.		MITCHELL ENERGY & DEV. CORP.	
COMPLETED.....	06/11/53			10/03/80		07/07/73	
SAMPLED.....	06/11/53			12/17/81		07/29/73	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	2870			6208		2565	
WELLHEAD PRESSURE, PSIG.....	526			1500		710	
OPEN FLOW, MCFD.....	1000			2800		3244	
COMPONENT, MOLE PCT							
METHANE.....	70.0			95.3		92.5	
ETHANE.....	1.0			0.8		2.3	
PROPANE.....	0.2			0.0		0.0	
N-BUTANE.....	0.1			0.0		0.3	
ISOBUTANE.....	0.1			0.0		0.3	
N-PENTANE.....	0.0			0.0		TRACE	
ISOPENTANE.....	0.2			0.0		0.1	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	TRACE			0.0		TRACE	
NITROGEN.....	7.8			0.9		2.5	
OXYGEN.....	TRACE			0.1		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	20.4			2.6		0.2	
HELIUM.....	0.20			0.06		0.25	
HEATING VALUE.....	942			985		102	
SPECIFIC GRAVITY.....	0.795			0.590		0.603	
		INDEX SAMPLE	994 13666	INDEX SAMPLE	995 13667	INDEX SAMPLE	996 14314
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MESA			MESA		MESA	
FIELD.....	MITCHELL ENERGY AREA			MITCHELL ENERGY AREA		MITCHELL ENERGY AREA	
WELL NAME.....	FED. NO. 15-1			FED. NO. 9-1		FED. NO. 15-1	
LOCATION.....	SEC. 15, T2N, R2W			SEC. 9, T10S, R100W		SEC. 15, T2N, R2W	
OWNER.....	MITCHELL ENERGY & DEV. CORP.			MITCHELL ENERGY & DEV. CORP.		MITCHELL ENERGY CORP.	
COMPLETED.....	07/26/73			12/02/73		08/--/73	
SAMPLED.....	07/26/73			08/02/73		04/02/75	
FORMATION.....	CRET-DAKOTA			JURA-MORRISON		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	2072			2796		2078	
WELLHEAD PRESSURE, PSIG.....	620			950		611	
OPEN FLOW, MCFD.....	286			3250		3856	
COMPONENT, MOLE PCT							
METHANE.....	79.4			91.1		86.6	
ETHANE.....	0.8			1.4		0.7	
PROPANE.....	0.2			0.3		0.2	
N-BUTANE.....	TRACE			0.1		TRACE	
ISOBUTANE.....	0.1			0.1		TRACE	
N-PENTANE.....	TRACE			0.0		TRACE	
ISOPENTANE.....	TRACE			0.0		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	TRACE			TRACE		TRACE	
NITROGEN.....	9.4			0.0		0.0	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			0.1		TRACE	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	9.7			0.3		9.0	
HELIUM.....	0.18			0.59		0.19	
HEATING VALUE.....	927			927		895	
SPECIFIC GRAVITY.....	0.695			0.595		0.659	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	997 8409	INDEX SAMPLE	998 4816	INDEX SAMPLE	999 15819
STATE	COLORADO			COLORADO		COLORADO	
COUNTY	MESA			MESA		MESA	
FIELD	MOLINA			NOT GIVEN		NOT GIVEN	
WELL NAME	NICHOLS B NO. 1			ASBURY CREEK UNIT NO. 1		VEGA UNIT NO. 3	
LOCATION	SEC. 19, T10S, R96W			SEC. 19, T9S, R101W		SEC. 10, T10S, R93W	
OWNER	APACHE CORP.			AMERADA PETROLEUM CORP.		EXXON CO., U.S.A.	
COMPLETED	12/17/61			12/13/49		--/--/00	
SAMPLED	02/14/62			11/05/49		08/--/75	
FORMATION	CRET-CORCORAN			CRET-U		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE	595			595		595	
DEPTH, FEET	3760			2836		7592	
WELLHEAD PRESSURE, PSIG	1200			25		NOT GIVEN	
OPEN FLOW, MCFD	1500			2429		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	92.5			82.4		78.3	
ETHANE	3.3			1.4		3.1	
PROpane	0.9			0.4		0.2	
N-BUTANE	0.2			0.1		0.0	
ISOBUTANE	0.2			0.1		0.0	
N-PENTANE	TRACE			0.0		0.0	
ISOPENTANE	0.2			0.0		0.0	
CYCLOPENTANE	0.1			0.0		0.0	
HEXANES PLUS	0.1			0.0		0.0	
NITROGEN	0.5			0.8		9.9	
OXYGEN	0.1			0.1		1.8	
ARGON	0.0			TRACE		0.1	
HYDROGEN	TRACE			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	1.8			14.5		6.6	
HELIUM	0.01			0.06		TRACE	
HEATING VALUE	1050			877		854	
SPECIFIC GRAVITY	0.614			0.713		0.688	
		INDEX SAMPLE	1000 7091	INDEX SAMPLE	1001 16219	INDEX SAMPLE	1002 9208
STATE	COLORADO			COLORADO		COLORADO	
COUNTY	MESA			MESA		MESA	
FIELD	PLATEAU			PLATEAU		ROBERTS CANYON	
WELL NAME	GEORGE B. CURRIER NO. 1			WILSON NO. 2		ROBERTS CANYON NO. 1	
LOCATION	SEC. 19, T10S, R95W			SEC. 29, T10S, R96W		SEC. 5, T10S, R97W	
OWNER	TENNESSEE G.S. & OIL CO.			COORS ENERGY CO.		TEXACO INC.	
COMPLETED	02/13/55			10/16/80		10/11/63	
SAMPLED	06/10/59			04/01/81		12/17/63	
FORMATION	CRET-COZZETTE			CRET-CORCORAN		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE	595			595		595	
DEPTH, FEET	4225			3049		6704	
WELLHEAD PRESSURE, PSIG	1200			950		2090	
OPEN FLOW, MCFD	500			2400		5200	
COMPONENT, MOLE PCT							
METHANE	93.0			91.9		91.0	
ETHANE	3.4			3.6		1.4	
PROpane	1.3			0.3		0.8	
N-BUTANE	0.4			0.3		0.0	
ISOBUTANE	0.0			0.2		0.0	
N-PENTANE	0.1			0.1		0.0	
ISOPENTANE	0.2			0.2		0.0	
CYCLOPENTANE	TRACE			TRACE		0.0	
HEXANES PLUS	0.1			0.1		0.0	
NITROGEN	TRACE			0.3		4.7	
OXYGEN	TRACE			0.0		0.0	
ARGON	TRACE			TRACE		0.1	
HYDROGEN	TRACE			0.1		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	1.3			2.0		1.7	
HELIUM	0.01			0.01		0.30	
HEATING VALUE	1058			1022		968	
SPECIFIC GRAVITY	0.610			0.620		0.605	
		INDEX SAMPLE	1003 5241	INDEX SAMPLE	1004 9715	INDEX SAMPLE	1005 16731
STATE	COLORADO			COLORADO		COLORADO	
COUNTY	MESA			MESA		MESA	
FIELD	SALT WASH W			SHIRE GULCH		SHIRE GULCH	
WELL NAME	HIGHLINE CANAL UNIT NO. 1			SEC. 2		HORSESHOE CANYON NO. 1-29-97	
LOCATION	SEC. 2, T9S, R103W			SEC. 2, T10S, R97W		SEC. 2, T9S, R97W	
OWNER	AMERADA PETROLEUM CORP.			PACIFIC NATURAL GAS EXPL. CO		KOCH EXPLORATION CO.	
COMPLETED	12/12/51			05/23/64		04/10/82	
SAMPLED	02/13/55			04/01/65		12/10/82	
FORMATION	CRET-DAKOTA			PENN-CHEROKEE		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE	595			595		595	
DEPTH, FEET	2008			7456		7000	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			1750		1900	
OPEN FLOW, MCFD	1329			221		2500	
COMPONENT, MOLE PCT							
METHANE	87.1			92.6		92.7	
ETHANE	1.0			0.6		1.3	
PROpane	0.1			0.3		0.2	
N-BUTANE	0.1			0.0		TRACE	
ISOBUTANE	0.1			0.0		TRACE	
N-PENTANE	0.0			0.0		0.0	
ISOPENTANE	TRACE			0.0		0.3	
CYCLOPENTANE	0.1			0.0		0.4	
HEXANES PLUS	TRACE			0.0		0.4	
NITROGEN	6.6			0.5		0.5	
OXYGEN	0.1			0.0		TRACE	
ARGON	0.1			0.0		0.0	
HYDROGEN	TRACE			0.0		0.2	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	4.6			5.9		3.9	
HELIUM	0.22			0.07		0.05	
HEATING VALUE	913			957		1017	
SPECIFIC GRAVITY	0.637			0.619		0.624	
		INDEX SAMPLE	1006 16173	INDEX SAMPLE	1007 5136	INDEX SAMPLE	1008 5965
STATE	COLORADO			COLORADO		COLORADO	
COUNTY	MESA			MESA		MESA	
FIELD	SOUTH CANYON			WILDCAT		WILDCAT	
WELL NAME	FEES USA NO. 29-8			GEORGE UNFRED NO. 1		GUNDERSON NO. 1	
LOCATION	SEC. 29, T8S, R104W			SEC. 2, T1N, R3W		SEC. 17, T9S, R93W	
OWNER	TENNECO OIL CO.			KUBETZ		VICTOR OILG. CO. & UNION OIL	
COMPLETED	08/25/80			--/--/00		--/--/00	
SAMPLED	01/13/81			01/25/52		11/03/55	
FORMATION	CRET-DAKOTA			CRET-DAKOTA		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE	595			595		595	
DEPTH, FEET	3312			669		6560	
WELLHEAD PRESSURE, PSIG	800			NOT GIVEN		2175	
OPEN FLOW, MCFD	3821			NOT GIVEN		300	
COMPONENT, MOLE PCT							
METHANE	71.3			96.0		87.9	
ETHANE	2.4			0.2		1.5	
PROpane	0.4			0.1		1.8	
N-BUTANE	0.2			0.1		0.4	
ISOBUTANE	0.1			0.0		0.2	
N-PENTANE	0.1			0.0		0.2	
ISOPENTANE	TRACE			0.1		0.1	
CYCLOPENTANE	TRACE			TRACE		0.1	
HEXANES PLUS	0.1			0.2		0.2	
NITROGEN	24.1			2.4		0.0	
OXYGEN	0.0			0.1		0.0	
ARGON	0.1			TRACE		TRACE	
HYDROGEN	TRACE			0.0		0.1	
HYDROGEN SULFIDE	0.0			--		0.0	
CARBON DIOXIDE	0.3			0.08		3.6	
HELIUM	0.74			0.08		0.00	
HEATING VALUE	795			991		1080	
SPECIFIC GRAVITY	0.678			0.577		0.654	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

93

		INDEX SAMPLE	1009 7193	INDEX SAMPLE	1010 7337	INDEX SAMPLE	1011 7566
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MESA			MESA		MESA	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	MICHELSON GOVT. NO. 1			SKYLINE HITTLE NO. 1		BUZZARD CREEK UNIT NO. 1	
LOCATION.....	SEC. 12, T11N, R94W			SEC. 12, T10S, R96W		SEC. 12, T9S, R93W	
OWNER.....	EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		UNION OIL CO. OF CALIF.	
COMPLETED.....	01/31/58			05/30/58		10/20/59	
SAMPLED.....	08/25/59			01/09/60		06/19/60	
FORMATION.....	CRET-MESAVERDE			CRET-MORAPOS		CRET-COZZETTE	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	4482			4400		8554	
WELLHEAD PRESSURE, PSIG.....	423			1300		3850	
OPEN FLOW, MCFD.....	1420			1982		4200	
COMPONENT, MOLE PCT							
METHANE.....	88.8			94.0		95.7	
ETHANE.....	6.2			0.8		0.7	
PROPANE.....	2.9			1.0		0.4	
N-BUTANE.....	0.6			0.3		0.8	
ISOBUTANE.....	0.3			0.1		TRACE	
N-PENTANE.....	TRACE			TRACE		TRACE	
ISOPENTANE.....	0.4			TRACE		0.0	
CYCLOPENTANE.....	0.0			0.1		0.1	
HEXANES PLUS.....	TRACE			0.2		0.1	
NITROGEN.....	0.2			0.2		0.0	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.1			0.2		2.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.0		0.0	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1134			1037		1035	
SPECIFIC GRAVITY.....	0.641			0.600		0.568	
		INDEX SAMPLE	1012 8562	INDEX SAMPLE	1013 9318	INDEX SAMPLE	1014 16244
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MESA			MESA		MESA	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	GOVT. WILLIAMS NO. 1			KENNON NO. 1		MORSESHOE CANYON NO. 1	
LOCATION.....	SEC. 1, T10S, R97W			SEC. 15, T8S, R96W		SEC. 29, T9S, R97W	
OWNER.....	MCULLOCH OIL CORP.			DON M. ROUNDS CO.		ROCK EXPLORATION CO.	
COMPLETED.....	11/21/51			02/11/54		10/27/78	
SAMPLED.....	05/18/62			04/24/64		04/22/81	
FORMATION.....	CRET-COZZETTE CORCORAN			EOCE-WASATCH		CRET-CEDAR MOUNTAIN	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	2944			1908		7134	
WELLHEAD PRESSURE, PSIG.....	900			520		2150	
OPEN FLOW, MCFD.....	1500			3750		695	
COMPONENT, MOLE PCT							
METHANE.....	90.4			73.0		93.0	
ETHANE.....	1.9			0.9		0.7	
PROPANE.....	1.7			0.9		0.1	
N-BUTANE.....	0.4			0.2		0.1	
ISOBUTANE.....	0.2			0.2		TRACE	
N-PENTANE.....	0.1			0.1		TRACE	
ISOPENTANE.....	0.1			0.1		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	TRACE			0.8		0.5	
OXYGEN.....	TRACE			0.1		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.1			0.1		5.0	
HELIUM.....	0.01			0.01		0.04	
HEATING VALUE.....	1082			1065		966	
SPECIFIC GRAVITY.....	0.632			0.599		0.615	
		INDEX SAMPLE	1015 8822	INDEX SAMPLE	1016 8823	INDEX SAMPLE	1017 8825
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	ACE			ACE		ACE	
WELL NAME.....	UNIT NO. 5			UNIT NO. 2		UNIT NO. 1	
LOCATION.....	SEC. 28, T12N, R97W			SEC. 3, T11N, R97W		SEC. 34, T12N, R97W	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.			MOUNTAIN FUEL SUPPLY CO.		MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	05/08/55			03/30/54		01/26/54	
SAMPLED.....	01/07/53			01/07/53		01/07/63	
FORMATION.....	EOCE-WASATCH			EOCE-FORT UNION		EOCE-FORT UNION	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	2802			8188		8133	
WELLHEAD PRESSURE, PSIG.....	880			575		570	
OPEN FLOW, MCFD.....	1040			594		458	
COMPONENT, MOLE PCT							
METHANE.....	91.1			88.5		88.7	
ETHANE.....	3.8			5.1		5.9	
PROPANE.....	0.4			0.5		0.4	
N-BUTANE.....	0.5			0.5		0.5	
ISOBUTANE.....	0.2			0.4		0.3	
N-PENTANE.....	TRACE			0.1		0.3	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	0.4			0.2		0.2	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.1			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			1.3		1.2	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1099			1119		1112	
SPECIFIC GRAVITY.....	0.627			0.645		0.638	
		INDEX SAMPLE	1018 2130	INDEX SAMPLE	1019 3848	INDEX SAMPLE	1020 14397
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	BELL ROCK			BELL ROCK		BELL ROCK	
WELL NAME.....	SEC. 1			HANAWALT NO. 1		FED.-DOLEZAL NO. 4-1	
LOCATION.....	SEC. 4, T6N, R92W			SEC. 4, T6N, R92W		SEC. 4, T6N, R92W	
OWNER.....	MIDWEST REFINING CO.			STANOLIND OIL & GAS CO.		FUEL RESOURCES DEV. CO.	
COMPLETED.....	7-700			7-700		7-700	
SAMPLED.....	09/26/50			04/28/54		06/18/75	
FORMATION.....	CRET-MESAVERDE			CRET-MESAVERDE		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	2855			3202		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			1000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	91.0			92.2		98.0	
ETHANE.....	0.0			2.8		0.3	
PROPANE.....	---			---		0.1	
N-BUTANE.....	---			---		0.0	
ISOBUTANE.....	---			---		0.0	
N-PENTANE.....	---			---		0.0	
ISOPENTANE.....	---			---		0.0	
CYCLOPENTANE.....	---			---		0.0	
HEXANES PLUS.....	---			---		0.0	
NITROGEN.....	6.3			2.4		1.2	
OXYGEN.....	1.3			---		0.0	
ARGON.....	---			---		TRACE	
HYDROGEN.....	---			---		0.1	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	1.4			2.1		0.4	
HELIUM.....	0.09			0.09		0.04	
HEATING VALUE.....	922			984		1001	
SPECIFIC GRAVITY.....	0.601			0.600		0.566	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1021 SAMPLE 8683			INDEX 1022 SAMPLE 8684			INDEX 1023 SAMPLE 8685		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MOFFAT			MOFFAT		
FIELD.....	BIG GULCH		BIG GULCH			BIG GULCH		
WELL NAME.....	ALPHA STATE NO. 1-16		ALPHA STATE NO. 1-15			BETA STATE NO. 1-22		
LOCATION.....	SEC. 15, T7N, R93W		SEC. 15, T7N, R93W			SEC. 22, T7N, R93W		
OWNER.....	INTEX OIL CO.		INTEX OIL CO.			INTEX OIL CO.		
COMPLETED.....	07/01/60		07/01/60			09/01/60		
SAMPLED.....	09/28/62		09/28/62			09/28/62		
FORMATION.....	CRET-MESAVERDE		CRET-FRONTIER			CRET-MESAVERDE		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	3695		8598			642		
WELLHEAD PRESSURE, PSIG.....	1510		3460			300		
OPEN FLOW, MCFD.....	8400		2800			5200		
COMPONENT, MOLE PCT								
METHANE.....	96.9		92.8			97.0		
ETHANE.....	0.6		2.9			0.2		
PROPANE.....	0.3		0.8			TRACE		
N-BUTANE.....	0.2		0.2			TRACE		
ISOBUTANE.....	0.0		0.3			0.0		
N-PENTANE.....	0.0		0.1			0.0		
ISOPENTANE.....	0.0		0.1			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.2			0.0		
NITROGEN.....	0.6		1.1			2.2		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.4		1.3			0.1		
HELIUM.....	0.03		0.08			0.02		
HEATING VALUE.....	1000		1052			987		
SPECIFIC GRAVITY.....	0.575		0.612			0.566		
INDEX 1024 SAMPLE 13378			INDEX 1025 SAMPLE 15723			INDEX 1026 SAMPLE 17823		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MOFFAT			MOFFAT		
FIELD.....	BIG HOLE		BLUE GRAVEL			BLUE GRAVEL		
WELL NAME.....	GOVT. NO. 15-1		FED. NO. 1			SPETTER NO. 5-8		
LOCATION.....	SEC. 15, T10N, R94W		SEC. 23, T3N, R91W			SEC. 8, T8N, R90W		
OWNER.....	KEMMERER COAL CO.		& K PETROLEUM, INC.			UNION TEXAS PETROLEUM CORP.		
COMPLETED.....	12/15/71		01/24/75			07/21/83		
SAMPLED.....	09/09/72		08/07/79			08/29/85		
FORMATION.....	CRET-LEWIS		CRET-LEWIS			CRET-LEWIS		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	7760		3855			3642		
WELLHEAD PRESSURE, PSIG.....	2650		1480			500		
OPEN FLOW, MCFD.....	1000		3000			835		
COMPONENT, MOLE PCT								
METHANE.....	75.0		88.2			60.1		
ETHANE.....	9.7		2.0			3.5		
PROPANE.....	8.0		2.7			1.4		
N-BUTANE.....	2.8		0.7			0.4		
ISOBUTANE.....	2.3		0.5			0.3		
N-PENTANE.....	0.8		0.2			0.1		
ISOPENTANE.....	0.3		0.2			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.4		0.2			0.2		
NITROGEN.....	0.1		0.6			33.5		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.3			0.2		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1384		1146			751		
SPECIFIC GRAVITY.....	0.798		0.650			0.744		
INDEX 1027 SAMPLE 8677			INDEX 1028 SAMPLE 10015			INDEX 1029 SAMPLE 15695		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MOFFAT			MOFFAT		
FIELD.....	BUCK PEAK		BUCK PEAK			COTTONWOOD GULCH		
WELL NAME.....	VOLOSHIN NO. 1		VOLOSHIN NO. 2			FED. NO. A-1		
LOCATION.....	SEC. 25, T6N, R90W		SEC. 25, T6N, R90W			SEC. 25, T8N, R91W		
OWNER.....	HONDO OIL & GAS CO.		ATLANTIC REFINING CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	02/03/58		07/27/65			02/14/79		
SAMPLED.....	09/25/62		07/27/65			07/10/79		
FORMATION.....	CRET-MANCOS		CRET-MESAVERDE			CRET-LEWIS		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	6275		1805			3533		
WELLHEAD PRESSURE, PSIG.....	50		NOT GIVEN			1200		
OPEN FLOW, MCFD.....	220		NOT GIVEN			6700		
COMPONENT, MOLE PCT								
METHANE.....	79.0		95.0			89.9		
ETHANE.....	9.3		0.6			5.2		
PROPANE.....	5.8		0.1			1.6		
N-BUTANE.....	2.1		0.0			0.5		
ISOBUTANE.....	1.0		0.0			0.3		
N-PENTANE.....	0.5		0.0			0.2		
ISOPENTANE.....	0.7		0.0			0.2		
CYCLOPENTANE.....	0.1		0.0			0.1		
HEXANES PLUS.....	0.2		0.0			0.2		
NITROGEN.....	0.5		3.9			1.7		
OXYGEN.....	TRACE		0.1			0.1		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.1			0.2		
HELIUM.....	0.02		0.06			0.01		
HEATING VALUE.....	1286		1401			1101		
SPECIFIC GRAVITY.....	0.744		0.576			0.632		
INDEX 1030 SAMPLE 10700			INDEX 1031 SAMPLE 6860			INDEX 1032 SAMPLE 16280		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MOFFAT			MOFFAT		
FIELD.....	CRAIG DOME		CRAIG N			COTTON GULCH FEDERAL C NO. 1		
WELL NAME.....	CRAIG DOME NO. 1		FED. WINDER NO. 1			SEC. 35, T8N, R91W		
LOCATION.....	SEC. 9, T6N, R91W		SEC. 9, T8N, R90W			U.S. SMELTING, REFINING & MI		
OWNER.....	VAUGHN PETROLEUM, INC.		U.S. SMELTING, REFINING & MI			ANADARKO PRODUCTION CO.		
COMPLETED.....	06/16/66		10/23/56			06/09/81		
SAMPLED.....	06/24/66		10/02/58			06/09/81		
FORMATION.....	CRET-FRONTIER		CRET-LANCE BASAL			CRET-LEWIS		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	7466		2840			3540		
WELLHEAD PRESSURE, PSIG.....	2890		1198			1000		
OPEN FLOW, MCFD.....	1148		14			8430		
COMPONENT, MOLE PCT								
METHANE.....	91.6		91.3			93.5		
ETHANE.....	2.6		5.0			3.0		
PROPANE.....	0.8		1.5			1.0		
N-BUTANE.....	0.2		0.4			0.3		
ISOBUTANE.....	0.1		0.5			0.2		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.0		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	3.4		0.4			1.6		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.1			TRACE		
HELIUM.....	0.07		0.02			0.01		
HEATING VALUE.....	1028		1109			1057		
SPECIFIC GRAVITY.....	0.610		0.621			0.599		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1033 363	INDEX SAMPLE	1034 7381	INDEX SAMPLE	1035 15483
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	DEVIL HOLE			FOUR MILE CREEK		GREAT DIVIDE	
WELL NAME.....	OREGON NO. 1			UNIT NO. 2		BRUDDER NO. 1	
LOCATION.....	W. 08 N. 33 E. T12N, R91W			SEC. 33, T12N, R91W		SEC. 4, T19N, R93W	
OWNER.....	RICHMOND PETROLEUM CO.			PAN AMERICAN PETROLEUM CORP.		NORTHWEST EXPLORATION CO.	
COMPLETED.....	06/17/20			01/05/60		09/20/78	
SAMPLED.....	06/17/20			02/03/60		11/06/78	
FORMATION.....	CRET-HANCOS			CRET-LANCE BASAL		CRET-LEWIS	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	2380			3573		7525	
WELLHEAD PRESSURE, PSIG.....	NO. 20			1210		1658	
OPEN FLOW, MCFD.....	NOT GIVEN			11000		1600	
COMPONENT, MOLE PCT							
METHANE.....	86.5			98.6		68.6	
ETHANE.....	11.1			0.1		11.8	
PROpane.....	---			0.2		10.0	
N-BUTANE.....	---			TRACE		2.7	
ISOBUTANE.....	---			TRACE		2.7	
N-PENTANE.....	---			0.0		0.8	
ISOPENTANE.....	---			0.0		1.3	
CYCLOPENTANE.....	---			0.0		0.3	
HEXANES PLUS.....	---			0.0		0.8	
NITROGEN.....	1.9			0.8		0.4	
OXYGEN.....	0.2			TRACE		0.0	
ARGON.....	---			TRACE		0.0	
HYDROGEN.....	---			0.0		0.1	
HYDROGEN SULFIDE**.....	0.2			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.2		0.6	
HELIUM.....	1075			0.02		0.01	
HEATING VALUE.....	0.620			1005		1490	
SPECIFIC GRAVITY.....				0.562		0.868	
		INDEX SAMPLE	1036 1829	INDEX SAMPLE	1037 1893	INDEX SAMPLE	1038 2131
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	HIAWATHA			HIAWATHA		HIAWATHA	
WELL NAME.....	STATE-REITER-FOSTER NO. 1			BERLIN NO. 1		NO. 1	
LOCATION.....	SEC. 16, T12N, R99W			SEC. 19, T12N, R100W		SEC. 19, T12N, R100W	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.			TEXAS PRODUCTION CO.		TEXAS PRODUCTION CO.	
COMPLETED.....	05/25/29			07/13/29		07/01/30	
SAMPLED.....	08/04/29			11/13/29		09/17/30	
FORMATION.....	EOCE-FORT UNION			TERT-		EOCE-WASATCH	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	3550			1520		2002	
WELLHEAD PRESSURE, PSIG.....	1250			600		NOT GIVEN	
OPEN FLOW, MCFD.....	3145			36000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	77.8			86.7		65.8	
ETHANE.....	18.2			7.0		9.5	
PROpane.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	2.0			5.7		19.2	
OXYGEN.....	1.1			0.5		4.9	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.9			0.2		0.5	
HELIUM.....	0.02			0.03		0.00	
HEATING VALUE.....	1114			1004		837	
SPECIFIC GRAVITY.....	0.668			0.618		0.712	
		INDEX SAMPLE	1039 2132	INDEX SAMPLE	1040 5249	INDEX SAMPLE	1041 8794
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	HIAWATHA			HIAWATHA		HIAWATHA E	
WELL NAME.....	UNIT NO. 1			UNIT NO. 1		UNIT NO. 1	
LOCATION.....	SEC. 19, T12N, R100W			SEC. 14, T12N, R100W		SEC. 14, T12N, R100W	
OWNER.....	TEXAS PRODUCTION CO.			MOUNTAIN FUEL SUPPLY CO.		MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	07/01/30			02/27/52		02/27/52	
SAMPLED.....	09/17/30			06/17/52		11/28/53	
FORMATION.....	TERT-			EOCE-FORT UNION		EOCE-FORT UNION	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	2570			4885		4885	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1750		682	
OPEN FLOW, MCFD.....	3000			21000		11000	
COMPONENT, MOLE PCT							
METHANE.....	84.3			91.9		92.8	
ETHANE.....	13.7			2.7		3.0	
PROpane.....	---			0.0		1.1	
N-BUTANE.....	---			0.2		0.3	
ISOBUTANE.....	---			0.1		0.3	
N-PENTANE.....	---			0.1		TRACE	
ISOPENTANE.....	---			0.1		0.2	
CYCLOPENTANE.....	---			0.0		0.1	
HEXANES PLUS.....	---			0.1		0.1	
NITROGEN.....	1.6			0.1		0.3	
OXYGEN.....	0.1			0.1		TRACE	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			0.1		TRACE	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.3			1.5		1.7	
HELIUM.....	0.02			0.01		0.01	
HEATING VALUE.....	1135			1029		1060	
SPECIFIC GRAVITY.....	0.632			0.612		0.615	
		INDEX SAMPLE	1042 8797	INDEX SAMPLE	1043 16353	INDEX SAMPLE	1044 16765
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	HIAWATHA E			HIAWATHA E		HIAWATHA E	
WELL NAME.....	SEC. 14, T12N, R100W			SEC. 22, T12N, R100W		SEC. 22, T12N, R100W	
LOCATION.....	SEC. 14, T12N, R100W			SEC. 22, T12N, R100W		SEC. 22, T12N, R100W	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.			WEXPRO CO.		MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	05/19/48			04/08/80		09/20/82	
SAMPLED.....	11/28/52			10/14/81		02/04/83	
FORMATION.....	EOCE-WASATCH			JURA-NUGGET		JURA-NUGGET	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	3192			14376		14478	
WELLHEAD PRESSURE, PSIG.....	740			4200		5559	
OPEN FLOW, MCFD.....	3310			10935		2498	
COMPONENT, MOLE PCT							
METHANE.....	88.7			93.2		92.9	
ETHANE.....	5.5			0.4		0.2	
PROpane.....	2.5			0.2		TRACE	
N-BUTANE.....	0.6			0.0		0.0	
ISOBUTANE.....	0.8			0.0		TRACE	
N-PENTANE.....	0.2			0.0		TRACE	
ISOPENTANE.....	0.3			0.0		TRACE	
CYCLOPENTANE.....	TRACE			0.0		0.1	
HEXANES PLUS.....	0.1			0.0		0.1	
NITROGEN.....	0.7			1.0		1.0	
OXYGEN.....	0.0			0.1		0.1	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.1			0.0		0.3	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			5.3		5.1	
HELIUM.....	0.01			0.03		0.02	
HEATING VALUE.....	1135			1035		955	
SPECIFIC GRAVITY.....	0.544			0.616		0.611	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1045 SAMPLE 8795			INDEX 1046 SAMPLE 8796			INDEX 1047 SAMPLE 15330		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MOFFAT			MOFFAT		
FIELD.....	HIAWATHA W		HIAWATHA W			LITTLE BUCK MOUNTAIN		
WELL NAME.....	DYER E NO. 1		H. W. OBERNE NO. 1			VILLARD NO. 1		
LOCATION.....	SEC. 35, T12N, R101W		SEC. 24, T12N, R101W			SEC. 27, T10N, R90W		
OWNER.....	SKELLY OIL CO.		SKELLY OIL CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	01/20/59		08/12/57			02/22/78		
SAMPLED.....	11/28/62		11/28/62			07/25/78		
FORMATION.....	CRET-LANCE		CRET-LEWIS			CRET-LEWIS		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	4140		4665			4657		
WELLHEAD PRESSURE, PSIG.....	1400		1595			1100		
OPEN FLOW, MCFD.....	300		4730			2087		
COMPONENT, MOLE PCT								
METHANE.....	89.4		91.4			84.1		
ETHANE.....	5.5		3.9			4.9		
PROPANE.....	2.5		0.9			3.4		
N-BUTANE.....	0.6		0.1			0.9		
ISOBUTANE.....	0.5		0.1			1.0		
N-PENTANE.....	0.1		0.3			0.3		
ISOPENTANE.....	0.3		0.5			0.4		
CYCLOPENTANE.....	0.1		0.3			0.1		
HEXANES PLUS.....	0.1		1.0			0.3		
NITROGEN.....	0.3		0.2			4.3		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	TRACE		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.8			TRACE		
HELIUM.....	0.01		0.01			0.02		
HEATING VALUE.....	1132		1139			1141		
SPECIFIC GRAVITY.....	0.642		0.647			0.681		

INDEX 1048 SAMPLE 6794			INDEX 1049 SAMPLE 9015			INDEX 1050 SAMPLE 7057		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MOFFAT			MOFFAT		
FIELD.....	LITTLE SNAKE		MOFFAT			MUD SPRING		
WELL NAME.....	LISDOM GOVT. NO. 1		WICK NO. 13			KIRBY NO. 1		
LOCATION.....	SEC. 14, T12N, R95W		SEC. 10, T4N, R91W			SEC. 3, T11N, R91W		
OWNER.....	UNION OIL CO. OF CALIF.		TEXACO INC.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	04/04/58		--/00			11/13/58		
SAMPLED.....	08/13/58		06/07/63			05/01/59		
FORMATION.....	EOCE-WASATCH		NOT GIVEN			CRET-LANCE		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	4124		9482			3685		
WELLHEAD PRESSURE, PSIG.....	1500		NOT GIVEN			1475		
OPEN FLOW, MCFD.....	3700		NOT GIVEN			10000		
COMPONENT, MOLE PCT								
METHANE.....	93.2		0.1			98.4		
ETHANE.....	3.6		0.1			0.2		
PROPANE.....	1.1		TRACE			0.1		
N-BUTANE.....	0.4		TRACE			0.1		
ISOBUTANE.....	0.6		0.0			0.0		
N-PENTANE.....	TRACE		0.0			TRACE		
ISOPENTANE.....	0.3		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.1		
HEXANES PLUS.....	0.2		0.0			0.2		
NITROGEN.....	0.5		0.9			0.3		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.2			0.0		
CARBON DIOXIDE.....	0.1		98.4			0.5		
HELIUM.....	0.01		0.10			0.01		
HEATING VALUE.....	1094					1021		
SPECIFIC GRAVITY.....	0.612		1.515			0.570		

INDEX 1051 SAMPLE 10822			INDEX 1052 SAMPLE 3051			INDEX 1053 SAMPLE 5227		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MOFFAT			MOFFAT		
FIELD.....	POLE GULCH		POWDER WASH			POWDER WASH		
WELL NAME.....	POLE GULCH UNIT NO. 2		MUSSLER NO. 2			HAL W. STEWART NO. 1		
LOCATION.....	SEC. 16, T12N, R92W		SEC. 8, T11N, R97W			SEC. 32, T12N, R97W		
OWNER.....	DEVELOPMENT SERVICE CORP.		MOUNTAIN FUEL SUPPLY CO.			MOUNTAIN FUEL SUPPLY CO.		
COMPLETED.....	06/01/65		02/--/71			04/--/52		
SAMPLED.....	12/04/66		11/27/81			06/17/52		
FORMATION.....	CRET-LEWIS		EOCE-WASATCH			EOCE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	4640		2161			6312		
WELLHEAD PRESSURE, PSIG.....	1800		625			2020		
OPEN FLOW, MCFD.....	1000		9000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	78.6		97.3			84.2		
ETHANE.....	6.5		0.1			6.8		
PROPANE.....	7.7		--			4.2		
N-BUTANE.....	1.3		--			1.4		
ISOBUTANE.....	2.0		--			0.2		
N-PENTANE.....	0.5		--			0.3		
ISOPENTANE.....	0.8		--			0.6		
CYCLOPENTANE.....	NOT		--			0.1		
HEXANES PLUS.....	0.6		--			0.2		
NITROGEN.....	1.4		1.8			0.7		
OXYGEN.....	0.2		0.4			TRACE		
ARGON.....	TRACE		--			TRACE		
HYDROGEN.....	0.0		--			TRACE		
HYDROGEN SULFIDE.....	0.0		--			--		
CARBON DIOXIDE.....	0.1		0.4			0.3		
HELIUM.....	0.02		TRACE			0.01		
HEATING VALUE.....	1321		987			1224		
SPECIFIC GRAVITY.....	0.767		0.568			0.700		

INDEX 1054 SAMPLE 13478			INDEX 1055 SAMPLE 16483			INDEX 1056 SAMPLE 5838		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MOFFAT			MOFFAT		
FIELD.....	POWDER WASH		POWDER WASH			SHELL CREEK		
WELL NAME.....	INDEXED STATE NO. 1		MOUNTAIN FUEL FED. NO. 1-12			GOVT. NO. 1		
LOCATION.....	SEC. 16, T12N, R97W		SEC. 12, T11N, R98W			SEC. 1, T11N, R100W		
OWNER.....	KENNETH O. LUFF		IMPERIAL OIL CO.			MOUNTAIN FUEL SUPPLY CO.		
COMPLETED.....	--/00		01/04/82			03/09/55		
SAMPLED.....	11/28/72		04/07/82			05/11/55		
FORMATION.....	NOT GIVEN		EOCE-FORT UNION			EOCE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	NOT GIVEN		6824			5349		
WELLHEAD PRESSURE, PSIG.....	1225		2100			1845		
OPEN FLOW, MCFD.....	1500		1800			7		
COMPONENT, MOLE PCT								
METHANE.....	81.6		91.3			84.6		
ETHANE.....	9.0		4.3			8.1		
PROPANE.....	5.8		1.9			3.3		
N-BUTANE.....	1.1		0.6			0.8		
ISOBUTANE.....	0.9		0.2			1.1		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	TRACE		0.1			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	TRACE		0.2			0.2		
NITROGEN.....	0.8		0.7			1.0		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.0			0.3		
HELIUM.....	0.01		0.01			0.02		
HEATING VALUE.....	1214		1112			1192		
SPECIFIC GRAVITY.....	0.697		0.625			0.682		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

97

		INDEX SAMPLE	1057 16211	INDEX SAMPLE	1058 5595	INDEX SAMPLE	1059 12144
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	SHELL CREEK			SUGAR LOAF		SUGAR LOAF	
WELL NAME.....	SHELL CREEK NO. 2			SUGAR LOAF GOV'T. NO. 1		GOV'T. NO. 12	
LOCATION.....	SEC. 27, T12N, R99W			SEC. 9, T11N, R101W		SEC. 10, T11N, R101W	
OWNER.....	CHAMPLIN PETROLEUM CO.			MOUNTAIN FUEL SUPPLY CO.		MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	01/6/53			01/6/53		03/25/69	
SAMPLED.....	03/18/81			02/13/54		12/12/69	
FORMATION.....	JURA-NUGGET			CRET-MESAVERDE		Eocene-FORT UNION & CRET- MSVD	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	17411			5145		4886	
WELLHEAD PRESSURE, PSIG.....	5300			1800		1525	
OPEN FLOW, MCFD.....	11000			2800		5800	
COMPONENT, MOLE PCT							
METHANE.....	96.0			88.1		93.4	
ETHANE.....	0.1			6.3		2.5	
PROPANE.....	TRACE			2.5		0.8	
N-BUTANE.....	0.0			0.5		0.3	
ISOBUTANE.....	0.0			0.6		0.3	
N-PENTANE.....	0.0			0.2		0.1	
ISOPENTANE.....	0.0			0.2		0.2	
CYCLOPENTANE.....	0.0			TRACE		0.2	
HEXANES PLUS.....	0.0			0.2		0.4	
NITROGEN.....	0.7			0.3		1.3	
OXYGEN.....	0.1			TRACE		0.1	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	3.1			1.1		0.3	
HELIUM.....	0.02			0.01		0.02	
HEATING VALUE.....	974			1135		1073	
SPECIFIC GRAVITY.....	0.589			0.652		0.611	
		INDEX SAMPLE	1060 1035	INDEX SAMPLE	1061 1361	INDEX SAMPLE	1062 2733
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	THORNBERG			THORNBERG		THORNBERG	
WELL NAME.....	HYMORE NO. 1			NO. 1		HENDERSON NO. 1	
LOCATION.....	SEC. 16, T3N, R91W			SEC. 16, T3N, R91W		SEC. 16, T3N, R91W	
OWNER.....	MARLAND OIL CO.			MARLAND OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	--/7-00			--/7-00		--/7-00	
SAMPLED.....	04/28/25			03/08/27		09/25/36	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		JURA-NUGGET	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	2050			1983		2550	
WELLHEAD PRESSURE, PSIG.....	800			725		900	
OPEN FLOW, MCFD.....	45000			23000		2571	
COMPONENT, MOLE PCT							
METHANE.....	96.5			93.1		99.5	
ETHANE.....	1.7			2.7		0.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.5			1.3		0.0	
OXYGEN.....	0.4			0.6		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	1.0			2.3		0.2	
HELIUM.....	TRACE			0.00		0.00	
HEATING VALUE.....	1008			991		1008	
SPECIFIC GRAVITY.....	0.577			0.599		0.558	
		INDEX SAMPLE	1063 5069	INDEX SAMPLE	1064 8715	INDEX SAMPLE	1065 8717
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	THORNBERG			THORNBERG		THORNBERG	
WELL NAME.....	LEWIN NO. 1			HENDERSON NO. 1		THORNBERG NO. 1	
LOCATION.....	SEC. 17, T3N, R91W			SEC. 16, T3N, R91W		SEC. 17, T3N, R91W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	03/17/51			02/16/27		03/10/51	
SAMPLED.....	06/11/51			10/15/62		10/15/62	
FORMATION.....	PENN-WEBER			JURA-SUNDANCE		PENN-WEBER	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	4005			2605		4005	
WELLHEAD PRESSURE, PSIG.....	1800			1200		1575	
OPEN FLOW, MCFD.....	12800			2400		11800	
COMPONENT, MOLE PCT							
METHANE.....	93.4			94.9		92.5	
ETHANE.....	0.2			0.1		0.1	
PROPANE.....	0.2			0.1		0.1	
N-BUTANE.....	0.1			0.1		0.1	
ISOBUTANE.....	0.2			TRACE		0.1	
N-PENTANE.....	0.1			TRACE		TRACE	
ISOPENTANE.....	0.0			0.1		0.1	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		TRACE	
NITROGEN.....	0.6			0.4		0.3	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	4.9			4.0		6.7	
HELIUM.....	TRACE			TRACE		0.01	
HEATING VALUE.....	980			979		953	
SPECIFIC GRAVITY.....	0.622			0.601		0.627	
		INDEX SAMPLE	1066 13604	INDEX SAMPLE	1067 11610	INDEX SAMPLE	1068 8808
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MOFFAT			MOFFAT		MOFFAT	
FIELD.....	THORNBERG			UNNAMED		WILLIAMS FORK	
WELL NAME.....	THORNBERG NO. 19			COLORADO FED. C NO. 1		GOV'T. HELMKE NO. 2	
LOCATION.....	SEC. 17, T3N, R91W			SEC. 22, T10N, R94W		SEC. 18, T5N, R91W	
OWNER.....	0. RESOURCES DEV. CO.			WELLY OIL CO.		YEXACO INC.	
COMPLETED.....	07/27/72			02/24/68		--/7-00	
SAMPLED.....	05/23/73			07/31/68		12/14/62	
FORMATION.....	TRIA-SHINARUMP			CRET-LEWIS		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	3340			7536		5365	
WELLHEAD PRESSURE, PSIG.....	1065			2325		NOT GIVEN	
OPEN FLOW, MCFD.....	3700			1100		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	82.4			86.9		87.3	
ETHANE.....	0.1			0.1		5.7	
PROPANE.....	0.1			3.3		1.5	
N-BUTANE.....	0.1			0.9		0.3	
ISOBUTANE.....	0.1			0.5		1.0	
N-PENTANE.....	TRACE			1.1		TRACE	
ISOPENTANE.....	TRACE			0.3		0.8	
CYCLOPENTANE.....	TRACE			0.1		0.9	
HEXANES PLUS.....	0.1			0.2		0.9	
NITROGEN.....	12.8			0.7		1.3	
OXYGEN.....	3.2			0.0		TRACE	
ARGON.....	0.1			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.9		0.2	
HELIUM.....	TRACE			0.01		0.05	
HEATING VALUE.....	851			1166		1184	
SPECIFIC GRAVITY.....	0.641			0.662		0.678	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1069			INDEX 1070			INDEX 1071		
SAMPLE 8832			SAMPLE 9253			SAMPLE 9586		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MOFFAT			MOFFAT		
FIELD.....	WILLIAMS FORK		WILLIAMS FORK			WILLIAMS FORK		
WELL NAME.....	WYNN NO. 1		WYNN NO. 1			WYNN NO. 1		
LOCATION.....	SEC. 18, T5N, R91W		SEC. 17, T5N, R91W			SEC. 17, T5N, R91W		
OWNER.....	TEXACO INC.		TEXACO INC.			TEXACO INC.		
COMPLETED.....	--/700		--/700			07/01/64		
SAMPLED.....	12/16/52		03/06/64			09/17/64		
FORMATION.....	PENN-WEBER		CRET-FRONTIER			JURA-MORRISON		
GEOLOGIC PROVINCE CODE.....	535		5514			535		
DEPTH, FEET.....	7834		NOT GIVEN			6830		
WELLHEAD PRESSURE, PSIG.....	3005		NOT GIVEN			2210		
OPEN FLOW, MCFD.....	17		NOT GIVEN			2000		
COMPONENT, MOLE PCT.....								
METHANE.....	53.9		87.6			86.8		
ETHANE.....	15.5		6.2			4.0		
PROPANE.....	10.2		2.5			1.4		
N-BUTANE.....	3.4		0.4			0.4		
ISOBUTANE.....	3.5		0.5			0.3		
N-PENTANE.....	1.0		0.1			0.1		
ISOPENTANE.....	1.0		0.5			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.8		0.1			0.1		
NITROGEN.....	10.0		1.5			6.4		
OXYGEN.....	0.2		0.0			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.13		0.05			0.14		
HEATING VALUE.....	1451		1133			1028		
SPECIFIC GRAVITY.....	0.940		0.650			0.635		

INDEX 1072			INDEX 1073			INDEX 1074		
SAMPLE 7241			SAMPLE 8800			SAMPLE 10969		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MOFFAT		MONTEZUMA			MONTEZUMA		
FIELD.....	WINTER VALLEY		FLOODINE PARK			GOODMAN POINT		
WELL NAME.....	GOVT. 7-2		OHIO GOVT. NO. 3			BRINKERHOFF FED. NO. 1		
LOCATION.....	SEC. 7, T4N, R93W		SEC. 15, T35N, R20W			SEC. 6, T36N, R18W		
OWNER.....	CONTINENTAL OIL CO.		MARATHON OIL CO.			BRINKERHOFF DRILLING CO.		
COMPLETED.....	09/10/59		08/--/61			05/26/67		
SAMPLED.....	09/19/59		11/20/62			05/23/67		
FORMATION.....	CRET-DAKOTA		PENN-PARADOX			PENN-		
GEOLOGIC PROVINCE CODE.....	535		585			585		
DEPTH, FEET.....	5500		5702			5289		
WELLHEAD PRESSURE, PSIG.....	1900		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	39000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	93.1		74.6			78.6		
ETHANE.....	3.3		12.6			10.8		
PROPANE.....	0.3		6.2			4.1		
N-BUTANE.....	0.1		2.0			1.1		
ISOBUTANE.....	0.1		0.9			0.8		
N-PENTANE.....	0.0		0.5			0.3		
ISOPENTANE.....	0.6		0.5			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.2		
HEXANES PLUS.....	0.1		0.2			0.5		
NITROGEN.....	1.7		2.0			3.0		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.5			0.1		
HELIUM.....	0.10		0.05			0.05		
HEATING VALUE.....	1047		1297			1220		
SPECIFIC GRAVITY.....	0.602		0.763			0.718		

INDEX 1075			INDEX 1076			INDEX 1077		
SAMPLE 6550			SAMPLE 2094			SAMPLE 2216		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MONTEZUMA		MONTEZUMA			MONTEZUMA		
FIELD.....	HOVENWEP		MANCOS DIVIDE			MANCOS DIVIDE		
WELL NAME.....	HATHAWAY-BIG HORN USC NO. 3		HALLER NO. 1			HALLER NO. 1		
LOCATION.....	SEC. 11, T37N, R20W		SEC. 29, T36N, R14W			SEC. 29, T36N, R14W		
OWNER.....	BIG HORN-POWDER RIVER CORP.		F. C. HALLER			F. C. HALLER		
COMPLETED.....	--/700		07/01/60			07/02/60		
SAMPLED.....	03/29/58		08/21/50			10/08/50		
FORMATION.....	PENN-PARADOX		NOT GIVEN			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	5467		702			700		
WELLHEAD PRESSURE, PSIG.....	3429		NOT GIVEN			40		
OPEN FLOW, MCFD.....	578		160			160		
COMPONENT, MOLE PCT.....								
METHANE.....	70.8		91.8			98.5		
ETHANE.....	16.5		2.8			0.7		
PROPANE.....	7.9		---			---		
N-BUTANE.....	2.1		---			---		
ISOBUTANE.....	1.1		---			---		
N-PENTANE.....	0.4		---			---		
ISOPENTANE.....	0.5		---			---		
CYCLOPENTANE.....	0.1		---			---		
HEXANES PLUS.....	0.4		---			---		
NITROGEN.....	0.0		4.1			0.2		
OXYGEN.....	TRACE		0.7			0.0		
ARGON.....	0.0		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		0.7			0.6		
HELIUM.....	0.02		0.00			0.01		
HEATING VALUE.....	1488		1010			1010		
SPECIFIC GRAVITY.....	0.793		0.596			0.565		

INDEX 1078			INDEX 1079			INDEX 1080		
SAMPLE 4492			SAMPLE 4865			SAMPLE 3855		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MONTEZUMA		MONTEZUMA			MONTEZUMA		
FIELD.....	MCCLMO		MCCLMO			MCCLMO CANYON		
WELL NAME.....	SCHMIDT NO. 1		SCHMIDT NO. 1			SCHMIDT NO. 1		
LOCATION.....	SEC. 24, T36N, R18W		SEC. 24, T36N, R18W			SEC. 24, T36N, R18W		
OWNER.....	BYRD-FROST, INC.		BYRD-FROST, INC.			STANOLIND OIL & GAS CO.		
COMPLETED.....	--/700		08/28/48			--/700		
SAMPLED.....	05/27/48		03/25/50			07/07/44		
FORMATION.....	MISS-DEVO		TRIA-SHINARUMP			PENN-HERMOSA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	6745		1515			4755		
WELLHEAD PRESSURE, PSIG.....	750		600			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		500			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	0.3		57.9			64.1		
ETHANE.....	0.8		5.0			31.0		
PROPANE.....	---		1.6			---		
N-BUTANE.....	---		0.4			---		
ISOBUTANE.....	---		0.6			---		
N-PENTANE.....	---		0.2			---		
ISOPENTANE.....	---		0.0			---		
CYCLOPENTANE.....	---		0.1			---		
HEXANES PLUS.....	---		0.4			---		
NITROGEN.....	15.4		32.2			3.9		
OXYGEN.....	1.0		0.1			0.5		
ARGON.....	---		0.1			---		
HYDROGEN.....	---		TRACE			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	81.9		0.4			0.5		
HELIUM.....	0.55		1.12			TRACE		
HEATING VALUE.....	1171		781			1205		
SPECIFIC GRAVITY.....	1.423		0.760			0.732		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1081 5754	INDEX SAMPLE	1082 5755	INDEX SAMPLE	1083 5756
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MONTEZUMA			MONTEZUMA		MONTEZUMA	
FIELD.....	MCELMO DOME UNIT			MCELMO DOME UNIT		MCELMO DOME UNIT	
WELL NAME.....	J. A. FULKS NO. 1			J. A. FULKS NO. 1		J. A. FULKS NO. 1	
LOCATION.....	SEC. 27, T37N, R17W			SEC. 27, T37N, R17W		SEC. 27, T37N, R17W	
OWNER.....	GULF OIL CORP.			GULF OIL CORP.		GULF OIL CORP.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	01/02/55			12/31/54		01/07/55	
FORMATION.....	MISS-LEADVILLE			MISS-LEADVILLE		MISS-LEADVILLE	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	7768			7690		7797	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	1300			6520		72	
COMPONENT, MOLE PCT							
METHANE.....	0.1			0.1		0.1	
ETHANE.....	0.1			0.1		0.1	
PROPANE.....	0.0			0.0		0.0	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	1.9			2.1		1.8	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	97.7			97.5		97.8	
HELIUM.....	0.10			0.10		0.09	
HEATING VALUE.....	3			3		3	
SPECIFIC GRAVITY.....	1.515			1.514		1.514	
		INDEX SAMPLE	1084 5779	INDEX SAMPLE	1085 9387	INDEX SAMPLE	1086 10204
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MONTEZUMA			MONTEZUMA		MONTEZUMA	
FIELD.....	MCELMO DOME UNIT			MCELMO DOME UNIT		MCELMO DOME UNIT	
WELL NAME.....	J. A. FULKS NO. 1			DEAN DUDLEY NO. 2		DUDLEY NO. 2	
LOCATION.....	SEC. 17, T37N, R17W			SEC. 13, T36N, R18W		SEC. 13, T36N, R18W	
OWNER.....	GULF OIL CORP.			DEAN DUDLEY OIL CORP.		TENNECO OIL CO.	
COMPLETED.....	--/--/00			03/07/64		03/07/64	
SAMPLED.....	02/08/55			06/04/64		10/12/65	
FORMATION.....	MISS-LEADVILLE			MISS-LEADVILLE		MISS-LEADVILLE D	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8364			6608		6940	
WELLHEAD PRESSURE, PSIG.....	2570			NOT GIVEN		815	
OPEN FLOW, MCFD.....	627			5120		6000	
COMPONENT, MOLE PCT							
METHANE.....	0.2			0.2		0.3	
ETHANE.....	0.0			0.0		0.0	
PROPANE.....	0.0			0.0		0.0	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	2.1			3.2		3.3	
OXYGEN.....	0.1			0.0		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	97.5			96.0		96.0	
HELIUM.....	0.10			0.10		0.28	
HEATING VALUE.....	2			7		3	
SPECIFIC GRAVITY.....	1.513			1.506		1.503	
		INDEX SAMPLE	1087 15123	INDEX SAMPLE	1088 15126	INDEX SAMPLE	1089 15744
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MONTEZUMA			MONTEZUMA		MONTEZUMA	
FIELD.....	MCELMO DOME UNIT			MCELMO DOME UNIT		MCELMO DOME UNIT	
WELL NAME.....	HOVENWEEP FED. NO. 1			HOVENWEEP FED. NO. 1		MOQUI UNIT NO. 2	
LOCATION.....	SEC. 19, T38N, R18W			SEC. 19, T38N, R18W		SEC. 12, T37N, R19W	
OWNER.....	MOBIL OIL CORP.			MOBIL RESEARCH & DEVELOPMENT		MOBIL OIL CORP.	
COMPLETED.....	--/--/00			--/--/00		04/18/79	
SAMPLED.....	09/25/77			10/14/77		08/27/79	
FORMATION.....	MISS-LEADVILLE			MISS-LEADVILLE		MISS-LEADVILLE	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8357			8284		8000	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			290		685	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		300000	
COMPONENT, MOLE PCT							
METHANE.....	0.2			0.2		0.2	
ETHANE.....	TRACE			0.1		TRACE	
PROPANE.....	0.0			TRACE		TRACE	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	1.2			1.0		1.7	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	98.5			98.6		97.9	
HELIUM.....	0.09			0.08		0.09	
HEATING VALUE.....	2			4		2	
SPECIFIC GRAVITY.....	1.519			1.520		1.515	
		INDEX SAMPLE	1090 4638	INDEX SAMPLE	1091 8722	INDEX SAMPLE	1092 17343
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	MONTEZUMA			MONTEZUMA		MONTEZUMA	
FIELD.....	NOT GIVEN			TOWAC		WILCOAT	
WELL NAME.....	DRISKILL NO. 1			UTE MOUNTAIN TRIBE NO. 1		MARY AKIN UNIT NO. 2	
LOCATION.....	SEC. 3, T38, R19W			SEC. 21, T33N, R20W		SEC. 27, T38N, R14W	
OWNER.....	WESTERN NATURAL GAS CO., ET			TEXACO INC.		ARCO OIL & GAS CO.	
COMPLETED.....	--/--/00			02/25/59		07/12/83	
SAMPLED.....	12/02/48			10/23/62		06/28/84	
FORMATION.....	PENN-NOT GIVEN			PENN-HERMOSA		PENN-DESERT CREEK	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5910			5850		4756	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		268	
OPEN FLOW, MCFD.....	10000			NOT GIVEN		2500	
COMPONENT, MOLE PCT							
METHANE.....	66.3			56.4		88.3	
ETHANE.....	32.2			18.8		7.2	
PROPANE.....	---			12.9		0.6	
N-BUTANE.....	---			4.7		0.3	
ISOBUTANE.....	---			2.2		0.4	
N-PENTANE.....	---			1.0		0.2	
ISOPENTANE.....	---			0.3		0.2	
CYCLOPENTANE.....	---			0.2		0.1	
HEXANES PLUS.....	---			0.5		0.5	
NITROGEN.....	0.8			1.7		1.2	
OXYGEN.....	0.5			TRACE		TRACE	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			0.1		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		TRACE	
HELIUM.....	0.02			0.02		TRACE	
HEATING VALUE.....	1243			1203		1126	
SPECIFIC GRAVITY.....	0.722			0.949		0.638	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1093			INDEX 1094			INDEX 1095		
SAMPLE 6571			SAMPLE 1806			SAMPLE 9087		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MONTROSE		MONTROSE			MONTROSE		
FIELD.....	MONTROSE DOME		PARADOX ANTICLINE			WILCOX		
WELL NAME.....	KIRBY GOVT. NO. 1		WILCOX NO. 1 - ABANDONED			PURE OIL CO. NO. 3		
LOCATION.....	SEC. 4, T45N, R16W		SEC. 35, T48N, R19W			SEC. 6, T46N, R19W		
OWNER.....	KIRBY PETROLEUM CO.		GENERAL PETROLEUM CORP.			PURE OIL CO.		
COMPLETED.....	01/12/58		---/---/00			---/---/00		
SAMPLED.....	04/23/58		07/06/29			09/23/63		
FORMATION.....	PERM-RICO		NOT GIVEN			PENN-HERMOSA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			8166		
WELLHEAD PRESSURE, PSIG.....	133		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	75		NOT GIVEN			228		
COMPONENT, MOLE PCT								
METHANE.....	85.2		81.5			83.9		
ETHANE.....	2.8		16.8			7.9		
PROPANE.....	0.2		---			2.0		
N-BUTANE.....	0.1		---			0.5		
ISOBUTANE.....	TRACE		---			0.6		
N-PENTANE.....	TRACE		---			0.1		
ISOPENTANE.....	TRACE		---			0.2		
CYCLOPENTANE.....	TRACE		---			TRACE		
HEXANES PLUS.....	0.1		---			0.5		
NITROGEN.....	11.2		0.9			4.5		
OXYGEN.....	TRACE		0.2			TRACE		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	TRACE		0.1			TRACE		
HELIUM.....	0.9		0.03			0.0		
HEATING VALUE.....	927		1127			1109		
SPECIFIC GRAVITY.....	0.618		0.641			0.662		
INDEX 1096			INDEX 1097			INDEX 1098		
SAMPLE 7719			SAMPLE 11179			SAMPLE 8894		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MONTROSE		MORGAN			MORGAN		
FIELD.....	WRAT MESA		ADENA			BIJOU S		
WELL NAME.....	WRAT MESA NO. 1		CRONE NO. 3			REID NO. 1		
LOCATION.....	SEC. 21, T47N, R19W		SEC. 13, T1N, R58W			SEC. 20, T4N, R59W		
OWNER.....	SHELL OIL CO.		MONSANTO CO.			MONSANTO CHEMICAL CO.		
COMPLETED.....	---/---/00		---/---/00			04/24/62		
SAMPLED.....	09/23/60		10/20/67			03/19/63		
FORMATION.....	PERM-CUTLER		CRET-DAKOTA D			CRET-DAKOTA D		
GEOLOGIC PROVINCE CODE.....	585		540			540		
DEPTH, FEET.....	4650		5685			6056		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		150			1431		
OPEN FLOW, MCFD.....	1500		NOT GIVEN			3100		
COMPONENT, MOLE PCT								
METHANE.....	32.1		74.9			81.0		
ETHANE.....	0.9		6.5			8.2		
PROPANE.....	0.2		5.9			5.0		
N-BUTANE.....	0.2		2.7			1.6		
ISOBUTANE.....	0.1		0.8			0.6		
N-PENTANE.....	0.1		0.4			0.2		
ISOPENTANE.....	TRACE		1.1			0.5		
CYCLOPENTANE.....	TRACE		0.2			0.1		
HEXANES PLUS.....	0.2		0.4			0.1		
NITROGEN.....	63.9		5.1			1.1		
OXYGEN.....	0.8		0.3			0.0		
ARGON.....	0.2		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.9			1.5		
HELIUM.....	1.50		0.07			0.04		
HEATING VALUE.....	371		1228			1210		
SPECIFIC GRAVITY.....	0.838		0.772			0.715		
INDEX 1099			INDEX 1100			INDEX 1101		
SAMPLE 5887			SAMPLE 8736			SAMPLE 16595		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	BRUSH S		MORGAN			MORGAN		
FIELD.....	TOMKY NO. 84-20		FORT MORGAN			HAPPY DOG		
WELL NAME.....	SEC. 20, T2N, R55W		FORT MORGAN UNIT NO. 1			STATE OZ		
LOCATION.....	SEC. 20, T2N, R55W		SEC. 19, T3N, R57W			SEC. 12, T5N, R59W		
OWNER.....	SUPERIOR OIL CO.		NATURAL GAS PRODUCERS, INC.			REGAL PETROLEUM, LTD.		
COMPLETED.....	06/10/55		05/20/54			06/12/81		
SAMPLED.....	07/29/55		10/23/62			07/---/82		
FORMATION.....	CRET-DAKOTA D		CRET-DAKOTA D			CRET-D SAND		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	4948		5610			6270		
WELLHEAD PRESSURE, PSIG.....	1050		791			600		
OPEN FLOW, MCFD.....	NOT GIVEN		4900			2083		
COMPONENT, MOLE PCT								
METHANE.....	56.7		80.0			74.1		
ETHANE.....	14.6		8.4			9.5		
PROPANE.....	4.5		1.8			7.5		
N-BUTANE.....	1.9		0.7			2.5		
ISOBUTANE.....	0.6		0.7			0.9		
N-PENTANE.....	0.3		0.3			0.6		
ISOPENTANE.....	0.5		0.1			0.7		
CYCLOPENTANE.....	0.9		0.1			0.3		
HEXANES PLUS.....	1.9		1.8			0.4		
NITROGEN.....	TRACE		TRACE			1.7		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.7			1.7		
HELIUM.....	0.05		0.05			0.04		
HEATING VALUE.....	1634		1227			1318		
SPECIFIC GRAVITY.....	0.976		0.720			0.792		
INDEX 1102			INDEX 1103			INDEX 1104		
SAMPLE 7313			SAMPLE 4918			SAMPLE 13176		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	MORGAN		MORGAN			MORGAN		
FIELD.....	LANE		LEE			NOT GIVEN		
WELL NAME.....	EISENACH NO. 1		GOUT SMITH NO. 1			STARK NO. 1		
LOCATION.....	SEC. 21, T3N, R58W		SEC. 1, T2N, R57W			SEC. 11, T3N, R58W		
OWNER.....	DUNN BOREING		J. M. HUBER CORP.			MOUNTAIN PETROLEUM, LTD.		
COMPLETED.....	06/16/59		---/---/00			12/17/71		
SAMPLED.....	12/15/59		09/01/50			03/30/72		
FORMATION.....	CRET-DAKOTA D		CRET-DAKOTA D			CRET-DAKOTA D		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	5681		5536			5652		
WELLHEAD PRESSURE, PSIG.....	1350		NOT GIVEN			960		
OPEN FLOW, MCFD.....	1310		NOT GIVEN			1700		
COMPONENT, MOLE PCT								
METHANE.....	80.8		81.3			76.6		
ETHANE.....	8.1		7.5			8.8		
PROPANE.....	0.6		0.7			6.0		
N-BUTANE.....	1.6		0.5			2.1		
ISOBUTANE.....	0.4		0.3			0.6		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.1		0.1			0.3		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.4			TRACE		
NITROGEN.....	1.5		0.1			5.8		
OXYGEN.....	TRACE		1.2			0.5		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.1		---			TRACE		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.8		0.6			1.0		
HELIUM.....	0.05		0.05			0.04		
HEATING VALUE.....	1209		1209			1202		
SPECIFIC GRAVITY.....	0.709		0.677			0.736		

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1105 SAMPLE 11970		INDEX 1106 SAMPLE 13624		INDEX 1107 SAMPLE 8404	
STATE.....	COLORADO	STATE.....	COLORADO	STATE.....	COLORADO
COUNTY.....	MORGAN	COUNTY.....	MORGAN	COUNTY.....	MORGAN
FIELD.....	PARK	FIELD.....	RENEGADE	FIELD.....	RIVERSIDE
WELL NAME.....	CASPER NO. 1	WELL NAME.....	DILL NO. 1	WELL NAME.....	QUIRK-PEALE NO. 1
LOCATION.....	SEC. 19, T1N, R58W	LOCATION.....	SEC. 14, T3N, R58W	LOCATION.....	SEC. 20, T5N, R61W
OWNER.....	STATES OIL CO.	OWNER.....	MOUNTAIN PETROLEUM, LTD.	OWNER.....	PLAINS EXPLORATION CO.
COMPLETED.....	--/--/00	COMPLETED.....	10/18/72	COMPLETED.....	01/29/62
SAMPLED.....	07/10/69	SAMPLED.....	06/05/73	SAMPLED.....	02/08/62
FORMATION.....	CRET-DAKOTA D	FORMATION.....	CRET-DAKOTA D	FORMATION.....	CRET-GRANEROS J
GEOLOGIC PROVINCE CODE.....	540	GEOLOGIC PROVINCE CODE.....	540	GEOLOGIC PROVINCE CODE.....	540
DEPTH, FEET.....	6000	DEPTH, FEET.....	5625	DEPTH, FEET.....	6701
WELLHEAD PRESSURE, PSIG.....	640	WELLHEAD PRESSURE, PSIG.....	1218	WELLHEAD PRESSURE, PSIG.....	1572
OPEN FLOW, MCFD.....	1500	OPEN FLOW, MCFD.....	4400	OPEN FLOW, MCFD.....	3910
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.9	METHANE.....	73.1	METHANE.....	86.1
ETHANE.....	5.4	ETHANE.....	7.7	ETHANE.....	8.1
PROpane.....	7.7	PROpane.....	6.6	PROpane.....	1.5
N-BUTANE.....	2.5	N-BUTANE.....	2.6	N-BUTANE.....	0.2
ISOBUTANE.....	0.9	ISOBUTANE.....	0.1	ISOBUTANE.....	0.2
N-PENTANE.....	0.6	N-PENTANE.....	0.7	N-PENTANE.....	TRACE
ISOPENTANE.....	0.5	ISOPENTANE.....	1.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.5	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.8	HEXANES PLUS.....	TRACE
NITROGEN.....	5.1	NITROGEN.....	4.3	NITROGEN.....	0.7
OXYGEN.....	0.1	OXYGEN.....	0.4	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	2.9
HELIUM.....	0.08	HELIUM.....	0.04	HELIUM.....	0.11
HEATING VALUE.....	1252	HEATING VALUE.....	1315	HEATING VALUE.....	1074
SPECIFIC GRAVITY.....	0.771	SPECIFIC GRAVITY.....	0.809	SPECIFIC GRAVITY.....	0.648
INDEX 1108 SAMPLE 11142		INDEX 1109 SAMPLE 17804		INDEX 1110 SAMPLE 5714	
STATE.....	COLORADO	STATE.....	COLORADO	STATE.....	COLORADO
COUNTY.....	MORGAN	COUNTY.....	MORGAN	COUNTY.....	MORGAN
FIELD.....	ROUNDUP	FIELD.....	TOOTSIE	FIELD.....	VALLERY
WELL NAME.....	JAMES O. LAYNE NO. 1	WELL NAME.....	LUNDLOCK NO. 1	WELL NAME.....	COLORADO STATE NO. 1
LOCATION.....	SEC. 27, T2N, R60W	LOCATION.....	SEC. 14, T3N, R57W	LOCATION.....	SEC. 16, T3N, R59W
OWNER.....	PAN AMERICAN PETROLEUM CORP.	OWNER.....	SKARL ENTERPRISES, INC.	OWNER.....	STANOLIND OIL & GAS CO.
COMPLETED.....	08/06/67	COMPLETED.....	08/19/83	COMPLETED.....	08/14/54
SAMPLED.....	09/27/67	SAMPLED.....	08/02/85	SAMPLED.....	09/16/54
FORMATION.....	CRET-MUDDY J	FORMATION.....	CRET-DAKOTA J	FORMATION.....	CRET-MUDDY U
GEOLOGIC PROVINCE CODE.....	540	GEOLOGIC PROVINCE CODE.....	540	GEOLOGIC PROVINCE CODE.....	540
DEPTH, FEET.....	6426	DEPTH, FEET.....	5420	DEPTH, FEET.....	5971
WELLHEAD PRESSURE, PSIG.....	1495	WELLHEAD PRESSURE, PSIG.....	1150	WELLHEAD PRESSURE, PSIG.....	1360
OPEN FLOW, MCFD.....	5621	OPEN FLOW, MCFD.....	3190	OPEN FLOW, MCFD.....	2600
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	79.9	METHANE.....	81.9	METHANE.....	72.7
ETHANE.....	7.1	ETHANE.....	3.1	ETHANE.....	9.9
PROpane.....	4.3	PROpane.....	4.4	PROpane.....	3.5
N-BUTANE.....	1.2	N-BUTANE.....	1.0	N-BUTANE.....	3.2
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	1.3
N-PENTANE.....	0.3	N-PENTANE.....	0.7	N-PENTANE.....	0.6
ISOPENTANE.....	0.4	ISOPENTANE.....	0.5	ISOPENTANE.....	1.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.6
NITROGEN.....	5.0	NITROGEN.....	1.9	NITROGEN.....	1.4
OXYGEN.....	0.2	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	1.1
HELIUM.....	0.08	HELIUM.....	0.04	HELIUM.....	0.01
HEATING VALUE.....	1150	HEATING VALUE.....	1199	HEATING VALUE.....	1384
SPECIFIC GRAVITY.....	0.705	SPECIFIC GRAVITY.....	0.702	SPECIFIC GRAVITY.....	0.820
INDEX 1111 SAMPLE 5996		INDEX 1112 SAMPLE 7232		INDEX 1113 SAMPLE 8307	
STATE.....	COLORADO	STATE.....	COLORADO	STATE.....	COLORADO
COUNTY.....	MORGAN	COUNTY.....	MORGAN	COUNTY.....	MORGAN
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	BAR NO. 1	WELL NAME.....	HALLIS NO. 1	WELL NAME.....	PRICE STATE NO. 1
LOCATION.....	SEC. 7, T1N, R56W	LOCATION.....	SEC. 34, T4N, R59W	LOCATION.....	SEC. 18, T4N, R53W
OWNER.....	MONSANTO CHEMICAL CO.	OWNER.....	SKELLY OIL CO.	OWNER.....	KIMBARK EXPLORATION CO.
COMPLETED.....	08/21/55	COMPLETED.....	07/31/59	COMPLETED.....	09/21/61
SAMPLED.....	12/12/55	SAMPLED.....	10/03/59	SAMPLED.....	11/28/61
FORMATION.....	CRET-DAKOTA J	FORMATION.....	CRET-DAKOTA	FORMATION.....	CRET-DAKOTA D
GEOLOGIC PROVINCE CODE.....	540	GEOLOGIC PROVINCE CODE.....	540	GEOLOGIC PROVINCE CODE.....	540
DEPTH, FEET.....	5313	DEPTH, FEET.....	5954	DEPTH, FEET.....	6120
WELLHEAD PRESSURE, PSIG.....	1150	WELLHEAD PRESSURE, PSIG.....	1410	WELLHEAD PRESSURE, PSIG.....	810
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	4380	OPEN FLOW, MCFD.....	450
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	88.2	METHANE.....	78.6	METHANE.....	76.3
ETHANE.....	5.8	ETHANE.....	8.2	ETHANE.....	8.5
PROpane.....	0.4	PROpane.....	4.0	PROpane.....	5.6
N-BUTANE.....	0.1	N-BUTANE.....	0.1	N-BUTANE.....	2.6
ISOBUTANE.....	0.5	ISOBUTANE.....	1.2	ISOBUTANE.....	1.1
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.4
ISOPENTANE.....	0.4	ISOPENTANE.....	0.2	ISOPENTANE.....	0.7
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	3.3	NITROGEN.....	2.6	NITROGEN.....	1.4
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.2	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	1.9	CARBON DIOXIDE.....	2.0
HELIUM.....	0.04	HELIUM.....	0.03	HELIUM.....	0.03
HEATING VALUE.....	1060	HEATING VALUE.....	1015	HEATING VALUE.....	1292
SPECIFIC GRAVITY.....	0.630	SPECIFIC GRAVITY.....	0.742	SPECIFIC GRAVITY.....	0.777
INDEX 1114 SAMPLE 13581		INDEX 1115 SAMPLE 5951		INDEX 1116 SAMPLE 10327	
STATE.....	COLORADO	STATE.....	COLORADO	STATE.....	COLORADO
COUNTY.....	MORGAN	COUNTY.....	PHILLIPS	COUNTY.....	PITKIN
FIELD.....	WILDCAT	FIELD.....	HAXTUN	FIELD.....	WOLF CREEK
WELL NAME.....	LARRICK ET AL. NO. 1	WELL NAME.....	EARL W. SCOTT NO. 1	WELL NAME.....	WOLF CREEK NO. 3
LOCATION.....	SEC. 32, T4N, R59W	LOCATION.....	SEC. 31, T3N, R47W	LOCATION.....	SEC. 34, T8S, R90W
OWNER.....	FERGUSON OIL CO., INC.	OWNER.....	STANOLIND OIL & GAS CO.	OWNER.....	SUNRAY OX OIL CO.
COMPLETED.....	10/20/72	COMPLETED.....	05/17/55	COMPLETED.....	09/17/65
SAMPLED.....	04/07/73	SAMPLED.....	10/17/55	SAMPLED.....	12/09/65
FORMATION.....	CRET-DAKOTA J	FORMATION.....	CRET-MUDDY	FORMATION.....	CRET-MESAVERDE
GEOLOGIC PROVINCE CODE.....	540	GEOLOGIC PROVINCE CODE.....	540	GEOLOGIC PROVINCE CODE.....	555
DEPTH, FEET.....	6114	DEPTH, FEET.....	3972	DEPTH, FEET.....	4550
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	670	WELLHEAD PRESSURE, PSIG.....	1250
OPEN FLOW, MCFD.....	3502	OPEN FLOW, MCFD.....	506	OPEN FLOW, MCFD.....	1050
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	83.8	METHANE.....	93.8	METHANE.....	86.1
ETHANE.....	8.9	ETHANE.....	1.9	ETHANE.....	0.7
PROpane.....	2.8	PROpane.....	TRACE	PROpane.....	2.2
N-BUTANE.....	0.6	N-BUTANE.....	TRACE	N-BUTANE.....	0.2
ISOBUTANE.....	0.5	ISOBUTANE.....	0.1	ISOBUTANE.....	TRACE
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	1.1	NITROGEN.....	3.7	NITROGEN.....	0.0
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.7	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	10.4
HELIUM.....	0.03	HELIUM.....	0.05	HELIUM.....	0.05
HEATING VALUE.....	1145	HEATING VALUE.....	988	HEATING VALUE.....	958
SPECIFIC GRAVITY.....	0.67	SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.689

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1117 10834	INDEX SAMPLE	1118 10121	INDEX SAMPLE	1119 16890
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	P27KIN			PROWERS		PROWERS	
FIELD.....	WOLF CREEK			BARREL SPRINGS		BERRY PATCH	
WELL NAME.....	WOLF CREEK NO. 5			DUNCAN NO. 1		KENDALL NO. 2-32	
LOCATION.....	SEC. 12, T9S, R90W			SEC. 28, T25S, R45W		SEC. 32, T22S, R45W	
OWNER.....	SUNRAY OX OIL CO.			TOM BROWN DRILLING CO.		BIG FOUR PETROLEUM CO.	
COMPLETED.....	08/26/66			--/--/00		06/10/82	
SAMPLED.....	01/09/67			09/16/65		04/23/83	
FORMATION.....	CRT--COZZETTE			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	555			360		360	
DEPTH, FEET.....	5002			4825		4650	
WELLHEAD PRESSURE, PSIG.....	1200			1135		1010	
OPEN FLOW, MCFD.....	4000			5694		1450	
COMPONENT, MOLE PCT							
METHANE.....	91.4			52.2		62.5	
ETHANE.....	1.0			7.5		10.7	
PROPANE.....	0.3			0.5		5.6	
N-BUTANE.....	TRACE			1.4		1.4	
ISOBUTANE.....	0.1			0.7		0.5	
N-PENTANE.....	TRACE			0.4		10.2	
ISOPENTANE.....	TRACE			0.3		0.5	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	0.9			30.6		17.0	
OXYGEN.....	0.2			0.0		TRACE	
ARGON.....	TRACE			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	5.5			0.1		0.5	
HELIUM.....	0.04			0.31		0.77	
HEATING VALUE.....	960			921		1070	
SPECIFIC GRAVITY.....	0.628			0.823		0.780	
		INDEX SAMPLE	1120 7955	INDEX SAMPLE	1121 14591	INDEX SAMPLE	1122 16403
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	PROWERS			PROWERS		PROWERS	
FIELD.....	BETA			BETA		CLYDE	
WELL NAME.....	KEKENS NO. 1			TOLE R NO. 1		SCHMIDT NO. 1-15X	
LOCATION.....	SEC. 5, T23S, R47W			SEC. 32, T22S, R47W		SEC. 15, T22S, R45W	
OWNER.....	FRANKFORT OIL CO.			TEXAS OIL & GAS CORP.		MURFIN DRILLING CO.	
COMPLETED.....	07/13/61			07/13/75		10/24/80	
SAMPLED.....	05/08/61			02/26/76		12/16/81	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4558			4528		4711	
WELLHEAD PRESSURE, PSIG.....	937			970		860	
OPEN FLOW, MCFD.....	375			2000		6000	
COMPONENT, MOLE PCT							
METHANE.....	71.6			71.7		63.7	
ETHANE.....	9.8			9.9		12.2	
PROPANE.....	0.5			0.8		6.2	
N-BUTANE.....	0.6			0.8		1.6	
ISOBUTANE.....	0.7			0.5		0.6	
N-PENTANE.....	0.1			0.1		0.3	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	12.0			11.6		14.3	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	TRACE			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.9		0.2	
HELIUM.....	0.20			0.23		0.70	
HEATING VALUE.....	1049			1071		1128	
SPECIFIC GRAVITY.....	0.718			0.728		0.782	
		INDEX SAMPLE	1123 16876	INDEX SAMPLE	1124 5396	INDEX SAMPLE	1125 6415
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	PROWERS			PROWERS		PROWERS	
FIELD.....	CLYDE			NOT GIVEN		WATER WELL	
WELL NAME.....	CLARK NO. 1-15			JONES NO. 1		LAMSON FARM	
LOCATION.....	SEC. 15, T22S, R45W			SEC. 14, T23S, R46W		SEC. 35, T21S, R47W	
OWNER.....	MARLIN OIL CO.			LOTUS OIL CO.		LAMSON FARM	
COMPLETED.....	01/28/81			02/13/53		--/--/47	
SAMPLED.....	04/11/83			02/13/53		10/10/57	
FORMATION.....	PENN-MORROW			NOT GIVEN		CRET-DENTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4694			4019		283	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			650		75	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	60.1			66.4		43.8	
ETHANE.....	14.7			8.2		0.2	
PROPANE.....	7.8			4.1		0.0	
N-BUTANE.....	2.0			0.3		TRACE	
ISOBUTANE.....	0.6			0.3		0.3	
N-PENTANE.....	0.3			0.3		0.0	
ISOPENTANE.....	0.6			0.2		0.0	
CYCLOPENTANE.....	TRACE			0.2		TRACE	
HEXANES PLUS.....	0.1			0.5		0.1	
NITROGEN.....	12.3			18.4		54.3	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.1			TRACE		0.7	
HYDROGEN.....	0.2			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.0		1.0	
HELIUM.....	0.55			0.43		0.02	
HEATING VALUE.....	1206			1013		452	
SPECIFIC GRAVITY.....	0.820			0.751		0.798	
		INDEX SAMPLE	1126 6416	INDEX SAMPLE	1127 5392	INDEX SAMPLE	1128 6913
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	PROWERS			PROWERS		PROWERS	
FIELD.....	WATER WELL			WILDCAT		WILDCAT	
WELL NAME.....	SCHNEIDER FARM			JONES NO. 1		BAILEY NO. 1	
LOCATION.....	SEC. 30, T21S, R47W			SEC. 14, T23S, R46W		SEC. 27, T25S, R45W	
OWNER.....	SCHNEIDER FARM			LOTUS OIL CO.		EXCELSIOR OIL CORP., ET AL.	
COMPLETED.....	--/--/47			02/09/53		11/19/58	
SAMPLED.....	10/10/57			02/11/53		12/13/58	
FORMATION.....	NOT GIVEN			NOT GIVEN		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	200			4019		4910	
WELLHEAD PRESSURE, PSIG.....	15			650		910	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		6200	
COMPONENT, MOLE PCT							
METHANE.....	68.8			66.5		49.8	
ETHANE.....	9.2			9.2		7.2	
PROPANE.....	0.0			4.0		5.0	
N-BUTANE.....	0.0			1.0		1.2	
ISOBUTANE.....	0.0			0.4		0.7	
N-PENTANE.....	0.0			0.3		0.2	
ISOPENTANE.....	0.0			0.1		0.2	
CYCLOPENTANE.....	0.0			TRACE		TRACE	
HEXANES PLUS.....	0.0			17.6		33.2	
NITROGEN.....	28.5			TRACE		1.1	
OXYGEN.....	1.8			TRACE		0.2	
ARGON.....	0.4			0.0		TRACE	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			TRACE		0.3	
HELIUM.....	0.23			0.0		0.80	
HEATING VALUE.....	701			1024		849	
SPECIFIC GRAVITY.....	0.689			0.747		0.822	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

103

		INDEX SAMPLE	1129 7024	INDEX SAMPLE	1130 6888	INDEX SAMPLE	1131 15957
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	PUEBLO			RIO BLANCO		RIO BLANCO	
FIELD.....	WILCOIT			BAXTER PASS		BAXTER PASS	
WELL NAME.....	PRICE LEASE NO. 1			GOVT. SLOANE NO. 1		GOVT. SLOANE NO. 2	
LOCATION.....	SEC. 15, T21S, R68W			SEC. 27, T4S, R103W		SEC. 27, T4S, R103W	
OWNER.....	J. M. AWANGLER, ET AL.			ARCO OIL CORP.		ARCO OIL & GAS CO.	
COMPLETED.....	--/--/00			--/--/00		07/03/77	
SAMPLED.....	04/14/59			12/02/58		04/27/80	
FORMATION.....	NOT GIVEN			CRET-DAKOTA & JURA-MORRISON		CRET-DAKOTA & JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	540			595		595	
DEPTH, FEET.....	491			6000		6820	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1611		1050	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		142	
COMPONENT, MOLE PCT							
METHANE.....	95.7			74.2		74.9	
ETHANE.....	0.1			3.4		4.3	
PROpane.....	0.1			1.6		1.8	
N-BUTANE.....	0.0			0.4		0.6	
ISOBUTANE.....	0.0			0.3		0.5	
N-PENTANE.....	0.0			0.1		0.2	
ISOPENTANE.....	0.0			0.1		0.3	
CYCLOPENTANE.....	0.0			0.1		0.1	
HEXANES PLUS.....	0.0			0.2		0.3	
NITROGEN.....	3.0			16.0		14.9	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.1		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			2.7		1.1	
HELIUM.....	0.10			0.0		0.77	
HEATING VALUE.....	974			901		960	
SPECIFIC GRAVITY.....	0.574			0.698		0.698	

		INDEX SAMPLE	1132 17392	INDEX SAMPLE	1133 17311	INDEX SAMPLE	1134 15868
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	BLUE CLOUD			BLUE CLOUD-THUNDER		CAITHEDRAL	
WELL NAME.....	EVALUATION CREEK NO. 32-1			KIRBY-TIDSON NO. 28-4		FCD. 0-31	
LOCATION.....	SEC. 32, T4S, R102W			SEC. 28, T4S, R102W		SEC. 31, T3S, R101W	
OWNER.....	TENNECO OIL CO.			WALTER S. FEES, JR.		FUEL RESOURCES DEV. CO.	
COMPLETED.....	11/06/82			08/16/82		--/--/00	
SAMPLED.....	08/28/84			06/01/84		12/10/79	
FORMATION.....	CRET-MANCOS			CRET-MANCOS B		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	3749			3363		5698	
WELLHEAD PRESSURE, PSIG.....	275			350		1355	
OPEN FLOW, MCFD.....	200			800		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	80.6			73.8		57.8	
ETHANE.....	6.7			6.7		2.8	
PROpane.....	5.3			5.1		1.0	
N-BUTANE.....	1.7			1.5		0.3	
ISOBUTANE.....	0.9			0.9		0.3	
N-PENTANE.....	0.3			0.4		0.1	
ISOPENTANE.....	0.5			0.4		0.1	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.2			0.3		0.2	
NITROGEN.....	2.9			3.7		34.0	
OXYGEN.....	0.0			0.1		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.8		2.9	
HELIUM.....	0.17			0.20		0.38	
HEATING VALUE.....	1210			1195		704	
SPECIFIC GRAVITY.....	0.715			0.725		0.766	

		INDEX SAMPLE	1135 3649	INDEX SAMPLE	1136 17317	INDEX SAMPLE	1137 8705
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	DOUGLAS CREEK			DOUGLAS CREEK		DOUGLAS CREEK S	
WELL NAME.....	UNIT NO. 1			DOUGLAS CREEK NO. 8		GOVT. STRAT NO. 1	
LOCATION.....	SEC. 3, T3S, R101W			SEC. 36, T2S, R102W		SEC. 1, T4S, R102W	
OWNER.....	SUPERIOR OIL CO.			CONOCO, INC.		CITIES SERVICE OIL CO.	
COMPLETED.....	07/01/43			--/--/00		10/22/62	
SAMPLED.....	06/12/43			06/06/84		10/--/62	
FORMATION.....	JURA-MORRISON			CRET-MANCOS B		CRET-MORAPOS	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	4800			NOT GIVEN		1169	
WELLHEAD PRESSURE, PSIG.....	350			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	63.2			84.1		81.1	
ETHANE.....	16.4			6.8		5.3	
PROpane.....	--			3.0		3.1	
N-BUTANE.....	--			0.8		1.0	
ISOBUTANE.....	--			0.6		0.6	
N-PENTANE.....	--			0.2		0.2	
ISOPENTANE.....	--			0.2		0.3	
CYCLOPENTANE.....	--			0.1		TRACE	
HEXANES PLUS.....	--			0.2		0.1	
NITROGEN.....	11.2			3.2		7.6	
OXYGEN.....	0.3			0.6		0.1	
ARGON.....	--			TRACE		TRACE	
HYDROGEN.....	--			0.0		TRACE	
HYDROGEN SULFIDE**.....	--			0.0		0.0	
CARBON DIOXIDE.....	8.2			0.6		0.3	
HELIUM.....	0.70			0.15		0.34	
HEATING VALUE.....	934			1130		1077	
SPECIFIC GRAVITY.....	0.760			0.673		0.682	

		INDEX SAMPLE	1138 9551	INDEX SAMPLE	1139 9552	INDEX SAMPLE	1140 9742
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	DOUGLAS CREEK S			DOUGLAS CREEK S		DOUGLAS CREEK S	
WELL NAME.....	DOUGLAS CREEK UNIT NO. 6			S. DOUGLAS CREEK UNIT NO. 6		UNIT NO. 7	
LOCATION.....	SEC. 1, T4S, R102W			SEC. 1, T4S, R102W		SEC. 1, T4S, R101W	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	--/--/00			--/--/00		02/05/65	
SAMPLED.....	08/21/64			08/18/64		02/08/65	
FORMATION.....	CRET-BUCKHORN			JURA-MORRISON C		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	5158			5340		5776	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1150	
OPEN FLOW, MCFD.....	4250			2500		400	
COMPONENT, MOLE PCT							
METHANE.....	57.7			56.9		61.9	
ETHANE.....	2.8			2.8		2.6	
PROpane.....	1.5			1.5		1.2	
N-BUTANE.....	0.4			0.4		0.3	
ISOBUTANE.....	0.1			0.1		0.1	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.1			TRACE		0.1	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	16.6			18.3		13.8	
OXYGEN.....	0.1			TRACE		0.1	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	19.6			18.9		18.9	
HELIUM.....	0.75			0.80		0.70	
HEATING VALUE.....	709			705		732	
SPECIFIC GRAVITY.....	0.858			0.856		0.831	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1141 9751	INDEX SAMPLE	1142 14679	INDEX SAMPLE	1143 15698
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	DOUGLAS CREEK S			FOUNDATION CREEK		FOUNDATION CREEK	
WELL NAME.....	UNIT NO. 7			STEEL NO. 1-35		TAIGA FED. NO. 1-36	
LOCATION.....	SEC. 6, T2S, R101W			SEC. 35, T4S, R102W		SEC. 36, T4S, R102W	
OWNER.....	CITIES SERVICE OIL CO.			SWEET PEAK OIL & GAS CO.		COSEKA RESOURCES (USA), LTD.	
COMPLETED.....	-/-/00			09/13/73		08/04/75	
SAMPLED.....	12/06/64			05/13/76		05/14/79	
FORMATION.....	CRET-BUCKHORN			CRET-CEDAR MOUNTAIN		CRET-MANCOS B	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	5887			6161		3254	
WELLHEAD PRESSURE, PSIG.....	1540			1630		NOT GIVEN	
OPEN FLOW, MCFD.....	108			890		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	61.1	---	---	49.2	---	80.4	---
ETHANE.....	2.5	---	---	1.9	---	7.5	---
PROpane.....	1.2	---	---	0.6	---	6.3	---
N-BUTANE.....	0.2	---	---	0.3	---	1.9	---
ISOBUTANE.....	0.2	---	---	0.1	---	1.0	---
N-PENTANE.....	TRACE	---	---	0.1	---	0.4	---
ISOPENTANE.....	0.1	---	---	0.1	---	0.5	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	0.1	---
HEXANES PLUS.....	TRACE	---	---	0.1	---	0.2	---
NITROGEN.....	12.5	---	---	9.4	---	1.4	---
OXYGEN.....	0.0	---	---	TRACE	---	TRACE	---
ARGON.....	0.1	---	---	0.1	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	21.4	---	---	37.5	---	0.3	---
HELIUM.....	0.70	---	---	0.49	---	0.4	---
HEATING VALUE.....	713	---	---	575	---	1263	---
SPECIFIC GRAVITY.....	0.845	---	---	0.985	---	0.732	---
		INDEX SAMPLE	1144 7659	INDEX SAMPLE	1145 7665	INDEX SAMPLE	1146 7724
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	GREATER DOUGLAS CREEK ARCH			GREATER DOUGLAS CREEK ARCH		GREATER DOUGLAS CREEK ARCH	
WELL NAME.....	DRAGON TRAIL NO. 1			CATHEDRAL NO. 1-A		DOUGLAS CREEK W NO. 18-3	
LOCATION.....	SEC. 16, T2S, R102W			SEC. 20, T3S, R100W		SEC. 18, T2S, R102W	
OWNER.....	GULF OIL CORP.			UTEX EXPLORATION CO.		BEARDMORE DRILLING CO., ET A	
COMPLETED.....	05/13/60			05/13/60		06/16/60	
SAMPLED.....	08/08/60			09/06/60		10/13/60	
FORMATION.....	CRET-MANCOS B			CRET-MANCOS B		CRET-MANCOS B	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	2568			3500		2630	
WELLHEAD PRESSURE, PSIG.....	425			700		468	
OPEN FLOW, MCFD.....	1180			1912		2150	
COMPONENT, MOLE PCT							
METHANE.....	87.7	---	---	90.0	---	87.3	---
ETHANE.....	5.4	---	---	5.7	---	6.4	---
PROpane.....	2.7	---	---	2.1	---	3.0	---
N-BUTANE.....	0.6	---	---	0.6	---	0.8	---
ISOBUTANE.....	0.6	---	---	0.3	---	0.7	---
N-PENTANE.....	TRACE	---	---	0.1	---	0.1	---
ISOPENTANE.....	0.2	---	---	0.1	---	0.0	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	TRACE	---	---	0.1	---	0.1	---
NITROGEN.....	2.5	---	---	0.3	---	1.4	---
OXYGEN.....	TRACE	---	---	TRACE	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.5	---	TRACE	---
HELIUM.....	0.20	---	---	0.01	---	0.10	---
HEATING VALUE.....	1104	---	---	1117	---	1137	---
SPECIFIC GRAVITY.....	0.641	---	---	0.631	---	0.648	---
		INDEX SAMPLE	1147 8261	INDEX SAMPLE	1148 8707	INDEX SAMPLE	1149 9543
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	GREATER DOUGLAS CREEK ARCH			GREATER DOUGLAS CREEK ARCH		GREATER DOUGLAS CREEK ARCH	
WELL NAME.....	DRAGON TRAIL NO. 8			LOWER HORSE DRAW NO. 4		BOVY NO. 1-8	
LOCATION.....	SEC. 35, T2S, R102W			SEC. 22, T2S, R103W		SEC. 29, T2S, R101W	
OWNER.....	CONTINENTAL OIL CO.			ALAMO CORP.		CITIES SERVICE OIL CO.	
COMPLETED.....	08/18/61			09/29/60		05/14/62	
SAMPLED.....	01/26/70			10/17/62		09/16/64	
FORMATION.....	CRET-MANCOS B			CRET-MANCOS B		CRET-MANCOS B	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	2020			2722		1850	
WELLHEAD PRESSURE, PSIG.....	17761			476		411	
OPEN FLOW, MCFD.....	NOT GIVEN			3520		175	
COMPONENT, MOLE PCT							
METHANE.....	87.5	---	---	86.8	---	91.6	---
ETHANE.....	6.0	---	---	7.2	---	3.5	---
PROpane.....	2.3	---	---	3.0	---	1.7	---
N-BUTANE.....	0.6	---	---	0.6	---	0.3	---
ISOBUTANE.....	0.5	---	---	0.6	---	0.3	---
N-PENTANE.....	0.1	---	---	0.1	---	0.1	---
ISOPENTANE.....	0.2	---	---	0.2	---	0.2	---
CYCLOPENTANE.....	0.1	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	0.2	---	---	TRACE	---	0.1	---
NITROGEN.....	2.0	---	---	0.9	---	1.8	---
OXYGEN.....	TRACE	---	---	TRACE	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.1	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.1	---	0.0	---
CARBON DIOXIDE.....	0.3	---	---	0.1	---	0.1	---
HELIUM.....	0.11	---	---	0.04	---	0.11	---
HEATING VALUE.....	1117	---	---	1151	---	1080	---
SPECIFIC GRAVITY.....	0.647	---	---	0.653	---	0.617	---
		INDEX SAMPLE	1150 12178	INDEX SAMPLE	1151 16961	INDEX SAMPLE	1152 17006
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	GREATER DOUGLAS CREEK ARCH			GREATER DOUGLAS CREEK ARCH		GREATER DOUGLAS CREEK ARCH	
WELL NAME.....	DOUGLAS CREEK W NO. 8			FORK UNIT NO. 12-22-1-2		PHIL. CREEK FED. NO. 35	
LOCATION.....	SEC. 19, T2S, R102W			SEC. 2, T1S, R102W		SEC. 1, T2S, R101W	
OWNER.....	CONTINENTAL OIL CO.			CHANDLER ASSOCIATES, INC.		NORTHWEST EXPLORATION CO.	
COMPLETED.....	08/07/69			06/01/83		01/24/83	
SAMPLED.....	01/26/70			06/01/83		08/-/83	
FORMATION.....	CRET-MANCOS B			CRET-MANCOS B		CRET-MANCOS B	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	2263			2564		3242	
WELLHEAD PRESSURE, PSIG.....	1394			208		526	
OPEN FLOW, MCFD.....	1089			491		560	
COMPONENT, MOLE PCT							
METHANE.....	86.1	---	---	81.7	---	91.1	---
ETHANE.....	6.4	---	---	7.7	---	3.2	---
PROpane.....	3.3	---	---	4.4	---	1.8	---
N-BUTANE.....	0.8	---	---	1.6	---	0.9	---
ISOBUTANE.....	0.4	---	---	0.3	---	0.3	---
N-PENTANE.....	0.1	---	---	0.3	---	0.2	---
ISOPENTANE.....	0.4	---	---	0.8	---	0.5	---
CYCLOPENTANE.....	TRACE	---	---	0.2	---	0.1	---
HEXANES PLUS.....	0.1	---	---	0.6	---	0.1	---
NITROGEN.....	1.8	---	---	1.0	---	0.6	---
OXYGEN.....	0.1	---	---	TRACE	---	0.1	---
ARGON.....	0.0	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.1	---	---	0.2	---	0.2	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	TRACE	---	---	0.0	---	0.8	---
HELIUM.....	0.09	---	---	0.06	---	0.01	---
HEATING VALUE.....	1146	---	---	1231	---	1107	---
SPECIFIC GRAVITY.....	0.659	---	---	0.717	---	0.634	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

105

		INDEX SAMPLE 1153 17028	INDEX SAMPLE 1154 17205	INDEX SAMPLE 1155 17318
STATE.....	COLORADO			
COUNTY.....	RIO BLANCO			
FIELD.....	GREATER DOUGLAS CREEK ARCH			
WELL NAME.....	SHAMROCK FED. NO. 1-5			
LOCATION.....	SEC. 21, T3S, R100W			
OWNER.....	SOUTHLAND ROYALTY CO.			
COMPLETED.....	06/03/82			
SAMPLED.....	08/25/83			
FORMATION.....	CRET-MANCOS B			
GEOLOGIC PROVINCE CODE.....	595			
DEPTH, FEET.....	3900			
WELLHEAD PRESSURE, PSIG.....	327			
OPEN FLOW, MCFD.....	529			
COMPONENT, MOLE PCT				
METHANE.....	88.1	85.1	86.0	
ETHANE.....	4.5	7.1	6.2	
PROPANE.....	2.0	3.2	3.2	
N-BUTANE.....	0.7	1.1	0.8	
ISOBUTANE.....	0.3	0.5	0.6	
N-PENTANE.....	0.1	0.2	0.2	
ISOPENTANE.....	0.5	0.5	0.2	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.2	0.3	0.2	
NITROGEN.....	0.3	0.6	2.2	
OXYGEN.....	TRACE	0.1	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.3	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.9	0.1	0.1	
HELIUM.....	0.01	0.02	0.14	
HEATING VALUE.....	1099	1175	1144	
SPECIFIC GRAVITY.....	0.658	0.682	0.662	
		INDEX SAMPLE 1156 6793	INDEX SAMPLE 1157 13350	INDEX SAMPLE 1158 13353
STATE.....	COLORADO			
COUNTY.....	RIO BLANCO			
FIELD.....	NOT GIVEN			
WELL NAME.....	MANNEL NO. 1			
LOCATION.....	SEC. 27, T1N, R95W			
OWNER.....	PHILLIPS PETROLEUM CO.			
COMPLETED.....	10/22/57			
SAMPLED.....	08/13/58			
FORMATION.....	EOCE-FORT UNION			
GEOLOGIC PROVINCE CODE.....	595			
DEPTH, FEET.....	4043			
WELLHEAD PRESSURE, PSIG.....	1412			
OPEN FLOW, MCFD.....	7800			
COMPONENT, MOLE PCT				
METHANE.....	92.2	97.6	94.2	
ETHANE.....	5.0	1.0	2.8	
PROPANE.....	0.5	0.1	0.6	
N-BUTANE.....	0.4	0.0	0.1	
ISOBUTANE.....	0.4	0.0	0.3	
N-PENTANE.....	TRACE	0.0	TRACE	
ISOPENTANE.....	0.3	0.0	0.0	
CYCLOPENTANE.....	0.2	0.0	TRACE	
HEXANES PLUS.....	0.3	0.0	TRACE	
NITROGEN.....	0.4	1.2	1.8	
OXYGEN.....	TRACE	0.0	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	
HELIUM.....	TRACE	0.01	0.01	
HEATING VALUE.....	1099	1033	1033	
SPECIFIC GRAVITY.....	0.615	0.566	0.588	
		INDEX SAMPLE 1159 1864	INDEX SAMPLE 1160 8687	INDEX SAMPLE 1161 8746
STATE.....	COLORADO			
COUNTY.....	RIO BLANCO			
FIELD.....	PIEANCE CREEK			
WELL NAME.....	NO. 1			
LOCATION.....	SEC. 9, T2S, R96W			
OWNER.....	WHITE EAGLE OIL CO.			
COMPLETED.....	05/17/00			
SAMPLED.....	09/18/23			
FORMATION.....	EOCE-GREEN RIVER			
GEOLOGIC PROVINCE CODE.....	595			
DEPTH, FEET.....	2661			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			
OPEN FLOW, MCFD.....	2000			
COMPONENT, MOLE PCT				
METHANE.....	90.3	92.3	92.0	
ETHANE.....	3.2	0.5	3.7	
PROPANE.....	---	0.4	1.5	
N-BUTANE.....	---	0.2	0.6	
ISOBUTANE.....	---	0.1	0.4	
N-PENTANE.....	---	TRACE	0.2	
ISOPENTANE.....	---	0.0	0.3	
CYCLOPENTANE.....	---	TRACE	0.1	
HEXANES PLUS.....	---	TRACE	0.3	
NITROGEN.....	1.5	0.7	0.5	
OXYGEN.....	1.0	TRACE	TRACE	
ARGON.....	---	0.0	0.0	
HYDROGEN.....	---	TRACE	0.1	
HYDROGEN SULFIDE**.....	---	0.0	0.0	
CARBON DIOXIDE.....	4.1	5.5	0.3	
HELIUM.....	0.04	0.02	0.02	
HEATING VALUE.....	972	973	1112	
SPECIFIC GRAVITY.....	0.623	0.625	0.626	
		INDEX SAMPLE 1162 8747	INDEX SAMPLE 1163 8751	INDEX SAMPLE 1164 8752
STATE.....	COLORADO			
COUNTY.....	RIO BLANCO			
FIELD.....	PIEANCE CREEK			
WELL NAME.....	SULPHUR CREEK NO. 5			
LOCATION.....	SEC. 19, T2S, R97W			
OWNER.....	EQUITY OIL CO.			
COMPLETED.....	--/--/00			
SAMPLED.....	11/04/62			
FORMATION.....	CRET-MESAVERDE			
GEOLOGIC PROVINCE CODE.....	595			
DEPTH, FEET.....	8724			
WELLHEAD PRESSURE, PSIG.....	2900			
OPEN FLOW, MCFD.....	NOT GIVEN			
COMPONENT, MOLE PCT				
METHANE.....	82.2	90.8	85.9	
ETHANE.....	2.9	0.5	7.6	
PROPANE.....	0.7	0.4	2.8	
N-BUTANE.....	0.8	0.3	0.5	
ISOBUTANE.....	0.3	0.0	0.5	
N-PENTANE.....	0.3	TRACE	0.1	
ISOPENTANE.....	0.2	0.2	0.2	
CYCLOPENTANE.....	0.1	0.1	TRACE	
HEXANES PLUS.....	0.5	0.1	0.1	
NITROGEN.....	0.1	0.8	0.2	
OXYGEN.....	TRACE	0.0	TRACE	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.1	0.1	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	1.8	
HELIUM.....	TRACE	0.01	0.01	
HEATING VALUE.....	1155	974	1131	
SPECIFIC GRAVITY.....	0.709	0.644	0.660	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1165 SAMPLE 8753			INDEX 1166 SAMPLE 8758			INDEX 1167 SAMPLE 10946		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	PICEANCE CREEK		PICEANCE CREEK			PICEANCE CREEK		
WELL NAME.....	SEANASO DRAW NO. 1		SHANNON NO. 1			T2S-196		
LOCATION.....	SEC. 22, T3S, R97W		SEC. 13, T4S, R98W			SEC. 19, T2S, R96W		
OWNER.....	EQUITY OIL CO.		EQUITY OIL CO.			MOBIL OIL CORP.		
COMPLETED.....	-7-/00		-7-/00			-7-/00		
SAMPLED.....	11/04/52		11/04/52			04/18/67		
FORMATION.....	CRET-MESAVERDE		EOCE-FORT UNION			CRET-MESAVERDE		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	9524		5660			9423		
WELLHEAD PRESSURE, PSIG.....	3800		1325			3829		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			749		
COMPONENT, MOLE PCT								
METHANE.....	83.6		33.4			89.9		
ETHANE.....	8.6		4.0			6.8		
PROPANE.....	3.0		0.1			1.6		
N-BUTANE.....	0.6		0.2			0.3		
ISOBUTANE.....	0.9		0.2			0.4		
N-PENTANE.....	0.2		TRACE			0.1		
ISOPENTANE.....	0.3		0.2			TRACE		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	0.0		0.3			0.0		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.3		0.3			0.7		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1170		1080			1107		
SPECIFIC GRAVITY.....	0.690		0.605			0.625		

INDEX 1168 SAMPLE 11537			INDEX 1169 SAMPLE 11538			INDEX 1170 SAMPLE 2213		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	PICEANCE CREEK		PICEANCE CREEK			RANGELY		
WELL NAME.....	T44-206		T44-206			EMERALD NO. 2		
LOCATION.....	SEC. 20, T2S, R96W		SEC. 20, T2S, R96W			SEC. 31, T2N, R102W		
OWNER.....	MOBIL OIL CORP.		MOBIL OIL CORP.			TEXAS PRODUCTION CO.		
COMPLETED.....	09/16/67		09/18/67			01/01/28		
SAMPLED.....	06/05/68		06/05/68			10/08/30		
FORMATION.....	EOCE-WASATCH G		EOCE-WASATCH A & D			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	5696		2626			3001		
WELLHEAD PRESSURE, PSIG.....	1924		10900			1300		
OPEN FLOW, MCFD.....	16200		10900			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	92.0		92.3			83.8		
ETHANE.....	4.2		4.1			12.4		
PROPANE.....	1.3		1.4			---		
N-BUTANE.....	0.5		0.4			---		
ISOBUTANE.....	0.2		0.4			---		
N-PENTANE.....	0.2		0.1			---		
ISOPENTANE.....	0.2		0.3			---		
CYCLOPENTANE.....	0.1		0.2			---		
HEXANES PLUS.....	0.3		0.2			---		
NITROGEN.....	0.5		0.4			3.4		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.0		TRACE			---		
HYDROGEN.....	0.0		TRACE			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.4		0.1			0.3		
HELIUM.....	0.04		0.01			0.15		
HEATING VALUE.....	1101		1103			1071		
SPECIFIC GRAVITY.....	0.621		0.620			0.633		

INDEX 1171 SAMPLE 4393			INDEX 1172 SAMPLE 4394			INDEX 1173 SAMPLE 4395		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	RANGELY		RANGELY			RANGELY		
WELL NAME.....	MCLAUGHLIN NO. 1		FEE NO. 12			M. C. HAGOOD NO. 2		
LOCATION.....	SEC. 32, T2N, R102W		SEC. 28, T2N, R102W			SEC. 15, T2N, R103W		
OWNER.....	OIL CORP.		CALIFORNIA CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	09/25/44		02/28/46			10/14/45		
SAMPLED.....	07/29/47		07/31/47			07/29/47		
FORMATION.....	PENN-		PENN-			PENN-		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	5528		5845			6527		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	50.4		21.6			15.7		
ETHANE.....	24.5		59.6			59.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	24.1		17.5			21.7		
OXYGEN.....	0.1		0.4			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.6			2.0		
HELIUM.....	0.890		0.29			0.28		
HEATING VALUE.....	950		1287			1232		
SPECIFIC GRAVITY.....	0.773		0.928			0.961		

INDEX 1174 SAMPLE 4396			INDEX 1175 SAMPLE 4397			INDEX 1176 SAMPLE 4398		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	RANGELY		RANGELY			RANGELY		
WELL NAME.....	GRAY 8-2		EMERALD NO. 3			EMERALD NO. 4		
LOCATION.....	SEC. 18, T2N, R102W		SEC. 30, T2N, R102W			SEC. 36, T2N, R103W		
OWNER.....	CALIFORNIA CO.		CALIFORNIA CO.			CALIFORNIA CO.		
COMPLETED.....	06/15/45		04/22/46			04/22/46		
SAMPLED.....	07/29/47		07/28/47			07/28/47		
FORMATION.....	PENN-		PENN-			PENN-		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	6155		5552			5640		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	23.5		24.1			27.3		
ETHANE.....	55.5		63.9			50.5		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	19.4		10.9			20.5		
OXYGEN.....	0.4		0.2			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.9		0.8			0.7		
HELIUM.....	0.33		0.10			0.55		
HEATING VALUE.....	1233		1183			1182		
SPECIFIC GRAVITY.....	0.919		0.924			0.895		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1177 4399	INDEX SAMPLE	1178 4400	INDEX SAMPLE	1179 4401
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	RANGELY			RANGELY		RANGELY	
WELL NAME.....	EMERALD NO. 8			MCLAUGHLIN NO. 2		CARNEY NO. 4-34	
LOCATION.....	SEC. 26, T2N, R103W			SEC. 23, T2N, R103W		SEC. 34, T2N, R102W	
OWNER.....	CALIFORNIA CO.			CALIFORNIA CO.		TEXAS CO.	
COMPLETED.....	08/06/46			09/03/46		06/24/46	
SAMPLED.....	07/28/47			07/28/47		07/30/47	
FORMATION.....	PENN-			PENN-		PENN-	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	5979			6105		5691	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	26.4			25.4		30.4	
ETHANE.....	53.2			52.7		49.8	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	18.7			19.5		18.5	
OXYGEN.....	0.6			0.3		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.9			1.7		0.7	
HELIUM.....	0.22			0.27		0.25	
HEATING VALUE.....	1221			1202		1200	
SPECIFIC GRAVITY.....	0.906			0.913		0.884	
		INDEX SAMPLE	1180 4402	INDEX SAMPLE	1181 4403	INDEX SAMPLE	1182 4404
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	RANGELY			RANGELY		RANGELY	
WELL NAME.....	U P NO. 29-32			FEE NO. 22		FEE NO. 1	
LOCATION.....	SEC. 32, T2N, R102W			SEC. 21, T2N, R102W		SEC. 30, T2N, R102W	
OWNER.....	TEXAS CO.			CALIFORNIA CO.		CALIFORNIA CO.	
COMPLETED.....	04/20/47			09/03/46		01/19/45	
SAMPLED.....	07/30/47			07/29/47		07/28/47	
FORMATION.....	PENN-			PENN-		PENN-	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	5570			6228		5557	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	34.7			16.2		23.5	
ETHANE.....	47.5			62.6		60.5	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	16.4			20.4		15.1	
OXYGEN.....	0.7			0.3		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.5			0.2		0.4	
HELIUM.....	0.20			0.32		0.24	
HEATING VALUE.....	1203			1286		1322	
SPECIFIC GRAVITY.....	0.865			0.951		0.921	
		INDEX SAMPLE	1183 4405	INDEX SAMPLE	1184 4406	INDEX SAMPLE	1185 4407
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	RANGELY			RANGELY		RANGELY	
WELL NAME.....	U P NO. 12			U P NO. 12-27		FEE NO. 21	
LOCATION.....	SEC. 19, T2N, R102W			SEC. 27, T2N, R102W		SEC. 27, T2N, R102W	
OWNER.....	CALIFORNIA CO.			TEXAS CO.		CALIFORNIA CO.	
COMPLETED.....	03/21/47			07/10/46		09/19/46	
SAMPLED.....	07/28/47			07/30/47		07/30/47	
FORMATION.....	PENN-			PENN-		PENN-	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	5933			5906		6066	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	18.3			32.2		20.3	
ETHANE.....	61.3			45.8		59.1	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	10.0			21.4		19.4	
OXYGEN.....	0.5			0.2		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.6			0.1		0.6	
HELIUM.....	0.27			0.34		0.26	
HEATING VALUE.....	1284			1174		1265	
SPECIFIC GRAVITY.....	0.944			0.870		0.933	
		INDEX SAMPLE	1186 4408	INDEX SAMPLE	1187 4409	INDEX SAMPLE	1188 4410
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO		RIO BLANCO	
FIELD.....	RANGELY			RANGELY		RANGELY	
WELL NAME.....	COLTHORP A NO. 1			MAGOR NO. 1		EMERALD NO. 14	
LOCATION.....	SEC. 35, T2N, R102W			SEC. 35, T2N, R103W		SEC. 36, T2N, R103W	
OWNER.....	STANOLIND OIL & GAS CO.			PHILLIPS PETROLEUM CO.		CALIFORNIA CO.	
COMPLETED.....	08/10/46			04/08/46		06/16/47	
SAMPLED.....	07/30/47			07/31/47		07/25/47	
FORMATION.....	PENN-			PENN-		PENN-	
GEOLOGIC PROVINCE CODE.....	595			595		595	
DEPTH, FEET.....	5624			6422		5893	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	13.1			14.7		20.9	
ETHANE.....	72.1			62.7		61.9	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	13.6			20.9		15.8	
OXYGEN.....	0.3			0.2		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.7			1.2		0.8	
HELIUM.....	0.15			0.26		0.20	
HEATING VALUE.....	1425			1272		1321	
SPECIFIC GRAVITY.....	0.975			0.962		0.935	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	1189 4411		INDEX SAMPLE	1190 4412		INDEX SAMPLE	1191 4413
STATE.....	COLORADO			COLORADO			COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO			RIO BLANCO	
FIELD.....	RANGELY			RANGELY			RANGELY	
WELL NAME.....	FEE NO. 11			ROOTH NO. 1			L. N. HAGOOD NO. 1	
LOCATION.....	SEC. 28, T2N, R102W			SEC. 15, T2N, R103W			SEC. 23, T2N, R103W	
OWNER.....	CALIFORNIA CO.			CONTINENTAL OIL CO.			STANOLIND OIL & GAS CO.	
COMPLETED.....	09/19/45			03/28/46			04/02/45	
SAMPLED.....	07/29/47			07/31/47			07/29/47	
FORMATION.....	PENN-			PENN-			PENN-	
GEOLOGIC PROVINCE CODE.....	595			595			595	
DEPTH, FEET.....	5642			6580			5955	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN			NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	44.4			27.4			20.9	
ETHANE.....	32.7			47.3			68.6	
PROPANE.....	---			---			---	
N-BUTANE.....	---			---			---	
ISOBUTANE.....	---			---			---	
N-PENTANE.....	---			---			---	
ISOPENTANE.....	---			---			---	
CYCLOPENTANE.....	---			---			---	
HEXANES PLUS.....	---			---			---	
NITROGEN.....	21.6			23.0			16.5	
OXYGEN.....	0.3			0.3			0.6	
ARGON.....	---			---			---	
HYDROGEN.....	---			---			---	
HYDROGEN SULFIDE.....	---			---			---	
CARBON DIOXIDE.....	0.2			1.7			1.2	
HELIUM.....	0.75			1.28			0.18	
HEATING VALUE.....	1035			1125			1298	
SPECIFIC GRAVITY.....	0.806			0.930			0.937	

	INDEX SAMPLE	1192 4414		INDEX SAMPLE	1193 8700		INDEX SAMPLE	1194 4008
STATE.....	COLORADO			COLORADO			COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO			RIO BLANCO	
FIELD.....	RANGELY			RANGELY			RANGELY	
WELL NAME.....	U-21, T2N, R102W			EMERALD NO. 32			MCLAUGHLIN NO. 1	
LOCATION.....	SEC. 21, T2N, R102W			SEC. 30, T2N, R102W			SEC. 32, T2N, R102W	
OWNER.....	TEXAS CO.			CALIFORNIA OIL CO.			WASATCH OIL REFINING CO.	
COMPLETED.....	05/28/46			03/04/48			--/--/00	
SAMPLED.....	07/30/47			10/10/62			--/--/00	
FORMATION.....	PENN-			PENN-NEBER			NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	595			595			595	
DEPTH, FEET.....	6088			5719			NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN			NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	22.3			63.2			57.6	
ETHANE.....	57.7			7.0			16.3	
PROPANE.....	---			2.7			---	
N-BUTANE.....	---			0.8			---	
ISOBUTANE.....	---			0.7			---	
N-PENTANE.....	---			0.4			---	
ISOPENTANE.....	---			0.2			---	
CYCLOPENTANE.....	---			0.1			---	
HEXANES PLUS.....	---			0.4			---	
NITROGEN.....	18.6			23.2			24.6	
OXYGEN.....	0.2			TRACE			0.5	
ARGON.....	---			0.1			---	
HYDROGEN.....	---			TRACE			---	
HYDROGEN SULFIDE.....	---			---			---	
CARBON DIOXIDE.....	0.9			0.8			0.2	
HELIUM.....	0.32			0.42			0.78	
HEATING VALUE.....	1260			0.36			876	
SPECIFIC GRAVITY.....	0.923			0.765			0.738	

	INDEX SAMPLE	1195 14323		INDEX SAMPLE	1196 14671		INDEX SAMPLE	1197 17709
STATE.....	COLORADO			COLORADO			COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO			RIO BLANCO	
FIELD.....	ROCK CANYON			SOLDIER CANYON			SOLDIER CANYON	
WELL NAME.....	GOVT. NO. 2-25			U.S.A. 25-C-1			SOLDIER CANYON NO. 26-4	
LOCATION.....	SEC. 25, T4S, R102W			SEC. 25, T4S, R101W			SEC. 26, T4S, R101W	
OWNER.....	NORRIS OIL CO.			TIPPERARY OIL & GAS CORP.			AMERICAN RESOURCES MGMT. COR	
COMPLETED.....	03/06/75			09/19/75			11/21/83	
SAMPLED.....	04/28/75			05/14/76			06/03/85	
FORMATION.....	CRET-MANCOS B			CRET-DAKOTA			CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	595			595			595	
DEPTH, FEET.....	3040			5896			6238	
WELLHEAD PRESSURE, PSIG.....	470			2100			1400	
OPEN FLOW, MCFD.....	2050			1400			480	
COMPONENT, MOLE PCT								
METHANE.....	82.0			93.8			72.4	
ETHANE.....	7.3			7.9			6.8	
PROPANE.....	5.7			0.1			0.1	
N-BUTANE.....	1.6			TRACE			0.1	
ISOBUTANE.....	0.7			0.1			0.0	
N-PENTANE.....	0.1			0.0			0.1	
ISOPENTANE.....	0.5			0.1			TRACE	
CYCLOPENTANE.....	TRACE			TRACE			TRACE	
HEXANES PLUS.....	0.1			TRACE			0.1	
NITROGEN.....	1.5			1.9			19.2	
OXYGEN.....	0.0			0.3			4.4	
ARGON.....	TRACE			TRACE			1.1	
HYDROGEN.....	0.0			---			TRACE	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.2			0.6			1.8	
HELIUM.....	0.15			0.04			0.05	
HEATING VALUE.....	1218			977			763	
SPECIFIC GRAVITY.....	0.703			0.597			0.696	

	INDEX SAMPLE	1198 13078		INDEX SAMPLE	1199 17290		INDEX SAMPLE	1200 17293
STATE.....	COLORADO			COLORADO			COLORADO	
COUNTY.....	RIO BLANCO			RIO BLANCO			RIO BLANCO	
FIELD.....	SULPHUR CREEK			TAIGA MOUNTAIN			TAIGA MOUNTAIN	
WELL NAME.....	GOVT. NO. 23-1			FED. NO. 13-15-103W			FED. NO. 6-14-1N-103	
LOCATION.....	SEC. 23, T2S, R98W			SEC. 15, T1S, R103W			SEC. 14, T1N, R103W	
OWNER.....	J. HUBER CORP.			COSEKA RESOURCES (USA), LTD.			COSEKA RESOURCES (USA), LTD.	
COMPLETED.....	07/22/71			05/06/84			05/06/84	
SAMPLED.....	10/02/71			05/06/84			05/06/84	
FORMATION.....	GOCE-WASATCH			CRET-DAKOTA			CRET-MANCOS B	
GEOLOGIC PROVINCE CODE.....	595			595			595	
DEPTH, FEET.....	4688			6464			NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1226			2000			610	
OPEN FLOW, MCFD.....	2310			NOT GIVEN			50	
COMPONENT, MOLE PCT								
METHANE.....	88.9			82.1			88.5	
ETHANE.....	3.4			5.7			3.0	
PROPANE.....	1.0			0.1			0.0	
N-BUTANE.....	0.2			1.0			0.8	
ISOBUTANE.....	0.2			0.7			0.4	
N-PENTANE.....	0.1			0.4			0.2	
ISOPENTANE.....	0.1			0.3			0.1	
CYCLOPENTANE.....	TRACE			0.1			TRACE	
HEXANES PLUS.....	4.2			5.3			3.0	
NITROGEN.....	1.0			TRACE			TRACE	
OXYGEN.....	TRACE			TRACE			TRACE	
ARGON.....	0.0			---			0.0	
HYDROGEN.....	0.0			0.0			0.0	
HYDROGEN SULFIDE.....	0.0			0.1			0.3	
CARBON DIOXIDE.....	0.8			0.2			0.09	
HELIUM.....	1015			1125			1131	
HEATING VALUE.....	1015			0.683			0.645	
SPECIFIC GRAVITY.....	0.624							

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1201 SAMPLE 17294			INDEX 1202 SAMPLE 17024			INDEX 1203 SAMPLE 2212		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	TAIGA MOUNTAIN		TEXAS MOUNTAIN			THORNBERG		
WELL NAME.....	FED. NO. 11-23-1N-103		TEXAS MOUNTAIN FED. NO. 1			CLARK NO. 1		
LOCATION.....	SEC. 23, T1N, R103W		SEC. 17, T3S, R102W			SEC. 21, T3N, R91W		
OWNER.....	COSEKA RESOURCES (USA), LTD.		TXO PRODUCTION CORP.			CONTINENTAL OIL CO.		
COMPLETED.....	05/06/84		11/24/81			07/19/27		
SAMPLED.....	05/06/84		08/25/83			10/04/30		
FORMATION.....	CRET-DAKOTA		CRET-DAKOTA			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	NOT GIVEN		6665			1986		
WELLHEAD PRESSURE, PSIG.....	1200		1400			800		
OPEN FLOW, MCFD.....	150		721			20000		
COMPONENT, MOLE PCT								
METHANE.....	77.6		81.5			97.6		
ETHANE.....	7.7		5.0			0.0		
PROPANE.....	7.0		2.2			---		
N-BUTANE.....	2.4		0.6			---		
ISOBUTANE.....	1.6		0.4			---		
N-PENTANE.....	0.6		0.1			---		
ISOPENTANE.....	0.7		0.4			---		
CYCLOPENTANE.....	0.2		0.1			---		
HEXANES PLUS.....	0.5		0.2			---		
NITROGEN.....	0.8		6.0			0.8		
OXYGEN.....	TRACE		1.1			0.1		
ARGON.....	0.0		0.1			---		
HYDROGEN.....	0.0		0.3			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.0		1.0			1.5		
HELIUM.....	0.03		0.16			0.02		
HEATING VALUE.....	1329		1060			989		
SPECIFIC GRAVITY.....	0.777		0.578			0.573		

INDEX 1204 SAMPLE 6110			INDEX 1205 SAMPLE 11531			INDEX 1206 SAMPLE 15696		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	THORNBERG		THORNBERG			THUNDER		
WELL NAME.....	NO. 3		THORNBERG UNIT NO. 18			7-F-21		
LOCATION.....	SEC. 21, T3N, R91W		SEC. 21, T3N, R91W			SEC. 21, T4S, R102W		
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.			COSEKA RESOURCES (USA), LTD.		
COMPLETED.....	03/21/56		08/26/67			11/02/77		
SAMPLED.....	07/19/56		06/11/68			05/14/79		
FORMATION.....	PENN-WEBER & MORGAN		PENN-WEBER			CRET-MANCOS		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	4380		4027			3223		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1190			NOT GIVEN		
OPEN FLOW, MCFD.....	1068		4275			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	93.0		92.6			81.7		
ETHANE.....	TRACE		0.1			4.5		
PROPANE.....	0.0		0.1			4.5		
N-BUTANE.....	TRACE		0.0			1.5		
ISOBUTANE.....	0.1		7.0			0.9		
N-PENTANE.....	0.0		0.0			0.3		
ISOPENTANE.....	0.1		0.0			0.5		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.0		0.0			0.2		
NITROGEN.....	0.3		0.5			5.3		
OXYGEN.....	TRACE		0.1			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		6.6			0.2		
HELIUM.....	TRACE		0.01			0.21		
HEATING VALUE.....	950		942			1154		
SPECIFIC GRAVITY.....	0.621		0.623			0.704		

INDEX 1207 SAMPLE 15697			INDEX 1208 SAMPLE 15699			INDEX 1209 SAMPLE 15700		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	THUNDER		THUNDER			THUNDER		
WELL NAME.....	4-RX-16		6-I-9			8-G-21		
LOCATION.....	SEC. 16, T4S, R102W		SEC. 9, T4S, R102W			SEC. 21, T4S, R102W		
OWNER.....	COSEKA RESOURCES (USA), LTD.		COSEKA RESOURCES (USA), LTD.			COSEKA RESOURCES (USA), LTD.		
COMPLETED.....	05/31/78		01/02/77			01/11/78		
SAMPLED.....	05/14/79		05/14/79			05/14/79		
FORMATION.....	CRET-MANCOS		CRET-MANCOS			CRET-MANCOS		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	3082		3030			3098		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	83.1		77.3			81.7		
ETHANE.....	4.6		6.1			5.0		
PROPANE.....	4.1		0.6			4.0		
N-BUTANE.....	1.2		1.4			1.3		
ISOBUTANE.....	0.7		0.9			0.7		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.4		0.4			0.4		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	5.0		7.2			5.3		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		1.3			0.6		
HELIUM.....	0.21		0.21			0.20		
HEATING VALUE.....	1129		1133			1152		
SPECIFIC GRAVITY.....	0.684		0.727			0.696		

INDEX 1210 SAMPLE 15701			INDEX 1211 SAMPLE 15702			INDEX 1212 SAMPLE 15703		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	THUNDER		THUNDER			THUNDER		
WELL NAME.....	NO. 21		9-J-21			KIRBY-ROBERTSON NO. 3-21		
LOCATION.....	SEC. 21, T4S, R102W		SEC. 21, T4S, R102W			SEC. 21, T4S, R102W		
OWNER.....	COSEKA RESOURCES (USA), LTD.		COSEKA RESOURCES (USA), LTD.			COSEKA RESOURCES (USA), LTD.		
COMPLETED.....	06/09/78		01/14/78			01/11/78		
SAMPLED.....	05/14/78		05/14/79			05/14/79		
FORMATION.....	CRET-MANCOS		CRET-MANCOS			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	2936		3037			5678		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	81.4		82.2			67.6		
ETHANE.....	5.2		4.2			3.5		
PROPANE.....	3.9		1.0			1.3		
N-BUTANE.....	1.2		1.0			0.4		
ISOBUTANE.....	0.7		0.6			0.3		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	6.1		7.1			17.5		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.4			8.0		
HELIUM.....	0.20		0.32			0.79		
HEATING VALUE.....	1127		1127			836		
SPECIFIC GRAVITY.....	0.697		0.682			0.759		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1213 SAMPLE 17303			INDEX 1214 SAMPLE 17304			INDEX 1215 SAMPLE 17305		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	THUNDER		THUNDER			THUNDER		
WELL NAME.....	GOVERNMENT NO. 13-31		GOVERNMENT NO. 4-31			GOVERNMENT C-561 NO. 2-31		
LOCATION.....	SEC. 31, T4S, R102W		SEC. 31, T4S, R102W			SEC. 31, T4N, R102W		
OWNER.....	TENNECO OIL CO.		TENNECO OIL CO.			TENNECO OIL CO.		
COMPLETED.....	07/16/81		07/13/80			06/04/77		
SAMPLED.....	05/24/84		05/24/84			05/24/84		
FORMATION.....	CRET-MANCOS B		CRET-MANCOS B			CRET-MANCOS B		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	4844		4995			4934		
WELLHEAD PRESSURE, PSTG.....	300		340			300		
OPEN FLOW, MCFD.....	50		30			33		
COMPONENT, MOLE PCT								
METHANE.....	79.7		79.1			82.3		
ETHANE.....	5.1		5.2			5.3		
PROPANE.....	0.1		0.0			0.1		
N-BUTANE.....	1.4		1.3			1.3		
ISOBUTANE.....	0.8		0.8			0.8		
N-PENTANE.....	0.4		0.3			0.3		
ISOPENTANE.....	0.4		0.4			0.3		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	7.5		7.9			6.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	0.3		0.3			0.20		
HEATING VALUE.....	1127		1122			1145		
SPECIFIC GRAVITY.....	0.711		0.711			0.694		

INDEX 1216 SAMPLE 17306			INDEX 1217 SAMPLE 362			INDEX 1218 SAMPLE 807		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	THUNDER		WHITE RIVER DOME			WHITE RIVER DOME		
WELL NAME.....	EVACUATION CREEK NO. 30-12		NO. 1			NO. 2		
LOCATION.....	NOT GIVEN		SEC. 25, T2N, R97W			NOT GIVEN		
OWNER.....	TENNECO OIL CO.		WHITE RIVER OIL CO.			WHITE RIVER OIL CO.		
COMPLETED.....	05/24/84		06/13/20			07/14/23		
SAMPLED.....	05/24/84		06/13/20			07/14/23		
FORMATION.....	CRET-MANCOS B		EOCE-MASATCH			EOCE-MASATCH		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	NOT GIVEN		530			528		
WELLHEAD PRESSURE, PSTG.....	100		190			180		
OPEN FLOW, MCFD.....	300		500			600000		
COMPONENT, MOLE PCT								
METHANE.....	82.0		97.3			97.5		
ETHANE.....	4.0		1.8			1.9		
PROPANE.....	4.4		---			---		
N-BUTANE.....	1.5		---			---		
ISOBUTANE.....	1.1		---			---		
N-PENTANE.....	0.4		---			---		
ISOPENTANE.....	0.5		---			---		
CYCLOPENTANE.....	0.1		---			---		
HEXANES PLUS.....	0.2		---			---		
NITROGEN.....	5.2		0.6			0.0		
OXYGEN.....	TRACE		---			0.2		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.3		0.2			0.2		
HELIUM.....	0.22		TRACE			0.00		
HEATING VALUE.....	1157		1018			1022		
SPECIFIC GRAVITY.....	0.705		0.569			0.566		

INDEX 1219 SAMPLE 2133			INDEX 1220 SAMPLE 6647			INDEX 1221 SAMPLE 13351		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	WHITE RIVER DOME		WHITE RIVER DOME			WHITE RIVER DOME		
WELL NAME.....	NO. 1		UNIT-60V1, NO. 3			GOV1, NO. 2		
LOCATION.....	SEC. 30, T2N, R96W		SEC. 30, T2N, R96W			SEC. 34, T2N, R97W		
OWNER.....	TEXAS PRODUCTION CO.		FRONTIER REFINING CO.			AMERICAN RESOURCES MGMT. COR		
COMPLETED.....	06/01/30		06/16/58			02/19/72		
SAMPLED.....	09/16/30		06/15/58			08/04/72		
FORMATION.....	CRET-LARAMIE		CRET-MESAVERDE			EOCE-MASATCH		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	5560		5598			966		
WELLHEAD PRESSURE, PSTG.....	1400		1674			515		
OPEN FLOW, MCFD.....	500		2350			4700		
COMPONENT, MOLE PCT								
METHANE.....	46.8		66.7			94.2		
ETHANE.....	28.3		6.1			2.5		
PROPANE.....	---		4.5			0.7		
N-BUTANE.....	---		0.7			0.2		
ISOBUTANE.....	---		0.8			0.2		
N-PENTANE.....	---		0.2			TRACE		
ISOPENTANE.....	---		0.2			TRACE		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.2			TRACE		
NITROGEN.....	2.9		1.4			1.6		
OXYGEN.....	0.2		0.9			0.2		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	21.8		10.3			0.1		
HELIUM.....	TRACE		0.01			0.01		
HEATING VALUE.....	981		979			1031		
SPECIFIC GRAVITY.....	0.920		0.854			0.587		

INDEX 1222 SAMPLE 10972			INDEX 1223 SAMPLE 8756			INDEX 1224 SAMPLE 8759		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	RIO BLANCO		RIO BLANCO			RIO BLANCO		
FIELD.....	WILCOAT		WILSON CREEK			WILSON CREEK		
WELL NAME.....	GOV1, NO. 22X17		NO. 47			WILSON CREEK UNIT NO. 21		
LOCATION.....	SEC. 17, T2N, R97W		SEC. 3, T2N, R94W			SEC. 35, T3N, R94W		
OWNER.....	SHELL OIL CO.		TEXACO INC.			TEXACO INC.		
COMPLETED.....	07/16/00		11/20/61			12/22/65		
SAMPLED.....	07/16/00		11/06/62			11/06/62		
FORMATION.....	PERNN-WEBER		JURA-MORRISON			JURA-SUNDANCE		
GEOLOGIC PROVINCE CODE.....	595		595			595		
DEPTH, FEET.....	NOT GIVEN		6422			6757		
WELLHEAD PRESSURE, PSTG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	80.6		69.8			21.9		
ETHANE.....	9.7		9.7			7.8		
PROPANE.....	3.8		8.1			18.8		
N-BUTANE.....	0.9		2.9			16.0		
ISOBUTANE.....	1.2		2.2			11.0		
N-PENTANE.....	0.2		0.8			6.2		
ISOPENTANE.....	0.4		0.8			7.4		
CYCLOPENTANE.....	TRACE		0.1			0.6		
HEXANES PLUS.....	0.2		0.6			2.7		
NITROGEN.....	1.4		8.6			5.7		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		0.3			0.5		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1195		1366			2564		
SPECIFIC GRAVITY.....	0.706		0.830			1.590		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

INDEX 1225 SAMPLE 4786			INDEX 1226 SAMPLE 992			INDEX 1227 SAMPLE 2209		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	ROUTT		ROUTT			ROUTT		
FIELD.....	PAGODA		TOW CREEK			TOW CREEK		
WELL NAME.....	NO. 55-34-G		ADAIR NO. 1			H. DENNIS NO. 3		
LOCATION.....	SEC. 4, T4N, R89W		SEC. 1, T6N, R85W			SEC. 18, T6N, R86W		
OWNER.....	GENERAL PETROLEUM CORP.		TEXAS PRODUCTION CO.			TEXAS PRODUCTION CO.		
COMPLETED.....	12/08/48		12/22/24			11/08/28		
SAMPLED.....	09/07/49		01/27/25			10/06/30		
FORMATION.....	TRIA-SHINARUMP		SHALE			SHALE		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	3957		2085			2680		
WELLHEAD PRESSURE, PSIG.....	100		14			14		
OPEN FLOW, MCFD.....	7850		12000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	95.7		79.2			33.3		
ETHANE.....	0.3		16.3			51.7		
PROPANE.....	0.4		---			---		
N-BUTANE.....	0.4		---			---		
ISOBUTANE.....	0.3		---			---		
N-PENTANE.....	0.1		---			---		
ISOPENTANE.....	0.4		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.0		---			---		
NITROGEN.....	1.2		1.2			0.8		
OXYGEN.....	---		0.4			0.2		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.9		3.1			14.1		
HELIUM.....	0.05		0.10			0.07		
HEATING VALUE.....	1033		1094			1264		
SPECIFIC GRAVITY.....	0.595		0.674			0.953		

INDEX 1228 SAMPLE 2210			INDEX 1229 SAMPLE 379			INDEX 1230 SAMPLE 10947		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	ROUTT		ROUTT			SAN MIGUEL		
FIELD.....	TOW CREEK		WILLIAMS PARK ANTICLINE			ANDY'S MESA		
WELL NAME.....	CARSTARPHEN-IRWIN NO. 3		NO. 2			ANDY'S MESA FED. NO. 1		
LOCATION.....	SEC. 5, T7N, R86W		SEC. 36, T4N, R88W			SEC. 34, T44N, R16W		
OWNER.....	TEXAS PRODUCTION CO.		THUNTY MILE OIL & GAS CO.			UNION OIL CO. OF CALIF.		
COMPLETED.....	12/05/29		10/22/19			03/09/67		
SAMPLED.....	10/08/30		06/19/20			04/25/67		
FORMATION.....	NOT GIVEN		CRET-DAKOTA			PENN-HONAKER TRAIL		
GEOLOGIC PROVINCE CODE.....	NOT GIVEN		535			585		
DEPTH, FEET.....	3580		453			8509		
WELLHEAD PRESSURE, PSIG.....	60		55			1912		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			5300		
COMPONENT, MOLE PCT								
METHANE.....	79.1		78.4			84.9		
ETHANE.....	13.7		0.0			2.1		
PROPANE.....	---		---			0.5		
N-BUTANE.....	---		---			0.2		
ISOBUTANE.....	---		---			0.1		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.2		
NITROGEN.....	3.6		19.8			11.7		
OXYGEN.....	0.1		0.5			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			TRACE		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	3.5		0.2			0.1		
HELIUM.....	0.08		1.04			0.19		
HEATING VALUE.....	1047		794			935		
SPECIFIC GRAVITY.....	0.672		0.636			0.630		

INDEX 1231 SAMPLE 15108			INDEX 1232 SAMPLE 17754			INDEX 1233 SAMPLE 7263		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	SAN MIGUEL		SAN MIGUEL			SAN MIGUEL		
FIELD.....	ANDY'S MESA		HAMILTON			MCINTYRE CANYON		
WELL NAME.....	ANDY'S MESA UNIT NO. 10		U.S.A. NO. 1-35 H			SE LISBON NO. 1		
LOCATION.....	SEC. 28, T44N, R16W		SEC. 39, T45N, R15W			SEC. 5, T44N, R19W		
OWNER.....	UNION OIL CO. OF CALIF.		COORS ENERGY CO.			PURE OIL CO.		
COMPLETED.....	07/26/77		05/20/85			---/---/00		
SAMPLED.....	09/20/77		07/20/85			10/25/59		
FORMATION.....	PENN-LA SAL		PERM-CUTLER			MISS-		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	7692		2574			8861		
WELLHEAD PRESSURE, PSIG.....	1950		700			NOT GIVEN		
OPEN FLOW, MCFD.....	2450		212			250		
COMPONENT, MOLE PCT								
METHANE.....	91.8		80.7			74.7		
ETHANE.....	1.8		1.3			2.5		
PROPANE.....	0.4		0.3			0.8		
N-BUTANE.....	0.2		0.2			0.3		
ISOBUTANE.....	0.1		0.1			0.6		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.1		TRACE			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.2		
HEXANES PLUS.....	0.1		0.2			0.7		
NITROGEN.....	9.0		16.2			9.5		
OXYGEN.....	0.2		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			9.5		
HELIUM.....	0.07		0.35			0.80		
HEATING VALUE.....	829		875			913		
SPECIFIC GRAVITY.....	0.600		0.642			0.745		

INDEX 1234 SAMPLE 7295			INDEX 1235 SAMPLE 7495			INDEX 1236 SAMPLE 7503		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	SAN MIGUEL		SAN MIGUEL			SAN MIGUEL		
FIELD.....	MCINTYRE CANYON		MCINTYRE CANYON			MCINTYRE CANYON		
WELL NAME.....	SE LISBON NO. 1		SE LISBON NO. 2			SE LISBON NO. 2		
LOCATION.....	SEC. 8, T44N, R19W		SEC. 8, T44N, R19W			SEC. 8, T44N, R19W		
OWNER.....	PURE OIL CO.		PURE OIL CO.			PURE OIL CO.		
COMPLETED.....	---/---/00		---/---/00			---/---/00		
SAMPLED.....	11/29/59		04/14/60			04/17/60		
FORMATION.....	MISS-		MISS-			MISS-		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	8859		8887			8821		
WELLHEAD PRESSURE, PSIG.....	800		150			160		
OPEN FLOW, MCFD.....	2500		NOT GIVEN			2534		
COMPONENT, MOLE PCT								
METHANE.....	74.8		71.7			71.7		
ETHANE.....	2.1		3.7			3.9		
PROPANE.....	0.9		4.1			0.7		
N-BUTANE.....	0.2		0.7			0.6		
ISOBUTANE.....	0.5		0.2			0.9		
N-PENTANE.....	0.2		0.4			0.2		
ISOPENTANE.....	0.0		0.0			0.3		
CYCLOPENTANE.....	0.3		TRACE			0.1		
HEXANES PLUS.....	1.3		0.3			0.4		
NITROGEN.....	9.2		10.5			12.0		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	9.7		7.5			8.2		
HELIUM.....	0.80		0.90			1.00		
HEATING VALUE.....	929		929			911		
SPECIFIC GRAVITY.....	0.755		0.755			0.751		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1237 SAMPLE 7628			INDEX 1238 SAMPLE 7763			INDEX 1239 SAMPLE 7785		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	SAN MIGUEL		SAN MIGUEL			SAN MIGUEL		
FIELD.....	MCINTYRE CANYON		MCINTYRE CANYON			MCINTYRE CANYON		
WELL NAME.....	SE LISBON NO. 3		EGNAR NO. 1			EGNAR NO. 1		
LOCATION.....	SEC. 16, T44N, R19W		SEC. 30, T44N, R19W			SEC. 30, T44N, R19W		
OWNER.....	PURE OIL CO.		BELCO PETROLEUM CORP.			BELCO PETROLEUM CORP.		
COMPLETED.....	--/--/00		--/--/00			11/28/60		
SAMPLED.....	07/28/60		10/30/60			11/29/60		
FORMATION.....	MISS-DEVO		MISS-			MISS-		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	8883		9030			9100		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1000			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		167			12000		
COMPONENT, MOLE PCT								
METHANE.....	68.0		69.6			69.2		
ETHANE.....	5.1		4.1			4.1		
PROPANE.....	3.1		1.7			1.8		
N-BUTANE.....	1.1		1.1			0.6		
ISOBUTANE.....	0.6		0.5			0.4		
N-PENTANE.....	0.4		0.3			0.2		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.5		0.5			0.3		
NITROGEN.....	12.8		10.4			11.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	6.8		10.6			10.0		
HELIUM.....	0.00		TRACE			0.90		
HEATING VALUE.....	978		931			897		
SPECIFIC GRAVITY.....	0.778		0.795			0.769		
INDEX 1240 SAMPLE 7997			INDEX 1241 SAMPLE 8703			INDEX 1242 SAMPLE 17657		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	SAN MIGUEL		SAN MIGUEL			SAN MIGUEL		
FIELD.....	MCINTYRE CANYON		MCINTYRE CANYON			NOT GIVEN		
WELL NAME.....	NO. 2		EGNAR NO. 1			STATE WELL NO. 1-36H		
LOCATION.....	SEC. 8, T44N, R19W		NOT GIVEN			SEC. 36, T45N, R15W		
OWNER.....	PURE OIL CO.		BELCO PETROLEUM CORP.			COORS ENERGY CO.		
COMPLETED.....	06/01/60		12/01/60			01/25/84		
SAMPLED.....	06/09/61		10/05/62			04/29/85		
FORMATION.....	MISS-DEVO		MISS-			PENN-HERMOSA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	8822		9120			8430		
WELLHEAD PRESSURE, PSIG.....	800		2202			3000		
OPEN FLOW, MCFD.....	10000		11700			300		
COMPONENT, MOLE PCT								
METHANE.....	71.3		69.2			98.5		
ETHANE.....	3.7		3.7			0.5		
PROPANE.....	1.5		0.7			0.1		
N-BUTANE.....	0.6		0.7			0.0		
ISOBUTANE.....	0.7		0.7			0.0		
N-PENTANE.....	0.2		0.4			0.0		
ISOPENTANE.....	0.1		0.1			0.0		
CYCLOPENTANE.....	TRACE		0.1			0.0		
HEXANES PLUS.....	0.2		0.5			0.0		
NITROGEN.....	11.5		11.9			0.7		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	9.3		10.1			0.2		
HELIUM.....	1.00		0.34			0.02		
HEATING VALUE.....	894		909			1009		
SPECIFIC GRAVITY.....	0.754		0.779			0.563		
INDEX 1243 SAMPLE 10764			INDEX 1244 SAMPLE 13199			INDEX 1245 SAMPLE 9320		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	SAN MIGUEL		SAN MIGUEL			SEDGWICK		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	GOVT. NO. 1		SLICKROCK NO. 1			SPRAGUE BROS. NO. 1		
LOCATION.....	SEC. 14, T44N, R14W		SEC. 8, T43N, R17W			SEC. 18, T10N, R47W		
OWNER.....	JACK GRYNBERG & ASSOC.		READ & STEVENS, INC.			CONTINENTAL OIL CO.		
COMPLETED.....	10/20/66		10/15/71			03/02/64		
SAMPLED.....	10/17/66		04/27/72			04/23/64		
FORMATION.....	PENN-HERMOSA		PENN-ISMAV			CRET-DAKOTA D		
GEOLOGIC PROVINCE CODE.....	585		585			540		
DEPTH, FEET.....	6400		8398			3912		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2140			805		
OPEN FLOW, MCFD.....	100		500			1550		
COMPONENT, MOLE PCT								
METHANE.....	96.9		97.9			89.9		
ETHANE.....	1.0		0.3			2.7		
PROPANE.....	0.1		0.0			0.5		
N-BUTANE.....	0.0		0.0			0.1		
ISOBUTANE.....	0.0		TRACE			0.2		
N-PENTANE.....	0.0		TRACE			TRACE		
ISOPENTANE.....	0.0		TRACE			0.2		
CYCLOPENTANE.....	0.0		TRACE			0.1		
HEXANES PLUS.....	0.0		0.1			0.1		
NITROGEN.....	1.8		1.3			5.3		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.7		
HELIUM.....	0.04		0.01			0.08		
HEATING VALUE.....	1002		1005			1000		
SPECIFIC GRAVITY.....	0.570		0.566			0.613		
INDEX 1246 SAMPLE 5394			INDEX 1247 SAMPLE 8265			INDEX 1248 SAMPLE 14115		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	WASHINGTON		WASHINGTON			WASHINGTON		
FIELD.....	ARROW		ARROW			BULLSEYE		
WELL NAME.....	P. J. MOTT NO. 1		M. M. MITCHELL NO. 1			DANIELS NO. 1		
LOCATION.....	SEC. 23, T3N, R53W		SEC. 33, T3N, R54W			SEC. 28, T3N, R51W		
OWNER.....	SOUTHERN PRODUCTION CO.		MACO INC.			PATRICK A. DOHENY		
COMPLETED.....	11/02/52		01/18/61			06/26/73		
SAMPLED.....	02/05/53		10/28/61			07/22/74		
FORMATION.....	CRET-DAKOTA J		CRET-DAKOTA J			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	4844		4777			4309		
WELLHEAD PRESSURE, PSIG.....	1276		1276			700		
OPEN FLOW, MCFD.....	6000		1854			750		
COMPONENT, MOLE PCT								
METHANE.....	85.6		73.6			90.4		
ETHANE.....	6.5		4.1			1.3		
PROPANE.....	1.5		0.7			0.3		
N-BUTANE.....	0.4		0.5			0.1		
ISOBUTANE.....	1.0		0.9			1.5		
N-PENTANE.....	0.2		0.2			1.0		
ISOPENTANE.....	0.3		0.7			0.6		
CYCLOPENTANE.....	0.3		0.2			TRACE		
HEXANES PLUS.....	0.3		0.5			1.1		
NITROGEN.....	4.0		13.3			5.3		
OXYGEN.....	0.0		2.4			0.0		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.6			0.3		
HELIUM.....	0.02		0.02			0.03		
HEATING VALUE.....	1092		997			1031		
SPECIFIC GRAVITY.....	0.665		0.723			0.626		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

113

		INDEX SAMPLE	1249 13228	INDEX SAMPLE	1250 17864	INDEX SAMPLE	1251 16432
STATE	COLORADO			COLORADO		COLORADO	
COUNTY	WASHINGTON			WASHINGTON		WASHINGTON	
FIELD	CHIELENO			DAPPER		DE NOVA	
WELL NAME	PIEPER NO. 1			YOUNG NO. 2-35		MATHIES NO. 2-19	
LOCATION	SEC. 23, T2N, R52W			SEC. 35, T25S, R50W		SEC. 19, T2S, R49W	
OWNER	J. H. BANDER			SAND HILLS SOCIETY		STELBAR OIL CORP., INC.	
COMPLETED	12/01/71			11/04/84		11/09/81	
SAMPLED	06/06/72			10/13/85		02/19/82	
FORMATION	CRET-DAKOTA D			CRET-NIOBRARA		CRET-NIOBRARA	
GEOLOGIC PROVINCE CODE	540			540		540	
DEPTH, FEET	4400			2979		2890	
WELLHEAD PRESSURE, PSIG	985			570		690	
OPEN FLOW, MCFD	7800			150		2036	
COMPONENT, MOLE PCT							
METHANE	90.6			92.9		95.0	
ETHANE	2.0			0.7		0.8	
PROPANE	0.9			0.2		0.4	
N-BUTANE	0.2			0.2		0.1	
ISOBUTANE	1.2			0.0		0.1	
N-PENTANE	0.0			0.1		0.0	
ISOPENTANE	0.5			0.0		0.1	
CYCLOPENTANE	TRACE			0.1		TRACE	
HEXANES PLUS	0.1			0.1		TRACE	
NITROGEN	3.8			3.9		3.0	
OXYGEN	TRACE			0.0		0.0	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.0			TRACE		0.1	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.6			0.6		0.4	
HELIUM	0.02			0.04		0.04	
HEATING VALUE	1050			979		998	
SPECIFIC GRAVITY	0.626			0.600		0.583	
		INDEX SAMPLE	1252 16880	INDEX SAMPLE	1253 17016	INDEX SAMPLE	1254 14116
STATE	COLORADO			COLORADO		COLORADO	
COUNTY	WASHINGTON			WASHINGTON		WASHINGTON	
FIELD	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME	MATHIES A NO. 2			PRICE NO. 4-18		STEPHENSON	
LOCATION	SEC. 3, T2S, R49W			SEC. 18, T2S, R49W		SEC. 13, T3N, R52W	
OWNER	CITIES SERVICE CO.			STELBAR OIL CORP.		PATRICK A. DOHENY	
COMPLETED	10/06/82			10/06/82		11/23/73	
SAMPLED	04/18/83			08/15/83		07/22/74	
FORMATION	CRET-NIOBRARA			CRET-NIOBRARA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE	540			540		540	
DEPTH, FEET	2961			3051		4509	
WELLHEAD PRESSURE, PSIG	620			780		740	
OPEN FLOW, MCFD	973			685		1000	
COMPONENT, MOLE PCT							
METHANE	94.2			94.2		94.1	
ETHANE	0.9			0.8		1.3	
PROPANE	0.4			0.5		0.0	
N-BUTANE	0.2			0.2		0.0	
ISOBUTANE	TRACE			0.1		0.6	
N-PENTANE	0.1			0.1		0.0	
ISOPENTANE	0.1			0.1		0.3	
CYCLOPENTANE	0.1			TRACE		0.1	
HEXANES PLUS	0.1			TRACE		0.1	
NITROGEN	3.3			3.2		2.0	
OXYGEN	0.0			0.0		0.0	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.2			TRACE		TRACE	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.4			0.5		1.2	
HELIUM	0.05			0.05		0.02	
HEATING VALUE	1006			997		1024	
SPECIFIC GRAVITY	0.591			0.586		0.601	
		INDEX SAMPLE	1255 10809	INDEX SAMPLE	1256 11570	INDEX SAMPLE	1257 9271
STATE	COLORADO			COLORADO		COLORADO	
COUNTY	WASHINGTON			WASHINGTON		WASHINGTON	
FIELD	OTIS			OTIS		PINTO	
WELL NAME	STATE NO. 1			HEISERMAN STATE NO. 1		THEURER NO. 1	
LOCATION	SEC. 36, T3N, R50W			SEC. 25, T3N, R50W		SEC. 28, T3N, R52W	
OWNER	CLARK OIL & REFINING CO.			DONZOL, INC.		UNION TEXAS PETROLEUM CORP.	
COMPLETED	09/7/65			05/25/68		01/09/64	
SAMPLED	12/07/66			07/11/68		03/27/64	
FORMATION	CRET-DAKOTA D			CRET-DAKOTA D		CRET-	
GEOLOGIC PROVINCE CODE	540			540		540	
DEPTH, FEET	3980			3958		4668	
WELLHEAD PRESSURE, PSIG	611			797		820	
OPEN FLOW, MCFD	NOT GIVEN			2798		2020	
COMPONENT, MOLE PCT							
METHANE	90.7			93.2		93.6	
ETHANE	1.0			1.0		0.9	
PROPANE	TRACE			0.1		0.6	
N-BUTANE	TRACE			0.0		0.3	
ISOBUTANE	TRACE			0.0		0.5	
N-PENTANE	TRACE			0.0		TRACE	
ISOPENTANE	0.0			0.0		0.5	
CYCLOPENTANE	0.1			0.0		0.2	
HEXANES PLUS	0.1			0.0		0.2	
NITROGEN	7.3			5.4		1.7	
OXYGEN	0.3			0.0		0.0	
ARGON	0.0			0.1		TRACE	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.4			TRACE		1.5	
HELIUM	0.04			0.19		0.02	
HEATING VALUE	946			963		1046	
SPECIFIC GRAVITY	0.599			0.583		0.617	
		INDEX SAMPLE	1258 7565	INDEX SAMPLE	1259 16881	INDEX SAMPLE	1260 17017
STATE	COLORADO			COLORADO		COLORADO	
COUNTY	WASHINGTON			WASHINGTON		WASHINGTON	
FIELD	RUBY			WHITE EAGLE		WHITE EAGLE	
WELL NAME	JESSE NO. 1			MAGGARD A NO. 1		MAGGARD NO. 4-11	
LOCATION	SEC. 2, T2N, R54W			SEC. 2, T2S, R50W		SEC. 11, T2S, R50W	
OWNER	PLAINS EXPLORATION CO.			CITIES SERVICE CO.		STELBAR OIL CORP.	
COMPLETED	08/12/59			10/10/82		11/26/82	
SAMPLED	04/10/60			04/18/83		08/15/83	
FORMATION	CRET-DAKOTA D			CRET-NIOBRARA		CRET-NIOBRARA	
GEOLOGIC PROVINCE CODE	540			540		540	
DEPTH, FEET	4774			2956		3023	
WELLHEAD PRESSURE, PSIG	510			610		690	
OPEN FLOW, MCFD	5540			346		885	
COMPONENT, MOLE PCT							
METHANE	92.9			93.0		92.8	
ETHANE	2.3			1.1		1.0	
PROPANE	1.5			0.7		0.7	
N-BUTANE	TRACE			0.3		0.3	
ISOBUTANE	0.4			0.1		0.1	
N-PENTANE	TRACE			0.1		0.1	
ISOPENTANE	0.3			0.2		0.1	
CYCLOPENTANE	0.1			0.1		TRACE	
HEXANES PLUS	0.1			0.1		TRACE	
NITROGEN	1.0			3.7		3.8	
OXYGEN	0.0			0.0		TRACE	
ARGON	0.0			TRACE		TRACE	
HYDROGEN	0.0			0.2		0.3	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.4			0.4		0.5	
HELIUM	0.02			0.05		0.05	
HEATING VALUE	1056			1012		999	
SPECIFIC GRAVITY	0.613			0.599		0.594	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1261 13659	INDEX SAMPLE	1262 13376	INDEX SAMPLE	1263 17925
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	WASHINGTON			WELD		WELD	
FIELD.....	WILCOAT			EATON		EATON	
WELL NAME.....	SHOOK NO. 1A			KING NO. 1		AVERY NO. 1	
LOCATION.....	SEC. 13, T3N, R52W			SEC. 34, T11N, R61W		SEC. 10, T6N, R65W	
OWNER.....	PATRICK A. DOHENY			FRANK H. WALSH		CACHE EXPLORATION, INC.	
COMPLETED.....	06/07/73			03/22/72		06/12/85	
SAMPLED.....	07/24/73			05/31/72		12/04/85	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA J		CRET-CODELL	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	4534			6826		7120	
WELLHEAD PRESSURE, PSIG.....	780			1000		1800	
OPEN FLOW, MCFD.....	NOT GIVEN			1500		3600	
COMPONENT, MOLE PCT							
METHANE.....	93.1			79.6		77.0	
ETHANE.....	1.4			6.7		11.8	
PROPANE.....	0.2			0.9		4.2	
N-BUTANE.....	0.0			1.1		1.4	
ISOBUTANE.....	0.5			0.6		0.3	
N-PENTANE.....	0.0			0.3		1.0	
ISOPENTANE.....	0.1			0.1		0.0	
CYCLOPENTANE.....	TRACE			TRACE		0.6	
HEXANES PLUS.....	0.1			0.1		1.4	
NITROGEN.....	1.2			0.5		0.3	
OXYGEN.....	0.3			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			0.8		2.0	
HELIUM.....	0.02			0.08		0.01	
HEATING VALUE.....	1000			1133		1295	
SPECIFIC GRAVITY.....	0.598			0.702		0.766	
		INDEX SAMPLE	1264 2254	INDEX SAMPLE	1265 17542	INDEX SAMPLE	1266 14635
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	WELD			WELD		WELD	
FIELD.....	GREASEWOOD LAKES			GREILEY		HAMBERT	
WELL NAME.....	NO. 1			TIPON NO. 7-26 EG		LOUIS DINNEN NO. 1	
LOCATION.....	SEC. 24, T6N, R61W			SEC. 26, T6N, R65W		SEC. 13, T4N, R66W	
OWNER.....	PLATIE VALLEY PETROLEUM CO.			COORS ENERGY CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	12/14/30			08/10/84		01/06/76	
SAMPLED.....	12/10/30			12/07/84		04/12/76	
FORMATION.....	CRET-BENTON			CRET-NIOBRARA & CODELL		CRET-SUSSEX	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	6638			6893		4569	
WELLHEAD PRESSURE, PSIG.....	516			2000		NOT GIVEN	
OPEN FLOW, MCFD.....	1000			254		3000	
COMPONENT, MOLE PCT							
METHANE.....	21.4			72.2		82.7	
ETHANE.....	58.3			13.7		9.6	
PROPANE.....	---			5.3		4.0	
N-BUTANE.....	---			1.2		1.2	
ISOBUTANE.....	---			1.1		0.6	
N-PENTANE.....	---			0.7		0.2	
ISOPENTANE.....	---			0.2		0.4	
CYCLOPENTANE.....	---			0.2		TRACE	
HEXANES PLUS.....	---			0.5		0.2	
NITROGEN.....	16.0			0.6		0.9	
OXYGEN.....	2.5			0.1		TRACE	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			TRACE		0.0	
HYDROGEN SULFIDE.....	---			0.7		0.0	
CARBON DIOXIDE.....	1.8			0.0		0.2	
HELIUM.....	0.00			0.01		0.02	
HEATING VALUE.....	1262			1343		1210	
SPECIFIC GRAVITY.....	0.940			0.798		0.691	
		INDEX SAMPLE	1267 15329	INDEX SAMPLE	1268 15478	INDEX SAMPLE	1269 15314
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	WELD			WELD		WELD	
FIELD.....	HAMBERT			WILLIAM EWING NO. 1		KIOWA CREEK	
WELL NAME.....	WARREN MCMILLEN NO. 1			SEC. 11, T4N, R66W		FRANSEN NO. 1	
LOCATION.....	SEC. 19, T9N, R65W			NIELSON ENTERPRISES, INC.		SEC. 31, T2N, R61W	
OWNER.....	AMOCO PRODUCTION CO.			09/13/78		ENERGY MINERALS CORP.	
COMPLETED.....	05/11/76			11/01/78		06/10/77	
SAMPLED.....	08/02/78			CRET-SUSSEX		07/11/78	
FORMATION.....	CRET-SUSSEX			540		CRET-LAKOTA	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	4389			4572		7112	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1210		1420	
OPEN FLOW, MCFD.....	NOT GIVEN			3900		5100	
COMPONENT, MOLE PCT							
METHANE.....	79.7			81.6		76.9	
ETHANE.....	10.1			8.9		7.1	
PROPANE.....	4.9			4.5		4.4	
N-BUTANE.....	1.5			1.3		1.5	
ISOBUTANE.....	0.9			0.9		1.1	
N-PENTANE.....	0.5			0.4		0.5	
ISOPENTANE.....	0.5			0.4		0.7	
CYCLOPENTANE.....	0.1			0.1		0.2	
HEXANES PLUS.....	0.4			0.7		0.9	
NITROGEN.....	0.8			1.1		4.5	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.1			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.03		2.0	
HELIUM.....	0.02			0.03		0.05	
HEATING VALUE.....	1270			1234		1213	
SPECIFIC GRAVITY.....	0.728			0.709		0.759	
		INDEX SAMPLE	1270 6362	INDEX SAMPLE	1271 6395	INDEX SAMPLE	1272 1938
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	WELD			WELD		WELD	
FIELD.....	MCKENZIE			MCKENZIE		NOT GIVEN	
WELL NAME.....	MCKENZIE-ROSE NO. 1			MCKENZIE NO. 1		NOT GIVEN	
LOCATION.....	SEC. 19, T9N, R56W			SEC. 13, T9N, R57W		SEC. 28, T 6N, R64W	
OWNER.....	PLAINS EXPLORATION CO.			NORTHERN NATURAL GAS CO.		J. S. DANLEY	
COMPLETED.....	11/28/55			11/7/00		02/17/30	
SAMPLED.....	08/12/57			08/23/57		02/17/30	
FORMATION.....	CRET-DAKOTA J			CRET-DAKOTA J		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	5890			5882		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1510			1100		NOT GIVEN	
OPEN FLOW, MCFD.....	2200			633		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	77.5			82.6		0.0	
ETHANE.....	9.1			9.3		0.6	
PROPANE.....	4.8			4.0		---	
N-BUTANE.....	1.6			0.5		---	
ISOBUTANE.....	0.7			1.0		---	
N-PENTANE.....	0.6			0.2		---	
ISOPENTANE.....	0.3			0.6		---	
CYCLOPENTANE.....	0.2			0.1		---	
HEXANES PLUS.....	0.2			0.3		---	
NITROGEN.....	2.6			3.6		94.9	
OXYGEN.....	TRACE			TRACE		0.2	
ARGON.....	0.0			TRACE		---	
HYDROGEN.....	TRACE			TRACE		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	2.1			0.7		4.3	
HELIUM.....	0.06			0.06		0.00	
HEATING VALUE.....	1222			1133		---	
SPECIFIC GRAVITY.....	0.747			0.679		0.992	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1273 16652	INDEX SAMPLE	1274 9619	INDEX SAMPLE	1275 13225
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	WELD			WELD		WELD	
FIELD.....	NOT GIVEN			RIVERSIDE		ROGGEN SW	
WELL NAME.....	JOHN H. HILL NO. 1			KUNSELMER NO. 1		ZIMBELMAN NO. 1-A	
LOCATION.....	SEC. 28, T7N, R59W			SEC. 21, T5N, R61W		SEC. 23, T2N, R63W	
OWNER.....	BELLWEATHER EXPL. CO.			TEXACO INC.		REDHORSE OIL & GAS, LTD.	
COMPLETED.....	09/12/81			-/-/00		10/29/71	
SAMPLED.....	09/10/82			10/23/64		06/-/72	
FORMATION.....	CRET-DAKOTA D			CRET-DAKOTA J		CRET-DAKOTA J	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	6636			6740		7073	
WELLHEAD PRESSURE, PSIG.....	825			NOT GIVEN		1585	
OPEN FLOW, MCFD.....	500			2170		4000	
COMPONENT, MOLE PCT.....							
METHANE.....	70.8			85.8		80.3	
ETHANE.....	11.8			8.1		10.9	
PROPANE.....	8.6			2.1		4.3	
N-BUTANE.....	2.6			0.4		0.9	
ISOBUTANE.....	1.6			0.1		0.5	
N-PENTANE.....	0.0			0.2		0.1	
ISOPENTANE.....	0.2			TRACE		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.3			0.2		0.1	
NITROGEN.....	1.9			TRACE		2.4	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.9			2.8		0.3	
HELIUM.....	0.04			0.04		0.04	
HEATING VALUE.....	1318			1104		1186	
SPECIFIC GRAVITY.....	0.800			0.660		0.699	

		INDEX SAMPLE	1276 12790	INDEX SAMPLE	1277 11985	INDEX SAMPLE	1278 14546
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	WELD			WELD		WELD	
FIELD.....	SLEEPER			SOONER		SPINDLE	
WELL NAME.....	BUZKOVSKYJ NO. 1X			GOVT. NO. 1		FOX NO. 1	
LOCATION.....	SEC. 23, T12N, R56W			SEC. 27, T12N, R58W		SEC. 24, T2N, R68W	
OWNER.....	EXETER DRILLING & EXPL. CO.			DAVIDOR & DAVIDOR, INC.		PANHANDLE WESTERN GAS CO.	
COMPLETED.....	03/02/69			05/05/69		10/01/75	
SAMPLED.....	04/27/71			07/24/69		12/15/75	
FORMATION.....	CRET-DAKOTA J			CRET-DAKOTA D		CRET-SUSSEX	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	6183			6288		4427	
WELLHEAD PRESSURE, PSIG.....	75			1740		1248	
OPEN FLOW, MCFD.....	34			6400		6919	
COMPONENT, MOLE PCT.....							
METHANE.....	57.3			74.4		83.0	
ETHANE.....	7.1			9.6		6.1	
PROPANE.....	15.1			7.5		5.1	
N-BUTANE.....	7.6			1.5		1.4	
ISOBUTANE.....	2.5			0.5		0.9	
N-PENTANE.....	2.1			0.2		0.3	
ISOPENTANE.....	1.8			0.3		0.3	
CYCLOPENTANE.....	0.4			0.1		TRACE	
HEXANES PLUS.....	0.9			0.2		0.1	
NITROGEN.....	3.0			4.1		2.4	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.2			1.1		0.1	
HELIUM.....	0.03			0.06		0.05	
HEATING VALUE.....	1668			1239		1191	
SPECIFIC GRAVITY.....	1.033			0.758		0.694	

		INDEX SAMPLE	1279 5929	INDEX SAMPLE	1280 14240	INDEX SAMPLE	1281 13121
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	WELD			WELD		WELD	
FIELD.....	STONEHAM			SURREY		WATTENBURG	
WELL NAME.....	GRABILL NO. 1			UPRR 43 PAN AM G NO. 3		HART NO. 1	
LOCATION.....	SEC. 29, T9N, R58W			SEC. 29, T1N, R67W		SEC. 27, T2N, R67W	
OWNER.....	UTAH SOUTHERN OIL CO.			AMOCO PRODUCTION CO.		ENERGY MINERALS CORP.	
COMPLETED.....	06/18/55			10/09/74		09/15/71	
SAMPLED.....	09/06/55			12/05/74		12/18/71	
FORMATION.....	CRET-DAKOTA J			CRET-SUSSEX		CRET-HUDDY	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	NOT GIVEN			4880		8100	
WELLHEAD PRESSURE, PSIG.....	1150			520		2300	
OPEN FLOW, MCFD.....	1750			136		2500	
COMPONENT, MOLE PCT.....							
METHANE.....	79.6			73.2		83.8	
ETHANE.....	9.4			12.0		9.7	
PROPANE.....	4.2			8.0		2.3	
N-BUTANE.....	1.3			2.4		0.4	
ISOBUTANE.....	0.5			1.2		0.5	
N-PENTANE.....	0.4			0.1		0.1	
ISOPENTANE.....	0.4			0.8		0.1	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.4		0.2	
NITROGEN.....	2.2			1.2		0.6	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.5			0.2		2.3	
HELIUM.....	0.06			0.01		0.03	
HEATING VALUE.....	1188			1365		1131	
SPECIFIC GRAVITY.....	0.713			0.793		0.673	

		INDEX SAMPLE	1282 13562	INDEX SAMPLE	1283 9549	INDEX SAMPLE	1284 17344
STATE.....	COLORADO			COLORADO		COLORADO	
COUNTY.....	WELD			WELD		WELD	
FIELD.....	WATTENBURG			WILLOCAT		WILDHORSE	
WELL NAME.....	BAILEY NO. 1			BUCHLER-CARROLL NO. 1		DOLL NO. 1A	
LOCATION.....	SEC. 36, T3N, R68W			SEC. 30, T4N, R68W		SEC. 19, T7N, R58W	
OWNER.....	JOHN H. HILL			TEXACO INC.		WEEKS ENERGY MINERALS CORP.	
COMPLETED.....	02/05/72			09/28/72		06/28/84	
SAMPLED.....	03/06/73			09/21/64		06/28/84	
FORMATION.....	CRET-DAKOTA J			CRET-NIOBRARA		CRET-DAKOTA D	
GEOLOGIC PROVINCE CODE.....	540			540		540	
DEPTH, FEET.....	7685			5280		6603	
WELLHEAD PRESSURE, PSIG.....	2425			553		371	
OPEN FLOW, MCFD.....	3600			NOT GIVEN		356	
COMPONENT, MOLE PCT.....							
METHANE.....	82.6			65.1		69.0	
ETHANE.....	10.1			12.2		10.5	
PROPANE.....	2.7			10.4		9.4	
N-BUTANE.....	0.5			5.1		3.2	
ISOBUTANE.....	0.5			1.2		1.2	
N-PENTANE.....	0.1			1.0		0.9	
ISOPENTANE.....	0.2			1.7		0.8	
CYCLOPENTANE.....	TRACE			0.5		0.4	
HEXANES PLUS.....	0.1			1.3		0.6	
NITROGEN.....	0.0			0.0		2.3	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.6			TRACE		1.7	
HELIUM.....	0.02			1.81		0.05	
HEATING VALUE.....	1139			1583		1398	
SPECIFIC GRAVITY.....	0.682			0.922		0.848	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1285 SAMPLE 10785			INDEX 1286 SAMPLE 869			INDEX 1287 SAMPLE 870		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	WELD		YUMA			YUMA		
FIELD.....	WRANGLER		ARICKAREE			ARICKAREE		
WELL NAME.....	EULALIA CERVI NO. 1		NO. 3			NOT GIVEN		
LOCATION.....	SEC. 26, T10N, R56W		SEC. 17, T2S, R43W			SEC. 20, T2S, R43W		
OWNER.....	BRIGHT & SCHIFF		MIDFIELDS OIL CO.			MIDFIELDS OIL CO.		
COMPLETED.....	09/1/65		-/-/00			-/-/00		
SAMPLED.....	11/21/66		04/22/24			04/22/24		
FORMATION.....	CRET-DAKOTA		CRET-DAKOTA			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	5714		400			400		
WELLHEAD PRESSURE, PSIG.....	1000		400			400		
OPEN FLOW, MCFD.....	250		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	74.2		94.8			94.3		
ETHANE.....	6.2		1.7			1.8		
PROPANE.....	7.8		---			---		
N-BUTANE.....	2.2		---			---		
ISOBUTANE.....	0.9		---			---		
N-PENTANE.....	0.3		---			---		
ISOPENTANE.....	1.1		---			---		
CYCLOPENTANE.....	0.3		---			---		
HEXANES PLUS.....	0.5		---			---		
NITROGEN.....	4.7		3.0			3.2		
OXYGEN.....	0.0		0.3			0.2		
ARGON.....	0.0		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	1.5		0.1			0.3		
HELIUM.....	0.07		0.09			0.08		
HEATING VALUE.....	1264		991			988		
SPECIFIC GRAVITY.....	0.788		0.577			0.580		

INDEX 1288 SAMPLE 15547			INDEX 1289 SAMPLE 17044			INDEX 1290 SAMPLE 16623		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	YUMA		YUMA			YUMA		
FIELD.....	BEECHER ISLAND		BEECHER ISLAND			BONNY		
WELL NAME.....	BEECHER ISLAND NO. 2		SCHOBE NO. 2-8			GROSECLOSE NO. 32-30		
LOCATION.....	SEC. 21, T2S, R43W		SEC. 8, T3S, R43W			SEC. 30, T4S, R43W		
OWNER.....	MOUNTAIN PETROLEUM, LTD.		MOUNTAIN PETROLEUM CORP.			JOHN P. LOCKRIDGE		
COMPLETED.....	-/-/00		07/24/82			08/24/82		
SAMPLED.....	07/30/78		08/31/83			08/24/82		
FORMATION.....	CRET-NIOBRARA		CRET-NIOBRARA			CRET-NIOBRARA		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	NOT GIVEN		1799			1726		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		---			360		
OPEN FLOW, MCFD.....	NOT GIVEN		1526			4230		
COMPONENT, MOLE PCT.....								
METHANE.....	93.6		94.0			93.4		
ETHANE.....	1.2		1.2			1.2		
PROPANE.....	0.4		0.4			0.3		
N-BUTANE.....	0.1		0.1			0.2		
ISOBUTANE.....	TRACE		TRACE			0.0		
N-PENTANE.....	TRACE		TRACE			TRACE		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		TRACE			TRACE		
NITROGEN.....	3.9		3.0			4.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.3			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.8			0.3		
HELIUM.....	0.08		0.06			0.07		
HEATING VALUE.....	984		993			983		
SPECIFIC GRAVITY.....	0.582		0.586			0.586		

INDEX 1291 SAMPLE 17848			INDEX 1292 SAMPLE 16873			INDEX 1293 SAMPLE 16342		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	YUMA		YUMA			YUMA		
FIELD.....	BUCKBOARD		DUKE			ECKLEY		
WELL NAME.....	PROBASCO NO. 1-10		QUICK-PETERS NO. 23-1			ECKLEY FEDERAL NO. 31-1		
LOCATION.....	SEC. 10, T3N, R46W		SEC. 23, T1S, R45W			SEC. 31, T4N, R45W		
OWNER.....	MIDLANDS GAS CORP.		UNIOIL			MESA PETROLEUM CO.		
COMPLETED.....	08/01/84		05/20/82			06/24/81		
SAMPLED.....	09/19/85		04/09/83			09/25/81		
FORMATION.....	CRET-NIOBRARA		CRET-NIOBRARA			CRET-NIOBRARA		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	2692		2278			2477		
WELLHEAD PRESSURE, PSIG.....	465		600			520		
OPEN FLOW, MCFD.....	90		1800			2300		
COMPONENT, MOLE PCT.....								
METHANE.....	93.5		92.8			94.4		
ETHANE.....	0.9		1.0			0.9		
PROPANE.....	0.3		0.5			0.1		
N-BUTANE.....	0.1		0.2			0.2		
ISOBUTANE.....	TRACE		0.1			0.0		
N-PENTANE.....	TRACE		0.1			0.0		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	TRACE		0.2			TRACE		
NITROGEN.....	3.9		TRACE			3.7		
OXYGEN.....	0.2		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.6			0.0		
CARBON DIOXIDE.....	0.8		0.7			0.5		
HELIUM.....	0.07		0.09			0.08		
HEATING VALUE.....	974		995			990		
SPECIFIC GRAVITY.....	0.587		0.599			0.587		

INDEX 1294 SAMPLE 16378			INDEX 1295 SAMPLE 17045			INDEX 1296 SAMPLE 17847		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	YUMA		PHUHA			SCHRAMM		
FIELD.....	NOT GIVEN		VALVADOR			BEAUPREZ		
WELL NAME.....	LENGEL NO. 13-14		SEC. 10, T5N, R46W			SEC. 35, T2N, R47W		
LOCATION.....	SEC. 24, T5S, R44W		MOUNTAIN PETROLEUM CORP.			MIDLANDS GAS CORP.		
OWNER.....	CABOT CORP.		11/06/81			08/24/84		
COMPLETED.....	07/28/81		11/06/81			09/19/85		
SAMPLED.....	11/12/81		08/31/83			09/19/85		
FORMATION.....	CRET-NIOBRARA		CRET-NIOBRARA			CRET-NIOBRARA		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	1328		2665			2606		
WELLHEAD PRESSURE, PSIG.....	331		520			430		
OPEN FLOW, MCFD.....	2200		552			75		
COMPONENT, MOLE PCT.....								
METHANE.....	91.5		92.3			94.6		
ETHANE.....	1.4		1.1			0.8		
PROPANE.....	0.5		0.4			0.2		
N-BUTANE.....	0.1		0.2			0.1		
ISOBUTANE.....	0.1		TRACE			0.0		
N-PENTANE.....	TRACE		0.1			0.1		
ISOPENTANE.....	TRACE		0.1			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		TRACE			0.1		
NITROGEN.....	4.6		0.5			3.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.3			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.6		1.8			1.0		
HELIUM.....	0.07		0.08			0.06		
HEATING VALUE.....	976		981			992		
SPECIFIC GRAVITY.....	0.605		0.600			0.588		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

117

INDEX 1297 SAMPLE 16440			INDEX 1298 SAMPLE 17018			INDEX 1299 SAMPLE 17364		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	YUMA		YUMA			YUMA		
FIELD.....	UNNAMED		WAGES			WHISPER		
WELL NAME.....	LENDEL NO. 1-18		CLARK JOSH NO. 1-3			BRAND NO. 1-15		
LOCATION.....	SEC. 18, T4S, R43W		SEC. 3, T4N, R46W			SEC. 15, T3N, R47W		
OWNER.....	J-M OPERATING CO.		STELBAR OIL CORP.			MYDLANDS GAS CORP.		
COMPLETED.....	11/12/81		06/11/80			04/11/84		
SAMPLED.....	03/-/82		08/22/83			08/01/84		
FORMATION.....	CRET-SMOKY HILL		CRET-NIOBRARA			CRET-NIOBRARA		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	1652		2654			2740		
WELLHEAD PRESSURE, PSIG.....	263		212			470		
OPEN FLOW, MCFD.....	597		708			700		
COMPONENT, MOLE PCT.....								
METHANE.....	91.4		94.3			92.9		
ETHANE.....	1.1		0.9			1.1		
PROPANE.....	0.4		0.2			0.3		
N-BUTANE.....	0.0		0.1			0.1		
ISOBUTANE.....	0.0		TRACE			TRACE		
N-PENTANE.....	0.0		TRACE			0.1		
ISOPENTANE.....	0.0		0.1			0.1		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		TRACE			0.1		
NITROGEN.....	4.2		3.3			3.4		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.3			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.7		0.4			1.6		
HELIUM.....	0.07		0.08			0.06		
HEATING VALUE.....	956		985			986		
SPECIFIC GRAVITY.....	0.607		0.579			0.600		
INDEX 1300 SAMPLE 17846			INDEX 1301 SAMPLE 16874			INDEX 1302 SAMPLE 16597		
STATE.....	COLORADO		COLORADO			FLORIDA		
COUNTY.....	YUMA		YUMA			ESCAMBIA		
FIELD.....	WHISPER		JULDCAT			JAY/LITTLE ESCAMBIA CREEK		
WELL NAME.....	PAGEL NO. 3-3		ALLISON NO. 9-1			MCDONALD LANDS NO. 31-2A		
LOCATION.....	SEC. 3, T3N, R47W		SEC. 9, T1S, R45W			SEC. 31, T6N, R29W		
OWNER.....	MYDLANDS GAS CORP.		UNION			EXXON CO., U.S.A.		
COMPLETED.....	07/25/85		08/21/82			04/12/82		
SAMPLED.....	09/19/85		04/09/83			07/30/82		
FORMATION.....	CRET-NIOBRARA		CRET-NIOBRARA			JURA-SHACKOVER		
GEOLOGIC PROVINCE CODE.....	540		540			210		
DEPTH, FEET.....	2729		2340			15500		
WELLHEAD PRESSURE, PSIG.....	490		1050			1200		
OPEN FLOW, MCFD.....	78		171			4000		
COMPONENT, MOLE PCT.....								
METHANE.....	92.7		90.6			54.8		
ETHANE.....	0.1		0.0			13.0		
PROPANE.....	0.2		0.3			7.3		
N-BUTANE.....	0.2		0.2			2.9		
ISOBUTANE.....	0.0		0.1			1.8		
N-PENTANE.....	0.2		0.1			0.9		
ISOPENTANE.....	TRACE		0.1			1.1		
CYCLOPENTANE.....	0.1		TRACE			0.2		
HEXANES PLUS.....	0.1		0.1			0.7		
NITROGEN.....	3.6		4.0			3.8		
OXYGEN.....	0.1		TRACE			0.4		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			9.5		
CARBON DIOXIDE.....	1.6		2.9			3.5		
HELIUM.....	0.06		0.09			0.01		
HEATING VALUE.....	987		972			1326		
SPECIFIC GRAVITY.....	0.603		0.617			0.935		
INDEX 1303 SAMPLE 13150			INDEX 1304 SAMPLE 13193			INDEX 1305 SAMPLE 15718		
STATE.....	FLORIDA		FLORIDA			FLORIDA		
COUNTY.....	SANTA ROSA		SANTA ROSA			SANTA ROSA		
FIELD.....	BLACKJACK		BLACKJACK			JAY		
WELL NAME.....	ST. REGIS PAPER CO. NO. 13-3		ST. REGIS PAPER CO. NO. 13-3			ST. REGIS 18		
LOCATION.....	NOT GIVEN		SEC. 13, T4N, R29W			SEC. 43, T5N, R29W		
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.			EXXON CO., U.S.A.		
COMPLETED.....	-/-/80		02/14/72			06/12/70		
SAMPLED.....	01/03/72		01/26/72			07/30/79		
FORMATION.....	JURA-SHACKOVER		JURA-NORPHLET			JURA-SHACKOVER		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	15790		16120			15500		
WELLHEAD PRESSURE, PSIG.....	3596		2994			1500		
OPEN FLOW, MCFD.....	1183		75			3774		
COMPONENT, MOLE PCT.....								
METHANE.....	62.1		77.4			53.9		
ETHANE.....	11.7		3.1			13.1		
PROPANE.....	1.1		0.5			8.0		
N-BUTANE.....	1.1		0.5			3.2		
ISOBUTANE.....	1.2		0.7			2.2		
N-PENTANE.....	0.3		0.7			1.2		
ISOPENTANE.....	0.1		0.1			1.1		
CYCLOPENTANE.....	0.1		0.1			0.3		
HEXANES PLUS.....	0.2		0.9			0.9		
NITROGEN.....	6.9		14.2			1.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.1		0.0			0.2		
HYDROGEN SULFIDE**.....	10.0		0.0			10.8		
CARBON DIOXIDE.....	2.4		1.6			3.2		
HELIUM.....	0.04		0.03			0.02		
HEATING VALUE.....	1113		986			1396		
SPECIFIC GRAVITY.....	0.816		0.707			0.959		
INDEX 1306 SAMPLE 12377			INDEX 1307 SAMPLE 5492			INDEX 1308 SAMPLE 9609		
STATE.....	FLORIDA		GEORGIA			IDAHO		
COUNTY.....	SANTA ROSA		DECATUR			BONNEVILLE		
FIELD.....	JAY AREA		NOT GIVEN			WILDCAT		
WELL NAME.....	ST. REGIS ET AL. NO. 1		J. R. SEALY NO. 1			T. J. WEBER NO. 1-A		
LOCATION.....	SEC. 9, T5N, R29W		LOT 247, LAND DIST. 21			SEC. 24, T2S, R44E		
OWNER.....	HUMBLE OIL & REFINING CO.		J. R. SEALY			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	06/13/70		-/-/80			-/-/80		
SAMPLED.....	06/13/70		06/10/53			10/22/64		
FORMATION.....	JURA-SHACKOVER		CRET-EUTAW			MISS-BRAZER		
GEOLOGIC PROVINCE CODE.....	210		130			615		
DEPTH, FEET.....	15470		3005			9085		
WELLHEAD PRESSURE, PSIG.....	3775		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	2145		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	69.2		74.2			0.4		
ETHANE.....	10.9		0.1			0.1		
PROPANE.....	4.3		0.0			0.0		
N-BUTANE.....	1.0		0.0			0.0		
ISOBUTANE.....	0.7		0.0			0.0		
N-PENTANE.....	0.4		0.0			0.0		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.2		0.0			1.4		
NITROGEN.....	0.0		24.1			0.1		
OXYGEN.....	0.0		0.2			TRACE		
ARGON.....	0.0		0.4			0.9		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE**.....	0.2		0.6			97.1		
CARBON DIOXIDE.....	3.3		0.27			0.02		
HELIUM.....	0.02		0.9			1.503		
HEATING VALUE.....	1139		0.663					
SPECIFIC GRAVITY.....	0.778							

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1309 9610	INDEX SAMPLE	1310 9617	INDEX SAMPLE	1311 1630
STATE.....	IDAHO			IDAHO		IDAHO	
COUNTY.....	BONNEVILLE			BONNEVILLE		CANYON	
FIELD.....	WILDCAT			WILDCAT		NOT GIVEN	
WELL NAME.....	T. J. WEBER NO. 1-A			T. J. WEBER NO. 1-A		NOT GIVEN	
LOCATION.....	SEC. 24, T2S, R44E			SEC. 24, T2S, R44E		GREENLEAF	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		NOT GIVEN	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/23/64			10/22/64		03/30/28	
FORMATION.....	MISS-BRAZER			MISS-BRAZER		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	615			615		610	
DEPTH, FEET.....	9085			9085		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	0.3			0.2		0.0	
ETHANE.....	0.1			0.1		1.4	
PROPANE.....	0.0			0.2		---	
N-BUTANE.....	0.0			0.0		---	
ISOBUTANE.....	0.0			0.0		---	
N-PENTANE.....	0.0			0.0		---	
ISOPENTANE.....	0.0			0.0		---	
CYCLOPENTANE.....	0.0			0.0		---	
HEXANES PLUS.....	0.0			0.0		---	
NITROGEN.....	0.8			0.7		96.4	
OXYGEN.....	0.1			0.1		0.2	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0			---		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	96.7			98.3		2.1	
HELIUM.....	0.05			0.00		TRACE	
HEATING VALUE.....	11			10		25	
SPECIFIC GRAVITY.....	1.492			1.516		0.981	
		INDEX SAMPLE	1312 2700	INDEX SAMPLE	1313 1166	INDEX SAMPLE	1314 1167
STATE.....	IDAHO			IDAHO		IDAHO	
COUNTY.....	CANYON			CARIBOU		CARIBOU	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	WATER WELL			HOOPER SPRING		IRON SPRING, IDAHO	
LOCATION.....	NOT GIVEN			SEC. 36, T 8S, R41E		SEC. 7, T9S, R42E	
OWNER.....	JOHN JANSSEN			NOT GIVEN		NOT GIVEN	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	06/01/35			10/14/25		10/14/25	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	610			630		630	
DEPTH, FEET.....	278			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	0.0			0.0		0.0	
ETHANE.....	0.0			0.0		0.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	96.1			3.8		4.3	
OXYGEN.....	2.7			0.0		0.0	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	1.2			96.2		95.7	
HELIUM.....	0.00			0.00		0.00	
HEATING VALUE.....	0			---		---	
SPECIFIC GRAVITY.....	0.978			1.508		1.505	
		INDEX SAMPLE	1315 1168	INDEX SAMPLE	1316 1169	INDEX SAMPLE	1317 1170
STATE.....	IDAHO			IDAHO		IDAHO	
COUNTY.....	CARIBOU			CARIBOU		CARIBOU	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	MOUND SPRING			IDAHA SPRING		SODA MOUND SPRING	
LOCATION.....	SEC. 12, T 9S, R41E			SEC. 2, T 9S, R41E		SEC. 12, T 9S, R41E	
OWNER.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/14/25			10/14/25		10/14/25	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	630			630		630	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	0.0			0.0		0.0	
ETHANE.....	0.0			0.0		0.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	1.3			7.5		6.0	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	98.7			92.5		94.0	
HELIUM.....	0.00			0.00		0.00	
HEATING VALUE.....	0			0		0	
SPECIFIC GRAVITY.....	1.522			1.497		1.495	
		INDEX SAMPLE	1318 1171	INDEX SAMPLE	1319 1172	INDEX SAMPLE	1320 2531
STATE.....	IDAHO			IDAHO		IDAHO	
COUNTY.....	CARIBOU			CARIBOU		FRANKLIN	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	SULPHUR SPRING			MAMMOTH SPRING		WATER WELL	
LOCATION.....	SEC. 13, T 9S, R42E			SEC. 23, T80S, R41E		SEC. 17, T14S, R39E	
OWNER.....	NOT GIVEN			NOT GIVEN		J. W. LARSEN, ET AL.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/14/25			10/14/25		08/03/32	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	630			630		625	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	0.0			0.0		72.6	
ETHANE.....	0.0			0.0		0.6	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	15.8			9.0		16.8	
OXYGEN.....	0.0			0.0		0.6	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	84.2			91.0		9.4	
HELIUM.....	0.00			0.00		0.04	
HEATING VALUE.....	0			0		746	
SPECIFIC GRAVITY.....	1.440			1.478		0.722	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

119

INDEX 1321 SAMPLE 4420			INDEX 1322 SAMPLE 2748			INDEX 1323 SAMPLE 1356		
STATE.....	IDAHO		IDAHO			IDAHO		
COUNTY.....	OWYHEE		PAYETTE			PAYETTE		
FIELD.....	NOT GIVEN		BEACON HILL			PAYETTE		
WELL NAME.....	ARTESIAN WATER WELL		REINS NO. 2			NO. 1		
LOCATION.....	SEC. 18, T6S, R7E		SEC. 13, T8N, R4W			NOT GIVEN		
OWNER.....	DONALD PANCOAST		BOISE PETROLEUM CORP.			IDAHO PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	02/11/48		03/02/37			02/28/27		
FORMATION.....	NOT GIVEN		MIOC-PAYETTE			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	615		615			615		
DEPTH, FEET.....	1300		1267			1400		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			300		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.2		99.5			72.9		
ETHANE.....	1.1		0.0			25.2		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	13.4		0.1			0.0		
OXYGEN.....	0.2		0.3			0.8		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.1		0.1			1.1		
HELIUM.....	0.02		TRACE			0.00		
HEATING VALUE.....	873		1008			1190		
SPECIFIC GRAVITY.....	0.627		0.557			0.694		
INDEX 1324 SAMPLE 1649			INDEX 1325 SAMPLE 2553			INDEX 1326 SAMPLE 2217		
STATE.....	IDAHO		IDAHO			IDAHO		
COUNTY.....	PAYETTE		PAYETTE			WASHINGTON		
FIELD.....	PAYETTE		PAYETTE			CRYSTAL DOME		
WELL NAME.....	NOT GIVEN		PATCH-SMITH ET AL. NO. 1			NO. 1-X		
LOCATION.....	NOT GIVEN		SEC. 2, T8N, R5W			SEC. 32, T10N, R4W		
OWNER.....	NOT GIVEN		IDAHO GAS & UTILITIES CORP.			CRYSTAL DOME OIL & GAS CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	05/25/28		09/30/32			10/22/30		
FORMATION.....	NOT GIVEN		MIOC-PAYETTE			TERT-		
GEOLOGIC PROVINCE CODE.....	615		615			615		
DEPTH, FEET.....	NOT GIVEN		1285			1865		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		90			135		
OPEN FLOW, MCFD.....	NOT GIVEN		250			100		
COMPONENT, MOLE PCT								
METHANE.....	67.6		99.3			98.7		
ETHANE.....	26.7		0.0			0.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	4.8		0.0			0.4		
OXYGEN.....	0.3		0.7			0.0		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.6		0.0			0.9		
HELIUM.....	0.00		0.00			0.00		
HEATING VALUE.....	1163		1006			1000		
SPECIFIC GRAVITY.....	0.714		0.558			0.565		
INDEX 1327 SAMPLE 2220			INDEX 1328 SAMPLE 2255			INDEX 1329 SAMPLE 3392		
STATE.....	IDAHO		IDAHO			ILLINOIS		
COUNTY.....	WASHINGTON		WASHINGTON			BOND		
FIELD.....	CRYSTAL DOME		WEISER			AYERS		
WELL NAME.....	NO. 1-X		DANIEL NO. 2			ALICE PRICE NO. 1		
LOCATION.....	SEC. 32, T10N, R4W		SEC. 32, T10N, R4W			SEC. 29, T6N, R3W		
OWNER.....	CRYSTAL DOME OIL & GAS CO.		CRYSTAL DOME OIL & GAS CO.			BOND COUNTY GAS CO.		
COMPLETED.....	--/--/00		--/--/00			07/05/40		
SAMPLED.....	--/--/00		01/04/31			05/08/42		
FORMATION.....	TERT-		-KRAMLICH			MISS-BENOIST		
GEOLOGIC PROVINCE CODE.....	615		615			315		
DEPTH, FEET.....	1865		1870			925		
WELLHEAD PRESSURE, PSIG.....	135		300			185		
OPEN FLOW, MCFD.....	100		NOT GIVEN			500		
COMPONENT, MOLE PCT								
METHANE.....	98.8		97.4			92.7		
ETHANE.....	0.0		0.0			0.2		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	0.3		1.3			6.3		
OXYGEN.....	0.0		0.1			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.9		1.2			0.3		
HELIUM.....	0.00		0.00			0.17		
HEATING VALUE.....	1001		987			943		
SPECIFIC GRAVITY.....	0.564		0.572			0.585		
INDEX 1330 SAMPLE 3393			INDEX 1331 SAMPLE 5143			INDEX 1332 SAMPLE 17234		
STATE.....	ILLINOIS		ILLINOIS			ILLINOIS		
COUNTY.....	BOND		CLINTON			CLINTON		
FIELD.....	AYERS		FROGTOWN			STOLLETOWN		
WELL NAME.....	E. A. MARY NO. 2		W. HOSTMEYER NO. 1			KOCH FAMILY FARMS NO. 2		
LOCATION.....	SEC. 20, T6N, R3W		SEC. 36, T3N, R4W			SEC. 28, T3N, R3W		
OWNER.....	BOND COUNTY GAS CO.		GULF REFINING CO.			DUNNILL, JOHN F., JR., INC.		
COMPLETED.....	04/14/38		08/05/53			08/01/83		
SAMPLED.....	05/08/42		12/05/51			04/02/84		
FORMATION.....	MISS-BENOIST		SILU-REEF			MISS-GOLCONDA		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	940		2222			832		
WELLHEAD PRESSURE, PSIG.....	185		840			310		
OPEN FLOW, MCFD.....	250		NOT GIVEN			2000		
COMPONENT, MOLE PCT								
METHANE.....	91.5		93.1			95.2		
ETHANE.....	1.1		0.6			TRACE		
PROPANE.....	---		0.5			TRACE		
N-BUTANE.....	---		0.3			0.0		
ISOBUTANE.....	---		0.3			0.0		
N-PENTANE.....	---		0.1			0.0		
ISOPENTANE.....	---		0.0			0.0		
CYCLOPENTANE.....	---		TRACE			0.0		
HEXANES PLUS.....	---		0.1			0.0		
NITROGEN.....	6.6		0.1			4.4		
OXYGEN.....	0.4		0.1			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.7			0.1		
HELIUM.....	0.19		0.09			0.23		
HEATING VALUE.....	947		964			964		
SPECIFIC GRAVITY.....	0.590		0.600			0.572		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1333 SAMPLE 17235			INDEX 1334 SAMPLE 5345			INDEX 1335 SAMPLE 9761		
STATE.....	ILLINOIS		ILLINOIS			ILLINOIS		
COUNTY.....	STOLTON		CRANDALL			GALLATIN		
FIELD.....	STOLTON		ROBINSON 5			FORK N		
WELL NAME.....	EUGENE REMBERT NO. 1		HUDSON NO. P-1			EDWARDS		
LOCATION.....	SEC. 33, T3N, R3W		SEC. 36, T5N, R12W			SEC. 3, T8S, R8E		
OWNER.....	DUNNILL JOHN F. & JR. INC.		SKILES OIL CORP.			MT. CARMEL DRILLING CO.		
COMPLETED.....	06/21/83		07/29/52			--/--/00		
SAMPLED.....	04/02/84		11/25/52			02/23/65		
FORMATION.....	MISS-CYPRESS		NOT GIVEN			MISS-PALESTINE		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	970		1074			1830		
WELLHEAD PRESSURE, PSIG.....	345		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	1200		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	95.1		88.7			93.1		
ETHANE.....	TRACE		2.3			1.0		
PROPANE.....	TRACE		0.3			0.1		
N-BUTANE.....	0.0		TRACE			0.1		
ISOBUTANE.....	0.0		0.0			TRACE		
N-PENTANE.....	0.0		0.0			0.2		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		TRACE			0.4		
HEXANES PLUS.....	0.0		0.0			0.6		
NITROGEN.....	4.4		7.8			4.2		
OXYGEN.....	TRACE		0.3			0.0		
ARGON.....	TRACE		0.1			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.23		0.13			0.17		
HEATING VALUE.....	963		948			1021		
SPECIFIC GRAVITY.....	0.573		0.604			0.605		
INDEX 1336 SAMPLE 3397			INDEX 1337 SAMPLE 3405			INDEX 1338 SAMPLE 3406		
STATE.....	ILLINOIS		ILLINOIS			ILLINOIS		
COUNTY.....	LAWRENCE		LAWRENCE			LAWRENCE		
FIELD.....	RUSSELLVILLE		RUSSELLVILLE			RUSSELLVILLE		
WELL NAME.....	SCOTT GREY NO. 1		CARPENTER & WHITE			GERHAUS NO. 5		
LOCATION.....	SEC. 13, T4N, R11W		SEC. 7, T4N, R11W			SEC. 13, T4N, R11W		
OWNER.....	R. R. WILLIS		KENTUCKY NATURAL GAS CO. & P			J. S. YOUNG, JR.		
COMPLETED.....	07/14/38		12/03/38			12/17/41		
SAMPLED.....	05/11/42		05/11/42			05/11/42		
FORMATION.....	PENN-BUCHANAN		NOT GIVEN			PENN-BRIDGEPORT		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	1061		1080			787		
WELLHEAD PRESSURE, PSIG.....	196		204			213		
OPEN FLOW, MCFD.....	27855		8476			3375		
COMPONENT, MOLE PCT								
METHANE.....	83.0		87.1			83.2		
ETHANE.....	6.2		6.5			6.7		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	10.2		5.6			9.4		
OXYGEN.....	0.4		0.4			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.3			0.2		
HELIUM.....	0.21		0.12			0.20		
HEATING VALUE.....	962		939			963		
SPECIFIC GRAVITY.....	0.630		0.614			0.629		
INDEX 1339 SAMPLE 3409			INDEX 1340 SAMPLE 3744			INDEX 1341 SAMPLE 3395		
STATE.....	ILLINOIS		ILLINOIS			ILLINOIS		
COUNTY.....	LAWRENCE		LAWRENCE			MACOUPIN		
FIELD.....	RUSSELLVILLE		RUSSELLVILLE			PLAINVIEW		
WELL NAME.....	SCOTT GREY ACRES NO. 3		THOMPSON-GERHART NO. 1			STEPHEN NO. 2		
LOCATION.....	SEC. 8, T4N, R11W		SEC. 18, T4N, R10W			SEC. 18, T8N, R8W		
OWNER.....	R. R. WILLIS		KENTUCKY NATURAL GAS CO.			RAY, HOLMES, ET AL.		
COMPLETED.....	04/05/40		02/19/43			05/01/42		
SAMPLED.....	05/11/42		03/17/44			05/09/42		
FORMATION.....	MISS-KIRKWOOD		PENN-BRIDGEPORT			PENN-POTTSVILLE		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	1326		796			297		
WELLHEAD PRESSURE, PSIG.....	257		207			NOT GIVEN		
OPEN FLOW, MCFD.....	119		2635			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.4		80.4			94.4		
ETHANE.....	6.4		5.3			0.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	4.6		13.4			4.5		
OXYGEN.....	0.3		0.4			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		---			0.2		
HELIUM.....	0.11		0.30			0.06		
HEATING VALUE.....	1010		909			963		
SPECIFIC GRAVITY.....	0.608		0.639			0.579		
INDEX 1342 SAMPLE 3396			INDEX 1343 SAMPLE 4275			INDEX 1344 SAMPLE 16972		
STATE.....	ILLINOIS		ILLINOIS			ILLINOIS		
COUNTY.....	MACOUPIN		MORGAN			PIKE		
FIELD.....	PLAINVIEW		MAVERLY			GRIGGSVILLE W		
WELL NAME.....	T. S. SNEDEKER		G. S. MCMAHAN			SKINNER NO. 1		
LOCATION.....	SEC. 15, T8N, R8W		SEC. 22, T13N, R8W			SEC. 17, T4S, R3W		
OWNER.....	T. S. SNEDEKER		W. L. ROET			HOT TANKS, INC.		
COMPLETED.....	--/--/32		12/17/46			10/05/82		
SAMPLED.....	05/09/42		12/14/46			05/17/83		
FORMATION.....	PENN-POTTSVILLE		DEVON-LIMESTONE			SILU-EDGEWOOD		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	420		992			333		
WELLHEAD PRESSURE, PSIG.....	120		390			103		
OPEN FLOW, MCFD.....	1000		1270			1300		
COMPONENT, MOLE PCT								
METHANE.....	89.7		94.9			95.4		
ETHANE.....	0.0		0.0			0.1		
PROPANE.....	---		---			0.1		
N-BUTANE.....	---		---			0.0		
ISOBUTANE.....	---		---			0.0		
N-PENTANE.....	---		---			0.0		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			0.0		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	9.4		3.6			3.0		
OXYGEN.....	0.3		0.3			0.2		
ARGON.....	---		---			0.1		
HYDROGEN.....	---		---			0.6		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.5		1.2			0.6		
HELIUM.....	0.14		0.01			0.03		
HEATING VALUE.....	909		961			973		
SPECIFIC GRAVITY.....	0.599		0.583			0.574		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

121

INDEX 1345 SAMPLE 3407			INDEX 1346 SAMPLE 4415			INDEX 1347 SAMPLE 13106		
STATE.....	ILLINOIS		ILLINOIS			ILLINOIS		
COUNTY.....	DEARBORN		WASHINGTON			WILLIAMSON		
FIELD.....	MOUNT CARMEL		DUBOIS NO. 1			CORINTH S		
WELL NAME.....	RISLEY NO. 1		KASBAN NO. 1			BELLE GENT A NO. 1		
LOCATION.....	SEC. 17, T 15, R12W		SEC. 13, T3S, R2W			SEC. 33, T8S, R4E		
OWNER.....	SHELL OIL CO.		W. O. ALLEN & HARBEE PET. COR			C. E. BREHM DRILLING & PROD.		
COMPLETED.....	--/--/40		09/18/47			11/12/70		
SAMPLED.....	05/11/42		01/06/48			11/22/71		
FORMATION.....	MISS-MCCLOSKEY		NOT GIVEN			MISS-HARDINSBURG		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	2325		1184			2227		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		500			850		
OPEN FLOW, MCFD.....	NOT GIVEN		15300			200		
COMPONENT, MOLE PCT								
METHANE.....	28.0		88.3			96.1		
ETHANE.....	65.6		4.1			0.6		
PROPANE.....	---		---			TRACE		
N-BUTANE.....	---		---			0.0		
ISOBUTANE.....	---		---			0.0		
N-PENTANE.....	---		---			0.0		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			0.0		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	4.9		6.8			2.9		
OXYGEN.....	0.4		0.3			0.2		
ARGON.....	---		0.35			0.0		
HYDROGEN.....	---		---			TRACE		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	1.0		0.1			TRACE		
HELIUM.....	0.07		0.35			0.15		
HEATING VALUE.....	1459		968			984		
SPECIFIC GRAVITY.....	0.911		0.604			0.569		
INDEX 1348 SAMPLE 11801			INDEX 1349 SAMPLE 13271			INDEX 1350 SAMPLE 3839		
STATE.....	ILLINOIS		ILLINOIS			INDIANA		
COUNTY.....	WILLIAMSON		WILLIAMSON			DAVISS		
FIELD.....	JOHNSON CITY E		ST. ERIZ			GLENDALE		
WELL NAME.....	MADISON COAL CORP. G-3		NOVINSKY NO. 1			E. MCCracken NO. 6-C		
LOCATION.....	SEC. 15, T8S, R3E		SEC. 12, T8S, R2E			SEC. 16, T2N, R6W		
OWNER.....	CIPS CO.		C. E. BREHM DRILLING & PROD.			R. D. BROWN, INC.		
COMPLETED.....	12/20/68		09/14/71			06/18/42		
SAMPLED.....	03/27/69		06/19/72			05/15/44		
FORMATION.....	MISS-TAR SPRINGS		MISS-TAR SPRINGS			MISS-		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	1928		1935			730		
WELLHEAD PRESSURE, PSIG.....	625		NOT GIVEN			310		
OPEN FLOW, MCFD.....	6400		4300			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	97.2		96.4			82.0		
ETHANE.....	0.7		0.8			6.9		
PROPANE.....	TRACE		0.2			---		
N-BUTANE.....	0.0		0.0			---		
ISOBUTANE.....	0.0		0.2			---		
N-PENTANE.....	0.0		TRACE			---		
ISOPENTANE.....	0.0		TRACE			---		
CYCLOPENTANE.....	0.0		TRACE			---		
HEXANES PLUS.....	0.0		TRACE			---		
NITROGEN.....	1.6		2.1			10.3		
OXYGEN.....	0.0		TRACE			0.5		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	TRACE		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.3		0.1			0.1		
HELIUM.....	0.09		0.12			0.18		
HEATING VALUE.....	997		1003			954		
SPECIFIC GRAVITY.....	0.566		0.572			0.634		
INDEX 1351 SAMPLE 3530			INDEX 1352 SAMPLE 9787			INDEX 1353 SAMPLE 4883		
STATE.....	INDIANA		INDIANA			INDIANA		
COUNTY.....	DAVISS		DAVISS			DAVISS		
FIELD.....	HUDSONVILLE		ODON E			PLAINVILLE		
WELL NAME.....	SLIN NO. 2		JAMES SHAW NO. 14			W. C. FOUST A NO. 1		
LOCATION.....	SEC. 9, T1N, R6W		SEC. 22, T9N, R5W			SEC. 2, T4N, R7W		
OWNER.....	JOE BAUER		HENRY GWALTNEY			NATIONAL ASSOC. PETROLEUM CO		
COMPLETED.....	--/--/36		08/13/64			04/06/50		
SAMPLED.....	05/15/42		03/03/65			04/08/50		
FORMATION.....	MISS-BARKER		DEVO			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	750		1620			1143		
WELLHEAD PRESSURE, PSIG.....	100		701			525		
OPEN FLOW, MCFD.....	10		5500			4186		
COMPONENT, MOLE PCT								
METHANE.....	93.8		94.3			68.9		
ETHANE.....	0.4		2.4			6.3		
PROPANE.....	---		0.3			2.8		
N-BUTANE.....	---		TRACE			0.6		
ISOBUTANE.....	---		0.1			0.2		
N-PENTANE.....	---		TRACE			0.1		
ISOPENTANE.....	---		TRACE			0.2		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.1			0.0		
NITROGEN.....	5.0		2.4			19.4		
OXYGEN.....	0.4		0.0			0.8		
ARGON.....	---		TRACE			0.1		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.2			0.3		
HELIUM.....	0.12		0.02			0.36		
HEATING VALUE.....	1077		1015			323		
SPECIFIC GRAVITY.....	0.582		0.584			0.719		
INDEX 1354 SAMPLE 5041			INDEX 1355 SAMPLE 5043			INDEX 1356 SAMPLE 512		
STATE.....	INDIANA		INDIANA			INDIANA		
COUNTY.....	DAVISS		DAVISS			DECATUR		
FIELD.....	PLAINVILLE		PLAINVILLE			EASTERN		
WELL NAME.....	LOCKIE MEURER NO. 1-A		W. C. FOUST NO. 1-A			DICK WEEK NO. 1		
LOCATION.....	SEC. 2, T4N, R7W		SEC. 2, T4N, R7W			1 MI. S GREENBURG		
OWNER.....	NATIONAL ASSOC. PETROLEUM CO		NATIONAL ASSOC. PETROLEUM CO			GREENBURG GAS & ELECTRIC CO.		
COMPLETED.....	08/17/50		04/08/50			--/--/15		
SAMPLED.....	05/01/51		--/--/00			10/21/20		
FORMATION.....	MISS-SALEM		MISS-SALEM			ORDO-TRENTON		
GEOLOGIC PROVINCE CODE.....	315		315			300		
DEPTH, FEET.....	1090		1144			898		
WELLHEAD PRESSURE, PSIG.....	525		525			500		
OPEN FLOW, MCFD.....	4000		4000			500		
COMPONENT, MOLE PCT								
METHANE.....	73.0		71.8			78.2		
ETHANE.....	6.5		6.7			2.8		
PROPANE.....	2.7		3.0			---		
N-BUTANE.....	0.6		0.7			---		
ISOBUTANE.....	0.1		0.2			---		
N-PENTANE.....	0.2		0.2			---		
ISOPENTANE.....	TRACE		0.0			---		
CYCLOPENTANE.....	---		TRACE			---		
HEXANES PLUS.....	0.1		0.1			---		
NITROGEN.....	15.8		15.8			17.9		
OXYGEN.....	0.2		0.3			0.9		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.3			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.5		0.8			0.0		
HELIUM.....	0.36		0.36			0.40		
HEATING VALUE.....	963		969			842		
SPECIFIC GRAVITY.....	0.701		0.707			0.647		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1357			INDEX 1358			INDEX 1359		
SAMPLE 513			SAMPLE 17008			SAMPLE 17007		
STATE.....	INDIANA		INDIANA			INDIANA		
COUNTY.....	DECATUR		DUBOIS			DUBOIS		
FIELD.....	WESTPORT		BREITZVILLE			JOHNSBURG E		
WELL NAME.....	MOLLE MARTIN NO. 2		L. WHITE & H. SCHAFER NO.1			J. SEIDL NO. 2		
LOCATION.....	4 MI. N WESTPORT		SEC. 6, T3S, R4W			SEC. 35, T3S, R5W		
OWNER.....	GREINBURG GAS & ELECTRIC CO.		CITIZENS GAS & COKE UTILITY			CITIZENS GAS & COKE UTILITY		
COMPLETED.....	--/7/5		11/09/81			10/05/81		
SAMPLED.....	10/21/20		08/09/83			08/09/83		
FORMATION.....	ORDO-TRENTON		MISS-SALEM			MISS-SALEM		
GEOLOGIC PROVINCE CODE.....	300		315			315		
DEPTH, FEET.....	898		1138			1508		
WELLHEAD PRESSURE, PSIG.....	300		538			602		
OPEN FLOW, MCFD.....	700		440			4600		
COMPONENT, MOLE PCT.....								
METHANE.....	75.6		85.0			71.3		
ETHANE.....	4.5		5.3			5.5		
PROPANE.....	---		0.0			2.5		
N-BUTANE.....	---		0.7			0.7		
ISOBUTANE.....	---		0.2			0.1		
N-PENTANE.....	---		0.1			0.1		
ISOPENTANE.....	---		0.2			0.3		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	19.1		5.4			17.5		
OXYGEN.....	0.2		TRACE			TRACE		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.3			0.2		
HYDROGEN SULFIDE.....	---		TRACE			0.0		
CARBON DIOXIDE.....	0.2		0.6			1.0		
HELIUM.....	0.43		0.03			0.46		
HEATING VALUE.....	846		1057			939		
SPECIFIC GRAVITY.....	0.657		0.649			0.709		
INDEX 1360			INDEX 1361			INDEX 1362		
SAMPLE 5042			SAMPLE 17561			SAMPLE 1934		
STATE.....	INDIANA		INDIANA			INDIANA		
COUNTY.....	DUBOIS		DUBOIS			GIBSON		
FIELD.....	NOT GIVEN		ST. HENRY			OAKLAND CITY		
WELL NAME.....	ROMAN BEGLE NO. 1		LANGE FARMS INC. ETAL. NO.1			GEORGE ALLEN NO. 2		
LOCATION.....	SEC. 24, T3S, R5W		SEC. 24, T3S, R5W			SEC. 22, T2S, R9W		
OWNER.....	NATIONAL ASSOC. PETROLEUM CO		CITIZENS RESOURCES DEV. CORP			SHELL OIL CO.		
COMPLETED.....	01/03/51		09/--/84			11/06/29		
SAMPLED.....	05/01/51		01/08/85			02/11/30		
FORMATION.....	MISS-JACKSON		MISS-TAR SPRINGS			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	589		458			1434		
WELLHEAD PRESSURE, PSIG.....	253		158			630		
OPEN FLOW, MCFD.....	476		238			8000		
COMPONENT, MOLE PCT.....								
METHANE.....	86.2		96.2			80.4		
ETHANE.....	4.4		0.1			5.5		
PROPANE.....	0.9		0.1			---		
N-BUTANE.....	0.2		0.0			---		
ISOBUTANE.....	0.1		0.0			---		
N-PENTANE.....	0.1		0.0			---		
ISOPENTANE.....	TRACE		0.0			---		
CYCLOPENTANE.....	0.0		0.0			---		
HEXANES PLUS.....	0.1		0.0			---		
NITROGEN.....	7.2		3.4			13.4		
OXYGEN.....	TRACE		0.0			0.3		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.6		0.1			0.3		
HELIUM.....	0.12		0.06			0.23		
HEATING VALUE.....	993		979			913		
SPECIFIC GRAVITY.....	0.629		0.570			0.641		
INDEX 1363			INDEX 1364			INDEX 1365		
SAMPLE 2855			SAMPLE 17517			SAMPLE 17168		
STATE.....	INDIANA		INDIANA			INDIANA		
COUNTY.....	GIBSON		GIBSON			GREENE		
FIELD.....	PRINCETON		WHEATONVILLE			SANBORN N		
WELL NAME.....	HALL NO. 1		HENRY MORGAN UNIT NO. 1			JAMES C. HARRIS NO. 1		
LOCATION.....	SEC. 20, T1S, R11W		SEC. 3, T3S, R9W			SEC. 35, T6N, R7W		
OWNER.....	PETROLEUM EXPLORATION, INC.		ROBINSON ENGINEERING			JAMES C. & OREDITH M. HARRIS		
COMPLETED.....	09/--/40		--/--/00			10/09/81		
SAMPLED.....	03/12/41		10/--/84			02/02/84		
FORMATION.....	MISS-HARDINSBURG		PENN-			PENN-GAS SAND		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	1760		1062			202		
WELLHEAD PRESSURE, PSIG.....	795		NOT GIVEN			105		
OPEN FLOW, MCFD.....	3000		400			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	64.7		50.7			82.6		
ETHANE.....	9.3		7.6			3.2		
PROPANE.....	---		0.4			0.7		
N-BUTANE.....	---		0.4			0.2		
ISOBUTANE.....	---		0.3			0.1		
N-PENTANE.....	---		12.1			TRACE		
ISOPENTANE.....	---		0.1			TRACE		
CYCLOPENTANE.....	---		0.1			TRACE		
HEXANES PLUS.....	---		38.1			12.4		
NITROGEN.....	25.0		---			12.7		
OXYGEN.....	0.3		TRACE			0.0		
ARGON.....	---		0.1			TRACE		
HYDROGEN.....	---		TRACE			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.4			0.2		
HELIUM.....	0.54		0.71			0.25		
HEATING VALUE.....	822		727			922		
SPECIFIC GRAVITY.....	0.705		0.784			0.635		
INDEX 1366			INDEX 1367			INDEX 1368		
SAMPLE 3519			SAMPLE 1083			SAMPLE 2609		
STATE.....	INDIANA		INDIANA			INDIANA		
COUNTY.....	GREENE		HARRISON			HENRY		
FIELD.....	SWITZ CITY		TOBACCO LANDING			NOT GIVEN		
WELL NAME.....	WALTER HOLMES NO. 1		LAKE CROSIER			MARY E. REED NO. 2		
LOCATION.....	SEC. 22, T7N, R6W		BOONE TWP.			SEC. 12, T16N, R8E		
OWNER.....	MIDWEST DEVELOPMENT CO.		RAILROADERS GAS CO.			KNIGHTSTOWN NATURAL GAS CO.		
COMPLETED.....	12/2/40		02/2/40			09/24/29		
SAMPLED.....	05/20/42		06/15/25			02/20/33		
FORMATION.....	DEVO-		DEVO-BLACK SHALE			ORDO-TRENTON		
GEOLOGIC PROVINCE CODE.....	315		315			300		
DEPTH, FEET.....	1648		405			959		
WELLHEAD PRESSURE, PSIG.....	714		170			15		
OPEN FLOW, MCFD.....	382		NOT GIVEN			20		
COMPONENT, MOLE PCT.....								
METHANE.....	91.6		85.3			75.8		
ETHANE.....	5.3		4.7			13.2		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	7.7		---			9.8		
OXYGEN.....	0.5		1.1			0.5		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.0		1.4			0.4		
HELIUM.....	0.98		0.17			0.30		
HEATING VALUE.....	823		1048			1004		
SPECIFIC GRAVITY.....	0.601		0.629			0.666		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1369 2325	INDEX SAMPLE	1370 17138	INDEX SAMPLE	1371 2298
STATE.....	INDIANA			INDIANA		INDIANA	
COUNTY.....	HUNTINGTON			JAY		KNOX	
FIELD.....	BUSSARD			TRENTON		OKTOWN W	
WELL NAME.....	NO. 1			RONALD & JANICE GILLUM NO. 1		NO. 1	
LOCATION.....	SEC. 26, T28N, R9E			SEC. 23, T23N, R12E		SEC. 15, T5N, R10W	
OWNER.....	TWO RIVERS CORP.			RONA O. L. GILLUM		JAMES H. GARDNER, ET AL.	
COMPLETED.....	06/01/30			07/29/83		12/11/30	
SAMPLED.....	05/11/31			11/10/83		02/27/31	
FORMATION.....	NOT GIVEN			ORDO-TRENTON		PENN-	
GEOLOGIC PROVINCE CODE.....	300			300		315	
DEPTH, FEET.....	1050			962		705	
WELLHEAD PRESSURE, PSIG.....	240			9		350	
OPEN FLOW, MCFD.....	50			NOT GIVEN		3900	
COMPONENT, MOLE PCT							
METHANE.....	57.3			54.1		97.0	
ETHANE.....	20.3			13.5		0.8	
PROPANE.....	---			3.7		---	
N-BUTANE.....	---			3.1		---	
ISOBUTANE.....	---			1.5		---	
N-PENTANE.....	---			1.0		---	
ISOPENTANE.....	---			1.1		---	
CYCLOPENTANE.....	---			0.2		---	
HEXANES PLUS.....	---			0.7		---	
NITROGEN.....	21.2			0.2		1.8	
OXYGEN.....	0.3			TRACE		0.1	
ARGON.....	---			TRACE		---	
HYDROGEN.....	---			0.2		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.5			0.4		0.3	
HELIUM.....	0.38			0.12		0.06	
HEATING VALUE.....	944			1406		997	
SPECIFIC GRAVITY.....	0.747			0.865		0.569	
		INDEX SAMPLE	1372 4831	INDEX SAMPLE	1373 5045	INDEX SAMPLE	1374 1995
STATE.....	INDIANA			INDIANA		INDIANA	
COUNTY.....	MARSHALL			MARSHALL		MONROE	
FIELD.....	LAKE OF THE WOODS			NORTHTOWN		UNIONVILLE	
WELL NAME.....	NO. 2			NELSON SALTEENRIGHT NO. 1		W. E. SHIRLEY NO. 1	
LOCATION.....	SEC. 13, T34N, R2E			SEC. 11, T24N, R2E		SEC. 7, T9N, R1E	
OWNER.....	MARSHALL PETROLEUM CO.			MARSHALL PETROLEUM CO.		OHIO OIL CO.	
COMPLETED.....	10/27/49			10/24/50		11/01/29	
SAMPLED.....	01/14/50			04/19/51		04/10/30	
FORMATION.....	NOT GIVEN			NOT GIVEN		DEVO-CORNIFEROUS	
GEOLOGIC PROVINCE CODE.....	305			305		315	
DEPTH, FEET.....	350			374		672	
WELLHEAD PRESSURE, PSIG.....	90			100		230	
OPEN FLOW, MCFD.....	10			500		1000	
COMPONENT, MOLE PCT							
METHANE.....	91.8			88.1		94.8	
ETHANE.....	0.9			1.2		1.9	
PROPANE.....	0.1			0.2		---	
N-BUTANE.....	TRACE			0.1		---	
ISOBUTANE.....	0.0			0.1		---	
N-PENTANE.....	0.1			TRACE		---	
ISOPENTANE.....	0.0			TRACE		---	
CYCLOPENTANE.....	TRACE			TRACE		---	
HEXANES PLUS.....	0.1			TRACE		---	
NITROGEN.....	3.2			5.1		2.4	
OXYGEN.....	0.1			0.7		0.3	
ARGON.....	0.1			0.1		---	
HYDROGEN.....	0.1			0.0		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	3.0			3.4		0.6	
HELIUM.....	0.41			0.00		0.04	
HEATING VALUE.....	961			926		994	
SPECIFIC GRAVITY.....	0.605			0.628		0.581	
		INDEX SAMPLE	1375 2364	INDEX SAMPLE	1376 6059	INDEX SAMPLE	1377 3529
STATE.....	INDIANA			INDIANA		INDIANA	
COUNTY.....	MONROE			PIKE		PIKE	
FIELD.....	UNIONVILLE			HAZELTON		IVA	
WELL NAME.....	JACOB NEAL NO. 1			NO. 1		CARPENTER NO. 1	
LOCATION.....	SEC. 7, BENTON TWP.			SEC. 20, T1N, R9W		SEC. 19, T1N, R6W	
OWNER.....	OHIO OIL CO.			HERBERT GRUBB		LOUISVILLE LAND BANK	
COMPLETED.....	04/10/31			02/15/56		06/04/41	
SAMPLED.....	07/23/31			05/14/56		05/15/42	
FORMATION.....	DEVO-CORNIFEROUS			MISS-CYPRESS		MISS-BARKER	
GEOLOGIC PROVINCE CODE.....	315			315		315	
DEPTH, FEET.....	799			1364		703	
WELLHEAD PRESSURE, PSIG.....	222			500		225	
OPEN FLOW, MCFD.....	1080			---		500	
COMPONENT, MOLE PCT							
METHANE.....	93.9			68.5		82.9	
ETHANE.....	0.3			5.5		0.4	
PROPANE.....	---			0.7		---	
N-BUTANE.....	---			TRACE		---	
ISOBUTANE.....	---			TRACE		---	
N-PENTANE.....	---			TRACE		---	
ISOPENTANE.....	---			0.0		---	
CYCLOPENTANE.....	---			TRACE		---	
HEXANES PLUS.....	---			TRACE		---	
NITROGEN.....	2.1			24.0		15.8	
OXYGEN.....	0.1			TRACE		0.3	
ARGON.....	---			TRACE		---	
HYDROGEN.....	---			TRACE		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.6			0.0		0.3	
HELIUM.....	0.05			0.59		0.33	
HEATING VALUE.....	1010			817		847	
SPECIFIC GRAVITY.....	0.586			0.688		0.625	
		INDEX SAMPLE	1378 3819	INDEX SAMPLE	1379 17165	INDEX SAMPLE	1380 17781
STATE.....	INDIANA			INDIANA		INDIANA	
COUNTY.....	PIKE			RUSH		SPENCER	
FIELD.....	IVA			TRENTON		PUEBLO	
WELL NAME.....	STEEN NO. 1			R. STEVEN FROMAN NO. 1		BURGDOFF NO. 1	
LOCATION.....	SEC. 24, T1N, R7W			SEC. 16, T14N, R9E		SEC. 17, T8S, R6W	
OWNER.....	INDIAN FARM BUREAU COOP. AS			R. STEVEN FROMAN		REYNOLDS RESOURCES, INC.	
COMPLETED.....	12/22/42			01/16/83		06/25/82	
SAMPLED.....	04/22/44			01/25/84		07/04/85	
FORMATION.....	MISS-CHESTER L			ORDO-TRENTON		MISS-WALTERSBURG	
GEOLOGIC PROVINCE CODE.....	315			300		315	
DEPTH, FEET.....	840			875		990	
WELLHEAD PRESSURE, PSIG.....	300			120		465	
OPEN FLOW, MCFD.....	200			NOT GIVEN		3000	
COMPONENT, MOLE PCT							
METHANE.....	86.0			78.2		86.6	
ETHANE.....	8.2			0.7		0.6	
PROPANE.....	---			0.9		1.4	
N-BUTANE.....	---			0.2		1.1	
ISOBUTANE.....	---			0.1		0.2	
N-PENTANE.....	---			0.1		0.3	
ISOPENTANE.....	---			0.1		0.3	
CYCLOPENTANE.....	---			TRACE		0.2	
HEXANES PLUS.....	---			TRACE		0.3	
NITROGEN.....	5.5			16.1		7.7	
OXYGEN.....	0.2			0.0		0.9	
ARGON.....	---			0.1		0.1	
HYDROGEN.....	---			TRACE		0.1	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.2	
HELIUM.....	TRACE			0.37		0.06	
HEATING VALUE.....	1018			900		1017	
SPECIFIC GRAVITY.....	0.620			0.657		0.653	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1381 SAMPLE 17782			INDEX 1382 SAMPLE 16455			INDEX 1383 SAMPLE 3535		
STATE.....	INDIANA		INDIANA			INDIANA		
COUNTY.....	SPENCER		SPENCER			SPENCER		
FIELD.....	PUERLO		RICHLAND CITY N			ROCKPORT		
WELL NAME.....	MILLER NO. 1		B. SCHNACKE NO. 1			LEAH KOFF NO. 2		
LOCATION.....	SEC. 20, T8S, R6W		SEC. 35, T6S, RTW			SEC. 19, T7S, R6W		
OWNER.....	REYNOLDS RESOURCES, INC.		INDIANA FARM BUREAU COOP. AS			KENTUCKY NATURAL GAS CO.		
COMPLETED.....	09/28/84		/-/-/00			04/13/40		
SAMPLED.....	07/04/85		03/17/82			05/18/42		
FORMATION.....	MISS-WALTERSBURG		PENN-NOT GIVEN			MISS-PALESTINE		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	1070		972			871		
WELLHEAD PRESSURE, PSIG.....	511		570			248		
OPEN FLOW, MCFD.....	4000		1000			11946		
COMPONENT, MOLE PCT								
METHANE.....	96.6		95.6			91.0		
ETHANE.....	0.2		0.0			4.8		
PROPANE.....	0.4		0.0			---		
N-BUTANE.....	0.5		0.0			---		
ISOBUTANE.....	0.2		0.0			---		
N-PENTANE.....	0.2		0.0			---		
ISOPENTANE.....	0.2		0.0			---		
CYCLOPENTANE.....	0.2		0.0			---		
HEXANES PLUS.....	0.2		0.0			---		
NITROGEN.....	0.9		3.2			3.5		
OXYGEN.....	0.0		0.0			0.5		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.1		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.8			0.1		
HELIUM.....	0.03		0.07			0.14		
HEATING VALUE.....	1051		968			1008		
SPECIFIC GRAVITY.....	0.591		0.578			0.596		

INDEX 1384 SAMPLE 3536			INDEX 1385 SAMPLE 3537			INDEX 1386 SAMPLE 3538		
STATE.....	INDIANA		INDIANA			INDIANA		
COUNTY.....	SPENCER		SPENCER			SPENCER		
FIELD.....	ROCKPORT		ROCKPORT			ROCKPORT		
WELL NAME.....	AXTON-BUMFUS NO. 1		R. HARVEY NO. 1			HENRY WERTHWEIR NO. 1		
LOCATION.....	SEC. 30, T7S, R6W		SEC. 19, T8S, R6W			SEC. 29, T7S, R6W		
OWNER.....	KENTUCKY NATURAL GAS CO.		KENTUCKY NATURAL GAS CO.			KENTUCKY NATURAL GAS CO.		
COMPLETED.....	11/17/39		06/05/40			05/31/40		
SAMPLED.....	05/18/42		05/18/42			05/18/42		
FORMATION.....	MISS-PALESTINE		PENN-CASEYVILLE			PENN-CASEYVILLE		
GEOLOGIC PROVINCE CODE.....	315		315			315		
DEPTH, FEET.....	871		622			641		
WELLHEAD PRESSURE, PSIG.....	240		146			265		
OPEN FLOW, MCFD.....	3952		240			1931		
COMPONENT, MOLE PCT								
METHANE.....	91.2		90.2			96.5		
ETHANE.....	4.8		0.0			0.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	3.3		9.0			2.8		
OXYGEN.....	0.5		0.4			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.13		0.26			0.12		
HEATING VALUE.....	1010		914			978		
SPECIFIC GRAVITY.....	0.595		0.593			0.570		

INDEX 1387 SAMPLE 3527			INDEX 1388 SAMPLE 2483			INDEX 1389 SAMPLE 17732		
STATE.....	INDIANA		INDIANA			INDIANA		
COUNTY.....	SULLIVAN		SWITZERLAND			WARRICK		
FIELD.....	MARTIS		LONG RUN			FOLSONVILLE		
WELL NAME.....	SAH HAUGER		IRA & DAVID WISEMAN NO. 1			JOHN KING NO. 1		
LOCATION.....	SEC. 19, T9N, R9W		SEC. 16, T2N, R3W			SEC. 5, T5S, R7W		
OWNER.....	DOMS GAS CO.		F. C. BAKES			MWC OIL CO.		
COMPLETED.....	03/01/38		12/16/31			10/20/84		
SAMPLED.....	05/14/42		03/17/32			06/30/85		
FORMATION.....	-SANDSTONE		ORDO-TRENTON U			MISS-WARSAW M		
GEOLOGIC PROVINCE CODE.....	315		300			315		
DEPTH, FEET.....	259		280			2234		
WELLHEAD PRESSURE, PSIG.....	30		120			825		
OPEN FLOW, MCFD.....	50		1500			150		
COMPONENT, MOLE PCT								
METHANE.....	97.0		80.2			72.8		
ETHANE.....	0.0		8.5			5.2		
PROPANE.....	---		---			2.7		
N-BUTANE.....	---		---			0.7		
ISOBUTANE.....	---		---			0.2		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.2		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	1.6		9.4			17.1		
OXYGEN.....	0.4		0.4			0.1		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.2		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	1.0		0.4			0.1		
HELIUM.....	0.04		0.10			0.43		
HEATING VALUE.....	983		965			958		
SPECIFIC GRAVITY.....	0.573		0.646			0.703		

INDEX 1390 SAMPLE 12017			INDEX 1391 SAMPLE 12018			INDEX 1392 SAMPLE 12020		
STATE.....	IOWA		IOWA			IOWA		
COUNTY.....	WEBSTER		WEBSTER			WEBSTER		
FIELD.....	VINCENT		VINCENT			VINCENT		
WELL NAME.....	SHARP NO. 2		WILLEY NO. 1			ANDERSON NO. 1		
LOCATION.....	SEC. 11, T9N, R27W		SEC. 11, T9N, R27W			SEC. 3, T9N, R27W		
OWNER.....	NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		
COMPLETED.....	10/26/63		04/25/66			09/03/65		
SAMPLED.....	08/29/69		08/29/69			08/29/69		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	325		325			325		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.4		TRACE			77.9		
ETHANE.....	5.3		0.0			5.5		
PROPANE.....	1.1		0.0			1.3		
N-BUTANE.....	0.2		0.0			0.2		
ISOBUTANE.....	TRACE		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.2		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.1		0.0			0.1		
NITROGEN.....	8.1		65.3			13.4		
OXYGEN.....	TRACE		0.0			0.3		
ARGON.....	TRACE		0.8			0.1		
HYDROGEN.....	0.5		33.7			0.8		
HYDROGEN SULFIDE.....	0.0		TRACE			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.0		
HELIUM.....	0.09		0.00			0.12		
HEATING VALUE.....	996		109			944		
SPECIFIC GRAVITY.....	0.629		0.671			0.657		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

125

INDEX 1393 SAMPLE 12021			INDEX 1394 SAMPLE 1875			INDEX 1395 SAMPLE 7250		
STATE.....	IOWA		KANSAS			KANSAS		
COUNTY.....	WEBSTER		BARBER			BARBER		
FIELD.....	WINGENT		COLONY			AETNA GAS AREA		
WELL NAME.....	HOFFMANN NO. 3		VIETJE NO. 10			DAVIS RANCH UNIT NO. 1		
LOCATION.....	SEC. 4, T90N, R27W		SEC. 28, T22S, R19E			SEC. 32, T33S, R14W		
OWNER.....	NORTHERN NATURAL GAS CO.		ARROWHEAD FUEL OIL CO.			CHAMPLIN OIL & REFINING CO.		
COMPLETED.....	09/03/64		12/22/22			04/29/59		
SAMPLED.....	08/29/69		09/24/29			10/14/59		
FORMATION.....	NOT GIVEN		NOT GIVEN			MISS-NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	325		335			375		
DEPTH, FEET.....	NOT GIVEN		900			4656		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		15			1550		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			13810		
COMPONENT, MOLE PCT								
METHANE.....	0.1	94.4				92.7		
ETHANE.....	0.0	2.7				3.5		
PROPANE.....	TRACE					1.2		
N-BUTANE.....	0.0					0.4		
ISOBUTANE.....	0.0					0.2		
N-PENTANE.....	0.0					TRACE		
ISOPENTANE.....	0.0					0.3		
CYCLOPENTANE.....	0.0					0.1		
HEXANES PLUS.....	0.0					0.2		
NITROGEN.....	3.5	1.8				1.2		
OXYGEN.....	0.0	0.2				0.0		
ARGON.....	TRACE					0.0		
HYDROGEN.....	96.3					0.0		
HYDROGEN SULFIDE.....	0.0					0.0		
CARBON DIOXIDE.....	TRACE					0.1		
HELIUM.....	0.00	0.20				0.10		
HEATING VALUE.....	313	1005				1080		
SPECIFIC GRAVITY.....	0.101	0.587				0.611		
INDEX 1396 SAMPLE 9573			INDEX 1397 SAMPLE 9578			INDEX 1398 SAMPLE 9720		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARBER		BARBER			BARBER		
FIELD.....	AETNA GAS AREA		AETNA GAS AREA			AETNA GAS AREA		
WELL NAME.....	DAVIS RANCH E NO. 1		BIRDIE CLARK NO. 1			NO. 1		
LOCATION.....	SEC. 35, T34S, R15W		SEC. 7, T34S, R13W			SEC. 29, T34S, R13W		
OWNER.....	K & E DRILLING, INC.		SKELLY OIL CO.			SKELLY OIL CO.		
COMPLETED.....	07/17/64		05/02/64			12/16/64		
SAMPLED.....	09/29/64		09/23/64			02/05/65		
FORMATION.....	MISS--		MISS--			MISS--		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	4834	4846				4821		
WELLHEAD PRESSURE, PSIG.....	1633	1440				1590		
OPEN FLOW, MCFD.....	12000	9240				2090		
COMPONENT, MOLE PCT								
METHANE.....	92.0	84.3				84.7		
ETHANE.....	3.8	6.7				6.6		
PROPANE.....	1.2	2.6				0.3		
N-BUTANE.....	0.5	0.7				0.7		
ISOBUTANE.....	0.1	0.3				0.3		
N-PENTANE.....	0.1	0.2				0.1		
ISOPENTANE.....	0.1	0.1				0.1		
CYCLOPENTANE.....	0.1	0.1				TRACE		
HEXANES PLUS.....	0.2	0.2				0.2		
NITROGEN.....	1.6	4.4				4.8		
OXYGEN.....	0.0	0.1				0.0		
ARGON.....	TRACE	TRACE				TRACE		
HYDROGEN.....	0.0	0.0				0.0		
HYDROGEN SULFIDE.....	0.0	0.0				0.0		
CARBON DIOXIDE.....	0.1	0.1				0.1		
HELIUM.....	0.10	0.21				0.13		
HEATING VALUE.....	1078	1102				1088		
SPECIFIC GRAVITY.....	0.614	0.660				0.654		
INDEX 1399 SAMPLE 12152			INDEX 1400 SAMPLE 12716			INDEX 1401 SAMPLE 11949		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARBER		BARBER			BARBER		
FIELD.....	AETNA GAS AREA		AETNA GAS AREA			ANTRIM		
WELL NAME.....	BLUMK NO. 1		BLUMK NO.			ANTRIM NO. 1		
LOCATION.....	SEC. 9, T33S, R14W		SEC. 25, T34S, R14W			SEC. 30, T32S, R10W		
OWNER.....	SAGE DRILLING CO., INC.		IMPERIAL OIL CO.			D. R. LAUCK OIL CO., INC.		
COMPLETED.....	04/30/69		12/07/71			--/--/00		
SAMPLED.....	12/16/69		03/08/71			--/--/00		
FORMATION.....	MISS--		MISS-NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	4652	4695				NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1332	1200				NOT GIVEN		
OPEN FLOW, MCFD.....	1718	NOT GIVEN				NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	92.6	87.6				79.6		
ETHANE.....	3.7	5.0				5.0		
PROPANE.....	1.1	2.0				2.9		
N-BUTANE.....	0.3	0.7				0.9		
ISOBUTANE.....	0.0	0.3				0.4		
N-PENTANE.....	0.0	0.2				0.2		
ISOPENTANE.....	0.0	0.3				0.2		
CYCLOPENTANE.....	0.0	0.1				0.1		
HEXANES PLUS.....	0.0	0.5				0.2		
NITROGEN.....	1.9	2.9				8.3		
OXYGEN.....	0.0	0.1				0.6		
ARGON.....	TRACE	0.0				0.1		
HYDROGEN.....	0.1	0.0				0.4		
HYDROGEN SULFIDE.....	0.0	0.0				0.0		
CARBON DIOXIDE.....	TRACE	0.1				0.0		
HELIUM.....	0.13	0.12				0.11		
HEATING VALUE.....	1193	1121				1047		
SPECIFIC GRAVITY.....	0.594	0.634				0.684		
INDEX 1402 SAMPLE 17057			INDEX 1403 SAMPLE 5940			INDEX 1404 SAMPLE 6054		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARBER		BARBER			BARBER		
FIELD.....	BLOOM N		BOGGS SW			BOGGS SW		
WELL NAME.....	MAC NO. 1		MCULLOUGH NO. 1			DONOVAN NO. A-1		
LOCATION.....	SEC. 7, T32S, R11W		SEC. 30, T33S, R12W			SEC. 14, T34S, R13W		
OWNER.....	BOYERS DRILLING CO.		TRANS-ERA PETROLEUM CO., ET			AYLWARD DRILLING CO.		
COMPLETED.....	05/21/82		06/17/55			01/11/56		
SAMPLED.....	09/10/83		09/14/55			05/11/56		
FORMATION.....	MISS--		MISS--			MISS--CHAT		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	4294	4454				4635		
WELLHEAD PRESSURE, PSIG.....	1500	1505				1400		
OPEN FLOW, MCFD.....	950	4448				5400		
COMPONENT, MOLE PCT								
METHANE.....	80.1	80.2				93.5		
ETHANE.....	6.0	5.9				TRACE		
PROPANE.....	3.0	2.6				0.1		
N-BUTANE.....	1.0	0.8				0.1		
ISOBUTANE.....	0.1	0.1				0.1		
N-PENTANE.....	0.2	0.2				0.1		
ISOPENTANE.....	0.5	0.2				0.0		
CYCLOPENTANE.....	0.1	0.1				TRACE		
HEXANES PLUS.....	0.2	0.1				0.1		
NITROGEN.....	7.5	9.2				5.5		
OXYGEN.....	0.0	0.0				0.0		
ARGON.....	TRACE	TRACE				TRACE		
HYDROGEN.....	0.3	0.0				0.1		
HYDROGEN SULFIDE.....	0.0	0.0				0.0		
CARBON DIOXIDE.....	0.1	0.5				TRACE		
HELIUM.....	0.45	0.23				0.36		
HEATING VALUE.....	1089	1049				966		
SPECIFIC GRAVITY.....	0.684	0.676				0.583		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1405			INDEX 1406			INDEX 1407		
SAMPLE 9879			SAMPLE 16015			SAMPLE 4611		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARBER		BARBER			BARBER		
FIELD.....	BOGGS SW		CEDAR			COTTONWOOD CREEK		
WELL NAME.....	V. L. COOK A NO. 1		HILLER NO. 1			WERNER B NO. 1		
LOCATION.....	SEC. 8, T34S, R12W		SEC. 36, T33S, R10W			SEC. 21, T30S, R14W		
OWNER.....	AMERADA PETROLEUM CORP.		GEORGE R. JONES			GREAT LAKES CARBON CORP.		
COMPLETED.....	03/20/65		01/09/80			08/31/48		
SAMPLED.....	04/26/65		07/10/80			11/04/48		
FORMATION.....	MISS-NOT GIVEN		MISS-			ORDO-SIMPSON		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	4694		4569			4582		
WELLHEAD PRESSURE, PSIG.....	1174		1600			1400		
OPEN FLOW, MCFD.....	2400		2015			4000		
COMPONENT, MOLE PCT.....								
METHANE.....	81.4		88.1			51.3		
ETHANE.....	3.5		5.3			26.3		
PROPANE.....	1.3		2.2			---		
N-BUTANE.....	0.4		0.7			---		
ISOBUTANE.....	0.3		---			---		
N-PENTANE.....	0.1		0.2			---		
ISOPENTANE.....	0.1		0.2			---		
CYCLOPENTANE.....	TRACE		0.1			---		
HEXANES PLUS.....	0.1		0.2			---		
NITROGEN.....	12.5		2.4			20.3		
OXYGEN.....	0.0		TRACE			0.4		
ARGON.....	0.1		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.08		0.13			1.55		
HEATING VALUE.....	958		1109			991		
SPECIFIC GRAVITY.....	0.655		0.642			0.766		
INDEX 1408			INDEX 1409			INDEX 1410		
SAMPLE 3255			SAMPLE 3802			SAMPLE 4224		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARBER		BARBER			BARBER		
FIELD.....	DEERHEAD		DEERHEAD			DEERHEAD		
WELL NAME.....	HILDEBRAND NO. 1		HILDEBRAND NO. 2			HILDEBRAND NO. 9		
LOCATION.....	SEC. 26, T32S, R15W		SEC. 22, T32S, R15W			SEC. 27, T32S, R15W		
OWNER.....	CHAMPLIN REFINING CO.		CHAMPLIN REFINING CO.			CHAMPLIN REFINING CO.		
COMPLETED.....	03/01/42		06/28/43			01/-/47		
SAMPLED.....	04/01/42		04/13/44			02/05/47		
FORMATION.....	04/-VIOLA		04/13/44			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	4926		4980			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1500		1700			380		
OPEN FLOW, MCFD.....	14500		34000			2000		
COMPONENT, MOLE PCT.....								
METHANE.....	78.6		69.4			75.8		
ETHANE.....	13.0		18.2			8.6		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	7.1		11.3			8.4		
OXYGEN.....	0.3		0.2			0.0		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			6.5		
HELIUM.....	0.76		0.71			0.72		
HEATING VALUE.....	1029		922			922		
SPECIFIC GRAVITY.....	0.648		0.691			0.692		
INDEX 1411			INDEX 1412			INDEX 1413		
SAMPLE 16179			SAMPLE 17597			SAMPLE 16473		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARBER		BARBER			BARBER		
FIELD.....	DEERHEAD		DEERHEAD			DEERHEAD		
WELL NAME.....	HILLS NO. 1		DEGER NO. 1-34			RIDIN INTO HELL&BK AGAIN NO1		
LOCATION.....	SEC. 27, T32S, R15W		SEC. 34, T32S, R15W			SEC. 14, T32S, R15W		
OWNER.....	RAYMOND OIL CO., INC.		TEXAS ENERGIES, INC.			WILD BOYS & SILVER BULLET OI		
COMPLETED.....	04/30/80		01/01/84			08/25/81		
SAMPLED.....	01/27/81		02/20/85			03/30/82		
FORMATION.....	PENN-TOPEKA		PENN-HARMATON			MISS---		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	3500		4735			4769		
WELLHEAD PRESSURE, PSIG.....	1553		1480			1320		
OPEN FLOW, MCFD.....	2200		4500			1500		
COMPONENT, MOLE PCT.....								
METHANE.....	86.8		80.2			81.6		
ETHANE.....	4.1		5.8			6.0		
PROPANE.....	1.7		2.9			2.1		
N-BUTANE.....	0.6		0.8			0.8		
ISOBUTANE.....	0.3		0.4			0.4		
N-PENTANE.....	0.2		0.3			0.3		
ISOPENTANE.....	0.2		0.2			0.0		
CYCLOPENTANE.....	0.1		0.1			0.2		
HEXANES PLUS.....	0.2		0.2			0.4		
NITROGEN.....	5.4		8.2			7.3		
OXYGEN.....	0.2		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.19		0.30			0.42		
HEATING VALUE.....	1058		1078			1083		
SPECIFIC GRAVITY.....	0.644		0.687			0.676		
INDEX 1414			INDEX 1415			INDEX 1416		
SAMPLE 12039			SAMPLE 12091			SAMPLE 13402		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARBER		BARBER			BARBER		
FIELD.....	DEGER ME		DEGER ME			DEGER SW		
WELL NAME.....	CARR NO. 1		CARR NO. 1			BRASS NO. 1		
LOCATION.....	SEC. 5, T32S, R15W		SEC. 36, T32S, R15W			SEC. 5, T33S, R15W		
OWNER.....	BEACON RESOURCES CORP.		BEACON RESOURCES CORP.			CHAMPLIN PETROLEUM CO.		
COMPLETED.....	-/-/00		12/03/69			01/14/71		
SAMPLED.....	09/12/69		10/23/69			09/24/72		
FORMATION.....	PERM-FORAKER		PENN-KANSAS CITY			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	2999		4315			4362		
WELLHEAD PRESSURE, PSIG.....	1275		1400			1521		
OPEN FLOW, MCFD.....	8		8			3500		
COMPONENT, MOLE PCT.....								
METHANE.....	91.8		92.0			87.5		
ETHANE.....	3.7		3.6			4.9		
PROPANE.....	1.5		1.4			2.1		
N-BUTANE.....	0.4		0.4			0.7		
ISOBUTANE.....	0.2		0.2			0.3		
N-PENTANE.....	0.1		0.1			0.3		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	1.6		1.7			3.5		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.1		
HELIUM.....	0.09		0.09			0.17		
HEATING VALUE.....	1083		1072			1093		
SPECIFIC GRAVITY.....	0.615		0.610			0.644		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1417 SAMPLE 13471		INDEX 1418 SAMPLE 15266		INDEX 1419 SAMPLE 9648	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	BARBER	COUNTY.....	BARBER	COUNTY.....	BARBER
FIELD.....	DEGEER SW	FIELD.....	EADS	FIELD.....	GILBERT
WELL NAME.....	BRASS NO. 1	WELL NAME.....	AYRES NO. 1	WELL NAME.....	GILBERT NO. 1
LOCATION.....	SEC. 5, T3S, R15W	LOCATION.....	SEC. 3, T3S, R14W	LOCATION.....	SEC. 18, T32S, R11W
OWNER.....	CHAMPLIN PETROLEUM CO.	OWNER.....	MAURICE L. BROWN CO.	OWNER.....	BEARDMORE DRILLING CO.
COMPLETED.....	01/14/71	COMPLETED.....	07/15/77	COMPLETED.....	08/26/64
SAMPLED.....	11/10/77	SAMPLED.....	09/20/78	SAMPLED.....	11/25/64
FORMATION.....	ORDO-VIOLA	FORMATION.....	PENN-TORONTO	FORMATION.....	PENN-DOUGLAS
GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375
DEPTH, FEET.....	4751	DEPTH, FEET.....	3831	DEPTH, FEET.....	3568
WELLHEAD PRESSURE, PSIG.....	310	WELLHEAD PRESSURE, PSIG.....	930	WELLHEAD PRESSURE, PSIG.....	1250
OPEN FLOW, MCFD.....	1550	OPEN FLOW, MCFD.....	2097	OPEN FLOW, MCFD.....	800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	81.2	METHANE.....	77.3	METHANE.....	86.1
ETHANE.....	6.3	ETHANE.....	4.7	ETHANE.....	8.1
PROPANE.....	3.8	PROPANE.....	2.5	PROPANE.....	1.4
N-BUTANE.....	1.7	N-BUTANE.....	0.9	N-BUTANE.....	0.4
ISOBUTANE.....	0.8	ISOBUTANE.....	0.3	ISOBUTANE.....	TRACE
N-PENTANE.....	0.7	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	4.3	NITROGEN.....	12.8	NITROGEN.....	7.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.17	HELIUM.....	0.44	HELIUM.....	0.23
HEATING VALUE.....	1185	HEATING VALUE.....	1012	HEATING VALUE.....	1013
SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.692	SPECIFIC GRAVITY.....	0.632
INDEX 1420 SAMPLE 16302		INDEX 1421 SAMPLE 4017		INDEX 1422 SAMPLE 6085	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	BARBER	COUNTY.....	BARBER	COUNTY.....	BARBER
FIELD.....	HARDING	FIELD.....	HIGHLAND SW	FIELD.....	ILS
WELL NAME.....	JEWEL "A" NO. 1	WELL NAME.....	SHRIVER NO. 1	WELL NAME.....	SMITH ESTATE NO. 1
LOCATION.....	SEC. 6, T30S, R11W	LOCATION.....	SEC. 1, T30S, R14W	LOCATION.....	SEC. 5, T31S, R11W
OWNER.....	CITIES SERVICE CO.	OWNER.....	LION OIL CO.	OWNER.....	CARL T000 DRILLING
COMPLETED.....	05/20/80	COMPLETED.....	--/--/00	COMPLETED.....	02/25/56
SAMPLED.....	08/03/81	SAMPLED.....	05/04/45	SAMPLED.....	06/12/56
FORMATION.....	PERM-INDIAN CAVE	FORMATION.....	ORDO-SIMPSON	FORMATION.....	ORDO-SIMPSON
GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375
DEPTH, FEET.....	2754	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	4864
WELLHEAD PRESSURE, PSIG.....	918	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1531
OPEN FLOW, MCFD.....	2437	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	88.8	METHANE.....	55.2	METHANE.....	64.9
ETHANE.....	5.9	ETHANE.....	18.5	ETHANE.....	5.0
PROPANE.....	1.6	PROPANE.....	---	PROPANE.....	0.8
N-BUTANE.....	0.5	N-BUTANE.....	---	N-BUTANE.....	0.4
ISOBUTANE.....	0.3	ISOBUTANE.....	---	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	---	N-PENTANE.....	0.4
ISOPENTANE.....	0.1	ISOPENTANE.....	---	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	---	HEXANES PLUS.....	0.2
NITROGEN.....	4.1	NITROGEN.....	23.3	NITROGEN.....	22.0
OXYGEN.....	0.0	OXYGEN.....	0.4	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	---	ARGON.....	0.1
HYDROGEN.....	TRACE	HYDROGEN.....	---	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.1
HELIUM.....	0.19	HELIUM.....	1.79	HELIUM.....	1.21
HEATING VALUE.....	1065	HEATING VALUE.....	892	HEATING VALUE.....	928
SPECIFIC GRAVITY.....	0.632	SPECIFIC GRAVITY.....	0.737	SPECIFIC GRAVITY.....	0.738
INDEX 1423 SAMPLE 8002		INDEX 1424 SAMPLE 11293		INDEX 1425 SAMPLE 4031	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	BARBER	COUNTY.....	BARBER	COUNTY.....	BARBER
FIELD.....	ILS	FIELD.....	KNACKSTEDT	FIELD.....	LAKE CITY
WELL NAME.....	WATKINS-NELSON NO. 1	WELL NAME.....	KNACKSTEDT NO. 1	WELL NAME.....	D. B. HARGIS NO. 1
LOCATION.....	SEC. 17, T31S, R11W	LOCATION.....	SEC. 18, T30S, R13W	LOCATION.....	SEC. 3, T31S, R14W
OWNER.....	LARIO OIL & GAS CO.	OWNER.....	SUNRAY OIL CO.	OWNER.....	STANOLIND OIL & GAS CO.
COMPLETED.....	06/01/51	COMPLETED.....	03/01/57	COMPLETED.....	08/30/44
SAMPLED.....	05/24/61	SAMPLED.....	02/12/68	SAMPLED.....	10/15/45
FORMATION.....	PENN-DOUGLAS	FORMATION.....	ORDO-VIOLA	FORMATION.....	ORDO-MAGUOKETA
GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375
DEPTH, FEET.....	3757	DEPTH, FEET.....	4514	DEPTH, FEET.....	4399
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1359	WELLHEAD PRESSURE, PSIG.....	1445
OPEN FLOW, MCFD.....	8060	OPEN FLOW, MCFD.....	5139	OPEN FLOW, MCFD.....	4000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.3	METHANE.....	76.3	METHANE.....	76.6
ETHANE.....	4.4	ETHANE.....	5.1	ETHANE.....	17.5
PROPANE.....	0.8	PROPANE.....	0.7	PROPANE.....	---
N-BUTANE.....	0.6	N-BUTANE.....	0.6	N-BUTANE.....	---
ISOBUTANE.....	0.4	ISOBUTANE.....	0.0	ISOBUTANE.....	---
N-PENTANE.....	0.2	N-PENTANE.....	0.0	N-PENTANE.....	---
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0	HEXANES PLUS.....	---
NITROGEN.....	4.4	NITROGEN.....	13.7	NITROGEN.....	5.6
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	---
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2
HELIUM.....	0.20	HELIUM.....	1.12	HELIUM.....	0.01
HEATING VALUE.....	1070	HEATING VALUE.....	947	HEATING VALUE.....	1070
SPECIFIC GRAVITY.....	0.639	SPECIFIC GRAVITY.....	0.666	SPECIFIC GRAVITY.....	0.667
INDEX 1426 SAMPLE 14566		INDEX 1427 SAMPLE 5924		INDEX 1428 SAMPLE 10305	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	BARBER	COUNTY.....	BARBER	COUNTY.....	BARBER
FIELD.....	LITTLE SANDY CREEK	FIELD.....	MCGUIRE-GOEMANN	FIELD.....	MCGUIRE-GOEMANN
WELL NAME.....	HARBAUGH NO. 1	WELL NAME.....	HARBAUGH NO. 1	WELL NAME.....	RYSER-MCGUIRE NO. 1
LOCATION.....	SEC. 36, T32S, R10W	LOCATION.....	SEC. 29, T32S, R10W	LOCATION.....	SEC. 24, T32S, R11W
OWNER.....	OIL PROPERTY MANAGEMENT, INC	OWNER.....	GLOBE OIL & REFINING CO.	OWNER.....	MOBIL OIL CORP.
COMPLETED.....	01/23/76	COMPLETED.....	05/03/55	COMPLETED.....	12/13/56
SAMPLED.....	01/23/76	SAMPLED.....	03/29/55	SAMPLED.....	12/03/65
FORMATION.....	MISS-	FORMATION.....	MISS-CHERT	FORMATION.....	MISS-
GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375
DEPTH, FEET.....	4288	DEPTH, FEET.....	4404	DEPTH, FEET.....	4439
WELLHEAD PRESSURE, PSIG.....	1329	WELLHEAD PRESSURE, PSIG.....	1000	WELLHEAD PRESSURE, PSIG.....	423
OPEN FLOW, MCFD.....	4599	OPEN FLOW, MCFD.....	681	OPEN FLOW, MCFD.....	214
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	88.1	METHANE.....	89.4	METHANE.....	89.6
ETHANE.....	5.3	ETHANE.....	4.4	ETHANE.....	4.7
PROPANE.....	2.3	PROPANE.....	2.0	PROPANE.....	1.9
N-BUTANE.....	0.6	N-BUTANE.....	0.7	N-BUTANE.....	0.8
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.4
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3
NITROGEN.....	2.6	NITROGEN.....	1.9	NITROGEN.....	1.7
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.11	HELIUM.....	0.10	HELIUM.....	0.13
HEATING VALUE.....	1099	HEATING VALUE.....	1016	HEATING VALUE.....	1116
SPECIFIC GRAVITY.....	0.638	SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.638

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	1429 10720	INDEX SAMPLE	1430 10727	INDEX SAMPLE	1431 12813
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	BARBER		BARBER		BARBER	
FIELD.....	MEAIRS		MEAIRS		MEAIRS	
WELL NAME.....	SPICER GAS UNIT NO. 1		ALBINO NO. 1		HOAGLAND NO. 1	
LOCATION.....	SEC. 34, T30S, R12W		SEC. 27, T30S, R12W		SEC. 36, T30S, R12W	
OWNER.....	CONTINENTAL OIL CO.		CHIEF DRILLING CO., INC.		LEBEN OIL CORP.	
COMPLETED.....	06/10/66		12/19/65		04/18/70	
SAMPLED.....	09/14/66		09/20/66		05/04/71	
FORMATION.....	PENN-DOUGLAS		PENN-DOUGLAS		PENN-TARKIO	
GEOLOGIC PROVINCE CODE.....	375		375		375	
DEPTH, FEET.....	3568		3656		3152	
WELLHEAD PRESSURE, PSIG.....	1265		1300		1200	
OPEN FLOW, MCFD.....	1250		1800		4100	
COMPONENT, MOLE PCT.....						
METHANE.....	88.6		87.3		71.2	
ETHANE.....	4.2		4.2		3.5	
PROPANE.....	1.7		1.8		1.6	
N-BUTANE.....	0.3		0.7		0.8	
ISOBUTANE.....	0.3		0.3		0.4	
N-PENTANE.....	0.2		0.1		0.3	
ISOPENTANE.....	0.0		0.3		0.1	
CYCLOPENTANE.....	0.1		0.1		0.1	
HEXANES PLUS.....	0.2		0.2		0.2	
NITROGEN.....	4.2		4.4		21.2	
OXYGEN.....	0.0		0.0		0.0	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	TRACE		0.2		0.2	
HELIUM.....	0.20		0.20		0.43	
HEATING VALUE.....	1067		1072		897	
SPECIFIC GRAVITY.....	0.630		0.640		0.708	

	INDEX SAMPLE	1432 13841	INDEX SAMPLE	1433 13842	INDEX SAMPLE	1434 15388
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	BARBER		BARBER		BARBER	
FIELD.....	MEAIRS		MEAIRS		MEANDER	
WELL NAME.....	KUMBERG*B*NO.1		KUMBERG*A*NO.1		CLARK D NO. 1	
LOCATION.....	SEC. 14, T30S, R12W		SEC. 15, T30S, R12W		SEC. 32, T31S, R12W	
OWNER.....	GLEN N. RUPE		GLEN N. RUPE		TEXAS OIL & GAS CORP.	
COMPLETED.....	06/22/73		06/19/73		08/11/77	
SAMPLED.....	11/28/73		11/28/73		09/27/78	
FORMATION.....	PENN-TARKIO		PENN-HOWARD		MISS-	
GEOLOGIC PROVINCE CODE.....	375		375		375	
DEPTH, FEET.....	3436		3146		4210	
WELLHEAD PRESSURE, PSIG.....	1103		1120		1318	
OPEN FLOW, MCFD.....	4177		3568		4694	
COMPONENT, MOLE PCT.....						
METHANE.....	88.7		86.0		75.0	
ETHANE.....	1.8		1.2		1.1	
PROPANE.....	1.6		1.8		3.5	
N-BUTANE.....	0.4		0.6		0.9	
ISOBUTANE.....	0.3		0.3		0.4	
N-PENTANE.....	0.1		0.1		0.2	
ISOPENTANE.....	0.2		0.2		0.2	
CYCLOPENTANE.....	TRACE		TRACE		0.1	
HEXANES PLUS.....	0.1		0.1		0.1	
NITROGEN.....	4.5		6.1		12.0	
OXYGEN.....	0.0		0.1		0.0	
ARGON.....	0.0		TRACE		TRACE	
HYDROGEN.....	0.0		TRACE		0.1	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	TRACE		0.2		0.1	
HELIUM.....	0.18		0.23		0.32	
HEATING VALUE.....	1050		1041		1048	
SPECIFIC GRAVITY.....	0.625		0.641		0.705	

	INDEX SAMPLE	1435 12087	INDEX SAMPLE	1436 1859	INDEX SAMPLE	1437 5401
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	BARBER		BARBER		BARBER	
FIELD.....	MEDICINE LODGE N		MEDICINE LODGE-BOGGS		MEDICINE LODGE-BOGGS	
WELL NAME.....	KIRKBRIDE NO. 4		ALEXANDER NO. 1		LOMKER NO. 1	
LOCATION.....	SEC. 20, T32S, R12W		SEC. 13, T33S, R13W		SEC. 1, T33S, R13W	
OWNER.....	BARBARA OIL CO.		BARBARA OIL CO.		SKELLY OIL CO.	
COMPLETED.....	08/23/69		7/70		12/15/52	
SAMPLED.....	10/13/69		09/04/29		02/24/53	
FORMATION.....	MISS-NOT GIVEN		ORDO-WILCOX		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	375		NOT GIVEN		375	
DEPTH, FEET.....	4420		NOT GIVEN		3976	
WELLHEAD PRESSURE, PSIG.....	1412		1600		1081	
OPEN FLOW, MCFD.....	3550		NOT GIVEN		42460	
COMPONENT, MOLE PCT.....						
METHANE.....	78.7		84.0		84.6	
ETHANE.....	6.5		13.6		3.4	
PROPANE.....	1.8		---		1.6	
N-BUTANE.....	0.9		---		0.6	
ISOBUTANE.....	0.5		---		0.3	
N-PENTANE.....	0.2		---		0.2	
ISOPENTANE.....	TRACE		---		0.2	
CYCLOPENTANE.....	TRACE		---		0.1	
HEXANES PLUS.....	0.1		---		0.1	
NITROGEN.....	8.9		2.0		8.4	
OXYGEN.....	TRACE		0.1		TRACE	
ARGON.....	TRACE		---		TRACE	
HYDROGEN.....	0.1		---		TRACE	
HYDROGEN SULFIDE.....	0.0		---		0.0	
CARBON DIOXIDE.....	0.0		0.2		0.2	
HELIUM.....	0.28		0.01		0.23	
HEATING VALUE.....	1073		1095		1016	
SPECIFIC GRAVITY.....	0.687		0.632		0.648	

	INDEX SAMPLE	1438 9114	INDEX SAMPLE	1439 10489	INDEX SAMPLE	1440 10490
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	BARBER		BARBER		BARBER	
FIELD.....	MEDICINE LODGE-BOGGS		MEDICINE LODGE-BOGGS		MEDICINE LODGE-BOGGS	
WELL NAME.....	W. L. HOPKINS NO. 1		W. L. HOPKINS NO. 1		ALEXANDER A NO. 1	
LOCATION.....	SEC. 35, T33S, R13W		SEC. 28, T32S, R13W		SEC. 7, T33S, R12W	
OWNER.....	CONTINENTAL OIL CO.		SKELLY OIL CO.		SKELLY OIL CO.	
COMPLETED.....	10/70		03/31/66		03/31/66	
SAMPLED.....	10/03/63		03/31/66		03/31/66	
FORMATION.....	MISS-NOT GIVEN		MISS---		MISS-	
GEOLOGIC PROVINCE CODE.....	375		375		375	
DEPTH, FEET.....	4511		4446		4554	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1600		491	
OPEN FLOW, MCFD.....	3120		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....						
METHANE.....	89.9		79.7		87.7	
ETHANE.....	4.6		6.1		4.9	
PROPANE.....	1.8		3.0		2.0	
N-BUTANE.....	0.7		0.7		0.7	
ISOBUTANE.....	0.2		0.5		0.3	
N-PENTANE.....	0.2		0.3		0.1	
ISOPENTANE.....	0.1		0.3		0.3	
CYCLOPENTANE.....	0.1		0.1		0.1	
HEXANES PLUS.....	0.2		0.3		0.1	
NITROGEN.....	2.2		8.2		3.5	
OXYGEN.....	0.0		0.1		0.0	
ARGON.....	0.0		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		TRACE	
HYDROGEN SULFIDE.....	0.0		0.2		0.0	
CARBON DIOXIDE.....	0.1		0.18		0.1	
HELIUM.....	0.10		0.18		0.17	
HEATING VALUE.....	1097		1094		1088	
SPECIFIC GRAVITY.....	0.630		0.694		0.640	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

129

		INDEX SAMPLE 1441 10491	INDEX SAMPLE 1442 10492	INDEX SAMPLE 1443 15022
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	BARBER		BARBER	BARBER
FIELD.....	MEDICINE LODGE-BOGGS		MEDICINE LODGE-BOGGS	MEDICINE RIVER
WELL NAME.....	NOT GIVEN		G. S. LONKER NO. 4	WHEELLOCK NO. 1
LOCATION.....	SEC. 1, T33S, R13W		SEC. 36, T32S, R13W	SEC. 33, T31S, R12W
OWNER.....	SKELLY OIL CO.		SKELLY OIL CO.	CHIEF DRILLING CO., INC.
COMPLETED.....	03/31/66		03/31/66	11/09/76
SAMPLED.....	03/31/66		03/31/66	06/08/77
FORMATION.....	MISS-		MISS-	MISS-
GEOLOGIC PROVINCE CODE.....	375		375	375
DEPTH, FEET.....	4003		NOT GIVEN	4260
WELLHEAD PRESSURE, PSIG.....	338		396	1320
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	925
COMPONENT, MOLE PCT				
METHANE.....	83.9	85.8	76.5	
ETHANE.....	3.8	5.3	6.8	
PROPANE.....	1.9	2.5	3.5	
N-BUTANE.....	0.8	0.8	1.0	
ISOBUTANE.....	0.3	0.3	0.3	
N-PENTANE.....	0.2	0.2	0.3	
ISOPENTANE.....	0.2	0.2	0.2	
CYCLOPENTANE.....	0.2	0.1	0.1	
HEXANES PLUS.....	0.3	0.2	0.1	
NITROGEN.....	8.0	4.5	10.7	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.0	0.1	
HELIUM.....	0.20	0.13	0.32	
HEATING VALUE.....	1044	1097	1062	
SPECIFIC GRAVITY.....	0.662	0.655	0.700	

		INDEX SAMPLE 1444 15530	INDEX SAMPLE 1445 16098	INDEX SAMPLE 1446 5805
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	BARBER		BARBER	BARBER
FIELD.....	MEDICINE RIVER		MEDICINE RIVER	MOFFETT
WELL NAME.....	WHEELLOCK NO. 2		STIMPSON NO. 1	MOFFETT NO. 1
LOCATION.....	SEC. 3, T31S, R12W		SEC. 32, T31S, R12W	SEC. 9, T30S, R15W
OWNER.....	CHIEF DRILLING CO., INC.		ABERCROMBIE DRILLING, INC.	MESSMAN-RINEHART OIL CO.
COMPLETED.....	02/01/78		12/16/80	01/25/55
SAMPLED.....	12/04/78		12/16/80	04/13/55
FORMATION.....	MISS-		MISS--	PENN--
GEOLOGIC PROVINCE CODE.....	375		375	375
DEPTH, FEET.....	4302		4200	4571
WELLHEAD PRESSURE, PSIG.....	1341		NOT GIVEN	1381
OPEN FLOW, MCFD.....	6563		11100	12400
COMPONENT, MOLE PCT				
METHANE.....	76.0	77.8	62.8	
ETHANE.....	6.9	7.2	4.8	
PROPANE.....	3.9	3.9	3.1	
N-BUTANE.....	1.1	1.0	0.9	
ISOBUTANE.....	0.5	0.5	0.5	
N-PENTANE.....	0.2	0.2	0.2	
ISOPENTANE.....	0.1	0.2	0.2	
CYCLOPENTANE.....	TRACE	0.1	0.1	
HEXANES PLUS.....	0.1	0.2	0.1	
NITROGEN.....	10.7	8.3	25.6	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	TRACE	TRACE	0.1	
HYDROGEN.....	0.1	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	TRACE	0.1	
HELIUM.....	0.31	0.43	1.38	
HEATING VALUE.....	1067	1104	876	
SPECIFIC GRAVITY.....	0.704	0.700	0.744	

		INDEX SAMPLE 1447 9445	INDEX SAMPLE 1448 9459	INDEX SAMPLE 1449 15067
STATE.....	KANSAS	KANSAS	KANSAS	KANSAS
COUNTY.....	BARBER	BARBER	BARBER	BARBER
FIELD.....	NURSE	NURSE	NURSE	NURSE
WELL NAME.....	WATER NO. 1	GLASS NO. 1	GLASS NO. 1	PACKARD NO. 1
LOCATION.....	SEC. 7, T31S, R12W	SEC. 8, T31S, R12W	SEC. 8, T31S, R12W	SEC. 22, T31S, R13W
OWNER.....	FRED B. ANSHUTZ	COLORADO OIL & GAS CORP.	COLORADO OIL & GAS CORP.	OIL PROPERTY MANAGEMENT, INC
COMPLETED.....	07/09/64	07/09/64	07/09/64	05/05/77
SAMPLED.....	07/09/64	07/08/64	07/08/64	08/02/77
FORMATION.....	PENN-DOUGLAS	PENN-DOUGLAS	PENN-DOUGLAS	PERM-INDIAN CAVE
GEOLOGIC PROVINCE CODE.....	375	375	375	375
DEPTH, FEET.....	3630	3699	3699	2628
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	1020
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	4258
COMPONENT, MOLE PCT				
METHANE.....	87.5	88.0	77.6	77.6
ETHANE.....	4.1	3.9	3.7	3.7
PROpane.....	1.4	1.6	1.2	1.2
N-BUTANE.....	0.6	0.7	0.3	0.3
ISOBUTANE.....	0.2	0.2	0.2	0.2
N-PENTANE.....	0.2	0.2	TRACE	TRACE
ISOPENTANE.....	0.2	0.1	0.1	0.1
CYCLOPENTANE.....	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	0.3	0.3	0.1	0.1
NITROGEN.....	5.0	4.4	16.1	16.1
OXYGEN.....	0.0	TRACE	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.2	0.1	0.1
HELIUM.....	0.20	0.18	0.44	0.44
HEATING VALUE.....	1059	1065	910	910
SPECIFIC GRAVITY.....	0.640	0.637	0.662	0.662

INDEX		1450	INDEX		1451	INDEX		1452
SAMPLE		15544	SAMPLE		16486	SAMPLE		10422
STATE.....	KANSAS		KANSAS		KANSAS			
COUNTY.....	BARBER		BARBER		BARBER			
FIELD.....	NURSE NW		NURSE NW		PALMER			
WELL NAME.....	OLSON NO. 1		HAMILTON "A" NO. 1		DEGENER A NO. 2			
LOCATION.....	SEC. 32, T30S, R12W		SEC. 38, T30S, R13W		SEC. 13, T32S, R14W			
OWNER.....	RAYMOND OIL CO., INC.		TXO PRODUCTION CORP.		LIVINGSTON OIL CO.			
COMPLETED.....	06/30/78		01/09/81		11/14/62			
SAMPLED.....	06/30/78		04/12/82		03/01/66			
FORMATION.....	PENN-TARKIO		PENN-DOUGLAS		MISS-			
GEOLOGIC PROVINCE CODE.....	375		375		375			
DEPTH, FEET.....	2940		3820		4470			
WELLHEAD PRESSURE, PSIG.....	940		1003		1034			
OPEN FLOW, MCFD.....	2000		690		4701			
COMPONENT, MOLE PCT								
METHANE.....	84.9	---	81.9	---	90.7	---		
ETHANE.....	3.8	---	4.8	---	4.3	---		
PROPANE.....	1.6	---	3.4	---	1.6	---		
N-BUTANE.....	0.5	---	1.1	---	0.5	---		
ISOBUTANE.....	0.2	---	0.4	---	0.3	---		
N-PENTANE.....	0.2	---	0.3	---	0.1	---		
ISOPENTANE.....	0.1	---	0.2	---	0.1	---		
CYCLOPENTANE.....	0.1	---	TRACE	---	0.1	---		
HEXANES PLUS.....	0.2	---	0.1	---	0.2	---		
NITROGEN.....	8.0	---	7.6	---	1.9	---		
OXYGEN.....	0.0	---	0.1	---	0.0	---		
ARGON.....	TRACE	---	TRACE	---	0.0	---		
HYDROGEN.....	TRACE	---	0.0	---	0.0	---		
HYDROGEN SULFIDE.....	0.0	---	0.0	---	0.0	---		
CARBON DIOXIDE.....	0.1	---	0.0	---	0.1	---		
HELIUM.....	0.26	---	0.26	---	0.13	---		
HEATING VALUE.....	1021	---	1081	---	1087	---		
SPECIFIC GRAVITY.....	0.650	---	0.678	---	0.623	---		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1453 10423	INDEX SAMPLE	1454 10324	INDEX SAMPLE	1455 13077
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	BARBER			BARBER		BARBER	
FIELD.....	PALMER			RHODES		RHODES	
WELL NAME.....	MILLS NO. 2			EARLY B NO. 1		IVES NO. 1	
LOCATION.....	SEC. 19, T32S, R13W			SEC. 7, T33, R11W		SEC. 31, T33S, R12W	
OWNER.....	LIVINGSTON OIL CO.			SUPERIOR OIL CO.		OKMAR OIL CO.	
COMPLETED.....	--/--/00			02/02/55		08/09/71	
SAMPLED.....	03/01/66			12/13/65		10/--/71	
FORMATION.....	MISS-			PENN-DOUGLAS		MISS-	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	4510			3655		4375	
WELLHEAD PRESSURE, PSIG.....	297			580		1505	
OPEN FLOW, MCFD.....	881			547		17250	
COMPONENT, MOLE PCT							
METHANE.....	87.2	---	---	88.8	---	88.3	---
ETHANE.....	0.8	---	---	0.1	---	0.8	---
PROPANE.....	2.6	---	---	2.3	---	2.4	---
N-BUTANE.....	0.9	---	---	0.8	---	0.5	---
ISOBUTANE.....	0.4	---	---	0.2	---	0.4	---
N-PENTANE.....	0.2	---	---	0.3	---	0.2	---
ISOPENTANE.....	0.4	---	---	0.1	---	0.1	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.3	---	---	0.2	---	0.2	---
NITROGEN.....	0.9	---	---	5.7	---	2.8	---
OXYGEN.....	0.0	---	---	0.0	---	TRACE	---
ARGON.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.1	---	0.0	---
HELIUM.....	0.04	---	---	0.21	---	0.18	---
HEATING VALUE.....	1161	---	---	1078	---	1100	---
SPECIFIC GRAVITY.....	0.660	---	---	0.658	---	0.639	---
		INDEX SAMPLE	1456 13441	INDEX SAMPLE	1457 13442	INDEX SAMPLE	1458 17932
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	BARBER			BARBER		BARBER	
FIELD.....	RHODES			RHODES		RHODES NE EXTENSION	
WELL NAME.....	HARBAUGH NO. 1			GROENDYKE NO. 1		COLTON NO. 2	
LOCATION.....	SEC. 12, T33S, R12W			SEC. 14, T33S, R12W		SEC. 23, T32S, R11W	
OWNER.....	OKMA OIL CO.			OKMA OIL CO.		TXO PRODUCTION CORP.	
COMPLETED.....	12/31/71			12/25/71		05/09/85	
SAMPLED.....	09/30/72			09/30/72		--/--/00	
FORMATION.....	PENN-ELGIN			PENN-ELGIN		PENN-TARKIO	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	3400			3450		2779	
WELLHEAD PRESSURE, PSIG.....	1325			1300		1070	
OPEN FLOW, MCFD.....	2300			1900		1000	
COMPONENT, MOLE PCT							
METHANE.....	88.6	---	---	83.5	---	78.1	---
ETHANE.....	4.4	---	---	4.1	---	3.0	---
PROPANE.....	1.9	---	---	0.7	---	0.4	---
N-BUTANE.....	0.6	---	---	0.5	---	0.5	---
ISOBUTANE.....	0.3	---	---	0.3	---	0.1	---
N-PENTANE.....	0.2	---	---	0.2	---	0.3	---
ISOPENTANE.....	0.1	---	---	0.1	---	0.0	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.2	---	0.2	---
NITROGEN.....	0.2	---	---	8.0	---	15.7	---
OXYGEN.....	TRACE	---	---	1.1	---	0.1	---
ARGON.....	0.0	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	TRACE	---	0.1	---
HELIUM.....	0.15	---	---	0.15	---	0.42	---
HEATING VALUE.....	1083	---	---	0.17	---	9.28	---
SPECIFIC GRAVITY.....	0.634	---	---	0.655	---	0.670	---
		INDEX SAMPLE	1459 10331	INDEX SAMPLE	1460 15570	INDEX SAMPLE	1461 16354
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	BARBER			BARBER		BARBER	
FIELD.....	RHODES			ROUNDUP S		SAWYER E	
WELL NAME.....	NE WIKER B. NO. 1			FORESTER "A" NO. 1		LEVENS NO. 3	
LOCATION.....	SEC. 31, T33S, R11W			SEC. 34, T33S, R11W		SEC. 1, T30S, R13W	
OWNER.....	GULF OIL CORP.			NATIONAL OIL CO.		CARL TODD	
COMPLETED.....	10/26/57			11/18/78		05/04/81	
SAMPLED.....	12/20/65			02/27/79		10/14/81	
FORMATION.....	MISS-			MISS-NOT GIVEN		PERM-INDIAN CAVE	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	4561			4517		2782	
WELLHEAD PRESSURE, PSIG.....	543			1405		965	
OPEN FLOW, MCFD.....	NOT GIVEN			4000		6193	
COMPONENT, MOLE PCT							
METHANE.....	87.2	---	---	88.0	---	82.0	---
ETHANE.....	5.7	---	---	5.0	---	3.0	---
PROPANE.....	2.7	---	---	2.2	---	1.3	---
N-BUTANE.....	1.0	---	---	0.7	---	0.4	---
ISOBUTANE.....	0.1	---	---	0.3	---	0.2	---
N-PENTANE.....	0.1	---	---	0.2	---	0.1	---
ISOPENTANE.....	0.9	---	---	0.2	---	0.1	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	TRACE	---
HEXANES PLUS.....	0.3	---	---	0.2	---	0.1	---
NITROGEN.....	1.7	---	---	TRACE	---	12.3	---
OXYGEN.....	0.0	---	---	0.0	---	TRACE	---
ARGON.....	TRACE	---	---	0.0	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.1	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	TRACE	---	0.1	---
HELIUM.....	0.05	---	---	0.08	---	0.42	---
HEATING VALUE.....	1154	---	---	1108	---	952	---
SPECIFIC GRAVITY.....	0.662	---	---	0.642	---	0.648	---
		INDEX SAMPLE	1462 9835	INDEX SAMPLE	1463 10303	INDEX SAMPLE	1464 10407
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	BARBER			BARBER		BARBER	
FIELD.....	SHARON NW			SHARON NW		SHARON NW	
WELL NAME.....	KETZNER NO. 1			CORA SLINKER NO. 1		WENZEL NO. 1	
LOCATION.....	SEC. 11, T32S, R10W			SEC. 11, T32S, R10W		SEC. 11, T32S, R10W	
OWNER.....	LARIO OIL & GAS CO.			MOBIL OIL CORP.		E. E. EDWINSTON	
COMPLETED.....	11/23/64			11/28/56		09/25/64	
SAMPLED.....	04/06/65			12/03/65		02/17/66	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	4370			4334		4358	
WELLHEAD PRESSURE, PSIG.....	1292			7292		1100	
OPEN FLOW, MCFD.....	3400			5253		3426	
COMPONENT, MOLE PCT							
METHANE.....	90.4	---	---	90.1	---	91.3	---
ETHANE.....	4.2	---	---	0.4	---	0.4	---
PROPANE.....	1.7	---	---	1.7	---	1.7	---
N-BUTANE.....	0.7	---	---	0.6	---	0.5	---
ISOBUTANE.....	0.3	---	---	0.2	---	0.3	---
N-PENTANE.....	0.1	---	---	0.1	---	0.1	---
ISOPENTANE.....	0.1	---	---	0.3	---	0.1	---
CYCLOPENTANE.....	TRACE	---	---	0.2	---	TRACE	---
HEXANES PLUS.....	0.2	---	---	0.2	---	0.1	---
NITROGEN.....	1.9	---	---	2.1	---	1.3	---
OXYGEN.....	0.0	---	---	TRACE	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.1	---
HELIUM.....	0.10	---	---	0.10	---	0.11	---
HEATING VALUE.....	1096	---	---	1094	---	1088	---
SPECIFIC GRAVITY.....	0.628	---	---	0.629	---	0.618	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE		1465 3944	INDEX SAMPLE		1466 4653	INDEX SAMPLE		1467 16978
STATE.....	KANSAS		STATE.....	KANSAS		STATE.....	KANSAS	
COUNTY.....	BARBER		COUNTY.....	BARBER		COUNTY.....	BARBER	
FIELD.....	SKINNER		FIELD.....	SKINNER		FIELD.....	SKINNER NE	
WELL NAME.....	LEMON NO. 1		WELL NAME.....	GANT A NO. 4		WELL NAME.....	L. YOUNG NO. 1-18	
LOCATION.....	SEC. 28, T30S, R13W		LOCATION.....	SEC. 32, T30S, R13W		LOCATION.....	SEC. 18, T30S, R12W	
OWNER.....	LION OIL CO.		OWNER.....	J. M. HUBER CORP.		OWNER.....	F. G. HOLL	
COMPLETED.....	01/--/45		COMPLETED.....	--/--/00		COMPLETED.....	05/27/82	
SAMPLED.....	01/26/45		SAMPLED.....	05/23/49		SAMPLED.....	06/--/83	
FORMATION.....	ORDO-VIOLA		FORMATION.....	NOT GIVEN		FORMATION.....	PENN-DOUGLAS	
GEOLOGIC PROVINCE CODE.....	375		GEOLOGIC PROVINCE CODE.....	375		GEOLOGIC PROVINCE CODE.....	375	
DEPTH, FEET.....	4528		DEPTH, FEET.....	3310		DEPTH, FEET.....	3700	
WELLHEAD PRESSURE, PSIG.....	1400		WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	1200	
OPEN FLOW, MCFD.....	18		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	2086	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	80.8		METHANE.....	59.6		METHANE.....	72.2	
ETHANE.....	12.7		ETHANE.....	17.4		ETHANE.....	5.6	
PROPANE.....	---		PROPANE.....	---		PROPANE.....	4.6	
N-BUTANE.....	---		N-BUTANE.....	---		N-BUTANE.....	1.9	
ISOBUTANE.....	---		ISOBUTANE.....	---		ISOBUTANE.....	0.5	
N-PENTANE.....	---		N-PENTANE.....	---		N-PENTANE.....	0.3	
ISOPENTANE.....	---		ISOPENTANE.....	---		ISOPENTANE.....	0.6	
CYCLOPENTANE.....	---		CYCLOPENTANE.....	---		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	---		HEXANES PLUS.....	---		HEXANES PLUS.....	0.1	
NITROGEN.....	5.6		NITROGEN.....	19.9		NITROGEN.....	13.7	
OXYGEN.....	0.1		OXYGEN.....	2.6		OXYGEN.....	0.2	
ARGON.....	---		ARGON.....	---		ARGON.....	TRACE	
HYDROGEN.....	---		HYDROGEN.....	---		HYDROGEN.....	0.2	
HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.2	
HELIUM.....	0.68		HELIUM.....	0.31		HELIUM.....	0.35	
HEATING VALUE.....	1046		HEATING VALUE.....	916		HEATING VALUE.....	1067	
SPECIFIC GRAVITY.....	0.639		SPECIFIC GRAVITY.....	0.738		SPECIFIC GRAVITY.....	0.737	
INDEX SAMPLE		1468 10323	INDEX SAMPLE		1469 17196	INDEX SAMPLE		1470 5867
STATE.....	KANSAS		STATE.....	KANSAS		STATE.....	KANSAS	
COUNTY.....	BARBER		COUNTY.....	BARBER		COUNTY.....	BARBER	
FIELD.....	STUMPH		FIELD.....	STUMPH		FIELD.....	TRAFFAS	
WELL NAME.....	STUMPH-SMITH F NO. 1		WELL NAME.....	HOAGLAND NO. 1-22		WELL NAME.....	G. H. TRAFFAS NO. 1	
LOCATION.....	SEC. 18, T32S, R14W		LOCATION.....	SEC. 22, T32S, R14W		LOCATION.....	SEC. 6, T33S, R10W	
OWNER.....	NAT OIL COOP. REFINERY ASSN		OWNER.....	TEXAS ENERGIES, INC.		OWNER.....	MAGNOLIA PETROLEUM CO.	
COMPLETED.....	12/13/65		COMPLETED.....	01/07/82		COMPLETED.....	03/31/55	
SAMPLED.....	12/13/65		SAMPLED.....	02/23/84		SAMPLED.....	06/27/55	
FORMATION.....	MISS-		FORMATION.....	MISS-		FORMATION.....	MISS-CHAT	
GEOLOGIC PROVINCE CODE.....	375		GEOLOGIC PROVINCE CODE.....	375		GEOLOGIC PROVINCE CODE.....	375	
DEPTH, FEET.....	4741		DEPTH, FEET.....	4642		DEPTH, FEET.....	4581	
WELLHEAD PRESSURE, PSIG.....	189		WELLHEAD PRESSURE, PSIG.....	1495		WELLHEAD PRESSURE, PSIG.....	1516	
OPEN FLOW, MCFD.....	110		OPEN FLOW, MCFD.....	10856		OPEN FLOW, MCFD.....	1262	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	90.0		METHANE.....	92.1		METHANE.....	90.4	
ETHANE.....	4.3		ETHANE.....	3.9		ETHANE.....	4.2	
PROPANE.....	0.5		PROPANE.....	1.4		PROPANE.....	1.8	
N-BUTANE.....	0.6		N-BUTANE.....	0.5		N-BUTANE.....	0.6	
ISOBUTANE.....	0.3		ISOBUTANE.....	0.2		ISOBUTANE.....	0.3	
N-PENTANE.....	0.3		N-PENTANE.....	0.3		N-PENTANE.....	0.3	
ISOPENTANE.....	0.1		ISOPENTANE.....	0.2		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.3		HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.3	
NITROGEN.....	2.5		NITROGEN.....	1.2		NITROGEN.....	1.9	
OXYGEN.....	0.0		OXYGEN.....	0.0		OXYGEN.....	TRACE	
ARGON.....	TRACE		ARGON.....	TRACE		ARGON.....	0.0	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.1	
HELIUM.....	0.15		HELIUM.....	0.08		HELIUM.....	0.09	
HEATING VALUE.....	1091		HEATING VALUE.....	1089		HEATING VALUE.....	1100	
SPECIFIC GRAVITY.....	0.631		SPECIFIC GRAVITY.....	0.616		SPECIFIC GRAVITY.....	0.631	
INDEX SAMPLE		1471 11355	INDEX SAMPLE		1472 11722	INDEX SAMPLE		1473 4498
STATE.....	KANSAS		STATE.....	KANSAS		STATE.....	KANSAS	
COUNTY.....	BARBER		COUNTY.....	BARBER		COUNTY.....	BARTON	
FIELD.....	TRAFFAS		FIELD.....	WOLGAMOTT		FIELD.....	ADOLF	
WELL NAME.....	WOLGAMOTT-TUCKER NO. 1		WELL NAME.....	ADOLF TUCKER NO. 1		WELL NAME.....	ADOLF TUCKER NO. 1	
LOCATION.....	SEC. 8, T33S, R10W		LOCATION.....	SEC. 9, T35S, R14W		LOCATION.....	SEC. 16, T20S, R15W	
OWNER.....	GRAYBOL OIL CORP.		OWNER.....	SHEWANDA OIL CORP.		OWNER.....	KANSAS-NEBRASKA NATURAL GAS	
COMPLETED.....	02/28/68		COMPLETED.....	01/07/69		COMPLETED.....	04/20/47	
SAMPLED.....	02/28/68		SAMPLED.....	01/07/69		SAMPLED.....	06/--/48	
FORMATION.....	MISS-		FORMATION.....	PENN-CHEROKEE		FORMATION.....	CAMO-ARBUCKLE	
GEOLOGIC PROVINCE CODE.....	375		GEOLOGIC PROVINCE CODE.....	375		GEOLOGIC PROVINCE CODE.....	385	
DEPTH, FEET.....	4604		DEPTH, FEET.....	4800		DEPTH, FEET.....	5734	
WELLHEAD PRESSURE, PSIG.....	1548		WELLHEAD PRESSURE, PSIG.....	1392		WELLHEAD PRESSURE, PSIG.....	1050	
OPEN FLOW, MCFD.....	21000		OPEN FLOW, MCFD.....	9500		OPEN FLOW, MCFD.....	7000	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	89.8		METHANE.....	89.7		METHANE.....	69.0	
ETHANE.....	4.7		ETHANE.....	4.2		ETHANE.....	12.4	
PROPANE.....	1.9		PROPANE.....	1.6		PROPANE.....	---	
N-BUTANE.....	0.8		N-BUTANE.....	0.1		N-BUTANE.....	---	
ISOBUTANE.....	0.2		ISOBUTANE.....	0.1		ISOBUTANE.....	---	
N-PENTANE.....	0.2		N-PENTANE.....	0.2		N-PENTANE.....	---	
ISOPENTANE.....	0.1		ISOPENTANE.....	0.2		ISOPENTANE.....	---	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.2		CYCLOPENTANE.....	---	
HEXANES PLUS.....	0.3		HEXANES PLUS.....	0.3		HEXANES PLUS.....	---	
NITROGEN.....	1.5		NITROGEN.....	0.2		NITROGEN.....	15.9	
OXYGEN.....	0.0		OXYGEN.....	0.2		OXYGEN.....	0.1	
ARGON.....	TRACE		ARGON.....	TRACE		ARGON.....	---	
HYDROGEN.....	TRACE		HYDROGEN.....	0.1		HYDROGEN.....	---	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	---	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	TRACE		CARBON DIOXIDE.....	0.4	
HELIUM.....	0.10		HELIUM.....	0.09		HELIUM.....	2.17	
HEATING VALUE.....	1111		HEATING VALUE.....	1111		HEATING VALUE.....	921	
SPECIFIC GRAVITY.....	0.635		SPECIFIC GRAVITY.....	0.629		SPECIFIC GRAVITY.....	0.677	
INDEX SAMPLE		1474 5254	INDEX SAMPLE		1475 5623	INDEX SAMPLE		1476 7842
STATE.....	KANSAS		STATE.....	KANSAS		STATE.....	KANSAS	
COUNTY.....	BARTON		COUNTY.....	BARTON		COUNTY.....	BARTON	
FIELD.....	ALEFS		FIELD.....	ALEFS		FIELD.....	AMES SE	
WELL NAME.....	ALEFS NO. 2		WELL NAME.....	ALEFS NO. 2		WELL NAME.....	FLEET NO. C-1	
LOCATION.....	SEC. 14, T19S, R14W		LOCATION.....	SEC. 14, T19S, R14W		LOCATION.....	SEC. 35, T18S, R11W	
OWNER.....	BRACK DRILLING CO., INC.		OWNER.....	BRACK DRILLING CO., INC.		OWNER.....	RAYMOND OIL CO., INC.	
COMPLETED.....	06/28/52		COMPLETED.....	06/28/52		COMPLETED.....	02/16/61	
SAMPLED.....	06/28/52		SAMPLED.....	06/28/52		SAMPLED.....	01/07/61	
FORMATION.....	PENN-KANSAS CITY		FORMATION.....	CAMO-CONGLOMERATE		FORMATION.....	PENN-	
GEOLOGIC PROVINCE CODE.....	385		GEOLOGIC PROVINCE CODE.....	385		GEOLOGIC PROVINCE CODE.....	385	
DEPTH, FEET.....	NOT GIVEN		DEPTH, FEET.....	NOT GIVEN		DEPTH, FEET.....	3022	
WELLHEAD PRESSURE, PSIG.....	1005		WELLHEAD PRESSURE, PSIG.....	1005		WELLHEAD PRESSURE, PSIG.....	1145	
OPEN FLOW, MCFD.....	3633		OPEN FLOW, MCFD.....	3633		OPEN FLOW, MCFD.....	734	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	49.5		METHANE.....	49.9		METHANE.....	65.5	
ETHANE.....	5.5		ETHANE.....	6.1		ETHANE.....	5.8	
PROPANE.....	2.5		PROPANE.....	3.0		PROPANE.....	3.8	
N-BUTANE.....	0.9		N-BUTANE.....	0.4		N-BUTANE.....	1.4	
ISOBUTANE.....	0.6		ISOBUTANE.....	0.8		ISOBUTANE.....	0.7	
N-PENTANE.....	0.4		N-PENTANE.....	0.5		N-PENTANE.....	0.4	
ISOPENTANE.....	0.1		ISOPENTANE.....	0.2		ISOPENTANE.....	0.2	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.2	
NITROGEN.....	35.8		NITROGEN.....	34.1		NITROGEN.....	20.5	
OXYGEN.....	0.1		OXYGEN.....	TRACE		OXYGEN.....	---	
ARGON.....	0.2		ARGON.....	0.2		ARGON.....	TRACE	
HYDROGEN.....	0.0		HYDROGEN.....	TRACE		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.4		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.3	
HELIUM.....	3.82		HELIUM.....	3.55		HELIUM.....	1.00	
HEATING VALUE.....	746		HEATING VALUE.....	797		HEATING VALUE.....	973	
SPECIFIC GRAVITY.....	0.782		SPECIFIC GRAVITY.....	0.791		SPECIFIC GRAVITY.....	0.752	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1477 4079			INDEX SAMPLE	1478 4079			INDEX SAMPLE	1479 5357
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	BARTON			BARTON				BARTON			
FIELD.....	BEHRENS NE			BEHRENS NE				BEHRENS NE			
WELL NAME.....	BEHRENS NO. 2			BEHRENS NO. 1				GEIL NO. 1			
LOCATION.....	SEC. 6, T20S, R15W			SEC. 6, T20S, R15W				SEC. 29, T19S, R15W			
OWNER.....	SOLAR OIL CO.			SOLAR OIL CO.				WARD & INGLING			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	09/21/49			09/21/45				12/09/52			
FORMATION.....	NOT GIVEN			CAMO-ARBUCKLE				CAMO-ARBUCKLE			
GEOLOGIC PROVINCE CODE.....	385			385				385			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				3580			
WELLHEAD PRESSURE, PSIG.....	800			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	75.6			68.8				83.9			
ETHANE.....	15.2			25.8				3.7			
PROPANE.....	---			---				1.7			
N-BUTANE.....	---			---				0.6			
ISOBUTANE.....	---			---				0.3			
N-PENTANE.....	---			---				0.3			
ISOPENTANE.....	---			---				0.0			
CYCLOPENTANE.....	---			---				0.1			
HEXANES PLUS.....	---			---				0.2			
NITROGEN.....	8.0			3.3				7.7			
OXYGEN.....	0.0			1.1				TRACE			
ARGON.....	---			---				0.1			
HYDROGEN.....	---			---				0.0			
HYDROGEN SULFIDE.....	---			---				0.0			
CARBON DIOXIDE.....	0.3			0.4				0.5			
HELIUM.....	0.87			0.58				1.09			
HEATING VALUE.....	1036			1117				1018			
SPECIFIC GRAVITY.....	0.662			0.703				0.650			

		INDEX SAMPLE	1480 4494			INDEX SAMPLE	1481 9214			INDEX SAMPLE	1482 8606
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	BARTON			BARTON				BARTON			
FIELD.....	BERG TAL			CHAFFEE				CHASE-SILICA			
WELL NAME.....	HATTIE UNRUH NO. 1			RUSSELL NO. 1				ISERN NO. 1			
LOCATION.....	SEC. 2, T20S, R15W			SEC. 36, T19S, R14W				SEC. 26, T19S, R11W			
OWNER.....	KANSAS-NEBRASKA NATURAL GAS			VAUGHAN DRILLING, INC.				TRAJAN OIL & GAS CO.			
COMPLETED.....	07/27/47			01/16/64				--/--/00			
SAMPLED.....	06/11/48			01/16/64				06/16/62			
FORMATION.....	CAMO-ARBUCKLE			CAMO-ARBUCKLE				PENN-LEANSING-KANSAS CITY			
GEOLOGIC PROVINCE CODE.....	385			385				385			
DEPTH, FEET.....	3672			3480				3024			
WELLHEAD PRESSURE, PSIG.....	1020			1050				1050			
OPEN FLOW, MCFD.....	8700			3310				800			
COMPONENT, MOLE PCT											
METHANE.....	75.3			77.0				65.1			
ETHANE.....	10.9			4.6				5.2			
PROPANE.....	---			1.8				3.2			
N-BUTANE.....	---			0.8				1.1			
ISOBUTANE.....	---			0.1				0.6			
N-PENTANE.....	---			0.3				0.2			
ISOPENTANE.....	---			0.2				0.3			
CYCLOPENTANE.....	---			0.1				TRACE			
HEXANES PLUS.....	---			0.3				0.1			
NITROGEN.....	8.1			12.7				22.9			
OXYGEN.....	0.1			0.0				TRACE			
ARGON.....	---			0.1				TRACE			
HYDROGEN.....	---			0.0				0.0			
HYDROGEN SULFIDE.....	---			0.0				0.0			
CARBON DIOXIDE.....	0.4			0.3				0.2			
HELIUM.....	1.21			1.70				0.97			
HEATING VALUE.....	999			980				919			
SPECIFIC GRAVITY.....	0.641			0.677				0.742			

		INDEX SAMPLE	1483 8668			INDEX SAMPLE	1484 8898			INDEX SAMPLE	1485 4342
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	BARTON			BARTON				BARTON			
FIELD.....	CHASE-SILICA			CLARENCE				CONVERSE			
WELL NAME.....	ISERN NO. 2			KLIEWER NO. 1				A. UNRUH NO. 1			
LOCATION.....	SEC. 26, T19S, R11W			SEC. 1, T20S, R15W				SEC. 16, T20S, R15W			
OWNER.....	TRAJAN OIL & GAS CO.			WOODY'S QUALITY OIL CO.				KANSAS-NEBRASKA NATURAL GAS			
COMPLETED.....	05/10/47			--/--/00				05/10/47			
SAMPLED.....	08/23/62			03/--/63				08/07/47			
FORMATION.....	PENN-KANSAS CITY			NOT GIVEN				CAMO-ARBUCKLE			
GEOLOGIC PROVINCE CODE.....	385			385				385			
DEPTH, FEET.....	3044			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	430			NOT GIVEN				1150			
OPEN FLOW, MCFD.....	517			NOT GIVEN				5000			
COMPONENT, MOLE PCT											
METHANE.....	68.1			58.9				69.8			
ETHANE.....	7.3			6.1				11.0			
PROPANE.....	5.3			0.7				---			
N-BUTANE.....	1.9			0.8				---			
ISOBUTANE.....	0.9			0.4				---			
N-PENTANE.....	0.4			0.1				---			
ISOPENTANE.....	0.4			0.3				---			
CYCLOPENTANE.....	0.1			TRACE				---			
HEXANES PLUS.....	0.3			0.1				---			
NITROGEN.....	14.7			27.2				16.3			
OXYGEN.....	TRACE			TRACE				0.3			
ARGON.....	TRACE			0.1				---			
HYDROGEN.....	0.0			0.0				---			
HYDROGEN SULFIDE.....	0.0			0.0				---			
CARBON DIOXIDE.....	0.2			0.3				0.4			
HELIUM.....	0.75			3.15				2.22			
HEATING VALUE.....	1093			908				904			
SPECIFIC GRAVITY.....	0.768			0.738				0.673			

		INDEX SAMPLE	1486 5546			INDEX SAMPLE	1487 10359			INDEX SAMPLE	1488 10360
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	BARTON			BARTON				BARTON			
FIELD.....	CONVERSE			CONVERSE				CONVERSE			
WELL NAME.....	NO. 1			SCHMIDT				SCHMIDT B. NO. 1			
LOCATION.....	SEC. 20, T20S, R15W			SEC. 20, T20S, R15W				SEC. 17, T20, R15			
OWNER.....	SUNRAY OIL CORP.			ROCK ISLAND O. & R. CO., INC				KANSAS-NEBRASKA NATURAL GAS			
COMPLETED.....	--/--/00			01/10/63				12/01/65			
SAMPLED.....	08/10/53			01/10/63				01/07/66			
FORMATION.....	CAMO-ARBUCKLE			CAMO-ARBUCKLE				CAMO-ARBUCKLE			
GEOLOGIC PROVINCE CODE.....	385			385				385			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				3754			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1105				1078			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				6160			
COMPONENT, MOLE PCT											
METHANE.....	85.6			81.8				82.9			
ETHANE.....	4.0			4.1				3.9			
PROPANE.....	1.5			1.6				1.5			
N-BUTANE.....	0.4			0.7				0.7			
ISOBUTANE.....	0.3			TRACE				0.3			
N-PENTANE.....	0.2			0.3				0.1			
ISOPENTANE.....	0.0			0.1				0.1			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.1			0.3				0.2			
NITROGEN.....	6.5			9.1				8.7			
OXYGEN.....	TRACE			0.0				0.0			
ARGON.....	TRACE			0.1				0.1			
HYDROGEN.....	0.0			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			---				0.0			
CARBON DIOXIDE.....	0.4			0.4				0.4			
HELIUM.....	0.84			1.42				1.18			
HEATING VALUE.....	1020			1020				998			
SPECIFIC GRAVITY.....	0.635			0.655				0.647			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	1489 4152		INDEX SAMPLE	1490 5285		INDEX SAMPLE	1491 5552
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	BARTON			BARTON			BARTON	
FIELD.....	DUNDEE			DUNDEE			DUNDEE	
WELL NAME.....	CHRISTIANSON NO. 1			J. SMITH NO. 1			RADEBERG NO. 4	
LOCATION.....	SEC. 29, T20S, R14W			SEC. 20, T20S, R14W			SEC. 24, T20S, R15W	
OWNER.....	CHAMPLIN REFINING CO.			ADAIR OIL CO.			MAGNOLIA PETROLEUM CO.	
COMPLETED.....	05/09/45			09/29/52			--/--/00	
SAMPLED.....	10/14/45			09/30/52			09/09/53	
FORMATION.....	CAMO-ARBUCKLE			CAMO-ARBUCKLE			CAMO-ARBUCKLE	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	3606			3580			3574	
WELLHEAD PRESSURE, PSIG.....	1040			990			1200	
OPEN FLOW, MCFD.....	8236			650			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	77.3			31.3			82.0	
ETHANE.....	10.8			4.1			4.0	
PROPANE.....	---			0.2			1.7	
N-BUTANE.....	---			0.2			0.5	
ISOBUTANE.....	---			0.2			0.2	
N-PENTANE.....	---			0.2			0.3	
ISOPENTANE.....	---			0.0			0.0	
CYCLOPENTANE.....	---			TRACE			0.1	
HEXANES PLUS.....	---			0.1			0.2	
NITROGEN.....	10.0			10.6			9.5	
OXYGEN.....	0.1			TRACE			TRACE	
ARGON.....	---			0.1			TRACE	
HYDROGEN.....	---			0.0			0.0	
HYDROGEN SULFIDE.....	---			---			0.0	
CARBON DIOXIDE.....	0.3			0.3			0.2	
HELIUM.....	1.49			1.40			1.27	
HEATING VALUE.....	977			997			997	
SPECIFIC GRAVITY.....	0.646			0.644			0.650	

	INDEX SAMPLE	1492 7684		INDEX SAMPLE	1493 8256		INDEX SAMPLE	1494 5207
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	BARTON			BARTON			BARTON	
FIELD.....	ELLINWOOD S			FORT ZARAH W			GREAT BEND AIRPORT	
WELL NAME.....	KOWALSKY NO. 7			WOOD NO. 1			P. ESSMILLER NO. 3	
LOCATION.....	SEC. 18, T20S, R11W			SEC. 25, T19S, R13W			SEC. 26, T19S, R14W	
OWNER.....	COOPERATIVE REFINERY ASSN.			NADEL & GUSSMAN OIL CO.			HONAKER DRILLING CO.	
COMPLETED.....	10/06/41			--/--/00			--/--/00	
SAMPLED.....	09/15/50			10/22/60			05/23/52	
FORMATION.....	PENN-TARKIO			CAMO-ARBUCKLE			NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	2415			3403			NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	850			NOT GIVEN			NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			3			300	
COMPONENT, MOLE PCT								
METHANE.....	74.9			41.3			53.6	
ETHANE.....	2.8			4.5			5.4	
PROPANE.....	1.2			1.4			3.0	
N-BUTANE.....	0.4			0.5			0.8	
ISOBUTANE.....	0.3			0.2			0.6	
N-PENTANE.....	TRACE			0.2			0.1	
ISOPENTANE.....	TRACE			0.2			0.4	
CYCLOPENTANE.....	---			0.1			TRACE	
HEXANES PLUS.....	0.1			0.2			0.1	
NITROGEN.....	19.0			47.0			32.2	
OXYGEN.....	0.1			0.0			0.1	
ARGON.....	TRACE			0.1			0.1	
HYDROGEN.....	TRACE			0.0			0.0	
HYDROGEN SULFIDE.....	0.0			0.0			0.2	
CARBON DIOXIDE.....	0.1			0.2			3.56	
HELIUM.....	0.90			4.07			788	
HEATING VALUE.....	873			597			0.767	
SPECIFIC GRAVITY.....	0.671			0.800				

	INDEX SAMPLE	1495 10768		INDEX SAMPLE	1496 5208		INDEX SAMPLE	1497 10614
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	BARTON			BARTON			BARTON	
FIELD.....	GREAT BEND AIRPORT			GREAT BEND SHALLOW GAS			GREAT BEND SHALLOW GAS	
WELL NAME.....	RUSSELL A NO. 9			WITTE NO. 1			HALL NO. 2	
LOCATION.....	SEC. 26, T19S, R14W			SEC. 21, T19S, R14W			SEC. 28, T19S, R14W	
OWNER.....	PETROLEUM MANAGEMENT, INC.			HONAKER DRILLING CO.			CLARENCE HERMIS	
COMPLETED.....	--/--/00			--/--/00			--/--/00	
SAMPLED.....	11/07/66			06/01/52			06/16/66	
FORMATION.....	PENN-WABAUNSEE			CAMO-CONGLOMERATE			PENN-LANSING-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	2246			3513			2304	
WELLHEAD PRESSURE, PSIG.....	700			1050			1000	
OPEN FLOW, MCFD.....	10900			2400			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	72.9			72.8			51.0	
ETHANE.....	6.8			4.1			1.3	
PROPANE.....	0.7			0.1			1.3	
N-BUTANE.....	0.2			0.7			0.8	
ISOBUTANE.....	0.0			0.2			0.3	
N-PENTANE.....	0.0			0.2			0.2	
ISOPENTANE.....	0.0			0.2			0.3	
CYCLOPENTANE.....	0.0			TRACE			TRACE	
HEXANES PLUS.....	0.0			16.7			0.2	
NITROGEN.....	23.3			0.1			42.9	
OXYGEN.....	0.0			0.1			0.0	
ARGON.....	0.1			0.1			0.1	
HYDROGEN.....	0.0			TRACE			0.0	
HYDROGEN SULFIDE.....	0.0			---			0.0	
CARBON DIOXIDE.....	0.1			0.1			0.2	
HELIUM.....	0.94			2.11			1.45	
HEATING VALUE.....	796			930			642	
SPECIFIC GRAVITY.....	0.668			0.687			0.779	

	INDEX SAMPLE	1498 5551		INDEX SAMPLE	1499 7619		INDEX SAMPLE	1500 7678
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	BARTON			BARTON			BARTON	
FIELD.....	GREAT BEND TOWNSITE			GREAT BEND TOWNSITE			GREAT BEND TOWNSITE	
WELL NAME.....	WILDCAT NO. 1			WALLACE NO. 1			WALLACE NO. 1	
LOCATION.....	SEC. 21, T19S, R13W			SEC. 19, T19S, R13W			SEC. 19, T19S, R13W	
OWNER.....	HONAKER DRILLING CO.			HONAKER DAVIS DRILLING CO.			GRADIDGE CORP.	
COMPLETED.....	--/--/00			--/--/00			02/16/56	
SAMPLED.....	08/31/53			07/22/60			08/24/60	
FORMATION.....	CAMO-ARBUCKLE			PENN-LANSING			PENN-LANSING-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	3429			3250			3250	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			900			840	
OPEN FLOW, MCFD.....	NOT GIVEN			2000			2000	
COMPONENT, MOLE PCT								
METHANE.....	46.1			57.9			61.2	
ETHANE.....	9.0			2.4			2.4	
PROPANE.....	6.0			3.2			2.2	
N-BUTANE.....	3.8			1.2			1.0	
ISOBUTANE.....	3.1			0.2			0.6	
N-PENTANE.....	1.2			0.2			0.2	
ISOPENTANE.....	1.1			0.2			0.3	
CYCLOPENTANE.....	0.2			0.1			TRACE	
HEXANES PLUS.....	1.0			0.3			0.1	
NITROGEN.....	24.0			29.5			30.2	
OXYGEN.....	0.3			TRACE			0.0	
ARGON.....	0.1			TRACE			TRACE	
HYDROGEN.....	0.0			0.0			0.0	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.4			3.5			0.3	
HELIUM.....	1.65			1.39			1.60	
HEATING VALUE.....	1226			796			801	
SPECIFIC GRAVITY.....	0.955			0.781			0.746	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1501			INDEX 1502			INDEX 1503		
SAMPLE 5255			SAMPLE 5265			SAMPLE 5550		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARTON		BARTON			BARTON		
FIELD.....	GREAT BEND W		GREAT BEND W			GREAT BEND W		
WELL NAME.....	SMILLER NO. 4		SUTTON NO. 1			RUSSELL NO. A-9		
LOCATION.....	SEC. 26, T19S, R14W		SEC. 15, T19S, R14W			SEC. 26, T19S, R14W		
OWNER.....	HONAKER DRILLING CO.		MARHAD OIL CO.			HELMERICH & PAYNE, INC.		
COMPLETED.....	06/26/52		03/25/52			08/31/53		
SAMPLED.....	06/28/52		07/03/52			09/01/53		
FORMATION.....	PENN-KANSAS CITY		PENN-KANSAS CITY			CANO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3203		3200			3457		
WELLHEAD PRESSURE, PSIG.....	950		200			977		
OPEN FLOW, MCFD.....	900		531			4730		
COMPONENT, MOLE PCT								
METHANE.....	62.1		64.6			69.1		
ETHANE.....	2.4		4.1			4.9		
PROPANE.....	1.5		1.4			2.4		
N-BUTANE.....	0.7		0.4			0.7		
ISOBUTANE.....	0.2		0.2			0.4		
N-PENTANE.....	0.2		0.0			0.3		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	0.1		0.1			0.0		
HEXANES PLUS.....	0.1		TRACE			0.2		
NITROGEN.....	30.5		25.4			19.0		
OXYGEN.....	0.1		TRACE			0.1		
ARGON.....	0.1		0.2			0.1		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.4		0.1			0.0		
CARBON DIOXIDE.....	1.53		3.31			2.43		
HELIUM.....	763		797			314		
HEATING VALUE.....	0.730		0.697			0.705		
SPECIFIC GRAVITY.....								
INDEX 1504			INDEX 1505			INDEX 1506		
SAMPLE 5408			SAMPLE 3233			SAMPLE 3212		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARTON		BARTON			BARTON		
FIELD.....	HEIZER SW		KRAFT-PRUSA			KRUCKENBERG		
WELL NAME.....	MILLER NO. 1		OSER NO. 1			MERTON NO. 1		
LOCATION.....	SEC. 24, T19S, R14W		SEC. 17, T16S, R11W			SEC. 14, T19S, R15W		
OWNER.....	HONAKER DRILLING CO.		SINCLAIR-PRAIRIE OIL CO.			SCHERMERHORN OIL CORP.		
COMPLETED.....	--/--/00		02/21/39			04/--/41		
SAMPLED.....	03/05/53		03/24/42			03/27/42		
FORMATION.....	CANO-ARBUCKLE		PENN-LANSING-KANSAS CITY			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3511		2970			3535		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1000			1027		
OPEN FLOW, MCFD.....	2554		11600			8250		
COMPONENT, MOLE PCT								
METHANE.....	52.3		54.7			78.2		
ETHANE.....	4.4		11.0			11.9		
PROPANE.....	1.2		---			---		
N-BUTANE.....	0.3		---			---		
ISOBUTANE.....	0.5		---			---		
N-PENTANE.....	0.1		---			---		
ISOPENTANE.....	TRACE		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.2		---			---		
NITROGEN.....	36.4		32.6			8.2		
OXYGEN.....	TRACE		0.3			0.3		
ARGON.....	0.2		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	4.22		1.32			1.20		
HEATING VALUE.....	681		751			1005		
SPECIFIC GRAVITY.....	0.744		0.741			0.646		
INDEX 1507			INDEX 1508			INDEX 1509		
SAMPLE 8277			SAMPLE 2701			SAMPLE 3650		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARTON		BARTON			BARTON		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	SUCHY NO. 1		NOT GIVEN			AMES NO. 1		
LOCATION.....	SEC. 27, T19S, R15W		SEC. 14, T19S, R11W			SEC. 22, T18S, R11W		
OWNER.....	WESTERN PETROLEUM CO., INC.		DOWNING, ET AL.			EDOUARD JONAS		
COMPLETED.....	--/--/00		--/--/00			06/30/43		
SAMPLED.....	11/16/61		--/--/00			07/26/43		
FORMATION.....	PENN-KANSAS CITY		NOT GIVEN			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3162		3052			3042		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		975			400		
OPEN FLOW, MCFD.....	1500		7500			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	61.9		60.6			51.3		
ETHANE.....	2.4		18.0			33.1		
PROPANE.....	2.9		---			---		
N-BUTANE.....	0.9		---			---		
ISOBUTANE.....	0.5		---			---		
N-PENTANE.....	0.1		---			---		
ISOPENTANE.....	0.1		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	30.2		20.1			14.8		
OXYGEN.....	TRACE		0.3			0.6		
ARGON.....	0.1		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	TRACE		---			---		
CARBON DIOXIDE.....	0.2		0.0			0.0		
HELIUM.....	1.25		0.95			0.19		
HEATING VALUE.....	782		---			1113		
SPECIFIC GRAVITY.....	0.737		0.724			0.782		
INDEX 1510			INDEX 1511			INDEX 1512		
SAMPLE 7799			SAMPLE 8909			SAMPLE 2960		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARTON		BARTON			BARTON		
FIELD.....	NOT GIVEN		NOT GIVEN			OKS-ALBERT		
WELL NAME.....	INJECTOR NO. 2		UNRUH			DIRKS NO. 1		
LOCATION.....	SEC. 20, T8S, R15W		NOT GIVEN			SEC. 18, T18S, R15W		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		PAYNEE SALT CO., ET AL.			HANNUM DRILLING CO.		
COMPLETED.....	--/--/00		--/--/61			04/26/40		
SAMPLED.....	12/08/60		13/28/63			11/07/41		
FORMATION.....	NOT GIVEN		PERM-WICHITA-ALBANY			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		3800			3478		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1000			700		
OPEN FLOW, MCFD.....	NOT GIVEN		3000			48000		
COMPONENT, MOLE PCT								
METHANE.....	66.7		85.8			73.9		
ETHANE.....	4.1		3.8			13.2		
PROPANE.....	1.6		1.5			---		
N-BUTANE.....	0.6		0.7			---		
ISOBUTANE.....	0.4		0.2			---		
N-PENTANE.....	0.2		0.1			---		
ISOPENTANE.....	0.1		0.3			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.1		0.2			---		
NITROGEN.....	23.0		6.1			11.0		
OXYGEN.....	0.0		0.0			0.2		
ARGON.....	0.1		TRACE			---		
HYDROGEN.....	0.1		0.0			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.3		0.5			0.2		
HELIUM.....	2.80		0.79			1.48		
HEATING VALUE.....	838		1038			985		
SPECIFIC GRAVITY.....	0.704		0.644			0.662		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1513 2978	INDEX SAMPLE	1514 3022	INDEX SAMPLE	1515 3218
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	BARTON			BARTON		BARTON	
FIELD.....	OTIS-ALBERT			OTIS-ALBERT		OTIS-ALBERT	
WELL NAME.....	FERDINAND BRACK NO. 1			HUNTER		HABERMAN NO. 1	
LOCATION.....	SEC. 21, T18S, R15W			SEC. 33, T18S, R15W		SEC. 8, T18S, R15W	
OWNER.....	STANOLIND OIL & GAS CO.			NEWWOOD OIL CO.		HANNUM DRILLING CO.	
COMPLETED.....	12/08/36			--/--/00		03/03/41	
SAMPLED.....	11/05/41			--/--/00		03/27/42	
FORMATION.....	CAMB-REAGAN			NOT GIVEN		CAMB-REAGAN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3456			NOT GIVEN		3500	
WELLHEAD PRESSURE, PSIG.....	1925			NOT GIVEN		623	
OPEN FLOW, MCFD.....	18400			NOT GIVEN		14700	
COMPONENT, MOLE PCT							
METHANE.....	76.7			78.2		66.8	
ETHANE.....	23.7			12.3		11.6	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	7.9			8.0		19.1	
OXYGEN.....	0.2			0.1		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.3			0.2		0.3	
HELIUM.....	1.47			1.15		1.90	
HEATING VALUE.....	1022			1013		885	
SPECIFIC GRAVITY.....	0.654			0.646		0.687	
		INDEX SAMPLE	1516 6355	INDEX SAMPLE	1517 3214	INDEX SAMPLE	1518 3440
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	BARTON			BARTON		BARTON	
FIELD.....	OTIS-ALBERT			PAWNEE ROCK		PAWNEE ROCK	
WELL NAME.....	BIRD NO. 1			J. J. SCHMIDT NO. 1		E. D. PECKERT NO. 1	
LOCATION.....	SEC. 28, T18S, R15W			SEC. 22, T20S, R15W		SEC. 18, T20S, R15W	
OWNER.....	SKELLY OIL CO.			HELMERICH & PAYNE, INC.		TRANSWESTERN OIL CO.	
COMPLETED.....	06/1/41			10/01/41		04/01/42	
SAMPLED.....	08/08/57			03/26/42		05/28/42	
FORMATION.....	PENN-KANSAS CITY			CAMB-ARBUCKLE		CAMB-ARBUCKLE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3193			3669		3790	
WELLHEAD PRESSURE, PSIG.....	1057			NOT GIVEN		1100	
OPEN FLOW, MCFD.....	3400			1585		4000	
COMPONENT, MOLE PCT							
METHANE.....	61.8			80.0		83.6	
ETHANE.....	3.0			9.6		8.3	
PROPANE.....	1.1			---		---	
N-BUTANE.....	0.2			---		---	
ISOBUTANE.....	0.3			---		---	
N-PENTANE.....	0.0			---		---	
ISOPENTANE.....	TRACE			---		---	
CYCLOPENTANE.....	0.0			---		---	
HEXANES PLUS.....	TRACE			---		---	
NITROGEN.....	31.0			8.6		6.1	
OXYGEN.....	TRACE			0.4		0.4	
ARGON.....	0.1			---		---	
HYDROGEN.....	TRACE			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.1			0.2		0.5	
HELIUM.....	2.31			1.23		1.10	
HEATING VALUE.....	725			982		996	
SPECIFIC GRAVITY.....	0.707			0.637		0.623	
		INDEX SAMPLE	1519 5516	INDEX SAMPLE	1520 3103	INDEX SAMPLE	1521 3112
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	BARTON			BARTON		BARTON	
FIELD.....	PAWNEE ROCK			PAWNEE ROCK E		PAWNEE ROCK E	
WELL NAME.....	WILKINSON NO. 1			J. H. 45, S. 5, T. 1		J. H. SMITH NO. 1	
LOCATION.....	SEC. 27, T19S, R15W			SEC. 17, T20S, R15W		SEC. 17, T20S, R15W	
OWNER.....	SCHERMERHORN OIL CORP.			HELMERICH & PAYNE, INC.		HELMERICH & PAYNE, INC.	
COMPLETED.....	06/20/33			07/18/41		--/--/00	
SAMPLED.....	07/18/53			02/26/42		02/26/42	
FORMATION.....	CAMB-ARBUCKLE			CAMB-ARBUCKLE		CAMB-ARBUCKLE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3600			3802		3799	
WELLHEAD PRESSURE, PSIG.....	500			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	82.5			68.2		85.8	
ETHANE.....	4.8			18.5		3.4	
PROPANE.....	2.4			---		---	
N-BUTANE.....	0.9			---		---	
ISOBUTANE.....	0.4			---		---	
N-PENTANE.....	0.3			---		---	
ISOPENTANE.....	0.3			---		---	
CYCLOPENTANE.....	TRACE			---		---	
HEXANES PLUS.....	0.3			---		---	
NITROGEN.....	7.0			10.9		8.6	
OXYGEN.....	TRACE			0.5		0.3	
ARGON.....	0.1			---		---	
HYDROGEN.....	0.0			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.4			0.5		0.4	
HELIUM.....	0.92			1.35		1.51	
HEATING VALUE.....	1057			1040		939	
SPECIFIC GRAVITY.....	0.665			0.693		0.606	
		INDEX SAMPLE	1522 3234	INDEX SAMPLE	1523 8268	INDEX SAMPLE	1524 4072
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	BARTON			BARTON		BARTON	
FIELD.....	RICK			SHAEFFER-ROTHGARN		UNRUH	
WELL NAME.....	RADER NO. 2			ENGLEMAN NO. 1		UNRUH NO. 1	
LOCATION.....	SEC. 11, T19S, R11W			SEC. 27, T20S, R13W		SEC. 28, T20S, R15W	
OWNER.....	SHELL OIL CO.			ALPINE OIL & ROYALTY CO., INC		HARBER DRILLING CO.	
COMPLETED.....	--/--/00			09/20/61		--/--/00	
SAMPLED.....	11/02/65			11/02/65		09/21/45	
FORMATION.....	PENN-KANSAS CITY			PENN-KANSAS CITY		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3107			3257		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1060			1040		1090	
OPEN FLOW, MCFD.....	1863			2400		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	58.7			71.2		75.3	
ETHANE.....	19.0			2.6		14.4	
PROPANE.....	---			1.4		---	
N-BUTANE.....	0.6			---		---	
ISOBUTANE.....	---			0.4		---	
N-PENTANE.....	---			0.1		---	
ISOPENTANE.....	---			0.1		---	
CYCLOPENTANE.....	---			TRACE		---	
HEXANES PLUS.....	---			0.1		---	
NITROGEN.....	20.8			22.3		8.9	
OXYGEN.....	0.4			TRACE		0.0	
ARGON.....	---			TRACE		---	
HYDROGEN.....	---			TRACE		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.93			1.04		1.26	
HEATING VALUE.....	935			852		1021	
SPECIFIC GRAVITY.....	0.735			0.691		0.658	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1925 4495			INDEX SAMPLE	1926 4496			INDEX SAMPLE	1927 17875
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	BARTON			BARTON				BARTON			
FIELD.....	UNRUH			UNRUH				WILDCAT			
WELL NAME.....	MOORE			LILLIAN STROBEL NO. 1				MILLER NO. 1			
LOCATION.....	SEC. 19, T20S, R14W			SEC. 14, T20S, R15W				SEC. 28, T19S, R14W			
OWNER.....	KANSAS-NEBRASKA NATURAL GAS			SINCLAIR-PRAIRIE OIL CO.				ROXANA CORP.			
COMPLETED.....	09/25/47			12/29/47				03/21/48			
SAMPLED.....	--/--/48			06/--/48				--/--/00			
FORMATION.....	CAMO-ARBUCKLE			ORDO---				PERM-RED EAGLE			
GEOLOGIC PROVINCE CODE.....	385			385				385			
DEPTH, FEET.....	3561			3596				2276			
WELLHEAD PRESSURE, PSIG.....	1050			1021				650			
OPEN FLOW, MCFD.....	24200			40500				1200			
COMPONENT, MOLE PCT.....											
METHANE.....	79.5			79.4				66.5			
ETHANE.....	9.8			10.7				2.3			
PROPANE.....	---			---				0.8			
N-BUTANE.....	---			---				0.5			
ISOBUTANE.....	---			---				0.2			
N-PENTANE.....	---			---				0.3			
ISOPENTANE.....	---			---				TRACE			
CYCLOPENTANE.....	---			---				0.2			
HEXANES PLUS.....	---			---				0.4			
NITROGEN.....	8.9			8.2				27.5			
OXYGEN.....	0.1			0.1				0.0			
ARGON.....	---			---				0.1			
HYDROGEN.....	---			---				0.0			
HYDROGEN SULFIDE.....	---			---				0.0			
CARBON DIOXIDE.....	0.4			0.3				0.2			
HELIUM.....	1.34			1.29				1.18			
HEATING VALUE.....	981			996				800			
SPECIFIC GRAVITY.....	0.639			0.639				0.716			
		INDEX SAMPLE	1928 6164			INDEX SAMPLE	1929 3194			INDEX SAMPLE	1930 137
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	BARTON			BOURBON				BUTLER			
FIELD.....	WORKMAN NW			REDFIELD				AUGUSTA			
WELL NAME.....	OPAL LANTERMAN			SCHLEGAL NO. 1				SCULLY NO. 1			
LOCATION.....	SEC. 16, T20S, R12W			SEC. 9, T24S, R23E				SEC. 21, T27S, R4E			
OWNER.....	SKELLY OIL CO.			RAYMOND MOWERY				EMPIRE GAS & FUEL CO.			
COMPLETED.....	--/--/00			--/--/36				05/--/15			
SAMPLED.....	10/16/55			03/25/42				03/10/20			
FORMATION.....	PENN-KANSAS CITY			PENN-BARTLESVILLE				PENN-			
GEOLOGIC PROVINCE CODE.....	385			365				370			
DEPTH, FEET.....	3153			400				1451			
WELLHEAD PRESSURE, PSIG.....	1000			1000				94			
OPEN FLOW, MCFD.....	500			1000				550			
COMPONENT, MOLE PCT.....											
METHANE.....	66.3			98.4				70.3			
ETHANE.....	2.9			0.0				2.2			
PROPANE.....	2.1			---				---			
N-BUTANE.....	0.9			---				---			
ISOBUTANE.....	0.6			---				---			
N-PENTANE.....	0.3			---				---			
ISOPENTANE.....	0.2			---				---			
CYCLOPENTANE.....	TRACE			---				---			
HEXANES PLUS.....	0.1			---				---			
NITROGEN.....	25.3			0.7				25.8			
OXYGEN.....	TRACE			0.5				0.7			
ARGON.....	0.1			---				---			
HYDROGEN.....	0.0			---				---			
HYDROGEN SULFIDE.....	0.0			---				---			
CARBON DIOXIDE.....	0.1			0.3				0.0			
HELIUM.....	0.99			0.06				0.97			
HEATING VALUE.....	855			997				752			
SPECIFIC GRAVITY.....	0.725			0.563				0.671			
		INDEX SAMPLE	1931 138			INDEX SAMPLE	1932 147			INDEX SAMPLE	1933 149
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	BUTLER			BUTLER				BUTLER			
FIELD.....	AUGUSTA			EL DORADO				EL DORADO			
WELL NAME.....	PENLEY NO. 1			ENGART NO. 11				MANNING NO. 4			
LOCATION.....	SEC. 21, T27S, R4E			SEC. 12, T26S, R4E				SEC. 5, T26S, R5E			
OWNER.....	SINCLAIR OIL & GAS CO.			EMPIRE GAS & FUEL CO.				EMPIRE GAS & FUEL CO.			
COMPLETED.....	05/--/15			03/--/18				--/--/00			
SAMPLED.....	03/01/20			03/15/20				03/12/20			
FORMATION.....	PENN-			370				PENN-			
GEOLOGIC PROVINCE CODE.....	370			1190				1141			
DEPTH, FEET.....	1380			250				196			
WELLHEAD PRESSURE, PSIG.....	65			210				380000			
OPEN FLOW, MCFD.....	480										
COMPONENT, MOLE PCT.....											
METHANE.....	69.9			69.2				72.2			
ETHANE.....	2.7			4.0				1.4			
PROPANE.....	---			---				---			
N-BUTANE.....	---			---				---			
ISOBUTANE.....	---			---				---			
N-PENTANE.....	---			---				---			
ISOPENTANE.....	---			---				---			
CYCLOPENTANE.....	---			---				---			
HEXANES PLUS.....	---			---				---			
NITROGEN.....	25.4			24.4				24.3			
OXYGEN.....	0.6			0.3				0.8			
ARGON.....	---			---				---			
HYDROGEN.....	---			---				---			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.1			0.0				0.0			
HELIUM.....	1.20			1.01				1.16			
HEATING VALUE.....	756			773				756			
SPECIFIC GRAVITY.....	0.671			0.666				0.660			
		INDEX SAMPLE	1934 150			INDEX SAMPLE	1935 152			INDEX SAMPLE	1936 4369
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	BUTLER			BUTLER				BUTLER			
FIELD.....	EL DORADO			EL DORADO				FOX BUSH			
WELL NAME.....	EL DORADO			EL DORADO				WORKACK NO. 1			
LOCATION.....	SEC. 1, T26S, R4E			SEC. 17, T27S, R7E				SEC. 19, T28S, R6E			
OWNER.....	EMPIRE GAS & FUEL CO.			EMPIRE GAS & FUEL CO.				J. M. HUBER CORP.			
COMPLETED.....	05/--/18			09/--/16				02/--/47			
SAMPLED.....	03/15/20			03/15/20				10/27/47			
FORMATION.....	PENN-			PENN-				PENN-BARTLESVILLE			
GEOLOGIC PROVINCE CODE.....	370			370				370			
DEPTH, FEET.....	1254			892				2697			
WELLHEAD PRESSURE, PSIG.....	260			55				500			
OPEN FLOW, MCFD.....	260			110				2000			
COMPONENT, MOLE PCT.....											
METHANE.....	71.6			65.9				6.9			
ETHANE.....	0.0			0.0				72.1			
PROPANE.....	---			---				---			
N-BUTANE.....	---			---				---			
ISOBUTANE.....	---			---				---			
N-PENTANE.....	---			---				---			
ISOPENTANE.....	---			---				---			
CYCLOPENTANE.....	---			---				---			
HEXANES PLUS.....	---			---				---			
NITROGEN.....	27.1			31.3				19.7			
OXYGEN.....	0.0			1.2				0.2			
ARGON.....	---			---				---			
HYDROGEN.....	---			---				---			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.0			0.1				0.4			
HELIUM.....	1.25			1.49				0.72			
HEATING VALUE.....	725			668				1362			
SPECIFIC GRAVITY.....	0.661			0.685				0.995			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

187

		INDEX SAMPLE	1537 922	INDEX SAMPLE	1538 3816	INDEX SAMPLE	1539 2536
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	BUTLER			BUTLER		CHASE	
FIELD.....	KNOX FARM			POTWIN		ELK	
WELL NAME.....	NO. 1			BRAINERD NO. B-1		STEPHENSON NO. 1	
LOCATION.....	SEC. 17, T27S, R7E			SEC. 3, T25S, R3E		SEC. 27, T19S, R6E	
OWNER.....	TIDAL OIL CO.			VICKERS PETROLEUM CO.		K. R. & T. CO.	
COMPLETED.....	--/--/00			03/29/44		02/--/32	
SAMPLED.....	09/14/24			02/23/44		08/14/32	
FORMATION.....	UNKN-DARK BROWN CLOSE SAND			UNKN---		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	370			370		370	
DEPTH, FEET.....	2582			830		523	
WELLHEAD PRESSURE, PSIG.....	850			NOT GIVEN		155	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		600	
COMPONENT, MOLE PCT							
METHANE.....	71.5			18.7		63.3	
ETHANE.....	12.7			1.9		4.8	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	12.7			76.0		29.7	
OXYGEN.....	1.9			0.4		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.9			0.4		0.7	
HELIUM.....	0.45			2.64		1.19	
HEATING VALUE.....	952			223		727	
SPECIFIC GRAVITY.....	0.688			0.873		0.704	
		INDEX SAMPLE	1540 3242	INDEX SAMPLE	1541 3245	INDEX SAMPLE	1542 2640
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	CHASE			CHASE		CHASE	
FIELD.....	ELK			ELK		LIPPS	
WELL NAME.....	MILLER NO. 6			STEPHENSON NO. 2		MORRIS NO. 1	
LOCATION.....	SEC. 27, T19S, R6E			SEC. 27, T19S, R6E		SEC. 32, T18S, R7E	
OWNER.....	CHASE COUNTY PIPE LINE CO.			K. R. & T. CO.		K. R. & T. CO.	
COMPLETED.....	12/--/34			04/--/39		09/--/32	
SAMPLED.....	04/01/42			04/01/42		09/05/33	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	370			370		370	
DEPTH, FEET.....	519			475		455	
WELLHEAD PRESSURE, PSIG.....	90			80		40	
OPEN FLOW, MCFD.....	195			750		250	
COMPONENT, MOLE PCT							
METHANE.....	72.2			59.2		45.5	
ETHANE.....	6.6			4.9		10.7	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	19.7			34.2		42.1	
OXYGEN.....	0.3			0.3		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.1		0.4	
HELIUM.....	0.99			1.33		1.03	
HEATING VALUE.....	850			688		653	
SPECIFIC GRAVITY.....	0.668			0.717		0.783	
		INDEX SAMPLE	1543 3246	INDEX SAMPLE	1544 3247	INDEX SAMPLE	1545 978
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	CHASE			CHASE		CHAUTAUQUA	
FIELD.....	NEVA			NEVA		CHAUTAUQUA	
WELL NAME.....	DOOLITTLE NO. 1			DRUMMOND NO. 6		NO. 80	
LOCATION.....	SEC. 14, T19S, R7E			SEC. 14, T19S, R7E		SEC. 16, T34S, R11E	
OWNER.....	COTTONWOOD FALLS GAS CO.			COTTONWOOD FALLS GAS CO.		DEWMAN BROS.	
COMPLETED.....	--/--/00			--/--/00		03/--/24	
SAMPLED.....	04/01/42			04/01/42		01/22/25	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	370			370		365	
DEPTH, FEET.....	107			454		715	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			25		180	
OPEN FLOW, MCFD.....	1000			70		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	63.0			72.2		42.9	
ETHANE.....	17.0			6.6		0.6	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	18.9			20.0		54.9	
OXYGEN.....	0.1			0.2		0.5	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.4			0.4		0.1	
HELIUM.....	0.55			0.60		0.98	
HEATING VALUE.....	943			850		445	
SPECIFIC GRAVITY.....	0.718			0.672		0.784	
		INDEX SAMPLE	1546 7793	INDEX SAMPLE	1547 11763	INDEX SAMPLE	1548 654
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	CHAUTAUQUA			CHAUTAUQUA		CHAUTAUQUA	
FIELD.....	COACH LINES			COACH LINES		HEWIS	
WELL NAME.....	KK&O COACH LINES NO. 2			ALLEN NO. 1		NOT GIVEN	
LOCATION.....	SEC. 10, T32S, R8E			SEC. 7, T35S, R11E		SEC. 35, T34S, R9E	
OWNER.....	PURE OIL CO.			WATAT PETROLEUM CORP.		EMPIRE GAS & FUEL CO.	
COMPLETED.....	08/--/60			04/21/67		--/--/00	
SAMPLED.....	12/13/60			02/17/69		09/06/21	
FORMATION.....	PENN-LAYTON			MISS-CHAT		PENN-	
GEOLOGIC PROVINCE CODE.....	365			365		365	
DEPTH, FEET.....	1758			1882		758	
WELLHEAD PRESSURE, PSIG.....	579			660		292	
OPEN FLOW, MCFD.....	3400			3000		2400	
COMPONENT, MOLE PCT							
METHANE.....	52.1			92.5		59.7	
ETHANE.....	3.8			0.9		0.0	
PROPANE.....	2.7			0.1		---	
N-BUTANE.....	0.8			0.0		---	
ISOBUTANE.....	0.6			0.0		---	
N-PENTANE.....	0.2			0.0		---	
ISOPENTANE.....	0.1			0.0		---	
CYCLOPENTANE.....	0.1			0.0		---	
HEXANES PLUS.....	0.2			0.0		---	
NITROGEN.....	38.3			4.2		39.1	
OXYGEN.....	0.0			0.1		0.2	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.2			1.9		0.0	
HELIUM.....	0.90			0.00		1.00	
HEATING VALUE.....	740			956		605	
SPECIFIC GRAVITY.....	0.790			0.595		0.713	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1543 SAMPLE 15692			INDEX 1550 SAMPLE 16650			INDEX 1551 SAMPLE 17851		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	CHAUTAUQUA		CHEYENNE			CLARK		
FIELD.....	OLIVER		CHERRY CREEK			BIG SAND CREEK		
WELL NAME.....	ROGERS B NO. 1		FRITZ NO. A-1			EUBANK NO. 9-B		
LOCATION.....	SEC. 2, T32S, R10E		SEC. 25, T4S, R40W			SEC. 9, T34S, R23W		
OWNER.....	RAW OIL CO.		NILSSON ENTERPRISES, INC.			CORRA OIL & GAS CORP.		
COMPLETED.....	06/-/78		11/28/81			08/24/85		
SAMPLED.....	07/05/79		09/15/82			09/30/85		
FORMATION.....	MISS-7		CRET-NIOBRARA			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	363		450			360		
DEPTH, FEET.....	2000		1292			5436		
WELLHEAD PRESSURE, PSIG.....	500		300			1100		
OPEN FLOW, MCFD.....	2200		50			1500		
COMPONENT, MOLE PCT								
METHANE.....	82.5		73.6			79.5		
ETHANE.....	1.3		1.3			6.0		
PROPANE.....	0.5		0.4			3.6		
N-BUTANE.....	0.3		0.1			1.3		
ISOBUTANE.....	0.2		TRACE			0.6		
N-PENTANE.....	0.1		TRACE			0.4		
ISOPENTANE.....	0.1		TRACE			0.4		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.1		TRACE			0.3		
NITROGEN.....	12.3		4.1			7.5		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		TRACE			0.1		
HELIUM.....	1.24		0.08			0.24		
HEATING VALUE.....	906		890			1124		
SPECIFIC GRAVITY.....	0.641		0.584			0.705		
INDEX 1552 SAMPLE 7059			INDEX 1553 SAMPLE 14224			INDEX 1554 SAMPLE 14785		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	CLARK		CLARK			CLARK		
FIELD.....	CLARK CREEK		CLARK CREEK			GRANGER CREEK		
WELL NAME.....	C. M. TUTTLE NO. 1		TUTTLE NO. 2			TUTTLE NO. 1-1		
LOCATION.....	SEC. 8, T35S, R22W		SEC. 8, T35S, R22W			SEC. 1, T31S, R22W		
OWNER.....	PURE OIL CO.		ROBERT L. HAYNIE			MESA PETROLEUM CO.		
COMPLETED.....	10/26/58		06/21/74			01/23/76		
SAMPLED.....	05/05/59		11/17/74			09/24/76		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5673		5707			5199		
WELLHEAD PRESSURE, PSIG.....	1650		1700			1530		
OPEN FLOW, MCFD.....	NOT GIVEN		7000			47000		
COMPONENT, MOLE PCT								
METHANE.....	86.0		90.1			87.1		
ETHANE.....	4.9		4.7			4.2		
PROPANE.....	2.5		2.2			1.5		
N-BUTANE.....	0.8		0.6			0.5		
ISOBUTANE.....	0.7		0.4			0.2		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	3.6		1.2			5.6		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.2			0.2		
HELIUM.....	0.10		0.11			0.25		
HEATING VALUE.....	1111		1042			1042		
SPECIFIC GRAVITY.....	0.662		0.635			0.635		
INDEX 1555 SAMPLE 8094			INDEX 1556 SAMPLE 14557			INDEX 1557 SAMPLE 17656		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	CLARK		CLARK			CLARK		
FIELD.....	HARPER RANCH		HARPER RANCH			HARPER RANCH N		
WELL NAME.....	KARL MOSSHART NO. 1		HARPER RANCH NO. 1			MC GEE NO. 1		
LOCATION.....	SEC. 27, T35S, R21W		SEC. 12, T34S, R21W			SEC. 34, T32S, R21W		
OWNER.....	INCLAIR OIL & GAS CO.		TEXAS OIL & GAS CORP.			MIDCO EXPLORATION, INC.		
COMPLETED.....	04/17/61		-/-/00			12/12/84		
SAMPLED.....	07/25/61		-/-/00			04/-/85		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5430		5416			5254		
WELLHEAD PRESSURE, PSIG.....	1151		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		8155			4000		
COMPONENT, MOLE PCT								
METHANE.....	88.4		91.0			86.1		
ETHANE.....	4.9		1.2			4.5		
PROPANE.....	2.0		1.2			2.2		
N-BUTANE.....	0.6		0.3			0.8		
ISOBUTANE.....	0.5		0.2			0.3		
N-PENTANE.....	0.1		0.1			0.3		
ISOPENTANE.....	TRACE		0.1			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.3		
NITROGEN.....	3.0		3.4			4.3		
OXYGEN.....	TRACE		0.1			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.2		
HELIUM.....	4.10		0.12			0.14		
HEATING VALUE.....	1082		1037			1098		
SPECIFIC GRAVITY.....	0.635		0.609			0.659		
INDEX 1558 SAMPLE 15693			INDEX 1559 SAMPLE 6227			INDEX 1560 SAMPLE 14903		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	CLARK		CLARK			CLARK		
FIELD.....	LIXINGTON		WCKINNEY			WCKINNEY		
WELL NAME.....	MOORE NO. 3		L. THEIS NO. 1			THEIS "W" NO. 1-8		
LOCATION.....	SEC. 20, T31S, R21W		SEC. 10, T35S, R25W			SEC. 8, T35S, R25W		
OWNER.....	MESA PETROLEUM CO.		SHELL OIL CO.			NORTHERN NATURAL GAS CO.		
COMPLETED.....	04/23/79		08/01/66			10/21/76		
SAMPLED.....	07/08/79		01/14/57			02/15/77		
FORMATION.....	MISS-ST. LOUIS		MISS-CHESTER			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5181		5766			5955		
WELLHEAD PRESSURE, PSIG.....	1500		1033			1576		
OPEN FLOW, MCFD.....	3900		3600			4400		
COMPONENT, MOLE PCT								
METHANE.....	83.1		88.7			90.0		
ETHANE.....	4.8		5.2			4.8		
PROPANE.....	0.7		0.7			2.1		
N-BUTANE.....	0.4		0.8			0.6		
ISOBUTANE.....	0.3		0.7			0.3		
N-PENTANE.....	0.1		0.3			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	9.5		1.0			1.2		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.3		
HELIUM.....	0.30		0.10			0.09		
HEATING VALUE.....	996		1185			1188		
SPECIFIC GRAVITY.....	0.648		0.652			0.632		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

189

	INDEX	1561		INDEX	1562		INDEX	1563
	SAMPLE	5836		SAMPLE	1092		SAMPLE	1868
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	CLARK		CLARK			CLARK		
FIELD.....	MORRISON NE		NOT GIVEN			NOT GIVEN		
WELL NAME.....	STEPHENS H NO. 1		J. MORRISON NO. 1			STEPHENS NO. 1		
LOCATION.....	SEC. 10, T32S, R21W		SEC. 20, T32S, R21W			SEC. 21, T32S, R21W		
OWNER.....	SHAMROCK OIL & GAS CORP.		WATCHHORN OIL & GAS CO.			WATCHHORN OIL & GAS CO.		
COMPLETED.....	03/05/55		06/--/29			10/--/28		
SAMPLED.....	05/11/55		07/16/29			09/18/29		
FORMATION.....	PENN-MORROW		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4193		5308			5440		
WELLHEAD PRESSURE, PSIG.....	1740		50			800		
OPEN FLOW, MCFD.....	14500		7765			8000		
COMPONENT, MOLE PCT								
METHANE.....	90.2		90.4			83.3		
ETHANE.....	3.8		17.8			14.6		
PROPANE.....	1.5		---			---		
N-BUTANE.....	0.5		---			---		
ISOBUTANE.....	0.2		---			---		
N-PENTANE.....	0.1		---			---		
ISOPENTANE.....	0.2		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	0.8		1.4			1.8		
OXYGEN.....	TRACE		0.1			0.0		
ARGON.....	TRACE		---			---		
HYDROGEN.....	TRACE		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.3			0.3		
HELIUM.....	0.13		0.12			0.13		
HEATING VALUE.....	1061		1105			1133		
SPECIFIC GRAVITY.....	0.619		0.652			0.637		

	INDEX SAMPLE	1564 17682		INDEX SAMPLE	1565 9963		INDEX SAMPLE	1566 10337
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	CLARK		CLARK			CLARK		
FIELD.....	NOT GIVEN		SITKA			SHAKE CREEK		
WELL NAME.....	ESPLUND NO. 1		CAUTHERS TRUST UNIT 1			TUTTLE C NO. 1		
LOCATION.....	SEC. 35, T30S, R25W		SEC. 29, T33S, R22W			SEC. 10, T35S, R21W		
OWNER.....	LADD PETROLEUM CORP.		PETROLEUM, INC.			UNION OIL CO. OF CALIF.		
COMPLETED.....	11/1/00		12/21/64			11/13/57		
SAMPLED.....	05/21/05		07/08/65			12/13/65		
FORMATION.....	PENN-4 MISS		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5413		5435			5625		
WELLHEAD PRESSURE, PSIG.....	1050		1617			1145		
OPEN FLOW, MCFD.....	8000		3100			4040		
COMPONENT, MOLE PCT								
METHANE.....	70.1		87.0			87.5		
ETHANE.....	5.1		4.7			4.5		
PROPANE.....	2.7		2.3			2.1		
N-BUTANE.....	1.0		0.8			0.7		
ISOBUTANE.....	0.3		0.4			0.5		
N-PENTANE.....	0.2		0.2			TRACE		
ISOPENTANE.....	0.3		0.2			0.6		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.4			0.2		
NITROGEN.....	19.3		3.4			3.4		
OXYGEN.....	0.2		0.1			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.2		
HELIUM.....	0.33		0.10			0.11		
HEATING VALUE.....	947		1107			1098		
SPECIFIC GRAVITY.....	0.720		0.655			0.648		

	INDEX SAMPLE	1567 10355		INDEX SAMPLE	1568 16806		INDEX SAMPLE	1569 17371
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	CLARK			CLARK			CLARK	
FIELD.....	SHAKE CREEK			SHAKE CREEK			SHAKE CREEK	
WELL NAME.....	R. S. SHUPE NO. 1			BARBY NO. 2-21			SMITH NO. 1-30-34-21	
LOCATION.....	SEC. 16, T34S, R21W			SEC. 21, T34S, R21W			SEC. 30, T34S, R21W	
OWNER.....	SUNRAY OIL CO.			RENE DRILLING CO.			DECK OIL CO.	
COMPLETED.....	07/07/58			11/1/00			01/11/83	
SAMPLED.....	01/11/66			03/17/83			08/08/84	
FORMATION.....	PENN-MORROW			PENN-MORROW			PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360			360	
DEPTH, FEET.....	5580			NOT GIVEN			5488	
WELLHEAD PRESSURE, PSIG.....	1057			265			840	
OPEN FLOW, MCFD.....	7000			150			702	
COMPONENT, MOLE PCT								
METHANE.....	88.3			88.1			87.7	
ETHANE.....	5.0			4.3			5.1	
PROPANE.....	2.2			2.3			2.6	
N-BUTANE.....	0.8			0.8			0.8	
ISOBUTANE.....	0.2			0.5			0.5	
N-PENTANE.....	0.3			0.2			0.2	
ISOPENTANE.....	0.3			0.4			0.4	
CYCLOPENTANE.....	0.1			0.1			0.1	
HEXANES PLUS.....	0.3			0.2			0.3	
NITROGEN.....	2.0			2.5			1.9	
OXYGEN.....	0.2			TRACE			TRACE	
ARGON.....	TRACE			TRACE			TRACE	
HYDROGEN.....	0.0			0.2			0.0	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.2			0.2			0.2	
HELIUM.....	0.12			0.13			0.12	
HEATING VALUE.....	1120			1113			1136	
SPECIFIC GRAVITY.....	0.648			0.647			0.655	

	INDEX SAMPLE	1570 17409		INDEX SAMPLE	1571 10013		INDEX SAMPLE	1572 16303
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	CLARK		CLARK			CLARK		
FIELD.....	SHAKE CREEK		SHAKE CREEK W			TUTTLE S		
WELL NAME.....	BARBY NO. 5-23		RANDALL 1-11			TUTTLE NO. 11-116		
LOCATION.....	SEC. 23, T34S, R21W		SEC. 11, T34S, R22W			SEC. 13, T35S, R21W		
OWNER.....	RENE DRILLING CO.		GRAHAM-MICHAELIS DRILLING CO			KENNEDY & MITCHELL, INC.		
COMPLETED.....	03/26/83		03/03/65			11/1/00		
SAMPLED.....	01/14/84		07/24/65			08/07/81		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5409		5378			5577		
WELLHEAD PRESSURE, PSIG.....	1700		1453			464		
OPEN FLOW, MCFD.....	550		56300			3009		
COMPONENT, MOLE PCT								
METHANE.....	89.6		83.6			90.5		
ETHANE.....	3.7		5.1			3.5		
PROPANE.....	1.5		2.5			1.5		
N-BUTANE.....	0.5		0.8			0.5		
ISOBUTANE.....	0.2		0.5			0.3		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.3		
NITROGEN.....	3.5		6.6			2.9		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.16		0.18			0.11		
HEATING VALUE.....	1068		1089			1082		
SPECIFIC GRAVITY.....	0.629		0.663			0.627		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1573			INDEX 1574			INDEX 1575		
SAMPLE 1753			SAMPLE 14398			SAMPLE 6073		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	CARTER		AETNA GAS AREA			BEALS		
WELL NAME.....	MINZELER NO. 1		BALLET RANCH NO. 3			PARKS NO. 1		
LOCATION.....	SEC. 36, T22S, R14E		SEC. 36, T34S, R16W			SEC. 32, T33S, R17W		
OWNER.....	UNION GAS CORP.		BEREN CORP.			PURE OIL CO.		
COMPLETED.....	01/-/29		01/29/75			04/10/56		
SAMPLED.....	04/22/29		03/19/75			05/31/56		
FORMATION.....	PENN-CHEROKEE		MISS---			ORDO-SIMPSON		
GEOLOGIC PROVINCE CODE.....	335		NOT GIVEN			360		
DEPTH, FEET.....	1327		1650			5670		
WELLHEAD PRESSURE, PSIG.....	510		7236			1784		
OPEN FLOW, MCFD.....	3001					16000		
COMPONENT, MOLE PCT								
METHANE.....	86.6		93.5			71.5		
ETHANE.....	4.3		3.1			5.0		
PROpane.....	---		1.1			3.0		
N-BUTANE.....	---		0.3			1.5		
ISOBUTANE.....	---		0.2			0.5		
N-PENTANE.....	---		0.1			0.1		
ISOPENTANE.....	---		0.1			1.2		
CYCLOPENTANE.....	---		0.1			0.4		
HEXANES PLUS.....	---		0.2			0.3		
NITROGEN.....	8.1		1.0			15.4		
OXYGEN.....	0.2		0.0			0.0		
ARGON.....	---		0.0			0.1		
HYDROGEN.....	---		0.0			0.1		
HYDROGEN SULFIDE.....	---		0.1			0.1		
CARBON DIOXIDE.....	0.3		0.1			0.5		
HELIUM.....	0.55		0.06			0.67		
HEATING VALUE.....	954		1071			1046		
SPECIFIC GRAVITY.....	0.611		0.603			0.744		
INDEX 1576			INDEX 1577			INDEX 1578		
SAMPLE 6074			SAMPLE 6075			SAMPLE 10333		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	BEALS		BEALS			BEALS		
WELL NAME.....	PARKS NO. 1		HAZEL BEALS NO. 1			HUCK & HALL NO. 1		
LOCATION.....	SEC. 32, T33S, R17W		SEC. 3, T34S, R17W			SEC. 33, T33S, R17W		
OWNER.....	PURE OIL CO.		PURE OIL CO.			CONTINENTAL OIL CO.		
COMPLETED.....	04/10/56		12/20/55			12/07/62		
SAMPLED.....	05/31/56		05/29/56			12/15/65		
FORMATION.....	PENN-LANSING-KANSAS CITY		PENN-LANSING-KANSAS CITY			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4368		4393			4351		
WELLHEAD PRESSURE, PSIG.....	1464		1442			953		
OPEN FLOW, MCFD.....	4400		5200			4784		
COMPONENT, MOLE PCT								
METHANE.....	73.4		79.9			78.3		
ETHANE.....	5.0		0.8			5.1		
PROpane.....	2.9		0.0			2.5		
N-BUTANE.....	1.5		0.7			0.7		
ISOBUTANE.....	0.3		0.7			0.5		
N-PENTANE.....	0.4		0.5			0.1		
ISOPENTANE.....	0.8		0.4			0.3		
CYCLOPENTANE.....	0.3		0.2			0.1		
HEXANES PLUS.....	0.9		0.3			0.1		
NITROGEN.....	14.1		12.1			11.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.2		
HELIUM.....	0.57		0.27			0.29		
HEATING VALUE.....	1053		996			1016		
SPECIFIC GRAVITY.....	0.731		0.673			0.684		
INDEX 1579			INDEX 1580			INDEX 1581		
SAMPLE 10334			SAMPLE 10335			SAMPLE 10336		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	BEALS		BEALS			BEALS		
WELL NAME.....	BEALS NO. 1		HUCK & HALL NO. 1			B. & PARKS NO. 1		
LOCATION.....	SEC. 5, T34S, R17W		SEC. 33, T33S, R17W			SEC. 32, T33S, R17W		
OWNER.....	UNION OIL CO. OF CALIF.		CONTINENTAL OIL CO.			UNION OIL CO. OF CALIF.		
COMPLETED.....	02/10/62		12/07/62			04/10/56		
SAMPLED.....	12/15/65		12/15/65			12/13/65		
FORMATION.....	PENN-MARMATON		MISS---			ORDO-SIMPSON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4948		1264			5670		
WELLHEAD PRESSURE, PSIG.....	1259		1264			1700		
OPEN FLOW, MCFD.....	900		2631			8777		
COMPONENT, MOLE PCT								
METHANE.....	88.5		88.8			73.3		
ETHANE.....	4.3		3.7			5.0		
PROpane.....	2.6		0.5			2.3		
N-BUTANE.....	0.8		0.7			1.2		
ISOBUTANE.....	0.3		TRACE			0.3		
N-PENTANE.....	0.1		0.1			0.3		
ISOPENTANE.....	0.3		0.3			0.4		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	2.9		4.9			15.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.15		0.12			0.70		
HEATING VALUE.....	1058		998			998		
SPECIFIC GRAVITY.....	0.640		0.629			0.713		
INDEX 1582			INDEX 1583			INDEX 1584		
SAMPLE 16541			SAMPLE 6818			SAMPLE 11231		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	BLUFF CREEK		GLICK			GLICK		
WELL NAME.....	SCHUEPFLER NO. 21-5		ROBBINS-GALLUP NO. A-1			SCHUETTE NO. 1-1		
LOCATION.....	SEC. 21, T33S, R20W		SEC. 2, T31S, R16W			SEC. 1, T32S, R16W		
OWNER.....	SAMUEL GARY, OIL PRODUCER		BARBARA OIL CO.			EASON OIL CO.		
COMPLETED.....	01/27/82		09/02/58			01/05/66		
SAMPLED.....	06/10/82		09/10/58			11/21/67		
FORMATION.....	PENN-MORROW & MISS		MISS---			MISS---		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5255		4783			4855		
WELLHEAD PRESSURE, PSIG.....	1453		1520			1100		
OPEN FLOW, MCFD.....	2100		13			14000		
COMPONENT, MOLE PCT								
METHANE.....	89.1		92.0			90.0		
ETHANE.....	0.5		3.7			4.0		
PROpane.....	1.0		1.0			1.6		
N-BUTANE.....	0.5		0.4			0.6		
ISOBUTANE.....	0.2		0.3			0.3		
N-PENTANE.....	0.1		TRACE			0.3		
ISOPENTANE.....	0.1		0.3			0.0		
CYCLOPENTANE.....	0.1		0.1			0.0		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	7.6		1.6			2.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.38		0.10			0.17		
HEATING VALUE.....	979		1075			1082		
SPECIFIC GRAVITY.....	0.615		0.614			0.626		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1585 SAMPLE 15981		INDEX 1586 SAMPLE 12818		INDEX 1587 SAMPLE 8469	
STATE.....	KANSAS	KANSAS	KANSAS	KANSAS	
COUNTY.....	COMANCHE	COMANCHE	COMANCHE	COMANCHE	
FIELD.....	HAAS	HAAS	HAAS	NECATUNGA	
WELL NAME.....	HAAS NO. 1	MERRILL RANCH NO. C-2	MERRILL RANCH NO. C-2	DALE B NO. 1	
LOCATION.....	SEC. 19, T34S, R17W	SEC. 33, T33S, R16W	SEC. 33, T33S, R16W	SEC. 21, T32S, R18W	
OWNER.....	GEORGE E. JONES	SHEWANODAH OIL CORP.	SHEWANODAH OIL CORP.	J. M. HUBER CORP.	
COMPLETED.....	01/19/80	10/--/69	10/--/69	12/15/61	
SAMPLED.....	06/11/80	05/--/71	05/--/71	03/19/62	
FORMATION.....	MISS-	MISS-	MISS-	ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	5238	4972	4972	5632	
WELLHEAD PRESSURE, PSIG.....	1680	1250	1250	1730	
OPEN FLOW, MCFD.....	2443	4902	4902	4188	
COMPONENT, MOLE PCT					
METHANE.....	91.1	92.3	92.3	68.6	
ETHANE.....	3.1	3.8	3.8	4.9	
PROpane.....	1.0	1.2	1.2	1.9	
N-BUTANE.....	0.3	0.6	0.6	0.5	
ISOBUTANE.....	0.1	0.0	0.0	0.5	
N-PENTANE.....	0.1	0.2	0.2	0.1	
ISOPENTANE.....	0.1	0.2	0.2	0.4	
CYCLOPENTANE.....	0.1	TRACE	TRACE	0.5	
HEXANES PLUS.....	0.1	0.2	0.2	1.2	
NITROGEN.....	3.8	1.2	1.2	20.1	
OXYGEN.....	0.0	0.0	0.0	TRACE	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	0.2	0.2	
HELIUM.....	0.13	0.08	0.08	0.94	
HEATING VALUE.....	1035	1082	1082	971	
SPECIFIC GRAVITY.....	0.612	0.613	0.613	0.743	
INDEX 1588 SAMPLE 8471		INDEX 1589 SAMPLE 10332		INDEX 1590 SAMPLE 15075	
STATE.....	KANSAS	KANSAS	KANSAS	KANSAS	
COUNTY.....	COMANCHE	COMANCHE	COMANCHE	COMANCHE	
FIELD.....	NECATUNGA	NECATUNGA	NECATUNGA	OVEROCKER	
WELL NAME.....	DALE B NO. 1	DALE B NO. 1	DALE B NO. 1	OVEROCKER NO. 1	
LOCATION.....	SEC. 21, T32S, R18W	SEC. 21, T32S, R18W	SEC. 21, T32S, R18W	SEC. 6, T33S, R20W	
OWNER.....	J. M. HUBER CORP.	ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.	NATIONAL OIL CO.	
COMPLETED.....	03/19/62	01/18/62	01/18/62	03/--/76	
SAMPLED.....	03/19/62	12/15/65	12/15/65	08/--/77	
FORMATION.....	MISS-	ORDO-VIOLA	ORDO-VIOLA	PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	5174	5632	5632	5216	
WELLHEAD PRESSURE, PSIG.....	1580	1676	1676	1650	
OPEN FLOW, MCFD.....	3750	1296	1296	2600	
COMPONENT, MOLE PCT					
METHANE.....	90.2	69.8	69.8	90.6	
ETHANE.....	3.2	5.1	5.1	3.9	
PROpane.....	0.9	0.6	0.6	1.3	
N-BUTANE.....	0.3	0.6	0.6	0.4	
ISOBUTANE.....	0.3	0.5	0.5	0.1	
N-PENTANE.....	0.1	0.1	0.1	0.1	
ISOPENTANE.....	TRACE	TRACE	TRACE	0.1	
CYCLOPENTANE.....	0.5	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.9	0.2	0.2	0.1	
NITROGEN.....	3.2	29.0	29.0	3.0	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	0.0	0.1	0.1	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.2	0.2	0.3	
HELIUM.....	0.15	0.97	0.97	0.15	
HEATING VALUE.....	1084	916	916	1052	
SPECIFIC GRAVITY.....	0.637	0.710	0.710	0.616	
INDEX 1591 SAMPLE 6858		INDEX 1592 SAMPLE 7942		INDEX 1593 SAMPLE 10391	
STATE.....	KANSAS	KANSAS	KANSAS	KANSAS	
COUNTY.....	COMANCHE	COMANCHE	COMANCHE	COMANCHE	
FIELD.....	PERRY RANCH	PERRY RANCH	PERRY RANCH	PERRY RANCH	
WELL NAME.....	PERRY NO. 1	PERRY NO. 1	PERRY NO. 1	PERRY RANCH NO. 1	
LOCATION.....	SEC. 13, T32S, R16W	SEC. 13, T32S, R16W	SEC. 13, T32S, R16W	SEC. 12, T32S, R16W	
OWNER.....	MESSMAN-RINEHART OIL CO.	MESSMAN-RINEHART OIL CO.	MESSMAN-RINEHART OIL CO.	MESSMAN-RINEHART OIL CO.	
COMPLETED.....	06/27/58	02/26/61	02/26/61	07/05/58	
SAMPLED.....	11/05/58	04/28/61	04/28/61	02/10/66	
FORMATION.....	MISS-CHAT	MISS-CHAT	MISS-CHAT	MISS-	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	4785	4778	4778	4795	
WELLHEAD PRESSURE, PSIG.....	1515	1505	1505	1610	
OPEN FLOW, MCFD.....	11000	2460	2460	6000	
COMPONENT, MOLE PCT					
METHANE.....	92.6	92.4	92.4	91.8	
ETHANE.....	3.6	3.7	3.7	3.8	
PROpane.....	1.2	1.2	1.2	1.2	
N-BUTANE.....	0.3	0.3	0.3	0.2	
ISOBUTANE.....	0.2	0.3	0.3	0.2	
N-PENTANE.....	0.2	0.1	0.1	0.1	
ISOPENTANE.....	0.2	TRACE	TRACE	0.2	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.1	0.1	0.1	0.2	
NITROGEN.....	1.3	1.4	1.4	1.6	
OXYGEN.....	0.0	TRACE	TRACE	0.0	
ARGON.....	TRACE	0.0	0.0	TRACE	
HYDROGEN.....	TRACE	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.1	0.1	0.2	
HELIUM.....	0.10	0.10	0.10	0.15	
HEATING VALUE.....	1068	1066	1066	1080	
SPECIFIC GRAVITY.....	0.606	0.605	0.605	0.617	
INDEX 1594 SAMPLE 11230		INDEX 1595 SAMPLE 11936		INDEX 1596 SAMPLE 5430	
STATE.....	KANSAS	KANSAS	KANSAS	KANSAS	
COUNTY.....	COMANCHE	COMANCHE	COMANCHE	COMANCHE	
FIELD.....	PERRY RANCH	PERRY RANCH	PERRY RANCH	ROBBINS RANCH	
WELL NAME.....	SCHUETTE NO. 1-1	SCHUETTE NO. 1	SCHUETTE NO. 1	ROBBINS RANCH NO. 1	
LOCATION.....	SEC. 23, T31S, R16W	SEC. 23, T31S, R16W	SEC. 23, T31S, R16W	SEC. 23, T31S, R16W	
OWNER.....	EASON OIL CO.	EASON OIL CO.	EASON OIL CO.	BARBARA OIL CO.	
COMPLETED.....	01/05/66	--/--/00	--/--/00	02/14/53	
SAMPLED.....	01/22/67	01/16/69	01/16/69	03/27/53	
FORMATION.....	PENN-CHEROKEE	PENN-CHEROKEE	PENN-CHEROKEE	MISS-	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	4808	NOT GIVEN	NOT GIVEN	4886	
WELLHEAD PRESSURE, PSIG.....	1100			1498	
OPEN FLOW, MCFD.....	12500	500	500	5922	
COMPONENT, MOLE PCT					
METHANE.....	90.4	90.9	90.9	92.2	
ETHANE.....	3.9	3.7	3.7	3.5	
PROpane.....	1.5	1.6	1.6	1.3	
N-BUTANE.....	0.6	0.5	0.5	0.5	
ISOBUTANE.....	0.1	0.2	0.2	0.1	
N-PENTANE.....	0.3	0.1	0.1	0.2	
ISOPENTANE.....	0.2	0.2	0.2	0.1	
CYCLOPENTANE.....	0.1	0.2	0.2	TRACE	
HEXANES PLUS.....	0.3	0.2	0.2	0.2	
NITROGEN.....	2.3	2.2	2.2	1.5	
OXYGEN.....	0.0	TRACE	TRACE	0.0	
ARGON.....	TRACE	TRACE	TRACE	0.0	
HYDROGEN.....	0.1	0.1	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.0	0.0	0.4	
HELIUM.....	0.15	0.16	0.16	0.13	
HEATING VALUE.....	1093	1079	1079	1070	
SPECIFIC GRAVITY.....	0.630	0.620	0.620	0.613	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1597 SAMPLE 14329			INDEX 1598 SAMPLE 10693			INDEX 1599 SAMPLE 10728		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	SCHUETTE		SHIMER			SHIMER		
WELL NAME.....	NO. 1		GREGG NO. 1-12			GREGG NO. 1-12		
LOCATION.....	SEC. 35, T31S, R16W		SEC. 12, T33S, R17W			SEC. 12, T33S, R17W		
OWNER.....	NATIONAL OIL CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	03/01/74		02/04/66			01/15/66		
SAMPLED.....	05/09/75		08/16/66			09/20/66		
FORMATION.....	MISS-		MISS-			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4839		5065			5089		
WELLHEAD PRESSURE, PSIG.....	1100		1575			1540		
OPEN FLOW, MCFD.....	31000		5483			7000		
COMPONENT, MOLE PCT								
METHANE.....	91.1		92.4			91.4		
ETHANE.....	3.3		3.5			3.5		
PROPANE.....	1.1		1.2			1.3		
N-BUTANE.....	0.3		0.4			0.5		
ISOBUTANE.....	0.3		0.1			0.1		
N-PENTANE.....	TRACE		0.2			0.1		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	1.4		1.5			2.2		
OXYGEN.....	0.0		0.0			0.3		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.3		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.7		0.1			0.1		
HELIUM.....	0.11		0.08			0.08		
HEATING VALUE.....	1049		1078			1070		
SPECIFIC GRAVITY.....	0.619		0.610			0.620		
INDEX 1600 SAMPLE 11557			INDEX 1601 SAMPLE 9044			INDEX 1602 SAMPLE 15552		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	SHIMER		TUTTLE E			TUTTLE NE		
WELL NAME.....	GREGG NO. 1-7		ALEXANDER NO. 1			WOOLFOLK "E" NO. 1		
LOCATION.....	SEC. 7, T33S, R16W		SEC. 4, T35S, R20W			SEC. 29, T34S, R20W		
OWNER.....	GRAHAM-MICHAELIS DRILLING CO		SINCLAIR OIL & GAS CO.			DONALD C. SLAWSON		
COMPLETED.....	05/21/67		05/03/63			07/12/78		
SAMPLED.....	06/07/68		07/15/63			01/02/79		
FORMATION.....	MISS-NOT GIVEN		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5052		5461			5420		
WELLHEAD PRESSURE, PSIG.....	1551		1782			1780		
OPEN FLOW, MCFD.....	4700		3500			6000		
COMPONENT, MOLE PCT								
METHANE.....	91.0		91.3			89.7		
ETHANE.....	3.5		3.5			3.9		
PROPANE.....	1.1		1.3			1.5		
N-BUTANE.....	0.4		0.8			0.6		
ISOBUTANE.....	0.2		TRACE			0.2		
N-PENTANE.....	0.2		0.3			0.1		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.2		0.6			0.1		
NITROGEN.....	2.7		1.4			3.2		
OXYGEN.....	0.4		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.3		
HELIUM.....	0.09		0.10			0.15		
HEATING VALUE.....	1060		1108			1059		
SPECIFIC GRAVITY.....	0.619		0.632			0.622		
INDEX 1603 SAMPLE 15806			INDEX 1604 SAMPLE 4490			INDEX 1605 SAMPLE 11075		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	TUTTLE SE		WILMORE			WILMORE		
WELL NAME.....	BOX RANCH NO. 1		M. A. LORIMOR NO. 1			EMERICK A NO. 1		
LOCATION.....	SEC. 16, T35S, R20W		SEC. 36, T31S, R20W			SEC. 24, T31S, R18W		
OWNER.....	MID-CONTINENT ENERGY		GULF OIL CORP.			ANADARKO PRODUCTION CO.		
COMPLETED.....	10/13/78		--/700			10/24/66		
SAMPLED.....	09/09/79		04/23/48			08/25/67		
FORMATION.....	PENN-MORROW		MISS-			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5650		5191			4966		
WELLHEAD PRESSURE, PSIG.....	1400		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	8000		240			2570		
COMPONENT, MOLE PCT								
METHANE.....	92.5		0.0			92.5		
ETHANE.....	3.5		1.0			3.1		
PROPANE.....	1.3		---			1.1		
N-BUTANE.....	0.4		---			0.3		
ISOBUTANE.....	0.2		---			0.3		
N-PENTANE.....	0.1		---			0.2		
ISOPENTANE.....	0.1		---			0.0		
CYCLOPENTANE.....	TRACE		---			TRACE		
HEXANES PLUS.....	0.2		---			0.1		
NITROGEN.....	1.2		97.3			0.2		
OXYGEN.....	0.0		1.4			TRACE		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.1		
HELIUM.....	0.02		0.07			0.13		
HEATING VALUE.....	1077		18			1055		
SPECIFIC GRAVITY.....	0.612		0.970			0.606		
INDEX 1606 SAMPLE 11948			INDEX 1607 SAMPLE 12554			INDEX 1608 SAMPLE 17081		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	WILMORE		WILMORE			WILMORE		
WELL NAME.....	BOSEAU NO. 1		WILPER D NO. 1-20			V. L. SMITH NO. 1		
LOCATION.....	SEC. 22, T31S, R18W		SEC. 20, T31S, R17W			SEC. 26, T31S, R17W		
OWNER.....	PETROLEUM, INC.		GRAHAM-MICHAELIS DRILLING CO			MAURICE L. BROWN CO.		
COMPLETED.....	09/04/68		04/29/68			08/17/82		
SAMPLED.....	07/02/68		11/23/70			09/08/83		
FORMATION.....	MISS-		MISS-NOT GIVEN			MISS---		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5075		5120			4921		
WELLHEAD PRESSURE, PSIG.....	1483		1504			620		
OPEN FLOW, MCFD.....	17200		5124			310		
COMPONENT, MOLE PCT								
METHANE.....	92.8		92.3			91.1		
ETHANE.....	2.8		3.4			4.0		
PROPANE.....	0.6		0.1			1.4		
N-BUTANE.....	0.8		0.4			0.4		
ISOBUTANE.....	0.0		0.3			0.2		
N-PENTANE.....	0.2		0.0			0.1		
ISOPENTANE.....	0.4		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	1.8		1.5			2.0		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.10		0.11			0.18		
HEATING VALUE.....	1073		1067			1067		
SPECIFIC GRAVITY.....	0.612		0.606			0.613		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

143

INDEX 1609 SAMPLE 15386		INDEX 1610 SAMPLE 15387		INDEX 1611 SAMPLE 2684	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	COMANCHE	COUNTY.....	COMANCHE	COUNTY.....	COWLEY
FIELD.....	YELLOSTONE N	FIELD.....	YELLOSTONE N	FIELD.....	FERGUSON
WELL NAME.....	MC MORAN NO. 1	WELL NAME.....	MC MORAN NO. 1	WELL NAME.....	FERGUSON NO. 1
LOCATION.....	SEC. 8, T35S, R16W	LOCATION.....	SEC. 8, T35S, R16W	LOCATION.....	SEC. 21, T30S, R8E
OWNER.....	TEXAS OIL & GAS CORP.	OWNER.....	TEXAS OIL & GAS CORP.	OWNER.....	BILL LASSEN, ET AL.
COMPLETED.....	06/15/78	COMPLETED.....	06/15/78	COMPLETED.....	--/00
SAMPLED.....	09/27/78	SAMPLED.....	09/27/78	SAMPLED.....	12/06/34
FORMATION.....	MISS	FORMATION.....	PENN-FORT SCOTT	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	370
DEPTH, FEET.....	5280	DEPTH, FEET.....	5164	DEPTH, FEET.....	2055
WELLHEAD PRESSURE, PSIG.....	1735	WELLHEAD PRESSURE, PSIG.....	1725	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	700	OPEN FLOW, MCFD.....	8000	OPEN FLOW, MCFD.....	1750
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.4	METHANE.....	89.7	METHANE.....	29.0
ETHANE.....	3.6	ETHANE.....	4.0	ETHANE.....	16.8
PROPANE.....	1.3	PROPANE.....	2.0	PROPANE.....	---
N-BUTANE.....	0.4	N-BUTANE.....	0.7	N-BUTANE.....	---
ISOBUTANE.....	0.2	ISOBUTANE.....	0.3	ISOBUTANE.....	---
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	---
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	---
NITROGEN.....	1.0	NITROGEN.....	0.5	NITROGEN.....	45.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	---
HYDROGEN.....	0.1	HYDROGEN.....	0.3	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	7.2
HELIUM.....	0.07	HELIUM.....	0.08	HELIUM.....	1.59
HEATING VALUE.....	1086	HEATING VALUE.....	1111	HEATING VALUE.....	595
SPECIFIC GRAVITY.....	0.614	SPECIFIC GRAVITY.....	0.639	SPECIFIC GRAVITY.....	0.888

INDEX 1612 SAMPLE 3185		INDEX 1613 SAMPLE 10435		INDEX 1614 SAMPLE 10436	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	COWLEY	COUNTY.....	COWLEY	COUNTY.....	COWLEY
FIELD.....	GEUDA SPRINGS	FIELD.....	GIBSON	FIELD.....	GIBSON
WELL NAME.....	N. C. MULKY NO. 1	WELL NAME.....	L. V. SCOTT NO. 1	WELL NAME.....	L. V. BRYANT A-S
LOCATION.....	SEC. 8, T34S, R3E	LOCATION.....	SEC. 5, T35S, R3E	LOCATION.....	SEC. 32, T34S, R3E
OWNER.....	CONSOLIDATED GAS UTIL. CORP.	OWNER.....	TEXACO INC.	OWNER.....	TEXACO INC.
COMPLETED.....	03/17/44	COMPLETED.....	06/28/63	COMPLETED.....	07/27/52
SAMPLED.....	03/19/42	SAMPLED.....	03/08/66	SAMPLED.....	03/08/66
FORMATION.....	PENN-BARTLESVILLE	FORMATION.....	PENN-SEVERY	FORMATION.....	PENN-BARTLESVILLE
GEOLOGIC PROVINCE CODE.....	370	GEOLOGIC PROVINCE CODE.....	370	GEOLOGIC PROVINCE CODE.....	370
DEPTH, FEET.....	1863	DEPTH, FEET.....	1450	DEPTH, FEET.....	3375
WELLHEAD PRESSURE, PSIG.....	450	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	350	OPEN FLOW, MCFD.....	235	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	59.9	METHANE.....	75.0	METHANE.....	11.5
ETHANE.....	14.4	ETHANE.....	4.3	ETHANE.....	27.8
PROPANE.....	---	PROPANE.....	2.0	PROPANE.....	33.2
N-BUTANE.....	---	N-BUTANE.....	0.7	N-BUTANE.....	11.3
ISOBUTANE.....	---	ISOBUTANE.....	0.4	ISOBUTANE.....	4.0
N-PENTANE.....	---	N-PENTANE.....	0.1	N-PENTANE.....	3.2
ISOPENTANE.....	---	ISOPENTANE.....	0.1	ISOPENTANE.....	2.5
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.5
HEXANES PLUS.....	---	HEXANES PLUS.....	0.2	HEXANES PLUS.....	2.1
NITROGEN.....	24.6	NITROGEN.....	16.2	NITROGEN.....	2.5
OXYGEN.....	0.3	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.9
HELIUM.....	0.75	HELIUM.....	0.40	HELIUM.....	0.04
HEATING VALUE.....	1075	HEATING VALUE.....	957	HEATING VALUE.....	2379
SPECIFIC GRAVITY.....	0.725	SPECIFIC GRAVITY.....	0.695	SPECIFIC GRAVITY.....	1.454

INDEX 1615 SAMPLE 1194		INDEX 1616 SAMPLE 1870		INDEX 1617 SAMPLE 1984	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	COWLEY	COUNTY.....	COWLEY	COUNTY.....	COWLEY
FIELD.....	GRAHAM	FIELD.....	JARVIS	FIELD.....	JARVIS
WELL NAME.....	GRAHAM NO. 3	WELL NAME.....	JARVIS NO. 1	WELL NAME.....	HARRIS NO. 2
LOCATION.....	SEC. 18, T32S, R8E	LOCATION.....	SEC. 30, T31S, R5E	LOCATION.....	SEC. 20, T31S, R6E
OWNER.....	MARLAND OIL CO.	OWNER.....	ROTH & FAUROT	OWNER.....	MID-KANSAS OIL & GAS CO.
COMPLETED.....	--/00	COMPLETED.....	08/-/25	COMPLETED.....	12/31/29
SAMPLED.....	12/11/25	SAMPLED.....	09/23/29	SAMPLED.....	04/07/30
FORMATION.....	ORDO-WILCOX	FORMATION.....	NOT GIVEN	FORMATION.....	TERT-
GEOLOGIC PROVINCE CODE.....	370	GEOLOGIC PROVINCE CODE.....	370	GEOLOGIC PROVINCE CODE.....	370
DEPTH, FEET.....	3508	DEPTH, FEET.....	1700	DEPTH, FEET.....	2211
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	500	WELLHEAD PRESSURE, PSIG.....	750
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	16500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	49.4	METHANE.....	55.7	METHANE.....	64.3
ETHANE.....	29.3	ETHANE.....	13.3	ETHANE.....	12.9
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	19.3	NITROGEN.....	29.8	NITROGEN.....	21.4
OXYGEN.....	0.9	OXYGEN.....	0.0	OXYGEN.....	0.3
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.85	HELIUM.....	0.90	HELIUM.....	0.79
HEATING VALUE.....	1025	HEATING VALUE.....	803	HEATING VALUE.....	883
SPECIFIC GRAVITY.....	0.784	SPECIFIC GRAVITY.....	0.742	SPECIFIC GRAVITY.....	0.708

INDEX 1618 SAMPLE 13144		INDEX 1619 SAMPLE 4772		INDEX 1620 SAMPLE 15683	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	COWLEY	COUNTY.....	COWLEY	COUNTY.....	COWLEY
FIELD.....	LAYT	FIELD.....	NEW SALEM N	FIELD.....	POSEY
WELL NAME.....	WALKER NO. 1	WELL NAME.....	ROBERTS NO. 1	WELL NAME.....	LINK-RICHARDSON NO. 2
LOCATION.....	SEC. 18, T32S, R8E	LOCATION.....	SEC. 21, T31S, R5E	LOCATION.....	SEC. 28, T33S, R4E
OWNER.....	BRUCE D. BENSON	OWNER.....	EARL D. WAKEFIELD	OWNER.....	PETROLEUM ENTERPRISES
COMPLETED.....	10/20/71	COMPLETED.....	06/-/49	COMPLETED.....	06/16/79
SAMPLED.....	02/10/72	SAMPLED.....	10/16/49	SAMPLED.....	06/28/79
FORMATION.....	PENN-LAYTON	FORMATION.....	PENN-LAYTON	FORMATION.....	PERM-ADHIRE
GEOLOGIC PROVINCE CODE.....	370	GEOLOGIC PROVINCE CODE.....	370	GEOLOGIC PROVINCE CODE.....	370
DEPTH, FEET.....	1950	DEPTH, FEET.....	2396	DEPTH, FEET.....	676
WELLHEAD PRESSURE, PSIG.....	400	WELLHEAD PRESSURE, PSIG.....	800	WELLHEAD PRESSURE, PSIG.....	230
OPEN FLOW, MCFD.....	12000	OPEN FLOW, MCFD.....	3300	OPEN FLOW, MCFD.....	1500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	54.2	METHANE.....	73.0	METHANE.....	78.2
ETHANE.....	19.9	ETHANE.....	3.0	ETHANE.....	4.8
PROPANE.....	2.5	PROPANE.....	3.2	PROPANE.....	2.3
N-BUTANE.....	0.5	N-BUTANE.....	0.9	N-BUTANE.....	0.7
ISOBUTANE.....	0.3	ISOBUTANE.....	0.7	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	18.65	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	37.3	NITROGEN.....	14.6	NITROGEN.....	12.8
OXYGEN.....	0.1	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	---	CARBON DIOXIDE.....	0.1
HELIUM.....	0.87	HELIUM.....	0.96	HELIUM.....	0.38
HEATING VALUE.....	719	HEATING VALUE.....	1011	HEATING VALUE.....	993
SPECIFIC GRAVITY.....	0.767	SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.679

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1621			INDEX 1622			INDEX 1623		
SAMPLE 3187			SAMPLE 1719			SAMPLE 1869		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COWLEY		COWLEY			COWLEY		
FIELD.....	WALNUT BEND		WERNER			WERNER		
WELL NAME.....	F. H. LEMERT		NO. 1			WERNER NO. 1		
LOCATION.....	SEC. 11, T34S, R4E		SEC. 31, T32S, R6E			SEC. 31, T32S, R6E		
OWNER.....	F. H. LEMERT		ROTH & FAUROT			HOME NATURAL GAS CO.		
COMPLETED.....	07/24/40		06/22/28			07/22/28		
SAMPLED.....	03/19/42		02/26/29			09/20/29		
FORMATION.....	MISS-CHAT		PENN-KANSAS CITY			PENN-LAYTON		
GEOLOGIC PROVINCE CODE.....	370		370			370		
DEPTH, FEET.....	3075		2400			2400		
WELLHEAD PRESSURE, PSIG.....	1100		800			920		
OPEN FLOW, MCFD.....	750		2000			2500		
COMPONENT, MOLE PCT.....								
METHANE.....	31.1		41.2			52.4		
ETHANE.....	16.5		31.3			23.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	21.4		28.3			21.3		
OXYGEN.....	0.3		0.3			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.2			1.6		
HELIUM.....	0.53		0.55			0.51		
HEATING VALUE.....	915		978			959		
SPECIFIC GRAVITY.....	0.724		0.820			0.776		

INDEX 1624			INDEX 1625			INDEX 1626		
SAMPLE 1787			SAMPLE 1343			SAMPLE 2676		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	COWLEY		COWLEY			DICKINSON		
FIELD.....	WILDCAT		WILMOT-FLORAL			NOT GIVEN		
WELL NAME.....	STERLING NO. 1		COFFEE NO. 1			PHILLIPS LEASE		
LOCATION.....	SEC. 5, T33, R5E		SEC. 30, T31S, R5E			SEC. 15, T15S, R1E		
OWNER.....	BRADY & COOPER		ROTH & FAUROT			FRED FRANKS		
COMPLETED.....	12/22/28		07/22/25			07/17/34		
SAMPLED.....	05/24/29		01/13/27			NOT GIVEN		
FORMATION.....	NOT GIVEN		NOT GIVEN			380		
GEOLOGIC PROVINCE CODE.....	370		370			2025		
DEPTH, FEET.....	1775		1682			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	500		250			NOT GIVEN		
OPEN FLOW, MCFD.....	1000		6000					
COMPONENT, MOLE PCT.....								
METHANE.....	44.9		56.4			2.4		
ETHANE.....	6.9		1.2			0.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	46.8		28.9			93.6		
OXYGEN.....	0.3		0.7			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.78			0.0		
HELIUM.....	0.91		808			3.76		
HEATING VALUE.....	578		808			24		
SPECIFIC GRAVITY.....	0.782		0.747			0.926		

INDEX 1627			INDEX 1628			INDEX 1629		
SAMPLE 3176			SAMPLE 12164			SAMPLE 11317		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	DOUGLAS		EDWARDS			EDWARDS		
FIELD.....	EUDORA		BADGER HILL			BENSON		
WELL NAME.....	NEIS ESTATE NO. 2		CARLSON NO. 1			HAMMEKE NO. 1		
LOCATION.....	SEC. 3, T13S, R21E		SEC. 12, T23S, R19W			SEC. 1, T24S, R16W		
OWNER.....	T. A. BOFF		WALTERS DRILLING CO.			ET AL, INC.		
COMPLETED.....	09/22/40		06/30/69			10/04/67		
SAMPLED.....	03/26/42		12/12/69			02/21/68		
FORMATION.....	PENN-SQUIRREL		PENN-CHEROKEE			CAMO-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	355		360			360		
DEPTH, FEET.....	580		4407			4060		
WELLHEAD PRESSURE, PSIG.....	254		1600			NOT GIVEN		
OPEN FLOW, MCFD.....	130		3000			3740		
COMPONENT, MOLE PCT.....								
METHANE.....	91.3		33.2			63.8		
ETHANE.....	4.3		3.3			3.6		
PROPANE.....	---		0.6			1.5		
N-BUTANE.....	---		0.4			0.6		
ISOBUTANE.....	---		0.3			0.3		
N-PENTANE.....	---		0.1			0.2		
ISOPENTANE.....	---		0.1			0.0		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.2			0.2		
NITROGEN.....	3.4		57.1			24.6		
OXYGEN.....	0.3		0.0			2.8		
ARGON.....	---		0.2			0.2		
HYDROGEN.....	---		0.0			TRACE		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.1			0.4		
HELIUM.....	0.30		3.8			1.72		
HEATING VALUE.....	1002		779			799		
SPECIFIC GRAVITY.....	0.594		0.830			0.725		

INDEX 1630			INDEX 1631			INDEX 1632		
SAMPLE 11397			SAMPLE 9604			SAMPLE 10115		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	EDWARDS		EDWARDS			EDWARDS		
FIELD.....	BENSON		BORDEWICK			BORDEWICK E		
WELL NAME.....	HAMMEKE NO. 1		BECHER NO. 1			BORDEWICK UNIT NO. 1		
LOCATION.....	SEC. 1, T24S, R16W		SEC. 19, T26S, R18W			SEC. 23, T26S, R18W		
OWNER.....	ET AL, INC.		AYLWARD DRILLING CO.			WESTERN PETROLEUM CO., INC.		
COMPLETED.....	10/04/67		09/09/63			10/02/64		
SAMPLED.....	03/15/68		10/18/64			09/05/65		
FORMATION.....	CAMO-CONGLOMERATE		PENN-TARKIO			PENN-WABAUNSEE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4060		3336			3236		
WELLHEAD PRESSURE, PSIG.....	1203		1050			1022		
OPEN FLOW, MCFD.....	3740		1450			8157		
COMPONENT, MOLE PCT.....								
METHANE.....	75.9		80.1			81.0		
ETHANE.....	4.1		2.6			3.2		
PROPANE.....	1.7		1.0			1.5		
N-BUTANE.....	0.6		0.2			0.6		
ISOBUTANE.....	0.3		0.2			0.4		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	TRACE		TRACE			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.3		
NITROGEN.....	14.0		15.1			12.1		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		TRACE			0.0		
CARBON DIOXIDE.....	0.2		TRACE			0.1		
HELIUM.....	2.67		0.45			0.35		
HEATING VALUE.....	939		0.950			987		
SPECIFIC GRAVITY.....	0.666					0.667		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

145

INDEX 1633 SAMPLE 11666		INDEX 1634 SAMPLE 9574		INDEX 1635 SAMPLE 9575	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	EDWARDS	EDWARDS		EDWARDS	
FIELD.....	BORDEWICK SW	BRADBRIDGE		BRADBRIDGE	
WELL NAME.....	BLANCHE A. KING NO. 1	KLEIN NO. 1		KLEIN NO. 1	
LOCATION.....	SEC. 2, T24S, R19W	SEC. 2, T24S, R16W		SEC. 2, T24S, R16W	
OWNER.....	NORTHERN PUMP CO.	MESSMAN-RINEHART OIL CO.		MESSMAN-RINEHART OIL CO.	
COMPLETED.....	07/25/58	06/10/64		06/10/64	
SAMPLED.....	10/02/68	09/24/64		09/24/64	
FORMATION.....	MISS---	PENN-LANSING		PENN-HOWARD	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	4759	3606		2994	
WELLHEAD PRESSURE, PSIG.....	1558	1147		963	
OPEN FLOW, MCFD.....	2310	9000		2500	
COMPONENT, MOLE PCT					
METHANE.....	90.7	61.6		71.1	
ETHANE.....	3.1	3.5		3.0	
PROPANE.....	1.0	2.0		1.6	
N-BUTANE.....	0.3	0.7		0.8	
ISOBUTANE.....	0.2	0.2		0.4	
N-PENTANE.....	0.1	0.2		0.3	
ISOPENTANE.....	0.1	0.1		0.2	
CYCLOPENTANE.....	0.1	0.1		0.1	
HEXANES PLUS.....	0.2	0.2		0.3	
NITROGEN.....	3.8	29.1		21.1	
OXYGEN.....	0.0	0.0		0.1	
ARGON.....	TRACE	0.1		TRACE	
HYDROGEN.....	0.1	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	TRACE	1.4		0.5	
HELIUM.....	0.29	0.83		0.63	
HEATING VALUE.....	1040	796		897	
SPECIFIC GRAVITY.....	0.612	0.749		0.712	

INDEX 1636 SAMPLE 10619		INDEX 1637 SAMPLE 8819		INDEX 1638 SAMPLE 15269	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	EDWARDS	EDWARDS		EDWARDS	
FIELD.....	BRADBRIDGE	BRITTON		BRITTON	
WELL NAME.....	NE101G	BRITTON NO. 1		BRITTON NO. 1	
LOCATION.....	SEC. 1, T24S, R16W	SEC. 8, T26S, R17W		SEC. 8, T26S, R16W	
OWNER.....	BARNETT OIL CO.	LEBEN DRILLING, INC.		RUPE OIL CO., INC.	
COMPLETED.....	--/--/00	--/--/00		01/--/77	
SAMPLED.....	06/13/66	12/21/65		04/21/78	
FORMATION.....	CAMO-ARBUCKLE	MISS-KINDERHOOK		MISS-CHERT	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	4053	4475		4709	
WELLHEAD PRESSURE, PSIG.....	1300	NOT GIVEN		1330	
OPEN FLOW, MCFD.....	8000	NOT GIVEN		21000	
COMPONENT, MOLE PCT					
METHANE.....	38.8	88.5		89.4	
ETHANE.....	4.8	3.2		3.2	
PROPANE.....	2.4	1.1		1.1	
N-BUTANE.....	0.9	0.4		0.4	
ISOBUTANE.....	0.7	0.2		0.2	
N-PENTANE.....	0.2	TRACE		0.1	
ISOPENTANE.....	0.4	0.3		0.1	
CYCLOPENTANE.....	TRACE	TRACE		0.1	
HEXANES PLUS.....	0.3	0.1		0.1	
NITROGEN.....	46.5	5.4		4.7	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.2	TRACE		TRACE	
HYDROGEN.....	0.0	0.1		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.5	0.2		0.1	
HELIUM.....	4.25	0.49		0.40	
HEATING VALUE.....	636	1021		1029	
SPECIFIC GRAVITY.....	0.826	0.620		0.617	

INDEX 1639 SAMPLE 10712		INDEX 1640 SAMPLE 10310		INDEX 1641 SAMPLE 10343	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	EDWARDS	EDWARDS		EDWARDS	
FIELD.....	CHURCHVIEW	EMBRY		EMBRY	
WELL NAME.....	PLOGER NO. 1	B. A. MEYER NO. 1		EMBRY NO. 1	
LOCATION.....	SEC. 20, T23S, R19W	SEC. 23, T24S, R16W		SEC. 24, T24S, R16W	
OWNER.....	STICKLE DRILLING CO.	HUMBLE OIL & REFINING CO.		SUNRAY OX OIL CO.	
COMPLETED.....	--/--/00	04/22/58		04/08/57	
SAMPLED.....	09/08/66	12/06/65		12/21/65	
FORMATION.....	MISS---	MISS-KINDERHOOK		MISS-KINDERHOOK	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	4520	4224		4215	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	739		731	
OPEN FLOW, MCFD.....	367	1060		4704	
COMPONENT, MOLE PCT					
METHANE.....	35.2	89.8		88.6	
ETHANE.....	2.2	3.6		3.9	
PROPANE.....	1.1	1.4		1.4	
N-BUTANE.....	0.6	0.5		0.4	
ISOBUTANE.....	0.5	0.2		0.3	
N-PENTANE.....	0.2	0.1		0.2	
ISOPENTANE.....	TRACE	TRACE		0.1	
CYCLOPENTANE.....	TRACE	0.1		0.1	
HEXANES PLUS.....	0.1	0.1		0.1	
NITROGEN.....	56.0	3.0		4.3	
OXYGEN.....	0.3	0.0		0.0	
ARGON.....	0.2	TRACE		TRACE	
HYDROGEN.....	0.0	0.1		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.1		0.1	
HELIUM.....	3.25	0.45		0.44	
HEATING VALUE.....	476	1047		1049	
SPECIFIC GRAVITY.....	0.820	0.617		0.625	

INDEX 1642 SAMPLE 11318		INDEX 1643 SAMPLE 13931		INDEX 1644 SAMPLE 12759	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	EDWARDS	EDWARDS		EDWARDS	
FIELD.....	EMBRY	EMBRY		EMBRY	
WELL NAME.....	SMITH NO. 1	BELT-JOHNSON NO. 1		SMITH NO. 1	
LOCATION.....	SEC. 12, T24S, R16W	SEC. 11, T24S, R16W		SEC. 8, T24S, R16W	
OWNER.....	ET AL, INC.	ALPINE DRILLING CO.		IMPERIAL OIL CO.	
COMPLETED.....	--/--/00	09/12/70		--/--/00	
SAMPLED.....	02/24/68	03/04/74		04/10/71	
FORMATION.....	CAMO-ARBUCKLE	CAMO-ARBUCKLE		MISS---	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	4034	4075		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1177	1150		NOT GIVEN	
OPEN FLOW, MCFD.....	3180	750000		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	41.0	34.6		88.7	
ETHANE.....	4.7	4.5		3.6	
PROPANE.....	1.0	0.9		1.5	
N-BUTANE.....	0.6	0.9		0.2	
ISOBUTANE.....	0.2	0.2		0.2	
N-PENTANE.....	0.3	0.1		0.1	
ISOPENTANE.....	0.1	0.1		0.1	
CYCLOPENTANE.....	0.2	0.3		0.2	
HEXANES PLUS.....	44.5	50.2		4.7	
NITROGEN.....	0.0	0.0		0.0	
OXYGEN.....	0.2	0.2		TRACE	
ARGON.....	0.1	TRACE		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.5	0.5		TRACE	
CARBON DIOXIDE.....	4.23	4.66		4.45	
HELIUM.....	4.54	1055		1055	
HEATING VALUE.....	8.816	0.841		0.629	
SPECIFIC GRAVITY.....					

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1645 SAMPLE 12885			INDEX 1646 SAMPLE 12886			INDEX 1647 SAMPLE 5853		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	EDWARDS		EDWARDS			EDWARDS		
FIELD.....	ENLOW		ENLOW			GRONER		
WELL NAME.....	HAMN NO. 3		ENLOW NO. 1			GRONER NO. 1		
LOCATION.....	SEC. 1, T24S, R16W		SEC. 9, T24S, R16W			SEC. 34, T25S, R20W		
OWNER.....	MESSMAN-RINEHART OIL CO.		MESSMAN-RINEHART OIL CO.			GMR OIL CO.		
COMPLETED.....	04/10/71		07/02/59			--/--/00		
SAMPLED.....	09/01/71		06/16/71			06/01/55		
FORMATION.....	MISS-		MISS-			MISS-OSAGE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4161		4104			4670		
WELLHEAD PRESSURE, PSIG.....	1220		NOT GIVEN			1475		
OPEN FLOW, MCFD.....	1000		NOT GIVEN			2600		
COMPONENT, MOLE PCT								
METHANE.....	89.5		84.9			44.3		
ETHANE.....	3.3		3.2			4.0		
PROPANE.....	1.5		1.3			1.0		
N-BUTANE.....	0.3		0.4			0.4		
ISOBUTANE.....	0.4		0.2			0.1		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	4.1		8.1			45.8		
OXYGEN.....	0.0		1.0			TRACE		
ARGON.....	TRACE		0.1			0.2		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.48		0.38			3.46		
HEATING VALUE.....	1043		989			593		
SPECIFIC GRAVITY.....	0.619		0.640			0.785		
INDEX 1648 SAMPLE 9400			INDEX 1649 SAMPLE 11132			INDEX 1650 SAMPLE 13153		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	EDWARDS		EDWARDS			EDWARDS		
FIELD.....	GROWER		GROWER			GROWER		
WELL NAME.....	JENSEN NO. 1		JENSEN B NO. 1			JENSEN		
LOCATION.....	SEC. 6, T23S, R20W		SEC. 6, T23S, R20W			SEC. 6, T23S, R20W		
OWNER.....	IMPERIAL OIL OF KANSAS, INC.		CITIES SERVICE OIL CO.			RICHARD R. HORNER		
COMPLETED.....	01/25/64		05/22/64			01/29/64		
SAMPLED.....	05/14/64		09/22/67			02/20/72		
FORMATION.....	MISS-		MISS-OSAGE			MISS-OSAGE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4496		4496			4496		
WELLHEAD PRESSURE, PSIG.....	1050		1420			1050		
OPEN FLOW, MCFD.....	1140		NOT GIVEN			1140		
COMPONENT, MOLE PCT								
METHANE.....	56.1		56.2			57.3		
ETHANE.....	3.8		3.7			3.7		
PROPANE.....	1.6		1.5			1.7		
N-BUTANE.....	0.5		0.5			0.5		
ISOBUTANE.....	0.2		0.3			0.3		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	34.3		34.2			32.9		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.3		
HELIUM.....	2.72		2.76			2.68		
HEATING VALUE.....	719		0.725			0.735		
SPECIFIC GRAVITY.....	0.742		0.741			0.738		
INDEX 1651 SAMPLE 11267			INDEX 1652 SAMPLE 16209			INDEX 1653 SAMPLE 1879		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	EDWARDS		EDWARDS			EDWARDS		
FIELD.....	MARTIN		MASSEY			MCCARTY		
WELL NAME.....	ROBBINS NO. 1		TWITCHELL NO. 1-2			MCCARTY NO. 1		
LOCATION.....	SEC. 3, T26S, R20W		SEC. 2, T24S, R17W			SEC. 31, T25S, R17W		
OWNER.....	MULL DRILLING CO., INC.		F. G. HOLL			BRITISH AMERICAN OIL CO. LTD		
COMPLETED.....	07/17/67		06/04/80			07/--/29		
SAMPLED.....	02/01/68		03/13/80			09/26/29		
FORMATION.....	UNKN-DOLOMITE		MISS-CONGLOMERATE			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4797		4239			4666		
WELLHEAD PRESSURE, PSIG.....	1350		1185			NOT GIVEN		
OPEN FLOW, MCFD.....	3500		3876			14000		
COMPONENT, MOLE PCT								
METHANE.....	78.7		86.9			88.5		
ETHANE.....	5.2		3.4			7.1		
PROPANE.....	1.9		1.3			---		
N-BUTANE.....	0.5		0.4			---		
ISOBUTANE.....	0.4		0.2			---		
N-PENTANE.....	0.1		0.1			---		
ISOPENTANE.....	0.1		0.1			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.2		0.1			---		
NITROGEN.....	11.4		6.5			3.4		
OXYGEN.....	0.0		0.0			0.3		
ARGON.....	0.1		TRACE			---		
HYDROGEN.....	0.1		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.1			0.3		
HELIUM.....	1.04		0.73			0.44		
HEATING VALUE.....	993		1013			1024		
SPECIFIC GRAVITY.....	0.669		0.626			0.607		
INDEX 1654 SAMPLE 3236			INDEX 1655 SAMPLE 7828			INDEX 1656 SAMPLE 8434		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	EDWARDS		EDWARDS			EDWARDS		
FIELD.....	MCCARTY		MCCLANAHAN			MCCLANAHAN E		
WELL NAME.....	T. L. MCCARTY		KING NO. 1			NEUSOM NO. 1		
LOCATION.....	SEC. 22, T25S, R17W		SEC. 2, T26S, R18W			SEC. 12, T26S, R18W		
OWNER.....	STANOLIND OIL & GAS CO.		JOHN R. EVANS			RAYMOND OIL CO., INC.		
COMPLETED.....	05/23/30		12/--/59			02/22/62		
SAMPLED.....	03/26/42		01/24/61			02/20/62		
FORMATION.....	PENN-CONGLOMERATE BASAL		MISS---			CAHO-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4450		4650			4520		
WELLHEAD PRESSURE, PSIG.....	340		950			NOT GIVEN		
OPEN FLOW, MCFD.....	255		1000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.3		90.0			78.1		
ETHANE.....	12.2		3.4			2.9		
PROPANE.....	---		1.0			0.9		
N-BUTANE.....	---		0.4			0.3		
ISOBUTANE.....	---		0.3			0.1		
N-PENTANE.....	---		0.1			0.1		
ISOPENTANE.....	---		0.1			0.2		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		4.4			0.1		
NITROGEN.....	4.6		0.0			14.1		
OXYGEN.....	0.3		0.0			2.5		
ARGON.....	---		TRACE			0.1		
HYDROGEN.....	---		TRACE			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.38		0.30			0.30		
HEATING VALUE.....	1052		1036			898		
SPECIFIC GRAVITY.....	0.636		0.617			0.665		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

	INDEX SAMPLE	1666 3675	INDEX SAMPLE	1667 3737	INDEX SAMPLE	1668 5643
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	EDWARDS		EDWARDS		EDWARDS	
FIELD.....	WIL		WIL		WIL	
WELL NAME.....	BITENBACH NO. 1		ENGLISH NO. 1		WOKATY NO. 1	
LOCATION.....	SEC. 5, T25S, R16W		SEC. 8, T25S, R16W		SEC. 25, T25S, R17W	
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.		CITIES PRODUCTION CORP.	
DATE OF SAMPLE.....	03/27/43		03/27/44		04/23/54	
SAMPLED.....	10/09/43		03/24/44		06/23/54	
FORMATION.....	PENN-LANSING-KANSAS CITY		PENN-LANSING		PENN-BASAL	
DEPT. PROVINCE CODE.....	360		360		360	
DEPTH, FEET.....	3778		3784		4385	
WELLHEAD PRESSURE, PSIG.....	1100		NOT GIVEN		1580	
OPEN FLOW, MCFD.....	17650		25203		2850	
COMPONENT, MOLE PCT						
METHANE.....	70.6		58.8		87.1	
ETHANE.....	12.8		24.8		0.2	
PROPANE.....	---		---		1.3	
N-BUTANE.....	---		---		0.5	
ISOBUTANE.....	---		---		0.0	
N-PENTANE.....	---		---		0.2	
ISOPENTANE.....	---		---		0.1	
CYCLOHEXANE.....	---		---		TRACE	
HEXANES PLUS.....	---		---		0.2	
NITROGEN.....	15.7		15.6		6.2	
OXYGEN.....	0.1		0.5		0.0	
ARGON.....	---		---		TRACE	
HYDROGEN.....	---		---		0.1	
HYDROGEN SULFIDE.....	---		---		0.0	
CARBON DIOXIDE.....	0.3		0.1		0.1	
HELIUM.....	0.46		0.40		0.67	
HEATING VALUE.....	945		945		1044	
SPECIFIC GRAVITY.....	0.684		0.743		0.629	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1669 7779			INDEX SAMPLE	1670 10304			INDEX SAMPLE	1671 10309
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	EDWARDS			COUNTY.....	EDWARDS			COUNTY.....	EDWARDS		
WELL NAME.....	WIL			WELL NAME.....	WIL			WELL NAME.....	WIL		
LOCATION.....	FATZER NO. 1			LOCATION.....	FATZER UNIT NO. 1			LOCATION.....	RUSSELL A. NO. 1		
OWNER.....	SEC. 34, T25S, R17W			OWNER.....	SEC. 34, T25S, R17W			OWNER.....	SEC. 26, T25S, R16W		
COMPLETED.....	NATIONAL DRILLING CO.			COMPLETED.....	MOBIL OIL CO.			COMPLETED.....	NATURAL GAS & OIL CORP.		
SAMPLED.....	06/29/60			SAMPLED.....	07/07/60			SAMPLED.....	06/09/58		
FORMATION.....	11/21/60			FORMATION.....	12/01/65			FORMATION.....	12/03/65		
GEOLOGIC PROVINCE CODE.....	PENN-CHEROKEE			GEOLOGIC PROVINCE CODE.....	PENN-CHEROKEE			GEOLOGIC PROVINCE CODE.....	MISS-		
DEPTH, FEET.....	360			DEPTH, FEET.....	360			DEPTH, FEET.....	360		
WELLHEAD PRESSURE, PSIG.....	4489			WELLHEAD PRESSURE, PSIG.....	4489			WELLHEAD PRESSURE, PSIG.....	4373		
OPEN FLOW, MCFD.....	1400			OPEN FLOW, MCFD.....	1320			OPEN FLOW, MCFD.....	13		
COMPONENT, MOLE PCT.....	4985			COMPONENT, MOLE PCT.....	4740			COMPONENT, MOLE PCT.....	NOT GIVEN		
METHANE.....	89.9			METHANE.....	88.7			METHANE.....	81.7		
ETHANE.....	3.4			ETHANE.....	3.6			ETHANE.....	7.5		
PROpane.....	1.0			PROpane.....	1.4			PROpane.....	3.4		
N-BUTANE.....	0.3			N-BUTANE.....	0.5			N-BUTANE.....	1.4		
ISOBUTANE.....	0.3			ISOBUTANE.....	0.2			ISOBUTANE.....	0.7		
N-PENTANE.....	TRACE			N-PENTANE.....	0.2			N-PENTANE.....	0.4		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.1			ISOPENTANE.....	0.7		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.3		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.8		
NITROGEN.....	4.2			NITROGEN.....	4.3			NITROGEN.....	2.5		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	TRACE		
ARGON.....	TRACE			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	TRACE			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.4		
HELIUM.....	0.50			HELIUM.....	0.41			HELIUM.....	0.15		
HEATING VALUE.....	1027			HEATING VALUE.....	1030			HEATING VALUE.....	1220		
SPECIFIC GRAVITY.....	0.610			SPECIFIC GRAVITY.....	0.627			SPECIFIC GRAVITY.....	0.717		
		INDEX SAMPLE	1672 14605			INDEX SAMPLE	1673 16246			INDEX SAMPLE	1674 16600
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	EDWARDS			COUNTY.....	EDWARDS			COUNTY.....	EDWARDS		
WELL NAME.....	WIL			WELL NAME.....	WIL			WELL NAME.....	WIL		
LOCATION.....	RUSSELL "A" NO. 1			LOCATION.....	SCHULTZ D NO. 1			LOCATION.....	TURNER NO. 1		
OWNER.....	SEC. 19, T25S, R16W			OWNER.....	SEC. 16, T26S, R16W			OWNER.....	SEC. 26, T25S, R17W		
COMPLETED.....	D. R. LAUCK OIL CO., INC.			COMPLETED.....	BENSON MINERALS GROUP, INC.			COMPLETED.....	LEBSACK OIL PRODUCTION, INC.		
SAMPLED.....	12/01/75			SAMPLED.....	04/22/81			SAMPLED.....	08/02/82		
FORMATION.....	03/03/77			FORMATION.....	MISS-KINDERHOOK			FORMATION.....	08/02/82		
GEOLOGIC PROVINCE CODE.....	PENN-CHEROKEE			GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	MISS-CHERT		
DEPTH, FEET.....	4354			DEPTH, FEET.....	4450			DEPTH, FEET.....	4474		
WELLHEAD PRESSURE, PSIG.....	1185			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	1120		
OPEN FLOW, MCFD.....	2800			OPEN FLOW, MCFD.....	700			OPEN FLOW, MCFD.....	300		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	85.7			METHANE.....	80.5			METHANE.....	88.7		
ETHANE.....	3.3			ETHANE.....	4.2			ETHANE.....	3.3		
PROpane.....	1.0			PROpane.....	1.8			PROpane.....	1.1		
N-BUTANE.....	0.3			N-BUTANE.....	0.5			N-BUTANE.....	0.4		
ISOBUTANE.....	0.3			ISOBUTANE.....	0.3			ISOBUTANE.....	0.2		
N-PENTANE.....	TRACE			N-PENTANE.....	0.2			N-PENTANE.....	0.1		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.2			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.1		
HEXANES PLUS.....	TRACE			HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.2		
NITROGEN.....	8.3			NITROGEN.....	10.8			NITROGEN.....	4.8		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	0.1		
ARGON.....	0.1			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	0.0			HYDROGEN.....	TRACE			HYDROGEN.....	0.1		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.0			CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.2		
HELIUM.....	0.48			HELIUM.....	1.00			HELIUM.....	0.47		
HEATING VALUE.....	978			HEATING VALUE.....	995			HEATING VALUE.....	1034		
SPECIFIC GRAVITY.....	0.629			SPECIFIC GRAVITY.....	0.662			SPECIFIC GRAVITY.....	0.623		
		INDEX SAMPLE	1675 16676			INDEX SAMPLE	1676 1677			INDEX SAMPLE	1677 16685
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	EDWARDS			COUNTY.....	EDWARDS			COUNTY.....	EDWARDS		
WELL NAME.....	WIL			WELL NAME.....	WILDCAT			WELL NAME.....	WILDCAT		
LOCATION.....	EUGENE FISHER NO. 1			LOCATION.....	KING B NO. 1			LOCATION.....	STRATE NO. 1-8		
OWNER.....	SEC. 25, T25S, R17W			OWNER.....	NOT GIVEN			OWNER.....	SEC. 8, T25S, R18W		
COMPLETED.....	WILSON MARK EXPLORATION, INC.			COMPLETED.....	PICKRELL DRILLING CO.			COMPLETED.....	IMPERIAL OIL CO.		
SAMPLED.....	09/15/81			SAMPLED.....	--/--/00			SAMPLED.....	08/03/82		
FORMATION.....	09/29/82			FORMATION.....	09/13/60			FORMATION.....	10/07/82		
GEOLOGIC PROVINCE CODE.....	MISS-			GEOLOGIC PROVINCE CODE.....	MISS-			GEOLOGIC PROVINCE CODE.....	PENN-CHEROKEE		
DEPTH, FEET.....	360			DEPTH, FEET.....	360			DEPTH, FEET.....	360		
WELLHEAD PRESSURE, PSIG.....	4428			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	4565		
OPEN FLOW, MCFD.....	1300			OPEN FLOW, MCFD.....	1680			OPEN FLOW, MCFD.....	1260		
COMPONENT, MOLE PCT.....	340			COMPONENT, MOLE PCT.....	NOT GIVEN			COMPONENT, MOLE PCT.....	3500		
METHANE.....	88.7			METHANE.....	90.2			METHANE.....	80.4		
ETHANE.....	3.3			ETHANE.....	3.3			ETHANE.....	3.3		
PROpane.....	1.1			PROpane.....	0.8			PROpane.....	1.3		
N-BUTANE.....	0.4			N-BUTANE.....	0.2			N-BUTANE.....	0.4		
ISOBUTANE.....	0.2			ISOBUTANE.....	0.2			ISOBUTANE.....	0.2		
N-PENTANE.....	0.1			N-PENTANE.....	0.1			N-PENTANE.....	0.2		
ISOPENTANE.....	0.2			ISOPENTANE.....	0.0			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.1		
NITROGEN.....	4.9			NITROGEN.....	3.7			NITROGEN.....	10.5		
OXYGEN.....	0.1			OXYGEN.....	0.0			OXYGEN.....	0.2		
ARGON.....	TRACE			ARGON.....	TRACE			ARGON.....	0.1		
HYDROGEN.....	0.1			HYDROGEN.....	0.0			HYDROGEN.....	0.3		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	2.1		
HELIUM.....	0.45			HELIUM.....	0.30			HELIUM.....	0.66		
HEATING VALUE.....	1028			HEATING VALUE.....	1051			HEATING VALUE.....	951		
SPECIFIC GRAVITY.....	0.621			SPECIFIC GRAVITY.....	0.621			SPECIFIC GRAVITY.....	0.664		
		INDEX SAMPLE	1678 171			INDEX SAMPLE	1679 184			INDEX SAMPLE	1680 185
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	ELK			COUNTY.....	ELK			COUNTY.....	ELK		
WELL NAME.....	HALE-INGE			WELL NAME.....	HALE-INGE			WELL NAME.....	HALE-INGE		
LOCATION.....	RUDDLE NO. 3 SW			LOCATION.....	KIMSEY NO. 1			LOCATION.....	FOSTER NO. 1		
OWNER.....	SEC. 21, T31S, R12E			OWNER.....	SEC. 20, T31S, R12E			OWNER.....	SEC. 33, T31S, R12E		
COMPLETED.....	SOUTHWESTERN GAS CO.			COMPLETED.....	HOUSTON-OKLAHOMA OIL & GAS C			COMPLETED.....	SOUTHWESTERN GAS CO.		
SAMPLED.....	10/7/77			SAMPLED.....	--/--/00			SAMPLED.....	09/7/79		
FORMATION.....	03/29/20			FORMATION.....	03/31/20			FORMATION.....	03/31/20		
GEOLOGIC PROVINCE CODE.....	PENN---			GEOLOGIC PROVINCE CODE.....	NOT GIVEN			GEOLOGIC PROVINCE CODE.....	PENN---		
DEPTH, FEET.....	365			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	365		
WELLHEAD PRESSURE, PSIG.....	778			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	689		
OPEN FLOW, MCFD.....	115			OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	120		
COMPONENT, MOLE PCT.....	790			COMPONENT, MOLE PCT.....	NOT GIVEN			COMPONENT, MOLE PCT.....	500		
METHANE.....	81.7			METHANE.....	83.4			METHANE.....	85.7		
ETHANE.....	0.0			ETHANE.....	0.0			ETHANE.....	0.0		
PROpane.....	---			PROpane.....	---			PROpane.....	---		
N-BUTANE.....	---			N-BUTANE.....	---			N-BUTANE.....	---		
ISOBUTANE.....	---			ISOBUTANE.....	---			ISOBUTANE.....	---		
N-PENTANE.....	---			N-PENTANE.....	---			N-PENTANE.....	---		
ISOPENTANE.....	---			ISOPENTANE.....	---			ISOPENTANE.....	---		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	---			CYCLOPENTANE.....	---		
HEXANES PLUS.....	---			HEXANES PLUS.....	---			HEXANES PLUS.....	---		
NITROGEN.....	17.0			NITROGEN.....	14.5			NITROGEN.....	13.7		
OXYGEN.....	0.4			OXYGEN.....	1.4			OXYGEN.....	0.0		
ARGON.....	---			ARGON.....	---			ARGON.....	---		
HYDROGEN.....	---			HYDROGEN.....	---			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.0			CARBON DIOXIDE.....	0.0		
HELIUM.....	0.6			HELIUM.....	0.62			HELIUM.....	0.52		
HEATING VALUE.....	828			HEATING VALUE.....	849			HEATING VALUE.....	868		
SPECIFIC GRAVITY.....	0.626			SPECIFIC GRAVITY.....	0.619			SPECIFIC GRAVITY.....	0.608		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1681 SAMPLE 15684			INDEX 1682 SAMPLE 15828			INDEX 1683 SAMPLE 1683		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	ELK		ELK			ELK		
FIELD.....	LOGSDEN		LOGSDEN			LOGSDEN		
WELL NAME.....	TODD NO. 2		PINEGAR NO. 1			SMISHER NO. 1		
LOCATION.....	SEC. 28, T31S, R9E		SEC. 21, T31S, R9E			SEC. 10, T32S, R9E		
OWNER.....	PETROLEUM ENTERPRISES		RAK OIL CO.			MOLINE GAS CO.		
COMPLETED.....	10/17/78		06/-/79			03/-/72		
SAMPLED.....	06/28/79		11/02/79			04/15/20		
FORMATION.....	PENN-CLEVELAND		PENN-CLEVELAND			PENN---		
GEOLOGIC PROVINCE CODE.....	365		365			365		
DEPTH, FEET.....	1766		1812			1450		
WELLHEAD PRESSURE, PSIG.....	600		600			200		
OPEN FLOW, MCFD.....	4000		2500			1500		
COMPONENT, MOLE PCT								
METHANE.....	55.9		54.2			74.4		
ETHANE.....	5.9		5.6			4.9		
PROPANE.....	3.8		3.6			---		
N-BUTANE.....	1.1		1.1			---		
ISOBUTANE.....	0.6		0.6			---		
N-PENTANE.....	0.3		0.3			---		
ISOPENTANE.....	0.2		0.2			---		
CYCLOPENTANE.....	TRACE		0.1			---		
HEXANES PLUS.....	0.2		0.3			---		
NITROGEN.....	30.7		32.5			19.6		
OXYGEN.....	0.1		TRACE			0.3		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	TRACE		TRACE			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	1.15		1.24			0.72		
HEATING VALUE.....	859		841			841		
SPECIFIC GRAVITY.....	0.786		0.792			0.658		
INDEX 1684 SAMPLE 216			INDEX 1685 SAMPLE 1585			INDEX 1686 SAMPLE 3222		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	ELK		ELK			ELLSWORTH		
FIELD.....	MOLINE		WEBB			ELLSWORTH		
WELL NAME.....	MOLINE NO. 1		WEBB NO. 22			STATE NO. 1		
LOCATION.....	SEC. 2, T32S, R9E		SEC. 14, T31S, R10E			SEC. 29, T15S, R8W		
OWNER.....	MOLINE GAS CO.		UNION GAS CORP.			INGLING & PARKER		
COMPLETED.....	02/-/79		01/04/28			06/25/41		
SAMPLED.....	04/15/20		03/07/28			03/25/42		
FORMATION.....	PENN---		NOT GIVEN			PENN-DOUGLAS		
GEOLOGIC PROVINCE CODE.....	365		365			385		
DEPTH, FEET.....	1500		1113			2480		
WELLHEAD PRESSURE, PSIG.....	130		335			914		
OPEN FLOW, MCFD.....	2000		1036			3079		
COMPONENT, MOLE PCT								
METHANE.....	75.1		66.7			58.4		
ETHANE.....	5.5		9.7			12.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	18.6		22.2			27.4		
OXYGEN.....	0.5		0.6			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.3			0.2		
HELIUM.....	TRACE		0.63			0.80		
HEATING VALUE.....	859		849			821		
SPECIFIC GRAVITY.....	0.663		0.698			0.732		
INDEX 1687 SAMPLE 14417			INDEX 1688 SAMPLE 16739			INDEX 1689 SAMPLE 16210		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	ELLSWORTH		ELLSWORTH			ELLSWORTH		
FIELD.....	ELLSWORTH		GREEN GARDEN			KANAK		
WELL NAME.....	ELK NO. 1		KRIE MAHOFF NO. 1			KANAK NO. 1		
LOCATION.....	SEC. 36, T15S, R8W		SEC. 36, T16S, R9W			SEC. 22, T16S, R7W		
OWNER.....	ARTHUR GORSKI		AMERICAN PETROFINA CO. OF TE			RESOURCES INVESTMENT CORP.		
COMPLETED.....	06/06/75		05/05/82			---/---/00		
SAMPLED.....	07/23/75		12/17/82			03/-/81		
FORMATION.....	PENN-LANSING		PENN-SEVERY			PERM-INDIAN CAVE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	2550		2445			1732		
WELLHEAD PRESSURE, PSIG.....	900		825			NOT GIVEN		
OPEN FLOW, MCFD.....	2000		970			3350		
COMPONENT, MOLE PCT								
METHANE.....	62.1		55.8			55.9		
ETHANE.....	5.8		2.2			1.9		
PROPANE.....	3.2		1.1			0.8		
N-BUTANE.....	0.1		0.1			0.2		
ISOBUTANE.....	0.6		0.2			0.1		
N-PENTANE.....	0.3		0.0			0.1		
ISOPENTANE.....	0.2		0.1			TRACE		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	25.6		38.6			39.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.1			0.1		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			TRACE		
HELIUM.....	0.80		1.15			1.40		
HEATING VALUE.....	904		1.15			635		
SPECIFIC GRAVITY.....	0.758		0.747			0.734		
INDEX 1690 SAMPLE 2582			INDEX 1691 SAMPLE 9930			INDEX 1692 SAMPLE 16583		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	ELLSWORTH		ELLSWORTH			ELLSWORTH		
FIELD.....	NOT GIVEN		SCHLESSINGER			STOLTENBERG		
WELL NAME.....	KONAK NO. 1		SCHLESSINGER			KRUSE NO. 1		
LOCATION.....	SEC. 15, T16S, R7W		SEC. 30, T15S, R10W			SEC. 20, T17S, R9W		
OWNER.....	MID-KANSAS OIL & GAS CO.		MESSMAN-RINEHART OIL CO.			PATTON OIL CO.		
COMPLETED.....	---/---/00		05/11/65			01/20/82		
SAMPLED.....	01/09/83		06/17/83			07/20/82		
FORMATION.....	NOT GIVEN		PENN-LANSING			PENN-STOTLER		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	1765		3042			2134		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1050			670		
OPEN FLOW, MCFD.....	2400		2500			950		
COMPONENT, MOLE PCT								
METHANE.....	44.2		62.4			61.9		
ETHANE.....	3.3		4.8			1.9		
PROPANE.....	---		3.2			0.7		
N-BUTANE.....	---		1.0			0.2		
ISOBUTANE.....	---		0.0			0.1		
N-PENTANE.....	---		0.2			0.1		
ISOPENTANE.....	---		0.2			TRACE		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	46.6		24.7			33.8		
OXYGEN.....	4.7		0.0			0.1		
ARGON.....	---		TRACE			0.1		
HYDROGEN.....	---		0.0			0.1		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		1.05			0.1		
HELIUM.....	1.10		0.71			1.12		
HEATING VALUE.....	507		0.757			699		
SPECIFIC GRAVITY.....	0.785					0.717		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1693			INDEX 1694			INDEX 1695		
SAMPLE 7640			SAMPLE 2580			SAMPLE 3475		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	ELLSWORTH		FINNEY			FINNEY		
FIELD.....	WILDCAT		HUGOTON			HUGOTON		
WELL NAME.....	NOT GIVEN		BROWN NO. 1			JONES NO. 1		
LOCATION.....	SEC. 15, T16S, R7W		SEC. 16, T25S, R34W			SEC. 34, T26S, R34W		
OWNER.....	KANSAS PETROLEUM, INC.		DENHAM, ET AL.			HELMERICH & PAYNE, INC.		
COMPLETED.....	07/29/60		--/7/00			09/24/36		
SAMPLED.....	07/29/60		12/18/32			05/16/42		
FORMATION.....	PERM-INDIAN CAVE		NOT GIVEN			PERM-LIME		
GEOLOGIC PROVINCE CODE.....	385		360			360		
DEPTH, FEET.....	1770		2534			2700		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		437			440		
OPEN FLOW, MCFD.....	NOT GIVEN		5500			6398		
COMPONENT, MOLE PCT								
METHANE.....	50.7		65.7			65.0		
ETHANE.....	1.6		17.1			14.7		
PROPANE.....	0.8		---			---		
N-BUTANE.....	0.2		---			---		
ISOBUTANE.....	0.1		---			---		
N-PENTANE.....	TRACE		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	TRACE		---			---		
NITROGEN.....	44.0		16.3			18.3		
OXYGEN.....	0.0		0.3			0.5		
ARGON.....	0.1		---			---		
HYDROGEN.....	0.1		---			---		
HYDROGEN SULFIDE.....	0.0		0.1			1.0		
CARBON DIOXIDE.....	0.9		0.47			0.45		
HELIUM.....	1.30		972			922		
HEATING VALUE.....	578		0.707			0.715		
SPECIFIC GRAVITY.....	0.762							
INDEX 1696			INDEX 1697			INDEX 1698		
SAMPLE 3767			SAMPLE 4227			SAMPLE 7478		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	FINNEY		FINNEY			FINNEY		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
WELL NAME.....	LATMAN NO. 1		WRIGHT NO. 1			V. K. TATE NO. 1		
LOCATION.....	SEC. 13, T24S, R34W		SEC. 33, T21S, R34W			SEC. 35, T24S, R31W		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		SHALLOW WATER REFINING CO.			NATIONAL COOP. REFINERY ASSN		
COMPLETED.....	06/20/42		07/26/45			11/04/59		
SAMPLED.....	04/07/44		03/10/47			03/29/60		
FORMATION.....	NOT GIVEN		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2750		2537			2688		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		418			420		
OPEN FLOW, MCFD.....	NOT GIVEN		9115			2060		
COMPONENT, MOLE PCT								
METHANE.....	57.6		77.2			46.8		
ETHANE.....	28.2		0.0			1.2		
PROPANE.....	---		---			1.0		
N-BUTANE.....	---		---			0.1		
ISOBUTANE.....	---		---			0.0		
N-PENTANE.....	---		---			TRACE		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			TRACE		
NITROGEN.....	13.9		21.7			37.9		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.9		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.1		0.3			11.6		
HELIUM.....	0.16		0.73			0.40		
HEATING VALUE.....	1089		782			528		
SPECIFIC GRAVITY.....	0.751		0.645			0.835		
INDEX 1699			INDEX 1700			INDEX 1701		
SAMPLE 7494			SAMPLE 7517			SAMPLE 7695		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	FINNEY		FINNEY			FINNEY		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
WELL NAME.....	GARDEN CITY AIRPORT NO. 1		SPRATT			GANO NO. 21-1		
LOCATION.....	SEC. 28, T24S, R31		SEC. 32, T24S, R33W			SEC. 21, T21S, R33W		
OWNER.....	NORTHERN NATURAL GAS CO.		KANSAS NATURAL GAS, INC.			A. D. MCKELVY		
COMPLETED.....	10/29/59		11/12/59			07/12/60		
SAMPLED.....	04/04/60		04/18/60			09/26/60		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2658		2556			2588		
WELLHEAD PRESSURE, PSIG.....	400		362			445		
OPEN FLOW, MCFD.....	3500		14500			16300		
COMPONENT, MOLE PCT								
METHANE.....	55.3		67.0			52.9		
ETHANE.....	2.5		5.4			4.1		
PROPANE.....	0.2		0.7			2.4		
N-BUTANE.....	0.4		0.7			0.7		
ISOBUTANE.....	0.1		0.3			0.3		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.0		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	39.2		28.9			38.2		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.80		0.70			0.70		
HEATING VALUE.....	662		893			724		
SPECIFIC GRAVITY.....	0.749		0.723			0.775		
INDEX 1702			INDEX 1703			INDEX 1704		
SAMPLE 7697			SAMPLE 7771			SAMPLE 7772		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	FINNEY		FINNEY			FINNEY		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
WELL NAME.....	GANO NO. 34-1		MAUDE BREATHOUSE NO. 20			HAPP NO. 11		
LOCATION.....	SEC. 34, T21S, R33W		SEC. 20, T21S, R32W			SEC. 11, T21S, R33W		
OWNER.....	A. D. MCKELVY		A. D. MCKELVY			A. D. MCKELVY		
COMPLETED.....	09/26/60		11/08/60			11/12/60		
SAMPLED.....	09/26/60		11/12/60			11/12/60		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2629		2656			2581		
WELLHEAD PRESSURE, PSIG.....	400		365			430		
OPEN FLOW, MCFD.....	724		9212			14028		
COMPONENT, MOLE PCT								
METHANE.....	49.7		47.8			42.4		
ETHANE.....	3.7		3.3			4.2		
PROPANE.....	2.1		0.0			2.4		
N-BUTANE.....	0.6		0.5			0.7		
ISOBUTANE.....	0.3		0.3			0.4		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	42.4		44.8			48.3		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.1		
HELIUM.....	0.80		0.90			0.90		
HEATING VALUE.....	668		823			623		
SPECIFIC GRAVITY.....	0.788		0.790			0.820		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1705 7773	INDEX SAMPLE	1706 7782	INDEX SAMPLE	1707 7863
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	FINNEY			FINNEY		FINNEY	
FIELD.....	HUGOTON			HUGOTON		HUGOTON	
WELL NAME.....	GANO NO. 1			BIERNACKI NO. 16		FINNUP NO. 1-28	
LOCATION.....	SEC. 33, T21S, R33W			SEC. 16, T24S, R31W		SEC. 28, T21S, R33W	
OWNER.....	A. D. MCKELVY			A. D. MCKELVY		SHELL OIL CO.	
COMPLETED.....	--/--/00			11/19/60		07/21/60	
SAMPLED.....	11/12/60			11/19/60		--/--/00	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			2664		2548	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			418		322	
OPEN FLOW, MCFD.....	7000			12857		464	
COMPONENT, MOLE PCT							
METHANE.....	43.5			56.1		51.3	
ETHANE.....	2.5			3.2		4.0	
PROPANE.....	1.3			1.6		2.3	
N-BUTANE.....	0.2			0.4		0.6	
ISOBUTANE.....	0.2			0.2		0.4	
N-PENTANE.....	0.0			TRACE		0.1	
ISOPENTANE.....	0.1			0.1		TRACE	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	TRACE			0.1		0.1	
NITROGEN.....	50.9			37.5		40.2	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.3			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		TRACE	
HELIUM.....	0.90			0.80		0.80	
HEATING VALUE.....	538			697		694	
SPECIFIC GRAVITY.....	0.792			0.753		0.778	
		INDEX SAMPLE	1708 7956	INDEX SAMPLE	1709 8046	INDEX SAMPLE	1710 12871
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	FINNEY			FINNEY		FINNEY	
FIELD.....	HUGOTON			HUGOTON		HUGOTON	
WELL NAME.....	BROWN NO. 1			KERFOOT A-1		U.S.A. NO. 1	
LOCATION.....	SEC. 33, T21S, R33W			SEC. 37, T23S, R31W		SEC. 32, T24S, R34W	
OWNER.....	W. L. HARTMAN			CITIES SERVICE OIL CO.		MOBIL OIL CORP.	
COMPLETED.....	01/28/61			01/28/61		--/--/00	
SAMPLED.....	05/--/61			06/20/61		06/22/71	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2558			2664		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	415			407		235	
OPEN FLOW, MCFD.....	5000			8770		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	50.5			58.2		72.1	
ETHANE.....	3.7			4.0		6.0	
PROPANE.....	2.1			0.5		3.5	
N-BUTANE.....	0.6			0.5		1.0	
ISOBUTANE.....	0.3			0.3		0.5	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			0.1		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	41.4			33.8		16.1	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		0.0	
HELIUM.....	0.80			0.70		0.44	
HEATING VALUE.....	676			756		992	
SPECIFIC GRAVITY.....	0.782			0.750		0.712	
		INDEX SAMPLE	1711 12987	INDEX SAMPLE	1712 12992	INDEX SAMPLE	1713 12993
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	FINNEY			FINNEY		FINNEY	
FIELD.....	HUGOTON			HUGOTON		HUGOTON	
WELL NAME.....	USA C-1			REEVES NO. 1		HICKS NO. 1	
LOCATION.....	SEC. 26, T26S, R34W			SEC. 17, T25S, R33W		SEC. 12, T25S, R32W	
OWNER.....	MOBIL OIL CORP.			AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	08/25/71			08/24/71		08/24/71	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	72.9			66.8		60.6	
ETHANE.....	4.9			4.0		2.5	
PROPANE.....	2.7			2.3		1.3	
N-BUTANE.....	0.6			0.3		0.3	
ISOBUTANE.....	0.4			0.3		0.1	
N-PENTANE.....	0.2			TRACE		0.0	
ISOPENTANE.....	0.0			0.1		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	TRACE			TRACE		TRACE	
NITROGEN.....	17.7			25.4		34.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.0		TRACE	
HELIUM.....	0.45			0.58		0.76	
HEATING VALUE.....	1001			839		714	
SPECIFIC GRAVITY.....	0.695			0.714		0.728	
		INDEX SAMPLE	1714 15231	INDEX SAMPLE	1715 15232	INDEX SAMPLE	1716 7589
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	FINNEY			FINNEY		FINNEY	
FIELD.....	PANOMA			PANOMA		WAMPLER	
WELL NAME.....	U.S.A. "D" NO. 7			JONES-I NO. 1		WAMPLER NO. A-2	
LOCATION.....	SEC. 18, T26S, R34W			SEC. 29, T26S, R34W		SEC. 30, T21S, R33W	
OWNER.....	HELMERICH & PAYNE, INC.			HELMERICH & PAYNE, INC.		IMPERIAL OIL OF KANSAS, INC.	
COMPLETED.....	05/14/77			09/10/77		11/09/59	
SAMPLED.....	03/16/78			03/17/78		06/22/60	
FORMATION.....	PERM-COUNCIL GROVE			PERM-COUNCIL GROVE		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2790			2813		2513	
WELLHEAD PRESSURE, PSIG.....	205			234		600	
OPEN FLOW, MCFD.....	495			340		7000	
COMPONENT, MOLE PCT							
METHANE.....	72.1			71.7		50.7	
ETHANE.....	6.0			5.6		4.2	
PROPANE.....	3.4			3.0		2.5	
N-BUTANE.....	1.0			0.9		0.9	
ISOBUTANE.....	0.3			0.2		0.3	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.2			0.2		0.0	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	16.0			17.3		39.8	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.2	
HELIUM.....	0.42			0.45		0.80	
HEATING VALUE.....	1001			973		717	
SPECIFIC GRAVITY.....	0.718			0.714		0.792	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	1717 3932		INDEX SAMPLE	1718 9206		INDEX SAMPLE	1719 17152
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	FINNEY			FORD			FORD	
FIELD.....	WILCOAT			BUCKLIN			MINNEOLA	
WELL NAME.....	TRISS-MILLER NO. 1			JAY BELINGER NO. 1			MCUNE A	
LOCATION.....	SEC. 26, T29S, R34W			SEC. 7, T29S, R21W			SEC. 25, T29S, R25W	
OWNER.....	CARTER OIL CO.			TIME PETROLEUM CO.			CHAMPLIN PETROLEUM CO.	
COMPLETED.....	--/500			08/08/63			11/23/82	
SAMPLED.....	09/14/74			12/26/63			01/10/84	
FORMATION.....	PERM-DOLOMITE			PENN-CHEROKEE			PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360			360	
DEPTH, FEET.....	2608			5057			5404	
WELLHEAD PRESSURE, PSIG.....	435			1520			283	
OPEN FLOW, MCFD.....	1000			3500			163	
COMPONENT, MOLE PCT								
METHANE.....	52.0	-----		83.6	-----		71.0	-----
ETHANE.....	16.0	-----		4.3	-----		6.6	-----
PROPANE.....	---	-----		1.4	-----		4.7	-----
N-BUTANE.....	---	-----		0.6	-----		1.6	-----
ISOBUTANE.....	---	-----		0.1	-----		0.9	-----
N-PENTANE.....	---	-----		0.2	-----		0.4	-----
ISOPENTANE.....	---	-----		0.1	-----		0.5	-----
CYCLOPENTANE.....	---	-----		0.1	-----		0.1	-----
HEXANES PLUS.....	---	-----		0.2	-----		0.3	-----
NITROGEN.....	30.8	-----		8.8	-----		13.5	-----
OXYGEN.....	0.1	-----		0.0	-----		TRACE	-----
ARGON.....	---	-----		TRACE	-----		TRACE	-----
HYDROGEN.....	---	-----		0.0	-----		0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----		0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.1	-----		TRACE	-----
HELIUM.....	0.74	-----		0.50	-----		0.30	-----
HEATING VALUE.....	1011	-----		1011	-----		1101	-----
SPECIFIC GRAVITY.....	0.762	-----		0.648	-----		0.753	-----
	INDEX	1720		INDEX	1721		INDEX	1722
	SAMPLE	3204		SAMPLE	5622		SAMPLE	7641
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	FORD			FORD			FORD	
FIELD.....	PLEASANT VALLEY			PLEASANT VALLEY			WILLROADS	
WELL NAME.....	NOT GIVEN			VICE NO. 1			L. A. MCCOY NO. 1	
LOCATION.....	SEC. 34, T27S, R21W			SEC. 14, T29S, R21W			SEC. 26, T27S, R24W	
OWNER.....	SINCLAIR-PRAIRIE OIL CO.			W. J. COPPINGER			TENNESSEE GAS TRANSMISSION C	
COMPLETED.....	06/13/48			02/24/54			07/30/60	
SAMPLED.....	03/19/42			03/04/54			07/30/60	
FORMATION.....	MISS-LIME			MISS-LIME			PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360			360	
DEPTH, FEET.....	4890			5018			2663	
WELLHEAD PRESSURE, PSIG.....	900			1408			NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			8520			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	79.8	-----		83.8	-----		64.0	-----
ETHANE.....	12.1	-----		0.8	-----		0.5	-----
PROPANE.....	---	-----		1.7	-----		0.1	-----
N-BUTANE.....	---	-----		0.6	-----		TRACE	-----
ISOBUTANE.....	---	-----		0.5	-----		0.0	-----
N-PENTANE.....	---	-----		0.1	-----		0.0	-----
ISOPENTANE.....	---	-----		0.2	-----		TRACE	-----
CYCLOPENTANE.....	---	-----		0.1	-----		0.0	-----
HEXANES PLUS.....	---	-----		0.2	-----		0.0	-----
NITROGEN.....	7.1	-----		7.4	-----		34.0	-----
OXYGEN.....	0.4	-----		0.0	-----		0.2	-----
ARGON.....	---	-----		TRACE	-----		TRACE	-----
HYDROGEN.....	---	-----		0.1	-----		0.1	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----		0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----		0.1	-----
HELIUM.....	0.42	-----		0.41	-----		1.00	-----
HEATING VALUE.....	1025	-----		1043	-----		660	-----
SPECIFIC GRAVITY.....	0.646	-----		0.655	-----		0.696	-----
	INDEX	1723		INDEX	1724		INDEX	1725
	SAMPLE	7644		SAMPLE	1874		SAMPLE	3216
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	FORD			FRANKLIN			GRAHAM	
FIELD.....	WILLROADS			POMONA N			GETTYSBURG	
WELL NAME.....	MCCOY NO. 1			BARTON NO. 2			MONTGOMERY NO. 1	
LOCATION.....	SEC. 26, T27S, R24W			SEC. 25, T16S, R17E			SEC. 7, T8S, R23W	
OWNER.....	TENNESSEE GAS TRANSMISSION C			H. H. HAWORTH			CITIES SERVICE OIL CO.	
COMPLETED.....	--/700			10/01/28			09/20/41	
SAMPLED.....	08/12/60			09/23/29			03/23/42	
FORMATION.....	MISS-			NOT GIVEN			PENN-LANSING-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	360			355			385	
DEPTH, FEET.....	5066			1230			3551	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			425			NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			1100			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	66.9	-----		81.5	-----		3.1	-----
ETHANE.....	5.9	-----		1.9	-----		25.3	-----
PROPANE.....	1.3	-----		---	-----		---	-----
N-BUTANE.....	1.2	-----		---	-----		---	-----
ISOBUTANE.....	0.4	-----		---	-----		---	-----
N-PENTANE.....	0.4	-----		---	-----		---	-----
ISOPENTANE.....	0.2	-----		---	-----		---	-----
CYCLOPENTANE.....	0.1	-----		---	-----		---	-----
HEXANES PLUS.....	0.3	-----		---	-----		---	-----
NITROGEN.....	20.2	-----		14.5	-----		67.3	-----
OXYGEN.....	TRACE	-----		0.7	-----		0.3	-----
ARGON.....	TRACE	-----		---	-----		---	-----
HYDROGEN.....	---	-----		---	-----		---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----		---	-----
CARBON DIOXIDE.....	0.1	-----		0.4	-----		1.4	-----
HELIUM.....	0.90	-----		1.05	-----		2.61	-----
HEATING VALUE.....	946	-----		893	-----		483	-----
SPECIFIC GRAVITY.....	0.742	-----		0.627	-----		0.962	-----
	INDEX	1726		INDEX	1727		INDEX	1728
	SAMPLE	3207		SAMPLE	7055		SAMPLE	10824
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	GRANT			GRANT			GRANT	
FIELD.....	HUGOTON			HUGOTON			HUGOTON	
WELL NAME.....	BLACKWELDER			B. M. RADCLIFF NO. 1			KERMETER ESTATE NO. 2	
LOCATION.....	SEC. 24, T29S, R35W			SEC. 24, T30S, R35W			SEC. 24, T29S, R37W	
OWNER.....	UNITED PRODUCING CO., INC.			UNITED PRODUCING CO., INC.			ASHLAND OIL & REFINING CO.	
COMPLETED.....	09/27/37			10/13/42			09/17/66	
SAMPLED.....	03/21/42			05/04/59			12/16/66	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP			PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360			360	
DEPTH, FEET.....	NOT GIVEN			2542			2690	
WELLHEAD PRESSURE, PSIG.....	417			362			343	
OPEN FLOW, MCFD.....	11397			13000			38000	
COMPONENT, MOLE PCT								
METHANE.....	68.5	-----		74.2	-----		73.0	-----
ETHANE.....	16.8	-----		6.1	-----		6.3	-----
PROPANE.....	---	-----		3.1	-----		3.8	-----
N-BUTANE.....	---	-----		0.9	-----		1.0	-----
ISOBUTANE.....	---	-----		0.4	-----		0.3	-----
N-PENTANE.....	---	-----		0.2	-----		0.2	-----
ISOPENTANE.....	---	-----		0.2	-----		0.2	-----
CYCLOPENTANE.....	---	-----		TRACE	-----		TRACE	-----
HEXANES PLUS.....	---	-----		0.2	-----		0.1	-----
NITROGEN.....	13.9	-----		14.0	-----		14.6	-----
OXYGEN.....	0.3	-----		---	-----		0.0	-----
ARGON.....	---	-----		TRACE	-----		TRACE	-----
HYDROGEN.....	---	-----		0.1	-----		0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----		0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.2	-----		0.0	-----
HELIUM.....	0.41	-----		0.40	-----		0.41	-----
HEATING VALUE.....	993	-----		1013	-----		1017	-----
SPECIFIC GRAVITY.....	0.696	-----		0.706	-----		0.712	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1729 6733	INDEX SAMPLE	1730 7268	INDEX SAMPLE	1731 7356
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GRANT			GRANT		GRANT	
FIELD.....	PANOMA			PANOMA		PANOMA	
WELL NAME.....	HINDMARSH NO. 2			WINGER		ANDERSON NO. 1	
LOCATION.....	SEC. 33, T29S, R37W			SEC. 19, T29S, R37W		SEC. 7, T27S, R37W	
OWNER.....	HUGOTON PRODUCTION CO.			HUGOTON PRODUCTION CO.		NORTHERN NATURAL GAS CO.	
COMPLETED.....	01/27/58			07/09/59		08/14/59	
SAMPLED.....	07/16/58			10/29/59		01/21/60	
FORMATION.....	PERM-COUNCIL GROVE			PERM-COUNCIL GROVE		PERM-COUNCIL GROVE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2755			2880		2694	
WELLHEAD PRESSURE, PSIG.....	407			338		370	
OPEN FLOW, MCFD.....	2431			6727		14670	
COMPONENT, MOLE PCT							
METHANE.....	72.7	-----		71.6	-----	71.0	-----
ETHANE.....	6.3	-----		4.6	-----	6.3	-----
PROPANE.....	3.3	-----		3.3	-----	3.4	-----
N-BUTANE.....	1.0	-----		0.9	-----	0.8	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.3	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.3	-----		0.5	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	14.7	-----		17.7	-----	17.2	-----
OXYGEN.....	0.1	-----		0.2	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.2	-----	TRACE	-----
HELIUM.....	0.40	-----		0.40	-----	0.40	-----
HEATING VALUE.....	1015	-----		967	-----	972	-----
SPECIFIC GRAVITY.....	0.715	-----		0.718	-----	0.710	-----
		INDEX SAMPLE	1732 7477	INDEX SAMPLE	1733 7732	INDEX SAMPLE	1734 7983
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GRANT			GRANT		GRANT	
FIELD.....	PANOMA			PANOMA		PANOMA	
WELL NAME.....	THORPE C NO. 2			JARVIS NO. 2		GOERTZEN B	
LOCATION.....	SEC. 5, T27S, R37W			SEC. 36, T30S, R38W		SEC. 5, T29S, R38W	
OWNER.....	NORTHERN NATURAL GAS CO.			HUGOTON PRODUCTION CO.		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	01/27/60			09/04/60		04/16/61	
SAMPLED.....	03/29/60			10/21/60		05/20/61	
FORMATION.....	PERM-COUNCIL GROVE			PERM-COUNCIL GROVE		PERM-COUNCIL GROVE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2725			2800		2650	
WELLHEAD PRESSURE, PSIG.....	425			351		367	
OPEN FLOW, MCFD.....	269			5609		931	
COMPONENT, MOLE PCT							
METHANE.....	71.0	-----		67.4	-----	72.7	-----
ETHANE.....	5.4	-----		7.4	-----	6.6	-----
PROPANE.....	2.2	-----		4.1	-----	3.4	-----
N-BUTANE.....	0.5	-----		1.1	-----	0.8	-----
ISOBUTANE.....	0.3	-----		0.6	-----	0.4	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.3	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.1	-----
NITROGEN.....	19.7	-----		17.6	-----	15.2	-----
OXYGEN.....	0.1	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.20	-----		0.40	-----	0.50	-----
HEATING VALUE.....	917	-----		1006	-----	997	-----
SPECIFIC GRAVITY.....	0.705	-----		0.746	-----	0.707	-----
		INDEX SAMPLE	1735 10883	INDEX SAMPLE	1736 13116	INDEX SAMPLE	1737 15034
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GRANT			GRANT		GRANT	
FIELD.....	PANOMA			PANOMA		PANOMA	
WELL NAME.....	HAMPTON A NO. 2			LUCAS NO. 2		DAVATZ "B" NO. 4	
LOCATION.....	SEC. 2, T28S, R36W			SEC. 13, T30S, R39W		SEC. 13, T28S, R36W	
OWNER.....	CITIES SERVICE OIL CO.			MESA PETROLEUM CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	--/--/00			11/07/71		--/--/00	
SAMPLED.....	--/--/00			12/15/71		06/22/77	
FORMATION.....	PERM-COUNCIL GROVE			PERM-COUNCIL GROVE		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2878			2751		2939	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			263		201	
OPEN FLOW, MCFD.....	4600			5100		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.2	-----		70.8	-----	72.5	-----
ETHANE.....	6.3	-----		5.7	-----	6.5	-----
PROPANE.....	3.6	-----		3.5	-----	3.6	-----
N-BUTANE.....	1.0	-----		0.9	-----	1.0	-----
ISOBUTANE.....	0.3	-----		0.3	-----	0.4	-----
N-PENTANE.....	0.1	-----		0.3	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.1	-----
NITROGEN.....	14.6	-----		17.5	-----	15.0	-----
OXYGEN.....	0.0	-----		0.2	-----	0.0	-----
ARGON.....	0.1	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.44	-----	0.41	-----
HELIUM.....	0.40	-----		0.44	-----	0.41	-----
HEATING VALUE.....	1010	-----		988	-----	1014	-----
SPECIFIC GRAVITY.....	0.709	-----		0.726	-----	0.715	-----
		INDEX SAMPLE	1738 7791	INDEX SAMPLE	1739 8635	INDEX SAMPLE	1740 8934
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GREELEY			GREELEY		GREELEY	
FIELD.....	BRADSHAW			BRADSHAW		BRADSHAW	
WELL NAME.....	CLIFT NO. 1			CLIFT NO. 1		MILLER NO. 1	
LOCATION.....	SEC. 9, T19S, R40W			SEC. 9, T19S, R40W		SEC. 9, T20S, R39W	
OWNER.....	KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS		HADSON OIL & GAS CO.	
COMPLETED.....	09/13/60			09/02/60		04/--/60	
SAMPLED.....	12/06/60			08/17/62		04/15/63	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2884			2800		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	434			434		NOT GIVEN	
OPEN FLOW, MCFD.....	435			435		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	52.2	-----		52.8	-----	64.1	-----
ETHANE.....	4.9	-----		4.6	-----	5.2	-----
PROPANE.....	2.8	-----		2.8	-----	2.9	-----
N-BUTANE.....	0.8	-----		0.8	-----	1.0	-----
ISOBUTANE.....	0.4	-----		0.4	-----	0.5	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	37.1	-----		36.9	-----	24.6	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	0.1	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.6	-----
HELIUM.....	1.00	-----		0.86	-----	0.60	-----
HEATING VALUE.....	748	-----		753	-----	891	-----
SPECIFIC GRAVITY.....	0.784	-----		0.783	-----	0.747	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1741 8935	INDEX SAMPLE	1742 17345	INDEX SAMPLE	1743 17346
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GREELEY			GREELEY		GREELEY	
FIELD.....	BRADSHAW			BRADSHAW		BRADSHAW	
WELL NAME.....	FLOYD UNIT NO. 1			FECHT 7 NO. 5		FECHT 7 NO. 4	
LOCATION.....	SEC. 25, T19S, R40W			SEC. 27, T18W, R40S		SEC. 27, T18W, R40S	
OWNER.....	HADSON OIL & GAS CO.			SMITH CATTLE, INC.		SMITH CATTLE, INC.	
COMPLETED.....	04/-/83			05/-/84		05/-/84	
SAMPLED.....	04/17/83			06/28/84		06/28/84	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2744			2920		2920	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			550		550	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	60.4			48.3		51.6	
ETHANE.....	4.8			4.4		4.7	
PROPANE.....	2.8			2.8		3.0	
N-BUTANE.....	1.0			0.9		0.9	
ISOBUTANE.....	0.3			0.4		0.4	
N-PENTANE.....	0.2			0.2		0.3	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	29.2			40.4		37.7	
OXYGEN.....	0.0			1.3		0.1	
ARGON.....	TRACE			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		TRACE	
HELIUM.....	0.70			0.83		0.87	
HEATING VALUE.....	837			703		751	
SPECIFIC GRAVITY.....	0.754			0.803		0.790	
		INDEX SAMPLE	1744 17347	INDEX SAMPLE	1745 17348	INDEX SAMPLE	1746 14631
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GREELEY			GREELEY		GREELEY	
FIELD.....	BRADSHAW			BRADSHAW		BYERLY	
WELL NAME.....	HELM 1 NO. 5			HELM 1 NO. 6		ROE NO. 1	
LOCATION.....	SEC. 35, T18W, R40S			SEC. 35, T18W, R40S		SEC. 29, T17S, R40W	
OWNER.....	SMITH CATTLE, INC.			SMITH CATTLE, INC.		R. C. BANKS	
COMPLETED.....	06/-/84			06/-/84		09/24/75	
SAMPLED.....	06/28/84			06/28/84		04/02/76	
FORMATION.....	PERM-GLORIETA			PERM-GLORIETA		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2200			2200		2937	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		2150	
COMPONENT, MOLE PCT							
METHANE.....	0.1			0.1		44.4	
ETHANE.....	0.0			0.0		4.3	
PROPANE.....	0.0			0.0		2.9	
N-BUTANE.....	0.0			0.0		0.9	
ISOBUTANE.....	0.0			0.0		0.4	
N-PENTANE.....	0.0			0.0		0.1	
ISOPENTANE.....	0.0			0.0		0.3	
CYCLOPENTANE.....	0.0			0.0		TRACE	
HEXANES PLUS.....	0.0			0.0		0.1	
NITROGEN.....	98.9			96.8		45.4	
OXYGEN.....	0.6			0.4		0.0	
ARGON.....	0.1			0.2		0.1	
HYDROGEN.....	TRACE			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.4		0.1	
HELIUM.....	0.07			0.06		0.95	
HEATING VALUE.....	1			1		668	
SPECIFIC GRAVITY.....	0.968			0.972		0.820	
		INDEX SAMPLE	1747 14729	INDEX SAMPLE	1748 14730	INDEX SAMPLE	1749 141
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GREELEY			GREELEY		GREENWOOD	
FIELD.....	BYERLY			BYERLY		BEAUMONT	
WELL NAME.....	SELL "B" NO. 1			WEAR "B" NO. 1		R. B. TEMPLE NO. 2	
LOCATION.....	SEC. 3, T17S, R40W			SEC. 25, T17S, R40W		SEC. 15, T27S, R8E	
OWNER.....	EMPIRE EXPLORATION, INC.			EMPIRE EXPLORATION, INC.		EMPIRE GAS & FUEL CO.	
COMPLETED.....	06/04/76			05/14/76		07/-/79	
SAMPLED.....	08/02/76			08/02/76		03/13/20	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PENN-	
GEOLOGIC PROVINCE CODE.....	360			360		365	
DEPTH, FEET.....	2994			2941		1125	
WELLHEAD PRESSURE, PSIG.....	516			522		310	
OPEN FLOW, MCFD.....	1721			7624		10000	
COMPONENT, MOLE PCT							
METHANE.....	35.8			52.5		82.1	
ETHANE.....	2.2			4.3		0.0	
PROPANE.....	0.4			0.4		---	
N-BUTANE.....	0.9			0.9		---	
ISOBUTANE.....	0.3			0.4		---	
N-PENTANE.....	0.2			0.2		---	
ISOPENTANE.....	0.2			0.2		---	
CYCLOPENTANE.....	TRACE			TRACE		---	
HEXANES PLUS.....	0.0			0.0		---	
NITROGEN.....	55.3			37.1		16.9	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.1		---	
HYDROGEN.....	TRACE			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.1			0.1		0.0	
HELIUM.....	1.13			0.56		0.92	
HEATING VALUE.....	545			754		832	
SPECIFIC GRAVITY.....	0.847			0.788		0.620	
		INDEX SAMPLE	1750 145	INDEX SAMPLE	1751 146	INDEX SAMPLE	1752 153
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GREENWOOD			GREENWOOD		GREENWOOD	
FIELD.....	BEAUMONT			BEAUMONT		BEAUMONT	
WELL NAME.....	C. R. LEWIS NO. 1			T. F. RILEY NO. 1		W. SELBACK NO. 1	
LOCATION.....	SEC. 35, T27S, R8E			SEC. 7, T27S, R4E		SEC. 24, T27S, R8E	
OWNER.....	EMPIRE GAS & FUEL CO.			EMPIRE GAS & FUEL CO.		EMPIRE GAS & FUEL CO.	
COMPLETED.....	03/13/20			03/13/20		01/-/19	
SAMPLED.....	03/13/20			03/13/20		03/18/20	
FORMATION.....	PENN-			PENN-		PENN-	
GEOLOGIC PROVINCE CODE.....	365			365		365	
DEPTH, FEET.....	1174			1118		1142	
WELLHEAD PRESSURE, PSIG.....	125			300		270	
OPEN FLOW, MCFD.....	350			2000		5000	
COMPONENT, MOLE PCT							
METHANE.....	82.5			85.9		84.2	
ETHANE.....	0.0			0.0		0.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	14.4			12.6		14.3	
OXYGEN.....	1.9			0.4		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.3			0.0		0.0	
HELIUM.....	1.00			0.93		0.89	
HEATING VALUE.....	836			868		853	
SPECIFIC GRAVITY.....	0.624			0.604		0.611	

* CALCULATED GROSS BTU PER CU FT, DRY; AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

166

		INDEX SAMPLE	1753 155	INDEX SAMPLE	1754 16973	INDEX SAMPLE	1755 3554
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GREENWOOD			GREENWOOD		GREENWOOD	
FIELD.....	BEAUMONT			BEAUMONT		NOT GIVEN	
WELL NAME.....	STEWART NO. 3			LATHAM NO. 8		RUSH NO. 1	
LOCATION.....	SEC. 12, T27S, R8E			SEC. 12, T27S, R12E		SEC. 9, T27S, R11E	
OWNER.....	EMPIRE GAS & FUEL CO.			OSAGE DRILLING, INC.		H. E. OZEMBERGER, ET AL.	
COMPLETED.....	09/-/79			02/02/83		--/--/00	
SAMPLED.....	03/18/20			06/13/83		07/07/42	
FORMATION.....	PENN-			MISS-		PENN-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	365			365		365	
DEPTH, FEET.....	1146			1630		960	
WELLHEAD PRESSURE, PSIG.....	265			50		460	
OPEN FLOW, MCFD.....	2700			1200		1500	
COMPONENT, MOLE PCT							
METHANE.....	88.0			82.7		31.9	
ETHANE.....	0.0			0.4		0.0	
PROPANE.....	0.0			0.2		0.0	
N-BUTANE.....	0.0			0.1		0.0	
ISOBUTANE.....	0.0			0.1		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.1		0.0	
CYCLOPENTANE.....	0.0			TRACE		0.0	
HEXANES PLUS.....	0.0			0.1		0.0	
NITROGEN.....	10.0			12.4		66.2	
OXYGEN.....	0.9			0.1		0.5	
ARGON.....	0.0			0.1		0.0	
HYDROGEN.....	0.0			0.4		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.1	
CARBON DIOXIDE.....	0.05			0.35		1.31	
HELIUM.....	891			868		323	
HEATING VALUE.....	0.595			0.637		0.826	
SPECIFIC GRAVITY.....							
		INDEX SAMPLE	1756 5649	INDEX SAMPLE	1757 957	INDEX SAMPLE	1758 997
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GREENWOOD			GREENWOOD		GREENWOOD	
FIELD.....	NOT GIVEN			RECE		RECE	
WELL NAME.....	MARHENKE LEASE			CHRIST KUHN NO. 2		CHRIST KUHN NO. 1	
LOCATION.....	NOT GIVEN			SEC. 28, T26S, R9E		SEC. 28, T26S, R9E	
OWNER.....	STERLING DAVIS			MAGNOLIA PETROLEUM CO.		MAGNOLIA PETROLEUM CO.	
COMPLETED.....	07/13/54			12/26/24		02/10/25	
SAMPLED.....	NOT GIVEN			12/26/24		02/13/25	
FORMATION.....	NOT GIVEN			LMLE		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	365			365		365	
DEPTH, FEET.....	NOT GIVEN			953		875	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			240		224	
OPEN FLOW, MCFD.....	NOT GIVEN			8115		3478	
COMPONENT, MOLE PCT							
METHANE.....	54.7			74.4		73.3	
ETHANE.....	0.1			2.3		1.5	
PROPANE.....	0.0			0.0		0.0	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	12.0			21.5		22.4	
OXYGEN.....	1.4			0.5		0.6	
ARGON.....	0.1			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.5		1.3	
HELIUM.....	1.15			1.04		0.95	
HEATING VALUE.....	0.737			0.659		0.667	
SPECIFIC GRAVITY.....							
		INDEX SAMPLE	1759 1873	INDEX SAMPLE	1760 5174	INDEX SAMPLE	1761 6506
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	GREENWOOD			GREENWOOD		HAMILTON	
FIELD.....	RECE			TUCKER		BRADSHAW	
WELL NAME.....	SEC. NO. 1			BUFLER NO. 1		WELF NO. 1	
LOCATION.....	SEC. 28, T26S, R9E			SEC. 15, T26S, R11E		SEC. 1, T22S, R41W	
OWNER.....	REED & WILSON			WARD A. MCGINNIS		KANSAS-NEBRASKA NATURAL GAS	
COMPLETED.....	09/21/29			02/25/26		12/13/57	
SAMPLED.....	NOT GIVEN			02/25/26		02/18/58	
FORMATION.....	NOT GIVEN			PENN-DOUGLAS		PENN-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	365			365		360	
DEPTH, FEET.....	NOT GIVEN			620		2752	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			240		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			1000		3200	
COMPONENT, MOLE PCT							
METHANE.....	75.8			58.5		62.9	
ETHANE.....	0.9			0.1		5.5	
PROPANE.....	0.0			0.0		3.1	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.3	
N-PENTANE.....	0.0			0.0		0.2	
ISOPENTANE.....	0.0			0.0		0.2	
CYCLOPENTANE.....	0.0			0.0		0.1	
HEXANES PLUS.....	0.0			TRACE		0.2	
NITROGEN.....	21.8			39.7		25.8	
OXYGEN.....	0.2			0.1		TRACE	
ARGON.....	0.0			0.1		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		0.1	
HELIUM.....	1.05			1.38		0.60	
HEATING VALUE.....	0.647			0.97		891	
SPECIFIC GRAVITY.....				0.715		0.752	
		INDEX SAMPLE	1762 7317	INDEX SAMPLE	1763 7358	INDEX SAMPLE	1764 7601
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	HAMILTON			HAMILTON		HAMILTON	
FIELD.....	BRADSHAW			BRADSHAW		BRADSHAW	
WELL NAME.....	TATE A-1			TATE A NO. 1-16		P. A. CRAIG NO. 1-24	
LOCATION.....	SEC. 16, T24S, R41W			SEC. 16, T24S, R41W		SEC. 24, T21S, R42W	
OWNER.....	HAMILTON BROS., INC.			HAMILTON BROS., INC.		MAYFLO OIL CO.	
COMPLETED.....	--/--/00			--/--/00		07/09/60	
SAMPLED.....	01/25/59			01/25/59		07/09/60	
FORMATION.....	PENN-CHASE GROUP			PENN-CHASE GROUP		PENN-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2305			2305		2765	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	887			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	48.2			47.2		49.5	
ETHANE.....	4.2			4.3		4.6	
PROPANE.....	3.1			3.3		3.5	
N-BUTANE.....	1.0			1.1		1.3	
ISOBUTANE.....	0.5			0.6		0.2	
N-PENTANE.....	0.3			0.3		0.6	
ISOPENTANE.....	0.1			0.4		0.7	
CYCLOPENTANE.....	0.1			0.2		0.3	
HEXANES PLUS.....	0.2			0.6		0.9	
NITROGEN.....	41.2			40.8		35.9	
OXYGEN.....	0.1			0.1		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE**.....	0.0			TRACE		1.5	
CARBON DIOXIDE.....	0.0			0.0		0.80	
HELIUM.....	1.00			0.90		839	
HEATING VALUE.....	0.810			0.767		0.847	
SPECIFIC GRAVITY.....				0.832			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1765			INDEX 1766			INDEX 1767		
SAMPLE 7607			SAMPLE 7608			SAMPLE 7634		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	J. B. OWINGS NO. 1-5		TATE A NO. 1-16			J. B. OWINGS NO. 1-5		
LOCATION.....	SEC. 5, T24S, R41W		SEC. 16, T24S, R41W			SEC. 5, T24S, R41W		
OWNER.....	HAMILTON BROS., INC.		HAMILTON BROS., INC.			HAMILTON BROS., INC.		
COMPLETED.....	--/--/00		12/26/59			--/--/00		
SAMPLED.....	07/16/60		07/16/60			--/--/00		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			360 -UPPER ZONE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		2305			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		321			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	41.0		47.0			41.1		
ETHANE.....	3.7		4.5			3.6		
PROPANE.....	3.1		3.3			3.0		
N-BUTANE.....	1.3		1.2			1.2		
ISOBUTANE.....	0.2		1.0			0.3		
N-PENTANE.....	0.3		0.4			0.2		
ISOPENTANE.....	0.3		0.0			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.3			0.1		
NITROGEN.....	48.7		48.6			48.7		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.2		
HELIUM.....	1.00		1.00			1.00		
HEATING VALUE.....	649		638			632		
SPECIFIC GRAVITY.....	0.842		0.825			0.833		
INDEX 1768			INDEX 1769			INDEX 1770		
SAMPLE 7664			SAMPLE 7702			SAMPLE 7703		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	J. C. TRACY NO. 1-33		MATTIE MAXFIELD NO. 1-30			D. CONNOR NO. 1-30		
LOCATION.....	SEC. 33, T23S, R41W		SEC. 30, T22S, R40W			SEC. 30, T23S, R40W		
OWNER.....	HAMILTON BROS., INC.		HAMILTON BROS., INC.			HAMILTON BROS., INC.		
COMPLETED.....	08/15/60		--/--/00			--/--/00		
SAMPLED.....	--/--/00		10/04/60			10/01/60		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2306		2594			2440		
WELLHEAD PRESSURE, PSIG.....	262		NOT GIVEN			460		
OPEN FLOW, MCFD.....	1536		3305			1050		
COMPONENT, MOLE PCT								
METHANE.....	44.8		57.7			55.6		
ETHANE.....	4.0		5.9			5.1		
PROPANE.....	2.9		3.5			3.3		
N-BUTANE.....	1.0		1.0			1.0		
ISOBUTANE.....	0.5		0.6			0.6		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	44.8		29.9			33.0		
OXYGEN.....	40.3		0.1			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.90		0.60			0.70		
HEATING VALUE.....	682		858			822		
SPECIFIC GRAVITY.....	0.826		0.777			0.785		
INDEX 1771			INDEX 1772			INDEX 1773		
SAMPLE 7704			SAMPLE 7723			SAMPLE 7890		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	U.S.A. HARBISON NO. 1-22		HOWELL NO. 1			GRISSON NO. 1-4		
LOCATION.....	SEC. 22, T24S, R41W		SEC. 21, T21S, R41W			SEC. 8, T22S, R41W		
OWNER.....	HAMILTON BROS., INC.		HAMILTON OIL CO.			HAMILTON BROS., INC.		
COMPLETED.....	--/--/00		09/09/60			--/--/00		
SAMPLED.....	10/04/60		--/--/00			05/01/61		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2310		2770			2750		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	1300		1400			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	44.9		59.7			60.2		
ETHANE.....	4.2		3.8			3.6		
PROPANE.....	3.2		3.3			3.1		
N-BUTANE.....	1.1		1.0			0.9		
ISOBUTANE.....	0.5		0.5			0.5		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	44.0		28.4			28.4		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	1.10		0.70			0.60		
HEATING VALUE.....	699		866			856		
SPECIFIC GRAVITY.....	0.824		0.766			0.757		
INDEX 1774			INDEX 1775			INDEX 1776		
SAMPLE 7986			SAMPLE 7987			SAMPLE 7988		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	TATE A NO. 1-16		C. A. TATE D NO. 1-9			J. C. TRACY NO. 1-33		
LOCATION.....	SEC. 16, T24S, R41W		SEC. 9, T24S, R41W			SEC. 33, T23S, R41W		
OWNER.....	HAMILTON BROS., INC.		HAMILTON BROS., INC.			HAMILTON BROS., INC.		
COMPLETED.....	12/26/59		05/13/59			08/15/60		
SAMPLED.....	06/02/61		06/02/61			06/02/61		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2305		2274			2306		
WELLHEAD PRESSURE, PSIG.....	321		319			262		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	48.5		47.8			45.4		
ETHANE.....	4.5		4.5			4.1		
PROPANE.....	3.3		3.0			3.0		
N-BUTANE.....	1.1		1.0			1.0		
ISOBUTANE.....	0.5		0.5			0.5		
N-PENTANE.....	0.3		0.3			0.3		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	40.4		41.2			41.4		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			TRACE		
HELIUM.....	0.90		1.00			0.90		
HEATING VALUE.....	639		840			689		
SPECIFIC GRAVITY.....	0.810		0.813			0.821		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

167

INDEX 1777 SAMPLE 7989			INDEX 1778 SAMPLE 7990			INDEX 1779 SAMPLE 7991		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	WATIE MAXFIELD NO. 1-30		GRISLOW NO. 1-8			KEITH ROSSON NO. 1-32		
LOCATION.....	SEC. 30, T22S, R41W		SEC. 8, T23S, R41W			SEC. 32, T22S, R40W		
OWNER.....	HAMILTON BROS., INC.		HAMILTON BROS., INC.			HAMILTON BROS., INC.		
COMPLETED.....	--/--/00		03/03/61			03/17/61		
SAMPLED.....	06/02/61		06/02/61			06/02/61		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		2738			2600		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		255			353		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	60.1		59.6			61.0		
ETHANE.....	5.8		5.9			5.9		
PROpane.....	3.4		3.3			3.5		
N-BUTANE.....	1.0		1.0			1.0		
ISOBUTANE.....	0.5		0.6			0.5		
N-PENTANE.....	0.2		0.3			0.3		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	28.0		28.3			26.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			TRACE		
HELIUM.....	0.60		0.60			0.60		
HEATING VALUE.....	865		876			892		
SPECIFIC GRAVITY.....	0.762		0.770			0.762		
INDEX 1780 SAMPLE 7992			INDEX 1781 SAMPLE 8062			INDEX 1782 SAMPLE 8104		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	U.S. SIMON NO. 1-33		HARRY DIKEMAN NO. 1-16			CARL LEWIS NO. 1-6		
LOCATION.....	SEC. 33, T22S, R41W		SEC. 16, T22W, R40S			SEC. 6, T22S, R41W		
OWNER.....	HAMILTON BROS., INC.		HAMILTON BROS., INC.			HAMILTON BROS., INC.		
COMPLETED.....	12/10/60		06/26/61			07/25/61		
SAMPLED.....	06/02/61		07/24/61			07/24/61		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2586		2700			2752		
WELLHEAD PRESSURE, PSIG.....	356		NOT GIVEN			460		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	58.8		60.4			58.7		
ETHANE.....	5.8		5.9			5.8		
PROpane.....	3.4		3.5			3.5		
N-BUTANE.....	1.0		1.0			0.9		
ISOBUTANE.....	0.6		0.6			0.6		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	29.3		27.2			29.3		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			TRACE		
HELIUM.....	0.60		0.60			0.70		
HEATING VALUE.....	856		890			863		
SPECIFIC GRAVITY.....	0.766		0.766			0.771		
INDEX 1783 SAMPLE 8255			INDEX 1784 SAMPLE 8259			INDEX 1785 SAMPLE 8357		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	GEORGE T. INGE NO. 1-9		F. J. GILLAM NO. 1-15			F. ADAMS NO. 1-31		
LOCATION.....	SEC. 9, T23S, R41W		SEC. 15, T21S, R41W			SEC. 31, T22S, R40W		
OWNER.....	HAMILTON BROS., INC.		HAMILTON BROS., INC.			HAMILTON BROS., INC.		
COMPLETED.....	10/03/61		10/09/61			--/--/00		
SAMPLED.....	12/29/61		12/22/61			02/--/62		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		2766			2590		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		321			465		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	56.8		60.9			59.7		
ETHANE.....	5.2		5.2			5.7		
PROpane.....	3.2		3.2			2.9		
N-BUTANE.....	1.0		0.9			0.9		
ISOBUTANE.....	0.3		0.4			0.4		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.1		0.2			0.3		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			0.1		
NITROGEN.....	31.7		27.9			29.4		
OXYGEN.....	TRACE		0.0			0.5		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.2		
HELIUM.....	0.69		0.68			0.61		
HEATING VALUE.....	838		863			835		
SPECIFIC GRAVITY.....	0.781		0.755			0.763		
INDEX 1786 SAMPLE 8358			INDEX 1787 SAMPLE 8624			INDEX 1788 SAMPLE 8625		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	W. H. HALTHILL NO. 1-14		OCHS UNIT NO. 1			FRAZIER UNIT NO. 1		
LOCATION.....	SEC. 14, T24S, R41W		SEC. 16, T23S, R41W			SEC. 34, T21S, R41W		
OWNER.....	HAMILTON BROS., INC.		LVO CORP.			HADSON OIL & GAS CO.		
COMPLETED.....	11/30/61		07/--/62			07/--/62		
SAMPLED.....	12/16/61		07/31/62			07/31/62		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2317		2466			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	465		359			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		150			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	49.5		53.7			60.3		
ETHANE.....	4.0		4.8			3.5		
PROpane.....	3.0		3.1			3.3		
N-BUTANE.....	1.0		1.0			1.1		
ISOBUTANE.....	0.4		0.5			0.4		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	40.3		35.4			28.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.95		0.74			0.66		
HEATING VALUE.....	720		783			872		
SPECIFIC GRAVITY.....	0.799		0.787			0.763		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1789			INDEX 1790			INDEX 1791		
SAMPLE 8626			SAMPLE 8628			SAMPLE 8754		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	BURNELL UNIT NO. 1		HATFIELD UNIT NO. 1			WITT UNIT NO. 1		
LOCATION.....	SEC. 28, T22S, R41W		SEC. 31, T21S, R41W			SEC. 21, T23S, R40W		
OWNER.....	HADSON OIL & GAS CO.		HADSON OIL & GAS CO.			LVO CORP.		
COMPLETED.....	07/-/62		07/17/62			10/-/62		
SAMPLED.....	07/30/62		07/30/62			11/05/62		
FORMATION.....	NOT GIVEN		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			2528		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			294		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			727		
COMPONENT, MOLE PCT								
METHANE.....	59.7		59.9			57.8		
ETHANE.....	5.5		5.5			5.0		
PROPANE.....	3.4		3.2			3.2		
N-BUTANE.....	1.0		1.0			1.0		
ISOBUTANE.....	0.3		0.5			0.4		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	28.6		28.3			30.8		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.3		
HELIUM.....	0.64		0.66			0.65		
HEATING VALUE.....	874		865			837		
SPECIFIC GRAVITY.....	0.768		0.764			0.775		
INDEX 1792			INDEX 1793			INDEX 1794		
SAMPLE 8828			SAMPLE 8831			SAMPLE 8833		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	WOLF NO. 1		JOHNSON UNIT NO. 1			DURBIN NO. 1		
LOCATION.....	SEC. 17, T23S, R40W		SEC. 22, T21S, R41W			SEC. 19, T22S, R40W		
OWNER.....	LIVINGSTON OIL CO.		HADSON OIL & GAS CO.			LIVINGSTON OIL CO.		
COMPLETED.....	12/-/62		01/-/63			12/-/62		
SAMPLED.....	01/15/63		01/15/63			01/15/63		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2548		2773			2648		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	58.9		59.3			60.7		
ETHANE.....	3.2		3.3			3.4		
PROPANE.....	3.4		3.4			3.5		
N-BUTANE.....	1.1		1.1			1.1		
ISOBUTANE.....	0.5		0.4			0.5		
N-PENTANE.....	0.3		0.2			0.3		
ISOPENTANE.....	0.2		0.3			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.0		0.1			0.2		
NITROGEN.....	29.3		28.3			27.2		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	TRACE		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.7			TRACE		
HELIUM.....	0.65		0.64			0.62		
HEATING VALUE.....	867		861			896		
SPECIFIC GRAVITY.....	0.775		0.772			0.768		
INDEX 1795			INDEX 1796			INDEX 1797		
SAMPLE 8834			SAMPLE 8903			SAMPLE 8905		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	BOLT NO. 1		WILLIAM BOCK NO. 1-10			W. B. SHASTIC NO. 1-5		
LOCATION.....	NOT GIVEN		SEC. 10, T21S, R41W			SEC. 5, T22S, R41W		
OWNER.....	HADSON OIL & GAS CO.		HAMILTON BROS., INC.			HAMILTON BROS., INC.		
COMPLETED.....	07/-/60		03/20/63			03/12/63		
SAMPLED.....	02/-/63		03/20/63			03/12/63		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		2764			3746		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		465			465		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	56.8		61.1			61.0		
ETHANE.....	4.5		5.1			5.3		
PROPANE.....	1.1		1.1			1.2		
N-BUTANE.....	1.2		1.1			1.1		
ISOBUTANE.....	0.2		0.1			0.2		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	32.3		27.7			27.6		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.1		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.78		0.69			0.65		
HEATING VALUE.....	819		871			871		
SPECIFIC GRAVITY.....	0.777		0.755			0.760		
INDEX 1798			INDEX 1799			INDEX 1800		
SAMPLE 8936			SAMPLE 8937			SAMPLE 9103		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			BRADSHAW		
WELL NAME.....	GRISSON UNIT NO. 1		HOWELL UNIT NO. 1			BUKRLIE B		
LOCATION.....	SEC. 9, T22S, R41W		SEC. 26, T21S, R41W			NOT GIVEN		
OWNER.....	HADSON OIL & GAS CO.		HADSON OIL & GAS CO.			HADSON OIL & GAS CO.		
COMPLETED.....	04/-/63		04/15/63			07/-/60		
SAMPLED.....	04/17/63		04/17/63			07/17/63		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2750		2800			2632		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			460		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			1020		
COMPONENT, MOLE PCT								
METHANE.....	61.1		62.4			59.6		
ETHANE.....	5.3		5.3			5.6		
PROPANE.....	3.1		2.9			3.3		
N-BUTANE.....	1.1		1.0			1.0		
ISOBUTANE.....	0.3		0.3			0.5		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	27.5		26.6			28.5		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.2		
HELIUM.....	0.60		0.60			0.60		
HEATING VALUE.....	860		873			868		
SPECIFIC GRAVITY.....	0.760		0.752			0.767		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1801			INDEX 1802			INDEX 1803		
SAMPLE 9104			SAMPLE 9708			SAMPLE 5971		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	BRADSHAW		BRADSHAW			WILDCAT		
WELL NAME.....	STANLEY		CHEATUM UNIT NO. 1			TATE NO. 1		
LOCATION.....	NOT GIVEN		SEC. 2, T24S, R41W			SEC. 17, T24S, R42W		
OWNER.....	HADSON OIL & GAS CO.		TEXACO INC.			MONSANTO CHEMICAL CO.		
COMPLETED.....	07/17/63		09/01/63			11/30/55		
SAMPLED.....	07/17/63		12/24/64			11/27/55		
FORMATION.....	PERM-KOUDU		PERM-CHASE GROUP			PERM-SALT		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2657		2310			1540		
WELLHEAD PRESSURE, PSIG.....	463		450			NOT GIVEN		
OPEN FLOW, MCFD.....	7500		4200			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	50.6		52.4			0.5		
ETHANE.....	4.8		4.7			0.0		
PROPANE.....	1.0		3.1			0.0		
N-BUTANE.....	1.0		1.0			0.0		
ISOBUTANE.....	0.2		0.3			0.0		
N-PENTANE.....	0.2		0.2			0.0		
ISOPENTANE.....	0.2		0.2			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.1		0.2			0.0		
NITROGEN.....	37.2		36.4			99.0		
OXYGEN.....	1.9		0.2			0.2		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.70		0.86			0.11		
HEATING VALUE.....	1134		775			5		
SPECIFIC GRAVITY.....	0.799		0.793			0.966		
INDEX 1804			INDEX 1805			INDEX 1806		
SAMPLE 17579			SAMPLE 11419			SAMPLE 14301		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HARPER		HARPER			HARPER		
FIELD.....	CRYSTAL SPRINGS SE		H-K-W			CLEMENTS NO. 1		
WELL NAME.....	WILLIAMS NO. 1		JADE NO. 1			CLEMENTS NO. 2		
LOCATION.....	SEC. 32, T32S, R7W		SEC. 15, T35S, R6W			SEC. 11, T32S, R7W		
OWNER.....	ATYICA GAS VENTURE CORP.		JAYSON OIL CO.			BEREN CORP.		
COMPLETED.....	--/7-00		08/7-66			08/07/74		
SAMPLED.....	--/7-00		03/28/74			08/07/74		
FORMATION.....	MISS-NOT GIVEN		PENN-STALNAKER			ORDO-SIMPSON		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	3397		3750			4713		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1525			1441		
OPEN FLOW, MCFD.....	100		NOT GIVEN			1272		
COMPONENT, MOLE PCT								
METHANE.....	83.9		80.6			63.6		
ETHANE.....	6.1		4.9			7.1		
PROPANE.....	2.7		3.1			5.1		
N-BUTANE.....	0.9		0.9			1.4		
ISOBUTANE.....	0.4		0.5			0.5		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.2		0.3			0.3		
CYCLOPENTANE.....	0.1		0.3			TRACE		
HEXANES PLUS.....	0.3		0.3			0.1		
NITROGEN.....	4.3		7.9			21.2		
OXYGEN.....	0.2		0.0			0.0		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			TRACE		
HELIUM.....	0.21		0.23			0.61		
HEATING VALUE.....	1114		1096			994		
SPECIFIC GRAVITY.....	0.674		0.693			0.769		
INDEX 1807			INDEX 1808			INDEX 1809		
SAMPLE 14302			SAMPLE 13267			SAMPLE 14602		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HARPER		HARPER			HARPER		
FIELD.....	CLEMENTS NO. 1		HIBBORD NE			LITTLE SANDY CREEK		
WELL NAME.....	CLEMENTS NO. 1		LEWIS B NO. 1			WILLIAMS NO. 2		
LOCATION.....	SEC. 31, T32S, R7W		SEC. 31, T33S, R8W			SEC. 31, T32S, R9W		
OWNER.....	BEREN CORP.		MCCOY PETROLEUM CO.			ENERGY RESERVES GROUP, INC.		
COMPLETED.....	08/07/74		05/17/72			03/24/76		
SAMPLED.....	03/14/75		06/09/72			05/25/76		
FORMATION.....	PENN-LANSING-KANSAS CITY		MISS-			MISS-		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	3960		4483			4314		
WELLHEAD PRESSURE, PSIG.....	600		441			1410		
OPEN FLOW, MCFD.....	40		5500			6500		
COMPONENT, MOLE PCT								
METHANE.....	63.7		96.5			88.9		
ETHANE.....	2.2		6.2			3.5		
PROPANE.....	5.0		2.7			2.2		
N-BUTANE.....	1.4		0.9			0.7		
ISOBUTANE.....	0.5		0.9			0.7		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	21.0		2.4			1.9		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	0.61		0.11			0.10		
HEATING VALUE.....	990		1129			1111		
SPECIFIC GRAVITY.....	0.766		0.653			0.636		
INDEX 1810			INDEX 1811			INDEX 1812		
SAMPLE 4951			SAMPLE 8888			SAMPLE 8889		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HARPER		HARPER			HARPER		
FIELD.....	SPITVEY-GRABS-BASIL		SPITVEY-GRABS-BASIL			SPITVEY-GRABS-BASIL		
WELL NAME.....	STODDARD NO. 1		GATES NO. 1 NS			GATES NO. 2 NS		
LOCATION.....	SEC. 17, T31S, R9W		SEC. 26, T31S, R9W			SEC. 26, T31S, R9W		
OWNER.....	DEEP ROCK OIL CORP.		MULL DRILLING CO., INC.			MULL DRILLING CO., INC.		
COMPLETED.....	06/14/50		04/-/58			12/-/59		
SAMPLED.....	10/15/50		03/04/63			03/04/63		
FORMATION.....	MISS-OSAGE		MISS-CHAT			MISS----		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	4410		4475			4450		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1045			1125		
OPEN FLOW, MCFD.....	NOT GIVEN		1730			1550		
COMPONENT, MOLE PCT								
METHANE.....	86.9		85.2			77.3		
ETHANE.....	4.0		1.4			3.5		
PROPANE.....	2.4		1.8			1.4		
N-BUTANE.....	0.7		0.7			0.6		
ISOBUTANE.....	0.3		0.1			0.1		
N-PENTANE.....	0.3		0.2			0.1		
ISOPENTANE.....	0.0		0.3			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.3		
HEXANES PLUS.....	0.2		6.1			14.2		
NITROGEN.....	2.6		0.0			0.0		
OXYGEN.....	0.2		0.0			0.0		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.7			0.2		
HELIUM.....	0.16		1.10			1.60		
HEATING VALUE.....	1105		1051			941		
SPECIFIC GRAVITY.....	0.648		0.654			0.667		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1813 9603	INDEX SAMPLE	1814 17402	INDEX SAMPLE	1815 17522
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	STORVILLE			STORVILLE		STORVILLE NW	
WELL NAME.....	DOROTHY MEINEKE NO. 1			BASSFORD NO. 1		TRUBY NO. 1	
LOCATION.....	SEC. 26, T33S, R6W			SEC. 21, T33S, R6W		SEC. 17, T33S, R6W	
OWNER.....	SUNRAY OX OIL CO.			REACH GROUP		REACH GROUP	
COMPLETED.....	01/28/63			04/24/83		04/29/81	
SAMPLED.....	10/16/64			08/31/84		11/09/84	
FORMATION.....	MISS-			MISS-		PERM-INDIAN CAVE	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	4384			4436		2170	
WELLHEAD PRESSURE, PSIG.....	1600			1050		NOT GIVEN	
OPEN FLOW, MCFD.....	2997			800		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	83.2			81.1		50.3	
ETHANE.....	6.5			7.0		0.9	
PROPANE.....	2.0			3.3		0.3	
N-BUTANE.....	1.0			1.2		0.1	
ISOBUTANE.....	0.3			0.6		TRACE	
N-PENTANE.....	0.3			0.2		TRACE	
ISOPENTANE.....	0.3			0.2		TRACE	
CYCLOPENTANE.....	0.1			0.2		TRACE	
HEXANES PLUS.....	0.2			0.2		TRACE	
NITROGEN.....	5.1			5.2		47.1	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	TRACE			0.0		0.2	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		0.1	
HELIUM.....	1113			1151		0.89	
HEATING VALUE.....	1113			0.698		537	
SPECIFIC GRAVITY.....	0.673					0.756	
		INDEX SAMPLE	1816 16703	INDEX SAMPLE	1817 16702	INDEX SAMPLE	1818 16704
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	SULLIVAN			SULLIVAN E		SULLIVAN E	
WELL NAME.....	ANTHRA #A NO. 2			FINOLEY #B NO. 1		ROBINSON #E NO. 2	
LOCATION.....	SEC. 30, T32S, R8W			SEC. 27, T32S, R8W		SEC. 22, T32S, R8W	
OWNER.....	TXO PRODUCTION CORP.			TXO PRODUCTION CORP.		TXO PRODUCTION CORP.	
COMPLETED.....	09/13/82			07/27/82		05/18/82	
SAMPLED.....	10/27/82			10/27/82		10/27/82	
FORMATION.....	PENN-STALNAKER			PENN-STALNAKER		PENN-STALNAKER	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1232			1324		1300	
OPEN FLOW, MCFD.....	17378			4298		1302	
COMPONENT, MOLE PCT.....							
METHANE.....	78.6			75.3		75.5	
ETHANE.....	3.3			3.3		3.4	
PROPANE.....	2.6			2.8		2.8	
N-BUTANE.....	1.4			1.0		1.0	
ISOBUTANE.....	0.5			0.6		0.6	
N-PENTANE.....	0.4			0.3		0.3	
ISOPENTANE.....	0.2			0.3		0.4	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.3			0.2		0.2	
NITROGEN.....	10.0			15.5		15.0	
OXYGEN.....	0.1			TRACE		0.2	
ARGON.....	2.1			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.33			0.40		0.38	
HEATING VALUE.....	1034			988		997	
SPECIFIC GRAVITY.....	0.707			0.702		0.706	
		INDEX SAMPLE	1819 13266	INDEX SAMPLE	1820 12765	INDEX SAMPLE	1821 16705
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	HAL BOWER B NO. 1			HUGHBANKS NO. 1		ZUERCHER NO. 3	
LOCATION.....	SEC. 3, T34S, R8W			SEC. 23, T33S, R9W		SEC. 9, T32S, R7W	
OWNER.....	MCROY PETROLEUM CO.			MCROY OIL CORP.		TXO PRODUCTION CORP.	
COMPLETED.....	03/24/72			07/22/70		06/07/82	
SAMPLED.....	06/09/72			04/13/71		10/27/82	
FORMATION.....	MISS-			PENN-STALNAKER		MISS-	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	4597			3725		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1690			500		1493	
OPEN FLOW, MCFD.....	6224			1750		766	
COMPONENT, MOLE PCT.....							
METHANE.....	85.7			85.1		82.5	
ETHANE.....	6.1			6.4		5.9	
PROPANE.....	2.6			2.4		2.9	
N-BUTANE.....	0.8			0.7		1.1	
ISOBUTANE.....	0.5			0.7		0.3	
N-PENTANE.....	0.3			0.3		0.3	
ISOPENTANE.....	0.1			0.3		0.5	
CYCLOPENTANE.....	0.1			0.3		0.1	
HEXANES PLUS.....	0.2			0.5		0.2	
NITROGEN.....	2.5			5.9		5.0	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.1			TRACE		0.1	
HELIUM.....	0.11			0.24		0.31	
HEATING VALUE.....	1120			1099		1123	
SPECIFIC GRAVITY.....	0.666			0.671		0.678	
		INDEX SAMPLE	1822 9535	INDEX SAMPLE	1823 4777	INDEX SAMPLE	1824 15264
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	HARVEY			HARVEY		HARVEY	
FIELD.....	BURTON			BURTON NE		BURTON NE	
WELL NAME.....	PETERS NO. 1			WARKENTINE		J. SCHNAG NO. 1	
LOCATION.....	SEC. 31, T22S, R3W			SEC. 16, T23S, R3W		SEC. 24, T22S, R3W	
OWNER.....	DRILLERS PRODUCTION CO., INC			ANISWORTH BROS., INC.		GEAR PETROLEUM CO.	
COMPLETED.....	06/10/64			07/20/77		09/20/77	
SAMPLED.....	08/11/64			04/21/79		04/21/78	
FORMATION.....	MISS-NOT GIVEN			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	3311			3304		3200	
WELLHEAD PRESSURE, PSIG.....	625			936		850	
OPEN FLOW, MCFD.....	350			6		8000	
COMPONENT, MOLE PCT.....							
METHANE.....	80.6			83.9		83.4	
ETHANE.....	6.6			6.0		6.0	
PROPANE.....	3.4			3.4		3.0	
N-BUTANE.....	1.4			0.9		1.1	
ISOBUTANE.....	0.6			0.4		0.4	
N-PENTANE.....	0.3			0.3		0.3	
ISOPENTANE.....	0.2			0.1		0.2	
CYCLOPENTANE.....	0.2			TRACE		0.1	
HEXANES PLUS.....	0.5			0.2		0.2	
NITROGEN.....	5.6			4.9		4.9	
OXYGEN.....	TRACE			0.1		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.00			0.31		0.33	
HEATING VALUE.....	1154			1098		1111	
SPECIFIC GRAVITY.....	0.704			0.665		0.673	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

161

	INDEX SAMPLE	1825 12417		INDEX SAMPLE	1826 1723		INDEX SAMPLE	1827 2621
STATE.....	KANSAS		KANSAS		KANSAS			
COUNTY.....	HARVEY		HARVEY		HARVEY			
FIELD.....	GRISTED		HALSTED		HOLLOV			
WELL NAME.....	WEDEL NO. 2		HOURY NO. 1		A. R. NIKKEL NO. 2			
LOCATION.....	SEC. 12, T22S, R2W		SEC. 11, T23S, R2W		SEC. 8, T22S, R3W			
OWNER.....	J. ALLISON		MCPHERSON OIL & GAS DEV. CO.		SHELL OIL CO.			
COMPLETED.....	08/05/70		10/--/78		05/20/33			
SAMPLED.....	09/19/70		03/09/29		06/29/33			
FORMATION.....	MISS-OSAGE		MISS-CHELY		MISS-LINE			
GEOLOGIC PROVINCE CODE.....	375		375		375			
DEPTH, FEET.....	2971		2942		3152			
WELLHEAD PRESSURE, PSIG.....	780		1000		900			
OPEN FLOW, MCFD.....	3800		7000		1440			
COMPONENT, MOLE PCT								
METHANE.....	82.3		59.3		82.4			
ETHANE.....	5.6		21.3		13.4			
PROpane.....	3.0		---		---			
N-BUTANE.....	0.8		---		---			
ISOBUTANE.....	0.6		---		---			
N-PENTANE.....	0.4		---		---			
ISOPENTANE.....	TRACE		---		---			
CYCLOPENTANE.....	TRACE		---		---			
HEXANES PLUS.....	0.2		---		---			
NITROGEN.....	6.5		18.5		3.5			
OXYGEN.....	0.1		0.2		0.1			
ARGON.....	TRACE		---		---			
HYDROGEN.....	0.1		---		---			
HYDROGEN SULFIDE.....	0.0		---		---			
CARBON DIOXIDE.....	TRACE		0.3		0.3			
HELIUM.....	0.38		0.41		0.34			
HEATING VALUE.....	1087		982		1075			
SPECIFIC GRAVITY.....	0.671		0.739		0.637			

	INDEX SAMPLE	1828 2685		INDEX SAMPLE	1829 5231		INDEX SAMPLE	1830 15319
STATE.....	KANSAS		KANSAS		KANSAS			
COUNTY.....	HARVEY		HARVEY		HARVEY			
FIELD.....	SPERLING		WALL NO. 1		WALL N			
WELL NAME.....	SEC. 23, T22S, R2W		SEC. 25, T22S, R3W		SCHRAG "D" NO. 1			
LOCATION.....	IMO OIL & GAS & WOOD BROS.		DRILLERS PRODUCTION CO., INC		SEC. 24, T22S, R3W			
OWNER.....					HAROLD J. MILBURN			
COMPLETED.....	12/13/34		04/14/52		12/03/77			
SAMPLED.....	MISS-CHAT		MISS-LINE		07/17/78			
FORMATION.....	MISS-CHAT		375		MISS-			
GEOLOGIC PROVINCE CODE.....	375		375		375			
DEPTH, FEET.....	2950		3145		3183			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		725		826			
OPEN FLOW, MCFD.....	7150		569		5800			
COMPONENT, MOLE PCT								
METHANE.....	73.0		82.6		82.7			
ETHANE.....	21.0		5.9		6.0			
PROpane.....	---		2.9		3.0			
N-BUTANE.....	---		0.9		1.0			
ISOBUTANE.....	---		0.4		0.5			
N-PENTANE.....	---		0.2		0.3			
ISOPENTANE.....	---		0.4		0.3			
CYCLOPENTANE.....	---		0.1		0.1			
HEXANES PLUS.....	---		0.2		0.2			
NITROGEN.....	5.3		5.8		4.8			
OXYGEN.....	0.0		0.1		TRACE			
ARGON.....	---		TRACE		TRACE			
HYDROGEN.....	---		TRACE		0.4			
HYDROGEN SULFIDE.....	---		---		0.0			
CARBON DIOXIDE.....	0.3		0.1		0.2			
HELIUM.....	0.38		0.35		0.33			
HEATING VALUE.....	1116		1101		1115			
SPECIFIC GRAVITY.....	0.681		0.674		0.673			

	INDEX SAMPLE	1831 10278		INDEX SAMPLE	1832 6651		INDEX SAMPLE	1833 7002
STATE.....	KANSAS		KANSAS		KANSAS			
COUNTY.....	HARVEY		HASKELL		HASKELL			
FIELD.....	WEDEL		EUBANK		EUBANK			
WELL NAME.....	NOT GIVEN		EUBANK NO. 1		COLLINGWOOD NO. 1			
LOCATION.....	LEE PHILLIPS OIL CO.		SEC. 28, T28S, R34W		SEC. 5, T29S, R34W			
OWNER.....			WHITE EAGLE OIL CO.		CITIES SERVICE OIL CO.			
COMPLETED.....	--/700		03/02/58		--/700			
SAMPLED.....	11/11/65		03/17/59		03/17/59			
FORMATION.....	MISS-		MISS-CHESTER		MISS-CHESTER			
GEOLOGIC PROVINCE CODE.....	375		360		360			
DEPTH, FEET.....	2966		5429		5430			
WELLHEAD PRESSURE, PSIG.....	850		800		1317			
OPEN FLOW, MCFD.....	4000		NOT GIVEN		5400			
COMPONENT, MOLE PCT								
METHANE.....	82.6		53.4		77.0			
ETHANE.....	5.8		7.0		4.0			
PROpane.....	2.7		10.3		2.3			
N-BUTANE.....	1.0		5.8		0.8			
ISOBUTANE.....	0.6		3.2		0.4			
N-PENTANE.....	0.4		1.1		0.2			
ISOPENTANE.....	0.2		0.4		0.2			
CYCLOPENTANE.....	TRACE		0.2		0.1			
HEXANES PLUS.....	0.2		0.8		0.2			
NITROGEN.....	5.9		16.4		13.3			
OXYGEN.....	0.0		TRACE		0.0			
ARGON.....	TRACE		0.1		0.1			
HYDROGEN.....	0.0		0.0		TRACE			
HYDROGEN SULFIDE.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	0.1		0.4		0.3			
HELIUM.....	0.38		0.40		1.20			
HEATING VALUE.....	1101		1376		983			
SPECIFIC GRAVITY.....	0.674		0.964		0.684			

	INDEX SAMPLE	1834 7054		INDEX SAMPLE	1835 7207		INDEX SAMPLE	1836 7354
STATE.....	KANSAS		KANSAS		KANSAS			
COUNTY.....	HASKELL		HASKELL		HASKELL			
FIELD.....	EUBANK		EUBANK		EUBANK			
WELL NAME.....	O. V. RAY NO. 1		J. D. STUCKY NO. 1		E. W. GREGG NO. 2			
LOCATION.....	SEC. 21, T29S, R34W		SEC. 29, T28S, R34W		SEC. 4, T29S, R34W			
OWNER.....	UNITED PRODUCING CO., INC.		UNITED PRODUCING CO., INC.		UNITED PRODUCING CO., INC.			
COMPLETED.....	--/700		05/14/58		11/19/59			
SAMPLED.....	11/11/65		09/22/58		01/21/60			
FORMATION.....	NOT GIVEN		MISS-CHESTER		PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360		360		360			
DEPTH, FEET.....	NOT GIVEN		5460		5125			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		1210			
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN			
COMPONENT, MOLE PCT								
METHANE.....	73.2		51.1		73.3			
ETHANE.....	6.3		0.0		5.3			
PROpane.....	3.3		5.9		3.3			
N-BUTANE.....	0.9		2.0		0.8			
ISOBUTANE.....	0.5		2.0		0.5			
N-PENTANE.....	0.2		0.7		0.1			
ISOPENTANE.....	0.2		2.8		0.2			
CYCLOPENTANE.....	0.1		0.4		TRACE			
HEXANES PLUS.....	0.2		1.2		0.1			
NITROGEN.....	14.7		30.0		15.4			
OXYGEN.....	0.0		TRACE		TRACE			
ARGON.....	TRACE		0.1		TRACE			
HYDROGEN.....	0.1		0.1		0.1			
HYDROGEN SULFIDE.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	0.1		0.2		0.1			
HELIUM.....	0.40		1.60		0.70			
HEATING VALUE.....	1019		1096		985			
SPECIFIC GRAVITY.....	0.715		0.927		0.702			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1837 SAMPLE 7667			INDEX 1838 SAMPLE 8366			INDEX 1839 SAMPLE 8864		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HASKELL		HASKELL			HASKELL		
FIELD.....	EUBANK		EUBANK			EUBANK		
WELL NAME.....	EUBANK D NO. 3		HALL K NO. 4			HALL K NO. 4		
LOCATION.....	SEC. 33, T28S, R34W		SEC. 5, T29S, R34W			SEC. 5, T29S, R34W		
OWNER.....	HELMERICH & PAYNE, INC.		CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	06/25/60		08/10/60			07/01/60		
SAMPLED.....	09/07/60		01/08/62			02/01/63		
FORMATION.....	PENN-KANSAS CITY		MISS-CHESTER			PENN-TORONTO & LANSING-KC		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4083		5390			4032		
WELLHEAD PRESSURE, PSIG.....	1080		1281			1146		
OPEN FLOW, MCFD.....	7116		15000			11400		
COMPONENT, MOLE PCT								
METHANE.....	63.2		72.4			57.8		
ETHANE.....	4.7		3.4			4.4		
PROPANE.....	2.6		2.2			2.7		
N-BUTANE.....	0.8		0.8			1.0		
ISOBUTANE.....	0.7		0.4			0.2		
N-PENTANE.....	0.3		0.1			0.2		
ISOPENTANE.....	0.0		0.3			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.3		
NITROGEN.....	26.7		18.1			32.2		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.7		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.5			0.1		
HELIUM.....	0.70		1.67			0.67		
HEATING VALUE.....	869		914			915		
SPECIFIC GRAVITY.....	0.748		0.636			0.771		
INDEX 1840 SAMPLE 8865			INDEX 1841 SAMPLE 9767			INDEX 1842 SAMPLE 9781		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HASKELL		HASKELL			HASKELL		
FIELD.....	EUBANK		EUBANK			EUBANK		
WELL NAME.....	HALL K NO. 4		HALL K NO. 4			SPRUNGER C NO. 1		
LOCATION.....	SEC. 5, T29S, R34W		SEC. 5, T29S, R34W			SEC. 20, T28S, R34W		
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.			NORTHERN NATURAL GAS PROD. C		
COMPLETED.....	07/01/60		08/19/60			12/08/58		
SAMPLED.....	02/01/63		04/01/65			03/05/65		
FORMATION.....	MISS-CHESTER		PENN-TORONTO			PENN-HARTATON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		4032			4709		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		924			298		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			293		
COMPONENT, MOLE PCT								
METHANE.....	58.2		50.4			76.4		
ETHANE.....	4.4		4.8			4.8		
PROPANE.....	2.7		2.5			2.8		
N-BUTANE.....	1.0		0.7			1.0		
ISOBUTANE.....	0.2		0.5			0.7		
N-PENTANE.....	0.3		0.1			0.3		
ISOPENTANE.....	0.3		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.3		
NITROGEN.....	32.1		29.9			12.3		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.64		0.56			0.91		
HEATING VALUE.....	814		824			1030		
SPECIFIC GRAVITY.....	0.769		0.753			0.698		
INDEX 1843 SAMPLE 1843			INDEX 1844 SAMPLE 3210			INDEX 1845 SAMPLE 7316		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HASKELL		HASKELL			HASKELL		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
WELL NAME.....	TRIMPA NO. 1		ELLIOTT NO. 1			CORNELSON NO. 1-A		
LOCATION.....	SEC. 28, T27S, R33W		SEC. 30, T29S, R33W			SEC. 36, T28S, R34W		
OWNER.....	HELMERICH & PAYNE, INC.		HELMERICH & PAYNE, INC.			HELMERICH & PAYNE, INC.		
COMPLETED.....	07/14/56		10/14/56			10/24/56		
SAMPLED.....	03/21/42		03/21/42			12/16/59		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2640		2600			2624		
WELLHEAD PRESSURE, PSIG.....	436		415			338		
OPEN FLOW, MCFD.....	116		15320			12382		
COMPONENT, MOLE PCT								
METHANE.....	64.6		70.0			70.6		
ETHANE.....	11.7		12.9			5.5		
PROPANE.....	---		---			5.9		
N-BUTANE.....	---		---			0.8		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.2		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	22.6		16.2			18.9		
OXYGEN.....	0.3		0.3			TRACE		
ARGON.....	---		---			0.1		
HYDROGEN.....	---		---			0.1		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.59		0.48			0.50		
HEATING VALUE.....	0.64		0.44			944		
SPECIFIC GRAVITY.....	0.707		0.686			0.714		
INDEX 1846 SAMPLE 12860			INDEX 1847 SAMPLE 6996			INDEX 1848 SAMPLE 12253		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HASKELL		HASKELL			HASKELL		
FIELD.....	HUGOTON		KOENIG			KOENIG		
WELL NAME.....	INS 6-1		KOENIG NO. 1			LIGHT D-1		
LOCATION.....	SEC. 8, T27S, R33W		SEC. 12, T29S, R34W			SEC. 1, T29S, R34W		
OWNER.....	CITIES SERVICE OIL CO.		W. J. COPPINGER			CITIES SERVICE OIL CO.		
COMPLETED.....	7/-/70		12/15/58			02/20/70		
SAMPLED.....	06/23/71		03/10/59			05/06/70		
FORMATION.....	PERM-CHASE GROUP		PENN-MORROW L			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		2280			5351		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1440			749		
OPEN FLOW, MCFD.....	NOT GIVEN		1770			14500		
COMPONENT, MOLE PCT								
METHANE.....	72.0		69.4			69.2		
ETHANE.....	4.8		6.0			3.7		
PROPANE.....	2.4		3.2			3.4		
N-BUTANE.....	1.4		0.8			0.8		
ISOBUTANE.....	0.0		0.6			0.5		
N-PENTANE.....	0.0		0.2			0.1		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.2			0.1		
NITROGEN.....	18.4		18.4			19.3		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.51		0.50			0.53		
HEATING VALUE.....	0.72		972			953		
SPECIFIC GRAVITY.....	0.702		0.727			0.723		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

163

INDEX 1849 SAMPLE 13154		INDEX 1850 SAMPLE 17730		INDEX 1851 SAMPLE 10689	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	HASKELL	COUNTY.....	HASKELL	COUNTY.....	HASKELL
FIELD.....	LEMON E	FIELD.....	LEMON	FIELD.....	LEMON NE
WELL NAME.....	LEMON NO. 1	WELL NAME.....	W. M. WILSON "A" NO. 1	WELL NAME.....	ROHMEYER OPER. UNIT NO. 1
LOCATION.....	SEC. 8, T29S, R33W	LOCATION.....	SEC. 30, T30S, R33W	LOCATION.....	SEC. 30, T29S, R32W
OWNER.....	MALONE - HADNEY, INC.	OWNER.....	AMCO PRODUCTION CO.	OWNER.....	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	08/30/71	COMPLETED.....	03/29/84	COMPLETED.....	06/29/66
SAMPLED.....	02/29/72	SAMPLED.....	07/01/85	SAMPLED.....	08/12/66
FORMATION.....	PENN-CHEROKEE	FORMATION.....	PENN-DES MOINES	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	5080	DEPTH, FEET.....	5112	DEPTH, FEET.....	5232
WELLHEAD PRESSURE, PSIG.....	1207	WELLHEAD PRESSURE, PSIG.....	1250	WELLHEAD PRESSURE, PSIG.....	1374
OPEN FLOW, MCFD.....	4200	OPEN FLOW, MCFD.....	2600	OPEN FLOW, MCFD.....	3650
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	71.7	METHANE.....	82.5	METHANE.....	73.4
ETHANE.....	7.2	ETHANE.....	4.6	ETHANE.....	5.8
PROpane.....	4.7	PROpane.....	2.4	PROpane.....	3.4
N-BUTANE.....	1.1	N-BUTANE.....	1.0	N-BUTANE.....	1.0
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.4	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	13.7	NITROGEN.....	5.7	NITROGEN.....	14.7
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.27	HELIUM.....	0.55	HELIUM.....	0.16
HEATING VALUE.....	1061	HEATING VALUE.....	1094	HEATING VALUE.....	1026
SPECIFIC GRAVITY.....	0.731	SPECIFIC GRAVITY.....	0.681	SPECIFIC GRAVITY.....	0.720
INDEX 1852 SAMPLE 14990		INDEX 1853 SAMPLE 8777		INDEX 1854 SAMPLE 10339	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	HASKELL	COUNTY.....	HASKELL	COUNTY.....	HASKELL
FIELD.....	VICTORY	FIELD.....	VICTORY	FIELD.....	VICTORY
WELL NAME.....	ENGLER NO. 8-1	WELL NAME.....	WILSON G.U. E NO. 2	WELL NAME.....	U. V. ANTON B. NO. 1
LOCATION.....	SEC. 22, T27S, R34W	LOCATION.....	SEC. 30, T30S, R33W	LOCATION.....	SEC. 21, T30S, R33W
OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	PAN AMERICAN PETROLEUM CORP.	OWNER.....	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	11/2/60	COMPLETED.....	10/03/62	COMPLETED.....	11/06/62
SAMPLED.....	05/06/77	SAMPLED.....	11/20/62	SAMPLED.....	12/21/65
FORMATION.....	PERM-COUNCIL GROVE	FORMATION.....	PENN-LANSING A	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	2971	DEPTH, FEET.....	4107	DEPTH, FEET.....	5228
WELLHEAD PRESSURE, PSIG.....	269	WELLHEAD PRESSURE, PSIG.....	875	WELLHEAD PRESSURE, PSIG.....	862
OPEN FLOW, MCFD.....	1000	OPEN FLOW, MCFD.....	2320	OPEN FLOW, MCFD.....	953
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	70.5	METHANE.....	71.0	METHANE.....	78.1
ETHANE.....	5.8	ETHANE.....	4.7	ETHANE.....	5.9
PROpane.....	3.1	PROpane.....	2.8	PROpane.....	3.3
N-BUTANE.....	0.9	N-BUTANE.....	0.8	N-BUTANE.....	0.9
ISOBUTANE.....	0.2	ISOBUTANE.....	0.4	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	18.3	NITROGEN.....	18.5	NITROGEN.....	9.7
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.2	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1
HELIUM.....	0.48	HELIUM.....	0.81	HELIUM.....	0.60
HEATING VALUE.....	968	HEATING VALUE.....	943	HEATING VALUE.....	1068
SPECIFIC GRAVITY.....	0.715	SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.694
INDEX 1855 SAMPLE 14967		INDEX 1856 SAMPLE 17277		INDEX 1857 SAMPLE 17278	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	HASKELL	COUNTY.....	HASKELL	COUNTY.....	HASKELL
FIELD.....	VICTORY	FIELD.....	VICTORY	FIELD.....	VICTORY
WELL NAME.....	ENGLER A-2	WELL NAME.....	IZ SMITH NO. 2	WELL NAME.....	STANLEY NO. 2
LOCATION.....	SEC. 36, T30N, R34W	LOCATION.....	SEC. 26, T30S, R34W	LOCATION.....	SEC. 13, T30S, R34W
OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	CONTINENTAL ENERGY	OWNER.....	CONTINENTAL ENERGY
COMPLETED.....	11/2/60	COMPLETED.....	07/28/83	COMPLETED.....	02/01/84
SAMPLED.....	04/15/77	SAMPLED.....	04/10/84	SAMPLED.....	04/10/84
FORMATION.....	PENN-LANSING	FORMATION.....	MISS-	FORMATION.....	MISS-ST. LOUIS
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	4161	DEPTH, FEET.....	5381	DEPTH, FEET.....	5491
WELLHEAD PRESSURE, PSIG.....	929	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1000
OPEN FLOW, MCFD.....	1411	OPEN FLOW, MCFD.....	5300	OPEN FLOW, MCFD.....	1700
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.5	METHANE.....	85.7	METHANE.....	69.8
ETHANE.....	5.8	ETHANE.....	4.7	ETHANE.....	6.1
PROpane.....	2.7	PROpane.....	2.4	PROpane.....	3.2
N-BUTANE.....	0.8	N-BUTANE.....	0.8	N-BUTANE.....	0.9
ISOBUTANE.....	0.3	ISOBUTANE.....	0.5	ISOBUTANE.....	1.4
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	1.5
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.3
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.7
NITROGEN.....	1.6	NITROGEN.....	4.1	NITROGEN.....	11.3
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.0
HELIUM.....	0.17	HELIUM.....	0.37	HELIUM.....	1.04
HEATING VALUE.....	1107	HEATING VALUE.....	1107	HEATING VALUE.....	1197
SPECIFIC GRAVITY.....	0.658	SPECIFIC GRAVITY.....	0.662	SPECIFIC GRAVITY.....	0.792
INDEX 1858 SAMPLE 12659		INDEX 1859 SAMPLE 9643		INDEX 1860 SAMPLE 9673	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	HODGEMAN	COUNTY.....	HODGEMAN	COUNTY.....	HODGEMAN
FIELD.....	GRONER	FIELD.....	REGINER	FIELD.....	REGINER
WELL NAME.....	GRONER NO. 1	WELL NAME.....	P. REGINER NO. 1	WELL NAME.....	MARY HOGAN NO. 1
LOCATION.....	SEC. 2, T23S, R21W	LOCATION.....	SEC. 2, T24S, R21W	LOCATION.....	SEC. 2, T24S, R21W
OWNER.....	RICHARD R. HORNBER	OWNER.....	SUNRAY OIL CO.	OWNER.....	SUNRAY OIL CO.
COMPLETED.....	11/2/60	COMPLETED.....	09/28/64	COMPLETED.....	12/15/64
SAMPLED.....	02/03/71	SAMPLED.....	11/24/64	SAMPLED.....	12/22/64
FORMATION.....	MISS-	FORMATION.....	MISS-OSAGE	FORMATION.....	MISS-OSAGE
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	4512	DEPTH, FEET.....	4617	DEPTH, FEET.....	4658
WELLHEAD PRESSURE, PSIG.....	1243	WELLHEAD PRESSURE, PSIG.....	1300	WELLHEAD PRESSURE, PSIG.....	1280
OPEN FLOW, MCFD.....	1540	OPEN FLOW, MCFD.....	2500	OPEN FLOW, MCFD.....	650
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	55.3	METHANE.....	59.4	METHANE.....	59.0
ETHANE.....	3.7	ETHANE.....	3.7	ETHANE.....	3.7
PROpane.....	1.7	PROpane.....	1.4	PROpane.....	1.4
N-BUTANE.....	0.3	N-BUTANE.....	0.4	N-BUTANE.....	0.4
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	35.0	NITROGEN.....	31.7	NITROGEN.....	32.4
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	2.65	HELIUM.....	2.38	HELIUM.....	2.36
HEATING VALUE.....	707	HEATING VALUE.....	751	HEATING VALUE.....	734
SPECIFIC GRAVITY.....	0.743	SPECIFIC GRAVITY.....	0.731	SPECIFIC GRAVITY.....	0.728

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1861 3251	INDEX SAMPLE	1862 3252	INDEX SAMPLE	1863 3201
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	JEFFERSON			JEFFERSON		KEARNY	
FIELD.....	MCLOUTH			MCLOUTH		HUGOTON	
WELL NAME.....	DART NO. 1			ALBERT BARTLETT NO. 2		JONES NO. 2	
LOCATION.....	SEC. 4, T10S, R20E			SEC. 33, T9S, R20E		SEC. 25, T26S, R36W	
OWNER.....	MCLOUGHLIN DEVELOPMENT CO.			MCLOUGHLIN DEVELOPMENT CO.		HELMERICH & PAYNE, INC.	
COMPLETED.....	06/01/40			05/04/41		02/28/37	
SAMPLED.....	03/27/42			03/27/42		03/27/42	
FORMATION.....	PENN-MCLOUTH			MISS-LIME		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	335			335		360	
DEPTH, FEET.....	1379			1433		2689	
WELLHEAD PRESSURE, PSIG.....	485			485		440	
OPEN FLOW, MCFD.....	14000			6000		2821	
COMPONENT, MOLE PCT							
METHANE.....	91.6	-----	-----	92.3	-----	63.4	-----
ETHANE.....	1.1	-----	-----	1.4	-----	20.1	-----
PROPANE.....	---	-----	-----	---	-----	---	-----
N-BUTANE.....	---	-----	-----	---	-----	---	-----
ISOBUTANE.....	---	-----	-----	---	-----	---	-----
N-PENTANE.....	---	-----	-----	---	-----	---	-----
ISOPENTANE.....	---	-----	-----	---	-----	---	-----
CYCLOPENTANE.....	---	-----	-----	---	-----	---	-----
HEXANES PLUS.....	---	-----	-----	---	-----	---	-----
NITROGEN.....	6.4	-----	-----	5.4	-----	15.7	-----
OXYGEN.....	0.3	-----	-----	0.4	-----	0.3	-----
ARGON.....	---	-----	-----	---	-----	---	-----
HYDROGEN.....	---	-----	-----	---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----	-----	---	-----	---	-----
CARBON DIOXIDE.....	0.3	-----	-----	0.2	-----	0.1	-----
HELIUM.....	0.34	-----	-----	0.32	-----	0.42	-----
HEATING VALUE.....	948	-----	-----	960	-----	1002	-----
SPECIFIC GRAVITY.....	0.590	-----	-----	0.587	-----	0.720	-----
		INDEX SAMPLE	1864 3931	INDEX SAMPLE	1865 4179	INDEX SAMPLE	1866 4439
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KEARNY			KEARNY		KEARNY	
FIELD.....	HUGOTON			HUGOTON		HUGOTON	
WELL NAME.....	W. STRONG NO. 1			STALLMAN NO. 1		ROSS UNIT NO. 1	
LOCATION.....	SEC. 27, T22S, R35W			SEC. 24, T23S, R37W		SEC. 34, T21S, R35W	
OWNER.....	CARTER OIL CO.			STANOLIND OIL & GAS CO.		STANOLIND OIL & GAS CO.	
COMPLETED.....	09/29/44			09/19/46		01/27/47	
SAMPLED.....	10/05/44			12/07/46		01/08/48	
FORMATION.....	PERM-DOLomite			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2931			2588		2628	
WELLHEAD PRESSURE, PSIG.....	450			400		432	
OPEN FLOW, MCFD.....	16000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	60.4	-----	-----	60.2	-----	53.4	-----
ETHANE.....	18.2	-----	-----	17.9	-----	18.1	-----
PROPANE.....	---	-----	-----	---	-----	---	-----
N-BUTANE.....	---	-----	-----	---	-----	---	-----
ISOBUTANE.....	---	-----	-----	---	-----	---	-----
N-PENTANE.....	---	-----	-----	---	-----	---	-----
ISOPENTANE.....	---	-----	-----	---	-----	---	-----
CYCLOPENTANE.....	---	-----	-----	---	-----	---	-----
HEXANES PLUS.....	---	-----	-----	---	-----	---	-----
NITROGEN.....	19.8	-----	-----	20.5	-----	27.4	-----
OXYGEN.....	0.4	-----	-----	0.2	-----	0.2	-----
ARGON.....	---	-----	-----	---	-----	---	-----
HYDROGEN.....	---	-----	-----	---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----	-----	---	-----	---	-----
CARBON DIOXIDE.....	0.6	-----	-----	0.7	-----	0.3	-----
HELIUM.....	0.62	-----	-----	0.52	-----	0.64	-----
HEATING VALUE.....	938	-----	-----	931	-----	865	-----
SPECIFIC GRAVITY.....	0.732	-----	-----	0.733	-----	0.759	-----
		INDEX SAMPLE	1867 4764	INDEX SAMPLE	1868 7757	INDEX SAMPLE	1869 12867
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KEARNY			KEARNY		KEARNY	
FIELD.....	HUGOTON			HUGOTON		HUGOTON	
WELL NAME.....	NO. 1 SCIDERWELL			W. F. POWERS B NO. 1		LEE NO. 6	
LOCATION.....	SEC. 16, T23S, R38W			SEC. 32, T22S, R37W		SEC. 24, T26S, R37W	
OWNER.....	KANSAS-NEBRASKA NATURAL GAS			TEXACO INC.		NORTHERN NATURAL GAS PROD. C	
COMPLETED.....	05/05/48			07/17/60		--/--/00	
SAMPLED.....	10/16/49			11/02/60		06/22/71	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2609			2574		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	434			433		NOT GIVEN	
OPEN FLOW, MCFD.....	65			2070		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	62.5	-----	-----	67.1	-----	75.0	-----
ETHANE.....	5.5	-----	-----	5.8	-----	6.0	-----
PROPANE.....	3.3	-----	-----	3.0	-----	3.5	-----
N-BUTANE.....	0.9	-----	-----	0.9	-----	0.9	-----
ISOBUTANE.....	0.3	-----	-----	0.5	-----	0.2	-----
N-PENTANE.....	0.2	-----	-----	0.2	-----	0.2	-----
ISOPENTANE.....	0.3	-----	-----	0.1	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----	-----	TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----	-----	0.1	-----	0.1	-----
NITROGEN.....	25.7	-----	-----	21.4	-----	13.4	-----
OXYGEN.....	0.1	-----	-----	TRACE	-----	0.0	-----
ARGON.....	0.1	-----	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----	-----	TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----	-----	---	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----	-----	0.2	-----	0.0	-----
HELIUM.....	0.58	-----	-----	0.60	-----	0.39	-----
HEATING VALUE.....	882	-----	-----	927	-----	1017	-----
SPECIFIC GRAVITY.....	0.752	-----	-----	0.730	-----	0.699	-----
		INDEX SAMPLE	1870 12868	INDEX SAMPLE	1871 12978	INDEX SAMPLE	1872 12979
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KEARNY			KEARNY		KEARNY	
FIELD.....	HUGOTON			HUGOTON		HUGOTON	
WELL NAME.....	LEE NO. 4			U.S.A.-WHITE NO. A-1		U.S.A.-DEAN NO. 1	
LOCATION.....	SEC. 13, T26S, R36W			SEC. 22, T25S, R35W		SEC. 13, T25S, R35W	
OWNER.....	NORTHERN NATURAL GAS PROD. C			MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	06/22/71			08/25/71		--/--/00	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	74.1	-----	-----	74.2	-----	72.7	-----
ETHANE.....	6.0	-----	-----	5.6	-----	5.5	-----
PROPANE.....	3.6	-----	-----	3.2	-----	3.1	-----
N-BUTANE.....	0.8	-----	-----	0.8	-----	0.8	-----
ISOBUTANE.....	0.5	-----	-----	0.4	-----	0.3	-----
N-PENTANE.....	0.2	-----	-----	0.3	-----	0.3	-----
ISOPENTANE.....	0.0	-----	-----	0.0	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----	-----	TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----	-----	---	-----	0.1	-----
NITROGEN.....	14.3	-----	-----	14.9	-----	16.9	-----
OXYGEN.....	0.0	-----	-----	0.0	-----	0.0	-----
ARGON.....	TRACE	-----	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----	-----	0.0	-----	0.0	-----
HELIUM.....	0.41	-----	-----	0.41	-----	0.42	-----
HEATING VALUE.....	1009	-----	-----	993	-----	974	-----
SPECIFIC GRAVITY.....	0.704	-----	-----	0.700	-----	0.709	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

165

INDEX 1873 SAMPLE 12980		INDEX 1874 SAMPLE 12981		INDEX 1875 SAMPLE 12982	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	KEARNY	COUNTY.....	KEARNY	COUNTY.....	KEARNY
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
WELL NAME.....	U.S.A.-WHITE NO. B-1	WELL NAME.....	HUGOTON-USA NO. 1	WELL NAME.....	U.S.A.-WAMPLER NO. 1
LOCATION.....	SEC. 19, T26S, R35W	LOCATION.....	SEC. 19, T26S, R35W	LOCATION.....	SEC. 28, T26S, R35W
OWNER.....	MOBIL OIL CORP.	OWNER.....	MOBIL OIL CORP.	OWNER.....	MOBIL OIL CORP.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	08/25/71	SAMPLED.....	08/25/71	SAMPLED.....	08/25/71
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.4	METHANE.....	75.0	METHANE.....	73.7
ETHANE.....	5.7	ETHANE.....	5.6	ETHANE.....	5.6
PROPANE.....	3.2	PROPANE.....	3.2	PROPANE.....	3.2
N-BUTANE.....	0.9	N-BUTANE.....	0.7	N-BUTANE.....	0.7
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.4
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	14.7	NITROGEN.....	14.2	NITROGEN.....	15.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.41	HELIUM.....	0.0	HELIUM.....	0.41
HEATING VALUE.....	997	HEATING VALUE.....	1002	HEATING VALUE.....	985
SPECIFIC GRAVITY.....	0.700	SPECIFIC GRAVITY.....	0.698	SPECIFIC GRAVITY.....	0.704

INDEX 1876 SAMPLE 12983		INDEX 1877 SAMPLE 12984		INDEX 1878 SAMPLE 12985	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	KEARNY	COUNTY.....	KEARNY	COUNTY.....	KEARNY
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
WELL NAME.....	U.S.A.-WHITE NO. D-1	WELL NAME.....	U.S.A.-WHITE E-1	WELL NAME.....	TATE-USA NO. 1
LOCATION.....	SEC. 17, T26S, R35W	LOCATION.....	SEC. 21, T26S, R35W	LOCATION.....	SEC. 20, T26S, R35W
OWNER.....	MOBIL OIL CORP.	OWNER.....	MOBIL OIL CORP.	OWNER.....	MOBIL OIL CORP.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	08/25/71	SAMPLED.....	08/25/71	SAMPLED.....	08/25/71
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.9	METHANE.....	74.2	METHANE.....	74.8
ETHANE.....	5.7	ETHANE.....	5.7	ETHANE.....	5.7
PROPANE.....	3.4	PROPANE.....	3.2	PROPANE.....	3.5
N-BUTANE.....	0.8	N-BUTANE.....	0.8	N-BUTANE.....	0.8
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	14.2	NITROGEN.....	15.1	NITROGEN.....	14.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.40	HELIUM.....	0.40	HELIUM.....	0.40
HEATING VALUE.....	998	HEATING VALUE.....	990	HEATING VALUE.....	1000
SPECIFIC GRAVITY.....	0.696	SPECIFIC GRAVITY.....	0.700	SPECIFIC GRAVITY.....	0.698

INDEX 1879 SAMPLE 12986		INDEX 1880 SAMPLE 12988		INDEX 1881 SAMPLE 12989	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	KEARNY	COUNTY.....	KEARNY	COUNTY.....	KEARNY
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
WELL NAME.....	U.S.A.-WHITE NO. C-1	WELL NAME.....	HUGOTON-USA NO. B-1	WELL NAME.....	U.S.A.-MOORE NO. 1
LOCATION.....	SEC. 8, T26S, R35W	LOCATION.....	SEC. 26, T26S, R36W	LOCATION.....	SEC. 32, T26S, R35W
OWNER.....	MOBIL OIL CORP.	OWNER.....	MOBIL OIL CORP.	OWNER.....	MOBIL OIL CORP.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	08/25/71	SAMPLED.....	08/25/71	SAMPLED.....	08/25/71
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.5	METHANE.....	75.6	METHANE.....	74.7
ETHANE.....	5.7	ETHANE.....	5.7	ETHANE.....	5.7
PROPANE.....	3.4	PROPANE.....	3.4	PROPANE.....	3.4
N-BUTANE.....	0.8	N-BUTANE.....	0.8	N-BUTANE.....	0.8
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	14.5	NITROGEN.....	13.5	NITROGEN.....	14.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.40	HELIUM.....	0.39	HELIUM.....	0.42
HEATING VALUE.....	994	HEATING VALUE.....	999	HEATING VALUE.....	999
SPECIFIC GRAVITY.....	0.696	SPECIFIC GRAVITY.....	0.689	SPECIFIC GRAVITY.....	0.696

INDEX 1882 SAMPLE 12990		INDEX 1883 SAMPLE 12994		INDEX 1884 SAMPLE 12995	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	KEARNY	COUNTY.....	KEARNY	COUNTY.....	KEARNY
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
WELL NAME.....	U.S.A.-USA NO. 1	WELL NAME.....	HUGOTON BEATY F	WELL NAME.....	U.S.A.-MOORE NO. 1
LOCATION.....	SEC. 35, T26S, R36W	LOCATION.....	SEC. 26, T25S, R38W	LOCATION.....	SEC. 14, T25S, R38W
OWNER.....	MOBIL OIL CORP.	OWNER.....	AMOCO PRODUCTION CO.	OWNER.....	AMOCO PRODUCTION CO.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	08/25/71	SAMPLED.....	08/24/71	SAMPLED.....	08/24/71
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.3	METHANE.....	72.1	METHANE.....	70.7
ETHANE.....	5.7	ETHANE.....	5.8	ETHANE.....	5.7
PROPANE.....	3.4	PROPANE.....	3.4	PROPANE.....	3.4
N-BUTANE.....	0.8	N-BUTANE.....	0.9	N-BUTANE.....	0.9
ISOBUTANE.....	0.5	ISOBUTANE.....	0.3	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	13.7	NITROGEN.....	16.6	NITROGEN.....	18.0
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.40	HELIUM.....	0.42	HELIUM.....	0.44
HEATING VALUE.....	999	HEATING VALUE.....	968	HEATING VALUE.....	968
SPECIFIC GRAVITY.....	0.698	SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.717

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1885 SAMPLE 12996			INDEX 1886 SAMPLE 12997			INDEX 1887 SAMPLE 12998		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KEARNY		KEARNY			KEARNY		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
WELL NAME.....	WECHTER H UNIT		WECHTER UNIT 5 NO. 1			WECHTER J UNIT		
LOCATION.....	SEC. 6, T26S, R37W		SEC. 4, T26S, R37W			SEC. 33, T25S, R37W		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	08/24/71		08/24/71			08/24/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.6		75.4			75.1		
ETHANE.....	5.1		5.0			6.0		
PROPANE.....	3.6		3.5			3.6		
N-BUTANE.....	0.9		0.8			0.8		
ISOBUTANE.....	0.4		0.3			0.4		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.1		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	12.6		13.1			13.2		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.37		0.38			0.38		
HEATING VALUE.....	1035		1017			1020		
SPECIFIC GRAVITY.....	0.701		0.696			0.700		
INDEX 1888 SAMPLE 12999			INDEX 1889 SAMPLE 13000			INDEX 1890 SAMPLE 13001		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KEARNY		KEARNY			KEARNY		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
WELL NAME.....	BARBEN 3-1 UNIT		U.S.A. NO. 1			TATE-HUTTON NO. 1		
LOCATION.....	SEC. 32, T25S, R37W		SEC. 30, T25S, R37W			SEC. 28, T25S, R37W		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	08/24/71		08/24/71			08/24/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.1		74.2			74.4		
ETHANE.....	5.1		5.9			5.8		
PROPANE.....	3.5		3.6			3.7		
N-BUTANE.....	1.0		0.9			0.7		
ISOBUTANE.....	0.3		0.4			0.6		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.1		0.1			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	13.2		14.2			14.1		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.38		0.39			0.39		
HEATING VALUE.....	1023		1013			1015		
SPECIFIC GRAVITY.....	0.700		0.705			0.705		
INDEX 1891 SAMPLE 14005			INDEX 1892 SAMPLE 12869			INDEX 1893 SAMPLE 14018		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KEARNY		KEARNY			KEARNY		
FIELD.....	SKIFF		PANOMA			PANOMA		
WELL NAME.....	SKIFFER NO. 1		TOOMBS NO. 1			JOHNSON NO. 4A		
LOCATION.....	SEC. 34, T25S, R36W		SEC. 29, T26S, R36W			SEC. 19, T25S, R36W		
OWNER.....	EXCELSIOR OIL CORP.		NORTHERN NATURAL GAS PROD. C			W. B. OSBORN		
COMPLETED.....	07/10/57		--/--/57			11/01/73		
SAMPLED.....	09/25/57		06/22/71			06/01/74		
FORMATION.....	MISS-		PERM-COUNCIL GROVE			PERM-COUNCIL GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4994		NOT GIVEN			2770		
WELLHEAD PRESSURE, PSIG.....	60		NOT GIVEN			243		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			4500		
COMPONENT, MOLE PCT								
METHANE.....	45.7		73.7			72.0		
ETHANE.....	2.4		6.0			5.9		
PROPANE.....	0.0		0.8			0.8		
N-BUTANE.....	0.7		0.6			0.5		
ISOBUTANE.....	0.3		0.1			0.2		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.2		0.1			TRACE		
CYCLOPENTANE.....	0.5		0.1			0.1		
HEXANES PLUS.....	36.7		14.6			16.5		
NITROGEN.....	TRACE		0.0			0.0		
OXYGEN.....	0.4		TRACE			TRACE		
ARGON.....	0.4		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	9.8		0.0			TRACE		
HELIUM.....	2.00		0.40			0.49		
HEATING VALUE.....	987		0.706			987		
SPECIFIC GRAVITY.....	0.853					0.713		
INDEX 1894 SAMPLE 14019			INDEX 1895 SAMPLE 14736			INDEX 1896 SAMPLE 14976		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KEARNY		KEARNY			KINGMAN		
FIELD.....	PANOMA		PANOMA			ALAMEDA W		
WELL NAME.....	JOHNSON NO. 2A		KURZ "A" NO. 2			LOWE NO. 1		
LOCATION.....	SEC. 24, T25S, R37W		SEC. 30, T24S, R37W			SEC. 21, T28N, R7W		
OWNER.....	W. B. OSBORN		AMOCO PRODUCTION CO.			MACK OIL CO.		
COMPLETED.....	11/01/73		07/23/76			05/24/76		
SAMPLED.....	06/01/74		06/19/76			09/18/77		
FORMATION.....	PERM-COUNCIL GROVE		PERM-COUNCIL GROVE			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			375		
DEPTH, FEET.....	2750		2827			3970		
WELLHEAD PRESSURE, PSIG.....	306		225			1345		
OPEN FLOW, MCFD.....	4500		4500			668		
COMPONENT, MOLE PCT								
METHANE.....	73.1		69.0			86.4		
ETHANE.....	6.3		6.2			5.5		
PROPANE.....	3.8		3.6			2.6		
N-BUTANE.....	1.0		1.0			0.9		
ISOBUTANE.....	0.4		0.4			0.3		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.3		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	14.3		18.7			3.2		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	0.40		0.46			0.20		
HEATING VALUE.....	1026		973			1112		
SPECIFIC GRAVITY.....	0.715		0.727			0.651		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1897 14530			INDEX SAMPLE	1898 10760			INDEX SAMPLE	1899 17118
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	KINGMAN			KINGMAN				KINGMAN			
FIELD.....	BELMONT CENTER			BONJOUR				BROADWAY			
WELL NAME.....	DUCKWORTH NO. 1			BONJOUR NO. 1X				ZERGER NO. 1			
LOCATION.....	SEC. 23, T29S, R8W			SEC. 26, T27S, R5W				SEC. 1, T28S, R5W			
OWNER.....	KEENER OIL CO.			KEWANE OIL CO.				VINCENT OIL CORP.			
COMPLETED.....	06/14/75			07/05/66				10/01/82			
SAMPLED.....	11/13/75			10/25/66				10/25/83			
FORMATION.....	MISS-			MISS--				MISS-			
GEOLOGIC PROVINCE CODE.....	375			375				375			
DEPTH, FEET.....	4208			3740				3800			
WELLHEAD PRESSURE, PSIG.....	1245			1300				990			
OPEN FLOW, MCFD.....	4707			2755				350			
COMPONENT, MOLE PCT											
METHANE.....	87.4	---	---	82.0	---	---	---	78.6	---	---	---
ETHANE.....	5.2	---	---	6.2	---	---	---	7.1	---	---	---
PROPANE.....	2.4	---	---	2.8	---	---	---	3.5	---	---	---
N-BUTANE.....	0.7	---	---	1.0	---	---	---	1.1	---	---	---
ISOBUTANE.....	0.4	---	---	0.4	---	---	---	0.4	---	---	---
N-PENTANE.....	0.1	---	---	0.3	---	---	---	0.3	---	---	---
ISOPENTANE.....	0.4	---	---	0.2	---	---	---	0.2	---	---	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	---	---	0.1	---	---	---
HEXANES PLUS.....	0.1	---	---	0.3	---	---	---	0.2	---	---	---
NITROGEN.....	2.9	---	---	6.3	---	---	---	8.1	---	---	---
OXYGEN.....	0.0	---	---	0.0	---	---	---	0.0	---	---	---
ARGON.....	0.0	---	---	TRACE	---	---	---	TRACE	---	---	---
HYDROGEN.....	0.0	---	---	0.0	---	---	---	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	---	---	0.0	---	---	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	---	---	0.1	---	---	---
HELIUM.....	0.17	---	---	0.28	---	---	---	0.38	---	---	---
HEATING VALUE.....	1108	---	---	1102	---	---	---	1095	---	---	---
SPECIFIC GRAVITY.....	0.647	---	---	0.679	---	---	---	0.694	---	---	---

	INDEX SAMPLE 16333	INDEX SAMPLE 11555	INDEX SAMPLE 12709
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	KINGMAN	KINGMAN	KINGMAN
FIELD.....	CHIK	COX	COX
WELL NAME.....	DEWEY NO. 1	SEC. 26, 1	SEC. 26, 1
LOCATION.....	SEC. 15, T30S, R6W	SEC. 26, T30S, R10W	SEC. 26, T30S, R10W
OWNER.....	RAYMOND OIL CO., INC.	BARBARA OIL CO.	BARBARA OIL CO.
COMPLETED.....	--/--/00	05/08/68	12/22/70
SAMPLED.....	06/30/81	06/25/68	03/11/71
FORMATION.....	PERM-INDIAN CAVE	PENN-TOPEKA	PENN-HOWARD
GEOLOGIC PROVINCE CODE.....	375	375	375
DEPTH, FEET.....	1960	3085	2970
WELLHEAD PRESSURE, PSIG.....	1200	1200	1100
OPEN FLOW, MCFD.....	30000	28000	9300
COMPONENT, MOLE PCT			
METHANE.....	60.0	77.9	79.9
ETHANE.....	2.4	3.7	3.4
PROPANE.....	1.3	1.9	1.8
N-BUTANE.....	0.3	0.5	0.4
ISOBUTANE.....	0.2	0.2	0.2
N-PENTANE.....	TRACE	0.3	0.0
ISOPENTANE.....	0.1	0.0	0.3
CYCLOPENTANE.....	TRACE	0.1	0.1
HEXANES PLUS.....	TRACE	0.3	0.1
NITROGEN.....	34.7	14.3	13.2
OXYGEN.....	0.0	0.0	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.2	0.1
HELIUM.....	0.90	0.36	0.36
HEATING VALUE.....	706	960	959
SPECIFIC GRAVITY.....	0.729	0.676	0.663

	INDEX SAMPLE	1993 2250		INDEX SAMPLE	1904 2541		INDEX SAMPLE	1905 2892
STATE.....	KANSAS		KANSAS	KANSAS		KANSAS		
COUNTY.....	KINGMAN		KINGMAN	KINGMAN		KINGMAN		
FIELD.....	CUNNINGHAM		CUNNINGHAM	CUNNINGHAM		CUNNINGHAM		
WELL NAME.....	F. C. MILES NO. 1		LEISMAN NO. 1	F. C. MILES NO. A-5				
LOCATION.....	SEC. 30, T27S, R10W		SEC. 20, T27S, R10W	SEC. 30, T27S, R10W				
OWNER.....	SKELLY OIL CO.		SKELLY OIL CO.	SKELLY OIL CO.				
COMPLETED.....	--/--/00		--/--/00	--/--/00				
SAMPLED.....	12/21/30		08/25/32	10/04/41				
FORMATION.....	PERM-CHASE GROUP		CAHO-ARBUCKLE	CAHO-ARBUCKLE				
GEOLOGIC PROVINCE CODE.....	375		375	375				
DEPTH, FEET.....	2002	4190				NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	675	1385				NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN	30200				NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.2	59.3				67.1		
ETHANE.....	11.4	21.2				15.5		
PROPANE.....	---	---				---		
N-BUTANE.....	---	---				---		
ISOBUTANE.....	---	---				---		
N-PENTANE.....	---	---				---		
ISOPENTANE.....	---	---				---		
CYCLOPENTANE.....	---	---				---		
HEXANES PLUS.....	---	---				---		
NITROGEN.....	15.8	17.0				15.3		
OXYGEN.....	0.0	0.9				0.7		
ARGON.....	---	---				---		
HYDROGEN.....	---	---				---		
HYDROGEN SULFIDE.....	---	---				---		
CARBON DIOXIDE.....	0.1	0.4				0.2		
HELIUM.....	0.51	1.22				1.23		
HEATING VALUE.....	936	981				957		
SPECIFIC GRAVITY.....	0.675	0.733				0.695		

		INDEX SAMPLE	1906 2893		INDEX SAMPLE	1907 2894		INDEX SAMPLE	1908 2895
STATE.....	KANSAS			KANSAS				KANSAS	
COUNTY.....	KINGMAN			KINGMAN				KINGMAN	
FIELD.....	CUNNINGHAM			CUNNINGHAM				CUNNINGHAM	
WELL NAME.....	F. C. MILES NO. 4-B			J. M. RATCLIFF NO. 7				A. J. CONLEY NO. 2	
LOCATION.....	SEC. 19, T27S, R10W			SEC. 30, T27S, R10W				SEC. 20, T27S, R10W	
OWNER.....	SKELLY OIL CO.			SKELLY OIL CO.				SKELLY OIL CO.	
COMPLETED.....	--/--/00			--/--/00				--/--/00	
SAMPLED.....	10/04/41			10/04/41				10/04/41	
FORMATION.....	CAHO-ARBuckle			CAHO-ARBuckle				ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....	375							375	
DEPTH, FEET.....	1350			NOT GIVEN				NOT GIVEN	
WELLHEAD PRESSURE,PSIG.....	NOT GIVEN			1340				NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN	
COMPONENT, MOLE PCT									
METHANE.....	63.6			62.3				64.2	
ETHANE.....	13.6			21.2				20.8	
PROPANE.....	---			---				---	
N-BUTANE.....	---			---				---	
ISOBUTANE.....	---			---				---	
N-PENTANE.....	---			---				---	
ISOPENTANE.....	---			---				---	
CYCLOPENTANE.....	---			---				---	
HEXANES PLUS.....	---			---				---	
NITROGEN.....	15.2			14.8				13.6	
OXYGEN.....	0.2			0.3				0.2	
ARGON.....	---			---				---	
HYDROGEN.....	---			---				---	
HYDROGEN SULFIDE.....	---			---				---	
CARBON DIOXIDE.....	0.2			0.2				0.0	
HELIUM.....	1.20			1.23				1.15	
HEATING VALUE.....	996			1011				1023	
SPECIFIC GRAVITY.....	0.712			0.719				0.710	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 1909 SAMPLE 3630			INDEX 1910 SAMPLE 15583			INDEX 1911 SAMPLE 16578		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KINGMAN		KINGMAN			KINGMAN		
FIELD.....	CUNNINGHAM		DEWEY			DRESDEN		
WELL NAME.....	F. C. MILES D-1		RAMSDALE NO. 2			GRIDLEY NO. 1		
LOCATION.....	NOT GIVEN		SEC. 9, T28S, R5W			SEC. 15, T27S, R10W		
OWNER.....	SKELLY OIL CO.		GEAR PETROLEUM CO.			PATTON OIL CO.		
COMPLETED.....	--/700		06/28/78			04/20/82		
SAMPLED.....	--/700		03/99/79			07/17/82		
FORMATION.....	ORDO-VIOLA		PERM-INDIAN CAVE			MISS-		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	NOT GIVEN		1744			4014		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		680			1140		
OPEN FLOW, MCFD.....	NOT GIVEN		1500			3490		
COMPONENT, MOLE PCT.....								
METHANE.....	61.2		70.8			71.7		
ETHANE.....	23.3		2.1			6.2		
PROPANE.....	---		0.7			1.5		
N-BUTANE.....	---		0.2			1.2		
ISOBUTANE.....	---		0.1			0.4		
N-PENTANE.....	---		0.0			0.3		
ISOPENTANE.....	---		TRACE			0.3		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		0.1			0.2		
NITROGEN.....	13.9		24.9			14.5		
OXYGEN.....	0.2		0.0			0.0		
ARGON.....	---		TRACE			0.1		
HYDROGEN.....	---		TRACE			0.1		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			TRACE		
HELIUM.....	1.13		0.88			1.14		
HEATING VALUE.....	1039		788			1022		
SPECIFIC GRAVITY.....	0.727		0.678			0.717		
INDEX 1912 SAMPLE 14155			INDEX 1913 SAMPLE 14162			INDEX 1914 SAMPLE 9639		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KINGMAN		KINGMAN			KINGMAN		
FIELD.....	FANNIE		GEORGIA SPUR			GOETZ		
WELL NAME.....	PRICE NO. 1		LAKIN NO. 1			GOETZ B-3		
LOCATION.....	SEC. 4, T30S, R10W		SEC. 60, T28S, R6W			SEC. 32, T29S, R9W		
OWNER.....	MALLONEE-MAHONEY, INC.		VULCAN MATERIALS CO.			BACHUS OIL CO.		
COMPLETED.....	05/07/74		03/22/74			--/700		
SAMPLED.....	05/7774		10/03/74			11/21/64		
FORMATION.....	MISS-NOT GIVEN		MISS---			PERM-INDIAN CAVE		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	4395		4842			2346		
WELLHEAD PRESSURE, PSIG.....	1443		1324			883		
OPEN FLOW, MCFD.....	5200		3206			1500		
COMPONENT, MOLE PCT.....								
METHANE.....	82.3		86.6			85.4		
ETHANE.....	6.6		5.3			2.8		
PROPANE.....	3.6		2.6			0.9		
N-BUTANE.....	0.9		0.7			0.2		
ISOBUTANE.....	0.5		0.4			0.1		
N-PENTANE.....	0.2		0.3			0.1		
ISOPENTANE.....	0.2		0.1			TRACE		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	5.2		TRACE			9.8		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.0		
HELIUM.....	0.27		0.18			0.39		
HEATING VALUE.....	1115		1119			958		
SPECIFIC GRAVITY.....	0.676		0.656			0.625		
INDEX 1915 SAMPLE 12254			INDEX 1916 SAMPLE 1226			INDEX 1917 SAMPLE 15307		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KINGMAN		KINGMAN			KINGMAN		
FIELD.....	GOETZ E		KINGMAN			LANSDOWNE NN		
WELL NAME.....	GOETZ NO. 1		RICHARDSON NO. 1			JOHNSON "A" NO. 1		
LOCATION.....	SEC. 28, T29S, R9W		SEC. 16, T27S, R 7W			SEC. 4, T28S, R5W		
OWNER.....	REX MORRIS DRILLING CO.		P. LEEGER & CARTER OIL CO.			GEAR PETROLEUM CO.		
COMPLETED.....	03/09/70		01/7726			05/30/78		
SAMPLED.....	05/07/70		02/28/76			06/22/78		
FORMATION.....	PERNN-TOPEKA		MISS-			PERM-INDIAN CAVE		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	2930		3889			1761		
WELLHEAD PRESSURE, PSIG.....	1150		70			695		
OPEN FLOW, MCFD.....	NOT GIVEN		300			3490		
COMPONENT, MOLE PCT.....								
METHANE.....	63.5		66.7			68.7		
ETHANE.....	1.1		31.7			2.0		
PROPANE.....	1.9		---			0.7		
N-BUTANE.....	0.1		---			0.2		
ISOBUTANE.....	0.2		---			0.1		
N-PENTANE.....	0.1		---			TRACE		
ISOPENTANE.....	0.1		---			TRACE		
CYCLOPENTANE.....	TRACE		---			0.1		
HEXANES PLUS.....	TRACE		---			0.1		
NITROGEN.....	28.0		0.9			27.0		
OXYGEN.....	TRACE		0.5			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	TRACE		---			0.1		
HYDROGEN SULFIDE**.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.1		
HELIUM.....	0.64		0.19			0.51		
HEATING VALUE.....	787		1244			769		
SPECIFIC GRAVITY.....	0.714		0.720			0.688		
INDEX 1918 SAMPLE 9637			INDEX 1919 SAMPLE 15980			INDEX 1920 SAMPLE 16641		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KINGMAN		KINGMAN			KINGMAN		
FIELD.....	BERTHOLF NO. 1		NASHVILLE W			NASHVILLE W		
WELL NAME.....	SEC. 1, T30S, R10W		KATZER NO. 1			KATZER NO. 1-A		
LOCATION.....	BACHUS OIL CO.		SEC. 10, T30S, R10W			SEC. 10, T30S, R10W		
OWNER.....	10/0/63		RAYMOND OIL CO., INC.			RAYMOND OIL CO., INC.		
COMPLETED.....	11/21/64		09/01/79			07/30/82		
SAMPLED.....	05/07/70		10/06/80			09/10/82		
FORMATION.....	PERM-INDIAN CAVE		PERNN-TOPEKA			PERNN-HOWARD		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	2519		3156			2994		
WELLHEAD PRESSURE, PSIG.....	962		940			1038		
OPEN FLOW, MCFD.....	1020		5400			2190		
COMPONENT, MOLE PCT.....								
METHANE.....	82.3		76.5			73.8		
ETHANE.....	3.3		3.8			3.3		
PROPANE.....	1.3		1.4			1.4		
N-BUTANE.....	0.4		0.6			0.4		
ISOBUTANE.....	0.2		0.3			0.2		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	TRACE		0.3			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.0		0.2			0.2		
NITROGEN.....	11.6		15.1			18.3		
OXYGEN.....	0.1		0.3			1.7		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.4			0.1		
HELIUM.....	0.37		0.56			0.31		
HEATING VALUE.....	960		954			881		
SPECIFIC GRAVITY.....	0.644		0.687			0.688		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1921 8981	INDEX SAMPLE	1922 13352	INDEX SAMPLE	1923 6162
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KINGMAN			KINGMAN		KINGMAN	
FIELD.....	NEER CREEK			SPIVEY-GRABS		SPIVEY-GRABS	
WELL NAME.....	GREENLEAF NO. 1			HENNING NO. 1		TJADEN A NO. 1	
LOCATION.....	SEC. 13, T27S, R7W			SEC. 19, T28S, R7W		SEC. 13, T30S, R8W	
OWNER.....	HESSMAN-RINEHART OIL CO.			MACY OIL CO.		NATIONAL COOP. REFINERY ASSN	
COMPLETED.....	12/15/61			06/01/72		10/28/54	
SAMPLED.....	05/27/63			08/10/72		10/11/56	
FORMATION.....	PENN-TORONTO			MISS---		PENN-MORROW U	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	NOT GIVEN			4076		4187	
WELLHEAD PRESSURE, PSIG.....	1117			1305		1400	
OPEN FLOW, MCFD.....	5000			4536		315	
COMPONENT, MOLE PCT							
METHANE.....	64.2			85.5		75.5	
ETHANE.....	3.5			5.8		7.6	
PROPANE.....	0.6			2.7		3.9	
N-BUTANE.....	0.7			0.9		1.1	
ISOBUTANE.....	0.2			0.4		0.7	
N-PENTANE.....	TRACE			0.3		0.1	
ISOPENTANE.....	0.3			0.1		0.4	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	24.8			3.0		9.6	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	0.0			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			TRACE		0.1	
HELIUM.....	1.30			0.20		0.32	
HEATING VALUE.....	829			1116		1099	
SPECIFIC GRAVITY.....	0.711			0.652		0.714	
		INDEX SAMPLE	1924 5833	INDEX SAMPLE	1925 5880	INDEX SAMPLE	1926 5881
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KINGMAN			KINGMAN		KINGMAN	
FIELD.....	SPIVEY-GRABS-BASIL			SPIVEY-GRABS-BASIL		SPIVEY-GRABS-BASIL	
WELL NAME.....	FOLKE NO. 1			NIRSCHL NO. 1		KIRBE A NO. 1	
LOCATION.....	SEC. 32, T30S, R9W			SEC. 6, T30S, R8W		SEC. 34, T29S, R9W	
OWNER.....	TIME PETROLEUM CO.			PETROLEUM, INC.		PETROLEUM, INC.	
COMPLETED.....	05/05/55			03/20/50		04/07/55	
SAMPLED.....	05/05/55			07/13/55		07/13/55	
FORMATION.....	MISS-CHAT			MISS-OSAGE		MISS-OSAGE	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	4424			4167		4167	
WELLHEAD PRESSURE, PSIG.....	1400			1445		1433	
OPEN FLOW, MCFD.....	5000			2520		1082	
COMPONENT, MOLE PCT							
METHANE.....	86.4			91.2		79.1	
ETHANE.....	5.4			0.3		6.0	
PROPANE.....	0.7			0.4		2.9	
N-BUTANE.....	0.8			0.4		0.8	
ISOBUTANE.....	0.5			0.1		0.4	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	0.1			6.6		9.8	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			TRACE		0.0	
CARBON DIOXIDE.....	0.1			TRACE		TRACE	
HELIUM.....	0.19			0.38		0.55	
HEATING VALUE.....	1117			983		1042	
SPECIFIC GRAVITY.....	0.655			0.606		0.677	
		INDEX SAMPLE	1927 5912	INDEX SAMPLE	1928 5916	INDEX SAMPLE	1929 5928
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KINGMAN			KINGMAN		KINGMAN	
FIELD.....	SPIVEY-GRABS-BASIL			SPIVEY-GRABS-BASIL		SPIVEY-GRABS-BASIL	
WELL NAME.....	HOLCOMB NO. 1			SWINGLE NO. 2-1		KEIMIG NO. 1	
LOCATION.....	SEC. 26, T30S, R9W			SEC. 36, T30S, R9W		SEC. 34, T30S, R9W	
OWNER.....	PICKRELL DRILLING CO.			PICKRELL DRILLING CO.		PICKRELL DRILLING CO.	
COMPLETED.....	04/21/55			01/26/55		03/07/55	
SAMPLED.....	08/16/55			08/16/55		08/16/55	
FORMATION.....	MISS-OSAGE			MISS-OSAGE		MISS-OSAGE	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	4344			4307		4364	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	1700			1450		3040	
COMPONENT, MOLE PCT							
METHANE.....	87.8			88.7		89.9	
ETHANE.....	5.1			4.8		4.6	
PROPANE.....	2.3			2.1		2.0	
N-BUTANE.....	0.8			0.9		0.5	
ISOBUTANE.....	0.3			0.4		0.6	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.2		TRACE	
NITROGEN.....	3.3			2.3		2.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.1		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.18			0.13		0.13	
HEATING VALUE.....	1084			1111		1085	
SPECIFIC GRAVITY.....	0.636			0.642		0.625	
		INDEX SAMPLE	1930 5967	INDEX SAMPLE	1931 6531	INDEX SAMPLE	1932 9071
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KINGMAN			KINGMAN		KINGMAN	
FIELD.....	SPIVEY-GRABS-BASIL			SPIVEY-GRABS-BASIL		SPIVEY-GRABS-BASIL	
WELL NAME.....	L. M. WELLS, UNIT NO. 1			POMEROY UNIT NO. 1		EARL JOHNSON NO. 1	
LOCATION.....	SEC. 4, T30S, R8W			SEC. 5, T30S, R8W		SEC. 18, T30S, R7W	
OWNER.....	MAGNOLI PETROLEUM CO.			PAN AMERICAN PETROLEUM CORP.		AMERADA PETROLEUM CORP.	
COMPLETED.....	05/11/55			01/12/58		02/02/55	
SAMPLED.....	11/07/55			03/19/58		08/23/63	
FORMATION.....	MISS-CHAT			MISS-OSAGE		MISS-OSAGE	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	4172			4212		4183	
WELLHEAD PRESSURE, PSIG.....	1300			1300		280	
OPEN FLOW, MCFD.....	1640			4300		108	
COMPONENT, MOLE PCT							
METHANE.....	88.7			88.2		73.5	
ETHANE.....	4.7			5.2		7.8	
PROPANE.....	2.2			2.1		3.6	
N-BUTANE.....	0.8			0.7		1.1	
ISOBUTANE.....	0.3			0.3		0.6	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.4			0.3		0.4	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	2.0			2.2		12.1	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.14			0.20		0.30	
HEATING VALUE.....	1117			1114		1070	
SPECIFIC GRAVITY.....	0.643			0.644		0.720	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1933 11239			INDEX SAMPLE	1934 11469			INDEX SAMPLE	1935 15061
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	KINGMAN			KINGMAN				KINGMAN			
FIELD.....	SPIVEY-GRABS-BASIL			SPIVEY-GRABS-BASIL				WILDCAT			
WELL NAME.....	GETZ NO. 1			BIRKENBAUGH NO. 1				WILDED-ARNOLD NO. 1			
LOCATION.....	SEC. 17, T30S, R9W			SEC. 16, T29S, R7W				SEC. 35, T27S, R8W			
OWNER.....	SIERRA PETROLEUM CO., INC.			BARBARA OIL CO.				PUBLISHERS PETROLEUM			
COMPLETED.....	02/27/66			02/27/68				07/-/77			
SAMPLED.....	12/03/67			05/04/68				07/-/77			
FORMATION.....	MISS--			MISS-OSAGE				MISS--			
GEOLOGIC PROVINCE CODE.....	375			375				375			
DEPTH, FEET.....	4304			4156				3971			
WELLHEAD PRESSURE, PSIG.....	1373			1345				NOT GIVEN			
OPEN FLOW, MCFD.....	1593			4200				85			
COMPONENT, MOLE PCT											
METHANE.....	83.3			87.1				68.6			
ETHANE.....	6.2			5.2				6.2			
PROPANE.....	3.1			2.6				3.3			
N-BUTANE.....	1.1			0.9				0.9			
ISOBUTANE.....	0.3			0.5				0.5			
N-PENTANE.....	0.2			0.1				0.3			
ISOPENTANE.....	0.3			0.3				0.3			
CYCLOPENTANE.....	0.1			0.1				0.2			
HEXANES PLUS.....	0.2			0.2				0.3			
NITROGEN.....	4.8			2.7				18.7			
OXYGEN.....	0.0			0.0				0.1			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.1				0.0			
HELIUM.....	0.25			0.18				0.77			
HEATING VALUE.....	1119			1121				987			
SPECIFIC GRAVITY.....	0.673			0.653				0.738			

		INDEX SAMPLE	1936 16389			INDEX SAMPLE	1937 10299			INDEX SAMPLE	1938 10120
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	KINGMAN			KINGMAN				KIOWA			
FIELD.....	WILDCAT			WILLOWDALE				ALFORD			
WELL NAME.....	FUNK-BERGH NO. 1			CONRADY NO. 1				TAYES NO. 1			
LOCATION.....	SEC. 6, T29S, R9W			SEC. 11, T29S, R9W				SEC. 20, T30S, R18W			
OWNER.....	RAYMOND OIL CO., INC.			BACHUS OIL CO.				ATLWARD DRILLING CO.			
COMPLETED.....	08/21/81			11/09/65				07/22/65			
SAMPLED.....	11/16/81			11/29/65				08/02/65			
FORMATION.....	PERM-INDIAN CAVE			PERM-INDIAN CAVE				MISS--			
GEOLOGIC PROVINCE CODE.....	375			375				360			
DEPTH, FEET.....	2358			2396				4967			
WELLHEAD PRESSURE, PSIG.....	890			890				1467			
OPEN FLOW, MCFD.....	2500			8250				4150			
COMPONENT, MOLE PCT											
METHANE.....	78.4			84.2				93.0			
ETHANE.....	5.4			3.5				3.0			
PROPANE.....	1.7			1.4				0.9			
N-BUTANE.....	0.5			0.4				0.3			
ISOBUTANE.....	0.2			0.2				0.2			
N-PENTANE.....	0.2			TRACE				0.1			
ISOPENTANE.....	0.1			0.3				0.1			
CYCLOPENTANE.....	0.1			TRACE				0.1			
HEXANES PLUS.....	0.1			0.1				0.2			
NITROGEN.....	14.9			9.4				1.8			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.0			0.1				0.1			
HELIUM.....	0.48			0.37				0.13			
HEATING VALUE.....	948			990				1059			
SPECIFIC GRAVITY.....	0.671			0.641				0.604			

		INDEX SAMPLE	1939 10732			INDEX SAMPLE	1940 10766			INDEX SAMPLE	1941 11556
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	KIOWA			KIOWA				KIOWA			
FIELD.....	ALFORD			ALFORD				ALFORD			
WELL NAME.....	PARKIN NO. 2			SMITH E. NO. 1				ROBBINS NO. 1-34			
LOCATION.....	SEC. 3, T30S, R18W			SEC. 3, T30S, R19W				SEC. 34, T30S, R18W			
OWNER.....	K & E DRILLING, INC.			ANADARKO PRODUCTION CO.				GRAHAM-MICHAELIS DRILLING CO			
COMPLETED.....	09/26/66			09/10/66				07/09/66			
SAMPLED.....	09/26/66			11/01/66				06/27/68			
FORMATION.....	MISS--			MISS--				MISS--NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	4893			5055				5032			
WELLHEAD PRESSURE, PSIG.....	1459			1465				1507			
OPEN FLOW, MCFD.....	18200			7150				3010			
COMPONENT, MOLE PCT											
METHANE.....	90.8			85.1				92.9			
ETHANE.....	3.1			3.5				3.0			
PROPANE.....	1.0			1.1				0.9			
N-BUTANE.....	0.3			0.5				0.4			
ISOBUTANE.....	0.2			TRACE				TRACE			
N-PENTANE.....	TRACE			0.1				0.2			
ISOPENTANE.....	0.2			0.2				0.1			
CYCLOPENTANE.....	TRACE			0.1				0.1			
HEXANES PLUS.....	0.1			0.1				0.2			
NITROGEN.....	3.4			8.7				2.0			
OXYGEN.....	0.3			0.0				0.1			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.4			0.1				0.1			
HELIUM.....	0.12			0.39				0.12			
HEATING VALUE.....	1012			1037				1059			
SPECIFIC GRAVITY.....	0.610			0.635				0.607			

		INDEX SAMPLE	1942 14385			INDEX SAMPLE	1943 14386			INDEX SAMPLE	1944 14389
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	KIOWA			KIOWA				KIOWA			
FIELD.....	ALFORD			ALFORD				ALFORD			
WELL NAME.....	UNRUH 0-1			KOCHN NO. 1				PARKIN NO. 1			
LOCATION.....	SEC. 36, T30S, R18W			SEC. 27, T30S, R18W				SEC. 3, T30S, R19W			
OWNER.....	MAURICE L. BROWN CO.			MAURICE L. BROWN CO.				MAURICE L. BROWN CO.			
COMPLETED.....	10/20/75			-/-/700				06/20/74			
SAMPLED.....	10/20/75			06/12/75				06/13/75			
FORMATION.....	MISS--			MISS--				MISS--			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	4948			5056				5050			
WELLHEAD PRESSURE, PSIG.....	1100			1200				1200			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				4500			
COMPONENT, MOLE PCT											
METHANE.....	72.2			87.0				90.4			
ETHANE.....	0.2			3.6				3.3			
PROPANE.....	0.2			1.3				1.0			
N-BUTANE.....	0.1			0.3				0.3			
ISOBUTANE.....	0.1			0.2				0.2			
N-PENTANE.....	TRACE			0.1				0.1			
ISOPENTANE.....	TRACE			0.1				0.2			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	TRACE			0.1				0.1			
NITROGEN.....	24.4			6.2				4.1			
OXYGEN.....	0.3			0.0				TRACE			
ARGON.....	0.3			TRACE				TRACE			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.5				0.1			
HELIUM.....	0.20			0.47				0.20			
HEATING VALUE.....	747			1010				1036			
SPECIFIC GRAVITY.....	0.676			0.627				0.614			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

171

INDEX 1945 SAMPLE 16107			INDEX 1946 SAMPLE 14143			INDEX 1947 SAMPLE 14146		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	ALFORD		ALLSTOTT			ALLSTOTT		
WELL NAME.....	KEENAN NO. 1		EINSEL NO. 1			WINKS NO. 1		
LOCATION.....	SEC. 20, T30S, R19W		SEC. 11, T28S, R18W			SEC. 13, T28S, R18W		
OWNER.....	J. MARK RICHARDSON		A. L. ABERCROMBIE, INC.			A. L. ABERCROMBIE, INC.		
COMPLETED.....	--/7/00		03/09/74			03/26/74		
SAMPLED.....	10/22/80		09/11/74			09/11/74		
FORMATION.....	MISS-		PENN-KANSAS CITY			MISS---		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5090		4166			4766		
WELLHEAD PRESSURE, PSIG.....	700		1290			1360		
OPEN FLOW, MCFD.....	5800		4311			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.7		79.3			92.2		
ETHANE.....	3.8		3.9			3.3		
PROPANE.....	1.0		1.9			1.1		
N-BUTANE.....	0.4		0.7			0.3		
ISOBUTANE.....	0.2		0.5			0.2		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.4			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.0			0.1		
NITROGEN.....	7.1		12.5			2.1		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.37		2.4			0.17		
HEATING VALUE.....	1095		997			1056		
SPECIFIC GRAVITY.....	0.627		0.676			0.606		
INDEX 1948 SAMPLE 6788			INDEX 1949 SAMPLE 13457			INDEX 1950 SAMPLE 13674		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	BARSTOW		BARSTOW			BARSTOW		
WELL NAME.....	WELL NO. 1		BARSTOW NO. 1			JANTZ NO. 1		
LOCATION.....	SEC. 20, T29S, R17W		SEC. 20, T29S, R17W			SEC. 28, T29S, R17W		
OWNER.....	RUPP FERGUSON OIL CO.		DAVIES & FITZGERALD			DAVIES & FITZGERALD		
COMPLETED.....	08/19/58		05/01/72			05/16/73		
SAMPLED.....	08/18/58		10/22/72			07/28/73		
FORMATION.....	MISS-		MISS---			PENN-COTTONWOOD		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4892		4861			2896		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1460			964		
OPEN FLOW, MCFD.....	NOT GIVEN		8870			14000		
COMPONENT, MOLE PCT								
METHANE.....	91.7		90.7			78.9		
ETHANE.....	3.8		3.9			2.8		
PROPANE.....	1.2		1.9			1.1		
N-BUTANE.....	0.5		0.5			0.3		
ISOBUTANE.....	0.0		0.3			0.3		
N-PENTANE.....	0.0		0.1			0.1		
ISOPENTANE.....	0.5		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.3			0.3		
NITROGEN.....	2.6		2.0			14.9		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.6		
HELIUM.....	0.20		0.18			0.53		
HEATING VALUE.....	1080		1087			920		
SPECIFIC GRAVITY.....	0.617		0.624			0.663		
INDEX 1951 SAMPLE 4434			INDEX 1952 SAMPLE 4555			INDEX 1953 SAMPLE 14011		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	BRENNAN		BRENNAN			CONKLIN ESTATE		
WELL NAME.....	C. REPP NO. 1		CULLINS NO. 1			CONKLIN NO. 1		
LOCATION.....	SEC. 29, T28S, R17W		SEC. 20, T28S, R17W			SEC. 22, T30S, R17W		
OWNER.....	STANOLIND OIL & GAS CO.		J. M. HUBER CORP.			MARSH OIL ASSOC.		
COMPLETED.....	10/01/47		08/28/48			03/23/66		
SAMPLED.....	01/21/48		09/13/48			09/08/66		
FORMATION.....	MISS-LIME		MISS-LIME			MISS---		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4841		4832			2866		
WELLHEAD PRESSURE, PSIG.....	1221		1600			945		
OPEN FLOW, MCFD.....	1488		1821			11000		
COMPONENT, MOLE PCT								
METHANE.....	82.4		78.8			77.2		
ETHANE.....	14.0		9.0			2.2		
PROPANE.....	---		---			1.0		
N-BUTANE.....	---		---			0.4		
ISOBUTANE.....	---		---			0.2		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			TRACE		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	2.6		10.4			18.3		
OXYGEN.....	0.4		1.5			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.3		0.1			TRACE		
HELIUM.....	0.31		0.16			0.59		
HEATING VALUE.....	1085		960			874		
SPECIFIC GRAVITY.....	0.638		0.650			0.660		
INDEX 1954 SAMPLE 14144			INDEX 1955 SAMPLE 7840			INDEX 1956 SAMPLE 10713		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	EINSEL		GLICK			GLICK		
WELL NAME.....	SAMPLE NO. 1		E. D. ROBBINS N NO. 1			BOOTH UNIT NO. 1		
LOCATION.....	SEC. 21, T28S, R18W		SEC. 21, T28S, R18W			SEC. 22, T30S, R17W		
OWNER.....	A. L. ABERCROMBIE, INC.		GULF OIL CORP.			PETROLEUM, INC.		
COMPLETED.....	02/23/74		08/27/60			03/23/66		
SAMPLED.....	02/23/74		02/22/61			09/08/66		
FORMATION.....	MISS-		MISS---			MISS---		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4776		4632			4863		
WELLHEAD PRESSURE, PSIG.....	1392		1496			1493		
OPEN FLOW, MCFD.....	4189		14930			13094		
COMPONENT, MOLE PCT								
METHANE.....	92.1		90.8			91.2		
ETHANE.....	3.2		3.7			3.6		
PROPANE.....	1.2		1.2			1.5		
N-BUTANE.....	0.3		0.3			0.4		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.2		
HEXANES PLUS.....	0.1		0.1			0.3		
NITROGEN.....	2.2		1.8			2.0		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		1.4			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.19		0.20			0.18		
HEATING VALUE.....	1069		1056			1087		
SPECIFIC GRAVITY.....	0.609		0.601			0.620		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1957 10779	INDEX SAMPLE	1958 13837	INDEX SAMPLE	1959 16309
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KIOWA			KIOWA		KIOWA	
FIELD.....	GLICK			GREENSBURG		GREENSBURG E	
WELL NAME.....	KANE NO. 2			MILLER NO. 1		FATZER NO. 1	
LOCATION.....	SEC. 17, T30S, R17W			SEC. 5, T27S, R18W		SEC. 22, T27S, R17W	
OWNER.....	PETROLEUM, INC.			BARNETT OIL CO.		STELBAR OIL CORP., INC.	
COMPLETED.....	10/27/66			10/31/63		12/11/80	
SAMPLED.....	11/19/66			12/10/73		08/-/81	
FORMATION.....	MISS--			MISS--		MISS-KINDERHOOK	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4894			4698		4679	
WELLHEAD PRESSURE, PSIG.....	1472			1572		1381	
OPEN FLOW, MCFD.....	39000			10087		5400	
COMPONENT, MOLE PCT							
METHANE.....	91.2	-----		89.0	-----	80.1	-----
ETHANE.....	3.6	-----		3.2	-----	3.2	-----
PROpane.....	1.9	-----		1.5	-----	1.4	-----
N-BUTANE.....	0.5	-----		0.1	-----	0.5	-----
ISOBUTANE.....	0.2	-----		0.5	-----	0.3	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.3	-----
NITROGEN.....	2.2	-----		4.8	-----	12.5	-----
OXYGEN.....	0.0	-----		0.7	-----	0.5	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.0	-----	0.73	-----
HELIUM.....	0.18	-----		0.18	-----	0.54	-----
HEATING VALUE.....	1075	-----		1022	-----	967	-----
SPECIFIC GRAVITY.....	0.620	-----		0.620	-----	0.667	-----
		INDEX SAMPLE	1960 14145	INDEX SAMPLE	1961 5992	INDEX SAMPLE	1962 13627
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KIOWA			KIOWA		KIOWA	
FIELD.....	HARDY			HAVILAND NE		MULLINVILLE	
WELL NAME.....	BERTRAM NO. 1			BERGER NO. 1		SHERER E NO. 3	
LOCATION.....	SEC. 14, T28S, R18W			SEC. 17, T28S, R16W		SEC. 12, T28S, R20W	
OWNER.....	A. L. ABERCROMBIE, INC.			MURFIN DRILLING CO.		PETROLEUM, INC.	
COMPLETED.....	06/07/73			07/02/55		05/10/73	
SAMPLED.....	09/11/74			12/27/55		06/12/73	
FORMATION.....	MISS--			MISS-KINDERHOOK		MISS--	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4774			4761		4868	
WELLHEAD PRESSURE, PSIG.....	1325			1170		1180	
OPEN FLOW, MCFD.....	7510			411		3400	
COMPONENT, MOLE PCT							
METHANE.....	92.5	-----		91.3	-----	49.7	-----
ETHANE.....	3.2	-----		3.7	-----	3.3	-----
PROpane.....	1.2	-----		1.2	-----	1.1	-----
N-BUTANE.....	0.3	-----		0.9	-----	0.2	-----
ISOBUTANE.....	0.3	-----		0.0	-----	0.3	-----
N-PENTANE.....	0.1	-----		0.2	-----	TRACE	-----
ISOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	TRACE	-----
NITROGEN.....	1.9	-----		2.0	-----	42.3	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.2	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.1	-----	TRACE	-----
HELIUM.....	0.17	-----		0.22	-----	2.77	-----
HEATING VALUE.....	1059	-----		1072	-----	612	-----
SPECIFIC GRAVITY.....	0.604	-----		0.615	-----	0.756	-----
		INDEX SAMPLE	1963 5864	INDEX SAMPLE	1964 6617	INDEX SAMPLE	1965 17749
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KIOWA			KIOWA		KIOWA	
FIELD.....	NICHOLS			NICHOLS		NICHOLS "20"	
WELL NAME.....	NICHOLS NO. 1			BROWN NO. 1		HARPER E NO. 1	
LOCATION.....	SEC. 20, T29S, R18W			SEC. 32, T29S, R18W		SEC. 20, T29S, R18W	
OWNER.....	TXO CORP.			FALCON SEABOARD DRILLING CO.		TXO PRODUCTION CO.	
COMPLETED.....	02/27/55			08/06/58		03/18/85	
SAMPLED.....	06/15/55			05/30/58		07/09/85	
FORMATION.....	MISS--			MISS-OSAGE		PENN-LANSING	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4997			4911		4360	
WELLHEAD PRESSURE, PSIG.....	1400			250		1050	
OPEN FLOW, MCFD.....	7300			NOT GIVEN		1500	
COMPONENT, MOLE PCT							
METHANE.....	94.8	-----		92.4	-----	71.9	-----
ETHANE.....	2.9	-----		3.0	-----	2.6	-----
PROpane.....	0.4	-----		0.4	-----	0.3	-----
N-BUTANE.....	0.1	-----		0.4	-----	0.9	-----
ISOBUTANE.....	TRACE	-----		0.3	-----	0.6	-----
N-PENTANE.....	10.1	-----		0.0	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.3	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	2.3	-----		1.7	-----	19.1	-----
OXYGEN.....	TRACE	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.2	-----	0.2	-----
HELIUM.....	0.14	-----		0.10	-----	0.38	-----
HEATING VALUE.....	1008	-----		1072	-----	947	-----
SPECIFIC GRAVITY.....	0.578	-----		0.612	-----	0.718	-----
		INDEX SAMPLE	1966 6706	INDEX SAMPLE	1967 14625	INDEX SAMPLE	1968 14740
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KIOWA			KIOWA		KIOWA	
FIELD.....	NOT GIVEN			PLEASANT VALLEY		PLEASANT VALLEY	
WELL NAME.....	BERCHERT NO. 1			DURKEE NO. 1		PALMER-MILLER NO. 1	
LOCATION.....	SEC. 13, T28S, R19W			SEC. 31, T28S, R20W		SEC. 31, T28S, R20W	
OWNER.....	PETROLEUM, INC.			HALLIBURTON OIL PRODUCING CO		DONALD C. SLAWSON	
COMPLETED.....	10/19/58			07/01/75		04/18/75	
SAMPLED.....	07/01/58			03/24/76		08/27/76	
FORMATION.....	MISS-CHERT			MISS-NOT GIVEN		MISS--	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4839			5064		5021	
WELLHEAD PRESSURE, PSIG.....	1365			1400		1410	
OPEN FLOW, MCFD.....	3604			8000		44780	
COMPONENT, MOLE PCT							
METHANE.....	91.7	-----		84.7	-----	84.2	-----
ETHANE.....	3.3	-----		4.9	-----	4.9	-----
PROpane.....	0.9	-----		1.8	-----	1.8	-----
N-BUTANE.....	0.4	-----		0.5	-----	0.6	-----
ISOBUTANE.....	0.2	-----		0.4	-----	0.3	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.1	-----		TRACE	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.1	-----
NITROGEN.....	2.6	-----		6.8	-----	7.1	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.20	-----		0.33	-----	0.34	-----
HEATING VALUE.....	1064	-----		1068	-----	1040	-----
SPECIFIC GRAVITY.....	0.610	-----		0.648	-----	0.648	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

173

INDEX 1969 SAMPLE 15185			INDEX 1970 SAMPLE 7932			INDEX 1971 SAMPLE 13258		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	PLEASANT VALLEY E		QUAKER			QUAKER		
WELL NAME.....	BRENSING NO. 1		DAVIS NO. 1			KERR NO. 1		
LOCATION.....	SEC. 6, T28S, R20W		NOT GIVEN			SEC. 10, T27S, R19W		
OWNER.....	KRM PETROLEUM CORP.		WESTERN PETROLEUM, INC.			PETROLEUM, INC.		
COMPLETED.....	02/29/77		--/--/00			11/11/71		
SAMPLED.....	12/29/77		04/20/61			06/07/72		
FORMATION.....	MISS-		MISS-			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4959		4792			4242		
WELLHEAD PRESSURE, PSIG.....	1250		NOT GIVEN			1450		
OPEN FLOW, MCFD.....	65000		1630			1020		
COMPONENT, MOLE PCT								
METHANE.....	83.6		90.3			68.1		
ETHANE.....	4.9		3.5			2.9		
PROPANE.....	1.8		0.9			2.0		
N-BUTANE.....	0.6		0.3			0.7		
ISOBUTANE.....	0.3		0.1			0.5		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.0		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	7.7		3.8			24.7		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.40		0.10			0.45		
HEATING VALUE.....	1039		1038			856		
SPECIFIC GRAVITY.....	0.656		0.614			0.720		
INDEX 1972 SAMPLE 13259			INDEX 1973 SAMPLE 7998			INDEX 1974 SAMPLE 10729		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	QUAKER		SCHWARM			THACH		
WELL NAME.....	KERR NO. 1		SCHWARM NO. 1			SWISHER NO. 1-21		
LOCATION.....	SEC. 10, T27S, R19W		SEC. 32, T29S, R17W			SEC. 21, T29S, R19W		
OWNER.....	PETROLEUM, INC.		KATSER-FRANCIS OIL CO.			GRAHAM-MICHAELIS DRILLING CO		
COMPLETED.....	08/01/70		--/--/00			09/25/66		
SAMPLED.....	06/08/72		05/25/61			08/15/66		
FORMATION.....	MISS-		MISS-			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4790		NOT GIVEN			5084		
WELLHEAD PRESSURE, PSIG.....	1224		NOT GIVEN			1327		
OPEN FLOW, MCFD.....	1390		NOT GIVEN			10170		
COMPONENT, MOLE PCT								
METHANE.....	90.6		90.9			80.1		
ETHANE.....	1.2		3.9			3.8		
PROPANE.....	1.1		0.4			1.5		
N-BUTANE.....	0.3		0.5			0.4		
ISOBUTANE.....	0.3		0.3			0.1		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	3.8		2.1			12.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.2		
HELIUM.....	0.27		0.00			0.60		
HEATING VALUE.....	1041		1077			953		
SPECIFIC GRAVITY.....	0.614		0.620			0.660		
INDEX 1975 SAMPLE 12169			INDEX 1976 SAMPLE 13749			INDEX 1977 SAMPLE 9205		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	THACH		THACH			URSULA NE		
WELL NAME.....	KRUSE NO. 1		NELSON NO. 1			KRUSE NO. 1		
LOCATION.....	SEC. 5, T29S, R19W		SEC. 32, T28S, R19W			SEC. 5, T29S, R17W		
OWNER.....	RAYMOND OIL CO., INC.		ALPINE DRILLING CO.			JAMES F. SMITH		
COMPLETED.....	02/06/69		08/01/73			12/18/63		
SAMPLED.....	01/03/70		10/09/73			12/18/63		
FORMATION.....	MISS-		MISS-WARSAN			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4984		4986			4900		
WELLHEAD PRESSURE, PSIG.....	1380		1400			1380		
OPEN FLOW, MCFD.....	4070		1775			2000		
COMPONENT, MOLE PCT								
METHANE.....	70.3		47.3			90.0		
ETHANE.....	3.8		4.4			3.6		
PROPANE.....	1.0		0.8			0.1		
N-BUTANE.....	0.3		0.3			0.1		
ISOBUTANE.....	0.2		0.3			TRACE		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.2		
HEXANES PLUS.....	0.1		0.1			0.3		
NITROGEN.....	22.7		43.9			3.3		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.1		0.2			TRACE		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.1		
HELIUM.....	1.31		2.27			0.40		
HEATING VALUE.....	1037		1037			1037		
SPECIFIC GRAVITY.....	0.686		0.773			0.623		
INDEX 1978 SAMPLE 9224			INDEX 1979 SAMPLE 9293			INDEX 1980 SAMPLE 14997		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KIOWA		KIOWA			KIOWA		
FIELD.....	URSULA NE		URSULA NE			VOD		
WELL NAME.....	WEDEL NO. 1		WEDEL NO. 1			LONG NO. 1		
LOCATION.....	SEC. 1, T29S, R18W		SEC. 1, T29S, R18W			SEC. 2, T27S, R17W		
OWNER.....	APACHE CORP.		APACHE CORP.			IMPERIAL OIL CO.		
COMPLETED.....	10/17/63		10/01/63			10/08/76		
SAMPLED.....	04/09/64		04/09/64			05/12/77		
FORMATION.....	MISS-CHERT		MISS-			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4875		4863			4648		
WELLHEAD PRESSURE, PSIG.....	961		800			1350		
OPEN FLOW, MCFD.....	2420		NOT GIVEN			4094		
COMPONENT, MOLE PCT								
METHANE.....	90.2		94.6			84.6		
ETHANE.....	3.8		TRACE			5.2		
PROPANE.....	1.1		0.1			2.7		
N-BUTANE.....	0.3		0.1			0.6		
ISOBUTANE.....	0.2		TRACE			0.4		
N-PENTANE.....	0.2		TRACE			0.2		
ISOPENTANE.....	0.1		TRACE			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		TRACE			0.1		
NITROGEN.....	3.0		4.7			5.3		
OXYGEN.....	0.0		TRACE			0.3		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.20		0.35			0.36		
HEATING VALUE.....	1060		961			1080		
SPECIFIC GRAVITY.....	0.622		0.57			0.657		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1981 14998	INDEX SAMPLE	1982 16675	INDEX SAMPLE	1983 15297
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KIOWA			KIOWA		KIOWA	
FIELD.....	VOO			VOO		WELLSFORD	
WELL NAME.....	DAVIS NO. 1			MATTHEWS NO. 2		GRIMM NO. 1	
LOCATION.....	SEC. 18, T27S, R16W			SEC. 7, T27S, R16W		SEC. 2, T28S, R16W	
OWNER.....	IMPERIAL OIL CO.			PEREN CORP.		IMPERIAL OIL CO.	
COMPLETED.....	10/22/76			12/7/81		07/18/77	
SAMPLED.....	05/12/77			09/29/82		04/7/78	
FORMATION.....	PENN-CHEROKEE			PENN-CHEROKEE		PENN-CHEROKEE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4593			4566		4635	
WELLHEAD PRESSURE, PSIG.....	1370			1360		1370	
OPEN FLOW, MCFD.....	3624			4750		4550	
COMPONENT, MOLE PCT.....							
METHANE.....	87.9			86.9		87.0	
ETHANE.....	3.7			3.6		3.3	
PROPANE.....	1.7			1.2		2.0	
N-BUTANE.....	0.5			0.5		0.5	
ISOBUTANE.....	0.2			0.3		0.3	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	0.5			0.6		0.8	
OXYGEN.....	0.3			0.2		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.1		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.1	
HELIUM.....	0.37			0.42		0.36	
HEATING VALUE.....	1056			1038		1055	
SPECIFIC GRAVITY.....	0.634			0.635		0.635	
		INDEX SAMPLE	1984 6206	INDEX SAMPLE	1985 17082	INDEX SAMPLE	1986 3193
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	KIOWA			KIOWA		LABETTE	
FIELD.....	WILDCAT			WILDCAT		CHERRYVALE S	
WELL NAME.....	STEWART NO. 1			NEER NO. 1		JOHN WILMOTH NO. 1	
LOCATION.....	SEC. 35, T27S, R18W			SEC. 8, T29S, R20W		SEC. 12, T34S, R18E	
OWNER.....	ANSCHUTZ DRILLING CO., INC.			MIDCO EXPLORATION, INC.		VEEDER SUPPLY & DEV. CO.	
COMPLETED.....	10/12/56			10/04/83		03/19/41	
SAMPLED.....	10/15/56			10/03/83		06/25/42	
FORMATION.....	MISS-KINDERHOOK			MISS-		PENN-BARTLESVILLE	
GEOLOGIC PROVINCE CODE.....	360			360		365	
DEPTH, FEET.....	4730			5092		558	
WELLHEAD PRESSURE, PSIG.....	1172			NOT GIVEN		220	
OPEN FLOW, MCFD.....	2738			4119		500	
COMPONENT, MOLE PCT.....							
METHANE.....	92.4			77.8		71.5	
ETHANE.....	3.2			5.0		23.9	
PROPANE.....	0.6			2.5		---	
N-BUTANE.....	0.5			0.7		---	
ISOBUTANE.....	TRACE			0.4		---	
N-PENTANE.....	0.0			0.1		---	
ISOPENTANE.....	0.5			0.2		---	
CYCLOPENTANE.....	0.0			TRACE		---	
HEXANES PLUS.....	0.0			0.1		---	
NITROGEN.....	2.3			12.3		3.8	
OXYGEN.....	0.0			0.1		0.3	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.1			TRACE		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.2			0.1		0.5	
HELIUM.....	0.19			0.57		0.13	
HEATING VALUE.....	1047			998		1153	
SPECIFIC GRAVITY.....	0.604			0.678		0.695	
		INDEX SAMPLE	1987 3195	INDEX SAMPLE	1988 3206	INDEX SAMPLE	1989 3186
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	LABETTE			LABETTE		LEAVENWORTH	
FIELD.....	CHERRYVALE S			CHERRYVALE S		LINWOOD	
WELL NAME.....	BROWN NO. 1			JOHN WILMOTH NO. 1		SMITH NO. 1	
LOCATION.....	SEC. 13, T34S, R18E			SEC. 12, T34S, R18E		SEC. 14, T12S, R21E	
OWNER.....	VEEDER SUPPLY & DEV. CO.			VEEDER SUPPLY & DEV. CO.		HARRY J. SMITH	
COMPLETED.....	10/01/41			7/7/41		12/7/39	
SAMPLED.....	03/25/42			03/25/42		03/26/42	
FORMATION.....	PENN-SQUIRREL			PENN-SQUIRREL		PENN-SQUIRREL	
GEOLOGIC PROVINCE CODE.....	365			365		335	
DEPTH, FEET.....	370			272		575	
WELLHEAD PRESSURE, PSIG.....	150			NOT GIVEN		170	
OPEN FLOW, MCFD.....	200			70		180	
COMPONENT, MOLE PCT.....							
METHANE.....	97.8			88.8		95.0	
ETHANE.....	0.0			0.4		0.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	1.3			8.3		4.2	
OXYGEN.....	0.4			1.7		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.5			0.7		0.2	
HELIUM.....	0.07			0.13		0.29	
HEATING VALUE.....	991			907		962	
SPECIFIC GRAVITY.....	0.567			0.606		0.574	
		INDEX SAMPLE	1990 3254	INDEX SAMPLE	1991 3179	INDEX SAMPLE	1992 1741
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	LEAVENWORTH			LEAVENWORTH		MARION	
FIELD.....	MCLOUTH			ROBERTS		ANTELOPE	
WELL NAME.....	H. J. REGAN NO. 1			ROBERTS NO. 2		PROPP NO. 1	
LOCATION.....	SEC. 3, T9S, R20E			SEC. 12, T11S, R22E		SEC. 8, T19S, R4E	
OWNER.....	MCDUGHLIN DEVELOPMENT CO.			ROBERTS ESTATE		CITIES SERVICE GAS CO.	
COMPLETED.....	09/7/40			7/7/40		03/7/26	
SAMPLED.....	03/27/42			03/26/42		04/12/29	
FORMATION.....	PENN-MCLOUTH			PENN-SQUIRREL		MISS-CHAT	
GEOLOGIC PROVINCE CODE.....	335			335		375	
DEPTH, FEET.....	1412			NOT GIVEN		2360	
WELLHEAD PRESSURE, PSIG.....	370			NOT GIVEN		740	
OPEN FLOW, MCFD.....	6000			NOT GIVEN		4250	
COMPONENT, MOLE PCT.....							
METHANE.....	92.4			91.0		62.7	
ETHANE.....	1.0			0.4		23.4	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	5.5			7.7		13.0	
OXYGEN.....	0.4			0.3		0.2	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.4			0.3		0.1	
HELIUM.....	0.33			0.32		0.56	
HEATING VALUE.....	954			929		1054	
SPECIFIC GRAVITY.....	0.587			0.592		0.723	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1993 1742	INDEX SAMPLE	1994 11794	INDEX SAMPLE	1995 10956
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MARION			MARION		MARION	
FIELD.....	ANTELOPE			DURHAM E		GREVE	
WELL NAME.....	PROPP NO. 2			SCULLY-HANSON NO. 1		GREVE NO. 1	
LOCATION.....	SEC. 15, T19S, R4E			SEC. 15, T18S, R2E		SEC. 10, T19S, R2E	
OWNER.....	CITIES SERVICE GAS CO.			ROUNDS & STEWART NATURAL GAS		DIETER PRODUCTION CO.	
COMPLETED.....	08/--/26			06/29/66		--/--/00	
SAMPLED.....	04/13/29			03/20/69		05/15/67	
FORMATION.....	MISS-CHAT			MISS--		MISS--	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	2360			2533		2550	
WELLHEAD PRESSURE, PSIG.....	740			180		680	
OPEN FLOW, MCFD.....	1250			65		500	
COMPONENT, MOLE PCT							
METHANE.....	62.0			69.6		79.1	
ETHANE.....	24.4			5.9		6.3	
PROPANE.....	---			3.6		3.1	
N-BUTANE.....	---			1.3		1.2	
ISOBUTANE.....	---			0.6		0.5	
N-PENTANE.....	---			0.4		0.3	
ISOPENTANE.....	---			0.3		0.3	
CYCLOPENTANE.....	---			0.1		0.1	
HEXANES PLUS.....	---			0.2		0.2	
NITROGEN.....	12.6			16.8		8.1	
OXYGEN.....	0.3			0.0		TRACE	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			TRACE		TRACE	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.56			0.84		0.53	
HEATING VALUE.....	1065			1012		1092	
SPECIFIC GRAVITY.....	0.729			0.736		0.694	
		INDEX SAMPLE	1996 4282	INDEX SAMPLE	1997 5380	INDEX SAMPLE	1998 7543
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MARION			MARION		MARION	
FIELD.....	LEHIGH N			LEHIGH N		LOST SPRINGS	
WELL NAME.....	WARKENTIN NO. 1			WASEMILLER NO. 1		VOGEL NO. 1	
LOCATION.....	SEC. 27, T19S, R1E			SEC. 23, T19S, R1E		SEC. 10, T19, R3E	
OWNER.....	ANDERSON-PRICHARD OIL CORP.			ANDERSON-PRICHARD OIL CORP.		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	09/03/46			--/--/00		--/--/00	
SAMPLED.....	02/--/47			01/28/53		05/09/60	
FORMATION.....	MISS--			MISS--		MISS--	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	2806			2770		2440	
WELLHEAD PRESSURE, PSIG.....	820			800		800	
OPEN FLOW, MCFD.....	5771			2310		676	
COMPONENT, MOLE PCT							
METHANE.....	71.4			74.1		74.0	
ETHANE.....	18.6			2.5		6.7	
PROPANE.....	---			2.8		4.1	
N-BUTANE.....	---			1.0		2.0	
ISOBUTANE.....	---			0.3		0.8	
N-PENTANE.....	08.4			0.3		0.7	
ISOPENTANE.....	---			0.2		0.5	
CYCLOPENTANE.....	---			TRACE		0.2	
HEXANES PLUS.....	---			0.1		0.6	
NITROGEN.....	8.9			13.7		9.9	
OXYGEN.....	0.1			1.7		0.1	
ARGON.....	---			0.1		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.6			0.0		0.1	
HELIUM.....	0.44			0.38		0.60	
HEATING VALUE.....	1057			989		1160	
SPECIFIC GRAVITY.....	0.688			0.706		0.754	
		INDEX SAMPLE	1999 17197	INDEX SAMPLE	2000 3243	INDEX SAMPLE	2001 1381
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MARION			MARION		MCPHERSON	
FIELD.....	LOST SPRINGS			ROBINSON		JOHNSON	
WELL NAME.....	LOST SPRINGS			ROBINSON NO. 1		ANDERSON NO. 2	
LOCATION.....	SEC. 24, T18S, R4E			SEC. 15, T20S, R5E		SEC. 29, T18S, R2W	
OWNER.....	R. F. WHITE			FRANK DIETER, ET AL.		MERRIMAN, REEVES & SHIDEL	
COMPLETED.....	08/25/83			09/23/41		--/--/00	
SAMPLED.....	02/--/84			04/01/42		04/28/27	
FORMATION.....	PENN-SEVERY			PENN-BARTLESVILLE		MISS--	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	1200			2070		2930	
WELLHEAD PRESSURE, PSIG.....	450			700		950	
OPEN FLOW, MCFD.....	2000			935		10300	
COMPONENT, MOLE PCT							
METHANE.....	70.1			58.0		73.7	
ETHANE.....	2.8			21.7		20.1	
PROPANE.....	1.3			---		---	
N-BUTANE.....	0.3			---		---	
ISOBUTANE.....	0.2			---		---	
N-PENTANE.....	0.2			---		---	
ISOPENTANE.....	TRACE			---		---	
CYCLOPENTANE.....	TRACE			---		---	
HEXANES PLUS.....	TRACE			---		---	
NITROGEN.....	24.3			18.8		5.6	
OXYGEN.....	TRACE			0.4		0.0	
ARGON.....	0.1			---		---	
HYDROGEN.....	0.0			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.1			0.4		0.3	
HELIUM.....	0.93			0.66		0.34	
HEATING VALUE.....	847			776		1107	
SPECIFIC GRAVITY.....	0.686			0.743		0.679	
		INDEX SAMPLE	2002 1878	INDEX SAMPLE	2003 1877	INDEX SAMPLE	2004 3228
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MCPHERSON			MCPHERSON		MCPHERSON	
FIELD.....	JOHNSON			RITZ-CANTON		RITZ-CANTON	
WELL NAME.....	CE. 3, ANDERSON NO. 2			SECKER NO. 1		WEERS 1-8	
LOCATION.....	SEC. 11, T18S, R2W			SEC. 11, T15S, R2W		SEC. 14, T19S, R2W	
OWNER.....	PRAIRIE OIL & GAS CO.			MCPHERSON OIL & GAS DEV. CO.		MCPHERSON OIL & GAS DEV. CO.	
COMPLETED.....	01/01/28			07/10/29		02/20/31	
SAMPLED.....	09/24/29			09/24/29		03/28/42	
FORMATION.....	MISS-CHAT			MISS-CHAT		MISS-LIME	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	2972			2887		2889	
WELLHEAD PRESSURE, PSIG.....	665			1000		42	
OPEN FLOW, MCFD.....	3400			18000		977	
COMPONENT, MOLE PCT							
METHANE.....	74.3			72.6		65.4	
ETHANE.....	19.4			20.1		31.1	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	5.5			6.6		2.8	
OXYGEN.....	0.2			0.1		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.2		0.1	
HELIUM.....	0.38			0.40		0.24	
HEATING VALUE.....	1100			1096		1221	
SPECIFIC GRAVITY.....	0.674			0.682		0.722	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2005			INDEX 2006			INDEX 2007		
STATE	SAMPLE	3229	STATE	SAMPLE	3235	STATE	SAMPLE	4563
KANSAS			KANSAS			KANSAS		
MCPHERSON			MCPHERSON			MCPHERSON		
RITZ-CANTON			RITZ-CANTON			RITZ-CANTON		
COONS NO. 1			DECKER NO. 2			GRIFITH NO. 1		
SEC. 11, T19S, R1W			SEC. 11, T19S, R2W			SEC. 33, T19S, R1W		
OWNER: E. K. CAREY			MCPHERSON OIL & GAS DEV. CO.			DONALD T. INGELING		
COMPLETED: 10/21/40			--/--/00			05/20/48		
SAMPLED: 03/28/42			03/28/42			09/28/48		
FORMATION: MISS-LIME			MISS-LIME			MISS-CHAT		
GEOLOGIC PROVINCE CODE: 375			375			375		
DEPTH, FEET: NOT GIVEN			2895			2949		
WELLHEAD PRESSURE, PSIG: 158			158			700		
OPEN FLOW, MCFD: 804			4			300		
COMPONENT, MOLE PCT								
METHANE: 74.8			63.2			60.5		
ETHANE: 19.2			26.1			24.6		
PROpane: ---			---			---		
N-BUTANE: ---			---			---		
ISOBUTANE: ---			---			---		
N-PENTANE: ---			---			---		
ISOPENTANE: ---			---			---		
CYCLOPENTANE: ---			---			---		
HEXANES PLUS: ---			---			---		
NITROGEN: 5.3			9.6			12.5		
OXYGEN: 0.2			0.3			2.0		
ARGON: ---			---			---		
HYDROGEN: ---			---			---		
HYDROGEN SULFIDE: ---			---			---		
CARBON DIOXIDE: 0.1			0.1			0.1		
HELIUM: 0.39			0.45			0.25		
HEATING VALUE: 1102			1108			1054		
SPECIFIC GRAVITY: 0.672			0.724			0.738		
INDEX 2008			INDEX 2009			INDEX 2010		
STATE	SAMPLE	1939	STATE	SAMPLE	3219	STATE	SAMPLE	1724
KANSAS			KANSAS			KANSAS		
MCPHERSON			MCPHERSON			MCPHERSON		
VOSHALL			VOSHALL			WEDEL NO. 1		
KINNEY NO. 1			KINNEY NO. 2			SEC. 12, T20S, R 2W		
SEC. 34, T20S, R3W			SEC. 4, T21S, R3W			MCPHERSON OIL & GAS DEV. CO.		
OWNER: GTPSY OIL CO.			W. C. MCBRIDE, INC.					
COMPLETED: 12/-/29			02/-/29			02/-/29		
SAMPLED: 02/24/30			03/28/42			03/09/29		
FORMATION: MISS-LIME			MISS-LIME			MISS-CHERT		
GEOLOGIC PROVINCE CODE: 375			375			375		
DEPTH, FEET: 3072			2977			2982		
WELLHEAD PRESSURE, PSIG: 850			NOT GIVEN			900		
OPEN FLOW, MCFD: 2000			NOT GIVEN			6436		
COMPONENT, MOLE PCT								
METHANE: 76.4			65.8			62.9		
ETHANE: 17.9			29.7			25.4		
PROpane: ---			---			---		
N-BUTANE: ---			---			---		
ISOBUTANE: ---			---			---		
N-PENTANE: ---			---			---		
ISOPENTANE: ---			---			---		
CYCLOPENTANE: ---			---			---		
HEXANES PLUS: ---			---			---		
NITROGEN: 5.0			3.6			10.6		
OXYGEN: 0.2			0.3			0.3		
ARGON: ---			---			---		
HYDROGEN: ---			---			---		
HYDROGEN SULFIDE: ---			---			---		
CARBON DIOXIDE: 0.2			0.3			0.5		
HELIUM: 0.35			0.26			0.31		
HEATING VALUE: 1092			1099			1092		
SPECIFIC GRAVITY: 0.665			0.720			0.729		
INDEX 2011			INDEX 2012			INDEX 2013		
STATE	SAMPLE	4005	STATE	SAMPLE	4416	STATE	SAMPLE	4576
KANSAS			KANSAS			KANSAS		
HEADE			HEADE			HEADE		
ADAMS RANCH			ADAMS RANCH			ADAMS RANCH		
A. M. ADAMS NO. 1			ADAMS NO. 1			ADAMS A-1		
SEC. 8, T35S, R30W			SEC. 36, T34S, R30W			SEC. 24, T34S, R30W		
OWNER: STANOLIND OIL & GAS CO.			HELMERICH & PAYNE, INC.			WHITE EAGLE OIL CO.		
COMPLETED: --/--/00			07/28/47			04/26/48		
SAMPLED: 01/12/53			10/30/47			10/04/48		
FORMATION: MISS-LIME			PENN-MORROW			NOT GIVEN		
GEOLOGIC PROVINCE CODE: 360			360			360		
DEPTH, FEET: 5850			5911			5891		
WELLHEAD PRESSURE, PSIG: 1600			1250			1225		
OPEN FLOW, MCFD: 1400			2860			5200		
COMPONENT, MOLE PCT								
METHANE: 79.3			76.4			70.9		
ETHANE: 18.3			21.1			26.1		
PROpane: ---			---			---		
N-BUTANE: ---			---			---		
ISOBUTANE: ---			---			---		
N-PENTANE: ---			---			---		
ISOPENTANE: ---			---			---		
CYCLOPENTANE: ---			---			---		
HEXANES PLUS: ---			---			---		
NITROGEN: 1.4			1.9			2.1		
OXYGEN: 0.4			0.3			0.5		
ARGON: ---			---			---		
HYDROGEN: ---			---			---		
HYDROGEN SULFIDE: ---			---			---		
CARBON DIOXIDE: 0.5			0.2			0.3		
HELIUM: 0.12			0.11			0.13		
HEATING VALUE: 1131			1152			1186		
SPECIFIC GRAVITY: 0.657			0.670			0.698		
INDEX 2014			INDEX 2015			INDEX 2016		
STATE	SAMPLE	5377	STATE	SAMPLE	7550	STATE	SAMPLE	7587
KANSAS			KANSAS			KANSAS		
HEADE			HEADE			HEADE		
ADAMS RANCH			ADAMS RANCH			ADAMS RANCH		
ADAMS K NO. 1			H. G. ADAMS NO. 1-25			ADAMS E-1		
SEC. 11, T35S, R30W			SEC. 25, T34S, R30W			SEC. 10, T35S, R30W		
OWNER: COLUMBIAN FUEL CORP.			THOMAS & BREWER OIL & GAS CO			THOMAS & BREWER OIL & GAS CO		
COMPLETED: 11/18/52			11/30/59			09/09/59		
SAMPLED: 01/12/53			05/09/60			06/23/60		
FORMATION: PENN-MORROW			PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE: 360			360			360		
DEPTH, FEET: 5760			5926			5754		
WELLHEAD PRESSURE, PSIG: 1375			1650			1520		
OPEN FLOW, MCFD: 4245			31650			20500		
COMPONENT, MOLE PCT								
METHANE: 84.4			83.2			87.4		
ETHANE: 3.7			4.0			5.0		
PROpane: 3.6			1.0			3.1		
N-BUTANE: 1.1			1.1			0.9		
ISOBUTANE: 0.3			0.7			0.3		
N-PENTANE: 0.3			0.2			0.2		
ISOPENTANE: 0.1			0.4			0.2		
CYCLOPENTANE: TRACE			0.1			TRACE		
HEXANES PLUS: TRACE			0.3			0.1		
NITROGEN: 3.8			2.5			1.3		
OXYGEN: TRACE			TRACE			TRACE		
ARGON: 0.0			TRACE			0.0		
HYDROGEN: 0.0			TRACE			0.1		
HYDROGEN SULFIDE: 0.0			0.0			0.0		
CARBON DIOXIDE: 0.2			0.0			0.2		
HELIUM: 0.13			0.10			0.10		
HEATING VALUE: 1125			1185			1136		
SPECIFIC GRAVITY: 0.669			0.689			0.649		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

177

		INDEX SAMPLE	2017 12381			INDEX SAMPLE	2018 7680			INDEX SAMPLE	2019 12758
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	MEADE			COUNTY.....	MEADE			COUNTY.....	MEADE		
FIELD.....	ADAMS RANCH			FIELD.....	ANGELL			FIELD.....	ANGELL		
WELL NAME.....	SCHONLAU A NO. 1			WELL NAME.....	ANGELL NO. 2			WELL NAME.....	J. R. COTTRELL NO. 1-V		
LOCATION.....	SEC. 14, T3S, R30W			LOCATION.....	SEC. 30, T32S, R29W			LOCATION.....	SEC. 20, T32S, R29W		
OWNER.....	ANADARKO PRODUCTION CO.			OWNER.....	SINCLAIR OIL & GAS CO.			OWNER.....	CLINTON OIL CO.		
COMPLETED.....	06/13/69			COMPLETED.....	08/01/60			COMPLETED.....	02/14/71		
SAMPLED.....	08/25/70			SAMPLED.....	09/19/60			SAMPLED.....	04/14/71		
FORMATION.....	PENN-MORROW L			FORMATION.....	PENN-MORROW			FORMATION.....	PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360		
DEPTH, FEET.....	1898			DEPTH, FEET.....	5570			DEPTH, FEET.....	5628		
WELLHEAD PRESSURE, PSIG.....	1645			WELLHEAD PRESSURE, PSIG.....	1486			WELLHEAD PRESSURE, PSIG.....	1518		
OPEN FLOW, MCFD.....	1492			OPEN FLOW, MCFD.....	7000			OPEN FLOW, MCFD.....	11200		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	85.0	-----		METHANE.....	77.1	-----		METHANE.....	74.3	-----	
ETHANE.....	5.9	-----		ETHANE.....	6.4	-----		ETHANE.....	6.7	-----	
PROPANE.....	3.6	-----		PROPANE.....	4.1	-----		PROPANE.....	4.9	-----	
N-BUTANE.....	1.1	-----		N-BUTANE.....	1.1	-----		N-BUTANE.....	1.3	-----	
ISOBUTANE.....	0.5	-----		ISOBUTANE.....	0.8	-----		ISOBUTANE.....	1.0	-----	
N-PENTANE.....	0.3	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	0.3	-----	
ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.3	-----		ISOPENTANE.....	0.4	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.3	-----	
NITROGEN.....	2.7	-----		NITROGEN.....	9.3	-----		NITROGEN.....	10.3	-----	
OXYGEN.....	0.0	-----		OXYGEN.....	0.0	-----		OXYGEN.....	0.0	-----	
ARGON.....	0.0	-----		ARGON.....	TRACE	-----		ARGON.....	0.0	-----	
HYDROGEN.....	0.1	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.2	-----		CARBON DIOXIDE.....	0.2	-----	
HELIUM.....	0.12	-----		HELIUM.....	0.20	-----		HELIUM.....	0.16	-----	
HEATING VALUE.....	1150	-----		HEATING VALUE.....	1101	-----		HEATING VALUE.....	1126	-----	
SPECIFIC GRAVITY.....	0.672	-----		SPECIFIC GRAVITY.....	0.712	-----		SPECIFIC GRAVITY.....	0.738	-----	
		INDEX SAMPLE	2020 13090			INDEX SAMPLE	2021 13205			INDEX SAMPLE	2022 13479
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	MEADE			COUNTY.....	MEADE			COUNTY.....	MEADE		
FIELD.....	ANGELL			FIELD.....	ROLLINS NO. 1			FIELD.....	COLLINGWOOD NO. 1		
WELL NAME.....	ROBERTS NO. 1			WELL NAME.....	SEC. 28, T32S, R29W			WELL NAME.....	SEC. 6, T33S, R29W		
LOCATION.....	SEC. 28, T32S, R29W			LOCATION.....	LEGEN OIL CORP.			LOCATION.....	IMPERIAL OIL CO.		
OWNER.....	LEGEN OIL CORP.			OWNER.....	LEGEN OIL CORP.			OWNER.....	IMPERIAL OIL CO.		
COMPLETED.....	08/30/71			COMPLETED.....	12/27/71			COMPLETED.....	04/11/72		
SAMPLED.....	10/19/71			SAMPLED.....	05/-/72			SAMPLED.....	11/-/72		
FORMATION.....	PENN-MARMATON			FORMATION.....	PENN-MORROW			FORMATION.....	PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360		
DEPTH, FEET.....	5221			DEPTH, FEET.....	5642			DEPTH, FEET.....	5710		
WELLHEAD PRESSURE, PSIG.....	1348			WELLHEAD PRESSURE, PSIG.....	1148			WELLHEAD PRESSURE, PSIG.....	1650		
OPEN FLOW, MCFD.....	5145			OPEN FLOW, MCFD.....	4690			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	76.0	-----		METHANE.....	72.8	-----		METHANE.....	77.3	-----	
ETHANE.....	4.4	-----		ETHANE.....	4.4	-----		ETHANE.....	5.3	-----	
PROPANE.....	2.4	-----		PROPANE.....	5.1	-----		PROPANE.....	4.0	-----	
N-BUTANE.....	0.7	-----		N-BUTANE.....	1.3	-----		N-BUTANE.....	0.9	-----	
ISOBUTANE.....	0.5	-----		ISOBUTANE.....	1.1	-----		ISOBUTANE.....	0.6	-----	
N-PENTANE.....	0.1	-----		N-PENTANE.....	0.5	-----		N-PENTANE.....	0.2	-----	
ISOPENTANE.....	0.1	-----		ISOPENTANE.....	0.0	-----		ISOPENTANE.....	0.0	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	TRACE	-----	
HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.1	-----	
NITROGEN.....	13.1	-----		NITROGEN.....	11.7	-----		NITROGEN.....	7.6	-----	
OXYGEN.....	2.0	-----		OXYGEN.....	0.7	-----		OXYGEN.....	0.1	-----	
ARGON.....	0.1	-----		ARGON.....	TRACE	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	TRACE	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	TRACE	-----		CARBON DIOXIDE.....	TRACE	-----		CARBON DIOXIDE.....	0.3	-----	
HELIUM.....	0.20	-----		HELIUM.....	0.16	-----		HELIUM.....	0.21	-----	
HEATING VALUE.....	974	-----		HEATING VALUE.....	1095	-----		HEATING VALUE.....	1066	-----	
SPECIFIC GRAVITY.....	0.694	-----		SPECIFIC GRAVITY.....	0.738	-----		SPECIFIC GRAVITY.....	0.696	-----	
		INDEX SAMPLE	2023 13480			INDEX SAMPLE	2024 7035			INDEX SAMPLE	2025 15795
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	MEADE			COUNTY.....	MEADE			COUNTY.....	MEADE		
FIELD.....	ANGELL			FIELD.....	BARRAGREE			FIELD.....	BORCHERS		
WELL NAME.....	ROBERTS B. NO. 1			WELL NAME.....	FLORA BARRAGREE NO. 1			WELL NAME.....	HEINSON NO. 1-27		
LOCATION.....	SEC. 33, T32S, R29W			LOCATION.....	SEC. 25, T34S, R28W			LOCATION.....	SEC. 27, T33S, R28W		
OWNER.....	IMPERIAL OIL CO.			OWNER.....	SKELLY OIL CO.			OWNER.....	MESA PETROLEUM CO.		
COMPLETED.....	04/06/72			COMPLETED.....	05/19/59			COMPLETED.....	-/-/60		
SAMPLED.....	-/-/70			SAMPLED.....	04/09/59			SAMPLED.....	09/27/79		
FORMATION.....	PENN-MORROW			FORMATION.....	PERM-COUNCIL GROVE			FORMATION.....	MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360		
DEPTH, FEET.....	5622			DEPTH, FEET.....	3066			DEPTH, FEET.....	NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1600			WELLHEAD PRESSURE, PSIG.....	847			WELLHEAD PRESSURE, PSIG.....	1625		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	13275			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	73.7	-----		METHANE.....	80.5	-----		METHANE.....	87.8	-----	
ETHANE.....	6.3	-----		ETHANE.....	5.5	-----		ETHANE.....	4.7	-----	
PROPANE.....	2.8	-----		PROPANE.....	4.2	-----		PROPANE.....	5.4	-----	
N-BUTANE.....	1.4	-----		N-BUTANE.....	0.7	-----		N-BUTANE.....	0.7	-----	
ISOBUTANE.....	0.9	-----		ISOBUTANE.....	0.4	-----		ISOBUTANE.....	0.4	-----	
N-PENTANE.....	0.5	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	0.2	-----	
ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.5	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.4	-----		HEXANES PLUS.....	0.3	-----		HEXANES PLUS.....	0.2	-----	
NITROGEN.....	11.7	-----		NITROGEN.....	8.7	-----		NITROGEN.....	2.6	-----	
OXYGEN.....	0.2	-----		OXYGEN.....	1.0	-----		OXYGEN.....	TRACE	-----	
ARGON.....	TRACE	-----		ARGON.....	0.1	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.2	-----		CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.5	-----	
HELIUM.....	0.17	-----		HELIUM.....	0.40	-----		HELIUM.....	0.66	-----	
HEATING VALUE.....	1116	-----		HEATING VALUE.....	1041	-----		HEATING VALUE.....	1103	-----	
SPECIFIC GRAVITY.....	0.742	-----		SPECIFIC GRAVITY.....	0.678	-----		SPECIFIC GRAVITY.....	0.647	-----	
		INDEX SAMPLE	2026 7310			INDEX SAMPLE	2027 12313			INDEX SAMPLE	2028 7264
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	MEADE			COUNTY.....	MEADE			COUNTY.....	MEADE		
FIELD.....	BORCHERS N			FIELD.....	BORCHERS N			FIELD.....	BORCHERS NW		
WELL NAME.....	FLETCHER NO. 3			WELL NAME.....	LOWEN NO. 1-A			WELL NAME.....	CARL EVANS NO. 1		
LOCATION.....	SEC. 7, T33S, R28W			LOCATION.....	SEC. 1, T33S, R28W			LOCATION.....	SEC. 1, T33S, R29W		
OWNER.....	SHAMROCK OIL & GAS CORP.			OWNER.....	FERGUSON OIL CO., INC.			OWNER.....	SKELLY OIL CO.		
COMPLETED.....	12/10/59			COMPLETED.....	07/21/59			COMPLETED.....	07/13/59		
SAMPLED.....	12/10/59			SAMPLED.....	07/07/70			SAMPLED.....	10/28/59		
FORMATION.....	PENN-MARMATON			FORMATION.....	PENN-MORROW			FORMATION.....	PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360		
DEPTH, FEET.....	5079			DEPTH, FEET.....	5672			DEPTH, FEET.....	5612		
WELLHEAD PRESSURE, PSIG.....	1429			WELLHEAD PRESSURE, PSIG.....	1223			WELLHEAD PRESSURE, PSIG.....	1709		
OPEN FLOW, MCFD.....	5079			OPEN FLOW, MCFD.....	11351			OPEN FLOW, MCFD.....	10842		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	79.1	-----		METHANE.....	90.0	-----		METHANE.....	84.3	-----	
ETHANE.....	5.6	-----		ETHANE.....	4.7	-----		ETHANE.....	5.5	-----	
PROPANE.....	3.8	-----		PROPANE.....	4.2	-----		PROPANE.....	3.1	-----	
N-BUTANE.....	0.8	-----		N-BUTANE.....	0.6	-----		N-BUTANE.....	0.7	-----	
ISOBUTANE.....	0.0	-----		ISOBUTANE.....	0.4	-----		ISOBUTANE.....	0.4	-----	
N-PENTANE.....	0.0	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	0.0	-----	
ISOPENTANE.....	0.0	-----		ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.3	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	TRACE	-----	
HEXANES PLUS.....	0.0	-----		HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.1	-----	
NITROGEN.....	7.5	-----		NITROGEN.....	1.4	-----		NITROGEN.....	5.4	-----	
OXYGEN.....	TRACE	-----		OXYGEN.....	TRACE	-----		OXYGEN.....	0.0	-----	
ARGON.....	0.0	-----		ARGON.....	0.0	-----		ARGON.....	0.0	-----	
HYDROGEN.....	0.1	-----		HYDROGEN.....	0.1	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	TRACE	-----		CARBON DIOXIDE.....	TRACE	-----	
HELIUM.....	0.20	-----		HELIUM.....	0.09	-----		HELIUM.....	0.10	-----	
HEATING VALUE.....	1154	-----		HEATING VALUE.....	1115	-----		HEATING VALUE.....	1088	-----	
SPECIFIC GRAVITY.....	0.721	-----		SPECIFIC GRAVITY.....	0.630	-----		SPECIFIC GRAVITY.....	0.659	-----	

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2029 10226			INDEX SAMPLE	2030 10754			INDEX SAMPLE	2031 13483
STATE	KANSAS			KANSAS				KANSAS			
COUNTY	MEADE			MEADE				MEADE			
FIELD	BORCHERS NW			BORCHERS NW				BRUNO			
WELL NAME	BESSMER NO. 1			HALLOCK B NO. 1-36				GIBLER NO. 1			
LOCATION	SEC. 1, T33S, R29W			SEC. 36, T32S, R29W				SEC. 20, T33S, R30W			
OWNER	EDWIN G. BRADLEY			HORIZON OIL & GAS CO.				COTTON PETROLEUM CORP.			
COMPLETED	10/14/65			05/06/66				10/24/72			
SAMPLED	10/15/65			10/21/66				12/10/72			
FORMATION	PENN-MORROW			PENN-MORROW				PENN-MORROW			
GEOLOGIC PROVINCE CODE	360			360				360			
DEPTH, FEET	5564			5611				5737			
WELLHEAD PRESSURE, PSIG	1421			1675				740			
OPEN FLOW, MCFD	NOT GIVEN			28000				2000			
COMPONENT, MOLE PCT											
METHANE	78.3			79.2				86.2			
ETHANE	1.2			6.5				5.9			
PROPANE	3.0			4.1				2.8			
N-BUTANE	0.9			1.1				0.6			
ISOBUTANE	0.5			0.6				0.4			
N-PENTANE	0.1			0.3				0.1			
ISOPENTANE	0.5			0.4				0.1			
CYCLOPENTANE	0.1			0.2				TRACE			
HEXANES PLUS	0.3			0.4				0.1			
NITROGEN	9.0			6.8				3.5			
OXYGEN	0.0			0.1				TRACE			
ARGON	TRACE			0.0				TRACE			
HYDROGEN	0.4			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	1.1			0.1				0.1			
HELIUM	0.17			0.16				0.14			
HEATING VALUE	1059			1140				1099			
SPECIFIC GRAVITY	0.695			0.709				0.648			
		INDEX SAMPLE	2032 10814			INDEX SAMPLE	2033 10815			INDEX SAMPLE	2034 6116
STATE	KANSAS			KANSAS				KANSAS			
COUNTY	MEADE			MEADE				MEADE			
FIELD	CHERRY			CHERRY				CIMARRON BEND			
WELL NAME	CHERRY NO. 1			CHERRY NO. 1				ADAMS RANCH NO. 1			
LOCATION	SEC. 3, T31S, R26W			SEC. 3, T31S, R26W				SEC. 1, T35S, R29W			
OWNER	BURK ROYALTY CO.			BURK ROYALTY CO.				CARTER OIL CO.			
COMPLETED	7/-/70			7/-/70				07/09/55			
SAMPLED	12/13/66			12/13/66				07/23/56			
FORMATION	PENN-KANSAS CITY			PENN-LANSING				MISS-CHESTER			
GEOLOGIC PROVINCE CODE	360			360				360			
DEPTH, FEET	4886			4526				6070			
WELLHEAD PRESSURE, PSIG	1490			1389				NOT GIVEN			
OPEN FLOW, MCFD	2100			2950				3500			
COMPONENT, MOLE PCT											
METHANE	70.5			67.2				86.0			
ETHANE	6.3			5.0				5.4			
PROPANE	4.3			3.6				3.1			
N-BUTANE	1.3			1.1				0.9			
ISOBUTANE	0.5			0.5				0.5			
N-PENTANE	0.2			0.2				0.3			
ISOPENTANE	0.6			0.4				0.2			
CYCLOPENTANE	TRACE			0.1				0.2			
HEXANES PLUS	0.1			0.2				0.4			
NITROGEN	15.8			21.3				2.7			
OXYGEN	0.1			0.1				0.0			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	TRACE			0.1				0.2			
HELIUM	0.23			0.25				0.15			
HEATING VALUE	1039			957				1145			
SPECIFIC GRAVITY	0.738			0.747				0.669			
		INDEX SAMPLE	2035 10506			INDEX SAMPLE	2036 14572			INDEX SAMPLE	2037 14573
STATE	KANSAS			KANSAS				KANSAS			
COUNTY	MEADE			MEADE				MEADE			
FIELD	CIMARRON BEND			CIMARRON BEND				CIMARRON BEND			
WELL NAME	ADAMS RANCH NO. 1			H. G. ADAMS III NO. F-4				JESSE S. ADAMS NO. F-2			
LOCATION	SEC. 1, T35S, R29W			SEC. 4, T35S, R29W				SEC. 10, T35S, R29W			
OWNER	HUMBLE OIL & REFINING CO.			R. CLAY UNDERWOOD				R. CLAY UNDERWOOD			
COMPLETED	07/11/55			05/15/75				12/15/75			
SAMPLED	04/05/66			02/03/76				02/03/76			
FORMATION	MISS-CHESTER			MISS-CHESTER				MISS-CHESTER			
GEOLOGIC PROVINCE CODE	360			360				360			
DEPTH, FEET	6106			5874				5938			
WELLHEAD PRESSURE, PSIG	1006			150				1600			
OPEN FLOW, MCFD	592			1378				1423			
COMPONENT, MOLE PCT											
METHANE	85.5			87.8				87.8			
ETHANE	5.7			4.4				5.0			
PROPANE	3.4			2.8				2.8			
N-BUTANE	1.0			0.5				0.7			
ISOBUTANE	0.5			0.3				0.5			
N-PENTANE	0.2			0.1				0.2			
ISOPENTANE	0.4			0.1				0.2			
CYCLOPENTANE	0.1			TRACE				0.1			
HEXANES PLUS	0.2			36.1				0.2			
NITROGEN	2.7			5.4				2.3			
OXYGEN	0.0			TRACE				0.0			
ARGON	TRACE			TRACE				0.0			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	0.2			0.1				0.1			
HELIUM	0.13			0.22				0.13			
HEATING VALUE	1147			1043				1123			
SPECIFIC GRAVITY	0.671			0.632				0.650			
		INDEX SAMPLE	2038 14574			INDEX SAMPLE	2039 14742			INDEX SAMPLE	2040 14743
STATE	KANSAS			KANSAS				KANSAS			
COUNTY	MEADE			MEADE				MEADE			
FIELD	CIMARRON BEND			CIMARRON BEND				CIMARRON BEND			
WELL NAME	H. G. ADAMS III NO. F-3			ADAMS NO. 1-2				BARRAGREE NO. 1-8			
LOCATION	SEC. 9, T35S, R29W			SEC. 2, T35S, R29W				SEC. 8, T35S, R29W			
OWNER	R. CLAY UNDERWOOD			MESA PETROLEUM CO.				MESA PETROLEUM CO.			
COMPLETED	02/03/76			7/-/70				7/-/70			
SAMPLED	08/28/76			08/28/76				08/28/76			
FORMATION	MISS-CHESTER			MISS-CHESTER & PENN-TORONTO				MISS-CHESTER			
GEOLOGIC PROVINCE CODE	360			360				360			
DEPTH, FEET	5873			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG	1520			1290				1110			
OPEN FLOW, MCFD	765			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE	88.6			83.3				85.8			
ETHANE	4.8			5.3				5.1			
PROPANE	2.3			3.9				2.8			
N-BUTANE	0.5			0.8				0.6			
ISOBUTANE	0.3			0.4				0.3			
N-PENTANE	0.2			0.1				0.1			
ISOPENTANE	0.2			0.2				0.1			
CYCLOPENTANE	TRACE			0.1				0.1			
HEXANES PLUS	0.1			0.1				0.2			
NITROGEN	2.1			5.6				4.9			
OXYGEN	TRACE			0.6				0.1			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	0.2			0.1				0.1			
HELIUM	0.13			0.13				0.16			
HEATING VALUE	1088			1083				1080			
SPECIFIC GRAVITY	0.634			0.667				0.651			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

179

INDEX 2041 SAMPLE 14744			INDEX 2042 SAMPLE 15093			INDEX 2043 SAMPLE 6193		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	CIMARRON BEND		CROOKED L			FINCHAM		
WELL NAME.....	BARRAGREE NO. 1-8		CROOKED L RANCH NO. 1			MARION NO. 1		
LOCATION.....	SEC. 21, T35S, R28W		SEC. 21, T35S, R28W			SEC. 14, T35S, R27W		
OWNER.....	MESA PETROLEUM CO.		IMPERIAL OIL CO.			MONSANTO CHEMICAL CO.		
COMPLETED.....	--/--/00		05/11/77			10/26/56		
SAMPLED.....	08/28/76		09/12/77			11/30/56		
FORMATION.....	PENN-MORROW		PENN-ATOKA			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		5427			6257		
WELLHEAD PRESSURE, PSIG.....	1405		1550			1660		
OPEN FLOW, MCFD.....	NOT GIVEN		5173			30000		
COMPONENT, MOLE PCT								
METHANE.....	85.8		59.2			89.7		
ETHANE.....	5.5		5.7			4.4		
PROPANE.....	2.8		5.5			2.5		
N-BUTANE.....	0.8		2.1			0.7		
ISOBUTANE.....	0.3		0.9			0.0		
N-PENTANE.....	0.2		0.7			0.5		
ISOPENTANE.....	0.3		0.7			0.1		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.2		0.7			0.3		
NITROGEN.....	3.7		13.3			0.7		
OXYGEN.....	0.0		0.3			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.7		
HELIUM.....	0.16		0.22			0.12		
HEATING VALUE.....	1113		1169			1121		
SPECIFIC GRAVITY.....	0.658		0.797			0.641		
INDEX 2044 SAMPLE 6452			INDEX 2045 SAMPLE 7248			INDEX 2046 SAMPLE 14741		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	HOCKEY		HORACE S			HORACE S		
WELL NAME.....	NO. 1 FLAGEL A		H. G. ADAMS B NO. 1			ADAMS NO. 1-34		
LOCATION.....	SEC. 20, T31S, R29W		SEC. 6, T34S, R29W			SEC. 34, T34S, R29W		
OWNER.....	NORTHERN NATURAL GAS CO.		TELECO INC.			MESA PETROLEUM CO.		
COMPLETED.....	10/12/57		09/26/59			--/--/00		
SAMPLED.....	12/02/57		10/12/59			--/--/00		
FORMATION.....	MISS-CHESTER		PENN-TORONTO			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5545		4388			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1236		NOT GIVEN			1523		
OPEN FLOW, MCFD.....	2933		2933			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.7		77.5			83.1		
ETHANE.....	5.4		5.2			6.2		
PROPANE.....	4.2		3.5			3.9		
N-BUTANE.....	1.4		0.9			1.2		
ISOBUTANE.....	1.0		0.5			0.5		
N-PENTANE.....	0.2		0.4			0.3		
ISOPENTANE.....	0.2		0.4			0.4		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.3		
NITROGEN.....	10.5		10.1			3.8		
OXYGEN.....	0.4		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.1		
HELIUM.....	0.20		0.30			0.14		
HEATING VALUE.....	1084		1073			1160		
SPECIFIC GRAVITY.....	0.719		0.699			0.689		
INDEX 2047 SAMPLE 14745			INDEX 2048 SAMPLE 14746			INDEX 2049 SAMPLE 14246		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	HORACE S		HORACE S			JOHAN		
WELL NAME.....	ADAM NO. 1-33		ADAM NO. 1-33			JOHANNSEN-BARRY NO. 1		
LOCATION.....	SEC. 33, T34S, R29W		SEC. 33, T34S, R29W			SEC. 32, T34S, R27W		
OWNER.....	MESA PETROLEUM CO.		MESA PETROLEUM CO.			JOHNSON MIZEL OIL CO.		
COMPLETED.....	--/--/00		--/--/00			07/--/74		
SAMPLED.....	08/28/76		08/28/76			12/23/74		
FORMATION.....	MISS-CHESTER		PENN-MORROW			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5956		3896			6000		
WELLHEAD PRESSURE, PSIG.....	1365		1360			1500		
OPEN FLOW, MCFD.....	3200		2000			5000		
COMPONENT, MOLE PCT								
METHANE.....	82.8		82.8			89.6		
ETHANE.....	6.6		6.6			4.6		
PROPANE.....	4.4		4.4			2.1		
N-BUTANE.....	1.3		1.2			0.6		
ISOBUTANE.....	0.5		0.5			0.4		
N-PENTANE.....	0.4		0.3			0.1		
ISOPENTANE.....	0.4		0.1			0.1		
CYCLOPENTANE.....	0.1		0.2			TRACE		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	3.1		3.1			1.7		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.12		0.12			0.12		
HEATING VALUE.....	1181		1181			1100		
SPECIFIC GRAVITY.....	0.696		0.689			0.632		
INDEX 2050 SAMPLE 5964			INDEX 2051 SAMPLE 10329			INDEX 2052 SAMPLE 5117		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	KISMET		KISMET			MCKINNEY		
WELL NAME.....	W. LANGHOFFER NO. 1		W. LANGHOFFER NO. 1			GOODRIGHT NO. 1		
LOCATION.....	SEC. 18, T33S, R30W		SEC. 18, T33S, R30W			SEC. 3, T34S, R26W		
OWNER.....	SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.			SKELLY OIL CO.		
COMPLETED.....	08/25/55		--/--/00			05/09/51		
SAMPLED.....	11/05/55		12/20/65			10/30/51		
FORMATION.....	PENN-MORROW		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5654		NOT GIVEN			5816		
WELLHEAD PRESSURE, PSIG.....	1603		NOT GIVEN			1907		
OPEN FLOW, MCFD.....	6780		NOT GIVEN			7095		
COMPONENT, MOLE PCT								
METHANE.....	80.6		83.7			89.2		
ETHANE.....	5.2		6.6			4.7		
PROPANE.....	3.3		3.5			2.1		
N-BUTANE.....	1.6		0.9			0.1		
ISOBUTANE.....	0.8		0.4			0.1		
N-PENTANE.....	0.4		TRACE			0.2		
ISOPENTANE.....	1.4		TRACE			0.3		
CYCLOPENTANE.....	0.5		TRACE			TRACE		
HEXANES PLUS.....	1.2		TRACE			0.2		
NITROGEN.....	4.3		0.0			1.4		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.7		
HELIUM.....	0.14		0.11			0.08		
HEATING VALUE.....	1104		1126			1080		
SPECIFIC GRAVITY.....	0.740		0.670			0.624		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2053			INDEX 2054			INDEX 2055		
SAMPLE 5130			SAMPLE 6326			SAMPLE 6844		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	MCKINNEY		MCKINNEY			MCKINNEY		
WELL NAME.....	THEIS B NO. 1		MCKINNEY C NO. 1			PAINTER NO. 1		
LOCATION.....	SEC. 11, T34S, R26W		SEC. 25, T34S, R26W			SEC. 17, T34S, R26W		
OWNER.....	SKELLY OIL CO.		SKELLY OIL CO.			J. H. HUBER CORP.		
COMPLETED.....	07/23/51		01/02/57			10/23/58		
SAMPLED.....	10/30/51		05/17/57			10/23/58		
FORMATION.....	NOT GIVEN		PENN-MORROW			PENN-MORROW & MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5736		5815			5920		
WELLHEAD PRESSURE, PSIG.....	2055		1660			1734		
OPEN FLOW, MCFD.....	9783		12730			13		
COMPONENT, MOLE PCT.....								
METHANE.....	80.6		78.4			84.0		
ETHANE.....	5.6		6.6			5.9		
PROPANE.....	3.5		4.9			3.8		
N-BUTANE.....	1.0		1.7			1.0		
ISOBUTANE.....	0.5		1.2			0.9		
N-PENTANE.....	0.9		0.3			0.2		
ISOPENTANE.....	0.1		0.1			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.4		0.1			0.2		
NITROGEN.....	6.4		6.3			3.3		
OXYGEN.....	0.2		0.0			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.2			0.0		
HELIUM.....	0.13		0.18			0.10		
HEATING VALUE.....	1107		1150			1155		
SPECIFIC GRAVITY.....	0.697		0.717			0.682		
INDEX 2056			INDEX 2057			INDEX 2058		
SAMPLE 7452			SAMPLE 7481			SAMPLE 7764		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	MCKINNEY		MCKINNEY			MCKINNEY		
WELL NAME.....	C. A. ISAAC NO. 1		LIDY'S BOYD			MEERLE NO. 1		
LOCATION.....	SEC. 18, T33S, R27W		SEC. 3, T33S, R27W			SEC. 23, T34S, R27W		
OWNER.....	SKELLY OIL CO.		SHAMROCK OIL & GAS CORP.			J. H. HUBER CORP.		
COMPLETED.....	01/05/50		12/03/59			09/19/60		
SAMPLED.....	03/19/60		05/30/60			11/02/60		
FORMATION.....	PENN-MORROW		MISS-			PENN-MORROW & MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5752		5612			5966		
WELLHEAD PRESSURE, PSIG.....	1650		1585			1739		
OPEN FLOW, MCFD.....	22982		4150			7000		
COMPONENT, MOLE PCT.....								
METHANE.....	80.6		90.2			90.8		
ETHANE.....	5.8		3.0			4.7		
PROPANE.....	3.7		2.0			1.8		
N-BUTANE.....	1.1		0.6			0.5		
ISOBUTANE.....	0.8		0.5			0.5		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.4		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	6.8		0.7			0.7		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.10		0.10			0.10		
HEATING VALUE.....	1115		1128			1111		
SPECIFIC GRAVITY.....	0.694		0.638			0.627		
INDEX 2059			INDEX 2060			INDEX 2061		
SAMPLE 15308			SAMPLE 9559			SAMPLE 15469		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	MCKINNEY		MEIERDIERKS			MEIERDIERKS SE		
WELL NAME.....	ROSSON		MEIERDIERKS NO. 1			ROSS NO. 1		
LOCATION.....	SEC. 32, T33S, R27W		SEC. 27, T34S, R28W			SEC. 2, T35S, R28W		
OWNER.....	MESA PETROLEUM CO.		IMPERIAL OIL OF KANSAS, INC.			R. J. PATRICK		
COMPLETED.....	03/21/78		---/---/00			04/25/78		
SAMPLED.....	06/23/78		09/14/64			10/25/78		
FORMATION.....	MISS-CHESTER		PENN-COUNCIL GROVE			PENN-COUNCIL GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5864		3094			2933		
WELLHEAD PRESSURE, PSIG.....	2175		830			745		
OPEN FLOW, MCFD.....	2150		3120			3014		
COMPONENT, MOLE PCT.....								
METHANE.....	85.9		84.2			78.6		
ETHANE.....	6.8		2.2			5.6		
PROPANE.....	2.3		2.2			2.5		
N-BUTANE.....	0.7		0.8			0.7		
ISOBUTANE.....	0.3		0.2			0.3		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.3		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	3.6		5.8			10.9		
OXYGEN.....	0.0		TRACE			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.4		0.1			0.0		
HELIUM.....	0.19		0.31			0.43		
HEATING VALUE.....	1080		1074			1027		
SPECIFIC GRAVITY.....	0.658		0.657			0.681		
INDEX 2062			INDEX 2063			INDEX 2064		
SAMPLE 9788			SAMPLE 6975			SAMPLE 5691		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	MEYERS		MOHLER NE			NOVINGER		
WELL NAME.....	THONHOFF E NO. 1		CORDES NO. 1			NOVINGER NO. A-1		
LOCATION.....	SEC. 4, T35S, R27W		SEC. 24, T33S, R29W			SEC. 26, T33W, R30S		
OWNER.....	IMPERIAL OIL CO.		SHAMROCK OIL & GAS CORP.			COLUMBIAN FUEL CORP.		
COMPLETED.....	---/---/00		10/01/58			---/---/00		
SAMPLED.....	03/04/65		02/13/59			09/---/54		
FORMATION.....	PENN-COUNCIL GROVE		PENN-MORROW			PENN-MARMATON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	3030		5586			5270		
WELLHEAD PRESSURE, PSIG.....	825		1661			1259		
OPEN FLOW, MCFD.....	9000		43000			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	82.1		80.1			68.4		
ETHANE.....	5.6		6.4			8.0		
PROPANE.....	2.2		2.2			7.6		
N-BUTANE.....	0.6		0.9			2.5		
ISOBUTANE.....	0.3		0.6			1.2		
N-PENTANE.....	0.1		0.2			0.5		
ISOPENTANE.....	0.1		0.3			0.8		
CYCLOPENTANE.....	0.1		0.1			0.2		
HEXANES PLUS.....	0.2		0.3			0.4		
NITROGEN.....	8.0		7.0			9.9		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.35		0.35			0.10		
HEATING VALUE.....	1046		1115			1242		
SPECIFIC GRAVITY.....	0.662		0.695			0.806		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2065			INDEX 2066			INDEX 2067		
SAMPLE 11505			SAMPLE 11506			SAMPLE 6240		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	NOVINGER SW		NOVINGER SW			SANDERS		
WELL NAME.....	BAKER A NO. 1		FOX C NO. 1			A. D. SANDERS NO. 1		
LOCATION.....	SEC. 8, T34S, R30W		SEC. 17, T34S, R30W			SEC. 13, T32S, R29W		
OWNER.....	ANADARKO PRODUCTION CO.		ANADARKO PRODUCTION CO.			TEXAS CO.		
COMPLETED.....	05/04/67		11/30/67			10/25/56		
SAMPLED.....	05/17/68		05/14/68			01/21/57		
FORMATION.....	PENN-MORROW		PENN-MORROW			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5808		5802			5548		
WELLHEAD PRESSURE, PSIG.....	1617		1616			1650		
OPEN FLOW, MCFD.....	60000		43500			3208		
COMPONENT, MOLE PCT								
METHANE.....	82.2		83.7			89.9		
ETHANE.....	6.0		6.1			4.9		
PROPANE.....	3.5		3.3			2.1		
N-BUTANE.....	1.2		1.1			0.7		
ISOBUTANE.....	0.4		0.5			0.6		
N-PENTANE.....	0.3		0.3			0.1		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	5.1		3.7			1.0		
ARGON.....	0.4		0.1			0.0		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.1		0.0			TRACE		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.1		0.2			0.1		
HEATING VALUE.....	1123		0.13			0.10		
SPECIFIC GRAVITY.....	0.684		1141			1121		
			0.679			0.635		
INDEX 2068			INDEX 2069			INDEX 2070		
SAMPLE 7551			SAMPLE 10313			SAMPLE 10342		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	SINGLEY		SINGLEY			SINGLEY		
WELL NAME.....	BALLARD NO. 1		IDA K. HEINSON NO. 8			H. A. HOLMES		
LOCATION.....	SEC. 31, T33S, R29W		SEC. 28, T33S, R29W			SEC. 21, T33S, R29W		
OWNER.....	THOMAS & BREWER OIL & GAS CO		SHAMROCK OIL & GAS CORP.			GULF OIL CORP.		
COMPLETED.....	12/11/59		--/--/00			01/06/56		
SAMPLED.....	05/09/60		12/06/65			12/22/65		
FORMATION.....	PENN-MORROW		NOT GIVEN			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5841		NOT GIVEN			5729		
WELLHEAD PRESSURE, PSIG.....	16250		NOT GIVEN			491		
OPEN FLOW, MCFD.....	18250		NOT GIVEN			1419		
COMPONENT, MOLE PCT								
METHANE.....	85.6		79.6			78.9		
ETHANE.....	5.8		4.3			7.5		
PROPANE.....	3.2		4.2			4.4		
N-BUTANE.....	0.9		1.2			1.0		
ISOBUTANE.....	0.5		0.3			0.9		
N-PENTANE.....	0.1		0.3			0.3		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.3			0.2		
NITROGEN.....	3.2		6.9			6.1		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			TRACE		
CARBON DIOXIDE.....	0.2		0.2			0.0		
HELIUM.....	0.10		0.2			0.2		
HEATING VALUE.....	1119		1129			1151		
SPECIFIC GRAVITY.....	0.659		0.704			0.709		
INDEX 2071			INDEX 2072			INDEX 2073		
SAMPLE 5302			SAMPLE 6192			SAMPLE 6353		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MEADE		
FIELD.....	STEVENS		STEVENS			STEVENS		
WELL NAME.....	C. E. STEVENS NO. 1		HOLMES NO. 9			BENNKE-VAIL NO. 1		
LOCATION.....	SEC. 32, T32S, R30W		SEC. 39, T32S, R30W			SEC. 34, T32S, R30W		
OWNER.....	COLUMBIAN FUEL CORP.		COLORADO OIL & GAS CORP.			CARTER OIL CO.		
COMPLETED.....	09/13/52		09/16/56			10/10/55		
SAMPLED.....	10/30/52		11/28/56			07/02/57		
FORMATION.....	PENN-MORROW		MISS-CHESTER			PENN-MORROW U		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5570		5713			5625		
WELLHEAD PRESSURE, PSIG.....	1812		1350			650		
OPEN FLOW, MCFD.....	14250		14121			1020		
COMPONENT, MOLE PCT								
METHANE.....	83.5		83.3			86.4		
ETHANE.....	5.8		5.8			5.1		
PROPANE.....	2.9		2.9			2.2		
N-BUTANE.....	1.0		1.0			0.5		
ISOBUTANE.....	0.6		0.4			0.3		
N-PENTANE.....	0.3		0.3			0.1		
ISOPENTANE.....	0.7		0.7			0.0		
CYCLOPENTANE.....	0.2		0.0			0.1		
HEXANES PLUS.....	0.5		0.0			0.2		
NITROGEN.....	4.0		5.7			4.4		
ARGON.....	0.1		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			TRACE		
CARBON DIOXIDE.....	0.2		0.7			0.0		
HELIUM.....	0.10		0.14			0.16		
HEATING VALUE.....	1155		1080			1069		
SPECIFIC GRAVITY.....	0.690		0.668			0.645		
INDEX 2074			INDEX 2075			INDEX 2076		
SAMPLE 10311			SAMPLE 10312			SAMPLE 3198		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MEADE		MEADE			MONTGOMERY		
FIELD.....	STEVENS		STEVENS			BOLTON		
WELL NAME.....	W. V. HULBURT		WELCOWE A. ORR			PRATHER NO. 5		
LOCATION.....	SEC. 5, T33S, R30W		SEC. 33, T32S, R30W			SEC. 20, T33S, R15E		
OWNER.....	SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.			CONSOLIDATED GAS, OIL & MFG.		
COMPLETED.....	12/06/65		--/--/00			03/10/24		
SAMPLED.....	12/06/65		12/06/65			03/24/42		
FORMATION.....	NOT GIVEN		NOT GIVEN			PENN-BARTLESVILLE		
GEOLOGIC PROVINCE CODE.....	360		360			365		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			1078		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			10		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			10		
COMPONENT, MOLE PCT								
METHANE.....	83.2		85.8			52.6		
ETHANE.....	6.7		5.8			43.7		
PROPANE.....	3.8		2.8			---		
N-BUTANE.....	1.0		0.8			---		
ISOBUTANE.....	0.5		0.4			---		
N-PENTANE.....	0.2		0.1			---		
ISOPENTANE.....	0.2		0.2			---		
CYCLOPENTANE.....	0.2		0.1			---		
HEXANES PLUS.....	0.4		0.2			---		
NITROGEN.....	3.4		3.4			2.7		
ARGON.....	0.0		0.0			0.4		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.2			---		
HELIUM.....	0.10		0.15			0.5		
HEATING VALUE.....	1170		1170			0.09		
SPECIFIC GRAVITY.....	0.690		0.657			1316		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2077			INDEX 2078			INDEX 2079		
SAMPLE 3191			SAMPLE 3197			SAMPLE 2766		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MONTGOMERY		MONTGOMERY			MONTGOMERY		
FIELD.....	DEARING		INDEPENDENCE			JEFFERSON		
WELL NAME.....	BAKER NO. 2		UNIV. ATLAS PORT. CEMENT CO.			HESTER 60		
LOCATION.....	SEC. 6, T34S, R15E		SEC. 16, T32S, R15E			SEC. 15, T34S, R15E		
OWNER.....	TRINITY OIL & GAS CO.		SAGAMORE OIL & GAS CO.			GREYSOLON OIL CO.		
COMPLETED.....	07/-/91		02/05/39			--/18		
SAMPLED.....	03/24/42		03/24/42			09/13/37		
FORMATION.....	PENN-BARTLESVILLE		PENN-BARTLESVILLE			PENN-WAYSIDE		
GEOLOGIC PROVINCE CODE.....	365		365			365		
DEPTH, FEET.....	1000		1226			440		
WELLHEAD PRESSURE, PSIG.....	4		120			NOT GIVEN		
OPEN FLOW, MCFD.....	75		280			3		
COMPONENT, MOLE PCT.....								
METHANE.....	93.9		97.7			12.9		
ETHANE.....	1.4		0.0			3.1		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	2.4		0.9			82.7		
OXYGEN.....	0.3		0.4			0.7		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.9		0.8			0.6		
HELIUM.....	0.08		0.16			0.00		
HEATING VALUE.....	976		970			186		
SPECIFIC GRAVITY.....	0.591		0.567			0.921		
INDEX 2080			INDEX 2081			INDEX 2082		
SAMPLE 3192			SAMPLE 3244			SAMPLE 3261		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MONTGOMERY		MORRIS			MORRIS		
FIELD.....	JEFFERSON		WILDE			WILDE		
WELL NAME.....	SMELL NO. 4		MYERS NO. 2			WILDE NO. 1		
LOCATION.....	SEC. 5, T34S, R15E		SEC. 23, T17S, RTE			SEC. 15, T17S, RTE		
OWNER.....	CONSOLIDATED GAS, OIL & MFS.		CENTRAL WEST UTILITY			CENTRAL WEST UTILITY		
COMPLETED.....	03/27/28		12/-/37			01/-/30		
SAMPLED.....	03/24/42		04/02/42			04/02/42		
FORMATION.....	PENN-BARTLESVILLE		-SANDSTONE			LIHSTONE		
GEOLOGIC PROVINCE CODE.....	365		370			370		
DEPTH, FEET.....	1108		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	47		362			362		
OPEN FLOW, MCFD.....	15		250			730		
COMPONENT, MOLE PCT.....								
METHANE.....	91.6		72.0			72.2		
ETHANE.....	0.7		13.7			13.1		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	1.2		14.1			13.6		
OXYGEN.....	0.3		0.3			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.1		0.2			0.2		
HELIUM.....	0.08		957			966		
HEATING VALUE.....	1030		0.676			0.677		
SPECIFIC GRAVITY.....	0.600							
INDEX 2083			INDEX 2084			INDEX 2085		
SAMPLE 1799			SAMPLE 1800			SAMPLE 1872		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORRIS		MORRIS			MORRIS		
FIELD.....	WILSEY		WILSEY			WILSEY		
WELL NAME.....	MEDCALF NO. 1		MEDCALF NO. 3			HAMMER NO. 1		
LOCATION.....	SEC. 10, T16S, RTE		SEC. 15, T16S, RTE			SEC. 14, T16S, RTE		
OWNER.....	GENERAL UTILITIES CO.		GENERAL UTILITIES CO.			GENERAL UTILITIES CO.		
COMPLETED.....	06/14/29		02/18/27			02/18/27		
SAMPLED.....	06/14/29		09/23/29			09/23/29		
FORMATION.....	PENN-OSWEGO		PENN-OSWEGO			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	370		370			370		
DEPTH, FEET.....	1400		1400			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	355		355			170		
OPEN FLOW, MCFD.....	NOT GIVEN		250			500000		
COMPONENT, MOLE PCT.....								
METHANE.....	63.3		68.1			66.8		
ETHANE.....	9.5		12.1			10.6		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	25.8		18.7			21.3		
OXYGEN.....	0.2		0.2			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.4		
HELIUM.....	0.88		0.75			0.81		
HEATING VALUE.....	1111		977			867		
SPECIFIC GRAVITY.....	0.707		0.692			0.697		
INDEX 2086			INDEX 2087			INDEX 2088		
SAMPLE 17905			SAMPLE 7189			SAMPLE 7234		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	BEAUCHAMP S		BERRYMAN			BERRYMAN		
WELL NAME.....	ROBSON-HUTCH NO. 2-5		BERRYMAN B			BERRYMAN B		
LOCATION.....	SEC. 5, T31S, R41W		SEC. 21, T33S, R41W			SEC. 21, T33S, R41W		
OWNER.....	MUSTANG DRILLING & EXPL., IN		PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		
COMPLETED.....	07/14/85		--/00			04/29/59		
SAMPLED.....	11/03/85		08/07/59			10/07/59		
FORMATION.....	PENN-MORROW		PENN-MABAUNSEE			PENN-MABAUNSEE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5364		NOT GIVEN			2915		
WELLHEAD PRESSURE, PSIG.....	1180		NOT GIVEN			445		
OPEN FLOW, MCFD.....	2000		NOT GIVEN			1330		
COMPONENT, MOLE PCT.....								
METHANE.....	76.6		77.3			64.6		
ETHANE.....	3.8		5.5			5.2		
PROPANE.....	2.3		3.4			3.0		
N-BUTANE.....	1.1		1.0			0.8		
ISOBUTANE.....	0.3		0.5			0.3		
N-PENTANE.....	0.8		TRACE			0.2		
ISOPENTANE.....	0.2		0.5			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.6		0.1			0.3		
NITROGEN.....	13.0		10.9			24.4		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		TRACE			0.3		
HELIUM.....	0.88		0.60			0.60		
HEATING VALUE.....	1028		1047			903		
SPECIFIC GRAVITY.....	0.706		0.692			0.749		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

183

INDEX 2089 SAMPLE 5082			INDEX 2090 SAMPLE 5378			INDEX 2091 SAMPLE 5710		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	BOEHM		BOEHM			BOEHM		
WELL NAME.....	GREENWOOD B NO. 1		BOEHM NO. A-1			GREENWOOD NO. B-1		
LOCATION.....	SEC. 14, T33S, R42W		SEC. 11, T33S, R42W			SEC. 14, T33S, R42W		
OWNER.....	CITIES SERVICE OIL CO.		AMERICAN GAS PRODUCTION CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	05/25/51		11/06/52			05/25/51		
SAMPLED.....	06/26/51		01/20/53			10/15/54		
FORMATION.....	MISS-		PENN-TOPEKA			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4872		3158			4854		
WELLHEAD PRESSURE, PSIG.....	1030		431			1015		
OPEN FLOW, MCFD.....	3590		6600			21699		
COMPONENT, MOLE PCT								
METHANE.....	87.4	-----	60.8	-----		88.7	-----	
ETHANE.....	3.4	-----	6.0	-----		3.2	-----	
PROPANE.....	1.7	-----	4.2	-----		1.6	-----	
N-BUTANE.....	0.1	-----	1.4	-----		0.6	-----	
ISOBUTANE.....	0.0	-----	0.4	-----		0.3	-----	
N-PENTANE.....	TRACE	-----	0.4	-----		0.2	-----	
ISOPENTANE.....	0.0	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	1.4	-----	0.2	-----		0.2	-----	
NITROGEN.....	4.6	-----	25.7	-----		3.9	-----	
OXYGEN.....	0.1	-----	TRACE	-----		0.0	-----	
ARGON.....	TRACE	-----	0.1	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.7	-----	0.2	-----		0.5	-----	
HELIUM.....	0.49	-----	0.57	-----		0.48	-----	
HEATING VALUE.....	1071	-----	929	-----		1059	-----	
SPECIFIC GRAVITY.....	0.547	-----	0.777	-----		0.633	-----	
INDEX 2092 SAMPLE 5711			INDEX 2093 SAMPLE 6321			INDEX 2094 SAMPLE 15250		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	BOEHM		BOEHM			CIMARRON VALLEY		
WELL NAME.....	GREENWOOD NO. C-1		WACKER B NO. 2			GODDARD "A" NO. 1		
LOCATION.....	SEC. 10, T33S, R42W		SEC. 10, T33S, R42W			SEC. 9, T33S, R40W		
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	06/--/51		03/20/57			12/02/77		
SAMPLED.....	10/15/54		05/07/57			04/04/78		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4866		4858			5476		
WELLHEAD PRESSURE, PSIG.....	1012		1010			1258		
OPEN FLOW, MCFD.....	2504		11000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.1	-----	89.1	-----		88.0	-----	
ETHANE.....	3.3	-----	3.3	-----		3.6	-----	
PROPANE.....	1.7	-----	1.7	-----		1.8	-----	
N-BUTANE.....	0.6	-----	0.5	-----		0.6	-----	
ISOBUTANE.....	0.3	-----	0.3	-----		0.2	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.2	-----	0.1	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.2	-----	
NITROGEN.....	4.2	-----	3.4	-----		4.7	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		0.0	-----	
ARGON.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.5	-----	0.6	-----		0.2	-----	
HELIUM.....	0.53	-----	0.47	-----		0.20	-----	
HEATING VALUE.....	1054	-----	1056	-----		1061	-----	
SPECIFIC GRAVITY.....	0.633	-----	0.628	-----		0.637	-----	
INDEX 2095 SAMPLE 14774			INDEX 2096 SAMPLE 5901			INDEX 2097 SAMPLE 6046		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	ELKHART		ELKHART			ELKHART		
WELL NAME.....	DUNKLE "A" NO. 1		JONES NO. 1-11			JONES NO. 1-11		
LOCATION.....	SEC. 1, T33S, R41W		SEC. 11, T35S, R43W			SEC. 11, T35S, R43W		
OWNER.....	ANADARKO PRODUCTION CO.		PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		
COMPLETED.....	12/03/75		06/03/55			02/02/56		
SAMPLED.....	09/17/76		08/02/55			04/04/56		
FORMATION.....	PENN-WABAUNSEE		PENN-KEYES U			PENN-SHAWNEE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	3005		4558			2884		
WELLHEAD PRESSURE, PSIG.....	439		868			472		
OPEN FLOW, MCFD.....	2248		2579			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	67.1	-----	74.6	-----		67.5	-----	
ETHANE.....	5.7	-----	3.8	-----		5.9	-----	
PROPANE.....	3.2	-----	4.1	-----		3.6	-----	
N-BUTANE.....	1.0	-----	0.8	-----		1.1	-----	
ISOBUTANE.....	0.4	-----	0.3	-----		0.4	-----	
N-PENTANE.....	0.3	-----	0.3	-----		0.3	-----	
ISOPENTANE.....	0.2	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.2	-----	
NITROGEN.....	21.1	-----	15.1	-----		19.9	-----	
OXYGEN.....	0.0	-----	0.0	-----		TRACE	-----	
ARGON.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.6	-----		0.1	-----	
HELIUM.....	0.58	-----	1.00	-----		0.67	-----	
HEATING VALUE.....	947	-----	956	-----		969	-----	
SPECIFIC GRAVITY.....	0.739	-----	0.692	-----		0.740	-----	
INDEX 2098 SAMPLE 6125			INDEX 2099 SAMPLE 7790			INDEX 2100 SAMPLE 6033		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	ELKHART		ELKHART			GREENWOOD		
WELL NAME.....	KNOWERY NO. 1-8		LANDRUM NO. 1-20			KNOWERY A NO. 1		
LOCATION.....	SEC. 8, T35S, R43W		SEC. 20, T35S, R43W			SEC. 33, T32S, R42W		
OWNER.....	PANHANDLE EASTERN PIPELINE C		ANADARKO PRODUCTION CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	07/24/60		12/07/60			12/20/55		
SAMPLED.....	08/15/56		12/07/60			03/06/56		
FORMATION.....	PENN-TOPEKA		PENN-MORROW U			PENN-LANSING		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2854		4294			2932		
WELLHEAD PRESSURE, PSIG.....	414		1047			413		
OPEN FLOW, MCFD.....	1250		36964			14400		
COMPONENT, MOLE PCT								
METHANE.....	64.8	-----	77.0	-----		65.8	-----	
ETHANE.....	6.1	-----	6.8	-----		6.7	-----	
PROPANE.....	3.4	-----	4.1	-----		4.0	-----	
N-BUTANE.....	1.1	-----	0.9	-----		1.2	-----	
ISOBUTANE.....	0.5	-----	0.6	-----		0.5	-----	
N-PENTANE.....	0.3	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.3	-----	0.1	-----		0.3	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.2	-----	
NITROGEN.....	22.2	-----	9.7	-----		20.2	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.1	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.1	-----		0.3	-----	
HELIUM.....	0.65	-----	0.40	-----		0.49	-----	
HEATING VALUE.....	948	-----	1.77	-----		987	-----	
SPECIFIC GRAVITY.....	0.753	-----	0.699	-----		0.754	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2101			INDEX 2102			INDEX 2103		
SAMPLE 6038			SAMPLE 6220			SAMPLE 6889		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	GREENWOOD		GREENWOOD			GREENWOOD		
WELL NAME.....	FULLERTON NO. 1		RATCLIFF NO. 1-12			NO. 4 SEAL, 2 NORTH		
LOCATION.....	SEC. 21, T34S, R42W		SEC. 17, T34S, R42W			SEC. 6, T35S, R42W		
OWNER.....	COLORADO OIL & GAS CORP.		PANHANDLE EASTERN PIPELINE C			MOUNTAINEER COAL CO.		
COMPLETED.....	11/21/55		11/09/56			11/05/58		
SAMPLED.....	02/25/56		12/31/56			12/11/58		
FORMATION.....	PENN-TOPEKA & ELMONT		PENN-TOPEKA			PENN-ELMONT & TOPEKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2878		2920			2900		
WELLHEAD PRESSURE, PSIG.....	415		408			376		
OPEN FLOW, MCFD.....	5450		8			2950		
COMPONENT, MOLE PCT								
METHANE.....	64.8		65.2			63.1		
ETHANE.....	5.9		6.6			7.6		
PROPANE.....	3.5		4.7			5.4		
N-BUTANE.....	1.0		1.6			1.7		
ISOBUTANE.....	0.3		0.0			0.8		
N-PENTANE.....	0.2		0.4			0.4		
ISOPENTANE.....	0.2		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.3			0.1		
HEXANES PLUS.....	0.1		0.3			0.2		
NITROGEN.....	22.9		19.7			19.8		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.0			0.2		
HELIUM.....	0.61		0.52			0.60		
HEATING VALUE.....	919		1016			1031		
SPECIFIC GRAVITY.....	0.744		0.766			0.782		
INDEX 2104			INDEX 2105			INDEX 2106		
SAMPLE 7401			SAMPLE 7777			SAMPLE 7872		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	GREENWOOD		GREENWOOD			GREENWOOD		
WELL NAME.....	DUDGEON NO. 1		WALSH NO. 8-1			FULKERSON NO. 8-1		
LOCATION.....	SEC. 3, T35S, R42W		SEC. 25, T33S, R42W			SEC. 6, T35S, R41W		
OWNER.....	COLORADO OIL & GAS CORP.		CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	10/20/59		11/21/60			11/16/60		
SAMPLED.....	02/16/60		11/21/60			02/25/61		
FORMATION.....	PENN-ELMONT		PENN-TOPEKA			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2910		3088			3096		
WELLHEAD PRESSURE, PSIG.....	337		311			396		
OPEN FLOW, MCFD.....	3150		2900			18500		
COMPONENT, MOLE PCT								
METHANE.....	62.3		67.7			65.0		
ETHANE.....	5.4		7.7			6.8		
PROPANE.....	3.6		4.5			4.0		
N-BUTANE.....	1.5		1.2			1.2		
ISOBUTANE.....	0.5		0.8			0.5		
N-PENTANE.....	0.3		0.3			0.3		
ISOPENTANE.....	0.4		0.4			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.4		0.2			0.2		
NITROGEN.....	23.7		15.8			21.0		
OXYGEN.....	1.0		TRACE			0.0		
ARGON.....	0.1		TRACE			0.2		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.5			0.1		
HELIUM.....	0.60		0.50			0.60		
HEATING VALUE.....	945		1058			973		
SPECIFIC GRAVITY.....	0.776		0.758			0.756		
INDEX 2107			INDEX 2108			INDEX 2109		
SAMPLE 7906			SAMPLE 7918			SAMPLE 8045		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	GREENWOOD		GREENWOOD			GREENWOOD		
WELL NAME.....	FULKERSON NO. 8-1		MCCLUNG A-1			WALSH A NO. 1-30		
LOCATION.....	SEC. 6, T35S, R41W		SEC. 17, T35S, R41W			SEC. 30, T33S, R41W		
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	11/16/60		01/19/61			04/13/61		
SAMPLED.....	03/20/61		05/04/61			06/29/61		
FORMATION.....	PENN-TOPEKA		PENN-TOPEKA			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	3186		3158			3018		
WELLHEAD PRESSURE, PSIG.....	336		395			423		
OPEN FLOW, MCFD.....	21000		9000			3500		
COMPONENT, MOLE PCT								
METHANE.....	65.5		58.2			62.6		
ETHANE.....	6.8		7.2			7.8		
PROPANE.....	3.8		3.7			4.9		
N-BUTANE.....	1.1		1.0			1.5		
ISOBUTANE.....	0.5		0.3			0.7		
N-PENTANE.....	0.3		0.3			0.3		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	20.9		26.9			21.0		
OXYGEN.....	0.0		2.1			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.60		0.50			0.50		
HEATING VALUE.....	964		873			1007		
SPECIFIC GRAVITY.....	0.747		0.776			0.775		
INDEX 2110			INDEX 2111			INDEX 2112		
SAMPLE 11069			SAMPLE 12911			SAMPLE 12923		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	GREENWOOD		GREENWOOD			GREENWOOD		
WELL NAME.....	KANSAS 2-13		MINOR NO. 1			WESTERFIELD NO. 1-8		
LOCATION.....	SEC. 13, T34S, R43W		SEC. 31, T33S, R41W			SEC. 8, T34S, R41W		
OWNER.....	DAVIS DRILLING, INC., ET AL.		CLINTON OIL CO.			PANHANDLE EASTERN PIPELINE C		
COMPLETED.....	12/11/66		07/07/67			07/07/67		
SAMPLED.....	08/19/67		07/21/71			07/21/71		
FORMATION.....	PENN-TOPEKA		PENN-TOPEKA			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	3275		NOT GIVEN			3044		
WELLHEAD PRESSURE, PSIG.....	544		NOT GIVEN			194		
OPEN FLOW, MCFD.....	3400		NOT GIVEN			1252		
COMPONENT, MOLE PCT								
METHANE.....	72.2		62.3			65.9		
ETHANE.....	7.2		6.7			7.2		
PROPANE.....	3.7		4.0			5.1		
N-BUTANE.....	0.9		1.6			1.4		
ISOBUTANE.....	0.4		0.5			0.6		
N-PENTANE.....	0.2		0.4			0.3		
ISOPENTANE.....	0.2		0.5			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.3			0.3		
NITROGEN.....	14.2		21.9			18.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.49			0.45		
HELIUM.....	0.44		102			105		
HEATING VALUE.....	1025		102			105		
SPECIFIC GRAVITY.....	0.715		0.785			0.768		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

185

	INDEX SAMPLE	2113 12930		INDEX SAMPLE	2114 12931		INDEX SAMPLE	2115 14773
STATE.....	KANSAS		KANSAS		KANSAS		KANSAS	
COUNTY.....	MORTON		MORTON		MORTON		MORTON	
FIELD.....	GREENWOOD		GREENWOOD		GREENWOOD		GREENWOOD	
WELL NAME.....	PAN-KANSAS NO. 1-13		PAN-INTERSTATE NO. 1-14		PAN-KANSAS REGENTS NO. 2		KANSAS REGENTS NO. 2	
LOCATION.....	SEC. 13, T34S, R43W		SEC. 14, T34S, R43W		SEC. 15, T34S, R42W		SEC. 15, T34S, R42W	
OWNER.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
COMPLETED.....	08/02/35		09/01/35		08/18/76		08/18/76	
SAMPLED.....	07/21/71		07/21/71		09/22/76		09/22/76	
FORMATION.....	PENN-TOPEKA		PENN-TOPEKA		PENN-MABAUNSEE & TOPEKA		PENN-MABAUNSEE & TOPEKA	
GEOLOGIC PROVINCE CODE.....	360		360		360		360	
DEPTH, FEET.....	2735		2772		2612		2612	
WELLHEAD PRESSURE, PSIG.....	210		220		124		124	
OPEN FLOW, MCFD.....	148		288		1750		1750	
COMPONENT, MOLE PCT								
METHANE.....	64.8	-----	66.4	-----	65.3	-----	65.3	-----
ETHANE.....	5.6	-----	5.8	-----	6.4	-----	6.4	-----
PROPANE.....	3.8	-----	3.6	-----	4.1	-----	4.1	-----
N-BUTANE.....	1.0	-----	1.0	-----	1.3	-----	1.3	-----
ISOBUTANE.....	0.6	-----	0.3	-----	0.5	-----	0.5	-----
N-PENTANE.....	0.4	-----	0.4	-----	0.3	-----	0.3	-----
ISOPENTANE.....	TRACE	-----	0.1	-----	0.3	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----	TRACE	-----	0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----	0.1	-----	0.2	-----	0.2	-----
NITROGEN.....	22.9	-----	21.7	-----	20.8	-----	20.8	-----
OXYGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
ARGON.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----	TRACE	-----	0.1	-----	0.1	-----
HELIUM.....	0.61	-----	0.58	-----	0.54	-----	0.54	-----
HEATING VALUE.....	940	-----	940	-----	983	-----	983	-----
SPECIFIC GRAVITY.....	0.751	-----	0.738	-----	0.757	-----	0.757	-----

	INDEX SAMPLE	2116 4795		INDEX SAMPLE	2117 4822		INDEX SAMPLE	2118 4915
STATE.....	KANSAS		KANSAS		KANSAS		KANSAS	
COUNTY.....	MORTON		MORTON		MORTON		MORTON	
FIELD.....	HUGOTON		HUGOTON		HUGOTON		HUGOTON	
WELL NAME.....	COMMISSIONERS NO. 1-A		COMMISSIONERS B NO. 1		GERBER NO. 1-9		GERBER NO. 1-9	
LOCATION.....	SEC. 2, T34S, R41W		SEC. 19, T34S, R41W		SEC. 9, T35S, R40W		SEC. 9, T35S, R40W	
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.		PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
COMPLETED.....	07/12/49		10/20/49		09/11/50		09/11/50	
SAMPLED.....	01/17/50		01/17/50		09/19/50		09/19/50	
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP		PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360		360		360		360	
DEPTH, FEET.....	2224		2244		2529		2529	
WELLHEAD PRESSURE, PSIG.....	409		NOT GIVEN		419		419	
OPEN FLOW, MCFD.....	8520		9980		18083		18083	
COMPONENT, MOLE PCT								
METHANE.....	72.0	-----	71.9	-----	74.8	-----	74.8	-----
ETHANE.....	6.4	-----	6.4	-----	6.3	-----	6.3	-----
PROPANE.....	3.7	-----	3.4	-----	3.5	-----	3.5	-----
N-BUTANE.....	1.0	-----	0.9	-----	1.0	-----	1.0	-----
ISOBUTANE.....	0.4	-----	0.4	-----	0.2	-----	0.2	-----
N-PENTANE.....	0.2	-----	0.3	-----	0.3	-----	0.3	-----
ISOPENTANE.....	0.2	-----	0.0	-----	0.0	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----	TRACE	-----	0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----	0.2	-----	0.2	-----	0.2	-----
NITROGEN.....	15.3	-----	16.0	-----	12.9	-----	12.9	-----
OXYGEN.....	TRACE	-----	0.1	-----	0.1	-----	0.1	-----
ARGON.....	0.1	-----	0.1	-----	0.1	-----	0.1	-----
HYDROGEN.....	0.0	-----	0.0	-----	---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	---	-----	---	-----
CARBON DIOXIDE.....	0.2	-----	0.3	-----	0.3	-----	0.3	-----
HELIUM.....	0.41	-----	0.42	-----	0.37	-----	0.37	-----
HEATING VALUE.....	1015	-----	992	-----	1025	-----	1025	-----
SPECIFIC GRAVITY.....	0.722	-----	0.717	-----	0.708	-----	0.708	-----

	INDEX SAMPLE	2119 12857		INDEX SAMPLE	2120 12917		INDEX SAMPLE	2121 12918
STATE.....	KANSAS		KANSAS		KANSAS		KANSAS	
COUNTY.....	MORTON		MORTON		MORTON		MORTON	
FIELD.....	HUGOTON		HUGOTON		HUGOTON		HUGOTON	
WELL NAME.....	BECKER E-1		BLUCHER UNIT NO. 1-34		MYERS UNIT		MYERS UNIT	
LOCATION.....	SEC. 2, T34S, R41W		SEC. 34, T32S, R40W		SEC. 35, T32S, R40W		SEC. 35, T32S, R40W	
OWNER.....	CITIES SERVICE OIL CO.		PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
COMPLETED.....	--/--/00		06/05/51		06/04/51		06/04/51	
SAMPLED.....	06/23/71		07/21/71		07/21/71		07/21/71	
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP		PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360		360		360		360	
DEPTH, FEET.....	NOT GIVEN		2252		2243		2243	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2616		271		271	
OPEN FLOW, MCFD.....	NOT GIVEN		1000		1550		1550	
COMPONENT, MOLE PCT								
METHANE.....	74.0	-----	74.4	-----	74.2	-----	74.2	-----
ETHANE.....	6.0	-----	6.0	-----	6.0	-----	6.0	-----
PROPANE.....	3.2	-----	3.6	-----	3.6	-----	3.6	-----
N-BUTANE.....	1.6	-----	1.0	-----	1.0	-----	1.0	-----
ISOBUTANE.....	0.4	-----	0.4	-----	0.3	-----	0.3	-----
N-PENTANE.....	0.1	-----	0.2	-----	0.3	-----	0.3	-----
ISOPENTANE.....	0.6	-----	0.1	-----	0.1	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----	0.1	-----	0.1	-----	0.1	-----
NITROGEN.....	13.9	-----	13.8	-----	13.9	-----	13.9	-----
OXYGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
ARGON.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----	0.0	-----	0.0	-----	0.0	-----
HELIUM.....	0.39	-----	0.40	-----	0.40	-----	0.40	-----
HEATING VALUE.....	1029	-----	1020	-----	1019	-----	1019	-----
SPECIFIC GRAVITY.....	0.713	-----	0.705	-----	0.705	-----	0.705	-----

	INDEX SAMPLE	2122 12919		INDEX SAMPLE	2123 12920		INDEX SAMPLE	2124 12921
STATE.....	KANSAS		KANSAS		KANSAS		KANSAS	
COUNTY.....	MORTON		MORTON		MORTON		MORTON	
FIELD.....	HUGOTON		HUGOTON		HUGOTON		HUGOTON	
WELL NAME.....	SIMMONS UNIT NO. 1-2		EVANS NO. 1-3		LOW NO. 1		LOW NO. 1	
LOCATION.....	SEC. 2, T33S, R40W		SEC. 3, T33S, R40W		SEC. 18, T33S, R40W		SEC. 18, T33S, R40W	
OWNER.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
COMPLETED.....	06/10/54		07/20/53		08/10/53		08/10/53	
SAMPLED.....	07/21/71		07/21/71		07/21/71		07/21/71	
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP		PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360		360		360		360	
DEPTH, FEET.....	2241		2257		2272		2272	
WELLHEAD PRESSURE, PSIG.....	295		279		251		251	
OPEN FLOW, MCFD.....	754		754		476		476	
COMPONENT, MOLE PCT								
METHANE.....	73.4	-----	74.5	-----	71.7	-----	71.7	-----
ETHANE.....	6.0	-----	6.0	-----	5.6	-----	5.6	-----
PROPANE.....	3.2	-----	3.6	-----	3.4	-----	3.4	-----
N-BUTANE.....	0.9	-----	0.9	-----	1.0	-----	1.0	-----
ISOBUTANE.....	0.4	-----	0.5	-----	0.3	-----	0.3	-----
N-PENTANE.....	0.2	-----	0.1	-----	0.3	-----	0.3	-----
ISOPENTANE.....	TRACE	-----	0.1	-----	0.1	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----	0.1	-----	0.1	-----	0.1	-----
NITROGEN.....	14.9	-----	13.7	-----	17.0	-----	17.0	-----
OXYGEN.....	0.1	-----	0.0	-----	0.0	-----	0.0	-----
ARGON.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
HELIUM.....	0.40	-----	0.35	-----	0.48	-----	0.48	-----
HEATING VALUE.....	999	-----	1025	-----	981	-----	981	-----
SPECIFIC GRAVITY.....	0.705	-----	0.707	-----	0.714	-----	0.714	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2125 SAMPLE 12922			INDEX 2126 SAMPLE 12924			INDEX 2127 SAMPLE 12925		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
WELL NAME.....	EAGLEY NO. 1-23		BARKER NO. 2-24			KNELLER NO. 1-30		
LOCATION.....	SEC. 23, T33S, R41W		SEC. 24, T33S, R41W			SEC. 30, T33S, R40W		
OWNER.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		
COMPLETED.....	06/21/56		12/19/66			06/07/55		
SAMPLED.....	07/21/71		07/21/71			07/21/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2114		2186			2252		
WELLHEAD PRESSURE, PSIG.....	248		253			253		
OPEN FLOW, MCFD.....	461		529			724		
COMPONENT, MOLE PCT								
METHANE.....	71.0		70.5			73.5		
ETHANE.....	5.6		5.8			5.6		
PROPANE.....	3.8		4.1			3.3		
N-BUTANE.....	1.0		1.1			0.8		
ISOBUTANE.....	0.4		0.7			0.4		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.1		0.1			0.0		
CYCLOPENTANE.....	TRACE		0.4			TRACE		
HEXANES PLUS.....	0.1		0.3			0.1		
NITROGEN.....	17.6		15.1			15.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.0		
HELIUM.....	0.51		0.76			0.44		
HEATING VALUE.....	973		1072			985		
SPECIFIC GRAVITY.....	0.716		0.751			0.702		
INDEX 2128 SAMPLE 12926			INDEX 2129 SAMPLE 12927			INDEX 2130 SAMPLE 13002		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
WELL NAME.....	BOHN NO. 1		BOHN NO. 1			WHITE C-1		
LOCATION.....	SEC. 31, T33S, R40W		SEC. 28, T34S, R40W			SEC. 25, T32S, R40W		
OWNER.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C			AMOCO PRODUCTION CO.		
COMPLETED.....	03/26/54		05/19/53			--/--/00		
SAMPLED.....	07/21/71		07/21/71			08/24/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2300		2531			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	264		230			NOT GIVEN		
OPEN FLOW, MCFD.....	637		1029			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.8		75.4			73.4		
ETHANE.....	5.9		6.0			5.9		
PROPANE.....	3.5		3.6			3.5		
N-BUTANE.....	1.0		0.9			0.8		
ISOBUTANE.....	0.4		0.5			0.4		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	13.4		12.8			15.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.39		0.37			0.41		
HEATING VALUE.....	1024		1030			993		
SPECIFIC GRAVITY.....	0.703		0.701			0.704		
INDEX 2131 SAMPLE 13003			INDEX 2132 SAMPLE 13004			INDEX 2133 SAMPLE 5453		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	HUGOTON		HUGOTON			INTERSTATE		
WELL NAME.....	DREW C-1		TILLET G.U. NO. 1			INTERSTATE NO. A-1		
LOCATION.....	SEC. 28, T32S, R39W		SEC. 19, T32S, R39W			SEC. 19, T34S, R40W		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	--/--/00		--/--/00			05/02/53		
SAMPLED.....	08/24/71		08/24/71			04/29/53		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			4238		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1148		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			8150		
COMPONENT, MOLE PCT								
METHANE.....	72.9		72.6			72.2		
ETHANE.....	6.0		5.9			6.1		
PROPANE.....	3.6		3.5			4.9		
N-BUTANE.....	0.9		0.9			1.1		
ISOBUTANE.....	0.4		0.5			0.5		
N-PENTANE.....	0.2		0.2			0.4		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.0			0.1		
HEXANES PLUS.....	0.1		0.1			0.3		
NITROGEN.....	15.4		15.9			13.8		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.41		0.41			0.70		
HEATING VALUE.....	1001		994			1062		
SPECIFIC GRAVITY.....	0.710		0.711			0.732		
INDEX 2134 SAMPLE 5709			INDEX 2135 SAMPLE 5729			INDEX 2136 SAMPLE 6221		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	INTERSTATE		INTERSTATE			INTERSTATE		
WELL NAME.....	U.S.A. NO. 1		U.S.A. NO. 1			LEWIS NO. 1-5		
LOCATION.....	SEC. 19, T34S, R43W		SEC. 29, T34S, R43W			SEC. 5, T35S, R43W		
OWNER.....	CITIES SERVICE OIL CO.		STANOLIND OIL & GAS CO., ET			PANHANDLE EASTERN PIPELINE C		
COMPLETED.....	10/15/54		11/13/54			10/10/56		
SAMPLED.....	10/15/54		11/13/54			12/31/56		
FORMATION.....	PENN-MORROW		PENN-TOPEKA			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4328		2838			2771		
WELLHEAD PRESSURE, PSIG.....	1145		405			417		
OPEN FLOW, MCFD.....	7385		3615			1335		
COMPONENT, MOLE PCT								
METHANE.....	73.0		66.4			68.3		
ETHANE.....	5.8		6.1			5.7		
PROPANE.....	4.5		4.8			1.7		
N-BUTANE.....	1.0		1.0			1.3		
ISOBUTANE.....	0.5		0.4			0.1		
N-PENTANE.....	0.3		0.2			0.0		
ISOPENTANE.....	0.1		0.1			0.9		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	13.7		21.5			20.9		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.1			0.1		
HYDROGEN.....	0.1		0.0			0.2		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.5		
HELIUM.....	0.73		0.46			0.64		
HEATING VALUE.....	1037		935			950		
SPECIFIC GRAVITY.....	0.717		0.736			0.728		

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	2137 7717		INDEX SAMPLE	2138 8541		INDEX SAMPLE	2139 8810
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	INTERSTATE		INTERSTATE			INTERSTATE		
WELL NAME.....	SCHWEIZER NO. 1		INTERSTATE			INTERSTATE F		
LOCATION.....	SEC. 6, T35S, R43W		SEC. 21, T34S, R43W			SEC. 20, T34S, R43W		
OWNER.....	VICKERS PETROLEUM CO.		ANADARKO PRODUCTION CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	07/07/60		02/13/62			06/07/62		
SAMPLED.....	10/05/60		05/02/62			12/18/62		
FORMATION.....	PENN-TOPEKA		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2747		1184			1210		
WELLHEAD PRESSURE, PSIG.....	346		335			318		
OPEN FLOW, MCFD.....	3900		3480			1875		
COMPONENT, MOLE PCT								
METHANE.....	61.7		51.9			53.2		
ETHANE.....	6.2		2.0			2.1		
PROPANE.....	3.8		1.1			1.3		
N-BUTANE.....	1.2		0.6			0.6		
ISOBUTANE.....	0.5		0.2			0.3		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.2		0.3			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	25.2		41.4			40.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.7			0.6		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			TRACE		
HELIUM.....	0.60		1.15			0.94		
HEATING VALUE.....	0.19		0.68			0.78		
SPECIFIC GRAVITY.....	0.764		0.765			0.767		

	INDEX SAMPLE	2140 9241		INDEX SAMPLE	2141 9732		INDEX SAMPLE	2142 12910
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	INTERSTATE		INTERSTATE			INTERSTATE		
WELL NAME.....	HUMBLA NO. 5		INTERSTATE I -2			U.A. NO. D-2		
LOCATION.....	SEC. 17, T34S, R43W		SEC. 10, T34S, R43W			SEC. 29, T34S, R43W		
OWNER.....	ANADARKO PRODUCTION CO.		ANADARKO PRODUCTION CO.			CLINTON OIL CO.		
COMPLETED.....	12/31/63		11/13/64			04/20/66		
SAMPLED.....	02/12/64		02/12/65			07/19/71		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	1264		1281			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	333		338			130		
OPEN FLOW, MCFD.....	647		1190			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	52.5		49.7			50.8		
ETHANE.....	1.9		1.6			1.8		
PROPANE.....	1.1		0.9			1.5		
N-BUTANE.....	0.7		0.3			0.7		
ISOBUTANE.....	0.1		0.6			0.5		
N-PENTANE.....	0.2		2.0			0.4		
ISOPENTANE.....	0.1		0.8			0.0		
CYCLOPENTANE.....	0.1		0.3			0.1		
HEXANES PLUS.....	0.2		2.6			0.3		
NITROGEN.....	41.5		38.6			42.6		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.4		0.4			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.0		
HELIUM.....	0.90		0.87			1.08		
HEATING VALUE.....	0.58		0.85			0.63		
SPECIFIC GRAVITY.....	0.770		0.879			0.785		

	INDEX SAMPLE	2143 7333		INDEX SAMPLE	2144 7660		INDEX SAMPLE	2145 7933
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	KINSLER		KINSLER			KINSLER		
WELL NAME.....	OSBORNE GAS UNIT B NO. 2		SHARP 6-U, NO. 1			6-L, HAYWARD B		
LOCATION.....	SEC. 3, T31S, R40W		SEC. 25, T31S, R40W			SEC. 35, T31S, R40W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	11/02/59		11/14/60			12/21/61		
SAMPLED.....	01/05/60		08/29/60			04/18/61		
FORMATION.....	MISS-SI. LOUIS		PENN-DES MOINES			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5556		4370			5322		
WELLHEAD PRESSURE, PSIG.....	8400		840			1330		
OPEN FLOW, MCFD.....			802			17500		
COMPONENT, MOLE PCT								
METHANE.....	79.2		69.1			76.7		
ETHANE.....	4.5		4.3			6.1		
PROPANE.....	2.6		1.1			4.8		
N-BUTANE.....	0.7		0.3			1.0		
ISOBUTANE.....	0.3		0.2			0.7		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.2			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	10.3		17.9			7.5		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	1.20		0.30			0.10		
HEATING VALUE.....	1007		1008			1126		
SPECIFIC GRAVITY.....	0.666		0.740			0.710		

	INDEX SAMPLE	2146 7934		INDEX SAMPLE	2147 7935		INDEX SAMPLE	2148 7936
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	KINSLER		KINSLER			KINSLER		
WELL NAME.....	FIDELITY SAVINGS B		ATKINSON B			COWAN B		
LOCATION.....	SEC. 13, T32S, R40W		SEC. 15, T31S, R40W			SEC. 34, T31S, R40W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	11/10/60		11/19/60			11/27/60		
SAMPLED.....	04/18/61		04/18/61			04/18/61		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5684		5400			5310		
WELLHEAD PRESSURE, PSIG.....	1320		1275			1090		
OPEN FLOW, MCFD.....	27000		8112			1150		
COMPONENT, MOLE PCT								
METHANE.....	90.6		78.1			77.6		
ETHANE.....	3.3		5.1			6.6		
PROPANE.....	1.3		1.0			3.5		
N-BUTANE.....	0.3		0.8			0.8		
ISOBUTANE.....	0.2		0.5			0.4		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	TRACE		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		TRACE			0.1		
NITROGEN.....	2.8		10.0			10.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.0			0.5		
HELIUM.....	0.30		1.50			0.20		
HEATING VALUE.....	1057		1049			1054		
SPECIFIC GRAVITY.....	0.617		0.687			0.694		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2149 SAMPLE 8026			INDEX 2150 SAMPLE 13005			INDEX 2151 SAMPLE 7376		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	KINSLER		KINSLER			KINSLER		
WELL NAME.....	DREW BAS UNIT D NO. 1		TILLET B			A. C. SPARKS NO. 1		
LOCATION.....	SEC. 20, T32S, R39W		SEC. 19, T32S, R39W			NOT GIVEN		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		AMOCO PRODUCTION CO.			PIONEER NATURAL GAS CO.		
COMPLETED.....	04/12/61		07/1/60			--/--/00		
SAMPLED.....	06/14/61		08/24/71			--/--/00		
FORMATION.....	PENN-MORROW		PENN-MORROW			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5504		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1263		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	4000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	69.9		86.9			73.6		
ETHANE.....	6.0		3.7			8.2		
PROpane.....	3.9		1.9			4.3		
N-BUTANE.....	0.9		0.4			1.1		
ISOBUTANE.....	0.6		0.2			0.4		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		TRACE			0.1		
NITROGEN.....	17.5		6.3			11.0		
OXYGEN.....	0.2		0.0			0.2		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.2		
CARBON DIOXIDE.....	0.3		0.0			0.0		
HELIUM.....	0.30		0.25			0.40		
HEATING VALUE.....	981		1033			1077		
SPECIFIC GRAVITY.....	0.727		0.634			0.720		
INDEX 2152 SAMPLE 7931			INDEX 2153 SAMPLE 14798			INDEX 2154 SAMPLE 11504		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	PANOMA		PANOMA			PANOMA GAS AREA		
WELL NAME.....	BREEDING C		KREY "A" NO. 1			REPUBLIC B NO. 1		
LOCATION.....	SEC. 19, T31S, R39W		SEC. 6, T33S, R40W			SEC. 18, T33S, R40W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		ANADARKO PRODUCTION CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	10/24/60		05/10/76			06/14/67		
SAMPLED.....	04/17/61		10/06/76			05/16/68		
FORMATION.....	PERM-COUNCIL GROVE		PERM-COUNCIL GROVE			PENN-MORROW G		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		2602			5445		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1067			1266		
OPEN FLOW, MCFD.....	547		2136			1736		
COMPONENT, MOLE PCT								
METHANE.....	67.6		68.0			87.1		
ETHANE.....	6.6		6.0			3.5		
PROpane.....	3.3		3.3			1.6		
N-BUTANE.....	1.0		1.0			0.6		
ISOBUTANE.....	0.6		0.3			0.3		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	0.1		TRACE			0.3		
HEXANES PLUS.....	0.1		0.1			0.3		
NITROGEN.....	19.4		19.3			5.5		
OXYGEN.....	0.1		0.7			0.0		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.50		0.47			0.46		
HEATING VALUE.....	965		948			1053		
SPECIFIC GRAVITY.....	0.738		0.729			0.640		
INDEX 2155 SAMPLE 12909			INDEX 2156 SAMPLE 13710			INDEX 2157 SAMPLE 16484		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	PANOMA GAS AREA		PANOMA GAS AREA			PANOMA GAS AREA		
WELL NAME.....	REPUBLIC B NO. 1		LOW C NO. 4			THRASH "A" NO. 1		
LOCATION.....	SEC. 18, T33S, R40W		SEC. 17, T33S, R40W			SEC. 8, T33S, R39W		
OWNER.....	ANADARKO PRODUCTION CO.		ANADARKO PRODUCTION CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	06/14/67		04/10/72			--/--/81		
SAMPLED.....	07/21/71		08/27/73			04/12/82		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5445		5388			5949		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1159			1410		
OPEN FLOW, MCFD.....	NOT GIVEN		8900			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.0		87.5			92.7		
ETHANE.....	3.3		3.4			2.7		
PROpane.....	1.4		1.1			1.1		
N-BUTANE.....	0.5		0.5			0.4		
ISOBUTANE.....	0.2		0.4			0.2		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	5.0		5.1			2.0		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.2		
HELIUM.....	0.41		0.41			0.16		
HEATING VALUE.....	1034		1055			1059		
SPECIFIC GRAVITY.....	0.629		0.640			0.609		
INDEX 2158 SAMPLE 6303			INDEX 2159 SAMPLE 6513			INDEX 2160 SAMPLE 6342		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			MORTON		
FIELD.....	PATSY		REYER			RICHFIELD		
WELL NAME.....	PATSY RUTH MURPHY NO. 1		DRYER NO. 1			KANSAS UNIV. G.U.E. NO. 1		
LOCATION.....	SEC. 16, T31S, R41W		SEC. 17, T32S, R43W			SEC. 23, T32S, R41W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		J. M. HUBER CORP.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	02/19/57		11/18/58			04/25/57		
SAMPLED.....	04/15/57		02/15/57			06/12/57		
FORMATION.....	PENN-MORROW BASAL		PENN-MARMATON			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5362		3993			5200		
WELLHEAD PRESSURE, PSIG.....	1110		745			1070		
OPEN FLOW, MCFD.....	5200		2402			4810		
COMPONENT, MOLE PCT								
METHANE.....	82.2		58.4			84.1		
ETHANE.....	3.4		4.7			4.3		
PROpane.....	1.7		3.0			2.1		
N-BUTANE.....	0.6		0.9			0.9		
ISOBUTANE.....	0.5		0.4			0.7		
N-PENTANE.....	0.3		0.2			0.5		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.3		
HEXANES PLUS.....	0.2		0.2			1.0		
NITROGEN.....	9.6		31.0			5.2		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.1		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.3		
HELIUM.....	1.01		0.70			0.30		
HEATING VALUE.....	1007		825			1130		
SPECIFIC GRAVITY.....	0.656		0.768			0.688		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2161 6343			INDEX SAMPLE	2162 6350			INDEX SAMPLE	2163 11659
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	MORTON			MORTON				MORTON			
FIELD.....	RICHFIELD			RICHFIELD				RICHFIELD			
WELL NAME.....	BOWKER GAS UNIT NO. 2			BOWKER UNIT NO. 1				JOHNS NO. 1-3			
LOCATION.....	SEC. 35, T32S, R41W			SEC. 27, T32S, R41W				SEC. 3, T32S, R41W			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			VICKERS PETROLEUM CO.				GRAHAM-MICHAELIS DRILLING CO			
COMPLETED.....	04/04/57			05/17/57				07/05/68			
SAMPLED.....	06/12/57			07/02/57				09/30/68			
FORMATION.....	PENN-MORROW			NOT GIVEN				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	5200			NOT GIVEN				5224			
WELLHEAD PRESSURE, PSIG.....	1102			1024				715			
OPEN FLOW, MCFD.....	54500			NOT GIVEN				6680			
COMPONENT, MOLE PCT											
METHANE.....	76.6			75.7				87.7			
ETHANE.....	6.6			6.5				3.9			
PROPANE.....	3.3			3.5				2.0			
N-BUTANE.....	1.1			1.2				0.6			
ISOBUTANE.....	0.7			0.7				0.3			
N-PENTANE.....	0.4			0.3				0.2			
ISOPENTANE.....	0.1			0.2				0.2			
CYCLOPENTANE.....	0.1			TRACE				11/27/68			
HEXANES PLUS.....	0.4			0.2				0.2			
NITROGEN.....	10.2			9.9				4.0			
OXYGEN.....	TRACE			TRACE				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.0			0.0				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.3				0.2			
HELIUM.....	0.38			0.37				0.25			
HEATING VALUE.....	1085			1080				1072			
SPECIFIC GRAVITY.....	0.712			0.707				0.639			
		INDEX SAMPLE	2164 11678			INDEX SAMPLE	2165 11679			INDEX SAMPLE	2166 11686
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	MORTON			MORTON				MORTON			
FIELD.....	RICHFIELD			RICHFIELD				RICHFIELD			
WELL NAME.....	MURPHY GAS UNIT C NO. 1			LEMON GAS UNIT E NO. 1				MURPHY A NO. 2			
LOCATION.....	SEC. 14, T32S, R41W			SEC. 27, T32S, R41W				SEC. 15, T32S, R41W			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.				ANADARKO PRODUCTION CO.			
COMPLETED.....	03/21/62			12/07/56				05/22/62			
SAMPLED.....	11/06/68			11/06/68				11/27/68			
FORMATION.....	PENN-MORROW			PENN-MORROW				PENN-MORROW G			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	5179			5259				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	437			445				581			
OPEN FLOW, MCFD.....	2047			12591				496			
COMPONENT, MOLE PCT											
METHANE.....	90.2			80.9				85.4			
ETHANE.....	3.2			3.2				3.1			
PROPANE.....	1.5			1.1				1.6			
N-BUTANE.....	0.5			0.5				0.5			
ISOBUTANE.....	0.2			0.4				0.2			
N-PENTANE.....	0.1			0.1				0.3			
ISOPENTANE.....	0.1			0.1				0.2			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.3			0.3				0.2			
NITROGEN.....	3.1			7.5				6.8			
OXYGEN.....	0.0			0.0				0.9			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.1			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.0			0.0				0.3			
HELIUM.....	0.28			0.37				0.28			
HEATING VALUE.....	1065			1089				1021			
SPECIFIC GRAVITY.....	0.624			0.686				0.647			
		INDEX SAMPLE	2167 11701			INDEX SAMPLE	2168 11702			INDEX SAMPLE	2169 11732
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	MORTON			MORTON				MORTON			
FIELD.....	RICHFIELD			RICHFIELD				RICHFIELD			
WELL NAME.....	GOING NO. 1-26			GOING NO. 1-35				JENSEN GAS UNIT NO. 1			
LOCATION.....	SEC. 26, T32S, R41W			SEC. 35, T32S, R41W				SEC. 25, T32S, R41W			
OWNER.....	PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C				PAN AMERICAN PETROLEUM CORP.			
COMPLETED.....	10/09/56			05/08/57				05/08/57			
SAMPLED.....	12/11/58			12/11/58				01/15/59			
FORMATION.....	PENN-MORROW			PENN-MORROW				PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	5200			5191				5280			
WELLHEAD PRESSURE, PSIG.....	457			458				467			
OPEN FLOW, MCFD.....	14740			3405				1047			
COMPONENT, MOLE PCT											
METHANE.....	75.8			78.0				81.5			
ETHANE.....	6.3			5.9				4.6			
PROPANE.....	4.1			3.8				3.5			
N-BUTANE.....	1.1			1.1				1.2			
ISOBUTANE.....	1.1			1.0				0.9			
N-PENTANE.....	0.3			0.5				0.8			
ISOPENTANE.....	0.1			0.1				0.1			
CYCLOPENTANE.....	0.1			0.1				0.3			
HEXANES PLUS.....	0.4			0.4				0.9			
NITROGEN.....	9.6			8.3				5.5			
OXYGEN.....	TRACE			0.1				0.1			
ARGON.....	0.0			TRACE				0.0			
HYDROGEN.....	0.1			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.2				0.2			
HELIUM.....	0.38			0.35				0.25			
HEATING VALUE.....	1115			1113				1166			
SPECIFIC GRAVITY.....	0.724			0.711				0.712			
		INDEX SAMPLE	2170 11733			INDEX SAMPLE	2171 11739			INDEX SAMPLE	2172 11822
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	MORTON			MORTON				MORTON			
FIELD.....	RICHFIELD			RICHFIELD				RICHFIELD			
WELL NAME.....	DANIEL GAS UNIT NO. 1			DANIEL GAS UNIT NO. 1				GOING NO. 8-1			
LOCATION.....	SEC. 23, T32S, R41W			SEC. 36, T32S, R41W				SEC. 35, T32S, R41W			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			NATIONAL COOP. REFINERY ASSN				ANADARKO PETROLEUM CORP.			
COMPLETED.....	03/08/57			07/08/57				12/01/84			
SAMPLED.....	01/15/59			01/16/59				08/28/85			
FORMATION.....	PENN-MORROW			PENN-MORROW				PENN-LANSING			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	5185			5187				3464			
WELLHEAD PRESSURE, PSIG.....	524			453				563			
OPEN FLOW, MCFD.....	7461			895				1500			
COMPONENT, MOLE PCT											
METHANE.....	90.2			90.5				62.4			
ETHANE.....	3.1			3.1				5.5			
PROPANE.....	1.2			1.3				1.6			
N-BUTANE.....	0.2			0.5				0.3			
ISOBUTANE.....	0.2			0.2				0.1			
N-PENTANE.....	0.3			0.1				0.1			
ISOPENTANE.....	0.1			0.1				0.1			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.3			0.1				0.1			
NITROGEN.....	3.1			3.1				28.9			
OXYGEN.....	0.1			0.1				0.1			
ARGON.....	TRACE			TRACE				0.1			
HYDROGEN.....	0.1			0.0				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.3			0.2				0.1			
HELIUM.....	0.28			0.45				0.55			
HEATING VALUE.....	1068			1152				803			
SPECIFIC GRAVITY.....	0.628			0.617				0.731			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	INDEX	2173	INDEX	2174	INDEX	2175
COUNTY	SAMPLE	8257	SAMPLE	8445	SAMPLE	8447
KANSAS	KANSAS		KANSAS		KANSAS	
MORTON	MORTON		MORTON		MORTON	
RICHFIELD W	RICHFIELD W		RICHFIELD W		RICHFIELD W	
E. C. DEAN NO. 1-2	E. C. DEAN NO. 1-2		L. D. RUSSELL NO. 1-1		L. D. RUSSELL NO. 1-1	
SEC. 2, T32S, R42W	SEC. 2, T32S, R42W		SEC. 1, T32S, R42W		SEC. 1, T32S, R42W	
HAMILTON BROS., INC.	HAMILTON BROS., INC.		HAMILTON BROS., INC.		HAMILTON BROS., INC.	
10/16/61	10/16/61		02/12/62		02/12/62	
12/27/61	12/27/61		03/07/62		03/07/62	
PENN-KEYES	PENN-KEYES		PENN-MORROW		PENN-KEYES	
360	360		360		360	
DEPTH, FEET	5050		4924		5004	
WELLHEAD PRESSURE, PSIG	NOT GIVEN		1060		994	
OPEN FLOW, MCFD	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE	71.4		91.5		71.7	
ETHANE	4.6		3.0		4.7	
PROPANE	2.8		1.3		3.2	
N-BUTANE	1.0		0.4		1.1	
ISOBUTANE	0.7		0.1		0.5	
N-PENTANE	0.1		0.1		0.3	
ISOPENTANE	0.2		0.3		0.3	
CYCLOPENTANE	0.1		TRACE		0.1	
HEXANES PLUS	0.3		0.1		0.2	
NITROGEN	16.8		2.5		16.5	
OXYGEN	0.0		0.0		TRACE	
ARGON	0.1		TRACE		TRACE	
HYDROGEN	0.0		0.0		TRACE	
HYDROGEN SULFIDE**	0.0		0.0		0.0	
CARBON DIOXIDE	1.2		0.3		0.8	
HELIUM	0.62		0.29		0.59	
HEATING VALUE	976		1049		987	
SPECIFIC GRAVITY	0.730		0.609		0.726	
STATE	INDEX	2176	INDEX	2177	INDEX	2178
COUNTY	SAMPLE	8450	SAMPLE	5961	SAMPLE	6226
KANSAS	KANSAS		KANSAS		KANSAS	
MORTON	MORTON		MORTON		MORTON	
RICHFIELD W	RICHFIELD W		SPARKS		SPARKS	
E. C. DEAN NO. 1-2	E. C. DEAN NO. 1-2		HANNA UNIT NO. 1		COLLINGWOOD NO. 1	
SEC. 2, T32S, R42W	SEC. 2, T31S, R42W		SEC. 3, T31S, R42W		SEC. 11, T31S, R42W	
HAMILTON BROS., INC.	HAMILTON BROS., INC.		SUPERIOR OIL CO.		J. M. HUBER CORP.	
11/07/62	11/07/62		11/24/54		06/18/56	
03/07/62	03/07/62		01/27/55		01/14/57	
PENN-MORROW G	PENN-MORROW G		PENN-TOPEKA		PENN-MORROW BASAL	
360	360		360		360	
DEPTH, FEET	4974		3174		5207	
WELLHEAD PRESSURE, PSIG	980		417		1103	
OPEN FLOW, MCFD	NOT GIVEN		1617		2900	
COMPONENT, MOLE PCT						
METHANE	91.0		60.3		83.3	
ETHANE	3.1		5.7		3.8	
PROPANE	1.4		3.6		2.3	
N-BUTANE	0.5		0.3		0.5	
ISOBUTANE	0.2		0.4		0.4	
N-PENTANE	0.1		0.3		0.2	
ISOPENTANE	0.2		0.4		0.1	
CYCLOPENTANE	0.1		TRACE		TRACE	
HEXANES PLUS	0.2		0.1		0.2	
NITROGEN	2.7		27.1		7.1	
ARGON	TRACE		TRACE		0.0	
HYDROGEN	TRACE		0.1		0.0	
HYDROGEN SULFIDE**	0.0		0.0		0.0	
CARBON DIOXIDE	0.3		0.0		1.3	
HELIUM	0.30		0.62		0.75	
HEATING VALUE	1064		892		1025	
SPECIFIC GRAVITY	0.620		0.766		0.659	
STATE	INDEX	2179	INDEX	2180	INDEX	2181
COUNTY	SAMPLE	6348	SAMPLE	7924	SAMPLE	6034
KANSAS	KANSAS		KANSAS		KANSAS	
MORTON	MORTON		MORTON		MORTON	
SPARKS	SPARKS		SPARKS SW		SPARKS SW	
HAYWARD	HAYWARD		HARRISON NO. 1		BOYD NO. 1	
SEC. 23, T31S, R42W	SEC. 23, T31S, R42W		SEC. 20, T31S, R41W		SEC. 33, T31S, R42W	
COLORADO OIL & GAS CORP.	COLORADO OIL & GAS CORP.		THOMAS & BREWER OIL & GAS CO		SUPERIOR OIL CO.	
04/11/57	04/11/57		07/00		12/11/55	
07/25/57	07/25/57		04/04/61		06/19/56	
PENN-MORROW	PENN-MORROW		PENN-WABAUNSEE		PENN-WABAUNSEE & ELMONT	
360	360		360		360	
DEPTH, FEET	5196		2897		2800	
WELLHEAD PRESSURE, PSIG	1265		NOT GIVEN		437	
OPEN FLOW, MCFD	10617		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE	83.6		0.3		64.6	
ETHANE	3.5		8.6		5.1	
PROPANE	1.8		6.4		3.6	
N-BUTANE	0.5		1.9		1.3	
ISOBUTANE	0.3		1.1		0.4	
N-PENTANE	0.1		0.4		0.3	
ISOPENTANE	0.1		0.1		0.3	
CYCLOPENTANE	TRACE		TRACE		0.1	
HEXANES PLUS	0.1		0.1		0.2	
NITROGEN	6.2		78.7		22.4	
OXYGEN	0.0		0.1		TRACE	
ARGON	TRACE		0.1		0.1	
HYDROGEN	0.0		0.1		0.1	
HYDROGEN SULFIDE**	0.0		0.0		0.1	
CARBON DIOXIDE	3.1		0.3		0.2	
HELIUM	0.66		2.0		0.55	
HEATING VALUE	997		444		954	
SPECIFIC GRAVITY	0.661		1.036		0.760	
STATE	INDEX	2182	INDEX	2183	INDEX	2184
COUNTY	SAMPLE	6275	SAMPLE	10745	SAMPLE	6021
KANSAS	KANSAS		KANSAS		KANSAS	
MORTON	MORTON		MORTON		MORTON	
SPARKS SW	SPARKS SW		SPARKS SW		TALOGA	
JACKSON NO. 1-34	JACKSON NO. 1-34		CLANCY A UNIT NO. 1		RILEY 1-27	
SEC. 34, T31S, R42W	SEC. 34, T31S, R42W		SEC. 27, T31S, R42W		SEC. 27, T31S, R42W	
COLORADO OIL & GAS CORP.	COLORADO OIL & GAS CORP.		EDWIN L. COX & D. J. STONE		PANHANDLE EASTERN PIPELINE C	
03/04/57	03/04/57		12/17/67		12/21/55	
PENN-TOPEKA	PENN-TOPEKA		PENN-MORROW		PENN-KEYES	
360	360		360		360	
DEPTH, FEET	2803		4860		4501	
WELLHEAD PRESSURE, PSIG	415		939		891	
OPEN FLOW, MCFD	6400		3902		61387	
COMPONENT, MOLE PCT						
METHANE	58.5		61.6		72.5	
ETHANE	6.3		4.5		4.8	
PROPANE	3.7		3.6		3.4	
N-BUTANE	1.2		0.6		2.8	
ISOBUTANE	0.5		0.6		1.3	
N-PENTANE	0.2		0.2		1.4	
ISOPENTANE	0.2		0.3		1.3	
CYCLOPENTANE	TRACE		TRACE		0.6	
HEXANES PLUS	0.1		0.2		2.1	
NITROGEN	28.3		21.3		6.9	
OXYGEN	0.0		0.1		TRACE	
ARGON	TRACE		0.0		TRACE	
HYDROGEN	0.0		0.0		0.1	
HYDROGEN SULFIDE**	0.0		0.0		0.0	
CARBON DIOXIDE	0.2		3.4		0.7	
HELIUM	0.71		2.82		0.85	
HEATING VALUE	988		878		1319	
SPECIFIC GRAVITY	0.772		0.766		0.829	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2185 6056	INDEX SAMPLE	2186 6196	INDEX SAMPLE	2187 6419
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MORTON			MORTON		MORTON	
FIELD.....	TALOGA			TALOGA		TALOGA	
WELL NAME.....	CENTRAL LIFE 1-34			WATSON NO. 02-35		FOULER NO. 1-3	
LOCATION.....	SEC. 34, T34S, R42W			SEC. 35, T34S, R42W		SEC. 3, T35S, R42W	
OWNER.....	COLORADO OIL & GAS CORP.			PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
COMPLETED.....	09/11/55			10/22/56		07/19/57	
SAMPLED.....	05/-/56			12/03/56		10/16/57	
FORMATION.....	PENN-KEYES			PENN-MORROW U		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4424			4182		4559	
WELLHEAD PRESSURE, PSIG.....	817			1230		4487	
OPEN FLOW, MCFD.....	NOT GIVEN			25000		236	
COMPONENT, MOLE PCT							
METHANE.....	80.9			81.6		78.0	
ETHANE.....	3.9			7.0		4.3	
PROPANE.....	2.5			2.5		2.6	
N-BUTANE.....	0.8			1.2		0.8	
ISOBUTANE.....	0.3			0.5		0.7	
N-PENTANE.....	0.4			0.4		0.3	
ISOPENTANE.....	0.3			0.4		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.3			0.2		0.3	
NITROGEN.....	8.0			4.9		11.1	
OXYGEN.....	TRACE			0.1		TRACE	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.2			0.2		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.8		0.4	
HELIUM.....	1.08			0.19		1.10	
HEATING VALUE.....	1041			1122		1026	
SPECIFIC GRAVITY.....	0.673			0.689		0.689	
		INDEX SAMPLE	2188 7409	INDEX SAMPLE	2189 12898	INDEX SAMPLE	2190 11154
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MORTON			MORTON		MORTON	
FIELD.....	TALOGA			TALOGA		TALOGA N	
WELL NAME.....	STEWART A-1			KANSAS NO. 2-13		GOVT. NO. 1-9	
LOCATION.....	SEC. 19, T34S, R41W			SEC. 13, T34S, R43W		SEC. 9, T34S, R42W	
OWNER.....	CITIES SERVICE OIL CO.			DAVIS DRILLING, INC.		COLORADO OIL CO.	
COMPLETED.....	02/11/59			12/11/66		09/28/67	
SAMPLED.....	02/15/59			12/21/71		10/05/67	
FORMATION.....	PENN-MORROW L			PENN-LANSING		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4822			NOT GIVEN		4280	
WELLHEAD PRESSURE, PSIG.....	1325			NOT GIVEN		1233	
OPEN FLOW, MCFD.....	52000			NOT GIVEN		2130	
COMPONENT, MOLE PCT							
METHANE.....	82.7			72.9		73.2	
ETHANE.....	7.0			6.7		5.8	
PROPANE.....	3.9			4.1		4.0	
N-BUTANE.....	1.0			1.0		0.9	
ISOBUTANE.....	0.6			0.4		0.4	
N-PENTANE.....	0.1			0.3		0.2	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	4.0			13.8		14.3	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.0		0.0	
HELIUM.....	0.20			0.46		0.40	
HEATING VALUE.....	1133			1043		1015	
SPECIFIC GRAVITY.....	0.676			0.720		0.712	
		INDEX SAMPLE	2191 15521	INDEX SAMPLE	2192 6144	INDEX SAMPLE	2193 7705
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MORTON			MORTON		MORTON	
FIELD.....	TALOGA NE			TALOGA-RILEY		WILBURTON	
WELL NAME.....	E. P. LEWIS "B" NO. 1			RILEY C 01		HOOPINGARNER B-1	
LOCATION.....	SEC. 18, T34S, R41W			SEC. 28, T34S, R42W		SEC. 5, T35S, R41W	
OWNER.....	PANHANDLE PRODUCTION CO.			PANHANDLE EASTERN PIPELINE C		CITIES SERVICE OIL CO.	
COMPLETED.....	04/10/78			07/19/56		06/24/60	
SAMPLED.....	11/17/78			10/03/56		10/14/60	
FORMATION.....	PENN-CHEROKEE			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4390			2861		3090	
WELLHEAD PRESSURE, PSIG.....	829			7424		415	
OPEN FLOW, MCFD.....	2300			3076		24000	
COMPONENT, MOLE PCT							
METHANE.....	74.6			55.1		64.8	
ETHANE.....	5.9			7.4		7.7	
PROPANE.....	4.8			3.5		4.5	
N-BUTANE.....	1.3			1.0		1.4	
ISOBUTANE.....	0.3			0.7		0.3	
N-PENTANE.....	0.3			0.2		0.3	
ISOPENTANE.....	0.3			0.2		0.3	
CYCLOPENTANE.....	0.1			0.1		0.2	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	11.6			21.8		19.5	
OXYGEN.....	0.0			0.1		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.0		0.0	
HELIUM.....	0.31			0.59		0.50	
HEATING VALUE.....	1078			954		1018	
SPECIFIC GRAVITY.....	0.720			0.749		0.766	
		INDEX SAMPLE	2194 7778	INDEX SAMPLE	2195 7905	INDEX SAMPLE	2196 14287
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MORTON			MORTON		MORTON	
FIELD.....	WILBURTON			WILBURTON		WILBURTON	
WELL NAME.....	WEBB NO. A-2			WEBB A-3		GORE NO. D-2	
LOCATION.....	SEC. 28, T34S, R41W			SEC. 28, T34S, R41W		SEC. 4, T35S, R41W	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	10/26/60			01/11/61		01/07/74	
SAMPLED.....	11/21/60			05/01/61		03/03/75	
FORMATION.....	PENN-MORROW			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4930			3096		3216	
WELLHEAD PRESSURE, PSIG.....	1250			384		160	
OPEN FLOW, MCFD.....	5000			5000		2505	
COMPONENT, MOLE PCT							
METHANE.....	80.0			69.9		62.6	
ETHANE.....	4.9			7.0		8.8	
PROPANE.....	4.3			4.5		6.7	
N-BUTANE.....	1.0			1.5		2.1	
ISOBUTANE.....	0.6			0.6		0.8	
N-PENTANE.....	0.2			0.4		0.5	
ISOPENTANE.....	0.2			0.2		0.3	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	6.0			14.3		17.4	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.1	
HELIUM.....	0.20			0.40		1.47	
HEATING VALUE.....	1122			1071		1122	
SPECIFIC GRAVITY.....	0.690			0.746		0.804	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2197 SAMPLE 11354			INDEX 2198 SAMPLE 15563			INDEX 2199 SAMPLE 4856		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	MORTON		MORTON			PAWNEE		
FIELD.....	WILBURTON SE		WINTER			ASH CREEK		
WELL NAME.....	SIDES 10, T35S, R41W		WINTER NO. C-2			SEBINGHAM-BARTLET, WISE NO.1		
LOCATION.....	SEC. 10, T35S, R41W		SEC. 10, T35S, R42W			SEC. 1, T21S, R16W		
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE CO.			A. R. JONES OIL & OPER. CO.		
COMPLETED.....	07/17/67		--/--/00			--/--/00		
SAMPLED.....	03/06/68		02/02/79			05/05/50		
FORMATION.....	PENN-MORROW U		PENN-MORROW			CAMO-ARBuckle		
GEOLOGIC PROVINCE CODE.....	360		360			385		
DEPTH, FEET.....	5462		4559			3767		
WELLHEAD PRESSURE, PSIG.....	1265		1258			NOT GIVEN		
OPEN FLOW, MCFD.....	7100		3247			620		
COMPONENT, MOLE PCT.....								
METHANE.....	81.5		68.2			86.0		
ETHANE.....	7.3		4.8			3.9		
PROPANE.....	4.4		3.9			1.6		
N-BUTANE.....	1.2		0.9			0.5		
ISOBUTANE.....	0.2		0.4			0.2		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.5		0.3			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	3.9		20.4			5.7		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.1			0.6		
HELIUM.....	0.17		0.55			0.79		
HEATING VALUE.....	1165		957			1031		
SPECIFIC GRAVITY.....	0.695		0.736			0.637		
INDEX 2200 SAMPLE 4860			INDEX 2201 SAMPLE 4295			INDEX 2202 SAMPLE 8054		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	ASH CREEK		BENSON			BENSON		
WELL NAME.....	ANDERSON PRICHARD, WISE NO.1		BECKER B NO. 1			BAUMANN NO. 1		
LOCATION.....	SEC. 1, T21S, R16W		SEC. 32, T23S, R15W			SEC. 32, T23S, R15W		
OWNER.....	A. R. JONES OIL & OPER. CO.		CITIES SERVICE OIL CO.			DUNNE-GARDNER PETROLEUM CO.		
COMPLETED.....	--/--/00		12/29/46			--/--/00		
SAMPLED.....	05/05/50		04/21/47			07/01/61		
FORMATION.....	CAMO-ARBuckle		CAMO-			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		4021			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1210			NOT GIVEN		
OPEN FLOW, MCFD.....	475		2380			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	87.0		19.5			81.5		
ETHANE.....	3.8		69.1			3.3		
PROPANE.....	1.5		---			1.3		
N-BUTANE.....	0.5		---			0.5		
ISOBUTANE.....	0.1		---			0.4		
N-PENTANE.....	0.2		---			0.2		
ISOPENTANE.....	0.1		---			0.1		
CYCLOPENTANE.....	TRACE		---			TRACE		
HEXANES PLUS.....	0.2		---			0.1		
NITROGEN.....	5.5		9.9			11.6		
OXYGEN.....	0.1		0.3			0.1		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	---		---			TRACE		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.6			0.2		
HELIUM.....	0.79		0.55			0.50		
HEATING VALUE.....	1036		1436			967		
SPECIFIC GRAVITY.....	0.628		0.942			0.653		
INDEX 2203 SAMPLE 8522			INDEX 2204 SAMPLE 8523			INDEX 2205 SAMPLE 8528		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	BENSON		BENSON			BENSON		
WELL NAME.....	HALL NO. 1		PETRO NO. 1			HALL NO. 1		
LOCATION.....	SEC. 29, T23S, R15W		SEC. 29, T23S, R15W			SEC. 30, T23S, R15W		
OWNER.....	DUNNE-GARDNER PETROLEUM CO.		DUNNE-GARDNER PETROLEUM CO.			DUNNE-GARDNER PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	04/24/62		04/25/62			05/03/62		
FORMATION.....	PENN-TARKIO		PENN-TARKIO			PENN-TARKIO		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3020		3060			3000		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	2830		437			1140		
COMPONENT, MOLE PCT.....								
METHANE.....	82.2		79.5			81.5		
ETHANE.....	3.1		3.1			3.2		
PROPANE.....	1.4		1.3			0.4		
N-BUTANE.....	0.5		0.6			0.5		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	11.1		14.0			11.9		
OXYGEN.....	0.1		---			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.49		0.50			0.53		
HEATING VALUE.....	977		973			973		
SPECIFIC GRAVITY.....	0.656		0.661			0.658		
INDEX 2206 SAMPLE 8529			INDEX 2207 SAMPLE 8553			INDEX 2208 SAMPLE 8554		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	BENSON		BENSON			BENSON		
WELL NAME.....	HALL NO. 1		PETRO NO. 1			BAUMANN NO. 1		
LOCATION.....	SEC. 30, T23S, R15W		SEC. 30, T23S, R15W			SEC. 32, T23S, R15W		
OWNER.....	DUNNE-GARDNER PETROLEUM CO.		DUNNE-GARDNER PETROLEUM CO.			DUNNE-GARDNER PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	--/--/00		04/28/62			04/28/62		
FORMATION.....	PERM-COUNCIL GROVE		CAMO-ARBuckle			CAMO-ARBuckle		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	2510		4027			4069		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1100		
OPEN FLOW, MCFD.....	3310		7120			7120		
COMPONENT, MOLE PCT.....								
METHANE.....	86.8		62.4			62.8		
ETHANE.....	2.8		4.5			4.5		
PROPANE.....	1.0		2.2			2.2		
N-BUTANE.....	0.3		0.5			0.7		
ISOBUTANE.....	0.1		0.5			0.5		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.1		0.3			0.2		
CYCLOPENTANE.....	0.1		0.2			TRACE		
HEXANES PLUS.....	TRACE		0.2			0.1		
NITROGEN.....	8.2		25.5			26.1		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.4			0.3		
HELIUM.....	0.40		2.79			2.23		
HEATING VALUE.....	977		849			832		
SPECIFIC GRAVITY.....	0.621		0.733			0.726		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2209 8572	INDEX SAMPLE	2210 8573	INDEX SAMPLE	2211 8574
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	BENSON			BENSON		BENSON	
WELL NAME.....	HILL			HALL NO. 5		PETRO NO. 1	
LOCATION.....	SEC. 1, T23S, R15W			SEC. 30, T23S, R15W		SEC. 29, T23S, R15W	
OWNER.....	LESTER WILKINSON			DUNNE-GARDNER PETROLEUM CO.		DUNNE-GARDNER PETROLEUM CO.	
COMPLETED.....	--7--/00			05/26/62		05/26/62	
SAMPLED.....	06/04/62			06/04/62		06/04/62	
FORMATION.....	PENN-HOWARD			PENN-TARKIO		CAMO-ARBUCKLE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1110		1110	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.4			82.0		60.9	
ETHANE.....	3.2			3.2		4.4	
PROPANE.....	1.4			1.4		2.2	
N-BUTANE.....	0.5			0.5		0.7	
ISOBUTANE.....	0.2			0.3		0.5	
N-PENTANE.....	0.1			0.1		0.2	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	12.2			11.3		27.0	
OXYGEN.....	0.0			0.1		0.5	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.4	
HELIUM.....	0.51			0.51		2.72	
HEATING VALUE.....	956			973		815	
SPECIFIC GRAVITY.....	0.650			0.652		0.734	
		INDEX SAMPLE	2212 9389	INDEX SAMPLE	2213 15372	INDEX SAMPLE	2214 7902
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	BENSON			BENSON		BOW	
WELL NAME.....	WILES NO. 1			WURM A NO. 1		BARSTOW NO. 2-A	
LOCATION.....	SEC. 19, T23S, R15W			SEC. 19, T23S, R15W		SEC. 32, T22S, R15W	
OWNER.....	TOM LARSEN OIL CO.			ALPINE DRILLING CO.		HELLAR DRILLING CO.	
COMPLETED.....	06/08/64			10/19/77		03/15/61	
SAMPLED.....	06/08/64			09/11/78		03/11/61	
FORMATION.....	PENN-HOWARD			CAMO-CONGLOMERATE		PENN-LANSING-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3021			4036		3537	
WELLHEAD PRESSURE, PSIG.....	1079			1000		1270	
OPEN FLOW, MCFD.....	1930			120		295000	
COMPONENT, MOLE PCT							
METHANE.....	75.6			63.9		68.4	
ETHANE.....	3.8			4.8		2.7	
PROPANE.....	1.4			1.8		1.4	
N-BUTANE.....	0.7			0.6		0.4	
ISOBUTANE.....	0.3			0.3		0.3	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.1			0.2		TRACE	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	17.7			25.3		25.4	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.3		0.1	
HELIUM.....	0.56			2.89		1.00	
HEATING VALUE.....	913			820		811	
SPECIFIC GRAVITY.....	0.683			0.713		0.698	
		INDEX SAMPLE	2215 8012	INDEX SAMPLE	2216 8066	INDEX SAMPLE	2217 8181
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	BURDETT			BURDETT		BURDETT	
WELL NAME.....	DITUS			DITUS		JONES	
LOCATION.....	SEC. 4, T22S, R20W			SEC. 4, T22S, R20W		SEC. 9, T22S, R20W	
OWNER.....	D. R. LAUCK OIL CO., INC.			D. R. LAUCK OIL CO., INC.		D. R. LAUCK OIL CO., INC.	
COMPLETED.....	05/27/61			06/28/61		08/13/61	
SAMPLED.....	05/27/61			07/07/61		08/21/61	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	4335			4306		4345	
WELLHEAD PRESSURE, PSIG.....	1240			1240		1180	
OPEN FLOW, MCFD.....	NOT GIVEN			3		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	58.8			57.5		55.8	
ETHANE.....	3.8			4.0		3.9	
PROPANE.....	1.6			1.5		1.5	
N-BUTANE.....	0.5			0.5		0.5	
ISOBUTANE.....	0.3			0.4		0.4	
N-PENTANE.....	0.2			0.1		0.1	
ISOPENTANE.....	TRACE			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	31.6			32.7		34.2	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.3	
HELIUM.....	2.80			2.40		2.90	
HEATING VALUE.....	746			746		721	
SPECIFIC GRAVITY.....	0.729			0.737		0.743	
		INDEX SAMPLE	2218 8607	INDEX SAMPLE	2219 10795	INDEX SAMPLE	2220 10817
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	CARPENTER			CARPENTER		CARPENTER	
WELL NAME.....	PARATOTO NO. 1			PARATOTO NO. 1		PARATOTO NO. 1-X	
LOCATION.....	SEC. 24, T23S, R17W			SEC. 11, T23S, R17W		SEC. 13, T23S, R17W	
OWNER.....	PICKRELL DRILLING CO.			MESSMAN-RINEHART OIL CO.		KEWANEE OIL CO.	
COMPLETED.....	12/7--/00			12/02/65		06/28/66	
SAMPLED.....	06/17/62			11/23/66		12/18/66	
FORMATION.....	MISS---			CAMO-CONGLOMERATE		CAMO-CONGLOMERATE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	4140			4057		4106	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1200		1230	
OPEN FLOW, MCFD.....	NOT GIVEN			2500		6300	
COMPONENT, MOLE PCT							
METHANE.....	86.4			86.7		87.4	
ETHANE.....	3.5			3.4		3.4	
PROPANE.....	0.3			1.4		1.4	
N-BUTANE.....	0.3			0.4		0.4	
ISOBUTANE.....	0.2			0.3		0.3	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.1			TRACE		0.1	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.3		0.1	
NITROGEN.....	6.8			6.4		6.1	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.0	
HELIUM.....	0.80			0.71		0.71	
HEATING VALUE.....	1014			1027		1028	
SPECIFIC GRAVITY.....	0.631			0.633		0.629	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2221 SAMPLE 12767			INDEX 2222 SAMPLE 15060			INDEX 2223 SAMPLE 15371		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	CARPENTER		CARPENTER			CARPENTER		
WELL NAME.....	BARSCHEID NO. 1		PARAMORE NO. 2			MURK B NO. 1		
LOCATION.....	SEC. 32, T23S, R16W		SEC. 7, T23S, R16W			SEC. 32, T23S, R16W		
OWNER.....	LEBEN OIL CORP.		KEWANEE OIL CO.			ALPINE DRILLING CO.		
COMPLETED.....	10/03/70		06/10/77			07/13/77		
SAMPLED.....	04/14/71		07/27/77			09/11/78		
FORMATION.....	MISS--		PENN-CONGLOMERATE			MISS--		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	4182		4076			4183		
WELLHEAD PRESSURE, PSIG.....	1252		1030			1000		
OPEN FLOW, MCFD.....	2785		4146			275		
COMPONENT, MOLE PCT								
METHANE.....	88.4	-----	82.3	-----		87.7	-----	
ETHANE.....	3.6	-----	3.7	-----		3.8	-----	
PROPANE.....	1.4	-----	1.5	-----		1.5	-----	
N-BUTANE.....	0.5	-----	0.6	-----		0.5	-----	
ISOBUTANE.....	0.2	-----	0.3	-----		0.2	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.1	-----	
NITROGEN.....	4.8	-----	9.6	-----		5.0	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.2	-----	
ARGON.....	TRACE	-----	0.1	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.4	-----		0.2	-----	
HELIUM.....	0.50	-----	1.06	-----		0.49	-----	
HEATING VALUE.....	1047	-----	987	-----		1037	-----	
SPECIFIC GRAVITY.....	0.627	-----	0.649	-----		0.629	-----	
INDEX 2224 SAMPLE 5471			INDEX 2225 SAMPLE 8402			INDEX 2226 SAMPLE 5734		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	EVERS NE		EVERS S			GARFIELD		
WELL NAME.....	HAUSER NO. 1		BOYD NO. 1			L. J. SHARTZ NO. 1		
LOCATION.....	SEC. 31, T21S, R15W		SEC. 12, T22S, R16W			SEC. 8, T23S, R17W		
OWNER.....	PETROLEUM, INC.		MESSMAN-RINEHART OIL CO.			HILTON DRILLING CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	05/12/53		02/21/62			10/23/54		
FORMATION.....	CANO-ARBUCKLE		CANO-ARBUCKLE			MISS--		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3915		3920			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1145		1145			NOT GIVEN		
OPEN FLOW, MCFD.....	500		1180			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	85.6	-----	86.4	-----		83.3	-----	
ETHANE.....	4.0	-----	3.5	-----		3.3	-----	
PROPANE.....	1.6	-----	1.4	-----		1.2	-----	
N-BUTANE.....	0.4	-----	0.4	-----		0.5	-----	
ISOBUTANE.....	0.5	-----	0.2	-----		0.2	-----	
N-PENTANE.....	0.5	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	0.0	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.1	-----	
NITROGEN.....	6.0	-----	6.5	-----		9.8	-----	
OXYGEN.....	0.1	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.1	-----	TRACE	-----		0.2	-----	
HYDROGEN.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.7	-----	0.3	-----		0.4	-----	
HELIUM.....	0.69	-----	0.61	-----		0.57	-----	
HEATING VALUE.....	1027	-----	1012	-----		979	-----	
SPECIFIC GRAVITY.....	0.642	-----	0.632	-----		0.643	-----	
INDEX 2227 SAMPLE 5735			INDEX 2228 SAMPLE 5736			INDEX 2229 SAMPLE 5741		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	GARFIELD		GARFIELD			GARFIELD		
WELL NAME.....	HUTCHINSON NO. B-5		FERGIS NO. 1			FERGIS B NO. 1		
LOCATION.....	SEC. 17, T23S, R17W		SEC. 16, T23, R17			SEC. 16, T23S, R17W		
OWNER.....	HILTON DRILLING CO.		HILTON DRILG. CO. & SUNRAY DX			HILTON DRILLING CO., ET AL.		
COMPLETED.....	11/06/54		--/--/00			10/11/54		
SAMPLED.....	11/06/54		10/27/54			11/23/54		
FORMATION.....	CANO-CONGLOMERATE		MISS--			MISS--		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			4248		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1200			1000		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			500		
COMPONENT, MOLE PCT								
METHANE.....	82.6	-----	76.8	-----		84.9	-----	
ETHANE.....	5.3	-----	3.5	-----		2.4	-----	
PROPANE.....	2.0	-----	1.5	-----		0.5	-----	
N-BUTANE.....	0.6	-----	0.4	-----		0.2	-----	
ISOBUTANE.....	0.3	-----	0.4	-----		TRACE	-----	
N-PENTANE.....	0.2	-----	0.2	-----		TRACE	-----	
ISOPENTANE.....	0.1	-----	0.1	-----		TRACE	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.1	-----	
NITROGEN.....	8.2	-----	15.0	-----		10.6	-----	
OXYGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.1	-----		TRACE	-----	
HELIUM.....	0.32	-----	1.78	-----		1.09	-----	
HEATING VALUE.....	1041	-----	929	-----		928	-----	
SPECIFIC GRAVITY.....	0.663	-----	0.666	-----		0.616	-----	
INDEX 2230 SAMPLE 5743			INDEX 2231 SAMPLE 6328			INDEX 2232 SAMPLE 6602		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	GARFIELD		GARFIELD			GARFIELD		
WELL NAME.....	BOYD NO. 1		SHOEMAKE NO. 8			HUTCHINSON E LEASE		
LOCATION.....	SEC. 19, T22, R17W		SEC. 19, T23W, R19S			SEC. 9, T23S, R17W		
OWNER.....	COLORADO OIL & GAS CORP.		HILTON DRILLING CO.			COLORADO OIL & GAS CORP.		
COMPLETED.....	11/11/54		--/--/00			--/--/00		
SAMPLED.....	12/16/54		05/20/57			05/18/58		
FORMATION.....	NOT GIVEN		MISS--			PENN-& MISS		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	4131		4265			4200		
WELLHEAD PRESSURE, PSIG.....	1100		1100			NOT GIVEN		
OPEN FLOW, MCFD.....	3682		2000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.4	-----	83.9	-----		80.7	-----	
ETHANE.....	3.2	-----	3.3	-----		6.4	-----	
PROPANE.....	1.1	-----	1.0	-----		3.1	-----	
N-BUTANE.....	0.4	-----	0.3	-----		1.3	-----	
ISOBUTANE.....	0.2	-----	0.2	-----		0.7	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.3	-----	
ISOPENTANE.....	0.1	-----	0.1	-----		0.6	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.3	-----	
HEXANES PLUS.....	0.1	-----	0.2	-----		0.3	-----	
NITROGEN.....	9.2	-----	9.8	-----		5.6	-----	
OXYGEN.....	0.0	-----	0.0	-----		TRACE	-----	
ARGON.....	TRACE	-----	0.1	-----		0.1	-----	
HYDROGEN.....	0.1	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.3	-----	
HELIUM.....	0.96	-----	1.01	-----		0.43	-----	
HEATING VALUE.....	975	-----	966	-----		1138	-----	
SPECIFIC GRAVITY.....	0.633	-----	0.635	-----		0.699	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

195

		INDEX SAMPLE	2233 6603	INDEX SAMPLE	2234 11802	INDEX SAMPLE	2235 11803
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	GARFIELD			GIVENS		GIVENS	
WELL NAME.....	J. A. BOYD NO. 1			E. J. GIVENS NO. 1		E. J. GIVENS NO. 2	
LOCATION.....	SEC. 35, T22S, R17W			SEC. 19, T22S, R19W		SEC. 19, T22S, R19W	
OWNER.....	COLORADO OIL & GAS CORP.			G & L OIL CO.		G & L OIL CO.	
COMPLETED.....	04/--/58			12/10/68		12/10/68	
SAMPLED.....	05/18/58			03/26/69		03/26/69	
FORMATION.....	PENN-L			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	4131			4444		4444	
WELLHEAD PRESSURE, PSIG.....	550			1180		1180	
OPEN FLOW, MCFD.....	5210			1250		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	82.7			62.8		62.2	
ETHANE.....	0.1			0.1		0.3	
PROPANE.....	0.1			1.4		1.4	
N-BUTANE.....	0.1			0.6		0.5	
ISOBUTANE.....	TRACE			0.3		0.3	
N-PENTANE.....	TRACE			0.2		0.3	
ISOPENTANE.....	TRACE			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	TRACE			TRACE		0.2	
NITROGEN.....	14.4			28.3		29.0	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.2			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.3	
HELIUM.....	1.35			2.38		2.57	
HEATING VALUE.....	864			782		780	
SPECIFIC GRAVITY.....	0.618			0.716		0.722	
		INDEX SAMPLE	2236 8733	INDEX SAMPLE	2237 9373	INDEX SAMPLE	2238 9374
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	GODFREY			GODFREY		GODFREY	
WELL NAME.....	EDDY NO. 1			EDDY NO. 1		FAIRCHILD NO. 1	
LOCATION.....	SEC. 13, T22S, R18W			SEC. 13, T22S, R18W		SEC. 13, T22S, R18W	
OWNER.....	BELL BROTHERS			BELL BROTHERS		BELL BROTHERS	
COMPLETED.....	--/700			11/08/62		09/26/63	
SAMPLED.....	11/15/62			04/21/64		04/21/64	
FORMATION.....	CAMO-CONGLOMERATE			PENN-CHEROKEE		PENN-CHEROKEE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	4084			4084		4110	
WELLHEAD PRESSURE, PSIG.....	963			1200		1264	
OPEN FLOW, MCFD.....	2310			2675		4325	
COMPONENT, MOLE PCT							
METHANE.....	82.0			81.4		81.5	
ETHANE.....	3.3			3.5		3.6	
PROPANE.....	0.4			1.4		1.4	
N-BUTANE.....	0.4			0.6		0.6	
ISOBUTANE.....	0.2			TRACE		TRACE	
N-PENTANE.....	0.1			TRACE		TRACE	
ISOPENTANE.....	0.2			0.2		0.3	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		TRACE	
NITROGEN.....	10.6			11.0		TRACE	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	TRACE			0.1		0.1	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	1.32			1.32		1.32	
HEATING VALUE.....	963			962		960	
SPECIFIC GRAVITY.....	0.640			0.645		0.642	
		INDEX SAMPLE	2239 5584	INDEX SAMPLE	2240 8570	INDEX SAMPLE	2241 15370
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	HEARN			HEARN		HEARN	
WELL NAME.....	HEARN NO. 1			HEARN NO. 1		IRMA SMITH NO. 1	
LOCATION.....	SEC. 35, T23S, R15W			SEC. 35, T23S, R15W		SEC. 26, T23S, R15W	
OWNER.....	NATURAL GAS & OIL CORP.			NATURAL GAS & OIL CORP.		ALPINE DRILLING CO.	
COMPLETED.....	10/14/53			--/700		04/28/78	
SAMPLED.....	02/28/53			06/04/62		09/11/78	
FORMATION.....	PENN-LANSING			ORDO-VIOLA		CAMO-ARBUCKLE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3833			NOT GIVEN		4121	
WELLHEAD PRESSURE, PSIG.....	990			790		1000	
OPEN FLOW, MCFD.....	5500			NOT GIVEN		206	
COMPONENT, MOLE PCT							
METHANE.....	79.5			81.7		72.4	
ETHANE.....	3.2			4.3		4.4	
PROPANE.....	1.6			2.0		2.3	
N-BUTANE.....	0.7			0.7		0.8	
ISOBUTANE.....	0.1			0.4		0.5	
N-PENTANE.....	0.1			0.2		0.3	
ISOPENTANE.....	0.1			0.3		0.3	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.3	
NITROGEN.....	12.7			8.9		15.8	
OXYGEN.....	TRACE			0.2		0.6	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.2			TRACE		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.3		0.1	
HELIUM.....	1.56			1.06		1.97	
HEATING VALUE.....	946			942		961	
SPECIFIC GRAVITY.....	0.649			0.657		0.702	
		INDEX SAMPLE	2242 4710	INDEX SAMPLE	2243 14322	INDEX SAMPLE	2244 16332
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	LARNED			LUCAS		MASSEY W	
WELL NAME.....	DORA BROWN NO. 1			FINGER NO. 1		ALDRICH #8" NO 1-32	
LOCATION.....	SEC. 31, T21S, R16W			SEC. 31, T20S, R16W		SEC. 32, T23S, R17W	
OWNER.....	SUNRAY OIL CO.			FRONTIER OIL CO.		F. G. HOLL	
COMPLETED.....	06/18/49			09/06/74		12/12/80	
SAMPLED.....	07/18/49			04/23/74		08/--/81	
FORMATION.....	CAMO-ARBUCKLE			CAMO-ARBUCKLE		MISS-	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3863			3911		4318	
WELLHEAD PRESSURE, PSIG.....	1075			1000		1035	
OPEN FLOW, MCFD.....	4256			10000		2081	
COMPONENT, MOLE PCT							
METHANE.....	4.5			22.8		82.6	
ETHANE.....	1.9			3.2		3.5	
PROPANE.....	0.5			1.3		1.3	
N-BUTANE.....	0.5			0.8		0.9	
ISOBUTANE.....	0.4			0.5		0.2	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			0.3		0.1	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.0			0.1		0.2	
NITROGEN.....	86.1			66.0		10.2	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	0.3			0.2		0.1	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.5		0.1	
HELIUM.....	4.92			3.98		1.00	
HEATING VALUE.....	137			391		976	
SPECIFIC GRAVITY.....	0.934			0.876		0.644	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2245			INDEX 2246			INDEX 2247		
SAMPLE 6156			SAMPLE 5624			SAMPLE 6619		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	NEWSOM		NOT GIVEN			ORANGE		
WELL NAME.....	NEWSOM NO. 1		SIEGFRIED NO. 1			MILLER NO. 1		
LOCATION.....	SEC. 25, T20S, R20W		NOT GIVEN			SEC. 33, T23S, R17W		
OWNER.....	HONAKER DAVIS DRILLING CO.		KANSAS-NEBRASKA NATURAL GAS			HONAKER DAVIS DRILLING CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	09/30/56		06/17/54			05/23/58		
FORMATION.....	PEWEE-CHEROKEE		NOT GIVEN			CAMO-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	4250		NOT GIVEN			4260		
WELLHEAD PRESSURE, PSIG.....	1200		NOT GIVEN			1300		
OPEN FLOW, MCFD.....	5000		NOT GIVEN			1800		
COMPONENT, MOLE PCT								
METHANE.....	26.2		52.9			75.7		
ETHANE.....	3.4		6.5			4.1		
PROPANE.....	3.0		4.8			1.6		
N-BUTANE.....	1.0		2.1			0.6		
ISOBUTANE.....	0.7		1.5			0.4		
N-PENTANE.....	0.3		0.8			0.1		
ISOPENTANE.....	0.1		0.4			0.2		
CYCLOPENTANE.....	0.1		0.3			0.1		
HEXANES PLUS.....	0.4		0.8			0.2		
NITROGEN.....	60.7		26.6			15.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.2		0.2			0.1		
HYDROGEN.....	0.1		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.9			0.4		
HELIUM.....	--46		2.09			1.40		
HEATING VALUE.....	303		1002			942		
SPECIFIC GRAVITY.....	0.886		0.849			0.680		

INDEX 2248			INDEX 2249			INDEX 2250		
SAMPLE 3054			SAMPLE 3055			SAMPLE 3094		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	PAWNEE ROCK		PAWNEE ROCK			PAWNEE ROCK		
WELL NAME.....	M. L. GATES NO. 3		NELLIE BELT NO. 3			NELSON NO. 1		
LOCATION.....	SEC. 13, T20S, R16W		SEC. 13, T20S, R16W			SEC. 14, T20S, R16W		
OWNER.....	STANOLIND OIL & GAS CO.		STANOLIND OIL & GAS CO.			CONTINENTAL OIL CO.		
COMPLETED.....	05/17/41		01/27/41			--/--/00		
SAMPLED.....	12/17/41		12/17/41			02/27/42		
FORMATION.....	CAMO-ARBUCKLE		CAMO-ARBUCKLE			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3792		3801			3772		
WELLHEAD PRESSURE, PSIG.....	975		850			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	54.7		80.7			73.5		
ETHANE.....	40.8		11.5			18.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	3.3		6.1			5.5		
OXYGEN.....	0.2		0.1			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.7		0.6			0.5		
HELIUM.....	0.34		1.02			1.30		
HEATING VALUE.....	1285		1024			1083		
SPECIFIC GRAVITY.....	0.777		0.639			0.672		

INDEX 2251			INDEX 2252			INDEX 2253		
SAMPLE 3095			SAMPLE 3096			SAMPLE 3097		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	PAWNEE ROCK		PAWNEE ROCK			PAWNEE ROCK		
WELL NAME.....	BOWYER NO. 3		BOWYER NO. 1			G. P. SMITH 2-B		
LOCATION.....	SEC. 12, T20S, R16W		SEC. 12, T20S, R16W			SEC. 13, T20S, R16W		
OWNER.....	AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.		
COMPLETED.....	09/09/41		07/21/41			02/03/42		
SAMPLED.....	02/27/42		02/27/42			02/27/42		
FORMATION.....	CAMO-ARBUCKLE		CAMO-ARBUCKLE			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3732		3757			3747		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	87.4		77.0			85.8		
ETHANE.....	9.9		16.3			3.5		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	1.9		5.0			8.8		
NITROGEN.....	1.9		5.0			8.8		
OXYGEN.....	0.7		0.4			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.0		0.4			0.1		
HELIUM.....	0.14		0.85			1.35		
HEATING VALUE.....	1063		1072			932		
SPECIFIC GRAVITY.....	0.615		0.658			0.605		

INDEX 2254			INDEX 2255			INDEX 2256		
SAMPLE 3105			SAMPLE 3117			SAMPLE 4499		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	PAWNEE ROCK		PAWNEE ROCK			PAWNEE ROCK		
WELL NAME.....	G. P. SMITH NO. 1		M. G. BIXBY NO. 2			STERLING CLIMSON NO. 3		
LOCATION.....	SEC. 13, T20S, R16W		SEC. 24, T20S, R16W			SEC. 12, T20N, R16W		
OWNER.....	MID-CONTINENT PETROLEUM CORP		MID-CONTINENT PETROLEUM CORP			STERLING DRILLING CO.		
COMPLETED.....	12/10/37		07/19/43			10/15/47		
SAMPLED.....	02/26/42		02/26/42			06/--/48		
FORMATION.....	CAMO-ARBUCKLE		CAMO-ARBUCKLE			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3762		3796			3643		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			712		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			3000		
COMPONENT, MOLE PCT								
METHANE.....	82.7		77.9			78.2		
ETHANE.....	9.2		16.2			13.6		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	6.3		7.1			6.5		
OXYGEN.....	0.5		0.4			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.1			0.6		
HELIUM.....	0.99		0.3			0.92		
HEATING VALUE.....	1003		1030			1036		
SPECIFIC GRAVITY.....	0.627		0.650			0.652		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

197

INDEX 2257 SAMPLE 4814			INDEX 2258 SAMPLE 4874			INDEX 2259 SAMPLE 4875		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	PAWNEE ROCK		PAWNEE ROCK			PAWNEE ROCK		
WELL NAME.....	STERLING CLEMSON NO. 3		NO. 1 & 2, DIRKS LEASE			UNRUM NO. 1		
LOCATION.....	SEC. 12, T20S, R16W		SEC. 23, T20S, R16W			SEC. 23, T20S, R16W		
OWNER.....	KANSAS-NEBRASKA NATJRAL GAS		VICKERS PETROLEUM CO.			VICKERS PETROLEUM CO.		
COMPLETED.....	--/--/00		09/09/49			09/01/49		
SAMPLED.....	01/10/50		04/25/50			04/25/50		
FORMATION.....	NOT GIVEN		CAMO-ARBUCKLE			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		3744			3746		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		990			1200		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.1		58.5			64.8		
ETHANE.....	4.1		8.4			13.1		
PROpane.....	1.7		6.7			7.0		
N-BUTANE.....	0.6		2.5			1.9		
ISOBUTANE.....	0.3		0.0			1.5		
N-PENTANE.....	0.1		0.0			0.5		
ISOPENTANE.....	0.4		2.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.0		0.2			0.4		
NITROGEN.....	7.2		18.7			8.9		
OXYGEN.....	0.2		0.1			0.1		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		1.1			TRACE		
HYDROGEN SULFIDE**.....	--		--			--		
CARBON DIOXIDE.....	0.3		0.7			1.2		
HELIUM.....	0.98		1.80			0.33		
HEATING VALUE.....	1020		1109			1237		
SPECIFIC GRAVITY.....	0.648		0.829			0.813		

INDEX 2260 SAMPLE 4907			INDEX 2261 SAMPLE 5215			INDEX 2262 SAMPLE 5216		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	PAWNEE ROCK		PAWNEE ROCK			PAWNEE ROCK		
WELL NAME.....	DIRKS A NO. 1		UNRUM B			UNRUM B		
LOCATION.....	SEC. 23, T20S, R16W		SEC. 23, T20S, R16W			SEC. 23, T20S, R16W		
OWNER.....	VICKERS PETROLEUM CO.		VICKERS PETROLEUM CO.			VICKERS PETROLEUM CO.		
COMPLETED.....	08/02/49		--/--/00			--/--/00		
SAMPLED.....	06/01/50		06/10/52			06/10/52		
FORMATION.....	CAMO-ARBUCKLE		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3775		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	990		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	58.3		64.7			65.3		
ETHANE.....	3.6		3.7			4.3		
PROpane.....	1.6		1.9			3.2		
N-BUTANE.....	0.7		0.8			1.2		
ISOBUTANE.....	0.2		0.4			0.6		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.1		0.2			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.3			0.1		
NITROGEN.....	30.7		24.2			21.4		
OXYGEN.....	0.3		0.1			0.1		
ARGON.....	0.2		0.1			0.1		
HYDROGEN.....	0.1		TRACE			TRACE		
HYDROGEN SULFIDE**.....	--		--			--		
CARBON DIOXIDE.....	0.5		0.6			0.6		
HELIUM.....	3.24		2.65			2.36		
HEATING VALUE.....	755		848			917		
SPECIFIC GRAVITY.....	0.733		0.723			0.737		

INDEX 2263 SAMPLE 5217			INDEX 2264 SAMPLE 5243			INDEX 2265 SAMPLE 5388		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	PAWNEE ROCK		PAWNEE ROCK			PAWNEE ROCK		
WELL NAME.....	DIRKS B		DIRKS A			UNRUM B		
LOCATION.....	SEC. 2, T20S, R16W		SEC. 20, T20S, R15W			SEC. 14, T20S, R16W		
OWNER.....	VICKERS PETROLEUM CO.		VICKERS PETROLEUM CO.			JAYHAWK DRILLING CO.		
COMPLETED.....	--/--/00		--/--/00			02/02/53		
SAMPLED.....	06/10/52		06/10/52			02/05/53		
FORMATION.....	NOT GIVEN		NOT GIVEN			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			3793		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1080		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			2500		
COMPONENT, MOLE PCT								
METHANE.....	69.0		55.8			36.6		
ETHANE.....	4.1		4.8			3.2		
PROpane.....	2.3		3.3			1.7		
N-BUTANE.....	1.0		1.3			0.5		
ISOBUTANE.....	0.5		0.9			0.4		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.3		0.4			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.3		0.1			0.1		
NITROGEN.....	19.0		29.3			52.3		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	0.1		0.2			0.2		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE**.....	--		--			0.0		
CARBON DIOXIDE.....	0.5		0.5			0.7		
HELIUM.....	2.42		3.06			4.10		
HEATING VALUE.....	927		842			520		
SPECIFIC GRAVITY.....	0.716		0.774			0.817		

INDEX 2266 SAMPLE 6163			INDEX 2267 SAMPLE 4068			INDEX 2268 SAMPLE 5050		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	PAWNEE ROCK		RYAN			RYAN		
WELL NAME.....	HANSON NO. 1		NELSON NO. 3			HAGERMAN NO. 1		
LOCATION.....	SEC. 15, T20S, R16W		SEC. 2, T20S, R16W			SEC. 4, T20S, R16W		
OWNER.....	ROACH & LICHTY DRILLING INC.		GULF OIL CORP.			BRACK OIL CO.		
COMPLETED.....	10/23/56		06/30/45			--/--/00		
SAMPLED.....	10/22/58		09/21/45			04/18/51		
FORMATION.....	CAMO-ARBUCKLE		CAMO-ARBUCKLE			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3750		3736			3700		
WELLHEAD PRESSURE, PSIG.....	1070		900			900		
OPEN FLOW, MCFD.....	1000		NOT GIVEN			500		
COMPONENT, MOLE PCT								
METHANE.....	54.6		74.2			44.6		
ETHANE.....	3.9		16.0			3.5		
PROpane.....	2.0		--			1.9		
N-BUTANE.....	0.7		--			0.8		
ISOBUTANE.....	0.4		--			0.4		
N-PENTANE.....	0.2		--			0.3		
ISOPENTANE.....	0.1		--			0.1		
CYCLOPENTANE.....	0.1		--			TRACE		
HEXANES PLUS.....	0.2		--			0.2		
NITROGEN.....	33.8		8.3			43.6		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.2		0.2			0.2		
HYDROGEN.....	0.0		--			0.0		
HYDROGEN SULFIDE**.....	0.0		--			0.0		
CARBON DIOXIDE.....	0.4		0.3			0.7		
HELIUM.....	3.47		1.19			3.69		
HEATING VALUE.....	739		1038			631		
SPECIFIC GRAVITY.....	0.754		0.666			0.796		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2269			INDEX 2270			INDEX 2271		
SAMPLE 5053			SAMPLE 5428			SAMPLE 5526		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	RYAN		RYAN			SWEENEY		
WELL NAME.....	HAGERMAN A		A FLESKE NO. 1			SWEENEY NO. 1		
LOCATION.....	SEC. 4, T20S, R16W		SEC. 3, T20S, R16W			SEC. 8, T21S, R15W		
OWNER.....	BRACK OIL CO.		BEN F. BRACK OIL CO.			VICKERS EXPLORATION, LTD.		
COMPLETED.....	03/18/51		03/12/53			-7-7/00		
SAMPLED.....	05/05/53		05/25/53			07/25/53		
FORMATION.....	CAMO-ARBUCKLE		CAMO-ARBUCKLE			CAMO-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3700		3700			3716		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		654			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	44.6		69.3			82.9		
ETHANE.....	3.5		4.0			3.8		
PROPANE.....	1.8		2.0			1.3		
N-BUTANE.....	0.6		0.8			0.7		
ISOBUTANE.....	0.5		0.3			0.2		
N-PENTANE.....	0.3		0.4			0.5		
ISOPENTANE.....	0.0		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.3		0.2			0.6		
NITROGEN.....	44.0		19.2			8.4		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.2		0.5			0.1		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.6			0.2		
HELIUM.....	3.62		2.35			1.01		
HEATING VALUE.....	626		898			1032		
SPECIFIC GRAVITY.....	0.793		0.706			0.661		
INDEX 2272			INDEX 2273			INDEX 2274		
SAMPLE 5527			SAMPLE 5597			SAMPLE 5612		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	SWEENEY		SWEENEY			SWEENEY		
WELL NAME.....	SWEENEY NO. 1		DUFFORD NO. A-1			H- BIRD NO. 1		
LOCATION.....	SEC. 8, T21S, R15W		SEC. 7, T21S, R15W			SEC. 19, T21S, R15W		
OWNER.....	VICKERS EXPLORATION, LTD.		GRAHAM-MESSMAN-RINEHART OIL			NADEL GUSSMAN OIL CO.		
COMPLETED.....	08/25/53		03/02/54			11/04/52		
SAMPLED.....	07/29/53		03/15/54			04/28/54		
FORMATION.....	CAMO-ARBUCKLE		CAMO-ARBUCKLE			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3792		3808			3910		
WELLHEAD PRESSURE, PSIG.....	1250		1220			12		
OPEN FLOW, MCFD.....	6160		5000			3700		
COMPONENT, MOLE PCT								
METHANE.....	86.1		87.0			87.0		
ETHANE.....	4.0		3.6			3.7		
PROPANE.....	1.5		1.4			1.5		
N-BUTANE.....	0.5		0.4			0.5		
ISOBUTANE.....	0.1		0.3			0.2		
N-PENTANE.....	0.3		0.2			0.1		
ISOPENTANE.....	0.0		0.0			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	6.1		5.9			5.2		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.4		
HELIUM.....	0.78		0.78			0.68		
HEATING VALUE.....	1030		1023			1037		
SPECIFIC GRAVITY.....	0.637		0.629			0.632		
INDEX 2275			INDEX 2276			INDEX 2277		
SAMPLE 5882			SAMPLE 6214			SAMPLE 6620		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	SWEENEY		SWEENEY			SWEENEY		
WELL NAME.....	SPRUIELL NO. 1		SPELTER NO. 2			UNRUH NO. 1		
LOCATION.....	SEC. 29, T21S, R15W		SEC. 5, T21S, R15W			SEC. 30, T21S, R15W		
OWNER.....	HARMS-BURT DRLG. CO. & ASSOC		ALKAT OIL CO.			JOHN W. MCKNAB		
COMPLETED.....	07/05/55		12/01/55			04/-7/58		
SAMPLED.....	07/15/55		12/03/56			05/27/58		
FORMATION.....	CAMO-ARBUCKLE		CAMO-ARBUCKLE			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3870		3769			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1000		847			NOT GIVEN		
OPEN FLOW, MCFD.....	375		4735			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.9		68.7			81.9		
ETHANE.....	4.2		2.6			TRACE		
PROPANE.....	1.6		0.1			TRACE		
N-BUTANE.....	0.7		0.6			TRACE		
ISOBUTANE.....	0.3		TRACE			0.0		
N-PENTANE.....	0.4		0.0			0.1		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.2		0.0			TRACE		
NITROGEN.....	4.9		24.0			15.3		
OXYGEN.....	TRACE		1.2			0.8		
ARGON.....	TRACE		0.3			0.1		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.1		
HELIUM.....	0.52		0.66			1.50		
HEATING VALUE.....	1058		0.700			834		
SPECIFIC GRAVITY.....	0.639		0.700			0.618		
INDEX 2278			INDEX 2279			INDEX 2280		
SAMPLE 7029			SAMPLE 6601			SAMPLE 8345		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	SWEENEY		SWEENEY W			SWEENEY W		
WELL NAME.....	HANEY NO. 1		HANEY NO. 1			HANEY NO. 2		
LOCATION.....	SEC. 29, T21S, R16W		SEC. 13, T21S, R16W			SEC. 13, T21S, R16W		
OWNER.....	ANSCHUTZ DRILLING CO., INC.		D. R. LAUCK OIL CO., INC.			STICKLE DRILLING CO.		
COMPLETED.....	04/-7/55		04/-7/58			12/13/61		
SAMPLED.....	04/21/55		05/18/58			12/21/61		
FORMATION.....	CAMO-ARBUCKLE		CAMO-ARBUCKLE			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3847		3817			3807		
WELLHEAD PRESSURE, PSIG.....	1090		1060			1100		
OPEN FLOW, MCFD.....	7000		6000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.1		81.0			86.2		
ETHANE.....	3.8		0.1			3.7		
PROPANE.....	1.4		0.1			1.5		
N-BUTANE.....	0.5		0.1			0.7		
ISOBUTANE.....	0.2		TRACE			0.3		
N-PENTANE.....	0.1		TRACE			0.1		
ISOPENTANE.....	0.1		TRACE			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			0.1		
NITROGEN.....	6.3		15.6			5.6		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.1			0.4		
HELIUM.....	0.80		2.60			1.32		
HEATING VALUE.....	1018		825			1023		
SPECIFIC GRAVITY.....	0.635		0.612			0.629		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2281			INDEX 2282			INDEX 2283		
SAMPLE 5590			SAMPLE 5878			SAMPLE 3738		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	WILDCAT		WILDCAT			ZOOK		
WELL NAME.....	DE RO. No. 1		DIX No. 1			ROSENE SMITH No. 1		
LOCATION.....	SEC. 17, T21S, R16W		SEC. 21, T21S, R15W			SEC. 16, T23S, R16W		
OWNER.....	TRANS-ERA PETROLEUM CO.		CITIES SERVICE OIL CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	--/7/80		05/12/55			12/15/43		
SAMPLED.....	01/26/54		07/18/55			03/02/44		
FORMATION.....	CAMO-ARBUCKLE		PENN-BASAL			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		3741			385		
DEPTH, FEET.....	3798		1158			4060		
WELLHEAD PRESSURE, PSIG.....	1160		4410			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN					14950		
COMPONENT, MOLE PCT								
METHANE.....	1.4	84.7	86.6					
ETHANE.....	1.7	3.3	7.1					
PROPANE.....	0.8	1.2						
N-BUTANE.....	0.5	0.5						
ISOBUTANE.....	0.7	0.2						
N-PENTANE.....	0.1	0.1						
ISOPENTANE.....	0.3	0.1						
CYCLOPENTANE.....	0.1	TRACE						
HEXANES PLUS.....	0.1	0.1						
NITROGEN.....	87.7	0.6	5.3					
OXYGEN.....	TRACE	TRACE	0.5					
ARGON.....	0.2	0.1						
HYDROGEN.....	TRACE	0.0						
HYDROGEN SULFIDE.....	0.0	0.0						
CARBON DIOXIDE.....	0.6	0.3	0.0					
HELIUM.....	5.84	1.02	0.53					
HEATING VALUE.....	1032	1004	1004					
SPECIFIC GRAVITY.....	0.947	0.634	0.612					
INDEX 2284			INDEX 2285			INDEX 2286		
SAMPLE 3740			SAMPLE 8092			SAMPLE 8401		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	ZOOK		ZOOK			ZOOK		
WELL NAME.....	CH. GILKISON No. 1		SCHARTZ No. 1			SCHARTZ No. 1		
LOCATION.....	SEC. 14, T23S, R16W		SEC. 14, T22S, R16W			SEC. 14, T22S, R16W		
OWNER.....	STANOLIND OIL & GAS CO.		DUNNE-GARDNER PETROLEUM CO.			DUNNE-GARDNER PETROLEUM CO.		
COMPLETED.....	12/15/43		02/27/55			--/7/80		
SAMPLED.....	03/02/44		07/18/51			02/21/62		
FORMATION.....	CAMO-ARBUCKLE		NOT GIVEN			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	4063		4045			4020		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1167			1167		
OPEN FLOW, MCFD.....	6600		NOT GIVEN			1880		
COMPONENT, MOLE PCT								
METHANE.....	82.2	86.3	83.4					
ETHANE.....	11.1	4.0	3.4					
PROPANE.....		1.4	1.5					
N-BUTANE.....		0.5	0.4					
ISOBUTANE.....		0.5	0.2					
N-PENTANE.....		0.1	0.1					
ISOPENTANE.....		0.1	0.1					
CYCLOPENTANE.....		TRACE						
HEXANES PLUS.....		0.2	0.1					
NITROGEN.....	5.8	6.1	9.4					
OXYGEN.....	0.2	0.9	0.2					
ARGON.....		TRACE	TRACE					
HYDROGEN.....		0.0	0.0					
HYDROGEN SULFIDE.....		0.0	0.0					
CARBON DIOXIDE.....	0.2	0.6	0.3					
HELIUM.....	0.53	0.30	0.73					
HEATING VALUE.....	1032	1031	982					
SPECIFIC GRAVITY.....	0.634	0.642	0.643					
INDEX 2287			INDEX 2288			INDEX 2289		
SAMPLE 10759			SAMPLE 11211			SAMPLE 11529		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	ZOOK		ZOOK			ZOOK		
WELL NAME.....	IRMA No. 1		SCHARTZ No. 1			HARRIS No. 1		
LOCATION.....	SEC. 16, T23S, R16W		SEC. 8, T23S, R16W			SEC. 9, T23S, R16W		
OWNER.....	KEANE OIL CO.		HALLIBURTON OIL PRODUCING CO			HALLIBURTON OIL PRODUCING CO		
COMPLETED.....	07/01/66		08/31/67			12/01/67		
SAMPLED.....	10/23/66		10/25/67			06/04/68		
FORMATION.....	CAMO-ARBUCKLE		MISS-NOT GIVEN			PENN-& MISS		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	4061		4130			4028		
WELLHEAD PRESSURE, PSIG.....	1186		1170			1137		
OPEN FLOW, MCFD.....	8000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.8	86.7	85.8					
ETHANE.....	3.5	3.4	3.7					
PROPANE.....	1.5	1.1	1.3					
N-BUTANE.....	0.3	0.5	0.3					
ISOBUTANE.....	0.2	TRACE	0.2					
N-PENTANE.....	0.2	0.1	0.2					
ISOPENTANE.....	TRACE	0.3	0.1					
CYCLOPENTANE.....	0.1	TRACE	0.1					
HEXANES PLUS.....	0.2	TRACE	0.1					
NITROGEN.....	4.6	6.1	7.1					
OXYGEN.....	0.0	0.0	0.0					
ARGON.....	TRACE	0.1	TRACE					
HYDROGEN.....	0.0	0.0	0.0					
HYDROGEN SULFIDE.....	0.0	0.0	0.2					
CARBON DIOXIDE.....	0.0	0.9	0.73					
HELIUM.....	0.52	0.73	1013					
HEATING VALUE.....	1044	1007	1013					
SPECIFIC GRAVITY.....	0.623	0.631	0.634					
INDEX 2290			INDEX 2291			INDEX 2292		
SAMPLE 12204			SAMPLE 13747			SAMPLE 15369		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	ZOOK		ZOOK			ZOOK		
WELL NAME.....	CAUBLE UNIT No. 1		GILKINSON No. 1			JOYCE ZOOK No. 1		
LOCATION.....	SEC. 22, T23S, R16W		SEC. 15, T23S, R16W			SEC. 9, T23S, R16W		
OWNER.....	WHITE		ALPINE DRILLING CO.			ALPINE DRILLING CO.		
COMPLETED.....	01/03/70		07/20/73			06/08/78		
SAMPLED.....	02/20/70		10/08/73			09/11/78		
FORMATION.....	ORDO-SIMPSON		CAMO-CONGLOMERATE			CAMO-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	4044		4040			4023		
WELLHEAD PRESSURE, PSIG.....	1300		1163			1000		
OPEN FLOW, MCFD.....	3000		1320			300		
COMPONENT, MOLE PCT								
METHANE.....	88.6	85.1	86.6					
ETHANE.....	3.5	3.7	3.4					
PROPANE.....	0.4	0.4	1.3					
N-BUTANE.....	0.4	0.4	0.4					
ISOBUTANE.....	0.2	0.3	0.2					
N-PENTANE.....	0.1	0.2	0.1					
ISOPENTANE.....	0.2	0.2	0.1					
CYCLOPENTANE.....	0.1	TRACE	TRACE					
HEXANES PLUS.....	0.1	TRACE	0.1					
NITROGEN.....	4.7	7.7	4.4					
OXYGEN.....	0.0	0.0	TRACE					
ARGON.....	TRACE	TRACE	TRACE					
HYDROGEN.....	0.1	TRACE	0.1					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	0.1	0.0	0.2					
HELIUM.....	0.51	0.74	0.84					
HEATING VALUE.....	1039	1009	1010					
SPECIFIC GRAVITY.....	0.623	0.634	0.625					

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2293 17198	INDEX SAMPLE	2294 3217	INDEX SAMPLE	2295 16358
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PRATTE			PHILLIPS		PRATTE	
FIELD.....	ZOOK			RAY		A & W	
WELL NAME.....	KELLEMS NO. 3			NOEL NO. 2		HEALY FAMILY FARMS NO. 1	
LOCATION.....	SEC. 7, T23S, R16W			SEC. 29, T5S, R20W		SEC. 5, T28S, R15W	
OWNER.....	WHITE & ELLIS DRILLING, INC.			CITIES SERVICE OIL CO.		BRUNSON-SPINES, INC.	
COMPLETED.....	02/27/84			10/30/81		07/16/81	
SAMPLED.....	02/27/84			03/23/82		10/20/81	
FORMATION.....	NOT GIVEN			CAMB-REAGAN		PENN-CHEROKEE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			3576		4576	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1360	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		3500	
COMPONENT, MOLE PCT							
METHANE.....	84.1	-----		4.2	-----	79.7	-----
ETHANE.....	3.1	-----		14.5	-----	3.8	-----
PROPANE.....	1.1	-----		---	-----	1.8	-----
N-BUTANE.....	0.6	-----		---	-----	0.8	-----
ISOBUTANE.....	0.5	-----		---	-----	0.6	-----
N-PENTANE.....	0.9	-----		---	-----	0.6	-----
ISOPENTANE.....	1.0	-----		---	-----	0.5	-----
CYCLOPENTANE.....	0.5	-----		---	-----	0.2	-----
HEXANES PLUS.....	1.2	-----		---	-----	0.7	-----
NITROGEN.....	6.2	-----		76.7	-----	10.1	-----
OXYGEN.....	0.1	-----		0.2	-----	0.6	-----
ARGON.....	TRACE	-----		---	-----	0.1	-----
HYDROGEN.....	0.0	-----		---	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		1.7	-----	0.1	-----
HELIUM.....	0.72	-----		2.78	-----	0.37	-----
HEATING VALUE.....	1134	-----		302	-----	1060	-----
SPECIFIC GRAVITY.....	0.697	-----		0.949	-----	0.700	-----
		INDEX SAMPLE	2296 8737	INDEX SAMPLE	2297 15545	INDEX SAMPLE	2298 16735
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PRATTE			PRATTE		PRATTE	
FIELD.....	BARNES			BRANT		CHANCE	
WELL NAME.....	BARNES NO. 1			BRANT NO. A-1		MCQUIRE NO. 1	
LOCATION.....	SEC. 25, T27S, R12W			SEC. 31, T28S, R11W		SEC. 5, T27S, R13W	
OWNER.....	D.R. LAUCK DRILLING CO., INC			RAYMOND OIL CO., INC.		EAGLE EXPLORATION, INC.	
COMPLETED.....	--/--/00			06/22/78		05/28/82	
SAMPLED.....	10/30/62			12/14/78		12/14/82	
FORMATION.....	ORDO-SIMPSON			PERM-INDIAN CAVE		MISS-	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	4373			2624		4236	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			840		1080	
OPEN FLOW, MCFD.....	1450			2060		2300	
COMPONENT, MOLE PCT							
METHANE.....	48.1	-----		74.8	-----	64.7	-----
ETHANE.....	8.6	-----		3.8	-----	6.1	-----
PROPANE.....	5.2	-----		2.2	-----	4.2	-----
N-BUTANE.....	1.7	-----		0.6	-----	1.5	-----
ISOBUTANE.....	0.8	-----		0.3	-----	0.7	-----
N-PENTANE.....	0.4	-----		0.2	-----	0.4	-----
ISOPENTANE.....	0.5	-----		0.1	-----	0.4	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.1	-----	0.2	-----
NITROGEN.....	31.9	-----		16.9	-----	19.9	-----
OXYGEN.....	0.4	-----		0.9	-----	TRACE	-----
ARGON.....	0.2	-----		TRACE	-----	0.1	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.1	-----	0.1	-----
HELIUM.....	1.57	-----		0.41	-----	1.55	-----
HEATING VALUE.....	918	-----		935	-----	996	-----
SPECIFIC GRAVITY.....	0.846	-----		0.690	-----	0.760	-----
		INDEX SAMPLE	2299 3683	INDEX SAMPLE	2300 3715	INDEX SAMPLE	2301 3913
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	CHITWOOD			PRATTE		PRATTE	
FIELD.....	CHITWOOD			CHITWOOD		CHITWOOD	
WELL NAME.....	CHITWOOD NO. 1			CHITWOOD NO. 5		BARKER NO. 2	
LOCATION.....	SEC. 23, T28S, R12W			SEC. 23, T28S, R12W		SEC. 23, T28S, R12W	
OWNER.....	LION OIL & REFINING CO.			LION OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/06/43			--/--/00		10/11/44	
FORMATION.....	ORDO-SIMPSON			ORDO-VIOLA		ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	4396			NOT GIVEN		4200	
WELLHEAD PRESSURE, PSIG.....	1490			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		286	
COMPONENT, MOLE PCT							
METHANE.....	61.6	-----		73.5	-----	72.9	-----
ETHANE.....	27.9	-----		15.9	-----	17.3	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	9.0	-----		7.4	-----	8.2	-----
OXYGEN.....	0.3	-----		0.4	-----	0.4	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.4	-----		1.9	-----	0.3	-----
HELIUM.....	0.82	-----		0.86	-----	0.89	-----
HEATING VALUE.....	1124	-----		1029	-----	1049	-----
SPECIFIC GRAVITY.....	0.732	-----		0.681	-----	0.675	-----
		INDEX SAMPLE	2302 3959	INDEX SAMPLE	2303 3960	INDEX SAMPLE	2304 4060
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PRATTE			PRATTE		PRATTE	
FIELD.....	CHITWOOD			CHITWOOD		CHITWOOD	
WELL NAME.....	BROSSWOOD NO. 1			MAUDSLEY NO. 1		CHITWOOD NO. 5	
LOCATION.....	SEC. 23, T28S, R12W			SEC. 23, T28S, R12W		SEC. 23, T28S, R12W	
OWNER.....	LION OIL CO.			LION OIL CO.		LION OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/11/44			10/11/44		06/01/45	
FORMATION.....	ORDO-VIOLA			ORDO-VIOLA		ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	4200			4200		4500	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1400	
OPEN FLOW, MCFD.....	319			846		6495	
COMPONENT, MOLE PCT							
METHANE.....	69.5	-----		74.4	-----	69.4	-----
ETHANE.....	15.2	-----		15.5	-----	20.5	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	14.4	-----		8.5	-----	9.1	-----
OXYGEN.....	1.9	-----		0.5	-----	0.0	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.4	-----		0.2	-----	0.1	-----
HELIUM.....	0.64	-----		0.85	-----	0.87	-----
HEATING VALUE.....	941	-----		1071	-----	1070	-----
SPECIFIC GRAVITY.....	0.691	-----		0.667	-----	0.691	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

201

	INDEX SAMPLE	2305 4061	INDEX SAMPLE	2306 4062	INDEX SAMPLE	2307 4063
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	PRATT		PRATT		PRATT	
FIELD.....	CHITWOOD		CHITWOOD		CHITWOOD	
WELL NAME.....	CHITWOOD B-1		EVANS NO. 2		EVANS NO. 1	
LOCATION.....	SEC. 27, T28S, R12W		SEC. 27, T28S, R12W		SEC. 27, T28S, R12W	
OWNER.....	LION OIL CO.		GULF OIL CORP.		SKELLY OIL CO.	
COMPLETED.....	--/--/45		--/--/44		10/--/44	
SAMPLED.....	06/01/45		06/01/45		06/01/45	
FORMATION.....	ORDO-VIOLA		ORDO-VIOLA		ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....	385		385		385	
DEPTH, FEET.....	4500		4500		4323	
WELLHEAD PRESSURE, PSIG.....	1400		1400		1400	
OPEN FLOW, MCFD.....	9000		NOT GIVEN		15075	
COMPONENT, MOLE PCT						
METHANE.....	74.3		69.1		74.4	
ETHANE.....	17.0		21.0		17.2	
PROPANE.....	---		---		---	
N-BUTANE.....	---		---		---	
ISOBUTANE.....	---		---		---	
N-PENTANE.....	---		---		---	
ISOPENTANE.....	---		---		---	
CYCLOPENTANE.....	---		---		---	
HEXANES PLUS.....	---		---		---	
NITROGEN.....	7.9		9.0		7.4	
OXYGEN.....	0.0		0.0		0.1	
ARGON.....	---		---		---	
HYDROGEN.....	---		---		---	
HYDROGEN SULFIDE.....	---		---		---	
CARBON DIOXIDE.....	0.1		0.1		0.1	
HELIUM.....	0.74		0.77		0.79	
HEATING VALUE.....	1057		1076		1062	
SPECIFIC GRAVITY.....	0.669		0.693		0.668	

	INDEX SAMPLE	2308 4084	INDEX SAMPLE	2309 4091	INDEX SAMPLE	2310 14494
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	PRATT		PRATT		PRATT	
FIELD.....	CHITWOOD		CHITWOOD		CHITWOOD	
WELL NAME.....	FISSEL NO. 3		CHITWOOD B-2		CHITWOOD NO. S-1	
LOCATION.....	SEC. 22, T28S, R12W		SEC. 27, T28S, R12W		SEC. 23, T28S, R12W	
OWNER.....	CITIES SERVICE OIL CO.		LION OIL CO.		RAYMOND OIL CO., INC.	
COMPLETED.....	--/--/45		--/--/45		05/02/75	
SAMPLED.....	06/01/45		06/01/45		10/10/75	
FORMATION.....	ORDO-VIOLA		ORDO-VIOLA		PERM-INDIAN CAVE	
GEOLOGIC PROVINCE CODE.....	385		385		385	
DEPTH, FEET.....	4429		4500		2646	
WELLHEAD PRESSURE, PSIG.....	922		1400		380	
OPEN FLOW, MCFD.....	14782		9370		3300	
COMPONENT, MOLE PCT						
METHANE.....	71.3		71.6		83.0	
ETHANE.....	11.4		19.0		3.2	
PROPANE.....	---		---		1.4	
N-BUTANE.....	---		---		0.3	
ISOBUTANE.....	---		---		0.2	
N-PENTANE.....	---		---		TRACE	
ISOPENTANE.....	---		---		0.1	
CYCLOPENTANE.....	---		---		TRACE	
HEXANES PLUS.....	---		---		TRACE	
NITROGEN.....	10.1		8.5		10.8	
OXYGEN.....	0.1		0.0		0.0	
ARGON.....	---		---		TRACE	
HYDROGEN.....	---		---		0.0	
HYDROGEN SULFIDE.....	---		---		0.0	
CARBON DIOXIDE.....	0.3		0.1		0.3	
HELIUM.....	0.82		0.84		0.43	
HEATING VALUE.....	1034		1066		956	
SPECIFIC GRAVITY.....	0.682		0.681		0.638	

	INDEX SAMPLE	2311 8461	INDEX SAMPLE	2312 6060	INDEX SAMPLE	2313 5799
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	PRATT		PRATT		PRATT	
FIELD.....	COATES W		CULLISON		CULLISON W	
WELL NAME.....	MOSS NO. 1		JOHNSON NO. 1		W. ROBBINS NO. 1	
LOCATION.....	SEC. 23, T29S, R14W		SEC. 25, T28S, R15W		SEC. 21, T27S, R15W	
OWNER.....	WILKINSON DRILLING, INC.		BANKOFF OIL CO.		NATIONAL COOP. REFINERY ASSN	
COMPLETED.....	--/--/40		02/19/56		12/22/54	
SAMPLED.....	03/08/62		05/22/56		03/29/55	
FORMATION.....	ORDO-SIMPSON		MISS-CHAT		PENN-BASAL	
GEOLOGIC PROVINCE CODE.....	385		385		385	
DEPTH, FEET.....	4522		4558		4472	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1325		1320	
OPEN FLOW, MCFD.....	NOT GIVEN		875		7600	
COMPONENT, MOLE PCT						
METHANE.....	57.5		59.4		88.6	
ETHANE.....	8.1		5.8		3.1	
PROPANE.....	0.2		0.1		1.1	
N-BUTANE.....	0.9		1.1		0.4	
ISOBUTANE.....	0.4		0.4		0.2	
N-PENTANE.....	0.2		0.3		0.1	
ISOPENTANE.....	0.2		0.3		0.1	
CYCLOPENTANE.....	0.1		0.1		TRACE	
HEXANES PLUS.....	0.2		0.2		0.2	
NITROGEN.....	26.9		17.7		5.1	
OXYGEN.....	0.0		0.0		TRACE	
ARGON.....	0.1		0.1		0.0	
HYDROGEN.....	0.1		0.1		0.1	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.2		0.1		0.1	
HELIUM.....	1.88		1.03		0.46	
HEATING VALUE.....	886		888		1026	
SPECIFIC GRAVITY.....	0.766		0.730		0.619	

	INDEX SAMPLE	2314 2897	INDEX SAMPLE	2315 2911	INDEX SAMPLE	2316 2925
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	PRATT		PRATT		PRATT	
FIELD.....	CUNNINGHAM		CUNNINGHAM		CUNNINGHAM	
WELL NAME.....	C. H. LAKIN NO. 1		POWERS NO. 1		STEFFEN C NO. 1	
LOCATION.....	SEC. 36, T27S, R11W		SEC. 2, T28S, R11W		SEC. 35, T27S, R11W	
OWNER.....	SKELLY OIL CO.		DRILLERS GAS CO.		SKELLY OIL CO.	
COMPLETED.....	--/--/40		--/--/40		--/--/40	
SAMPLED.....	10/04/41		10/06/41		10/25/41	
FORMATION.....	ORDO-VIOLA		ORDO-VIOLA		ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....	385		385		385	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	65.5		62.8		62.2	
ETHANE.....	19.7		22.2		23.2	
PROPANE.....	---		---		---	
N-BUTANE.....	---		---		---	
ISOBUTANE.....	---		---		---	
N-PENTANE.....	---		---		---	
ISOPENTANE.....	---		---		---	
CYCLOPENTANE.....	---		---		---	
HEXANES PLUS.....	---		---		---	
NITROGEN.....	11.2		13.5		13.3	
OXYGEN.....	0.2		0.2		0.1	
ARGON.....	---		---		---	
HYDROGEN.....	---		---		---	
HYDROGEN SULFIDE.....	---		---		---	
CARBON DIOXIDE.....	0.3		0.2		0.1	
HELIUM.....	1.11		1.10		1.07	
HEATING VALUE.....	1017		1034		1046	
SPECIFIC GRAVITY.....	0.706		0.718		0.721	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2317				INDEX 2318				INDEX 2319			
SAMPLE 2926				SAMPLE 2927				SAMPLE 2928			
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	PRATT			PRATT				PRATT			
FIELD.....	CUNNINGHAM			CUNNINGHAM				CUNNINGHAM			
WELL NAME.....	LUNT A NO. 1			C. O. GOYEN C NO. 1				KREHBIEL B NO. 1			
LOCATION.....	SEC. 19, T28S, R11W			SEC. 8S, T28S, R11W				SEC. 1, T28S, R11W			
OWNER.....	SKELLY OIL CO.			SKELLY OIL CO.				SKELLY OIL CO.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	10/25/41			10/25/41				10/25/41			
FORMATION.....	ORDO-VIOLA			ORDO-VIOLA				ORDO-VIOLA			
GEOLOGIC PROVINCE CODE.....	385			385				385			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	72.4	-----		68.2	-----			64.9	-----		
ETHANE.....	17.7	-----		19.3	-----			21.3	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	8.7	-----		11.1	-----			12.4	-----		
OXYGEN.....	0.2	-----		0.2	-----			0.2	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.2	-----		0.2	-----			0.1	-----		
HELIUM.....	0.82	-----		1.00	-----			1.05	-----		
HEATING VALUE.....	1051	-----		1037	-----			1059	-----		
SPECIFIC GRAVITY.....	0.678	-----		0.695	-----			0.708	-----		
INDEX 2320				INDEX 2321				INDEX 2322			
SAMPLE 2929				SAMPLE 2933				SAMPLE 2934			
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	PRATT			PRATT				PRATT			
FIELD.....	CUNNINGHAM			CUNNINGHAM				CUNNINGHAM			
WELL NAME.....	GILCHRIST NO. 1			ARMISTEAD A NO. 1				C. O. GOYEN B NO. 1			
LOCATION.....	SEC. 7, T28S, R11W			SEC. 2, T28S, R11W				SEC. 17, T28S, R11W			
OWNER.....	SKELLY OIL CO.			SKELLY OIL CO.				SKELLY OIL CO.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	10/25/41			10/25/41				10/25/41			
FORMATION.....	ORDO-VIOLA			ORDO-VIOLA				ORDO-VIOLA			
GEOLOGIC PROVINCE CODE.....	385			385				385			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	71.6	-----		65.2	-----			68.2	-----		
ETHANE.....	17.2	-----		21.0	-----			19.7	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	10.1	-----		12.3	-----			10.5	-----		
OXYGEN.....	0.0	-----		0.1	-----			0.1	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.2	-----		0.3	-----			0.2	-----		
HELIUM.....	0.85	-----		1.05	-----			0.97	-----		
HEATING VALUE.....	1034	-----		1037	-----			1044	-----		
SPECIFIC GRAVITY.....	0.679	-----		0.708	-----			0.692	-----		
INDEX 2323				INDEX 2324				INDEX 2325			
SAMPLE 2936				SAMPLE 3056				SAMPLE 16409			
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	PRATT			PRATT				PRATT			
FIELD.....	CUNNINGHAM			CUNNINGHAM				EMMA			
WELL NAME.....	MORRISON NO. 1			SOUTH MAXEDON NO. 3				LEMON NO. 4-7			
LOCATION.....	SEC. 9, T28S, R11W			SEC. 2S, T27S, R15W				SEC. 7, T27S, R15W			
OWNER.....	SKELLY OIL CO.			SKELLY OIL CO.				IMPERIAL OIL CO.			
COMPLETED.....	--/--/00			05/11/40				10/22/81			
SAMPLED.....	10/25/41			12/04/41				01/15/82			
FORMATION.....	ORDO-VIOLA			ORDO-VIOLA				MISS-KINDERHOOK			
GEOLOGIC PROVINCE CODE.....	385			385				385			
DEPTH, FEET.....	NOT GIVEN			4000				4500			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				1375			
OPEN FLOW, MCFD.....	NOT GIVEN			67000				2000			
COMPONENT, MOLE PCT.....											
METHANE.....	66.5	-----		47.7	-----			84.9	-----		
ETHANE.....	21.4	-----		38.2	-----			3.7	-----		
PROPANE.....	---	-----		---	-----			1.4	-----		
N-BUTANE.....	---	-----		---	-----			0.4	-----		
ISOBUTANE.....	---	-----		---	-----			0.1	-----		
N-PENTANE.....	---	-----		---	-----			0.2	-----		
ISOPENTANE.....	---	-----		---	-----			0.0	-----		
CYCLOPENTANE.....	---	-----		---	-----			0.2	-----		
HEXANES PLUS.....	---	-----		---	-----			0.3	-----		
NITROGEN.....	10.9	-----		12.7	-----			7.6	-----		
OXYGEN.....	0.1	-----		0.2	-----			0.1	-----		
ARGON.....	---	-----		---	-----			TRACE	-----		
HYDROGEN.....	---	-----		---	-----			0.0	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			0.0	-----		
CARBON DIOXIDE.....	0.3	-----		0.2	-----			TRACE	-----		
HELIUM.....	0.96	-----		1.01	-----			0.99	-----		
HEATING VALUE.....	1054	-----		1168	-----			1011	-----		
SPECIFIC GRAVITY.....	0.704	-----		0.795	-----			0.636	-----		
INDEX 2326				INDEX 2327				INDEX 2328			
SAMPLE 12936				SAMPLE 8276				SAMPLE 16239			
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	PRATT			PRATT				PRATT			
FIELD.....	FRISBIE NE			GEREKE N				WARDING			
WELL NAME.....	GRIFFITH A NO. 1			PARKS NO. 1				COSS A NO. 1			
LOCATION.....	SEC. 10, T26S, R13W			SEC. 1, T26S, R15W				SEC. 31, T29S, R11W			
OWNER.....	VINCENT OIL CORP.			SCHERMERHORN OIL CORP.				ANADARKO PRODUCTION CO.			
COMPLETED.....	05/13/71			--/--/00				--/--/00			
SAMPLED.....	07/19/71			11/10/61				04/21/81			
FORMATION.....	MISS-			PENN-LANSING				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	385			385				385			
DEPTH, FEET.....	4132			3807				2748			
WELLHEAD PRESSURE, PSIG.....	1210			1550				700			
OPEN FLOW, MCFD.....	4300			4000				1500			
COMPONENT, MOLE PCT.....											
METHANE.....	66.0	-----		79.5	-----			87.0	-----		
ETHANE.....	5.2	-----		4.0	-----			3.6	-----		
PROPANE.....	0.5	-----		0.1	-----			0.3	-----		
N-BUTANE.....	0.8	-----		0.8	-----			0.3	-----		
ISOBUTANE.....	0.3	-----		0.4	-----			0.1	-----		
N-PENTANE.....	0.4	-----		0.2	-----			0.1	-----		
ISOPENTANE.....	TRACE	-----		0.2	-----			0.1	-----		
CYCLOPENTANE.....	0.1	-----		0.1	-----			TRACE	-----		
HEXANES PLUS.....	0.2	-----		0.2	-----			0.1	-----		
NITROGEN.....	21.5	-----		11.8	-----			7.0	-----		
OXYGEN.....	1.3	-----		TRACE	-----			0.0	-----		
ARGON.....	0.1	-----		TRACE	-----			TRACE	-----		
HYDROGEN.....	0.0	-----		---	-----			TRACE	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	0.3	-----		0.2	-----			0.1	-----		
HELIUM.....	1.39	-----		0.40	-----			0.25	-----		
HEATING VALUE.....	895	-----		1033	-----			1007	-----		
SPECIFIC GRAVITY.....	0.731	-----		0.676	-----			0.626	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2329 SAMPLE 3594			INDEX 2330 SAMPLE 3601			INDEX 2331 SAMPLE 3605		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PRATT		PRATT			PRATT		
FIELD.....	LUKA-CARMI		LUKA-CARMI			LUKA-CARMI		
WELL NAME.....	TRITSCH NO. 1		HARRELL NO. 8-1			HELMKE-GETTY NO. 1		
LOCATION.....	SEC. 11, T27S, R13W		SEC. 2, T27S, R13W			SEC. 1, T27S, R13W		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.			SKELLY OIL CO.		
COMPLETED.....	6/7/40		06/30/41			7/7/40		
SAMPLED.....	09/11/42		09/11/42			09/11/42		
FORMATION.....	ORDO-SIMPSON		ORDO-SIMPSON			CAMO-ARBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	4304		4255			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	67.0		61.0			24.9		
ETHANE.....	24.7		21.8			43.3		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	7.5		15.3			25.5		
OXYGEN.....	0.4		0.5			0.6		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			2.4		
HELIUM.....	0.17		1.2			3.30		
HEATING VALUE.....	1121		1009			1028		
SPECIFIC GRAVITY.....	0.711		0.725			0.887		
INDEX 2332 SAMPLE 15024			INDEX 2333 SAMPLE 7869			INDEX 2334 SAMPLE 3632		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PRATT		PRATT			PRATT		
FIELD.....	LUKA-CARMI		JEN			NOT GIVEN		
WELL NAME.....	ALBERT MOORE NO. 1		MOORE NO. 1			FORD NO. 1		
LOCATION.....	SEC. 25, T26S, R12W		SEC. 29, T29S, R13W			SEC. 12, T26S, R12W		
OWNER.....	W. L. KIRKMAN, INC.		KENWOOD OIL CO.			MONSANTO CO.		
COMPLETED.....	10/3/76		02/17/61			7/7/40		
SAMPLED.....	06/09/77		02/13/61			04/07/43		
FORMATION.....	PENN-HOWARD & SEVERY		ORDO-VIOLA			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		4453			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	947		780			NOT GIVEN		
OPEN FLOW, MCFD.....	4800		1100			NOT GIVEN		
COMPONENT, MOLE PCT						NOT GIVEN		
METHANE.....	64.7		74.9			55.4		
ETHANE.....	4.5		8.6			32.0		
PROPANE.....	4.1		3.7			---		
N-BUTANE.....	1.3		1.3			---		
ISOBUTANE.....	0.6		0.6			---		
N-PENTANE.....	0.4		0.4			---		
ISOPENTANE.....	0.2		---			---		
CYCLOPENTANE.....	0.1		TRACE			---		
HEXANES PLUS.....	0.2		0.2			---		
NITROGEN.....	23.1		9.3			11.8		
OXYGEN.....	0.0		TRACE			0.3		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.4		
HELIUM.....	0.46		0.60			0.13		
HEATING VALUE.....	953		1109			1135		
SPECIFIC GRAVITY.....	0.764		0.717			0.767		
INDEX 2335 SAMPLE 14636			INDEX 2336 SAMPLE 7685			INDEX 2337 SAMPLE 17631		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PRATT		PRATT			PRATT		
FIELD.....	ROLLINGSOON		SAWYER			TATLOCK EXTENSION E		
WELL NAME.....	MOORE "A" NO. 1		J. W. COMBS NO. 1			KELL NO. 1		
LOCATION.....	SEC. 35, T27S, R13W		SEC. 35, T29S, R13W			SEC. 35, T26S, R15W		
OWNER.....	RAYMOND OIL CO., INC.		AMERADA PETROLEUM CORP.			ZENITH DRILLING CORP.		
COMPLETED.....	10/07/75		09/25/60			10/22/84		
SAMPLED.....	04/10/76		09/12/60			03/27/85		
FORMATION.....	PERM-RED EAGLE		PENN-LANSING			MISS-KINDERHOOK		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	2592		4130			4408		
WELLHEAD PRESSURE, PSIG.....	820		NOT GIVEN			366		
OPEN FLOW, MCFD.....	2800		NOT GIVEN			9000		
COMPONENT, MOLE PCT								
METHANE.....	68.7		75.5			83.2		
ETHANE.....	3.8		6.0			4.2		
PROPANE.....	2.1		3.1			1.7		
N-BUTANE.....	0.7		1.0			0.3		
ISOBUTANE.....	0.3		0.5			0.2		
N-PENTANE.....	0.0		0.2			0.2		
ISOPENTANE.....	0.2		0.2			TRACE		
CYCLOPENTANE.....	TRACE		---			0.1		
HEXANES PLUS.....	TRACE		0.2			0.2		
NITROGEN.....	23.6		12.7			8.2		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.63		0.30			0.98		
HEATING VALUE.....	854		1034			1008		
SPECIFIC GRAVITY.....	0.706		0.704			0.645		
INDEX 2338 SAMPLE 14633			INDEX 2339 SAMPLE 3250			INDEX 2340 SAMPLE 15983		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	PRATT		PRATT			PRATT		
FIELD.....	UNNAMED		WARD			WIL		
WELL NAME.....	BUCKLIN ESTATE NO. 1		WARD NO. 8-1			STAMBAUGH "A" NO. 1		
LOCATION.....	SEC. 17, T25S, R12W		SEC. 11, T26S, R12W			SEC. 8, T26S, R15W		
OWNER.....	D. A. LAUCK OIL CO., INC.		N. APPLEMAN CO.			CITIES SERVICE CO.		
COMPLETED.....	04/11/75		09/15/41			03/18/80		
SAMPLED.....	04/05/76		04/01/42			06/09/80		
FORMATION.....	PERM-INDIAN CAVE		ORDO-VIOLA			MISS-CHERT		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	2684		4105			4357		
WELLHEAD PRESSURE, PSIG.....	130		97			1040		
OPEN FLOW, MCFD.....	959		3700			4260		
COMPONENT, MOLE PCT								
METHANE.....	72.1		60.5			88.0		
ETHANE.....	2.4		17.9			3.8		
PROPANE.....	0.8		---			1.4		
N-BUTANE.....	0.2		---			0.5		
ISOBUTANE.....	0.2		---			0.2		
N-PENTANE.....	TRACE		---			0.2		
ISOPENTANE.....	TRACE		---			0.2		
CYCLOPENTANE.....	TRACE		---			0.2		
HEXANES PLUS.....	TRACE		---			0.2		
NITROGEN.....	23.6		19.6			4.9		
OXYGEN.....	0.0		0.3			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		---			TRACE		
HELIUM.....	0.56		1.46			0.62		
HEATING VALUE.....	808		934			1051		
SPECIFIC GRAVITY.....	0.676		0.722			0.631		

* CALCULATED GROSS BTU PER CU. FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2341 16138	INDEX SAMPLE	2342 16361	INDEX SAMPLE	2343 13787
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PRATT			PRATT		PRATT	
FIELD.....	WIL			WIL		WOOLFOLK	
WELL NAME.....	DOGGETT NO. 4			WOOD NO. 2		WOOLFOLK NO. 7	
LOCATION.....	SEC. 17, T26S, R5W			SEC. 18, T26S, R15W		SEC. 15, T28S, R14W	
OWNER.....	MULL DRILLING CO., INC.			BEREN CORP.		TEXAS ENERGIES, INC.	
COMPLETED.....	05/23/80			08/20/80		--/--/00	
SAMPLED.....	12/04/80			10/20/81		10/12/73	
FORMATION.....	MISS-			MISS-		PENN-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	4350			4352		3954	
WELLHEAD PRESSURE, PSIG.....	950			1070		1462	
OPEN FLOW, MCFD.....	9000			3650		411	
COMPONENT, MOLE PCT							
METHANE.....	88.3			87.9		69.9	
ETHANE.....	5.7			6.0		3.8	
PROPANE.....	1.5			1.6		2.3	
N-BUTANE.....	0.5			0.5		0.7	
ISOBUTANE.....	0.2			0.2		0.4	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	4.7			4.6		21.7	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.58			0.53		0.51	
HEATING VALUE.....	1045			1049		895	
SPECIFIC GRAVITY.....	0.627			0.628		0.711	
		INDEX SAMPLE	2344 2237	INDEX SAMPLE	2345 2316	INDEX SAMPLE	2346 2486
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RENO			RENO		RENO	
FIELD.....	BURTON			BURTON		BURTON	
WELL NAME.....	HAURY NO. 1			BLAKE NO. 1		NO. 1	
LOCATION.....	SEC. 1, T23, R4W			SEC. 23, T23S, R4W		SEC. 26, T23S, R4W	
OWNER.....	CITIES SERVICE OIL CO.			CONTINENTAL OIL & SWEET PET.		OLSEN OIL CO. & SHELL OIL	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	11/07/30			04/23/31		04/11/32	
FORMATION.....	MISS-			MISS-		MISS-BURTON	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	3303			3271		3237	
WELLHEAD PRESSURE, PSIG.....	1200			1100		1180	
OPEN FLOW, MCFD.....	23000			8500		86600	
COMPONENT, MOLE PCT							
METHANE.....	80.1			78.8		76.3	
ETHANE.....	16.0			12.8		15.7	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	3.5			7.9		7.1	
OXYGEN.....	0.0			0.2		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.1			0.0		0.3	
HELIUM.....	0.2			0.33		0.34	
HEATING VALUE.....	1098			1028		1094	
SPECIFIC GRAVITY.....	0.648			0.650		0.665	
		INDEX SAMPLE	2347 10338	INDEX SAMPLE	2348 8464	INDEX SAMPLE	2349 8612
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RENO			RENO		RENO	
FIELD.....	FRIENDSHIP			HUNTSVILLE		HUNTSVILLE TOWNSITE	
WELL NAME.....	RENO BLOCKER NO. 1			SMITH NO. 1		LAVIELLE NO. 1	
LOCATION.....	SEC. 19, T25S, R4W			SEC. 20, T23S, R9W		SEC. 18, T23S, R9W	
OWNER.....	TESORO PETROLEUM CORP.			MULL DRILLING CO., INC.		MULL DRILLING CO., INC.	
COMPLETED.....	02/02/62			--/--/00		08/05/62	
SAMPLED.....	08/04/65			03/20/62		08/04/62	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	3554			3680		3573	
WELLHEAD PRESSURE, PSIG.....	720			NOT GIVEN		1320	
OPEN FLOW, MCFD.....	520			240		750	
COMPONENT, MOLE PCT							
METHANE.....	70.1			73.7		74.0	
ETHANE.....	7.4			6.2		7.4	
PROPANE.....	5.0			3.1		3.7	
N-BUTANE.....	3.1			1.0		1.1	
ISOBUTANE.....	1.0			0.5		0.5	
N-PENTANE.....	1.1			0.3		0.2	
ISOPENTANE.....	1.8			0.3		0.3	
CYCLOPENTANE.....	1.0			0.1		0.1	
HEXANES PLUS.....	2.0			0.2		0.1	
NITROGEN.....	6.8			13.3		11.4	
OXYGEN.....	0.2			0.2		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.28			0.95		0.78	
HEATING VALUE.....	1375			1028		1062	
SPECIFIC GRAVITY.....	0.857			0.712		0.711	
		INDEX SAMPLE	2350 8613	INDEX SAMPLE	2351 10392	INDEX SAMPLE	2352 10393
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RENO			RENO		RENO	
FIELD.....	HUNTSVILLE TOWNSITE			LERADO		LERADO	
WELL NAME.....	LAVIELLE NO. 1			MONTEFORD C. NO. 1		MURPHY NO. 2	
LOCATION.....	SEC. 16, T23S, R9W			SEC. 16, T26S, R9W		SEC. 14, T26W, R9S	
OWNER.....	MULL DRILLING CO., INC.			MESSMAN-RINEHART OIL CO.		MESSMAN-RINEHART OIL CO.	
COMPLETED.....	08/05/62			05/10/58		09/17/65	
SAMPLED.....	08/04/62			02/10/66		02/10/66	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	3573			3888		2203	
WELLHEAD PRESSURE, PSIG.....	1320			1100		780	
OPEN FLOW, MCFD.....	750			6000		1000	
COMPONENT, MOLE PCT							
METHANE.....	74.0			76.0		76.4	
ETHANE.....	6.5			6.8		6.0	
PROPANE.....	3.0			3.7		2.7	
N-BUTANE.....	0.9			1.2		0.8	
ISOBUTANE.....	0.4			0.3		0.3	
N-PENTANE.....	0.1			0.3		0.2	
ISOPENTANE.....	0.2			0.4		0.2	
CYCLOPENTANE.....	0.0			TRACE		0.1	
HEXANES PLUS.....	TRACE			0.2		0.2	
NITROGEN.....	13.5			10.1		12.6	
OXYGEN.....	0.2			0.0		0.0	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.2		0.1	
HELIUM.....	0.78			0.68		0.43	
HEATING VALUE.....	1001			1082		1020	
SPECIFIC GRAVITY.....	0.699			0.709		0.694	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2353 SAMPLE 10786		INDEX 2354 SAMPLE 2046		INDEX 2355 SAMPLE 3224	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	RENO	COUNTY.....	RENO	COUNTY.....	RENO
FIELD.....	LEGRAD	FIELD.....	NOT GIVEN	FIELD.....	PEACE CREEK NE
WELL NAME.....	COLE-JUSTUS NO. 1	WELL NAME.....	TREMBLY NO. 1	WELL NAME.....	MCNURREY
LOCATION.....	SEC. 14, T26S, R9W	LOCATION.....	SEC. 34, T24, R7W	LOCATION.....	SEC. 10, T23S, R10W
OWNER.....	MESS-N-RINEHART OIL CO.	OWNER.....	SKELLY OIL CO.	OWNER.....	LEADER OIL CO.
COMPLETED.....	06/25/66	COMPLETED.....	7/7/00	COMPLETED.....	01/15/42
SAMPLED.....	11/22/66	SAMPLED.....	06/13/30	SAMPLED.....	03/30/42
FORMATION.....	PERM-FORAKER	FORMATION.....	NOT GIVEN	FORMATION.....	ORDO-VIOLA
GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375
DEPTH, FEET.....	2002	DEPTH, FEET.....	2075	DEPTH, FEET.....	3767
WELLHEAD PRESSURE, PSIG.....	735	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	840
OPEN FLOW, MCFD.....	9000	OPEN FLOW, MCFD.....	1800	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	67.3	METHANE.....	52.8	METHANE.....	32.3
ETHANE.....	5.1	ETHANE.....	5.3	ETHANE.....	57.7
PROpane.....	2.5	PROpane.....	---	PROpane.....	---
N-BUTANE.....	0.7	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	0.0	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	0.0	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.0	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	23.6	NITROGEN.....	40.2	NITROGEN.....	9.1
OXYGEN.....	0.1	OXYGEN.....	0.3	OXYGEN.....	0.4
ARGON.....	0.1	ARGON.....	---	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.3
HELIUM.....	0.65	HELIUM.....	0.85	HELIUM.....	0.17
HEATING VALUE.....	856	HEATING VALUE.....	630	HEATING VALUE.....	1361
SPECIFIC GRAVITY.....	0.712	SPECIFIC GRAVITY.....	0.749	SPECIFIC GRAVITY.....	0.882
INDEX 2356 SAMPLE 10711		INDEX 2357 SAMPLE 8719		INDEX 2358 SAMPLE 14525	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	RENO	COUNTY.....	RENO	COUNTY.....	RENO
FIELD.....	SHUFF	FIELD.....	WILDCAT	FIELD.....	WISBY NW
WELL NAME.....	SHUFF NO. 1	WELL NAME.....	FRENCH NO. 1	WELL NAME.....	PROFFITT NO. 1
LOCATION.....	SEC. 34, T23S, R9W	LOCATION.....	SEC. 34, T26S, R6W	LOCATION.....	SEC. 12, T22S, R10W
OWNER.....	SIERRA PETROLEUM CO., INC.	OWNER.....	MULL DRILLING CO., INC.	OWNER.....	SHIELDS OIL PRODUCERS, INC.
COMPLETED.....	06/12/66	COMPLETED.....	7/7/00	COMPLETED.....	04/20/75
SAMPLED.....	09/06/66	SAMPLED.....	10/17/62	SAMPLED.....	11/05/75
FORMATION.....	MISS-	FORMATION.....	MISS-	FORMATION.....	PENN-KANSAS CITY
GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375
DEPTH, FEET.....	3762	DEPTH, FEET.....	3709	DEPTH, FEET.....	3120
WELLHEAD PRESSURE, PSIG.....	1225	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1200
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	2500
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	77.8	METHANE.....	75.3	METHANE.....	70.8
ETHANE.....	6.4	ETHANE.....	4.9	ETHANE.....	4.1
PROpane.....	2.4	PROpane.....	2.4	PROpane.....	2.0
N-BUTANE.....	1.1	N-BUTANE.....	0.9	N-BUTANE.....	0.5
ISOBUTANE.....	0.2	ISOBUTANE.....	0.4	ISOBUTANE.....	0.3
N-PENTANE.....	0.3	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	9.3	NITROGEN.....	12.8	NITROGEN.....	21.0
OXYGEN.....	0.0	OXYGEN.....	2.2	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.85	HELIUM.....	0.18	HELIUM.....	0.91
HEATING VALUE.....	1072	HEATING VALUE.....	991	HEATING VALUE.....	883
SPECIFIC GRAVITY.....	0.690	SPECIFIC GRAVITY.....	0.705	SPECIFIC GRAVITY.....	0.697
INDEX 2359 SAMPLE 3230		INDEX 2360 SAMPLE 3237		INDEX 2361 SAMPLE 3238	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	RENO	COUNTY.....	RENO	COUNTY.....	RENO
FIELD.....	YODER	FIELD.....	YODER	FIELD.....	ZENITH-PEACE CREEK
WELL NAME.....	YODER NO. 1	WELL NAME.....	HAYNES NO. 1	WELL NAME.....	HOLLENBACK NO. 1
LOCATION.....	SEC. 34, T24S, R5W	LOCATION.....	SEC. 33, T24S, R5W	LOCATION.....	SEC. 28, T23S, R10W
OWNER.....	DRILLERS GAS CO.	OWNER.....	DRILLERS GAS CO.	OWNER.....	SIMPSON OIL CO.
COMPLETED.....	11/03/37	COMPLETED.....	03/26/38	COMPLETED.....	01/12/42
SAMPLED.....	03/30/42	SAMPLED.....	03/30/42	SAMPLED.....	03/30/42
FORMATION.....	MISS-LIME	FORMATION.....	MISS-LIME	FORMATION.....	ORDO-VIOLA
GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375
DEPTH, FEET.....	3393	DEPTH, FEET.....	3408	DEPTH, FEET.....	3798
WELLHEAD PRESSURE, PSIG.....	750	WELLHEAD PRESSURE, PSIG.....	1025	WELLHEAD PRESSURE, PSIG.....	1170
OPEN FLOW, MCFD.....	4723	OPEN FLOW, MCFD.....	2322	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	79.2	METHANE.....	80.2	METHANE.....	10.3
ETHANE.....	17.6	ETHANE.....	16.1	ETHANE.....	78.2
PROpane.....	---	PROpane.....	---	PROpane.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	2.6	NITROGEN.....	3.0	NITROGEN.....	9.3
OXYGEN.....	0.1	OXYGEN.....	0.3	OXYGEN.....	0.3
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	1.5
HELIUM.....	0.30	HELIUM.....	0.29	HELIUM.....	0.15
HEATING VALUE.....	1118	HEATING VALUE.....	1101	HEATING VALUE.....	1506
SPECIFIC GRAVITY.....	0.653	SPECIFIC GRAVITY.....	0.648	SPECIFIC GRAVITY.....	0.996
INDEX 2362 SAMPLE 8266		INDEX 2363 SAMPLE 16453		INDEX 2364 SAMPLE 3225	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	RENO	COUNTY.....	RENO	COUNTY.....	RICE
FIELD.....	ZENITH-PEACE CREEK	FIELD.....	ZENITH-PEACE CREEK	FIELD.....	ALDEN
WELL NAME.....	HINSHAW NO. 1	WELL NAME.....	BURNS NO. 1	WELL NAME.....	SHALL NO. 1
LOCATION.....	SEC. 14, T23S, R10W	LOCATION.....	SEC. 14, T23S, R9W	LOCATION.....	SEC. 22, T21S, R9W
OWNER.....	WILKINSON DRILLING, INC.	OWNER.....	ZENITH DRILLING CORP., INC.	OWNER.....	SHARON DRILLING CO.
COMPLETED.....	7/7/00	COMPLETED.....	03/15/82	COMPLETED.....	04/7/41
SAMPLED.....	11/01/61	SAMPLED.....	03/15/82	SAMPLED.....	03/25/42
FORMATION.....	ORDO-VIOLA	FORMATION.....	MISS-	FORMATION.....	DEVO-MISENER
GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	375	GEOLOGIC PROVINCE CODE.....	385
DEPTH, FEET.....	3596	DEPTH, FEET.....	3574	DEPTH, FEET.....	3317
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1139	WELLHEAD PRESSURE, PSIG.....	773
OPEN FLOW, MCFD.....	802	OPEN FLOW, MCFD.....	2794	OPEN FLOW, MCFD.....	3962
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	64.5	METHANE.....	74.1	METHANE.....	65.3
ETHANE.....	7.1	ETHANE.....	6.8	ETHANE.....	22.4
PROpane.....	3.6	PROpane.....	3.0	PROpane.....	---
N-BUTANE.....	1.0	N-BUTANE.....	0.4	N-BUTANE.....	---
ISOBUTANE.....	0.5	ISOBUTANE.....	0.4	ISOBUTANE.....	---
N-PENTANE.....	0.2	N-PENTANE.....	0.4	N-PENTANE.....	---
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	---
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	---
NITROGEN.....	21.4	NITROGEN.....	12.7	NITROGEN.....	11.1
OXYGEN.....	0.1	OXYGEN.....	0.1	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1
HELIUM.....	1.17	HELIUM.....	0.77	HELIUM.....	0.76
HEATING VALUE.....	947	HEATING VALUE.....	1049	HEATING VALUE.....	1063
SPECIFIC GRAVITY.....	0.741	SPECIFIC GRAVITY.....	0.714	SPECIFIC GRAVITY.....	0.710

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2365 SAMPLE 3239			INDEX 2366 SAMPLE 8660			INDEX 2367 SAMPLE 15037		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RICE		RICE			RICE		
FIELD.....	ALDEN		BELL			BELL		
WELL NAME.....	FAIR NO. 1		BOY NO. 1			L. BOY NO. 2		
LOCATION.....	SEC. 28, T21S, R9W		SEC. 21, T21S, R10W			SEC. 17, T21S, R10W		
OWNER.....	INGLING & PARKER		ICER ADDIS CO.			LEBSACK OIL PRODUCTION, INC.		
COMPLETED.....	03/08/41		-/-/00			-/-/76		
SAMPLED.....	03/25/42		08/27/62			06/28/77		
FORMATION.....	DEVO-MISENER		PENN-SEVERY			PENN-SEVERY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3313		2530			2500		
WELLHEAD PRESSURE, PSIG.....	681		NOT GIVEN			800		
OPEN FLOW, MCFD.....	8619		NOT GIVEN			2000		
COMPONENT, MOLE PCT.....								
METHANE.....	61.9		61.0			62.2		
ETHANE.....	23.7		1.9			1.9		
PROPANE.....	---		0.8			0.7		
N-BUTANE.....	---		0.2			0.2		
ISOBUTANE.....	---		TRACE			0.1		
N-PENTANE.....	---		TRACE			0.0		
ISOPENTANE.....	---		TRACE			0.1		
CYCLOPENTANE.....	---		0.0			TRACE		
HEXANES PLUS.....	---		34.8			TRACE		
NITROGEN.....	12.8		0.3			33.7		
OXYGEN.....	0.5		0.3			0.0		
ARGON.....	---		0.1			0.1		
HYDROGEN.....	---		0.1			0.1		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.1		
HEATING VALUE.....	0.76		0.74			1.80		
SPECIFIC GRAVITY.....	0.727		0.720			0.715		
INDEX 2368 SAMPLE 15045			INDEX 2369 SAMPLE 10251			INDEX 2370 SAMPLE 14137		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RICE		RICE			RICE		
FIELD.....	BELL		CANZONERI			CENTENNIAL		
WELL NAME.....	FLORA NO. 2		CANZONERI NO. 1			ENGELLAND NO. 1		
LOCATION.....	SEC. 21, T21S, R10W		SEC. 10, T21S, R9W			SEC. 3, T20S, R7W		
OWNER.....	LEBSACK OIL PRODUCTION, INC.		LEBSACK OIL PRODUCTION, INC.			MESSMAN-RINEHART OIL CO.		
COMPLETED.....	-/-/00		08/17/65			09/12/73		
SAMPLED.....	06/28/77		10/21/65			08/26/74		
FORMATION.....	PENN-SEVERY		MISS-KINDERHOOK			MISS-		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	2525		3271			3278		
WELLHEAD PRESSURE, PSIG.....	800		997			1080		
OPEN FLOW, MCFD.....	2500		2500			6200		
COMPONENT, MOLE PCT.....								
METHANE.....	61.9		73.2			65.8		
ETHANE.....	1.8		5.9			6.5		
PROPANE.....	0.7		2.8			4.7		
N-BUTANE.....	0.2		0.3			1.4		
ISOBUTANE.....	0.1		0.3			0.4		
N-PENTANE.....	0.0		TRACE			0.3		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		0.1			0.1		
NITROGEN.....	34.1		16.7			19.1		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	---		TRACE			0.1		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			TRACE		
HEATING VALUE.....	0.96		0.45			0.99		
SPECIFIC GRAVITY.....	0.716		0.691			1.009		
INDEX 2371 SAMPLE 3226			INDEX 2372 SAMPLE 3248			INDEX 2373 SAMPLE 3249		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RICE		RICE			RICE		
FIELD.....	CHASE-SILICA		CHASE-SILICA			CHASE-SILICA		
WELL NAME.....	DOLL NO. 1		DIPPEL NO. 1 B			WEINS NO. 1		
LOCATION.....	SEC. 19, T19S, R10W		SEC. 26, T19S, R10W			SEC. 6, T19S, R9W		
OWNER.....	DRILLERS SERVICE OIL CO.		DUIE & FARRIS			DUIE & FARRIS		
COMPLETED.....	12/11/41		05/24/40			04/14/39		
SAMPLED.....	03/25/42		03/30/42			03/30/42		
FORMATION.....	PENN-KANSAS CITY		PENN-KANSAS CITY			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3030		3018			2978		
WELLHEAD PRESSURE, PSIG.....	1039		800			1071		
OPEN FLOW, MCFD.....	3330		7000			3208		
COMPONENT, MOLE PCT.....								
METHANE.....	59.8		47.2			45.8		
ETHANE.....	19.5		19.9			22.5		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	19.3		31.2			30.1		
OXYGEN.....	0.3		0.2			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.4			0.3		
HEATING VALUE.....	0.88		1.00			1.01		
SPECIFIC GRAVITY.....	0.730		0.782			0.867		
INDEX 2374 SAMPLE 4290			INDEX 2375 SAMPLE 4291			INDEX 2376 SAMPLE 15884		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RICE		RICE			RICE		
FIELD.....	CHASE-SILICA		CHASE-SILICA			FITZPATRICK		
WELL NAME.....	DINSMORE NO.1		LOWREY NO. 1			DILL NO. 1		
LOCATION.....	SEC. 36, T19S, R9W		SEC. 36, T19S, R9W			SEC. 24, T21S, R9W		
OWNER.....	DRILLERS GAS CO.		DRILLERS GAS CO.			LEBSACK OIL PRODUCTION, INC.		
COMPLETED.....	02/16/47		02/16/47			-/-/00		
SAMPLED.....	04/07/47		04/07/47			01/24/80		
FORMATION.....	PENN-		PENN-			MISS-		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	2117		2114			3319		
WELLHEAD PRESSURE, PSIG.....	697		693			1023		
OPEN FLOW, MCFD.....	3445		7100			4518		
COMPONENT, MOLE PCT.....								
METHANE.....	58.1		55.8			65.7		
ETHANE.....	4.0		4.6			13.3		
PROPANE.....	---		---			9.7		
N-BUTANE.....	---		---			3.2		
ISOBUTANE.....	---		---			1.5		
N-PENTANE.....	---		---			1.0		
ISOPENTANE.....	---		---			0.4		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.4		
NITROGEN.....	35.7		37.6			4.3		
OXYGEN.....	0.4		0.6			TRACE		
ARGON.....	---		---			0.0		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.8		0.4			0.0		
HEATING VALUE.....	1.03		1.01			0.29		
SPECIFIC GRAVITY.....	0.727		0.735			1.402		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2377 8236			INDEX SAMPLE	2378 8555			INDEX SAMPLE	2379 9294
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	RICE			COUNTY.....	RICE			COUNTY.....	KEPNEY		
FIELD.....	GENESEO-EDWARDS			FIELD.....	GENESEO-EDWARDS			FIELD.....	KEPNEY		
WELL NAME.....	KALINA NO. 5			WELL NAME.....	PULLIAM NO. 1			WELL NAME.....	SEC. 35, T19S, R7W		
LOCATION.....	SEC. 3, T18S, R8W			LOCATION.....	SEC. 35, T18S, R8W			LOCATION.....	IMPERIAL OIL OF KANSAS, INC.		
OWNER.....	LEE PHILLIPS OIL CO.			OWNER.....	KANSAS PETROLEUM, INC.			OWNER.....	03/25/64		
COMPLETED.....	--/--/00			COMPLETED.....	--/--/00			COMPLETED.....	03/24/64		
SAMPLED.....	10/06/61			SAMPLED.....	05/03/62			SAMPLED.....	MISS-KINDERHOOK		
FORMATION.....	NOT GIVEN			FORMATION.....	CANO-ARBUCKLE			FORMATION.....	385		
GEOLOGIC PROVINCE CODE.....	385			GEOLOGIC PROVINCE CODE.....	385			GEOLOGIC PROVINCE CODE.....	3290		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	48.0	-----		METHANE.....	43.9	-----		METHANE.....	65.1	-----	
ETHANE.....	4.7	-----		ETHANE.....	7.8	-----		ETHANE.....	5.1	-----	
PROPANE.....	0.6	-----		PROPANE.....	7.3	-----		PROPANE.....	2.9	-----	
N-BUTANE.....	0.6	-----		N-BUTANE.....	1.0	-----		N-BUTANE.....	1.0	-----	
ISOBUTANE.....	0.4	-----		ISOBUTANE.....	1.6	-----		ISOBUTANE.....	0.4	-----	
N-PENTANE.....	0.1	-----		N-PENTANE.....	0.5	-----		N-PENTANE.....	0.1	-----	
ISOPENTANE.....	0.1	-----		ISOPENTANE.....	0.4	-----		ISOPENTANE.....	0.6	-----	
CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.2	-----	
NITROGEN.....	23.3	-----		NITROGEN.....	33.4	-----		NITROGEN.....	23.4	-----	
OXYGEN.....	0.2	-----		OXYGEN.....	TRACE	-----		OXYGEN.....	0.0	-----	
ARGON.....	0.1	-----		ARGON.....	0.1	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	TRACE	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	19.1	-----		CARBON DIOXIDE.....	0.3	-----		CARBON DIOXIDE.....	0.1	-----	
HELIUM.....	0.80	-----		HELIUM.....	1.83	-----		HELIUM.....	0.95	-----	
HEATING VALUE.....	683	-----		HEATING VALUE.....	968	-----		HEATING VALUE.....	917	-----	
SPECIFIC GRAVITY.....	0.905	-----		SPECIFIC GRAVITY.....	0.888	-----		SPECIFIC GRAVITY.....	0.744	-----	
		INDEX SAMPLE	2380 2368			INDEX SAMPLE	2381 2369			INDEX SAMPLE	2382 2901
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	RICE			COUNTY.....	RICE			COUNTY.....	LYONS		
FIELD.....	LITTLE RIVER			FIELD.....	LITTLE RIVER			FIELD.....	PULLIAM A		
WELL NAME.....	JENNINGS NO. 1			WELL NAME.....	JENNINGS NO. 2			WELL NAME.....	SEC. 35, T19S, R8W		
LOCATION.....	SEC. 29, T18S, R6W			LOCATION.....	SEC. 29, T18S, R6W			LOCATION.....	ATLANTIC REFINING CO.		
OWNER.....	MCFADDEN & SHELL OIL CO.			OWNER.....	MCFADDEN & SHELL OIL CO.			OWNER.....	--/--/00		
COMPLETED.....	06/16/31			COMPLETED.....	08/03/31			COMPLETED.....	10/03/41		
SAMPLED.....	08/03/31			SAMPLED.....	08/03/31			SAMPLED.....	ORDO-SIMPSON		
FORMATION.....	PERM-			FORMATION.....	PERM-			FORMATION.....	385		
GEOLOGIC PROVINCE CODE.....	385			GEOLOGIC PROVINCE CODE.....	385			GEOLOGIC PROVINCE CODE.....	NOT GIVEN		
DEPTH, FEET.....	1115			DEPTH, FEET.....	1156			DEPTH, FEET.....	NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	265			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		
OPEN FLOW, MCFD.....	26			OPEN FLOW, MCFD.....	33			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	56.7	-----		METHANE.....	74.5	-----		METHANE.....	34.6	-----	
ETHANE.....	7.9	-----		ETHANE.....	9.5	-----		ETHANE.....	29.0	-----	
PROPANE.....	---	-----		PROPANE.....	---	-----		PROPANE.....	---	-----	
N-BUTANE.....	---	-----		N-BUTANE.....	---	-----		N-BUTANE.....	---	-----	
ISOBUTANE.....	---	-----		ISOBUTANE.....	---	-----		ISOBUTANE.....	---	-----	
N-PENTANE.....	---	-----		N-PENTANE.....	---	-----		N-PENTANE.....	---	-----	
ISOPENTANE.....	---	-----		ISOPENTANE.....	---	-----		ISOPENTANE.....	---	-----	
CYCLOPENTANE.....	---	-----		CYCLOPENTANE.....	---	-----		CYCLOPENTANE.....	---	-----	
HEXANES PLUS.....	---	-----		HEXANES PLUS.....	---	-----		HEXANES PLUS.....	---	-----	
NITROGEN.....	34.0	-----		NITROGEN.....	14.6	-----		NITROGEN.....	34.2	-----	
OXYGEN.....	0.0	-----		OXYGEN.....	0.4	-----		OXYGEN.....	0.2	-----	
ARGON.....	---	-----		ARGON.....	---	-----		ARGON.....	---	-----	
HYDROGEN.....	---	-----		HYDROGEN.....	---	-----		HYDROGEN.....	---	-----	
HYDROGEN SULFIDE.....	---	-----		HYDROGEN SULFIDE.....	---	-----		HYDROGEN SULFIDE.....	---	-----	
CARBON DIOXIDE.....	0.0	-----		CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.2	-----	
HELIUM.....	1.39	-----		HELIUM.....	0.87	-----		HELIUM.....	1.78	-----	
HEATING VALUE.....	716	-----		HEATING VALUE.....	925	-----		HEATING VALUE.....	870	-----	
SPECIFIC GRAVITY.....	0.728	-----		SPECIFIC GRAVITY.....	0.661	-----		SPECIFIC GRAVITY.....	0.835	-----	
		INDEX SAMPLE	2383 2904			INDEX SAMPLE	2384 2905			INDEX SAMPLE	2385 9282
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	LYONS			COUNTY.....	LYONS			COUNTY.....	LYONS		
FIELD.....	WILLIAMS NO. 1			FIELD.....	LYON NO. 1			FIELD.....	HUTCHINS NO. 1		
WELL NAME.....	SEC. 14, T20S, R8W			WELL NAME.....	SEC. 24, T20S, R8W			WELL NAME.....	SEC. 21, T20S, R8W		
LOCATION.....	DEERY OIL CO.			LOCATION.....	DRILLER GAS CO.			LOCATION.....	GEN. C. W. HYDE, JR.		
OWNER.....	--/--/00			OWNER.....	--/--/00			OWNER.....	03/20/64		
COMPLETED.....	10/03/41			COMPLETED.....	10/03/41			COMPLETED.....	03/20/64		
SAMPLED.....	10/03/41			SAMPLED.....	10/03/41			SAMPLED.....	PENN-CONGLOMERATE		
FORMATION.....	ORDO-SIMPSON			FORMATION.....	CANO-ARBUCKLE			FORMATION.....	385		
GEOLOGIC PROVINCE CODE.....	385			GEOLOGIC PROVINCE CODE.....	385			GEOLOGIC PROVINCE CODE.....	3275		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	1850		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	43.2	-----		METHANE.....	23.4	-----		METHANE.....	58.2	-----	
ETHANE.....	28.2	-----		ETHANE.....	38.1	-----		ETHANE.....	15.8	-----	
PROPANE.....	---	-----		PROPANE.....	---	-----		PROPANE.....	12.7	-----	
N-BUTANE.....	---	-----		N-BUTANE.....	---	-----		N-BUTANE.....	4.1	-----	
ISOBUTANE.....	---	-----		ISOBUTANE.....	---	-----		ISOBUTANE.....	1.8	-----	
N-PENTANE.....	---	-----		N-PENTANE.....	---	-----		N-PENTANE.....	0.7	-----	
ISOPENTANE.....	---	-----		ISOPENTANE.....	---	-----		ISOPENTANE.....	1.0	-----	
CYCLOPENTANE.....	---	-----		CYCLOPENTANE.....	---	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	---	-----		HEXANES PLUS.....	---	-----		HEXANES PLUS.....	0.4	-----	
NITROGEN.....	26.5	-----		NITROGEN.....	33.7	-----		NITROGEN.....	4.8	-----	
OXYGEN.....	0.3	-----		OXYGEN.....	0.2	-----		OXYGEN.....	TRACE	-----	
ARGON.....	---	-----		ARGON.....	---	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	---	-----		HYDROGEN.....	---	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	---	-----		HYDROGEN SULFIDE.....	---	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.3	-----		CARBON DIOXIDE.....	0.3	-----		CARBON DIOXIDE.....	0.3	-----	
HELIUM.....	1.45	-----		HELIUM.....	1.78	-----		HELIUM.....	0.07	-----	
HEATING VALUE.....	943	-----		HEATING VALUE.....	949	-----		HEATING VALUE.....	1498	-----	
SPECIFIC GRAVITY.....	0.802	-----		SPECIFIC GRAVITY.....	0.881	-----		SPECIFIC GRAVITY.....	0.916	-----	
		INDEX SAMPLE	2386 9281			INDEX SAMPLE	2387 9283			INDEX SAMPLE	2388 3227
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	RICE			COUNTY.....	RICE			COUNTY.....	ORTH		
FIELD.....	WILKINS NO. 1			FIELD.....	MCCLINTOCK			FIELD.....	CULBERTSON NO. 1		
WELL NAME.....	SEC. 31, T19S, R8W			WELL NAME.....	SEC. 18, T21S, R8W			WELL NAME.....	SEC. 26, T18S, R10W		
LOCATION.....	GEN. C. W. HYDE, JR.			LOCATION.....	GEN. C. W. HYDE, JR.			LOCATION.....	CITIES SERVICE OIL CO.		
OWNER.....	03/20/64			OWNER.....	05/28/62			OWNER.....	06/06/41		
COMPLETED.....	03/20/64			COMPLETED.....	03/20/64			COMPLETED.....	03/25/42		
SAMPLED.....	03/20/64			SAMPLED.....	03/20/64			SAMPLED.....	PENN-KANSAS CITY		
FORMATION.....	MISS-KINDERHOOK			FORMATION.....	DEVO-MISNER			FORMATION.....	385		
GEOLOGIC PROVINCE CODE.....	385			GEOLOGIC PROVINCE CODE.....	385			GEOLOGIC PROVINCE CODE.....	2873		
DEPTH, FEET.....	3206			DEPTH, FEET.....	3280			DEPTH, FEET.....	1050		
WELLHEAD PRESSURE, PSIG.....	1000			WELLHEAD PRESSURE, PSIG.....	650			WELLHEAD PRESSURE, PSIG.....	2430		
OPEN FLOW, MCFD.....	5000			OPEN FLOW, MCFD.....	750			OPEN FLOW, MCFD.....			
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	46.0	-----		METHANE.....	45.6	-----		METHANE.....	52.5	-----	
ETHANE.....	5.2	-----		ETHANE.....	5.8	-----		ETHANE.....	21.2	-----	
PROPANE.....	1.3	-----		PROPANE.....	4.3	-----		PROPANE.....	---	-----	
N-BUTANE.....	1.0	-----		N-BUTANE.....	1.3	-----		N-BUTANE.....	---	-----	
ISOBUTANE.....	0.4	-----		ISOBUTANE.....	0.6	-----		ISOBUTANE.....	---	-----	
N-PENTANE.....	0.2	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	---	-----	
ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.4	-----		ISOPENTANE.....	---	-----	
CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	---	-----	
HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	---	-----	
NITROGEN.....	42.2	-----		NITROGEN.....	39.9	-----		NITROGEN.....	24.9	-----	
OXYGEN.....	0.0	-----		OXYGEN.....	0.0	-----		OXYGEN.....	0.3	-----	
ARGON.....	TRACE	-----		ARGON.....	0.1	-----		ARGON.....	---	-----	
HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	---	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	---	-----	
CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.0	-----		CARBON DIOXIDE.....	0.1	-----	
HELIUM.....	1.19	-----		HELIUM.....	1.31	-----		HELIUM.....	0.97	-----	
HEATING VALUE.....	714	-----		HEATING VALUE.....	776	-----		HEATING VALUE.....	912	-----	
SPECIFIC GRAVITY.....	0.814	-----		SPECIFIC GRAVITY.....	0.833	-----		SPECIFIC GRAVITY.....	0.761	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2389 SAMPLE 10958		INDEX 2390 SAMPLE 2702		INDEX 2391 SAMPLE 8269	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	RICE	RICE		RICE	
FIELD.....	ORITH	RICKARD		TORIAS	
WELL NAME.....	ROELFS NO. 4	GOULDNER NO. 1		SCHUYLER NO. 1	
LOCATION.....	SEC. 26, T18S, R10W	SEC. 16, T18S, R9W		SEC. 3, T21S, R9W	
OWNER.....	SUNRAY OIL CO.	VICKERS PETROLEUM CO.		RENFRO DRILLING CO.	
COMPLETED.....	05/10/67	--/--/00		--/--/00	
SAMPLED.....	05/17/67	05/17/35		11/06/61	
FORMATION.....	PENN-LANSING-KANSAS CITY	NOT GIVEN		PENN-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	385			385	
DEPTH, FEET.....	2882	2965		2948	
WELLHEAD PRESSURE, PSIG.....	645	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	2000	1960		1500	
COMPONENT, MOLE PCT.....					
METHANE.....	61.2	41.0		66.6	
ETHANE.....	6.5	24.1		5.7	
PROpane.....	1.3	---		3.0	
N-BUTANE.....	1.2	---		1.0	
ISOBUTANE.....	0.4	---		0.6	
N-PENTANE.....	0.3	---		0.2	
ISOPENTANE.....	0.4	---		0.2	
CYCLOPENTANE.....	0.1	---		TRACE	
HEXANES PLUS.....	0.2	---		0.2	
NITROGEN.....	24.6	33.3		21.5	
OXYGEN.....	0.1	0.0		TRACE	
ARGON.....	0.1	---		TRACE	
HYDROGEN.....	TRACE	---		0.0	
HYDROGEN SULFIDE.....	0.0	---		0.0	
CARBON DIOXIDE.....	0.5	0.5		0.2	
HELIUM.....	0.95	1.08		0.78	
HEATING VALUE.....	925	847		936	
SPECIFIC GRAVITY.....	0.770	0.811		0.737	

INDEX 2392 SAMPLE 8669		INDEX 2393 SAMPLE 4926		INDEX 2394 SAMPLE 7693	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	RICE	RICE		RUSH	
FIELD.....	TOBIAS	UNION		BASGALL	
WELL NAME.....	LOP NO. 1	RAMAH NO. 1		BASGALL NO. 1	
LOCATION.....	SEC. 11, T21S, R9W	SEC. 28, T20S, R8W		SEC. 5, T16S, R17W	
OWNER.....	L. O. MILLER	BRUNSON DRILLING CO., INC.		LARIO OIL & GAS CO.	
COMPLETED.....	--/--/00	07/10/50		--/--/00	
SAMPLED.....	08/23/62	08/16/50		09/27/60	
FORMATION.....	PENN-KANSAS CITY	PENN-SOOY		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	385	385		385	
DEPTH, FEET.....	2923	3278		2967	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1130		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	1327		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	63.5	70.4		66.1	
ETHANE.....	5.8	7.0		2.3	
PROpane.....	3.4	3.8		1.0	
N-BUTANE.....	1.1	1.1		0.6	
ISOBUTANE.....	0.5	0.4		0.4	
N-PENTANE.....	0.2	0.2		0.2	
ISOPENTANE.....	0.3	TRACE		0.2	
CYCLOPENTANE.....	0.1	TRACE		TRACE	
HEXANES PLUS.....	0.1	0.2		0.2	
NITROGEN.....	24.2	15.3		26.3	
OXYGEN.....	TRACE	0.2		TRACE	
ARGON.....	TRACE	0.1		0.1	
HYDROGEN.....	0.0	---		TRACE	
HYDROGEN SULFIDE.....	0.0	---		0.0	
CARBON DIOXIDE.....	0.1	0.3		0.2	
HELIUM.....	0.82	0.90		2.40	
HEATING VALUE.....	920	1015		798	
SPECIFIC GRAVITY.....	0.754	0.725		0.705	

INDEX 2395 SAMPLE 12194		INDEX 2396 SAMPLE 7835		INDEX 2397 SAMPLE 8619	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	RUSH	RUSH		RUSH	
FIELD.....	BASGALL	BASGALL-REICHEL		BASGALL-REICHEL	
WELL NAME.....	BASGALL C NO. 1	BASGALL NO. 1		KANSAS STATE NO. 1	
LOCATION.....	SEC. 10, T16S, R17W	SEC. 5, T16S, R17W		SEC. 2, T18S, R17W	
OWNER.....	FRONTIER OIL CO.	LARIO OIL & GAS CO.		FRONTIER OIL CO.	
COMPLETED.....	--/--/69	10/26/60		--/--/00	
SAMPLED.....	02/16/70	01/30/61		07/23/62	
FORMATION.....	PENN-TOPEKA	PENN-ARBUCKLE		PENN-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	385	385		385	
DEPTH, FEET.....	NOT GIVEN	3556		3240	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1400		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	63.8	12.0		61.8	
ETHANE.....	2.0	2.5		3.1	
PROpane.....	0.8	0.4		1.5	
N-BUTANE.....	0.3	0.2		0.8	
ISOBUTANE.....	0.2	0.2		0.4	
N-PENTANE.....	0.2	0.1		0.3	
ISOPENTANE.....	0.0	0.1		0.2	
CYCLOPENTANE.....	TRACE	TRACE		0.1	
HEXANES PLUS.....	0.1	0.2		0.2	
NITROGEN.....	30.5	77.2		29.7	
OXYGEN.....	0.0	TRACE		TRACE	
ARGON.....	0.1	0.2		0.1	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		0.1	
HELIUM.....	1.86	6.50		1.78	
HEATING VALUE.....	733	207		796	
SPECIFIC GRAVITY.....	0.706	0.882		0.737	

INDEX 2398 SAMPLE 8838		INDEX 2399 SAMPLE 6414		INDEX 2400 SAMPLE 6920	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	RUSH	RUSH		RUSH	
FIELD.....	BASGALL-REICHEL	BISON		BISON	
WELL NAME.....	HARTMAN	CARL REINHARDT NO. 1		ROBINSON WELL NO. 1	
LOCATION.....	SEC. 7, T16S, R17W	SEC. 3, T18S, R17W		SEC. 2, T18S, R17W	
OWNER.....	FRONTIER OIL CO.	AYLMER DRILLING CO.		AYLMER DRILLING CO.	
COMPLETED.....	--/--/00	09/30/57		01/11/59	
SAMPLED.....	01/16/63	09/29/57		01/14/59	
FORMATION.....	PENN-KANSAS CITY	CARD-CONGLOMERATE		PENN-	
GEOLOGIC PROVINCE CODE.....	385	385		385	
DEPTH, FEET.....	NOT GIVEN	3564		3588	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	900		881	
OPEN FLOW, MCFD.....	NOT GIVEN	7340		12832	
COMPONENT, MOLE PCT.....					
METHANE.....	68.9	76.9		78.4	
ETHANE.....	1.6	1.7		3.6	
PROpane.....	1.3	1.4		1.4	
N-BUTANE.....	0.6	0.5		0.4	
ISOBUTANE.....	0.2	0.4		0.3	
N-PENTANE.....	TRACE	0.1		0.1	
ISOPENTANE.....	0.2	0.1		0.2	
CYCLOPENTANE.....	TRACE	0.1		TRACE	
HEXANES PLUS.....	0.1	0.2		0.1	
NITROGEN.....	24.2	14.5		13.5	
OXYGEN.....	TRACE	TRACE		0.0	
ARGON.....	0.1	0.1		0.1	
HYDROGEN.....	0.0	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		0.1	
HELIUM.....	1.73	1.70		1.71	
HEATING VALUE.....	816	932		937	
SPECIFIC GRAVITY.....	0.691	0.663		0.655	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2401 7078	INDEX SAMPLE	2402 14550	INDEX SAMPLE	2403 17654
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	BISON			DYER		FICKEN EXTENSION	
WELL NAME.....	RHEINHARDT NO. 2			DYER NO. 1		WILSON "A" NO. 1	
LOCATION.....	SEC. 3, T18S, R17W			SEC. 12, T19S, R16W		SEC. 14, T17S, R18W	
OWNER.....	ATLWARD DRILLING CO.			ICER ADDIS		FRONTIER OIL CO.	
COMPLETED.....	--/700			--/700		03/03/84	
SAMPLED.....	05/20/59			12/77/75		04/24/85	
FORMATION.....	CAMO-SANDY CONGLOMERATE			NOT GIVEN		PENN-CONGLOMERATE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3564			NOT GIVEN		3678	
WELLHEAD PRESSURE, PSIG.....	960			NOT GIVEN		600	
OPEN FLOW, MCFD.....	9500			NOT GIVEN		40000	
COMPONENT, MOLE PCT							
METHANE.....	76.0			81.4		76.5	
ETHANE.....	3.7			9.0		3.6	
PROPANE.....	1.3			1.7		1.4	
N-BUTANE.....	0.5			0.5		0.5	
ISOBUTANE.....	0.4			0.3		0.4	
N-PENTANE.....	0.1			0.1		0.2	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	15.3			10.1		14.9	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	1.80			1.54		1.74	
HEATING VALUE.....	927			980		933	
SPECIFIC GRAVITY.....	0.668			0.646		0.668	
		INDEX SAMPLE	2404 5264	INDEX SAMPLE	2405 12583	INDEX SAMPLE	2406 4024
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	HUNGRY HOLLOW			LIEBENTHAL		LORETTO	
WELL NAME.....	MARIE WILLIAMS NO. 1			DECHANT NO. 2		URBAN NO. 1	
LOCATION.....	SEC. 6, T16S, R17W			SEC. 23, T16S, R18W		SEC. 21, T16S, R17W	
OWNER.....	NORTH AMERICAN PETROLEUM CO.			J. A. ALLISON		ELDORADO REFINING CO.	
COMPLETED.....	06/752			--/700		09/77/45	
SAMPLED.....	09/10/52			12/77/70		09/18/45	
FORMATION.....	CAMO-ARBUCKLE			PENN-LANSING		CAMO-ARBUCKLE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3460			3326		3537	
WELLHEAD PRESSURE, PSIG.....	953			1202		950	
OPEN FLOW, MCFD.....	1360			2320		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	14.6			64.8		13.1	
ETHANE.....	2.3			2.5		7.7	
PROPANE.....	0.6			0.9		---	
N-BUTANE.....	0.4			0.4		---	
ISOBUTANE.....	0.2			0.3		---	
N-PENTANE.....	0.1			0.1		---	
ISOPENTANE.....	0.2			0.1		---	
CYCLOPENTANE.....	TRACE			0.1		---	
HEXANES PLUS.....	0.1			0.2		---	
NITROGEN.....	74.9			28.0		71.0	
OXYGEN.....	TRACE			0.0		0.6	
ARGON.....	0.3			0.1		---	
HYDROGEN.....	TRACE			0.0		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.5			0.1		0.9	
HELIUM.....	5.75			2.49		6.74	
HEATING VALUE.....	243			771		271	
SPECIFIC GRAVITY.....	0.881			0.705		0.870	
		INDEX SAMPLE	2407 4025	INDEX SAMPLE	2408 12195	INDEX SAMPLE	2409 12197
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	LORETTO			LORETTO		LORETTO NE	
WELL NAME.....	URBAN NO. 1			MOHRAN NO. 2		URBAN J NO. 3	
LOCATION.....	SEC. 21, T16S, R17W			SEC. 29, T16S, R17W		SEC. 14, T16S, R17W	
OWNER.....	ELDORADO REFINING CO.			FRONTIER OIL CO.		FRONTIER OIL CO.	
COMPLETED.....	09/77/45			01/21/70		01/26/70	
SAMPLED.....	09/05/45			02/16/70		02/16/70	
FORMATION.....	CAMO-ARBUCKLE			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3537			3267		3161	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			2510		2890	
COMPONENT, MOLE PCT							
METHANE.....	11.0			70.4		65.0	
ETHANE.....	8.8			4.0		2.1	
PROPANE.....	---			2.2		0.9	
N-BUTANE.....	---			0.9		0.3	
ISOBUTANE.....	---			0.7		0.3	
N-PENTANE.....	---			0.5		0.2	
ISOPENTANE.....	---			0.2		TRACE	
CYCLOPENTANE.....	---			0.2		TRACE	
HEXANES PLUS.....	---			0.4		0.2	
NITROGEN.....	73.0			18.3		29.0	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	---			0.1		0.1	
HYDROGEN.....	---			0.1		TRACE	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	0.1			TRACE		TRACE	
HELIUM.....	7.02			2.05		1.85	
HEATING VALUE.....	269			946		758	
SPECIFIC GRAVITY.....	0.872			0.710		0.704	
		INDEX SAMPLE	2410 2962	INDEX SAMPLE	2411 2963	INDEX SAMPLE	2412 2965
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	OTIS			OTIS		OTIS	
WELL NAME.....	BUTHERUS NO. 1			MOHR NO. 1		MOHR-BUTHERUS NO. 1	
LOCATION.....	SEC. 5, T18S, R16W			SEC. 10, T18S, R16W		SEC. 15, T18S, R16W	
OWNER.....	SCHERMERHORN OIL CORP.			INTERSTATE PRODUCTION CO.		INTERSTATE PRODUCTION CO.	
COMPLETED.....	12/29/33			01/29/35		10/24/34	
SAMPLED.....	11/07/41			11/07/41		11/07/41	
FORMATION.....	CAMB-REAGAN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3460			3480		3464	
WELLHEAD PRESSURE, PSIG.....	1020			995		1030	
OPEN FLOW, MCFD.....	39000			42000		43000	
COMPONENT, MOLE PCT							
METHANE.....	75.3			71.8		76.5	
ETHANE.....	11.2			13.9		10.2	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	11.4			12.2		11.2	
OXYGEN.....	0.2			0.2		0.2	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.3			0.3		0.3	
HELIUM.....	1.57			1.62		1.64	
HEATING VALUE.....	963			976		958	
SPECIFIC GRAVITY.....	0.654			0.671		0.649	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2413			INDEX 2414			INDEX 2415		
SAMPLE 2966			SAMPLE 2968			SAMPLE 2970		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	OTIS		OTIS			OTIS		
WELL NAME.....	SAHMDT NO. 1		HARTMAN NO. 1			CROWELL NO. 1		
LOCATION.....	SEC. 9, T18S, R16W		SEC. 4, T18S, R16W			SEC. 23, T18S, R16W		
OWNER.....	O. F. FLYNN, ET AL.		SCHERMERHORN OIL CORP.			INTERSTATE-FLYNN		
COMPLETED.....	07/03/36		09/18/35			11/19/35		
SAMPLED.....	11/07/41		11/07/41			11/08/41		
FORMATION.....	PENN-SOOY		PENN-SOOY			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		3510			385		
DEPTH, FEET.....	3498		NOT GIVEN			3483		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		13000			973		
OPEN FLOW, MCFD.....	5600					37000		
COMPONENT, MOLE PCT.....								
METHANE.....	72.1		74.1			73.7		
ETHANE.....	14.4		10.1			13.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	11.8		13.8			11.3		
OXYGEN.....	0.2		0.2			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.0		0.1			0.3		
HELIUM.....	1.54		1.70			1.52		
HEATING VALUE.....	988		932			980		
SPECIFIC GRAVITY.....	0.669		0.656			0.663		
INDEX 2416			INDEX 2417			INDEX 2418		
SAMPLE 2973			SAMPLE 2979			SAMPLE 2996		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	OTIS		OTIS			OTIS		
WELL NAME.....	PHILLIP J. BRACK NO. 1		SCHERMERHORN-MAULER NO. 1			CROWELL NO. 1		
LOCATION.....	SEC. 24, T18S, R16W		SEC. 14, T18S, R16W			SEC. 23, T18S, R16W		
OWNER.....	HERNDON DRILLING CO.		SCHERMERHORN OIL CORP.			INTERSTATE-FLYNN		
COMPLETED.....	11/09/36		07/18/34			11/19/35		
SAMPLED.....	11/06/41		11/06/41			11/08/41		
FORMATION.....	CAMB-REAGAN		CAMB-REAGAN			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3466		3493			3483		
WELLHEAD PRESSURE, PSIG.....	960		NOT GIVEN			973		
OPEN FLOW, MCFD.....	38000		48000			37000		
COMPONENT, MOLE PCT.....								
METHANE.....	74.4		75.5			74.4		
ETHANE.....	12.1		10.9			12.5		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	11.5		11.8			11.0		
OXYGEN.....	0.2		0.0			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.4		
HELIUM.....	1.59		1.53			1.53		
HEATING VALUE.....	971		960			978		
SPECIFIC GRAVITY.....	0.658		0.652			0.660		
INDEX 2419			INDEX 2420			INDEX 2421		
SAMPLE 3002			SAMPLE 3007			SAMPLE 3008		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	OTIS		OTIS			OTIS		
WELL NAME.....	MAURETH NO. 3		MAULER NO. 1			SCHURMAN NO. 1		
LOCATION.....	SEC. 22, T18S, R16W		SEC. 12, T18S, R16W			SEC. 5, T18S, R16W		
OWNER.....	KENWOOD OIL CO.		OHIO OIL CO.			SINCLAIR-PRAIRIE OIL CO.		
COMPLETED.....	01/26/40		--/--/00			--/--/00		
SAMPLED.....	11/08/41		--/--/00			--/--/00		
FORMATION.....	CAMB-REAGAN		CAMB-REAGAN			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3550		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	17000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	74.0		74.4			73.2		
ETHANE.....	12.8		10.8			13.2		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	11.1		12.7			11.8		
OXYGEN.....	0.2		0.2			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.4		0.3			0.2		
HELIUM.....	1.53		1.61			1.54		
HEATING VALUE.....	979		967			978		
SPECIFIC GRAVITY.....	0.662		0.658			0.665		
INDEX 2422			INDEX 2423			INDEX 2424		
SAMPLE 3010			SAMPLE 3016			SAMPLE 3025		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	OTIS		OTIS			OTIS		
WELL NAME.....	AYLWARD REID NO. 1		HAGELGANTZ			J. J. DIRKS NO. 1		
LOCATION.....	SEC. 13, T18S, R16W		SEC. 11, T18S, R16W			SEC. 25, T18S, R16W		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		KENWOOD OIL CO.			OHIO OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	--/--/00		--/--/00			--/--/00		
FORMATION.....	NOT GIVEN		NOT GIVEN			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	72.2		73.1			74.7		
ETHANE.....	13.2		11.9			11.7		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	12.6		12.9			11.5		
OXYGEN.....	0.1		0.2			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	1.56		1.58			1.55		
HEATING VALUE.....	968		954			966		
SPECIFIC GRAVITY.....	0.669		0.664			0.657		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

211

	INDEX SAMPLE	2425 8431		INDEX SAMPLE	2426 8609		INDEX SAMPLE	2427 8610
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	OTIS		OTIS			OTIS		
WELL NAME.....	HUENEGARDT NO. 1		HUENEGARDT NO. 2			HUENEGARDT NO. 2		
LOCATION.....	SEC. 18, T18S, R16W		SEC. 18, T16S, R18W			SEC. 18, T16S, R18W		
OWNER.....	HALL-BURTON OIL CO.		MORRISON PRODUCING CO.			MORRISON PRODUCING CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	02/26/62		06/13/62			06/13/62		
FORMATION.....	CAMB-REAGAN		CAMB-REAGAN			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		3543			3538		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	72.7		77.0			77.1		
ETHANE.....	10.0		3.7			3.7		
PROPANE.....	5.9		1.4			1.4		
N-BUTANE.....	2.3		0.5			0.5		
ISOBUTANE.....	1.7		0.1			0.1		
N-PENTANE.....	0.5		0.1			0.1		
ISOPENTANE.....	0.6		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.1			0.1		
NITROGEN.....	5.3		14.4			14.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.1		
HELIUM.....	0.31		1.95			1.84		
HEATING VALUE.....	1270		939			937		
SPECIFIC GRAVITY.....	0.778		0.666			0.662		

	INDEX SAMPLE	2428 6172		INDEX SAMPLE	2429 6173		INDEX SAMPLE	2430 6175
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	OTIS-ALBERT		OTIS-ALBERT			OTIS-ALBERT		
WELL NAME.....	HANBARDT NO. 1		MILLER NO. 1			MONSON NO. 2		
LOCATION.....	SEC. 21, T18S, R16W		SEC. 21, T18S, R16W			SEC. 21, T18S, R16W		
OWNER.....	SOLAR OIL CO.		SOLAR OIL CO.			SOLAR OIL CO.		
COMPLETED.....	05/10/56		01/10/56			--/--/56		
SAMPLED.....	11/01/56		11/01/56			11/01/56		
FORMATION.....	CAMB-REAGAN		CAMB-REAGAN			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3608		3575			3610		
WELLHEAD PRESSURE, PSIG.....	970		893			NOT GIVEN		
OPEN FLOW, MCFD.....	200		3			100		
COMPONENT, MOLE PCT.....								
METHANE.....	79.1		78.3			79.3		
ETHANE.....	3.5		3.4			4.2		
PROPANE.....	0.6		0.2			0.2		
N-BUTANE.....	0.1		0.2			0.2		
ISOBUTANE.....	0.8		0.4			0.4		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.9		0.5			0.8		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	13.1		14.0			12.9		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.2		0.1			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	1.38		1.83			1.09		
HEATING VALUE.....	948		909			949		
SPECIFIC GRAVITY.....	0.659		0.649			0.656		

	INDEX SAMPLE	2431 6188		INDEX SAMPLE	2432 6189		INDEX SAMPLE	2433 6190
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	OTIS-ALBERT		OTIS-ALBERT			OTIS-ALBERT		
WELL NAME.....	WHART NO. 3		MONSON NO. 1			MONSON NO. 3		
LOCATION.....	SEC. 21, T18S, R16W		SEC. 21, T18S, R16W			SEC. 21, T18S, R16W		
OWNER.....	SOLAR OIL CO.		SOLAR OIL CO.			SOLAR OIL CO.		
COMPLETED.....	11/01/56		11/04/56			05/--/56		
SAMPLED.....	11/01/56		11/01/56			11/01/56		
FORMATION.....	CAMB-REAGAN		CAMB-REAGAN			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3601		3600			3572		
WELLHEAD PRESSURE, PSIG.....	690		650			650		
OPEN FLOW, MCFD.....	500		100			100		
COMPONENT, MOLE PCT.....								
METHANE.....	78.1		77.2			76.6		
ETHANE.....	3.6		4.8			5.1		
PROPANE.....	0.7		1.2			1.3		
N-BUTANE.....	0.3		0.7			0.9		
ISOBUTANE.....	0.3		0.7			1.0		
N-PENTANE.....	0.0		0.1			0.4		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	0.1		0.2			0.2		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	14.0		12.5			12.0		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.4			0.4		
HELIUM.....	1.82		1.45			1.26		
HEATING VALUE.....	923		1.45			1021		
SPECIFIC GRAVITY.....	0.655		0.682			0.696		

	INDEX SAMPLE	2434 6209		INDEX SAMPLE	2435 6210		INDEX SAMPLE	2436 6211
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	OTIS-ALBERT		OTIS-ALBERT			OTIS-ALBERT		
WELL NAME.....	L. MILLER NO. 1		L. MILLER NO. 3			L. MILLER NO. 4		
LOCATION.....	SEC. 21, T18S, R16W		SEC. 21, T18S, R16W			SEC. 21, T18S, R16W		
OWNER.....	SKELLY OIL CO.		SKELLY OIL CO.			SKELLY OIL CO.		
COMPLETED.....	04/01/56		06/06/56			06/14/56		
SAMPLED.....	--/--/00		12/31/56			12/31/56		
FORMATION.....	CAMB-REAGAN		CAMB-REAGAN			CAMB-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3562		3578			3582		
WELLHEAD PRESSURE, PSIG.....	710		800			860		
OPEN FLOW, MCFD.....	35		200			900		
COMPONENT, MOLE PCT.....								
METHANE.....	77.4		76.2			75.9		
ETHANE.....	5.5		4.4			4.8		
PROPANE.....	1.4		1.1			1.3		
N-BUTANE.....	0.0		0.2			1.2		
ISOBUTANE.....	0.9		0.8			0.8		
N-PENTANE.....	0.2		0.9			0.4		
ISOPENTANE.....	0.6		0.2			0.5		
CYCLOPENTANE.....	0.1		0.3			0.2		
HEXANES PLUS.....	0.1		0.3			0.4		
NITROGEN.....	11.1		12.6			12.1		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.5			0.5		
HELIUM.....	0.89		1.47			1.42		
HEATING VALUE.....	1032		1033			1036		
SPECIFIC GRAVITY.....	0.691		0.699			0.708		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2437 6212	INDEX SAMPLE	2438 6213	INDEX SAMPLE	2439 6599
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	OTIS-ALBERT			OTIS-ALBERT		OTIS-ALBERT	
WELL NAME.....	DYER NO. 2			DYER NO. 3		BETZ NO. 1	
LOCATION.....	SEC. 21, T18S, R16W			SEC. 21, T18S, R16W		SEC. 8, T18S, R16W	
OWNER.....	SKELLY OIL CO.			SKELLY OIL CO.		SOLAR OIL CO.	
COMPLETED.....	02/28/56			04/24/56		12/12/57	
SAMPLED.....	12/31/56			12/31/56		05/21/58	
FORMATION.....	CAMB-REAGAN			CAMB-REAGAN		CAMB-REAGAN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3544			3558		3529	
WELLHEAD PRESSURE, PSIG.....	945			770		600	
OPEN FLOW, MCFD.....	1500			400		3	
COMPONENT, MOLE PCT							
METHANE.....	75.6			76.3		78.5	
ETHANE.....	4.8			4.2		4.1	
PROPANE.....	1.3			1.2		1.5	
N-BUTANE.....	1.1			1.2		0.6	
ISOBUTANE.....	0.9			0.3		0.4	
N-PENTANE.....	0.2			0.3		0.1	
ISOPENTANE.....	0.8			2.2		0.3	
CYCLOPENTANE.....	0.2			0.2		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	12.5			11.8		12.6	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.2		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.4		0.1	
HELIUM.....	1.50			1.40		1.60	
HEATING VALUE.....	1019			1055		972	
SPECIFIC GRAVITY.....	0.702			0.714		0.668	
		INDEX SAMPLE	2440 7792	INDEX SAMPLE	2441 8952	INDEX SAMPLE	2442 8953
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	OTIS-ALBERT			OTIS-ALBERT		OTIS-ALBERT	
WELL NAME.....	BETZ NO. 1			HUENGARDT NO. 1		HUENGARDT X NO. 2	
LOCATION.....	SEC. 8, T18S, R16W			SEC. 18, T18S, R16W		SEC. 18, T18S, R16W	
OWNER.....	SOLAR OIL CO.			MORRISON PRODUCING CO.		MORRISON PRODUCING CO.	
COMPLETED.....	--/700			--/700		--/700	
SAMPLED.....	12/07/50			05/10/63		05/10/63	
FORMATION.....	CAMB-REAGAN			CAMB-REAGAN		CAMB-REAGAN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3520			NOT GIVEN		3529	
WELLHEAD PRESSURE, PSIG.....	1000			NOT GIVEN		874	
OPEN FLOW, MCFD.....	5000			NOT GIVEN		4500	
COMPONENT, MOLE PCT							
METHANE.....	78.3			73.6		77.7	
ETHANE.....	4.1			3.2		3.4	
PROPANE.....	1.5			2.2		1.3	
N-BUTANE.....	0.5			2.1		0.6	
ISOBUTANE.....	0.5			0.7		0.2	
N-PENTANE.....	0.2			0.7		0.1	
ISOPENTANE.....	0.1			0.9		0.3	
CYCLOPENTANE.....	TRACE			0.2		TRACE	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	12.7			11.2		14.1	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.1			TRACE		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	1.70			1.40		1.80	
HEATING VALUE.....	962			1128		936	
SPECIFIC GRAVITY.....	0.664			0.748		0.661	
		INDEX SAMPLE	2443 8954	INDEX SAMPLE	2444 8956	INDEX SAMPLE	2445 8618
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	OTIS-ALBERT			OTIS-ALBERT		PECHANEC	
WELL NAME.....	SEC. 1, T18S, R16W			SCHNEIDER NO. 1		MAGNOLIA NO. 1	
LOCATION.....	SEC. 1, T18S, R16W			SEC. 17, T18S, R16W		SEC. 19, T18S, R16W	
OWNER.....	MORRISON PRODUCING CO.			MORRISON PRODUCING CO.		MORRISON PRODUCING CO.	
COMPLETED.....	--/700			--/700		--/700	
SAMPLED.....	05/10/63			05/10/63		07/24/62	
FORMATION.....	CAMB-REAGAN			CAMB-REAGAN		CAMB-REAGAN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3505			3508		3539	
WELLHEAD PRESSURE, PSIG.....	825			840		915	
OPEN FLOW, MCFD.....	3500			4500		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	78.5			78.3		75.7	
ETHANE.....	3.6			3.6		3.8	
PROPANE.....	1.4			1.3		1.5	
N-BUTANE.....	0.6			0.6		0.6	
ISOBUTANE.....	0.2			0.3		0.4	
N-PENTANE.....	0.2			0.1		0.2	
ISOPENTANE.....	0.2			0.1		0.3	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	13.0			13.3		15.3	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	1.90			1.80		1.74	
HEATING VALUE.....	954			953		938	
SPECIFIC GRAVITY.....	0.663			0.665		0.675	
		INDEX SAMPLE	2446 8738	INDEX SAMPLE	2447 12196	INDEX SAMPLE	2448 4810
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	PECHANEC			PLEASANT VIEW		REICHEL	
WELL NAME.....	SCHNEIDER NO. 1			BURGARDT A NO. 4		MAGNOLIA THALHEIM NO. 1	
LOCATION.....	SEC. 17, T18S, R16W			SEC. 19, T16S, R17W		SEC. 28, T19S, R16W	
OWNER.....	MORRISON PRODUCING CO.			FRONTIER OIL CO.		KANSAS-NEBRASKA NATURAL GAS	
COMPLETED.....	11/24/62			11/24/69		--/700	
SAMPLED.....	10/29/62			02/16/70		01/10/50	
FORMATION.....	CAMB-REAGAN			PEW-TOPEKA		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3519			3206		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	4500			15900		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	76.0			66.0		52.8	
ETHANE.....	3.7			3.1		3.6	
PROPANE.....	1.4			0.9		1.7	
N-BUTANE.....	0.5			0.3		0.6	
ISOBUTANE.....	0.4			0.3		0.2	
N-PENTANE.....	0.2			0.3		0.1	
ISOPENTANE.....	0.2			0.0		0.3	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.3		0.0	
NITROGEN.....	15.1			27.5		36.6	
OXYGEN.....	0.3			0.0		0.1	
ARGON.....	0.1			0.1		0.2	
HYDROGEN.....	0.1			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		--	
CARBON DIOXIDE.....	0.2			TRACE		0.4	
HELIUM.....	1.69			1.95		3.31	
HEATING VALUE.....	934			782		690	
SPECIFIC GRAVITY.....	0.675			0.703		0.752	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2449 SAMPLE 5389			INDEX 2450 SAMPLE 5406			INDEX 2451 SAMPLE 5413		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	REICHEL NO. 1		REICHEL NO. 1			KLEWENO NO. 1		
LOCATION.....	SEC. 23, T17S, R17W		SEC. 23, T17S, R17W			SEC. 23, T17S, R17W		
OWNER.....	R. G. MORRISON, JR.		R. G. MORRISON, JR.			MORRISON PRODUCING CO.		
COMPLETED.....	02/04/53		02/04/53			--/--/00		
SAMPLED.....	02/04/53		02/22/53			03/11/53		
FORMATION.....	PENN-KANSAS CITY		PENN-KANSAS CITY			PENN-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			3445		
WELLHEAD PRESSURE, PSIG.....	1150		1150			NOT GIVEN		
OPEN FLOW, MCFD.....	29000		29000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	68.3		69.3			61.9		
ETHANE.....	3.1		2.9			3.1		
PROPANE.....	1.5		1.0			1.6		
N-BUTANE.....	0.6		0.4			0.7		
ISOBUTANE.....	0.3		1.3			0.4		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.1		0.0			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.3		
NITROGEN.....	22.9		22.3			29.2		
OXYGEN.....	0.4		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.1		
HELIUM.....	1.88		1.98			1.88		
HEATING VALUE.....	844		864			798		
SPECIFIC GRAVITY.....	0.704		0.704			0.733		
INDEX 2452 SAMPLE 5496			INDEX 2453 SAMPLE 5553			INDEX 2454 SAMPLE 5561		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	THIELENHAUS NO. 1		GELLIG NO. 1			THIELENHAUS NO. 1		
LOCATION.....	SEC. 24, T17S, R17W		SEC. 14, T17S, R17W			SEC. 14, T17S, R17W		
OWNER.....	MORRISON PRODUCING CO.		MORRISON DRILLING CO.			MORRISON PRODUCING CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	06/15/53		09/15/53			11/03/53		
FORMATION.....	PENN-TOPEKA		PENN-TOPEKA			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3000		3028			3000		
WELLHEAD PRESSURE, PSIG.....	930		NOT GIVEN			930		
OPEN FLOW, MCFD.....	2400		NOT GIVEN			2400		
COMPONENT, MOLE PCT								
METHANE.....	72.8		70.0			73.3		
ETHANE.....	3.4		3.3			3.2		
PROPANE.....	1.2		1.2			1.2		
N-BUTANE.....	0.4		0.4			0.4		
ISOBUTANE.....	0.3		0.2			0.3		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.1		0.0			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	19.1		21.7			18.8		
OXYGEN.....	0.1		0.4			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	2.03		2.04			2.04		
HEATING VALUE.....	875		842			876		
SPECIFIC GRAVITY.....	0.677		0.687			0.674		
INDEX 2455 SAMPLE 5562			INDEX 2456 SAMPLE 5733			INDEX 2457 SAMPLE 5738		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	REICHEL NO. 1		BIENER NO. 1			BIENER NO. 1		
LOCATION.....	SEC. 3, T17S, R17W		SEC. 15, T17S, R17W			SEC. 15, T17S, R17W		
OWNER.....	MORRISON PRODUCING CO.		MORRISON PRODUCING CO.			MORRISON PRODUCING CO.		
COMPLETED.....	02/04/53		--/--/00			--/--/00		
SAMPLED.....	11/03/53		11/08/54			11/23/54		
FORMATION.....	PENN-KANSAS CITY		PENN-KANSAS CITY			PENN-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		3308			3330		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1110			NOT GIVEN		
OPEN FLOW, MCFD.....	29000		6500			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	62.9		70.6			77.2		
ETHANE.....	3.3		3.2			3.6		
PROPANE.....	1.6		1.1			1.4		
N-BUTANE.....	0.7		0.4			0.5		
ISOBUTANE.....	0.2		0.1			0.3		
N-PENTANE.....	0.3		0.1			0.1		
ISOPENTANE.....	TRACE		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	28.3		21.5			14.6		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.1		
HELIUM.....	1.86		2.11			1.74		
HEATING VALUE.....	791		842			928		
SPECIFIC GRAVITY.....	0.724		0.680			0.661		
INDEX 2458 SAMPLE 5739			INDEX 2459 SAMPLE 5740			INDEX 2460 SAMPLE 5745		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	REICHEL NO. 1		THIELENHAUS NO. 1			ROTHE NO. 1		
LOCATION.....	SEC. 23, T17S, R17W		SEC. 14, T17S, R17W			SEC. 31, T17S, R16W		
OWNER.....	MORRISON PRODUCING CO.		MORRISON PRODUCING CO.			MORRISON PRODUCING CO.		
COMPLETED.....	02/04/53		--/--/00			12/19/54		
SAMPLED.....	12/22/54		12/22/54			12/20/54		
FORMATION.....	PENN-KANSAS CITY		PENN-TOPEKA			PENN-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			3444		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1125		
OPEN FLOW, MCFD.....	29000		2400			3500		
COMPONENT, MOLE PCT								
METHANE.....	68.0		74.1			76.4		
ETHANE.....	3.4		3.3			3.3		
PROPANE.....	1.6		1.2			1.3		
N-BUTANE.....	0.6		0.4			0.5		
ISOBUTANE.....	0.2		0.3			0.3		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.2		0.1			TRACE		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	23.3		18.0			15.9		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	1.84		2.00			1.84		
HEATING VALUE.....	856		878			903		
SPECIFIC GRAVITY.....	0.707		0.666			0.660		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	2461 5746		INDEX SAMPLE	2462 6191		INDEX SAMPLE	2463 6585
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	RUSH			RUSH			RUSH	
FIELD.....	REICHEL			REICHEL			REICHEL	
WELL NAME.....	ROTHE NO. 1			LOHREY NO. 1			OBORHY NO. 1	
LOCATION.....	SEC. 31, T17S, R16W			SEC. 35, T17S, R17W			SEC. 34, T17, R17W	
OWNER.....	MORRISON PRODUCING CO.			ATLWARD DRILLING CO.			SUM OIL CO.	
COMPLETED.....	12/19/54			11/20/56			03/11/57	
SAMPLED.....	12/05/54			11/26/56			05/--/58	
FORMATION.....	PENN-TOPEKA			PENN-BASAL			NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	2965			3574			NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	970			1100			1003	
OPEN FLOW, MCFD.....	396			8882			1693	
COMPONENT, MOLE PCT								
METHANE.....	58.9			78.1			77.8	
ETHANE.....	1.3			3.4			3.7	
PROPANE.....	0.6			1.6			1.4	
N-BUTANE.....	0.1			0.8			0.5	
ISOBUTANE.....	0.1			TRACE			0.4	
N-PENTANE.....	0.1			0.1			0.1	
ISOPENTANE.....	0.1			0.1			0.2	
CYCLOPENTANE.....	TRACE			0.2			TRACE	
HEXANES PLUS.....	0.1			0.2			0.2	
NITROGEN.....	36.1			12.8			13.2	
OXYGEN.....	0.0			TRACE			TRACE	
ARGON.....	0.1			0.1			0.1	
HYDROGEN.....	0.1			0.1			TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.1			0.5			0.7	
HELIUM.....	1.85			1.68			1.65	
HEATING VALUE.....	667			952			944	
SPECIFIC GRAVITY.....	0.721			0.664			0.666	

	INDEX SAMPLE	2464 6586		INDEX SAMPLE	2465 6587		INDEX SAMPLE	2466 6926
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	RUSH			RUSH			RUSH	
FIELD.....	REICHEL			REICHEL			REICHEL	
WELL NAME.....	LOHREY NO. 1			TIMKEN EST. NO. 1			ROTHWEILER NO. 1	
LOCATION.....	SEC. 35, T17S, R17W			SEC. 3, T18S, R17W			SEC. 11, T18S, R17W	
OWNER.....	ALYWARD DRILLING CO.			ALYWARD DRILLING CO.			ATLWARD DRILLING CO.	
COMPLETED.....	11/29/56			11/20/57			01/18/59	
SAMPLED.....	05/--/58			05/--/58			01/20/59	
FORMATION.....	NOT GIVEN			NOT GIVEN			PENN-BASAL	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN			3564	
WELLHEAD PRESSURE, PSIG.....	1012			970			NOT GIVEN	
OPEN FLOW, MCFD.....	8826			13034			4600	
COMPONENT, MOLE PCT								
METHANE.....	78.2			78.4			77.5	
ETHANE.....	3.8			3.8			3.7	
PROPANE.....	1.3			1.2			1.3	
N-BUTANE.....	0.5			0.5			0.5	
ISOBUTANE.....	0.4			0.4			0.4	
N-PENTANE.....	0.1			0.1			0.1	
ISOPENTANE.....	0.2			0.1			0.2	
CYCLOPENTANE.....	TRACE			0.1			0.1	
HEXANES PLUS.....	0.2			0.1			0.2	
NITROGEN.....	13.2			13.3			13.9	
OXYGEN.....	0.0			0.0			TRACE	
ARGON.....	0.1			0.1			0.1	
HYDROGEN.....	TRACE			TRACE			0.1	
HYDROGEN SULFIDE**.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.5			0.3			0.2	
HELIUM.....	1.63			1.66			1.70	
HEATING VALUE.....	947			950			943	
SPECIFIC GRAVITY.....	0.665			0.664			0.665	

	INDEX SAMPLE	2467 7273		INDEX SAMPLE	2468 7278		INDEX SAMPLE	2469 8004
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	RUSH			RUSH			RUSH	
FIELD.....	REICHEL			REICHEL			REICHEL	
WELL NAME.....	GILLIS NO. 1			KLEWENO NO. 1			THOLHEIN NO. 1	
LOCATION.....	SEC. 24, T17S, R17W			SEC. 24, T17S, R17W			SEC. 26, T17S, R17W	
OWNER.....	MORRISON PRODUCING CO.			MORRISON PRODUCING CO.			FRONTIER OIL CO.	
COMPLETED.....	11/01/59			11/07/59			--/--/00	
SAMPLED.....	05/02/59			11/09/59			05/25/61	
FORMATION.....	PERM-GRANITE WASH			PENN-TOPEKA			PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	NOT GIVEN			3080			3036	
WELLHEAD PRESSURE, PSIG.....	900			700			NOT GIVEN	
OPEN FLOW, MCFD.....	4800			750			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	78.3			63.0			60.7	
ETHANE.....	3.5			2.6			2.5	
PROPANE.....	1.2			0.9			0.9	
N-BUTANE.....	0.3			0.3			0.3	
ISOBUTANE.....	0.2			0.3			0.3	
N-PENTANE.....	TRACE			TRACE			0.1	
ISOPENTANE.....	0.1			0.1			0.1	
CYCLOPENTANE.....	0.0			TRACE			TRACE	
HEXANES PLUS.....	TRACE			0.1			0.1	
NITROGEN.....	14.3			30.1			32.7	
OXYGEN.....	TRACE			TRACE			TRACE	
ARGON.....	0.1			0.1			0.1	
HYDROGEN.....	TRACE			TRACE			0.0	
HYDROGEN SULFIDE**.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.1			0.1			0.1	
HELIUM.....	1.80			2.10			2.20	
HEATING VALUE.....	908			742			717	
SPECIFIC GRAVITY.....	0.646			0.708			0.719	

	INDEX SAMPLE	2470 8010		INDEX SAMPLE	2471 8052		INDEX SAMPLE	2472 8053
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	RUSH			RUSH			RUSH	
FIELD.....	REICHEL			REICHEL			REICHEL	
WELL NAME.....	KLEWENO NO. 1			BIEBER NO. 1			BIEBER NO. 1	
LOCATION.....	SEC. 29, T17S, R17W			SEC. 15, T17S, R17W			SEC. 15, T17S, R17W	
OWNER.....	FRONTIER OIL CO.			FRONTIER OIL CO.			FRONTIER OIL CO.	
COMPLETED.....	06/31/51			--/--/00			--/--/00	
SAMPLED.....	05/14/61			07/05/61			07/04/61	
FORMATION.....	PENN-TOPEKA			PENN-LANSING-KANSAS CITY			PENN-LANSING-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	3028			3397			3340	
WELLHEAD PRESSURE, PSIG.....	710			NOT GIVEN			NOT GIVEN	
OPEN FLOW, MCFD.....	1500			NOT GIVEN			NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	61.9			76.4			74.2	
ETHANE.....	2.7			1.7			3.8	
PROPANE.....	1.0			1.4			1.4	
N-BUTANE.....	0.3			0.5			0.5	
ISOBUTANE.....	0.3			0.4			0.4	
N-PENTANE.....	0.1			0.1			0.1	
ISOPENTANE.....	TRACE			0.2			0.1	
CYCLOPENTANE.....	TRACE			0.2			0.1	
HEXANES PLUS.....	0.2			0.2			0.2	
NITROGEN.....	31.0			14.8			16.9	
OXYGEN.....	0.0			0.0			0.0	
ARGON.....	0.1			0.1			0.1	
HYDROGEN.....	0.0			0.1			TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.2			0.2			0.3	
HELIUM.....	2.20			1.90			1.90	
HEATING VALUE.....	736			934			912	
SPECIFIC GRAVITY.....	0.715			0.669			0.679	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2473 SAMPLE 8056			INDEX 2474 SAMPLE 8065			INDEX 2475 SAMPLE 8108		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	BEICHER NO. 1		BEICHER NO. 1			BEICHER NO. 1		
LOCATION.....	SEC. 13, T17S, R17W		SEC. 13, T17S, R17W			SEC. 22, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	07/02/61		07/07/61			08/04/61		
FORMATION.....	PENN-TOPEKA		PENN-LANSING-KANSAS CITY			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		3516			3336		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	66.8		76.2			75.9		
ETHANE.....	3.2		3.9			3.9		
PROPANE.....	1.2		1.4			1.4		
N-BUTANE.....	0.4		0.5			0.4		
ISOBUTANE.....	0.5		0.5			0.5		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	24.7		15.0			15.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	2.30		1.90			1.90		
HEATING VALUE.....	815		935			919		
SPECIFIC GRAVITY.....	0.705		0.671			0.666		
INDEX 2476 SAMPLE 8109			INDEX 2477 SAMPLE 8115			INDEX 2478 SAMPLE 8172		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	BEICHER NO. 1		SCHNEIDER NO. 1			HANHARDT NO. 1		
LOCATION.....	SEC. 22, T17S, R17W		SEC. 13, T17S, R17W			SEC. 24, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	08/02/61		08/09/61			08/13/61		
FORMATION.....	PENN-TOPEKA		PENN-TOPEKA			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		3516			385		
DEPTH, FEET.....	3032		3036			3427		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	60.2		70.5			75.5		
ETHANE.....	2.7		3.5			3.7		
PROPANE.....	0.9		1.2			1.4		
N-BUTANE.....	0.3		0.4			0.5		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	TRACE		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	32.9		21.0			15.9		
OXYGEN.....	0.0		0.5			TRACE		
ARGON.....	0.1		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.1		
HELIUM.....	2.20		2.00			1.80		
HEATING VALUE.....	711		849			925		
SPECIFIC GRAVITY.....	0.718		0.685			0.673		
INDEX 2479 SAMPLE 8173			INDEX 2480 SAMPLE 8174			INDEX 2481 SAMPLE 8175		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	HANHARDT NO. 1		SCHNEIDER NO. 1			HANHARDT NO. 1		
LOCATION.....	SEC. 24, T17S, R17W		SEC. 13, T17S, R17W			SEC. 24, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	08/13/61		08/11/61			08/13/61		
FORMATION.....	PENN-LANSING-KANSAS CITY		PENN-LANSING-KANSAS CITY			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	385		3365			385		
DEPTH, FEET.....	3320		3365			2998		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.2		71.8			63.8		
ETHANE.....	1.2		3.4			2.8		
PROPANE.....	1.2		1.6			1.0		
N-BUTANE.....	0.5		0.6			0.3		
ISOBUTANE.....	0.4		0.4			0.3		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	17.2		19.6			29.1		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	1.90		1.90			2.20		
HEATING VALUE.....	900		890			756		
SPECIFIC GRAVITY.....	0.676		0.690			0.706		
INDEX 2482 SAMPLE 8176			INDEX 2483 SAMPLE 8237			INDEX 2484 SAMPLE 8239		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	SCHNEIDER NO. 1		SCHNEIDER NO. 1			SCHNEIDER NO. 1		
LOCATION.....	SEC. 13, T17S, R17W		SEC. 22, T17S, R17W			SEC. 13, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	08/10/61		09/28/61			10/02/61		
FORMATION.....	PENN-LANSING-KANSAS CITY		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		NOT GIVEN			385		
DEPTH, FEET.....	3330		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			691		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			2901		
COMPONENT, MOLE PCT								
METHANE.....	69.9		62.1			73.0		
ETHANE.....	3.5		2.4			3.3		
PROPANE.....	1.2		0.9			1.2		
N-BUTANE.....	0.5		0.3			0.4		
ISOBUTANE.....	0.4		0.2			0.3		
N-PENTANE.....	0.1		TRACE			0.1		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	19.9		31.4			19.4		
OXYGEN.....	1.5		0.0			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	2.20		2.10			2.00		
HEATING VALUE.....	859		866			867		
SPECIFIC GRAVITY.....	0.692		0.713			0.674		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX			INDEX			INDEX		
SAMPLE			SAMPLE			SAMPLE		
2485			2486			2487		
8240			8248			8344		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	HANRODT NO. 1		BIERER NO. 1			HONDERICK A NO. 1		
LOCATION.....	SEC. 24, T17S, R17W		SEC. 15, T17S, R17W			SEC. 10, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			NORTHERN NATURAL GAS PROD. C		
COMPLETED.....	--/--700		--/--700			01/07/62		
SAMPLED.....	10/03/61		10/--/61			12/13/61		
FORMATION.....	PENN-TOPEKA		PENN-TOPEKA			PENN-LANSING		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			3342		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			920		
OPEN FLOW, MCFD.....	1860		NOT GIVEN			1020		
COMPONENT, MOLE PCT								
METHANE.....	63.9		78.0			75.1		
ETHANE.....	2.6		3.6			3.5		
PROPANE.....	0.9		1.3			1.3		
N-BUTANE.....	0.3		0.5			0.5		
ISOBUTANE.....	0.1		0.4			0.3		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	29.5		14.0			16.6		
OXYGEN.....	0.0		TRACE			0.3		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.4		
HELIUM.....	2.19		1.70			1.41		
HEATING VALUE.....	749		937			902		
SPECIFIC GRAVITY.....	0.707		0.660			0.674		
INDEX			INDEX			INDEX		
SAMPLE			SAMPLE			SAMPLE		
2488			2489			2490		
8380			8385			8430		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	SCHNEIDER K. NO. 1		GRUMBEN NO. 1			ROTHE A NO. 1		
LOCATION.....	SEC. 13, T17S, R17W		SEC. 9, T17S, R17W			SEC. 30, T17S, R16W		
OWNER.....	PETROLEUM, INC.		NORTHERN NATURAL GAS PROD. C			NORTHERN NATURAL GAS PROD. C		
COMPLETED.....	01/23/62		03/01/62			--/--700		
SAMPLED.....	01/24/62		01/26/62			02/24/62		
FORMATION.....	PENN-TOPEKA		PERM-GRANITE WASH			QUARTZ WASH		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3018		3594			3532		
WELLHEAD PRESSURE, PSIG.....	1760		1130			1130		
OPEN FLOW, MCFD.....	1450		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.4		74.9			76.8		
ETHANE.....	3.1		3.0			3.6		
PROPANE.....	1.3		2.4			1.4		
N-BUTANE.....	0.4		0.5			0.6		
ISOBUTANE.....	0.3		0.1			0.3		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		0.0			0.2		
NITROGEN.....	18.8		16.4			14.8		
OXYGEN.....	TRACE		10.1			0.1		
ARGON.....	0.1		0.1			0.0		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.4			0.1		
HELIUM.....	2.06		1.89			1.66		
HEATING VALUE.....	869		909			937		
SPECIFIC GRAVITY.....	0.672		0.673			0.668		
INDEX			INDEX			INDEX		
SAMPLE			SAMPLE			SAMPLE		
2491			2492			2493		
8433			8497			8498		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	APPL NO. 1		ERBER NO. 1			ROTHE A NO. 1		
LOCATION.....	SEC. 10, T17S, R17W		SEC. 26, T17S, R17W			SEC. 30, T17S, R16W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			NORTHERN NATURAL GAS PROD. C		
COMPLETED.....	--/--700		--/--700			04/10/62		
SAMPLED.....	02/10/62		03/30/62			04/02/62		
FORMATION.....	PENN-TOPEKA		PERM-GRANITE WASH			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3033		3559			3011		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			800		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	56.6		74.5			60.3		
ETHANE.....	2.8		2.6			1.8		
PROPANE.....	1.0		2.0			0.7		
N-BUTANE.....	0.4		0.3			0.2		
ISOBUTANE.....	0.3		0.2			0.1		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	33.1		18.8			34.8		
OXYGEN.....	3.7		TRACE			0.1		
ARGON.....	0.3		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	1.28		1.92			1.97		
HEATING VALUE.....	891		866			665		
SPECIFIC GRAVITY.....	0.752		0.666			0.718		
INDEX			INDEX			INDEX		
SAMPLE			SAMPLE			SAMPLE		
2494			2495			2496		
8501			8502			8503		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	FOOS NO. 1		FOOS NO. 1			STEITZ NO. 1		
LOCATION.....	SEC. 25, T17S, R17W		SEC. 25, T17S, R17W			SEC. 11, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--700		--/--700			--/--700		
SAMPLED.....	03/27/62		03/26/62			04/07/62		
FORMATION.....	PENN-KANSAS CITY		PENN-KANSAS CITY			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3470		3292			3084		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.3		69.0			75.3		
ETHANE.....	3.4		1.4			3.5		
PROPANE.....	1.4		1.1			1.3		
N-BUTANE.....	0.6		0.4			0.4		
ISOBUTANE.....	0.3		0.4			0.4		
N-PENTANE.....	0.2		0.3			0.1		
ISOPENTANE.....	0.2		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.4			0.1		
NITROGEN.....	19.1		24.1			16.5		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	1.88		2.03			1.96		
HEATING VALUE.....	886		836			908		
SPECIFIC GRAVITY.....	0.685		0.703			0.669		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2497 8504	INDEX SAMPLE	2498 8507	INDEX SAMPLE	2499 8508
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	REICHEL			REICHEL		REICHEL	
WELL NAME.....	ERBER NO. 1			FOOS NO. 1		FOOS NO. 1	
LOCATION.....	SEC. 26, T17S, R17W			SEC. 25, T17S, R17W		SEC. 25, T17S, R17W	
OWNER.....	FRONTIER OIL CO.			FRONTIER OIL CO.		FRONTIER OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	03/30/62			03/25/62		03/27/62	
FORMATION.....	PENN-KANSAS CITY			PENN-LANSING-KANSAS CITY		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3475			3238		3500	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	74.3			66.6		77.3	
ETHANE.....	2.7			2.6		3.2	
PROpane.....	0.9			1.1		1.4	
N-BUTANE.....	0.3			0.4		0.5	
ISOBUTANE.....	0.3			0.5		0.4	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.2			0.1		0.3	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	18.9			26.4		13.7	
OXYGEN.....	0.1			0.0		0.1	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	1.91			1.91		2.13	
HEATING VALUE.....	871			791		942	
SPECIFIC GRAVITY.....	0.672			0.699		0.662	
		INDEX SAMPLE	2500 8524	INDEX SAMPLE	2501 8525	INDEX SAMPLE	2502 8526
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	REICHEL			REICHEL		REICHEL	
WELL NAME.....	ERNIE A NO. 1			ERNIE NO. 1		BEAUM NO. 1	
LOCATION.....	SEC. 14, T17S, R17W			SEC. 12, T17S, R17W		SEC. 36, T17S, R17W	
OWNER.....	FRONTIER OIL CO.			FRONTIER OIL CO.		FRONTIER OIL CO.	
COMPLETED.....	--/--/00			--/--/00		04/21/62	
SAMPLED.....	04/24/62			04/24/62		04/21/62	
FORMATION.....	PENN-TOPEKA			PENN-TOPEKA		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3032			3084		3495	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	74.4			75.6		73.7	
ETHANE.....	3.4			3.5		3.4	
PROpane.....	1.2			1.3		1.3	
N-BUTANE.....	0.4			0.5		0.5	
ISOBUTANE.....	0.3			0.3		0.4	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.1			0.2		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	17.2			16.2		10.1	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	2.04			1.94		1.73	
HEATING VALUE.....	896			911		899	
SPECIFIC GRAVITY.....	0.670			0.668		0.679	
		INDEX SAMPLE	2503 8527	INDEX SAMPLE	2504 8551	INDEX SAMPLE	2505 8552
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	REICHEL			REICHEL		REICHEL	
WELL NAME.....	ERNIE A NO. 1			REICHER NO. 1		BEAUM NO. 1	
LOCATION.....	SEC. 36, T17S, R17W			SEC. 15, T17S, R17W		SEC. 36, T17S, R17W	
OWNER.....	FRONTIER OIL CO.			FRONTIER OIL CO.		FRONTIER OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	04/20/62			05/15/62		05/15/62	
FORMATION.....	PENN-KANSAS CITY			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3451			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	75.8			72.7		76.2	
ETHANE.....	3.5			3.5		3.6	
PROpane.....	1.3			1.3		1.5	
N-BUTANE.....	0.5			0.5		1.5	
ISOBUTANE.....	0.3			0.4		0.3	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.2			0.2		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	15.7			19.0		15.3	
OXYGEN.....	0.2			0.0		0.1	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			TRACE		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		TRACE	
HELIUM.....	1.82			1.96		1.83	
HEATING VALUE.....	919			889		921	
SPECIFIC GRAVITY.....	0.669			0.686		0.664	
		INDEX SAMPLE	2506 8556	INDEX SAMPLE	2507 8557	INDEX SAMPLE	2508 8568
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	REICHEL			REICHEL		REICHEL	
WELL NAME.....	ERNIE A NO. 1			ERNIE A NO. 1		KANSAS STATE NO. 1	
LOCATION.....	SEC. 14, T17S, R17W			SEC. 14, T17S, R17W		SEC. 6, T16S, R17W	
OWNER.....	FRONTIER OIL CO.			FRONTIER OIL CO.		FRONTIER OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	04/22/62			04/22/62		05/28/62	
FORMATION.....	PENN-KANSAS CITY			PENN-KANSAS CITY		CAMO-ARBUCKLE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3358			3450		3467	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.2			73.0		16.9	
ETHANE.....	3.6			3.6		2.3	
PROpane.....	1.5			1.4		0.5	
N-BUTANE.....	0.6			0.5		0.2	
ISOBUTANE.....	0.4			0.3		0.3	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.2			0.2		0.1	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	17.3			18.5		72.9	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.1			0.1		0.2	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.4	
HELIUM.....	1.88			1.90		5.87	
HEATING VALUE.....	910			889		256	
SPECIFIC GRAVITY.....	0.685			0.678		0.866	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2509			INDEX 2510			INDEX 2511		
SAMPLE 8575			SAMPLE 8576			SAMPLE 8577		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	KANSAS STATE NO. 1		KANSAS STATE NO. 1			KANSAS STATE NO. 1		
LOCATION.....	SEC. 6, T16S, R17W		SEC. 6, T16S, R17W			SEC. 6, T16S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	05/26/62		05/26/62			05/26/62		
FORMATION.....	PENN-KANSAS CITY		PENN-LANSING-KANSAS CITY			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3267		3152			3220		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	57.6		62.6			60.0		
ETHANE.....	3.3		2.7			3.0		
PROPANE.....	2.0		1.4			1.6		
N-BUTANE.....	1.1		0.6			0.6		
ISOBUTANE.....	0.6		0.4			0.4		
N-PENTANE.....	0.4		0.2			0.2		
ISOPENTANE.....	0.3		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	31.8		29.6			31.9		
OXYGEN.....	0.5		TRACE			0.1		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	1.80		1.96			1.73		
HEATING VALUE.....	891		784			759		
SPECIFIC GRAVITY.....	0.768		0.728			0.738		
INDEX 2512			INDEX 2513			INDEX 2514		
SAMPLE 8608			SAMPLE 8653			SAMPLE 8686		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	MC GILL NO. 3		DECKER NO. 2			BEAUM NO. 1		
LOCATION.....	SEC. 3, T17S, R17W		SEC. 3, T17S, R17W			SEC. 3, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	06/05/62		08/23/62			09/17/62		
FORMATION.....	PENN-TOPEKA		NOT GIVEN			PENN-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3062		3097			3457		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.0		73.2			76.7		
ETHANE.....	3.4		3.3			3.8		
PROPANE.....	1.2		1.2			1.4		
N-BUTANE.....	0.4		0.4			0.6		
ISOBUTANE.....	0.3		0.3			0.5		
N-PENTANE.....	0.1		0.1			0.3		
ISOPENTANE.....	0.2		0.2			0.0		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	19.6		18.9			14.5		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	2.23		2.17			1.74		
HEATING VALUE.....	867		873			937		
SPECIFIC GRAVITY.....	0.678		0.673			0.666		
INDEX 2515			INDEX 2516			INDEX 2517		
SAMPLE 8718			SAMPLE 8720			SAMPLE 8734		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	KISER NO. 1		REICHEL NO. 1			FRYE NO. 1		
LOCATION.....	SEC. 2, T17S, R17W		SEC. 22, T17S, R17W			SEC. 4, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	10/10/62		10/18/62			10/22/62		
FORMATION.....	PENN-TOPEKA		PERM-GR. WASH & PENN-KAN. CITY			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3060		NOT GIVEN			3342		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	70.5		76.4			77.0		
ETHANE.....	3.1		3.6			3.6		
PROPANE.....	1.6		1.4			3.4		
N-BUTANE.....	0.4		0.6			0.6		
ISOBUTANE.....	0.2		0.3			0.4		
N-PENTANE.....	0.2		0.2			0.4		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	21.1		15.0			14.3		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.1		
HELIUM.....	2.01		1.81			1.79		
HEATING VALUE.....	845		937			946		
SPECIFIC GRAVITY.....	0.685		0.671			0.669		
INDEX 2518			INDEX 2519			INDEX 2520		
SAMPLE 8735			SAMPLE 8836			SAMPLE 8837		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	FRYE NO. 1		DECKER NO. 1			DECKER NO. 1		
LOCATION.....	SEC. 4, T17S, R17W		SEC. 34, T16S, R17W			SEC. 2, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	10/20/62		01/16/63			01/16/63		
FORMATION.....	PENN-TOPEKA		PENN-TOPEKA			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3057		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	71.9		72.0			73.3		
ETHANE.....	3.4		3.0			3.2		
PROPANE.....	1.9		1.4			1.0		
N-BUTANE.....	0.5		0.5			0.5		
ISOBUTANE.....	0.4		0.2			0.1		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	19.5		20.5			19.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	2.18		2.31			2.19		
HEATING VALUE.....	878		946			864		
SPECIFIC GRAVITY.....	0.684		0.677			0.668		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2521 SAMPLE 8839			INDEX 2522 SAMPLE 8840			INDEX 2523 SAMPLE 8841		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	KAISER A NO. 1		MEGILL NO. 1			MONDERICK		
LOCATION.....	SEC. 1, T17S, R17W		SEC. 1, T17S, R17W			SEC. 6, T17S, R16W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	01/17/63		01/17/63			01/20/63		
FORMATION.....	PENN-TOPEKA		PENN-TOPEKA			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	71.1	-----	69.4	-----		58.0	-----	
ETHANE.....	2.9	-----	4.1	-----		2.8	-----	
PROPANE.....	1.0	-----	1.6	-----		0.9	-----	
N-BUTANE.....	0.4	-----	1.1	-----		0.4	-----	
ISOBUTANE.....	0.1	-----	TRACE	-----		0.1	-----	
N-PENTANE.....	TRACE	-----	0.6	-----		TRACE	-----	
ISOPENTANE.....	0.2	-----	1.0	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	0.2	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	1.0	-----		TRACE	-----	
NITROGEN.....	21.4	-----	18.4	-----		32.9	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		1.7	-----	
ARGON.....	0.1	-----	0.1	-----		0.2	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.5	-----	0.3	-----		0.3	-----	
HELIUM.....	2.29	-----	2.09	-----		2.44	-----	
HEATING VALUE.....	829	-----	982	-----		686	-----	
SPECIFIC GRAVITY.....	0.678	-----	0.737	-----		0.728	-----	
INDEX 2524 SAMPLE 9255			INDEX 2525 SAMPLE 9256			INDEX 2526 SAMPLE 9257		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	SHERWOOD NO. 1		HARTMAN A			BRACK NO. 1		
LOCATION.....	SEC. 29, T16S, R17W		SEC. 17, T16S, R17W			SEC. 9, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	10/26/63		06/28/63			04/22/63		
SAMPLED.....	03/17/64		03/17/64			03/17/64		
FORMATION.....	PENN-TOPEKA		PENN-LANSING-KANSAS CITY			PENN-LANSING-KANSAS CITY		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	2996	-----	3492	-----		3336	-----	
WELLHEAD PRESSURE, PSIG.....	255	-----	1000	-----		870	-----	
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	67.1	-----	70.3	-----		60.2	-----	
ETHANE.....	3.8	-----	1.3	-----		3.0	-----	
PROPANE.....	0.5	-----	1.4	-----		1.5	-----	
N-BUTANE.....	0.3	-----	0.5	-----		0.8	-----	
ISOBUTANE.....	0.2	-----	0.3	-----		0.2	-----	
N-PENTANE.....	0.1	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.2	-----		0.1	-----	
NITROGEN.....	27.1	-----	21.2	-----		31.3	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.2	-----	
ARGON.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.1	-----		0.2	-----	
HELIUM.....	1.67	-----	2.18	-----		1.91	-----	
HEATING VALUE.....	755	-----	862	-----		759	-----	
SPECIFIC GRAVITY.....	0.692	-----	0.690	-----		0.734	-----	
INDEX 2527 SAMPLE 9258			INDEX 2528 SAMPLE 9259			INDEX 2529 SAMPLE 9261		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	SCHLITZER NO. 1		PEIFFER A NO. 2			REICHEL		
LOCATION.....	SEC. 18, T16S, R17W		SEC. 8, T16S, R17W			SEC. 16, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	03/01/63		02/09/63			06/20/63		
SAMPLED.....	03/17/64		03/17/64			03/17/64		
FORMATION.....	PENN-TOPEKA & LANSING-KC		PENN-LANSING-KANSAS CITY			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	2990	-----	3274	-----		3064	-----	
WELLHEAD PRESSURE, PSIG.....	1005	-----	990	-----		810	-----	
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.1	-----	67.5	-----		61.5	-----	
ETHANE.....	3.1	-----	2.8	-----		2.7	-----	
PROPANE.....	1.0	-----	0.7	-----		1.0	-----	
N-BUTANE.....	0.5	-----	0.7	-----		0.3	-----	
ISOBUTANE.....	0.1	-----	0.4	-----		0.2	-----	
N-PENTANE.....	0.1	-----	0.3	-----		0.2	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.0	-----	
NITROGEN.....	18.9	-----	25.3	-----		31.3	-----	
OXYGEN.....	0.0	-----	0.0	-----		TRACE	-----	
ARGON.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	TRACE	-----	0.2	-----		0.1	-----	
HELIUM.....	2.28	-----	1.48	-----		2.22	-----	
HEATING VALUE.....	889	-----	815	-----		740	-----	
SPECIFIC GRAVITY.....	0.675	-----	0.704	-----		0.716	-----	
INDEX 2530 SAMPLE 9262			INDEX 2531 SAMPLE 9264			INDEX 2532 SAMPLE 9406		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
WELL NAME.....	KAISER NO. 2		KAISER NO. 1			KAISER NO. 1		
LOCATION.....	SEC. 19, T16S, R17W		SEC. 5, T16S, R17W			SEC. 2, T17S, R17W		
OWNER.....	FRONTIER OIL CO.		FRONTIER OIL CO.			FRONTIER OIL CO.		
COMPLETED.....	03/17/64		03/21/63			11/02/62		
SAMPLED.....	03/17/64		03/17/64			06/15/64		
FORMATION.....	PENN-LANSING-KANSAS CITY		PENN-TOPEKA			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3260	-----	2988	-----		3060	-----	
WELLHEAD PRESSURE, PSIG.....	1010	-----	960	-----		860	-----	
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			928	-----	
COMPONENT, MOLE PCT								
METHANE.....	73.1	-----	64.5	-----		74.1	-----	
ETHANE.....	3.4	-----	2.3	-----		3.4	-----	
PROPANE.....	1.3	-----	0.8	-----		1.5	-----	
N-BUTANE.....	0.5	-----	0.5	-----		0.5	-----	
ISOBUTANE.....	0.3	-----	0.3	-----		0.2	-----	
N-PENTANE.....	0.1	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.2	-----	TRACE	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.1	-----	
NITROGEN.....	18.2	-----	28.0	-----		17.7	-----	
OXYGEN.....	TRACE	-----	0.4	-----		TRACE	-----	
ARGON.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.0	-----	
HELIUM.....	2.25	-----	2.47	-----		2.07	-----	
HEATING VALUE.....	889	-----	860	-----		892	-----	
SPECIFIC GRAVITY.....	0.677	-----	0.704	-----		0.670	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2533 9412	INDEX SAMPLE	2534 9416	INDEX SAMPLE	2535 10473
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	REICHEL			REICHEL		REICHEL	
WELL NAME.....	FRYE NO. 1			GIESICK NO. 3		ALLEN A NO. 1	
LOCATION.....	SEC. 4, T17S, R17W			SEC. 19, T17S, R16W		SEC. 33, T16S, R16W	
OWNER.....	FRONTIER OIL CO.			PETROLEUM, INC.		FRONTIER OIL CO.	
COMPLETED.....	11/09/62			04/18/62		01/26/66	
SAMPLED.....	06/15/64			06/25/64		03/17/66	
FORMATION.....	PENN-TOPEKA			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3057			2986		2984	
WELLHEAD PRESSURE, PSIG.....	900			640		1000	
OPEN FLOW, MCFD.....	3500			255		4090	
COMPONENT, MOLE PCT							
METHANE.....	71.9	-----	66.7	-----	68.0	-----	68.0
ETHANE.....	3.3	-----	4.8	-----	2.6	-----	2.6
PROPANE.....	1.2	-----	1.1	-----	1.4	-----	1.4
N-BUTANE.....	0.4	-----	0.4	-----	0.3	-----	0.3
ISOBUTANE.....	0.3	-----	0.2	-----	0.3	-----	0.3
N-PENTANE.....	0.1	-----	0.2	-----	TRACE	-----	TRACE
ISOPENTANE.....	0.2	-----	0.1	-----	0.1	-----	0.1
CYCLOPENTANE.....	TRACE	-----	0.1	-----	TRACE	-----	TRACE
HEXANES PLUS.....	0.1	-----	0.2	-----	0.1	-----	0.1
NITROGEN.....	19.8	-----	25.8	-----	25.0	-----	25.0
OXYGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0
ARGON.....	0.1	-----	0.1	-----	0.1	-----	0.1
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0
CARBON DIOXIDE.....	0.3	-----	0.1	-----	TRACE	-----	TRACE
HELIUM.....	2.26	-----	2.20	-----	2.08	-----	2.08
HEATING VALUE.....	860	-----	801	-----	801	-----	801
SPECIFIC GRAVITY.....	0.677	-----	0.700	-----	0.690	-----	0.690
		INDEX SAMPLE	2536 11287	INDEX SAMPLE	2537 12584	INDEX SAMPLE	2538 12585
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	REICHEL			REICHEL		REICHEL	
WELL NAME.....	ALLEN NO. A-1			ALLEN NO. C-1		LEGLITER NO. 2	
LOCATION.....	SEC. 33, T16S, R16W			SEC. 11, T17S, R17W		SEC. 18, T16S, R17W	
OWNER.....	FRONTIER OIL CO.			FRONTIER OIL CO.		FRONTIER OIL CO.	
COMPLETED.....	01/24/66			10/30/70		10/30/70	
SAMPLED.....	02/12/68			12/15/70		12/15/70	
FORMATION.....	PENN-TOPEKA			PENN-TOPEKA		ORDO-WILCOX	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	2985			3103		3261	
WELLHEAD PRESSURE, PSIG.....	700			600		1000	
OPEN FLOW, MCFD.....	1500			3285		3550	
COMPONENT, MOLE PCT							
METHANE.....	59.4	-----	74.8	-----	68.7	-----	68.7
ETHANE.....	2.4	-----	3.6	-----	3.8	-----	3.8
PROPANE.....	0.9	-----	1.7	-----	1.7	-----	1.7
N-BUTANE.....	0.2	-----	0.5	-----	0.6	-----	0.6
ISOBUTANE.....	0.3	-----	0.5	-----	0.4	-----	0.4
N-PENTANE.....	0.1	-----	TRACE	-----	0.1	-----	0.1
ISOPENTANE.....	0.1	-----	0.2	-----	0.1	-----	0.1
CYCLOPENTANE.....	TRACE	-----	TRACE	-----	0.1	-----	0.1
HEXANES PLUS.....	0.1	-----	0.1	-----	0.3	-----	0.3
NITROGEN.....	32.1	-----	16.7	-----	21.5	-----	21.5
OXYGEN.....	2.3	-----	0.0	-----	0.0	-----	0.0
ARGON.....	0.2	-----	0.1	-----	0.1	-----	0.1
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0
CARBON DIOXIDE.....	0.1	-----	0.1	-----	0.2	-----	0.2
HELIUM.....	1.82	-----	1.83	-----	2.39	-----	2.39
HEATING VALUE.....	693	-----	671	-----	878	-----	878
SPECIFIC GRAVITY.....	0.729	-----	0.671	-----	0.705	-----	0.705
		INDEX SAMPLE	2539 17652	INDEX SAMPLE	2540 4069	INDEX SAMPLE	2541 4497
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	REICHEL W			RYAN		RYAN	
WELL NAME.....	HENDERICK "D" NO. 1			HAGERMAN NO. 2		F. NAGLE NO. 1	
LOCATION.....	SEC. 12, T17S, R18W			SEC. 3, T19S, R16W		SEC. 3, T19S, R16W	
OWNER.....	FRONTIER OIL CO.			GULF OIL CORP.		ALKALY OIL CO.	
COMPLETED.....	11/30/83			--/--/00		--/--/00	
SAMPLED.....	04/28/85			05/21/85		06/11/88	
FORMATION.....	PENN-CONGLOMERATE			CAMO-ARBUCKLE		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3712			3724		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	600			800		NOT GIVEN	
OPEN FLOW, MCFD.....	1300			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						NOT GIVEN	
METHANE.....	76.7	-----	72.8	-----	73.7	-----	73.7
ETHANE.....	3.7	-----	15.0	-----	12.0	-----	12.0
PROPANE.....	1.5	-----	---	-----	---	-----	---
N-BUTANE.....	0.5	-----	---	-----	---	-----	---
ISOBUTANE.....	0.4	-----	---	-----	---	-----	---
N-PENTANE.....	0.2	-----	---	-----	---	-----	---
ISOPENTANE.....	0.1	-----	---	-----	---	-----	---
CYCLOPENTANE.....	TRACE	-----	---	-----	---	-----	---
HEXANES PLUS.....	0.2	-----	---	-----	---	-----	---
NITROGEN.....	14.8	-----	10.3	-----	11.7	-----	11.7
OXYGEN.....	TRACE	-----	0.0	-----	0.1	-----	0.1
ARGON.....	0.1	-----	---	-----	---	-----	---
HYDROGEN.....	0.0	-----	---	-----	---	-----	---
HYDROGEN SULFIDE.....	0.0	-----	---	-----	---	-----	---
CARBON DIOXIDE.....	0.1	-----	0.3	-----	0.7	-----	0.7
HELIUM.....	1.72	-----	1.56	-----	1.78	-----	1.78
HEATING VALUE.....	936	-----	1006	-----	962	-----	962
SPECIFIC GRAVITY.....	0.668	-----	0.667	-----	0.662	-----	0.662
		INDEX SAMPLE	2542 4500	INDEX SAMPLE	2543 4808	INDEX SAMPLE	2544 4884
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RYAN			RYAN		RYAN	
FIELD.....	BRACK RANKIN			RYAN		RYAN	
WELL NAME.....	BRACK RANKIN NO. 1			ALKALY W. NAGLE NO. 1		W. H. DIRKS NO. 3	
LOCATION.....	SEC. 27, T19S, R16W			SEC. 33, T19S, R16W		SEC. 27, T19S, R16W	
OWNER.....	BEN F. BRACK OIL CO.			KANSAS-NEBRASKA NATURAL GAS		TEXAS CO.	
COMPLETED.....	--/--/00			--/--/00		01/29/50	
SAMPLED.....	06/11/48			01/09/50		04/21/50	
FORMATION.....	NOT GIVEN			NOT GIVEN		CAMO-ARBUCKLE	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		3814	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		500	
COMPONENT, MOLE PCT							
METHANE.....	68.6	-----	46.6	-----	51.1	-----	51.1
ETHANE.....	1.4	-----	1.7	-----	3.9	-----	3.9
PROPANE.....	---	-----	0.6	-----	2.1	-----	2.1
N-BUTANE.....	---	-----	0.6	-----	0.8	-----	0.8
ISOBUTANE.....	---	-----	0.3	-----	0.5	-----	0.5
N-PENTANE.....	---	-----	0.3	-----	0.4	-----	0.4
ISOPENTANE.....	---	-----	0.0	-----	0.0	-----	0.0
CYCLOPENTANE.....	---	-----	TRACE	-----	0.1	-----	0.1
HEXANES PLUS.....	---	-----	---	-----	TRACE	-----	TRACE
NITROGEN.....	10.0	-----	42.4	-----	37.1	-----	37.1
OXYGEN.....	0.2	-----	0.1	-----	0.1	-----	0.1
ARGON.....	---	-----	0.2	-----	0.2	-----	0.2
HYDROGEN.....	---	-----	TRACE	-----	TRACE	-----	TRACE
HYDROGEN SULFIDE.....	---	-----	---	-----	---	-----	---
CARBON DIOXIDE.....	0.8	-----	0.5	-----	0.5	-----	0.5
HELIUM.....	1.03	-----	3.60	-----	3.29	-----	3.29
HEATING VALUE.....	1043	-----	633	-----	704	-----	704
SPECIFIC GRAVITY.....	0.696	-----	0.780	-----	0.770	-----	0.770

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

221

INDEX 2545 SAMPLE 5051			INDEX 2546 SAMPLE 5052			INDEX 2547 SAMPLE 5209		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	RYAN		RYAN			RYAN		
WELL NAME.....	TAMMEN NO. 1		PETERSON NO. 1			THALHEIM NO. 2		
LOCATION.....	SEC. 26, T19S, R16W		SEC. 35, T19S, R16W			T19S, R16W		
OWNER.....	ALKAY OIL CO.		INLAND OIL CO., INC.			CORNEY-DAVIS OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	04/08/51		04/18/51			05/22/52		
FORMATION.....	CAMO-ARRBUCKLE		CAMO-ARRBUCKLE			CAMO-ARRBUCKLE		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3700		3700			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	275		350			NOT GIVEN		
OPEN FLOW, MCFD.....	200		2250			843		
COMPONENT, MOLE PCT								
METHANE.....	76.8		80.2			52.1		
ETHANE.....	1.1		4.2			4.0		
PROPANE.....	2.2		1.9			2.2		
N-BUTANE.....	0.8		0.6			0.8		
ISOBUTANE.....	0.5		0.2			0.6		
N-PENTANE.....	0.4		0.2			0.4		
ISOPENTANE.....	0.0		0.2			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.3		0.2			0.2		
NITROGEN.....	15.6		9.8			35.4		
OXYGEN.....	0.1		0.2			0.1		
ARGON.....	0.1		0.2			0.2		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.8		0.9			0.5		
CARBON DIOXIDE.....	0.1		1.32			3.06		
HELIUM.....	1.38		992			748		
HEATING VALUE.....	927		0.666			0.778		
SPECIFIC GRAVITY.....	0.687							
INDEX 2548 SAMPLE 5244			INDEX 2549 SAMPLE 8361			INDEX 2550 SAMPLE 6177		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	RYAN		RYAN			SHAEFFER		
WELL NAME.....	W. H. DIRKS		CHRISTIENSEN NO. 1			MONSON NO. 4		
LOCATION.....	SEC. 27, T19S, R16W		SEC. 35, T19S, R16W			SEC. 21, T18S, R16W		
OWNER.....	TEXAS CO.		HELLAR DRILLING CO.			SOLAR OIL CO.		
COMPLETED.....	--/--/00		--/--/00			06/--/56		
SAMPLED.....	06/18/52		12/29/61			11/01/56		
FORMATION.....	CAMO-ARRBUCKLE		CAMO-ARRBUCKLE			CAMO-REAGAN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	3800		3730			3587		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			820		
OPEN FLOW, MCFD.....	NOT GIVEN		350			0.00		
COMPONENT, MOLE PCT								
METHANE.....	49.5		23.3			78.6		
ETHANE.....	3.8		2.3			1.8		
PROPANE.....	2.1		1.4			0.4		
N-BUTANE.....	0.9		0.5			0.2		
ISOBUTANE.....	0.2		0.1			0.2		
N-PENTANE.....	0.2		0.1			0.0		
ISOPENTANE.....	0.3		0.1			0.5		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.1		0.4			0.0		
NITROGEN.....	38.1		53.3			15.1		
OXYGEN.....	0.1		4.3			0.1		
ARGON.....	0.2		0.0			0.1		
HYDROGEN.....	0.1		0.0			0.2		
HYDROGEN SULFIDE.....	0.6		0.0			0.0		
CARBON DIOXIDE.....	3.45		3.33			0.1		
HELIUM.....	702		356			4.78		
HEATING VALUE.....	702		0.877			892		
SPECIFIC GRAVITY.....	0.780					0.645		
INDEX 2551 SAMPLE 8955			INDEX 2552 SAMPLE 10835			INDEX 2553 SAMPLE 906		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSSELL			RUSSELL		
FIELD.....	SHAEFFER		FRISCO			FAIRPORT		
WELL NAME.....	PECHANEC NO. 1		KAUFMAN NO. 1			OSWALD NO. 1		
LOCATION.....	SEC. 18, T18S, R16W		SEC. 13, T15S, R12W			SEC. 8, T12S, R15W		
OWNER.....	MORRISON PRODUCING CO.		R. P. NIXON			STEARNS & STREETER		
COMPLETED.....	--/--/00		11/01/66			--/--/00		
SAMPLED.....	05/10/63		01/12/67			--/--/00		
FORMATION.....	CAMO-REAGAN		PENN-TORONTO			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		2915			2461		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		525			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		3000			7000		
COMPONENT, MOLE PCT								
METHANE.....	76.7		66.3			33.7		
ETHANE.....	3.6		4.0			11.7		
PROPANE.....	1.4		1.4			---		
N-BUTANE.....	0.8		0.6			---		
ISOBUTANE.....	0.2		0.3			---		
N-PENTANE.....	0.3		0.1			---		
ISOPENTANE.....	0.2		0.1			---		
CYCLOPENTANE.....	0.2		0.1			---		
HEXANES PLUS.....	0.6		0.1			---		
NITROGEN.....	13.8		25.4			52.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		0.1			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	1.73		1.05			1.80		
HEATING VALUE.....	971		833			551		
SPECIFIC GRAVITY.....	0.681		0.715			0.822		
INDEX 2554 SAMPLE 7524			INDEX 2555 SAMPLE 8038			INDEX 2556 SAMPLE 10110		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSSELL		RUSSELL			SCOTT		
FIELD.....	MAHONEY		TRAPP			ARMY PROSPECT		
WELL NAME.....	MAHONEY NO. 1		CELLENS NO. 3			ORVAL EITEL NO. 1		
LOCATION.....	SEC. 5, T14S, R12W		SEC. 15, T15S, R13W			SEC. 23, T18S, R31W		
OWNER.....	MESSMAN-RINEHART OIL CO.		ISERN-WELLS			OIL & GAS PROPERTY MGMT., IN		
COMPLETED.....	--/--/00		05/26/61			03/18/65		
SAMPLED.....	04/26/60		06/19/61			09/10/65		
FORMATION.....	PENN-TARKIO		PENN-TARKIO			UNKN-KINDER		
GEOLOGIC PROVINCE CODE.....	385		385			360		
DEPTH, FEET.....	2430		2501			2751		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		490			448		
OPEN FLOW, MCFD.....	734000		2100			2951		
COMPONENT, MOLE PCT								
METHANE.....	56.7		60.0			42.4		
ETHANE.....	2.3		1.9			2.7		
PROPANE.....	1.3		0.9			1.9		
N-BUTANE.....	0.6		0.1			0.7		
ISOBUTANE.....	0.3		0.2			0.3		
N-PENTANE.....	0.1		TRACE			0.1		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	37.1		35.2			50.1		
OXYGEN.....	TRACE		0.1			0.1		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	1.20		1.60			1.27		
HEATING VALUE.....	698		680			579		
SPECIFIC GRAVITY.....	0.751		0.722			0.813		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2557 14855	INDEX SAMPLE	2558 10416	INDEX SAMPLE	2559 14856
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SCOTT			SCOTT		SCOTT	
FIELD.....	GRUBEN			HUGOTON M		NOT GIVEN	
WELL NAME.....	GRUBEN NO. 1			SMITH NO. 1		HUSHAW NO. 1	
LOCATION.....	SEC. 1, T20S, R34W			SEC. 35, T19, R33		SEC. 12, T19S, R33W	
OWNER.....	N. L. BROWN			SATURN OIL & GAS CO., INC.		N. L. BROWN	
COMPLETED.....	09/01/76			01/15/65		01/21/76	
SAMPLED.....	11/02/76			02/23/66		11/02/76	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2670			2630		2721	
WELLHEAD PRESSURE, PSIG.....	350			425		525	
OPEN FLOW, MCFD.....	700			1790		700	
COMPONENT, MOLE PCT							
METHANE.....	48.7			50.9		24.2	
ETHANE.....	3.9			3.7		1.4	
PROPANE.....	2.6			1.9		1.4	
N-BUTANE.....	0.9			0.8		0.6	
ISOBUTANE.....	0.3			0.3		0.2	
N-PENTANE.....	0.3			0.3		0.2	
ISOPENTANE.....	0.2			TRACE		0.1	
CYCLOPENTANE.....	TRACE			0.5		TRACE	
HEXANES PLUS.....	0.1			3.2		0.1	
NITROGEN.....	41.9			36.3		70.1	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.94			0.90		1.43	
HEATING VALUE.....	698			907		352	
SPECIFIC GRAVITY.....	0.801			0.868		0.881	
		INDEX SAMPLE	2560 17676	INDEX SAMPLE	2561 3858	INDEX SAMPLE	2562 2371
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEDGWICK			SEDGWICK		SEDGWICK	
FIELD.....	BARTHOLOMEW			DERBY		GLADYS SW	
WELL NAME.....	LEWIS NO. 1			PARTISH NO. 1		PENDELUM NO. 1	
LOCATION.....	SEC. 20, T27S, R4W			SEC. 29, T28S, R2E		SEC. 31, T28S, R1W	
OWNER.....	MARTIN OIL PRODUCERS, INC.			BEECH AIRCRAFT CORP.		MAGNOLIA PETROLEUM CO.	
COMPLETED.....	07/09/83			05/1/84		--/--/00	
SAMPLED.....	05/16/85			06/14/44		08/07/31	
FORMATION.....	MISS-			PENN-STALNAKER		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	376			375		375	
DEPTH, FEET.....	3716			2043		2548	
WELLHEAD PRESSURE, PSIG.....	1179			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	3284			1200		2000	
COMPONENT, MOLE PCT							
METHANE.....	70.6			70.0		22.1	
ETHANE.....	6.6			9.6		38.9	
PROPANE.....	3.4			---		---	
N-BUTANE.....	SEC. 2			---		---	
ISOBUTANE.....	0.4			---		---	
N-PENTANE.....	0.3			---		---	
ISOPENTANE.....	0.3			---		---	
CYCLOPENTANE.....	0.1			---		---	
HEXANES PLUS.....	0.3			---		---	
NITROGEN.....	16.2			19.0		34.8	
OXYGEN.....	0.1			0.6		0.3	
ARGON.....	TRACE			---		---	
HYDROGEN.....	0.0			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.1			0.1		0.3	
HELIUM.....	0.54			0.74		0.82	
HEATING VALUE.....	1020			881		921	
SPECIFIC GRAVITY.....	0.753			0.682		0.876	
		INDEX SAMPLE	2563 2528	INDEX SAMPLE	2564 2538	INDEX SAMPLE	2565 2686
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEDGWICK			SEDGWICK		SEDGWICK	
FIELD.....	ROBBINS			ROBBINS		ROBBINS	
WELL NAME.....	NO. 1			SCHWEITER NO. 1		SEELEY NO. 1	
LOCATION.....	SEC. 27, T27S, R1E			SEC. 27, T27S, R1E		SEC. 17, T28S, R1E	
OWNER.....	WILL SCHWEITER			WILL SCHWEITER		ALADDIN PETROLEUM CORP.	
COMPLETED.....	08/03/32			08/13/32		--/--/00	
SAMPLED.....	08/03/32			11/29/34		08/01/80	
FORMATION.....	MISS-			NOT GIVEN		MISS-	
GEOLOGIC PROVINCE CODE.....	375			375		375	
DEPTH, FEET.....	1490			1490		3280	
WELLHEAD PRESSURE, PSIG.....	700			700		NOT GIVEN	
OPEN FLOW, MCFD.....	750			2570		968	
COMPONENT, MOLE PCT							
METHANE.....	35.5			33.0		12.6	
ETHANE.....	9.0			10.6		20.6	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	53.7			54.4		65.1	
OXYGEN.....	0.2			0.4		0.0	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.0			0.0		0.1	
HELIUM.....	1.64			1.59		1.64	
HEATING VALUE.....	521			524		497	
SPECIFIC GRAVITY.....	0.815			0.827		0.919	
		INDEX SAMPLE	2566 2674	INDEX SAMPLE	2567 7158	INDEX SAMPLE	2568 16141
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEDGWICK			SEWARD		SEWARD	
FIELD.....	GILLESPIE			ADAMSON		ADAMSON	
WELL NAME.....	GILLESPIE NO. 1			ADAMSON NO. 2		HACKER UNIT NO. 2-1	
LOCATION.....	SEC. 6, T28S, R1W			SEC. 11, T34S, R34W		SEC. 10, T34S, R34W	
OWNER.....	D. R. LUCK OIL CO., INC., E			CARBON CO.		CABOT CORP.	
COMPLETED.....	--/--/00			09/22/58		08/01/80	
SAMPLED.....	06/08/34			07/31/59		12/08/80	
FORMATION.....	MISS-CHEST			MISS-CHESTER		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	375			360		360	
DEPTH, FEET.....	3333			6390		6028	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1725		1620	
OPEN FLOW, MCFD.....	684			25000		5000	
COMPONENT, MOLE PCT							
METHANE.....	39.3			82.1		83.4	
ETHANE.....	19.5			2.4		3.1	
PROPANE.....	---			0.8		3.4	
N-BUTANE.....	---			0.4		1.2	
ISOBUTANE.....	---			0.1		0.6	
N-PENTANE.....	---			0.1		0.3	
ISOPENTANE.....	---			0.4		0.4	
CYCLOPENTANE.....	---			TRACE		0.1	
HEXANES PLUS.....	---			---		0.2	
NITROGEN.....	39.6			8.3		5.1	
OXYGEN.....	0.3			TRACE		0.0	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			TRACE		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.1	
HELIUM.....	1.16			1.14		1.18	
HEATING VALUE.....	748			1052		1129	
SPECIFIC GRAVITY.....	0.812			0.670		0.683	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

228

		INDEX SAMPLE	2569 13691	INDEX SAMPLE	2570 17645	INDEX SAMPLE	2571 12786
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	ADORE			ARCHER		ARCHER	
WELL NAME.....	RUSSELL NO. 1			B. H. LEMERT C NO. 1		DUNLAP NO. 1	
LOCATION.....	SEC. 14, T35S, R31W			SEC. 27, T31S, R33W		SEC. 16, T34S, R34W	
OWNER.....	HICKERSON OIL CO.			AMOCO PRODUCTION CO.		LEBEN OIL CORP.	
COMPLETED.....	04/30/73			04/28/84		03/18/71	
SAMPLED.....	08/24/73			04/12/85		04/--/71	
FORMATION.....	PENN-MORROW			PENN-MARMATON		PENN-MARMATON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6013			4911		5144	
WELLHEAD PRESSURE, PSIG.....	1545			706		1350	
OPEN FLOW, MCFD.....	3400			956		1552	
COMPONENT, MOLE PCT.....							
METHANE.....	84.8			61.8		66.0	
ETHANE.....	4.3			10.7		5.2	
PROPANE.....	2.9			0.6		3.4	
N-BUTANE.....	0.7			2.6		0.9	
ISOBUTANE.....	0.6			1.5		0.7	
N-PENTANE.....	0.1			0.8		TRACE	
ISOPENTANE.....	0.3			0.2		0.3	
CYCLOPENTANE.....	0.1			0.2		TRACE	
HEXANES PLUS.....	0.2			11.9		TRACE	
NITROGEN.....	4.5			0.1		22.8	
OXYGEN.....	0.6			TRACE		0.2	
ARGON.....	TRACE			0.4		0.1	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		TRACE	
HELIUM.....	0.14			0.12		0.30	
HEATING VALUE.....	1095			1278		917	
SPECIFIC GRAVITY.....	0.664			0.850		0.739	
		INDEX SAMPLE	2572 12787	INDEX SAMPLE	2573 15905	INDEX SAMPLE	2574 17923
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	ADORE			ARCHER		ARCHER	
WELL NAME.....	FINCHAM NO. 1			POWELL "D" NO. 1		PACKER NO. 7-1	
LOCATION.....	SEC. 3, T34S, R34W			SEC. 26, T34S, R34W		SEC. 1, T34S, R34W	
OWNER.....	LEBEN OIL CORP.			ANADARKO PRODUCTION CO.		FLYNN ENERGY CORP.	
COMPLETED.....	02/02/71			02/21/80		04/19/85	
SAMPLED.....	04/--/71			02/21/80		11/30/85	
FORMATION.....	PENN-MORROW & MISS-CHESTER			PENN-MORROW		MISS-CHESTER LIME	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5978			6098		6072	
WELLHEAD PRESSURE, PSIG.....	450			NOT GIVEN		1538	
OPEN FLOW, MCFD.....	2122			4260		3582	
COMPONENT, MOLE PCT.....							
METHANE.....	82.4			80.3		75.9	
ETHANE.....	3.2			4.6		5.3	
PROPANE.....	1.0			0.6		4.8	
N-BUTANE.....	0.7			0.8		1.9	
ISOBUTANE.....	0.4			0.4		0.6	
N-PENTANE.....	0.3			0.3		1.1	
ISOPENTANE.....	0.6			0.4		0.5	
CYCLOPENTANE.....	0.1			0.1		0.4	
HEXANES PLUS.....	0.3			0.3		1.2	
NITROGEN.....	5.0			9.9		7.9	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		0.4	
HELIUM.....	0.15			0.17		0.20	
HEATING VALUE.....	1128			1053		1207	
SPECIFIC GRAVITY.....	0.689			0.685		0.764	
		INDEX SAMPLE	2575 7781	INDEX SAMPLE	2576 9249	INDEX SAMPLE	2577 9392
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	ARKALON			ARKALON		ARKALON	
WELL NAME.....	MASSONI B NO. 1			MASSONI C NO. 1		ROBERT DAVIES NO. 2	
LOCATION.....	SEC. 20, T33S, R31W			SEC. 31, T33S, R31W		SEC. 6, T34S, R31W	
OWNER.....	CABOT CORP.			ANADARKO PRODUCTION CO.		GULF OIL CORP.	
COMPLETED.....	09/24/60			10/24/63		04/12/64	
SAMPLED.....	11/23/60			03/05/64		06/12/64	
FORMATION.....	MISS-CHESTER			PENN-MORROW L		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5770			5636		5672	
WELLHEAD PRESSURE, PSIG.....	1591			1569		1555	
OPEN FLOW, MCFD.....	1750			32500		22900	
COMPONENT, MOLE PCT.....							
METHANE.....	88.6			88.9		88.0	
ETHANE.....	5.0			5.1		5.2	
PROPANE.....	2.4			2.2		2.4	
N-BUTANE.....	0.6			0.7		0.7	
ISOBUTANE.....	0.4			0.1		0.3	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.2			0.2		0.3	
CYCLOPENTANE.....	0.0			0.1		0.1	
HEXANES PLUS.....	0.1			0.2		0.2	
NITROGEN.....	2.3			1.7		2.3	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.10			0.11		0.11	
HEATING VALUE.....	1115			1010		1112	
SPECIFIC GRAVITY.....	0.638			0.642		0.645	
		INDEX SAMPLE	2578 12258	INDEX SAMPLE	2579 16556	INDEX SAMPLE	2580 11503
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	JOHNSON			ARKALON		CONDIT	
WELL NAME.....	JOHNSON NO. 1			HAYS NO. 1		ALEXANDER B NO. 1	
LOCATION.....	SEC. 9, T34S, R32W			SEC. 4, T34S, R32W		SEC. 4, T34S, R32W	
OWNER.....	PETRODYNAMICS, INC.			INCA OIL CO.		ANADARKO PRODUCTION CO.	
COMPLETED.....	12/31/69			02/10/82		06/15/67	
SAMPLED.....	05/17/70			05/25/82		05/16/68	
FORMATION.....	PENN-MORROW			PENN-MORROW U		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5825			5606		5863	
WELLHEAD PRESSURE, PSIG.....	1152			1562		1521	
OPEN FLOW, MCFD.....	4237			4200		13556	
COMPONENT, MOLE PCT.....							
METHANE.....	88.8			78.1		85.0	
ETHANE.....	4.7			5.3		5.8	
PROPANE.....	2.6			3.2		3.1	
N-BUTANE.....	0.9			0.9		1.0	
ISOBUTANE.....	0.5			0.5		0.3	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.1			0.3		0.4	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	2.2			3.4		3.7	
OXYGEN.....	0.0			0.5		0.3	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	TRACE			0.1		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			5.1		0.1	
HELIUM.....	0.12			0.12		0.12	
HEATING VALUE.....	1115			1052		1120	
SPECIFIC GRAVITY.....	0.644			0.724		0.666	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	2581 8455		INDEX SAMPLE	2582 9508		INDEX SAMPLE	2583 9531
STATE.....	KANSAS		STATE.....	KANSAS		STATE.....	KANSAS	
COUNTY.....	SEWARD		COUNTY.....	SEWARD		COUNTY.....	SEWARD	
FIELD.....	EVALYN-CONDIT		FIELD.....	EVALYN-CONDIT		FIELD.....	EVALYN-CONDIT	
WELL NAME.....	SANNA FE A NO. 1		WELL NAME.....	WORTHINGTON A NO. 1		WELL NAME.....	BRYANT A NO. 1	
LOCATION.....	SEC. 9, T33S, R33W		LOCATION.....	SEC. 12, T34S, R33W		LOCATION.....	SEC. 8, T33S, R33W	
OWNER.....	ANADARKO PRODUCTION CO.		OWNER.....	ANADARKO PRODUCTION CO.		OWNER.....	CABOT CORP.	
COMPLETED.....	08/27/61		COMPLETED.....	05/14/64		COMPLETED.....	05/12/64	
SAMPLED.....	03/13/62		SAMPLED.....	07/28/64		SAMPLED.....	08/04/64	
FORMATION.....	PENN-MORROW		FORMATION.....	MISS-CHESTER		FORMATION.....	PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	548		DEPTH, FEET.....	6255		DEPTH, FEET.....	5680	
WELLHEAD PRESSURE, PSIG.....	1530		WELLHEAD PRESSURE, PSIG.....	1625		WELLHEAD PRESSURE, PSIG.....	1486	
OPEN FLOW, MCFD.....	16382		OPEN FLOW, MCFD.....	11410		OPEN FLOW, MCFD.....	5800	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	83.2		METHANE.....	79.0		METHANE.....	82.2	
ETHANE.....	5.3		ETHANE.....	3.3		ETHANE.....	5.4	
PROPANE.....	3.3		PROPANE.....	1.5		PROPANE.....	3.5	
N-BUTANE.....	1.0		N-BUTANE.....	0.5		N-BUTANE.....	1.0	
ISOBUTANE.....	0.4		ISOBUTANE.....	0.3		ISOBUTANE.....	0.6	
N-PENTANE.....	0.2		N-PENTANE.....	0.1		N-PENTANE.....	0.4	
ISOPENTANE.....	0.3		ISOPENTANE.....	0.2		ISOPENTANE.....	0.1	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.3	
NITROGEN.....	5.6		NITROGEN.....	14.2		NITROGEN.....	6.0	
OXYGEN.....	TRACE		OXYGEN.....	TRACE		OXYGEN.....	TRACE	
ARGON.....	TRACE		ARGON.....	0.1		ARGON.....	TRACE	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.2	
HELIUM.....	0.17		HELIUM.....	0.43		HELIUM.....	0.17	
HEATING VALUE.....	1101		HEATING VALUE.....	948		HEATING VALUE.....	1115	
SPECIFIC GRAVITY.....	0.673		SPECIFIC GRAVITY.....	0.668		SPECIFIC GRAVITY.....	0.685	
	INDEX	2584		INDEX	2585		INDEX	2586
	SAMPLE	12198		SAMPLE	13195		SAMPLE	5054
STATE.....	KANSAS		STATE.....	KANSAS		STATE.....	KANSAS	
COUNTY.....	SEWARD		COUNTY.....	SEWARD		COUNTY.....	SEWARD	
FIELD.....	EVALYN-CONDIT		FIELD.....	EVALYN-CONDIT E		FIELD.....	HAWKS	
WELL NAME.....	FREEMAN NO. 1		WELL NAME.....	COOPER NO. 1		WELL NAME.....	LOFLAND-HAWKS NO. 1	
LOCATION.....	SEC. 18, T33S, R33W		LOCATION.....	SEC. 21, T34S, R32W		LOCATION.....	SEC. 18, T35S, R31W	
OWNER.....	FERGUSON OIL CO., INC.		OWNER.....	THUNDERBIRD DRILLING CO.		OWNER.....	J. M. HUBER CORP.	
COMPLETED.....	01/14/70		COMPLETED.....	09/30/71		COMPLETED.....	06/10/51	
SAMPLED.....	02/17/70		SAMPLED.....	04/10/72		SAMPLED.....	07/12/51	
FORMATION.....	PENN-MORROW		FORMATION.....	PENN-MORROW U		FORMATION.....	MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	5692		DEPTH, FEET.....	5894		DEPTH, FEET.....	5995	
WELLHEAD PRESSURE, PSIG.....	1036		WELLHEAD PRESSURE, PSIG.....	206		WELLHEAD PRESSURE, PSIG.....	1553	
OPEN FLOW, MCFD.....	11500		OPEN FLOW, MCFD.....	877		OPEN FLOW, MCFD.....	3549	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	83.2		METHANE.....	84.6		METHANE.....	81.6	
ETHANE.....	5.2		ETHANE.....	4.2		ETHANE.....	7.1	
PROPANE.....	3.5		PROPANE.....	4.2		PROPANE.....	4.8	
N-BUTANE.....	0.9		N-BUTANE.....	1.3		N-BUTANE.....	1.3	
ISOBUTANE.....	0.6		ISOBUTANE.....	1.3		ISOBUTANE.....	0.3	
N-PENTANE.....	0.3		N-PENTANE.....	0.0		N-PENTANE.....	0.3	
ISOPENTANE.....	TRACE		ISOPENTANE.....	0.7		ISOPENTANE.....	0.4	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	5.6		HEXANES PLUS.....	TRACE		HEXANES PLUS.....	0.0	
NITROGEN.....	5.6		NITROGEN.....	1.6		NITROGEN.....	3.6	
OXYGEN.....	0.0		OXYGEN.....	0.0		OXYGEN.....	0.1	
ARGON.....	0.0		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	0.1		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.4	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.12	
HELIUM.....	0.19		HELIUM.....	0.10		HELIUM.....	0.12	
HEATING VALUE.....	1110		HEATING VALUE.....	1192		HEATING VALUE.....	1164	
SPECIFIC GRAVITY.....	0.676		SPECIFIC GRAVITY.....	0.688		SPECIFIC GRAVITY.....	0.697	
	INDEX	2587		INDEX	2588		INDEX	2589
	SAMPLE	6397		SAMPLE	14715		SAMPLE	4950
STATE.....	KANSAS		STATE.....	KANSAS		STATE.....	KANSAS	
COUNTY.....	SEWARD		COUNTY.....	SEWARD		COUNTY.....	SEWARD	
FIELD.....	HOLT		FIELD.....	HOLT		FIELD.....	HUGOTON	
WELL NAME.....	HITCH F NO. 2		WELL NAME.....	HITCH F-3		WELL NAME.....	BAUGHMAN H NO. 1	
LOCATION.....	SEC. 27, T32S, R34W		LOCATION.....	SEC. 27, T32S, R34W		LOCATION.....	SEC. 30, T32S, R32W	
OWNER.....	CITIES SERVICE OIL CO.		OWNER.....	CITIES SERVICE OIL CO.		OWNER.....	AMERICAN GAS PRODUCTION CO.	
COMPLETED.....	07/06/57		COMPLETED.....	04/01/76		COMPLETED.....	07/08/50	
SAMPLED.....	08/29/57		SAMPLED.....	06/02/76		SAMPLED.....	09/27/50	
FORMATION.....	PENN-TORONTO		FORMATION.....	PERM-COUNCIL GROVE		FORMATION.....	PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	182		DEPTH, FEET.....	2986		DEPTH, FEET.....	2532	
WELLHEAD PRESSURE, PSIG.....	1024		WELLHEAD PRESSURE, PSIG.....	262		WELLHEAD PRESSURE, PSIG.....	430	
OPEN FLOW, MCFD.....	18000		OPEN FLOW, MCFD.....	1648		OPEN FLOW, MCFD.....	6540	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	74.3		METHANE.....	73.0		METHANE.....	73.8	
ETHANE.....	5.3		ETHANE.....	5.9		ETHANE.....	4.0	
PROPANE.....	2.3		PROPANE.....	3.5		PROPANE.....	1.8	
N-BUTANE.....	0.6		N-BUTANE.....	0.9		N-BUTANE.....	0.8	
ISOBUTANE.....	0.6		ISOBUTANE.....	0.4		ISOBUTANE.....	0.3	
N-PENTANE.....	0.3		N-PENTANE.....	0.2		N-PENTANE.....	0.1	
ISOPENTANE.....	0.2		ISOPENTANE.....	0.2		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.2	
NITROGEN.....	15.2		NITROGEN.....	15.4		NITROGEN.....	17.7	
OXYGEN.....	TRACE		OXYGEN.....	0.0		OXYGEN.....	0.1	
ARGON.....	TRACE		ARGON.....	TRACE		ARGON.....	0.1	
HYDROGEN.....	TRACE		HYDROGEN.....	0.0		HYDROGEN.....	0.1	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	---	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	TRACE		CARBON DIOXIDE.....	1.0	
HELIUM.....	0.33		HELIUM.....	0.46		HELIUM.....	0.60	
HEATING VALUE.....	1070		HEATING VALUE.....	1018		HEATING VALUE.....	902	
SPECIFIC GRAVITY.....	0.707		SPECIFIC GRAVITY.....	0.710		SPECIFIC GRAVITY.....	0.692	
	INDEX	2590		INDEX	2591		INDEX	2592
	SAMPLE	4965		SAMPLE	5604		SAMPLE	5617
STATE.....	KANSAS		STATE.....	KANSAS		STATE.....	KANSAS	
COUNTY.....	SEWARD		COUNTY.....	SEWARD		COUNTY.....	SEWARD	
FIELD.....	HUGOTON		FIELD.....	HUGOTON		FIELD.....	HUGOTON	
WELL NAME.....	SASKILL NO. 1		WELL NAME.....	HOLT B NO. 1		WELL NAME.....	HYRA ATWELL NO. 1	
LOCATION.....	SEC. 36, T32S, R33W		LOCATION.....	SEC. 28, T32S, R34W		LOCATION.....	SEC. 9, T33S, R31W	
OWNER.....	CITIES SERVICE OIL CO.		OWNER.....	TERMINAL FACILITIES, INC.		OWNER.....	COLUMBIAN FUEL CORP.	
COMPLETED.....	08/26/50		COMPLETED.....	02/27/54		COMPLETED.....	---/---/00	
SAMPLED.....	01/29/50		SAMPLED.....	03/30/54		SAMPLED.....	05/11/54	
FORMATION.....	PERM-CHASE GROUP		FORMATION.....	PENN-TORONTO		FORMATION.....	PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	2430		DEPTH, FEET.....	4184		DEPTH, FEET.....	2775	
WELLHEAD PRESSURE, PSIG.....	4283		WELLHEAD PRESSURE, PSIG.....	060		WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	
OPEN FLOW, MCFD.....	600		OPEN FLOW, MCFD.....	27800		OPEN FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	73.5		METHANE.....	74.1		METHANE.....	76.7	
ETHANE.....	6.1		ETHANE.....	5.1		ETHANE.....	4.1	
PROPANE.....	3.3		PROPANE.....	2.8		PROPANE.....	1.8	
N-BUTANE.....	0.9		N-BUTANE.....	0.5		N-BUTANE.....	0.5	
ISOBUTANE.....	0.2		ISOBUTANE.....	0.4		ISOBUTANE.....	0.1	
N-PENTANE.....	0.3		N-PENTANE.....	0.3		N-PENTANE.....	0.2	
ISOPENTANE.....	0.2		ISOPENTANE.....	0.2		ISOPENTANE.....	0.2	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.2		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.1	
NITROGEN.....	14.6		NITROGEN.....	15.4		NITROGEN.....	15.7	
OXYGEN.....	0.1		OXYGEN.....	0.0		OXYGEN.....	TRACE	
ARGON.....	0.1		ARGON.....	TRACE		ARGON.....	0.1	
HYDROGEN.....	---		HYDROGEN.....	0.0		HYDROGEN.....	0.1	
HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	---	
CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.0	
HELIUM.....	0.45		HELIUM.....	0.34		HELIUM.....	0.61	
HEATING VALUE.....	1007		HEATING VALUE.....	994		HEATING VALUE.....	931	
SPECIFIC GRAVITY.....	0.711		SPECIFIC GRAVITY.....	0.707		SPECIFIC GRAVITY.....	0.671	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

225

		INDEX SAMPLE	2593 5620	INDEX SAMPLE	2594 5637	INDEX SAMPLE	2595 12870
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	HUGOTON			HUGOTON		HUGOTON	
WELL NAME.....	MYRA ATWELL NO. 1			MYRA ATWELL NO. 1		LAHEY NO. 1	
LOCATION.....	SEC. 9, T33S, R31W			SEC. 9, T33S, R31W		SEC. 21, T31S, R34W	
OWNER.....	COLUMBIAN FUEL CORP.			COLUMBIAN FUEL CORP.		NORTHERN NATURAL GAS PROD. C	
COMPLETED.....	--/--/00			--/--/00		05/11/50	
SAMPLED.....	05/22/54			06/05/54		06/22/77	
FORMATION.....	PENN-TORONTO			NOT GIVEN		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4300			5069		2473	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		250	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		2042	
COMPONENT, MOLE PCT							
METHANE.....	69.0			82.6		74.1	
ETHANE.....	5.6			3.4		5.5	
PROPANE.....	4.4			3.3		3.0	
N-BUTANE.....	1.3			0.9		0.8	
ISOBUTANE.....	0.5			0.7		0.5	
N-PENTANE.....	0.2			0.2		TRACE	
ISOPENTANE.....	0.2			0.3		0.0	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	17.0			6.5		15.4	
OXYGEN.....	0.9			TRACE		0.0	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.0		0.0	
HELIUM.....	0.30			0.22		0.48	
HEATING VALUE.....	1006			1095		980	
SPECIFIC GRAVITY.....	0.743			0.675		0.697	
		INDEX SAMPLE	2596 12903	INDEX SAMPLE	2597 12904	INDEX SAMPLE	2598 12597
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	HUGOTON			HUGOTON		IRIS	
WELL NAME.....	GRIFFITH NO. 1			HITCH NO. 1		GENE BLACK NO. 1	
LOCATION.....	SEC. 19, T32S, R33W			SEC. 25, T32S, R34W		SEC. 11, T34S, R31W	
OWNER.....	CABOT CORP.			CABOT CORP.		VENUS OIL CO.	
COMPLETED.....	--/--/00			--/--/00		06/11/70	
SAMPLED.....	07/20/71			07/20/71		12/22/70	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PENN-TORONTO	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		4314	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1150	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		510	
COMPONENT, MOLE PCT							
METHANE.....	74.2			74.7		71.8	
ETHANE.....	3.8			3.5		5.7	
PROPANE.....	3.4			3.4		4.3	
N-BUTANE.....	1.0			0.9		1.3	
ISOBUTANE.....	0.4			0.3		0.6	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.1			0.1		0.3	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	14.1			14.5		15.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			TRACE		0.1	
HELIUM.....	0.44			0.45		0.32	
HEATING VALUE.....	1018			1007		1040	
SPECIFIC GRAVITY.....	0.707			0.704		0.734	
		INDEX SAMPLE	2599 12598	INDEX SAMPLE	2600 5994	INDEX SAMPLE	2601 5995
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	IRIS			KISMET		KISMET	
WELL NAME.....	GENE BLACK NO. 1			MASSONI NO. 1		MASSONI NO. 1	
LOCATION.....	SEC. 11, T34S, R31W			SEC. 5, T33N, R31W		SEC. 5, T33N, R31W	
OWNER.....	VENUS OIL CO.			CABOT CARBON CO.		CABOT CARBON CO.	
COMPLETED.....	06/11/70			12/05/55		12/05/55	
SAMPLED.....	12/22/70			01/14/56		01/14/56	
FORMATION.....	PERM-COJNCIL GROVE			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3100			5590		4270	
WELLHEAD PRESSURE, PSIG.....	600			1588		1200	
OPEN FLOW, MCFD.....	1608			2250		1500	
COMPONENT, MOLE PCT							
METHANE.....	68.5			88.9		88.3	
ETHANE.....	4.3			5.2		5.1	
PROPANE.....	2.5			2.3		2.2	
N-BUTANE.....	0.7			0.7		0.6	
ISOBUTANE.....	0.5			0.2		0.2	
N-PENTANE.....	0.3			0.2		0.1	
ISOPENTANE.....	0.2			0.2		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.3			0.2		0.2	
NITROGEN.....	22.1			1.8		2.7	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	0.0			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.2		0.2	
HELIUM.....	0.63			0.13		0.14	
HEATING VALUE.....	1124			1011		1037	
SPECIFIC GRAVITY.....	0.726			0.638		0.639	
		INDEX SAMPLE	2602 9784	INDEX SAMPLE	2603 9857	INDEX SAMPLE	2604 10344
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	KISMET			KISMET		KISMET	
WELL NAME.....	RECHART NO. 1			E. L. RICHARDSON		MASSONI NO. 1	
LOCATION.....	SEC. 15, T33S, R31W			SEC. 26, T32S, R31W		SEC. 5, T33S, R31W	
OWNER.....	J. M. HUBER CORP.			AMBASSADOR OIL CORP.		CABOT CORP.	
COMPLETED.....	06/05/62			03/14/63		12/05/55	
SAMPLED.....	03/01/63			04/23/65		12/29/65	
FORMATION.....	PENN-MARMATON			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5060			5565		5556	
WELLHEAD PRESSURE, PSIG.....	1314			1560		910	
OPEN FLOW, MCFD.....	2138			16800		847	
COMPONENT, MOLE PCT							
METHANE.....	81.7			84.6		87.0	
ETHANE.....	5.6			5.2		5.8	
PROPANE.....	3.8			2.6		2.7	
N-BUTANE.....	0.9			0.7		0.7	
ISOBUTANE.....	0.5			0.4		0.5	
N-PENTANE.....	0.3			0.1		0.1	
ISOPENTANE.....	0.2			0.2		0.3	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.5			0.2		0.2	
NITROGEN.....	6.0			5.0		2.3	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.2	
HELIUM.....	0.20			0.23		0.12	
HEATING VALUE.....	1124			1082		1127	
SPECIFIC GRAVITY.....	0.690			0.658		0.654	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2605 10345			INDEX SAMPLE	2606 10906			INDEX SAMPLE	2607 11050
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	SEWARD			SEWARD				SEWARD			
FIELD.....	KISMET			KISMET				KISMET			
WELL NAME.....	MASON NO. 1			SEWARD NO. 2				FREDERICK NO. 1			
LOCATION.....	SEC. 3, T33S, R31W			SEC. 26, T33S, R31W				SEC. 26, T33S, R31W			
OWNER.....	CABOT CORP.			A. L. ABERCROMBIE, INC.				HUMBLE OIL & REFINING CO.			
COMPLETED.....	12/05/55			11/01/60				05/22/67			
SAMPLED.....	12/29/65			03/22/67				08/04/67			
FORMATION.....	PENN-TORONTO			PENN-COUNCIL GROVE				PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	4340			3200				5524			
WELLHEAD PRESSURE, PSIG.....	750			498				911			
OPEN FLOW, MCFD.....	NOT GIVEN			574				855			
COMPONENT, MOLE PCT											
METHANE.....	74.4			70.5				86.2			
ETHANE.....	5.3			4.7				5.5			
PROPANE.....	3.5			2.7				2.5			
N-BUTANE.....	0.9			0.4				0.6			
ISOBUTANE.....	0.6			0.3				0.3			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	0.4			0.4				0.3			
CYCLOPENTANE.....	TRACE			0.1				0.1			
HEXANES PLUS.....	0.2			19.2				0.2			
NITROGEN.....	14.1			0.0				3.9			
OXYGEN.....	0.0			0.1				0.0			
ARGON.....	TRACE			0.1				TRACE			
HYDROGEN.....	TRACE			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.1				0.1			
HELIUM.....	0.30			0.57				0.18			
HEATING VALUE.....	1022			948				1018			
SPECIFIC GRAVITY.....	0.712			0.719				0.651			
		INDEX SAMPLE	2608 11625			INDEX SAMPLE	2609 12326			INDEX SAMPLE	2610 12327
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	SEWARD			SEWARD				SEWARD			
FIELD.....	KISMET			KISMET				KISMET			
WELL NAME.....	HIGGINS NO. 1			HANKA NO. 1				HANKA NO. 1			
LOCATION.....	SEC. 35, T33S, R31W			SEC. 25, T32S, R31W				SEC. 25, T32S, R31W			
OWNER.....	A. L. ABERCROMBIE, INC.			LEBEN DRILLING, INC.				LEBEN DRILLING, INC.			
COMPLETED.....	12/22/61			06/09/70				06/09/70			
SAMPLED.....	08/14/68			07/14/70				07/14/70			
FORMATION.....	PENN-TORONTO			PENN-LANSING				PENN-TOPEKA			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	4300			4402				4160			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2400				1150			
OPEN FLOW, MCFD.....	NOT GIVEN							18850			
COMPONENT, MOLE PCT											
METHANE.....	65.4			75.9				67.1			
ETHANE.....	9.4			5.2				4.7			
PROPANE.....	10.1			3.5				2.9			
N-BUTANE.....	3.8			0.8				0.7			
ISOBUTANE.....	1.5			0.2				0.6			
N-PENTANE.....	0.9			0.2				0.3			
ISOPENTANE.....	0.7			0.3				TRACE			
CYCLOPENTANE.....	0.2			0.2				TRACE			
HEXANES PLUS.....	0.6			0.2				0.2			
NITROGEN.....	7.2			12.5				21.6			
OXYGEN.....	0.0			0.3				1.5			
ARGON.....	0.0			TRACE				0.1			
HYDROGEN.....	TRACE			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	TRACE			0.0				0.0			
HELIUM.....	0.10			0.26				0.30			
HEATING VALUE.....	1379			1036				906			
SPECIFIC GRAVITY.....	0.861			0.704				0.734			
		INDEX SAMPLE	2611 15902			INDEX SAMPLE	2612 14492			INDEX SAMPLE	2613 4921
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	SEWARD			SEWARD				SEWARD			
FIELD.....	KNEELAND SW			EDNA SCOTT NO. 1				LIBERAL SE			
WELL NAME.....	YORK NO. 1			SEC. 13, T32S, R33W				WARDEN NO. 1			
LOCATION.....	SEC. 27, T34S, R31W			AMOCO PRODUCTION CO.				SEC. 13, T35S, R33W			
OWNER.....	KANSAS ENERGY INVESTMENT			08/18/75				WHITE EAGLE OIL CO.			
COMPLETED.....	12/00			10/03/75				07/26/50			
SAMPLED.....	02/15/80			PENN-MORROW				09/19/50			
FORMATION.....	NOT GIVEN			360				PENN-MORROW & MISS			
GEOLOGIC PROVINCE CODE.....	360							360			
DEPTH, FEET.....	NOT GIVEN			5516				6060			
WELLHEAD PRESSURE, PSIG.....	1575			719				1375			
OPEN FLOW, MCFD.....	3664			4500				6493			
COMPONENT, MOLE PCT											
METHANE.....	85.3			86.5				86.1			
ETHANE.....	4.8			5.0				4.0			
PROPANE.....	2.5			0.8				2.2			
N-BUTANE.....	0.7			0.7				1.0			
ISOBUTANE.....	0.3			0.4				0.3			
N-PENTANE.....	0.2			0.1				0.7			
ISOPENTANE.....	0.1			0.1				0.0			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	0.1			0.1				0.8			
NITROGEN.....	3.1			4.1				3.9			
OXYGEN.....	0.1			0.0				0.7			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.0			0.0				---			
HYDROGEN SULFIDE.....	0.0			0.0				---			
CARBON DIOXIDE.....	2.7			0.1				0.0			
HELIUM.....	0.13			1.089				0.11			
HEATING VALUE.....	1067			0.648				1119			
SPECIFIC GRAVITY.....	0.666							0.670			
		INDEX SAMPLE	2614 10330			INDEX SAMPLE	2615 14556			INDEX SAMPLE	2616 5073
STATE.....	KANSAS			KANSAS				KANSAS			
COUNTY.....	SEWARD			SEWARD				SEWARD			
FIELD.....	LIBERAL SE			LIBERAL SE				LIBERAL-LIGHT			
WELL NAME.....	FEATHER 6, U. NO. 1			HOLAND NO. 1				LEASE NO. 1			
LOCATION.....	SEC. 19, T35S, R33W			SEC. 10, T35S, R33W				SEC. 14, T35S, R32W			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			BEREN CORP.				J. M. HUBER CORP.			
COMPLETED.....	12/24/71			12/24/75				05/24/51			
SAMPLED.....	12/18/75			12/26/75				06/18/51			
FORMATION.....	PENN-MORROW			PENN-MORROW				PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	6156			6155				5942			
WELLHEAD PRESSURE, PSIG.....	633			422				1580			
OPEN FLOW, MCFD.....	3557			3644				55235			
COMPONENT, MOLE PCT											
METHANE.....	88.1			87.5				86.4			
ETHANE.....	5.0			4.9				6.1			
PROPANE.....	2.9			0.7				3.2			
N-BUTANE.....	0.4			0.4				0.7			
ISOBUTANE.....	0.2			0.2				0.5			
N-PENTANE.....	0.4			0.2				0.3			
ISOPENTANE.....	0.1			0.2				0.0			
CYCLOPENTANE.....	0.1			TRACE				0.1			
HEXANES PLUS.....	0.2			0.1				0.2			
NITROGEN.....	2.0			0.0				0.2			
OXYGEN.....	TRACE			0.0				0.2			
ARGON.....	TRACE			0.0				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.3				0.1			
HELIUM.....	0.16			0.15				0.12			
HEATING VALUE.....	1122			1132				1132			
SPECIFIC GRAVITY.....	0.650			0.645				0.660			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

227

		INDEX SAMPLE	2617 5132	INDEX SAMPLE	2618 12325	INDEX SAMPLE	2619 7247
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	SEWARD			SEWARD		SEWARD	
FIELD	LIBERAL-LIGHT			MASSONI		PLAINS W	
WELL NAME	LIGHT NO. A-1			BEERS NO. 1		COLLINS NO. 1	
LOCATION	SEC. 10, T35S, R32W			SEC. 24, T34S, R32W		SEC. 16, T32S, R31W	
OWNER	J. M. HUBER CORP.			LEBEN DRILLING, INC.		COLORADO OIL & GAS CORP., ET	
COMPLETED	08/25/51			05/19/70		11/09/56	
SAMPLED	/--/80			07/14/70		10/15/59	
FORMATION	PENN-MORROW			PENN-LANSING		PENN-MORROW	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	6089			4549		5608	
WELLHEAD PRESSURE, PSIG	1270			1200		1570	
OPEN FLOW, MCFD	1367			3360		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	91.7			72.2		68.7	
ETHANE	4.1			5.7		5.2	
PROPANE	1.8			4.2		3.7	
N-BUTANE	0.5			1.0		1.1	
ISOBUTANE	0.2			0.3		0.7	
N-PENTANE	0.2			0.3		0.2	
ISOPENTANE	0.0			0.2		0.6	
CYCLOPENTANE	0.0			0.1		0.1	
HEXANES PLUS	0.2			0.2		0.2	
NITROGEN	1.1			15.2		16.8	
OXYGEN	0.0			0.2		2.3	
ARGON	0.0			TRACE		0.1	
HYDROGEN	0.0			0.1		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			TRACE		0.1	
HELIUM	0.09			0.30		0.10	
HEATING VALUE	1093			1029		994	
SPECIFIC GRAVITY	0.617			0.727		0.750	
		INDEX SAMPLE	2620 16282	INDEX SAMPLE	2621 6848	INDEX SAMPLE	2622 14472
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	SEWARD			SEWARD		SEWARD	
FIELD	SALLEY			SALLEY		SALLEY	
WELL NAME	BECK NO. 1-9			SALLEY C NO. 2		STEVESSEN NO. A-2	
LOCATION	SEC. 9, T32S, R31W			SEC. 16, T34S, R33W		SEC. 20, T34S, R33W	
OWNER	MESA PETROLEUM CO.			CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED	03/14/81			08/01/58		06/12/75	
SAMPLED	06/16/81			11/03/58		09/--/75	
FORMATION	PENN-MORROW			PENN-TORONTO		PENN-MORROW	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	5564			4338		6044	
WELLHEAD PRESSURE, PSIG	1500			1144		1590	
OPEN FLOW, MCFD	1000			2		49152	
COMPONENT, MOLE PCT							
METHANE	79.0			54.2		86.3	
ETHANE	5.8			3.9		4.9	
PROPANE	1.6			2.9		4.0	
N-BUTANE	1.1			5.8		0.8	
ISOBUTANE	0.6			3.4		0.5	
N-PENTANE	0.3			4.0		0.1	
ISOPENTANE	0.3			3.8		0.4	
CYCLOPENTANE	0.1			1.1		0.1	
HEXANES PLUS	0.2			4.5		0.2	
NITROGEN	8.6			12.8		3.1	
OXYGEN	TRACE			1.1		TRACE	
ARGON	TRACE			TRACE		0.0	
HYDROGEN	0.0			TRACE		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.1		0.4	
HELIUM	0.19			0.20		0.16	
HEATING VALUE	1095			1661		1119	
SPECIFIC GRAVITY	0.698			1.101		0.661	
		INDEX SAMPLE	2623 5868	INDEX SAMPLE	2624 12581	INDEX SAMPLE	2625 16531
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	SEWARD			SEWARD		SEWARD	
FIELD	SHUCK			SHUCK		SHUCK	
WELL NAME	KOCH NO. 2-20			KULLER A NO. 1		KOCH "A" NO. 3	
LOCATION	SEC. 20, T33S, R34W			SEC. 30, T33S, R34W		SEC. 15, T33S, R34W	
OWNER	PANHANDLE EASTERN PIPELINE C			ANADARKO PRODUCTION CO.		ANADARKO PRODUCTION CO.	
COMPLETED	03/27/55			09/19/59		01/09/82	
SAMPLED	07/05/55			11/03/70		06/02/82	
FORMATION	PENN-MORROW			PENN-MORROW L		MISS-CHESTER	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	5987			6028		5936	
WELLHEAD PRESSURE, PSIG	1575			1218		1879	
OPEN FLOW, MCFD	4823			1242		1200	
COMPONENT, MOLE PCT							
METHANE	85.0			85.5		85.9	
ETHANE	5.2			5.2		4.6	
PROPANE	1.0			3.2		2.9	
N-BUTANE	1.0			3.8		1.1	
ISOBUTANE	0.5			0.6		0.5	
N-PENTANE	0.2			0.3		0.3	
ISOPENTANE	0.2			0.1		0.4	
CYCLOPENTANE	0.1			TRACE		0.1	
HEXANES PLUS	0.2			0.2		0.3	
NITROGEN	4.2			3.9		3.5	
OXYGEN	TRACE			0.0		TRACE	
ARGON	TRACE			0.0		TRACE	
HYDROGEN	0.0			0.0		TRACE	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.2			0.1		0.2	
HELIUM	0.14			0.15		0.17	
HEATING VALUE	1119			1065		1131	
SPECIFIC GRAVITY	0.666			0.663		0.669	
		INDEX SAMPLE	2626 16532	INDEX SAMPLE	2627 12788	INDEX SAMPLE	2628 17814
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	SEWARD			SEWARD		SEWARD	
FIELD	SHUCK			SHUCK N		SHUCK N	
WELL NAME	GROSSARDT "A" NO. 1			HITCH "R" NO. 1		HITCH "R" NO. 1	
LOCATION	SEC. 10, T33S, R34W			SEC. 6, T33S, R34W		SEC. 28, T32S, R34W	
OWNER	ANADARKO PRODUCTION CO.			LEBEN OIL CORP.		CITIES SERVICE OIL & GAS COR	
COMPLETED	02/04/82			03/12/71		06/28/85	
SAMPLED	06/02/82			04/--/71		08/19/85	
FORMATION	MISS-CHESTER			PENN-MORROW		MISS-CHESTER	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	6157			5876		6136	
WELLHEAD PRESSURE, PSIG	1406			NOT GIVEN		1588	
OPEN FLOW, MCFD	3046			NOT GIVEN		1489	
COMPONENT, MOLE PCT							
METHANE	85.5			82.8		56.5	
ETHANE	4.3			4.8		7.3	
PROPANE	1.9			2.5		8.6	
N-BUTANE	0.9			0.9		6.9	
ISOBUTANE	0.3			0.3		3.3	
N-PENTANE	0.3			0.1		4.3	
ISOPENTANE	0.2			0.6		4.4	
CYCLOPENTANE	0.2			TRACE		0.9	
HEXANES PLUS	0.3			0.1		4.6	
NITROGEN	5.5			7.1		2.9	
OXYGEN	0.1			0.4		TRACE	
ARGON	TRACE			TRACE		0.0	
HYDROGEN	0.1			0.0		TRACE	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.3			0.2		0.2	
HELIUM	0.20			0.20		0.07	
HEATING VALUE	1078			1065		1911	
SPECIFIC GRAVITY	0.659			0.678		1.142	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2629 17260	INDEX SAMPLE	2630 16180	INDEX SAMPLE	2631 7690
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	SILVERMAN			THIRTY-ONE		THIRTY-TWO	
WELL NAME.....	HOFFMAN NO. R-1			SATTERFIELD NO. 2		DOLVEN NO. 1	
LOCATION.....	SEC. 12, T32S, R34W			SEC. 11, T31S, R32W		SEC. 1, T32S, R32W	
OWNER.....	CITIES SERVICE OIL & GAS COR			NORTHERN PUMP CO.		PETROLEUM, INC.	
COMPLETED.....	10/06/83			06/16/80		07/02/60	
SAMPLED.....	04/17/84			01/27/81		09/19/60	
FORMATION.....	PENN-MORROW			PENN-MORROW & MISS-CHESTER		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5362			5465		5568	
WELLHEAD PRESSURE, PSIG.....	1243			1324		1180	
OPEN FLOW, MCFD.....	7390			2617		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	87.8	-----		80.3	-----	79.0	-----
ETHANE.....	4.2	-----		5.7	-----	5.6	-----
PROPANE.....	1.8	-----		3.0	-----	2.5	-----
N-BUTANE.....	0.6	-----		0.8	-----	0.7	-----
ISOBUTANE.....	0.3	-----		0.5	-----	0.6	-----
N-PENTANE.....	0.3	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	0.2	-----		TRACE	-----	0.2	-----
HEXANES PLUS.....	0.3	-----		0.2	-----	0.4	-----
NITROGEN.....	3.7	-----		8.5	-----	9.8	-----
OXYGEN.....	TRACE	-----		0.4	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.5	-----
HELIUM.....	0.25	-----		0.16	-----	0.20	-----
HEATING VALUE.....	1090	-----		1065	-----	1059	-----
SPECIFIC GRAVITY.....	0.645	-----		0.683	-----	0.696	-----
		INDEX SAMPLE	2632 6932	INDEX SAMPLE	2633 6933	INDEX SAMPLE	2634 6934
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	THREE STAR			THREE STAR		THREE STAR	
WELL NAME.....	C. M. LIGHT, JR. NO. 1			C. M. LIGHT, JR. NO. 1		C. M. LIGHT, JR. NO. 1	
LOCATION.....	SEC. 17, T35S, R32W			SEC. 17, T35S, R32W		SEC. 17, T35S, R32W	
OWNER.....	SHELL OIL CO.			SHELL OIL CO.		SHELL OIL CO.	
COMPLETED.....	07/17/58			07/17/58		07/17/58	
SAMPLED.....	01/28/59			01/28/59		01/28/59	
FORMATION.....	PENN-LANSING-KANSAS CITY			PENN-MORROW		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4545			6066		6192	
WELLHEAD PRESSURE, PSIG.....	1213			1200		1522	
OPEN FLOW, MCFD.....	11500			2200		4500	
COMPONENT, MOLE PCT							
METHANE.....	89.0	-----		89.9	-----	90.2	-----
ETHANE.....	4.7	-----		4.6	-----	4.5	-----
PROPANE.....	2.1	-----		2.2	-----	2.1	-----
N-BUTANE.....	0.6	-----		0.7	-----	0.7	-----
ISOBUTANE.....	0.4	-----		0.4	-----	0.4	-----
N-PENTANE.....	0.2	-----		TRACE	-----	0.3	-----
ISOPENTANE.....	0.2	-----		0.4	-----	0.4	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.3	-----
NITROGEN.....	2.1	-----		1.4	-----	0.4	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.1	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.1	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.3	-----
HELIUM.....	0.20	-----		0.10	-----	0.10	-----
HEATING VALUE.....	1102	-----		1127	-----	1127	-----
SPECIFIC GRAVITY.....	0.634	-----		0.632	-----	0.636	-----
		INDEX SAMPLE	2635 7582	INDEX SAMPLE	2636 10400	INDEX SAMPLE	2637 11519
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	THREE STAR			WIDE AWAKE		WIDE AWAKE	
WELL NAME.....	THOMPSON UNIT NO. 1			DOWD NO. 1-6		DOWD NO. 1-7	
LOCATION.....	SEC. 16, T35S, R32W			SEC. 6, T35S, R34W		SEC. 7, T35S, R34W	
OWNER.....	PETROLEUM, INC.			AMARILLO NATURAL GAS CO.		AMARILLO NATURAL GAS CO.	
COMPLETED.....	12/21/60			12/17/65		12/15/67	
SAMPLED.....	06/11/60			02/09/66		05/24/68	
FORMATION.....	PENN-LANSING-KANSAS CITY			PENN-MORROW		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4532			6231		6272	
WELLHEAD PRESSURE, PSIG.....	1095			1656		1556	
OPEN FLOW, MCFD.....	2850			12750		4279	
COMPONENT, MOLE PCT							
METHANE.....	80.0	-----		90.8	-----	83.2	-----
ETHANE.....	7.4	-----		0.0	-----	4.9	-----
PROPANE.....	3.2	-----		0.0	-----	2.8	-----
N-BUTANE.....	SEC. 1	-----		0.0	-----	1.0	-----
ISOBUTANE.....	0.3	-----		0.0	-----	0.3	-----
N-PENTANE.....	0.4	-----		0.0	-----	0.3	-----
ISOPENTANE.....	0.3	-----		0.0	-----	0.5	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.0	-----	0.2	-----
NITROGEN.....	6.3	-----		0.9	-----	6.2	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.2	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		TRACE	-----	0.2	-----
HELIUM.....	0.30	-----		0.30	-----	0.23	-----
HEATING VALUE.....	1100	-----		1090	-----	1090	-----
SPECIFIC GRAVITY.....	0.695	-----		0.590	-----	0.675	-----
		INDEX SAMPLE	2638 15883	INDEX SAMPLE	2639 5585	INDEX SAMPLE	2640 14490
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	SEWARD			SEWARD		SEWARD	
FIELD.....	WIDE AWAKE			WILDCAT		WILDCAT	
WELL NAME.....	BOLES NO. 1-17			ALEXANDER NO. 1		EDNA SCOTT NO. 1	
LOCATION.....	SEC. 17, T35S, R34W			SEC. 17, T35S, R32W		SEC. 15, T32S, R33W	
OWNER.....	HORIZON OIL & GAS CO.			VICKERS EXPLORATION, LTD.		AMOCO PRODUCTION CO.	
COMPLETED.....	11/1/70			12/23/73		08/18/75	
SAMPLED.....	11/03/74			12/20/73		10/14/75	
FORMATION.....	PENN-LANSING-KANSAS CITY			MISS-CHESTER		PENN-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4548			5868		4810	
WELLHEAD PRESSURE, PSIG.....	695			1000		705	
OPEN FLOW, MCFD.....	1000			NOT GIVEN		196	
COMPONENT, MOLE PCT							
METHANE.....	77.3	-----		89.0	-----	51.5	-----
ETHANE.....	6.2	-----		4.9	-----	13.1	-----
PROPANE.....	3.0	-----		2.2	-----	16.6	-----
N-BUTANE.....	0.8	-----		0.7	-----	2.1	-----
ISOBUTANE.....	0.5	-----		0.2	-----	2.6	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.9	-----
ISOPENTANE.....	0.3	-----		0.2	-----	0.9	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.2	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.3	-----
NITROGEN.....	11.1	-----		1.9	-----	8.6	-----
OXYGEN.....	0.0	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.1	-----	TRACE	-----
HELIUM.....	0.28	-----		0.11	-----	0.09	-----
HEATING VALUE.....	1047	-----		1108	-----	1547	-----
SPECIFIC GRAVITY.....	0.693	-----		0.636	-----	0.983	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

229

	INDEX SAMPLE	2641 14681		INDEX SAMPLE	2642 3215		INDEX SAMPLE	2643 16850
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	SEWARD			SHERMAN			SHERMAN	
FIELD.....	WILDCAT			GOODLAND			GOODLAND	
WELL NAME.....	BLACK NO. 1			TOMPKINS NO. 2			WALLACE NO. 1-16	
LOCATION.....	SEC. 15, T34S, R31W			SEC. 18, T8S, R39W			SEC. 16, T8S, R39W	
OWNER.....	INCA OIL CO.			INGLING & PARKER			CENTENNIAL ENERGY CO.	
COMPLETED.....	05/27/76			10/03/41			04/06/82	
SAMPLED.....	05/26/76			03/23/42			03/29/83	
FORMATION.....	PENN-MORROW & MISS-CHESTER			CRET-PIERRE			CRET-NIOBRARA	
GEOLOGIC PROVINCE CODE.....	360			450			450	
DEPTH, FEET.....	5679			993			972	
WELLHEAD PRESSURE, PSIG.....	1506			55			61	
OPEN FLOW, MCFD.....	5500			6			258	
COMPONENT, MOLE PCT								
METHANE.....	87.4			96.9			93.4	
ETHANE.....	5.2			0.0			0.9	
PROPANE.....	3.0			---			0.2	
N-BUTANE.....	0.8			---			0.1	
ISOBUTANE.....	0.4			---			0.0	
N-PENTANE.....	0.2			---			TRACE	
ISOPENTANE.....	0.3			---			TRACE	
CYCLOPENTANE.....	0.1			---			0.1	
HEXANES PLUS.....	0.2			---			0.1	
NITROGEN.....	2.1			2.1			2.9	
OXYGEN.....	0.0			0.3			0.0	
ARGON.....	TRACE			---			TRACE	
HYDROGEN.....	0.0			---			0.3	
HYDROGEN SULFIDE.....	0.0			---			0.0	
CARBON DIOXIDE.....	0.2			0.6			1.9	
HELIUM.....	0.13			0.07			0.06	
HEATING VALUE.....	1132			982			981	
SPECIFIC GRAVITY.....	0.655			0.570			0.595	

	INDEX SAMPLE	2644 3937		INDEX SAMPLE	2645 8395		INDEX SAMPLE	2646 8396
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	STAFFORD			STAFFORD			STAFFORD	
FIELD.....	BEDFORD			BAUMAN NO. 1			BAUMAN NO. 1	
WELL NAME.....	ADA BEAN NO. 1			SEC. 32, T23S, R15W			SEC. 32, T23S, R15W	
LOCATION.....	SEC. 21, T23S, R12W			DUNNE-GARDNER PETROLEUM CO.			DUNNE-GARDNER PETROLEUM CO.	
OWNER.....	SHELL OIL CO.			---			HELLAR DRILLING CO.	
COMPLETED.....	12/18/44			---			---	
SAMPLED.....	01/17/45			02/27/62			---	
FORMATION.....	CAMD-ARBUCKLE			CAMD-ARBUCKLE			PENN-LANSING	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	3505			2999			3540	
WELLHEAD PRESSURE, PSIG.....	1175			1175			1908	
OPEN FLOW, MCFD.....	3121			4080			1200	
COMPONENT, MOLE PCT								
METHANE.....	69.0			61.3			67.8	
ETHANE.....	9.8			4.8			2.6	
PROPANE.....	2.2			2.2			1.5	
N-BUTANE.....	0.8			0.8			0.7	
ISOBUTANE.....	0.5			0.5			0.4	
N-PENTANE.....	0.2			0.2			0.1	
ISOPENTANE.....	0.2			0.2			0.2	
CYCLOPENTANE.....	0.1			0.1			0.1	
HEXANES PLUS.....	0.2			0.1			0.1	
NITROGEN.....	19.9			26.5			25.1	
OXYGEN.....	0.2			0.2			0.1	
ARGON.....	---			---			TRACE	
HYDROGEN.....	---			0.0			0.0	
HYDROGEN SULFIDE.....	---			0.0			0.0	
CARBON DIOXIDE.....	0.2			0.3			0.2	
HELIUM.....	0.90			2.95			1.24	
HEATING VALUE.....	875			832			831	
SPECIFIC GRAVITY.....	0.684			0.734			0.711	

	INDEX SAMPLE	2647 8400		INDEX SAMPLE	2648 5331		INDEX SAMPLE	2649 5366
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	STAFFORD			STAFFORD			STAFFORD	
FIELD.....	BAUMAN			FARMINGTON			FARMINGTON	
WELL NAME.....	BAUMAN			WESTGATE NO. 1			SEIBERT NO. 1	
LOCATION.....	SEC. 32, T23S, R15W			SEC. 6, T25S, R15W			SEC. 31, T24S, R15W	
OWNER.....	DUNNE-GARDNER PETROLEUM CO.			CITIES SERVICE OIL CO.			JOHN LINDAS OIL, INC.	
COMPLETED.....	02/21/62			06/20/52			10/10/52	
SAMPLED.....	02/21/62			09/15/52			12/29/52	
FORMATION.....	PENN-TARKIO			PENN-BASAL			PENN---	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	NOT GIVEN			4169			4177	
WELLHEAD PRESSURE, PSIG.....	1175			1293			1193	
OPEN FLOW, MCFD.....	4080			4190			1300	
COMPONENT, MOLE PCT								
METHANE.....	81.4			89.7			89.6	
ETHANE.....	3.1			3.7			3.6	
PROPANE.....	1.4			1.4			1.3	
N-BUTANE.....	0.6			0.4			0.4	
ISOBUTANE.....	0.3			0.1			0.2	
N-PENTANE.....	0.2			0.1			0.2	
ISOPENTANE.....	0.2			0.0			0.0	
CYCLOPENTANE.....	0.1			0.1			0.1	
HEXANES PLUS.....	0.1			0.2			0.1	
NITROGEN.....	12.0			3.6			3.8	
OXYGEN.....	0.1			TRACE			TRACE	
ARGON.....	TRACE			0.0			TRACE	
HYDROGEN.....	0.0			0.0			0.0	
HYDROGEN SULFIDE.....	0.0			TRACE			0.0	
CARBON DIOXIDE.....	0.1			0.1			0.1	
HELIUM.....	0.49			1.80			0.41	
HEATING VALUE.....	973			1052			1044	
SPECIFIC GRAVITY.....	0.659			0.619			0.616	

	INDEX SAMPLE	2650 10818		INDEX SAMPLE	2651 8037		INDEX SAMPLE	2652 5451
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	STAFFORD			STAFFORD			STAFFORD	
FIELD.....	FARMINGTON			GERMAN VALLEY			HILL	
WELL NAME.....	DORAN NO. 1			STITNER NO. 1			MILL NO. 1	
LOCATION.....	SEC. 33, T24S, R15W			SEC. 4, T22S, R12W			SEC. 11, T23S, R12W	
OWNER.....	KEWANEE OIL CO.			WESTERN PETROLEUM CO.			ALPINE OIL CO.	
COMPLETED.....	06/22/65			06/22/65			10/09/52	
SAMPLED.....	12/14/66			06/18/61			04/29/53	
FORMATION.....	PENN-TARKIO			PENN-KANSAS CITY			PENN-LANSING-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	2923			3416			3448	
WELLHEAD PRESSURE, PSIG.....	950			NOT GIVEN			1100	
OPEN FLOW, MCFD.....	3600			NOT GIVEN			4	
COMPONENT, MOLE PCT								
METHANE.....	85.8			66.5			60.9	
ETHANE.....	2.5			4.2			5.1	
PROPANE.....	0.7			0.9			1.6	
N-BUTANE.....	0.4			0.7			0.8	
ISOBUTANE.....	0.0			0.2			0.4	
N-PENTANE.....	0.0			0.2			0.4	
ISOPENTANE.....	0.0			TRACE			0.2	
CYCLOPENTANE.....	0.0			0.1			0.4	
HEXANES PLUS.....	0.0			23.4			25.4	
NITROGEN.....	10.1			TRACE			0.1	
OXYGEN.....	0.0			TRACE			0.1	
ARGON.....	0.1			TRACE			0.1	
HYDROGEN.....	TRACE			8.0			0.0	
HYDROGEN SULFIDE.....	0.0			0.1			0.2	
CARBON DIOXIDE.....	0.1			1.00			0.78	
HELIUM.....	0.34			943			943	
HEATING VALUE.....	948			0.727			0.784	
SPECIFIC GRAVITY.....	0.622							

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2665 SAMPLE 13211		INDEX 2666 SAMPLE 13212		INDEX 2667 SAMPLE 7597	
STATE.....	KANSAS	KANSAS	STAFFORD	KANSAS	STAFFORD
COUNTY.....	STAFFORD	STAFFORD	STAFFORD	STAFFORD	STAFFORD
FIELD.....	MACKSVILLE	MACKSVILLE	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E
WELL NAME.....	O'CONNOR NO. 1	O'CONNOR NO. 1	BROWN NO. 1	BROWN NO. 1	BROWN NO. 1
LOCATION.....	SEC. 4, T24S, R15W	SEC. 4, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W
OWNER.....	HALLIBURTON OIL PRODUCING CO	HALLIBURTON OIL PRODUCING CO	REX & MORRIS DRILLING CO.	REX & MORRIS DRILLING CO.	REX & MORRIS DRILLING CO.
COMPLETED.....	09/27/71	09/27/71	01/29/61	01/29/61	01/29/61
SAMPLED.....	05/16/72	05/16/72	01/22/61	01/22/61	01/22/61
FORMATION.....	PENN-HOWARD	PERM-RED EAGLE	CAMO-ARBUCKLE	CAMO-ARBUCKLE	CAMO-ARBUCKLE
GEOLOGIC PROVINCE CODE.....	385	385	385	385	385
DEPTH, FEET.....	3040	2593	4089	4089	4089
WELLHEAD PRESSURE, PSIG.....	985	NOT GIVEN	1100	1100	1100
OPEN FLOW, MCFD.....	5200	3450	2530	2530	2530
COMPONENT, MOLE PCT					
METHANE.....	77.6	78.2	87.1	87.1	87.1
ETHANE.....	3.0	2.8	3.8	3.8	3.8
PROPANE.....	1.6	1.4	1.5	1.5	1.5
N-BUTANE.....	0.6	0.4	0.5	0.5	0.5
ISOBUTANE.....	0.9	0.9	0.2	0.2	0.2
N-PENTANE.....	0.3	0.2	0.1	0.1	0.1
ISOPENTANE.....	0.1	0.1	0.2	0.2	0.2
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.2	0.2	0.1	0.1	0.1
NITROGEN.....	15.5	15.6	5.2	5.2	5.2
OXYGEN.....	0.0	0.0	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.1	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.3	0.3	0.3
HELIUM.....	0.55	0.56	0.80	0.80	0.80
HEATING VALUE.....	942	925	1031	1031	1031
SPECIFIC GRAVITY.....	0.676	0.666	0.627	0.627	0.627

INDEX 2668 SAMPLE 7602		INDEX 2669 SAMPLE 7618		INDEX 2670 SAMPLE 7827	
STATE.....	KANSAS	KANSAS	STAFFORD	KANSAS	STAFFORD
COUNTY.....	STAFFORD	STAFFORD	STAFFORD	STAFFORD	STAFFORD
FIELD.....	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E
WELL NAME.....	BROWN NO. 1	BROWN NO. 1	HARDEN NO. 1	HARDEN NO. 1	HARDEN NO. 1
LOCATION.....	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W
OWNER.....	REX & MORRIS DRILLING CO.	REX & MORRIS DRILLING CO.	REX & MORRIS DRILLING CO.	REX & MORRIS DRILLING CO.	REX & MORRIS DRILLING CO.
COMPLETED.....	--/--/00	--/--/00	01/29/61	01/29/61	01/29/61
SAMPLED.....	07/13/60	07/25/60	01/22/61	01/22/61	01/22/61
FORMATION.....	CAMO-ARBUCKLE	CAMO-ARBUCKLE	CAMO-ARBUCKLE	CAMO-ARBUCKLE	CAMO-ARBUCKLE
GEOLOGIC PROVINCE CODE.....	385	385	385	385	385
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	4089	4089	4089
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	1100	1100	1100
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	2530	2530	2530
COMPONENT, MOLE PCT					
METHANE.....	82.7	83.0	74.7	74.7	74.7
ETHANE.....	3.2	3.4	3.4	3.4	3.4
PROPANE.....	1.6	1.7	1.1	1.1	1.1
N-BUTANE.....	0.6	0.6	0.3	0.3	0.3
ISOBUTANE.....	0.1	0.1	0.3	0.3	0.3
N-PENTANE.....	0.1	0.1	0.1	0.1	0.1
ISOPENTANE.....	0.1	0.2	0.1	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.2	0.1	0.1	0.1
NITROGEN.....	8.6	8.1	17.6	17.6	17.6
OXYGEN.....	TRACE	TRACE	TRACE	TRACE	TRACE
ARGON.....	0.1	0.1	0.1	0.1	0.1
HYDROGEN.....	0.2	0.2	TRACE	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.2	0.4	0.4	0.4
HELIUM.....	1.10	1.10	1.80	1.80	1.80
HEATING VALUE.....	999	1013	880	880	880
SPECIFIC GRAVITY.....	0.643	0.648	0.668	0.668	0.668

INDEX 2671 SAMPLE 7957		INDEX 2672 SAMPLE 8397		INDEX 2673 SAMPLE 8439	
STATE.....	KANSAS	KANSAS	STAFFORD	KANSAS	STAFFORD
COUNTY.....	STAFFORD	STAFFORD	STAFFORD	STAFFORD	STAFFORD
FIELD.....	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E
WELL NAME.....	HARNESSE NO. 3	HARNESSE NO. 3	HARNESSE NO. 3	HARNESSE NO. 3	HARNESSE NO. 3
LOCATION.....	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W
OWNER.....	WILKINSON DRILLING, INC.	REX & MORRIS DRILLING CO.	WILKINSON DRILLING, INC.	WILKINSON DRILLING, INC.	WILKINSON DRILLING, INC.
COMPLETED.....	05/11/61	--/--/00	--/--/00	--/--/00	--/--/00
SAMPLED.....	05/10/61	02/--/62	02/12/62	02/12/62	02/12/62
FORMATION.....	CAMO-ARBUCKLE	CAMO-ARBUCKLE	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	385	385	385	385	385
DEPTH, FEET.....	4111	4016	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1188	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	8	20750	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT					
METHANE.....	83.0	82.8	84.5	84.5	84.5
ETHANE.....	4.0	3.8	3.8	3.8	3.8
PROPANE.....	1.7	1.7	1.5	1.5	1.5
N-BUTANE.....	0.6	0.6	0.5	0.5	0.5
ISOBUTANE.....	0.5	0.2	0.2	0.2	0.2
N-PENTANE.....	0.1	0.1	0.1	0.1	0.1
ISOPENTANE.....	0.1	0.2	0.3	0.3	0.3
CYCLOPENTANE.....	0.1	0.1	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.2	0.2	0.1	0.1	0.1
NITROGEN.....	7.5	8.4	7.6	7.6	7.6
OXYGEN.....	TRACE	0.2	TRACE	TRACE	TRACE
ARGON.....	TRACE	0.1	0.1	0.1	0.1
HYDROGEN.....	0.1	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.5	0.4	0.4	0.4
HELIUM.....	1.10	1.09	1.09	1.09	1.09
HEATING VALUE.....	1026	1005	1009	1009	1009
SPECIFIC GRAVITY.....	0.652	0.652	0.642	0.642	0.642

INDEX 2674 SAMPLE 8571		INDEX 2675 SAMPLE 8605		INDEX 2676 SAMPLE 9332	
STATE.....	KANSAS	KANSAS	STAFFORD	KANSAS	STAFFORD
COUNTY.....	STAFFORD	STAFFORD	STAFFORD	STAFFORD	STAFFORD
FIELD.....	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E	MACKSVILLE E
WELL NAME.....	HARNESSE	HARNESSE NO. 4	HARNESSE	HARNESSE	HARNESSE
LOCATION.....	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W	SEC. 11, T24S, R15W
OWNER.....	WILKINSON DRILLING, INC.	WILKINSON DRILLING, INC.	HELLAR DRILLING CO.	HELLAR DRILLING CO.	HELLAR DRILLING CO.
COMPLETED.....	--/--/00	--/--/00	01/--/63	01/--/63	01/--/63
SAMPLED.....	06/04/62	07/--/62	04/21/64	04/21/64	04/21/64
FORMATION.....	CAMO-ARBUCKLE	NOT GIVEN	CAMO-ARBUCKLE	CAMO-ARBUCKLE	CAMO-ARBUCKLE
GEOLOGIC PROVINCE CODE.....	385	385	385	385	385
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	4054	4054	4054
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	1200	1200	1200
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	7120	7120	7120
COMPONENT, MOLE PCT					
METHANE.....	84.1	83.0	81.3	81.3	81.3
ETHANE.....	3.9	3.7	4.0	4.0	4.0
PROPANE.....	1.6	1.6	1.6	1.6	1.6
N-BUTANE.....	0.5	0.5	0.7	0.7	0.7
ISOBUTANE.....	0.2	0.3	TRACE	TRACE	TRACE
N-PENTANE.....	0.2	0.1	0.1	0.1	0.1
ISOPENTANE.....	0.2	0.3	0.4	0.4	0.4
CYCLOPENTANE.....	0.1	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1	0.1	0.1
NITROGEN.....	7.7	7.4	10.5	10.5	10.5
OXYGEN.....	TRACE	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.2	0.5	0.5	0.5
HELIUM.....	1.01	0.77	0.70	0.70	0.70
HEATING VALUE.....	1013	1015	987	987	987
SPECIFIC GRAVITY.....	0.642	0.639	0.658	0.658	0.658

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2677 13568	INDEX SAMPLE	2678 7920	INDEX SAMPLE	2679 7937
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	STAFFORD			STAFFORD		STAFFORD	
FIELD	MACKSVILLE E			MACKSVILLE TOWNSITE		MACKSVILLE TOWNSITE	
WELL NAME	HARKNESS NO. 5			SUITER NO. 1-B		MAGEL NO. 3	
LOCATION	SEC. 11, T24S, R15W			SEC. 10, T24S, R15W		SEC. 10, T24S, R15W	
OWNER	TOMLINSON OIL CO., INC.			WILKINSON DRILLING, INC.		WILKINSON DRILLING, INC.	
COMPLETED	09/25/72			04/05/61		04/17/61	
SAMPLED	03/15/72			04/04/61		04/16/61	
FORMATION	PERM-NEVA			CAMO-ARBuckle		ORDO-VIOLA	
GEOLOGIC PROVINCE CODE	385			385		385	
DEPTH, FEET	3019			4053		4030	
WELLHEAD PRESSURE, PSIG	825			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	6500			6230		1020	
COMPONENT, MOLE PCT							
METHANE	78.8			80.7		88.2	
ETHANE	3.0			4.4		3.9	
PROpane	1.1			1.7		1.2	
N-BUTANE	0.2			0.5		0.4	
ISOBUTANE	0.2			0.4		0.3	
N-PENTANE	0.1			0.2		0.1	
ISOPENTANE	TRACE			0.1		0.1	
CYCLOPENTANE	TRACE			TRACE		TRACE	
HEXANES PLUS	0.1			0.1		0.1	
NITROGEN	15.8			10.1		4.8	
OXYGEN	0.0			0.1		TRACE	
ARGON	TRACE			0.1		TRACE	
HYDROGEN	TRACE			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.4		0.1	
HELIUM	0.49			1.40		0.70	
HEATING VALUE	903			989		1032	
SPECIFIC GRAVITY	0.654			0.657		0.620	
		INDEX SAMPLE	2680 8106	INDEX SAMPLE	2681 8398	INDEX SAMPLE	2682 8275
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	STAFFORD			STAFFORD		STAFFORD	
FIELD	MACKSVILLE TOWNSITE			MACKSVILLE TOWNSITE		MORNING STAR	
WELL NAME	MAGEL NO. 3			MAGEL NO. 3		BOHNER NO. 1	
LOCATION	SEC. 10, T24S, R15W			SEC. 10, T24S, R15W		SEC. 2, T25S, R14W	
OWNER	WALT WILKINSON			WILKINSON DRILLING, INC.		TOMLINSON KATHOL, INC.	
COMPLETED	05/-/61			--/-/00		09/-/60	
SAMPLED	07/25/61			02/-/62		11/08/61	
FORMATION	ORDO-VIOLA			ORDO-VIOLA		MISS-	
GEOLOGIC PROVINCE CODE	385			385		385	
DEPTH, FEET	4080			3974		4816	
WELLHEAD PRESSURE, PSIG	1225			1225		1248	
OPEN FLOW, MCFD	3000			3550		3	
COMPONENT, MOLE PCT							
METHANE	87.8			87.9		79.0	
ETHANE	3.9			4.2		4.1	
PROpane	1.3			1.4		1.8	
N-BUTANE	0.4			0.5		0.5	
ISOBUTANE	0.4			0.2		0.3	
N-PENTANE	0.1			0.1		0.1	
ISOPENTANE	TRACE			0.2		0.2	
CYCLOPENTANE	TRACE			0.1		TRACE	
HEXANES PLUS	0.1			0.1		0.1	
NITROGEN	5.0			4.9		12.8	
OXYGEN	TRACE			0.1		TRACE	
ARGON	TRACE			TRACE		0.1	
HYDROGEN	0.0			0.0		TRACE	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.3			0.1		0.1	
HELIUM	0.70			0.64		0.96	
HEATING VALUE	1029			1037		965	
SPECIFIC GRAVITY	0.624			0.628		0.664	
		INDEX SAMPLE	2683 8438	INDEX SAMPLE	2684 8317	INDEX SAMPLE	2685 7676
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	STAFFORD			STAFFORD		STAFFORD	
FIELD	NEWELL			NOT GIVEN		O'CONNER	
WELL NAME	RUNDELL NO. 2			WILSON NO. 1		PETRO NO. 1	
LOCATION	SEC. 12, T25S, R12W			SEC. 24, T25S, R15W		SEC. 9, T24S, R15W	
OWNER	C. H. NEWELL			D. R. LAUCK OIL CO., INC.		REX & MORRIS DRILLING CO.	
COMPLETED	--/-/00			--/-/00		08/31/60	
SAMPLED	02/08/62			12/01/61		08/31/60	
FORMATION	PENN-KANSAS CITY			MISS-		CAMO-ARBuckle	
GEOLOGIC PROVINCE CODE	385			385		385	
DEPTH, FEET	3537			NOT GIVEN		4096	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		1280	
OPEN FLOW, MCFD	NOT GIVEN			5000		10	
COMPONENT, MOLE PCT							
METHANE	51.0			76.9		77.9	
ETHANE	7.6			4.2		4.3	
PROpane	6.4			0.6		1.9	
N-BUTANE	3.3			0.6		0.6	
ISOBUTANE	1.5			0.3		0.4	
N-PENTANE	1.0			0.1		0.1	
ISOPENTANE	0.8			0.2		0.2	
CYCLOPENTANE	0.2			TRACE		0.1	
HEXANES PLUS	0.5			0.1		0.2	
NITROGEN	25.1			14.0		11.5	
OXYGEN	1.7			0.1		TRACE	
ARGON	0.1			0.1		0.7	
HYDROGEN	0.1			0.1		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.2			0.1		0.6	
HELIUM	0.70			1.46		1.40	
HEATING VALUE	1091			976		976	
SPECIFIC GRAVITY	0.893			0.669		0.675	
		INDEX SAMPLE	2686 8036	INDEX SAMPLE	2687 8057	INDEX SAMPLE	2688 8058
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	STAFFORD			STAFFORD		STAFFORD	
FIELD	O'CONNER			STAFFORD		STAFFORD	
WELL NAME	PETRO NO. 2			O'CONNER NO. 1		O'CONNER NO. 1	
LOCATION	SEC. 9, T24S, R15W			SEC. 8, T24S, R15W		SEC. 8, T24S, R15W	
OWNER	REX & MORRIS DRILLING CO.			REX & MORRIS DRILLING CO.		REX & MORRIS DRILLING CO.	
COMPLETED	06/18/61			06/29/61		06/29/61	
SAMPLED	06/18/61			06/29/61		06/29/61	
FORMATION	CAMO-ARBuckle			CAMO-ARBuckle		CAMO-ARBuckle	
GEOLOGIC PROVINCE CODE	385			385		385	
DEPTH, FEET	4105			4050		4075	
WELLHEAD PRESSURE, PSIG	1360			1320		1320	
OPEN FLOW, MCFD	6250			13300		12350	
COMPONENT, MOLE PCT							
METHANE	78.6			70.5		69.8	
ETHANE	4.2			5.0		5.1	
PROpane	1.9			2.2		2.4	
N-BUTANE	0.6			0.8		0.9	
ISOBUTANE	0.4			0.6		0.7	
N-PENTANE	0.2			0.2		0.3	
ISOPENTANE	0.1			0.1		0.2	
CYCLOPENTANE	0.1			0.1		0.2	
HEXANES PLUS	0.2			0.2		0.3	
NITROGEN	11.4			17.9		17.5	
OXYGEN	0.3			0.0		0.0	
ARGON	0.1			0.1		0.1	
HYDROGEN	TRACE			0.1		0.1	
HYDROGEN SULFIDE	0.0			0.1		0.0	
CARBON DIOXIDE	0.5			0.1		0.5	
HELIUM	1.40			2.30		2.10	
HEATING VALUE	981			955		955	
SPECIFIC GRAVITY	0.671			0.702		0.716	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2689 8399	INDEX SAMPLE	2690 8267	INDEX SAMPLE	2691 6573
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	STAFFORD			STAFFORD		STAFFORD	
FIELD.....	OYCONNER			RUGAN		SEEVERS NW	
WELL NAME.....	PETRO NO. 2			RUGAN NO. 1		SEEVERS NO. 2	
LOCATION.....	SEC. 9, T24S, R15W			SEC. 2, T21S, R11W		SEC. 6, T25S, R13W	
OWNER.....	REX & MORRIS DRILLING CO.			F. B. HOLL		NATURAL GAS & OIL CORP.	
COMPLETED.....	--/--/00			--/--/00		05/12/58	
SAMPLED.....	02/--/62			10/31/61		04/19/58	
FORMATION.....	CAMO-ARBUCKLE			PENN-DOUGLAS		MISS-	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	4053			3009		4000	
WELLHEAD PRESSURE, PSIG.....	1197			NOT GIVEN		1395	
OPEN FLOW, MCFD.....	2175			3300		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	79.9			65.8		91.3	
ETHANE.....	4.2			1.0		4.0	
PROPANE.....	1.9			1.2		1.4	
N-BUTANE.....	0.7			0.4		0.4	
ISOBUTANE.....	0.3			0.4		0.2	
N-PENTANE.....	0.1			0.1		TRACE	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	10.4			27.8		1.9	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	TRACE			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.1		0.4	
HELIUM.....	1.37			1.03		0.10	
HEATING VALUE.....	999			792		1066	
SPECIFIC GRAVITY.....	0.667			0.711		0.615	
		INDEX SAMPLE	2692 8249	INDEX SAMPLE	2693 8499	INDEX SAMPLE	2694 8500
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	STAFFORD			STAFFORD		STAFFORD	
FIELD.....	SEEVERS NW			SNIDER S		SMITH ESTATE NO. 5	
WELL NAME.....	HARTER NO. 1			FAIR NO. 1		SEC. 16, T21S, R11W	
LOCATION.....	SEC. 31, T24S, R13W			SEC. 15, T21S, R11W		DUKE DRILLING CO.	
OWNER.....	REX & MORRIS DRILLING CO.			WESTERN PETROLEUM CO.		03/24/62	
COMPLETED.....	11/7/01			03/27/62		03/23/62	
SAMPLED.....	10/15/61			PENN-LANSING-KANSAS CITY		ORDO-SIMPSON	
FORMATION.....	MISS-CHERT			385		385	
GEOLOGIC PROVINCE CODE.....	385			3222		3370	
DEPTH, FEET.....	4044			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1530			887		2000	
OPEN FLOW, MCFD.....	2310						
COMPONENT, MOLE PCT							
METHANE.....	77.5			60.6		41.1	
ETHANE.....	4.1			6.9		10.0	
PROPANE.....	1.7			1.2		1.5	
N-BUTANE.....	0.6			0.5		0.9	
ISOBUTANE.....	0.4			0.3		0.3	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	TRACE			0.1		1.6	
HEXANES PLUS.....	0.1			25.4		0.1	
NITROGEN.....	13.8			TRACE		37.1	
OXYGEN.....	TRACE			TRACE		0.1	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.3	
CARBON DIOXIDE.....	0.1			1.02		0.63	
HELIUM.....	1.4			920		867	
HEATING VALUE.....	950			0.769		0.879	
SPECIFIC GRAVITY.....	0.665						
		INDEX SAMPLE	2695 8505	INDEX SAMPLE	2696 8506	INDEX SAMPLE	2697 8767
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	STAFFORD			STAFFORD		STAFFORD	
FIELD.....	SNIDER S			SNIDER S		ST. JOHN NW	
WELL NAME.....	FAIR NO. 1			FAIR NO. 1		AITKENS NO. 3	
LOCATION.....	SEC. 15, T21S, R11W			SEC. 15, T21S, R11W		SEC. 16, T23S, R13W	
OWNER.....	WESTERN PETROLEUM CO.			WESTERN PETROLEUM CO.		HENRY INGER OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	03/26/62			03/27/62		11/09/62	
FORMATION.....	PENN-KANSAS CITY			PENN-KANSAS CITY		PENN-KANSAS CITY	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	3098			3194		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	1500			2190		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	62.9			62.1		68.9	
ETHANE.....	5.2			6.7		3.1	
PROPANE.....	2.5			3.8		1.8	
N-BUTANE.....	0.8			0.6		0.6	
ISOBUTANE.....	0.4			0.6		0.4	
N-PENTANE.....	0.2			0.3		0.1	
ISOPENTANE.....	0.2			0.2		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	26.4			23.6		23.4	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.1		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	1.04			1.07		1.11	
HEATING VALUE.....	862			844		852	
SPECIFIC GRAVITY.....	0.741			0.763		0.705	
		INDEX SAMPLE	2698 8359	INDEX SAMPLE	2699 17302	INDEX SAMPLE	2700 7360
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	STAFFORD			STAFFORD		STANTON	
FIELD.....	ST. JOHN SW			WILDCAT		BEAUCHAMP	
WELL NAME.....	TREGALLAS NO. 1			COPELAND NO. 1		ARMSTRONG NO. 1	
LOCATION.....	SEC. 29, T24S, R13W			SEC. 29, T24S, R13W		SEC. 24, T30S, R41W	
OWNER.....	DUNNE-GARDNER PETROLEUM CO.			RAINS & WILLIAMSON OIL CO.		WESTERN NATURAL GAS CO.	
COMPLETED.....	--/--/00			01/24/83		05/04/59	
SAMPLED.....	01/02/62			05/24/84		01/26/60	
FORMATION.....	PENN-WABAUNSEE			MISS-CONGLOMERATE		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	385			385		360	
DEPTH, FEET.....	2940			3942		5018	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1230	
OPEN FLOW, MCFD.....	310000			4350		11500	
COMPONENT, MOLE PCT							
METHANE.....	70.1			72.4		64.8	
ETHANE.....	1.6			4.5		4.9	
PROPANE.....	1.0			2.3		4.1	
N-BUTANE.....	0.5			0.7		0.7	
ISOBUTANE.....	0.4			0.4		0.5	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.1			0.2		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	25.0			17.3		23.5	
OXYGEN.....	TRACE			TRACE		1.6	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.4	
HELIUM.....	0.50			1.57		0.30	
HEATING VALUE.....	808			933		897	
SPECIFIC GRAVITY.....	0.698			0.691		0.751	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2701 SAMPLE 10556			INDEX 2702 SAMPLE 3964			INDEX 2703- SAMPLE 4023		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STANTON		STANTON			STANTON		
FIELD.....	BEAUCHAMP		HUGOTON			HUGOTON		
WELL NAME.....	BEAUCHAMP NO. 1-19		COLLWAC NO. 1			CAMPBELL NO. 1		
LOCATION.....	SEC. 19, T30, R40W		SEC. 32, T30S, R39W			SEC. 31, T28S, R39W		
OWNER.....	GRAHAM-MICHAELIS DRILLING CO		STANOLIND OIL & GAS CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	12/22/65		03/08/44			03/25/45		
SAMPLED.....	04/26/66		01/20/45			05/15/45		
FORMATION.....	PENN-MORROW		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5222		2396			2351		
WELLHEAD PRESSURE, PSIG.....	1123		325			420		
OPEN FLOW, MCFD.....	7390		8000			4887		
COMPONENT, MOLE PCT.....								
METHANE.....	70.7		57.8			65.3		
ETHANE.....	4.5		23.2			18.2		
PROPANE.....	3.2		---			---		
N-BUTANE.....	1.1		---			---		
ISOBUTANE.....	0.6		---			---		
N-PENTANE.....	0.2		---			---		
ISOPENTANE.....	0.4		---			---		
CYCLOPENTANE.....	0.1		---			---		
HEXANES PLUS.....	0.2		---			---		
NITROGEN.....	17.7		18.6			15.7		
OXYGEN.....	0.0		0.0			0.4		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.4		0.0			0.0		
HELIUM.....	0.92		0.03			0.42		
HEATING VALUE.....	1077		1031			988		
SPECIFIC GRAVITY.....	0.726		0.744			0.710		
INDEX 2704 SAMPLE 4180			INDEX 2705 SAMPLE 4470			INDEX 2706 SAMPLE 4827		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STANTON		STANTON			STANTON		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
WELL NAME.....	FEGAN NO. 1		HARRY TRUSSELL			SPECK NO. 1		
LOCATION.....	SEC. 3, T27S, R39W		SEC. 28, T26S, R39W			SEC. 32, T28S, R40W		
OWNER.....	STANOLIND OIL & GAS CO.		STANOLIND OIL & GAS CO.			KANSAS NATURAL GAS, INC.		
COMPLETED.....	05/01/45		--/--/00			10/10/49		
SAMPLED.....	12/21/46		04/21/48			12/28/49		
FORMATION.....	PERM---		PERM---			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2380		NOT GIVEN			2290		
WELLHEAD PRESSURE, PSIG.....	420		NOT GIVEN			464		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			5400		
COMPONENT, MOLE PCT.....								
METHANE.....	65.8		63.5			45.9		
ETHANE.....	18.8		19.4			3.8		
PROPANE.....	---		---			2.5		
N-BUTANE.....	---		---			0.6		
ISOBUTANE.....	---		---			0.5		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.3		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	14.8		15.9			44.3		
OXYGEN.....	0.1		0.4			0.6		
ARGON.....	---		---			0.1		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.4			0.1		
HELIUM.....	0.41		0.40			0.97		
HEATING VALUE.....	1003		991			657		
SPECIFIC GRAVITY.....	0.708		0.720			0.810		
INDEX 2707 SAMPLE 7982			INDEX 2708 SAMPLE 13578			INDEX 2709 SAMPLE 13800		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STANTON		STANTON			STANTON		
FIELD.....	PANOMA		PANOMA			PANOMA		
WELL NAME.....	NICHOLAS C		ALLER B NO. 2			FARM MORTGAGE NO. 2		
LOCATION.....	SEC. 19, T30S, R39W		SEC. 22, T30S, R39W			SEC. 16, T30S, R39W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		AROCO PRODUCTION CO.			AROCO PRODUCTION CO.		
COMPLETED.....	04/01/61		--/--/00			--/--/00		
SAMPLED.....	05/18/61		04/18/73			11/06/73		
FORMATION.....	PENN-MORROW		PERM-COUNCIL GROVE			PERM-COUNCIL GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5234		2638			2608		
WELLHEAD PRESSURE, PSIG.....	1225		262			240		
OPEN FLOW, MCFD.....	9230		2700			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	73.6		71.1			70.0		
ETHANE.....	6.3		6.6			6.5		
PROPANE.....	3.5		3.8			5.9		
N-BUTANE.....	1.2		1.0			1.0		
ISOBUTANE.....	0.3		0.6			0.5		
N-PENTANE.....	0.7		0.2			0.2		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.3		---			0.1		
NITROGEN.....	12.9		16.0			17.0		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.1			TRACE		
HELIUM.....	1.40		0.42			0.41		
HEATING VALUE.....	1038		1009			1000		
SPECIFIC GRAVITY.....	0.717		0.723			0.731		
INDEX 2710 SAMPLE 5677			INDEX 2711 SAMPLE 10301			INDEX 2712 SAMPLE 10302		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STANTON		STEVENS			STEVENS		
FIELD.....	SPARKS		CUTTER			CUTTER		
WELL NAME.....	SPARKS NO. 1		CUTTER NO. 1			H. F. BROWN NO. 2		
LOCATION.....	SEC. 34, T30S, R42W		SEC. 1, T31S, R35W			SEC. 1, T31S, R35W		
OWNER.....	J. M. HUBER CORP.		MOBIL OIL CORP.			MOBIL OIL CORP.		
COMPLETED.....	08/11/54		04/04/61			08/26/62		
SAMPLED.....	08/11/54		11/02/65			12/02/65		
FORMATION.....	PENN-KEYES		PENN-MORROW			PENN-MARMATON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5277		5313			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1125		425			380		
OPEN FLOW, MCFD.....	20000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	82.4		65.3			76.8		
ETHANE.....	3.7		6.9			6.1		
PROPANE.....	2.0		4.8			3.4		
N-BUTANE.....	0.7		1.7			0.9		
ISOBUTANE.....	0.4		0.3			0.3		
N-PENTANE.....	0.3		0.5			0.2		
ISOPENTANE.....	0.2		0.7			0.2		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.3		0.4			0.2		
NITROGEN.....	7.5		18.4			11.4		
OXYGEN.....	TRACE		0.2			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.4		0.2			0.1		
HELIUM.....	0.86		0.35			0.27		
HEATING VALUE.....	1031		1031			1047		
SPECIFIC GRAVITY.....	0.669		0.781			0.698		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

285

INDEX 2713 SAMPLE 13089		INDEX 2714 SAMPLE 15249		INDEX 2715 SAMPLE 15354	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	STEVENS	COUNTY.....	STEVENS	COUNTY.....	STEVENS
FIELD.....	GENTZLER	FIELD.....	GENTZLER	FIELD.....	GENTZLER
WELL NAME.....	WELL NAME "A" NO. 1	WELL NAME.....	WELL NAME "B" NO. 1	WELL NAME.....	WELL NAME "C" NO. 1
LOCATION.....	SEC. 7, T33S, R37W	LOCATION.....	SEC. 18, T33S, R37W	LOCATION.....	SEC. 11, T33S, R38W
OWNER.....	SATURN OIL & GAS CO., INC.	OWNER.....	ANADARKO PRODUCTION CO.	OWNER.....	ANADARKO PRODUCTION CO.
COMPLETED.....	07/07/71	COMPLETED.....	03/30/77	COMPLETED.....	03/12/78
SAMPLED.....	10/21/71	SAMPLED.....	04/04/78	SAMPLED.....	08/30/78
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	5990	DEPTH, FEET.....	5991	DEPTH, FEET.....	6006
WELLHEAD PRESSURE, PSIG.....	1466	WELLHEAD PRESSURE, PSIG.....	1396	WELLHEAD PRESSURE, PSIG.....	1495
OPEN FLOW, MCFD.....	1775	OPEN FLOW, MCFD.....	5540	OPEN FLOW, MCFD.....	1041
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.3	METHANE.....	86.2	METHANE.....	85.1
ETHANE.....	4.2	ETHANE.....	4.5	ETHANE.....	4.2
PROPANE.....	2.3	PROPANE.....	2.5	PROPANE.....	2.3
N-BUTANE.....	0.7	N-BUTANE.....	0.9	N-BUTANE.....	0.7
ISOBUTANE.....	0.4	ISOBUTANE.....	0.4	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.3	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	5.0	NITROGEN.....	4.9	NITROGEN.....	5.9
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.30	HELIUM.....	0.23	HELIUM.....	0.23
HEATING VALUE.....	1069	HEATING VALUE.....	1150	HEATING VALUE.....	1070
SPECIFIC GRAVITY.....	0.646	SPECIFIC GRAVITY.....	0.660	SPECIFIC GRAVITY.....	0.657
INDEX 2716 SAMPLE 16537		INDEX 2717 SAMPLE 10185		INDEX 2718 SAMPLE 1866	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	STEVENS	COUNTY.....	STEVENS	COUNTY.....	STEVENS
FIELD.....	GENTZLER	FIELD.....	GOOCH	FIELD.....	HUGOTON
WELL NAME.....	WELL NAME "C" NO. 1	WELL NAME.....	STREETER GAS UNIT NO. 1-15	WELL NAME.....	HAMM NO. 1
LOCATION.....	SEC. 30, T32S, R37W	LOCATION.....	SEC. 15, T35S, R35W	LOCATION.....	SEC. 10, T33S, R38W
OWNER.....	ANADARKO PRODUCTION CO.	OWNER.....	MESA PETROLEUM CO.	OWNER.....	W. M. MCKNAB
COMPLETED.....	01/12/82	COMPLETED.....	07/07/65	COMPLETED.....	02/-/79
SAMPLED.....	06/04/82	SAMPLED.....	04/01/65	SAMPLED.....	09/18/79
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	5980	DEPTH, FEET.....	6290	DEPTH, FEET.....	2600
WELLHEAD PRESSURE, PSIG.....	1470	WELLHEAD PRESSURE, PSIG.....	405	WELLHEAD PRESSURE, PSIG.....	450
OPEN FLOW, MCFD.....	7522	OPEN FLOW, MCFD.....	15500	OPEN FLOW, MCFD.....	12000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	84.6	METHANE.....	89.0	METHANE.....	64.5
ETHANE.....	3.9	ETHANE.....	4.3	ETHANE.....	21.3
PROPANE.....	2.0	PROPANE.....	2.2	PROPANE.....	---
N-BUTANE.....	0.6	N-BUTANE.....	0.8	N-BUTANE.....	---
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	---
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	---
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	---
NITROGEN.....	7.3	NITROGEN.....	2.2	NITROGEN.....	13.6
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2
HELIUM.....	0.21	HELIUM.....	0.16	HELIUM.....	0.39
HEATING VALUE.....	1035	HEATING VALUE.....	1110	HEATING VALUE.....	1035
SPECIFIC GRAVITY.....	0.652	SPECIFIC GRAVITY.....	0.642	SPECIFIC GRAVITY.....	0.717
INDEX 2719 SAMPLE 6184		INDEX 2720 SAMPLE 7493		INDEX 2721 SAMPLE 7941	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	STEVENS	COUNTY.....	STEVENS	COUNTY.....	STEVENS
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
WELL NAME.....	HANKE NO. 1	WELL NAME.....	CURTIS NO. 2A	WELL NAME.....	EARL D. DAVIS NO. 2
LOCATION.....	SEC. 3, T35S, R36W	LOCATION.....	SEC. 24, T31S, R39W	LOCATION.....	SEC. 12, T31S, R35W
OWNER.....	REPUBLIC NATURAL GAS CO.	OWNER.....	KINNEY-COASTAL-KUHN	OWNER.....	MOBIL OIL CO.
COMPLETED.....	04/29/56	COMPLETED.....	01/07/60	COMPLETED.....	10/24/60
SAMPLED.....	01/19/56	SAMPLED.....	04/10/60	SAMPLED.....	04/22/61
FORMATION.....	PENN-MORROW	FORMATION.....	PERM-COUNCIL GROVE	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	6263	DEPTH, FEET.....	2689	DEPTH, FEET.....	2564
WELLHEAD PRESSURE, PSIG.....	1631	WELLHEAD PRESSURE, PSIG.....	405	WELLHEAD PRESSURE, PSIG.....	348
OPEN FLOW, MCFD.....	9800	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	7330
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.4	METHANE.....	70.5	METHANE.....	74.3
ETHANE.....	4.1	ETHANE.....	5.0	ETHANE.....	3.9
PROPANE.....	1.0	PROPANE.....	3.8	PROPANE.....	2.7
N-BUTANE.....	0.8	N-BUTANE.....	1.1	N-BUTANE.....	0.5
ISOBUTANE.....	0.0	ISOBUTANE.....	0.4	ISOBUTANE.....	0.5
N-PENTANE.....	1.3	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	5.1	NITROGEN.....	16.0	NITROGEN.....	15.3
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.2	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.20	HELIUM.....	0.40	HELIUM.....	0.50
HEATING VALUE.....	1076	HEATING VALUE.....	1011	HEATING VALUE.....	974
SPECIFIC GRAVITY.....	0.652	SPECIFIC GRAVITY.....	0.724	SPECIFIC GRAVITY.....	0.694
INDEX 2722 SAMPLE 12912		INDEX 2723 SAMPLE 12913		INDEX 2724 SAMPLE 12914	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	STEVENS	COUNTY.....	STEVENS	COUNTY.....	STEVENS
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
WELL NAME.....	NEU NO. 1-9	WELL NAME.....	HOWELL-RINEHART NO. 1-22	WELL NAME.....	HOWELL-RINEHART NO. 3-23
LOCATION.....	SEC. 3, T33S, R37W	LOCATION.....	SEC. 22, T32S, R39W	LOCATION.....	SEC. 23, T32S, R39W
OWNER.....	PANHANDLE EASTERN PIPELINE C	OWNER.....	PANHANDLE EASTERN PIPELINE C	OWNER.....	PANHANDLE EASTERN PIPELINE C
COMPLETED.....	05/21/69	COMPLETED.....	04/05/31	COMPLETED.....	11/09/64
SAMPLED.....	07/21/71	SAMPLED.....	07/21/71	SAMPLED.....	07/21/71
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	2581	DEPTH, FEET.....	2415	DEPTH, FEET.....	2362
WELLHEAD PRESSURE, PSIG.....	258	WELLHEAD PRESSURE, PSIG.....	218	WELLHEAD PRESSURE, PSIG.....	223
OPEN FLOW, MCFD.....	3916	OPEN FLOW, MCFD.....	4556	OPEN FLOW, MCFD.....	2806
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.2	METHANE.....	73.2	METHANE.....	74.5
ETHANE.....	4.0	ETHANE.....	4.0	ETHANE.....	3.1
PROPANE.....	3.5	PROPANE.....	3.6	PROPANE.....	3.6
N-BUTANE.....	0.9	N-BUTANE.....	1.0	N-BUTANE.....	0.8
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	11.2	NITROGEN.....	14.9	NITROGEN.....	13.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.36	HELIUM.....	0.40	HELIUM.....	0.40
HEATING VALUE.....	1042	HEATING VALUE.....	1007	HEATING VALUE.....	1005
SPECIFIC GRAVITY.....	0.692	SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.697

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2725			INDEX 2726			INDEX 2727		
SAMPLE 12916			SAMPLE 12928			SAMPLE 6732		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STEVENS		STEVENS			STEVENS		
FIELD.....	HUGOTON		HUGOTON			PANOMA		
WELL NAME.....	STORM NO. 1-34		HAYWARD NO. 1			GREY NO. 2		
LOCATION.....	SEC. 34, T32S, R39W		SEC. 1, T35S, R39W			SEC. 11, T31S, R38W		
OWNER.....	PANHANDLE EASTERN PIPELINE CO.		PANHANDLE EASTERN PIPELINE CO.			HUGOTON PRODUCTION CO.		
COMPLETED.....	03/04/31		01/27/71			01/17/57		
SAMPLED.....	07/21/71		07/21/71			07/16/58		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-COUNCIL GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2518		2628			2752		
WELLHEAD PRESSURE, PSIG.....	212		237			405		
OPEN FLOW, MCFD.....	3185		4524			15860		
COMPONENT, MOLE PCT								
METHANE.....	74.4		76.6			61.0		
ETHANE.....	6.1		6.0			8.6		
PROPANE.....	3.6		3.6			4.6		
N-BUTANE.....	0.9		0.9			1.3		
ISOBUTANE.....	0.4		0.5			0.6		
N-PENTANE.....	0.3		0.3			0.3		
ISOPENTANE.....	0.1		0.0			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	13.6		11.6			22.0		
OXYGEN.....	0.0		0.0			0.3		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.1		
HELIUM.....	0.39		0.37			0.50		
HEATING VALUE.....	1022		1042			991		
SPECIFIC GRAVITY.....	0.704		0.695			0.780		
INDEX 2729			INDEX 2729			INDEX 2730		
SAMPLE 7311			SAMPLE 7429			SAMPLE 7845		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STEVENS		STEVENS			STEVENS		
FIELD.....	PANOMA		PANOMA			PANOMA		
WELL NAME.....	LARRABEE		PERRILL			YOUNGREN NO. 1-35		
LOCATION.....	SEC. 23, T31S, R39W		SEC. 7, T31S, R37W			SEC. 35, T31S, R39W		
OWNER.....	HUGOTON PRODUCTION CO.		PANHANDLE EASTERN PIPELINE CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	09/10/59		10/02/59			10/30/60		
SAMPLED.....	12/14/59		02/09/60			02/09/61		
FORMATION.....	PERM-COUNCIL GROVE		PERM-COUNCIL GROVE			PERM-COUNCIL GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2691		2720			2768		
WELLHEAD PRESSURE, PSIG.....	16533		NOT GIVEN			327		
OPEN FLOW, MCFD.....			NOT GIVEN			1550		
COMPONENT, MOLE PCT								
METHANE.....	66.1		56.5			68.7		
ETHANE.....	6.9		7.0			7.0		
PROPANE.....	3.9		5.2			3.9		
N-BUTANE.....	1.0		1.9			1.1		
ISOBUTANE.....	0.5		0.5			0.5		
N-PENTANE.....	0.3		0.9			0.2		
ISOPENTANE.....	TRACE		0.4			0.2		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.1		0.0			0.1		
NITROGEN.....	20.0		22.6			17.6		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.4		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.4			0.1		
HELIUM.....	0.40		0.60			0.50		
HEATING VALUE.....	964		1084			999		
SPECIFIC GRAVITY.....	0.738		0.845			0.734		
INDEX 2731			INDEX 2732			INDEX 2733		
SAMPLE 7846			SAMPLE 12915			SAMPLE 13341		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STEVENS		STEVENS			STEVENS		
FIELD.....	PANOMA		PANOMA			PANOMA		
WELL NAME.....	SIMMONS B 1-25		HOWELL-RINEHART NO. 2-23			MARGARET PRICHARD NO. 2-A		
LOCATION.....	SEC. 25, T31S, R39W		SEC. 23, T32S, R39W			SEC. 22, T31S, R39W		
OWNER.....	ANADARKO PRODUCTION CO.		PANHANDLE EASTERN PIPELINE CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	09/25/60		03/09/59			06/22/72		
SAMPLED.....	02/09/61		07/21/71			07/31/72		
FORMATION.....	PERM-COUNCIL GROVE		PERM-COUNCIL GROVE			PERM-COUNCIL GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2772		2684			2714		
WELLHEAD PRESSURE, PSIG.....	313		237			316		
OPEN FLOW, MCFD.....	1500		120			8250		
COMPONENT, MOLE PCT								
METHANE.....	68.3		68.9			66.9		
ETHANE.....	7.4		6.5			6.9		
PROPANE.....	4.1		4.2			4.5		
N-BUTANE.....	1.2		1.0			1.1		
ISOBUTANE.....	0.6		0.5			0.7		
N-PENTANE.....	0.3		0.4			0.5		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	17.2		17.9			18.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.0		
HELIUM.....	0.50		0.41			0.49		
HEATING VALUE.....	1019		1001			1019		
SPECIFIC GRAVITY.....	0.742		0.736			0.752		
INDEX 2734			INDEX 2735			INDEX 2736		
SAMPLE 13669			SAMPLE 17664			SAMPLE 9682		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STEVENS		STEVENS			STEVENS		
FIELD.....	PANOMA		SKL SE			VOORHEES		
WELL NAME.....	WHELLE SPEAKMAN UNIT NO. 1		WHEEL NO. A-2			PEACHEY NO. 1 UNIT NO. 2		
LOCATION.....	SEC. 2, T32S, R38W		SEC. 22, T34S, R35W			SEC. 24, T34S, R37W		
OWNER.....	MOBIL OIL CORP.		CITIES SERVICE OIL & GAS COR			MOBIL OIL CO.		
COMPLETED.....	02/20/73		10/24/84			09/30/64		
SAMPLED.....	07/04/73		05/07/85			01/08/65		
FORMATION.....	PERM-COUNCIL GROVE		MISS-CHESTER			MISS-ST. LOUIS		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2848		6214			6711		
WELLHEAD PRESSURE, PSIG.....	239		1504			1665		
OPEN FLOW, MCFD.....	3880		2420			15500		
COMPONENT, MOLE PCT								
METHANE.....	65.2		84.3			71.0		
ETHANE.....	7.2		5.2			7.5		
PROPANE.....	4.0		3.0			4.4		
N-BUTANE.....	1.0		1.0			1.5		
ISOBUTANE.....	0.6		0.4			0.8		
N-PENTANE.....	0.2		0.4			0.3		
ISOPENTANE.....	0.2		0.2			0.4		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.3			0.3		
NITROGEN.....	20.8		4.6			12.6		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.2		
HELIUM.....	0.53		0.19			0.72		
HEATING VALUE.....	1177		1177			1090		
SPECIFIC GRAVITY.....	0.752		0.673			0.746		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2737 SAMPLE 9683			INDEX 2738 SAMPLE 7355			INDEX 2739 SAMPLE 7746		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STEVENS		STEVENS			STEVENS		
FIELD.....	VOORHEES		WALKMEYER			WALKMEYER		
WELL NAME.....	PEACHEY NO. 1 UNIT NO. 2		HEGER 8 NO. 2			WALKMEYER NO. 1-35		
LOCATION.....	SEC. 24, T33S, R37W		SEC. 26, T33S, R36W			SEC. 35, T33S, R36W		
OWNER.....	MOBIL OIL CO.		NORTHERN NATURAL GAS PROD. C			SHELL OIL CO., ET AL.		
COMPLETED.....	09/30/64		10/16/59			08/25/59		
SAMPLED.....	01/08/65		01/21/60			10/26/60		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6317		6098			6145		
WELLHEAD PRESSURE, PSIG.....	1562		1500			1625		
OPEN FLOW, MCFD.....	5300		6848			3500		
COMPONENT, MOLE PCT								
METHANE.....	72.9		87.9			88.9		
ETHANE.....	7.6		0.1			4.8		
PROPANE.....	4.0		0.2			2.1		
N-BUTANE.....	1.0		0.0			0.6		
ISOBUTANE.....	0.7		0.0			0.6		
N-PENTANE.....	0.2		0.0			0.1		
ISOPENTANE.....	0.1		0.0			0.1		
CYCLOPENTANE.....	TRACE		0.0			0.1		
HEXANES PLUS.....	0.1		0.0			0.2		
NITROGEN.....	12.5		11.2			2.1		
OXYGEN.....	0.2		TRACE			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.4		
HELIUM.....	0.72		0.50			0.10		
HEATING VALUE.....	1054		898			1097		
SPECIFIC GRAVITY.....	0.717		0.601			0.637		
INDEX 2740 SAMPLE 15338			INDEX 2741 SAMPLE 15837			INDEX 2742 SAMPLE 4610		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	STEVENS		STEVENS			SUMNER		
FIELD.....	WALKMEYER N		WILDCAT			ANSON		
WELL NAME.....	LEHERT UNIT NO. 2		HOLT NO. 1			BATES NO. 1		
LOCATION.....	SEC. 4, T33S, R36W		SEC. 20, T32S, R37W			SEC. 26, T30S, R2W		
OWNER.....	MOBIL OIL CORP.		MOBIL OIL CORP.			ANDERSON-PRICHARD OIL CORP.		
COMPLETED.....	12/28/77		04/09/79			08/19/48		
SAMPLED.....	08/08/78		11/15/79			11/04/48		
FORMATION.....	PENN-MORROW		PENN-MORROW			MISS-LIME		
GEOLOGIC PROVINCE CODE.....	360		360			375		
DEPTH, FEET.....	6044		5639			3745		
WELLHEAD PRESSURE, PSIG.....	1076		1253			1200		
OPEN FLOW, MCFD.....	3300		18229			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.1		82.2			16.1		
ETHANE.....	4.7		0.7			36.5		
PROPANE.....	2.5		2.8			---		
N-BUTANE.....	0.8		0.9			---		
ISOBUTANE.....	0.4		0.4			---		
N-PENTANE.....	0.2		0.3			---		
ISOPENTANE.....	0.3		0.3			---		
CYCLOPENTANE.....	0.0		TRACE			---		
HEXANES PLUS.....	0.2		0.2			---		
NITROGEN.....	2.4		7.6			46.1		
OXYGEN.....	0.1		0.0			0.1		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.1		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.15		0.28			1.07		
HEATING VALUE.....	1116		1069			815		
SPECIFIC GRAVITY.....	0.649		0.673			0.923		
INDEX 2743 SAMPLE 9772			INDEX 2744 SAMPLE 4955			INDEX 2745 SAMPLE 12699		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	SUMNER		SUMNER			SUMNER		
FIELD.....	CORSTONE		FALL CREEK			KERSCHEN		
WELL NAME.....	NUSZ NO. 1		HOBBISIEFKIN NO. 1			KERSCHEN NO. 6		
LOCATION.....	SEC. 23, T31S, R3W		SEC. 3, T35S, R3W			SEC. 18, T31S, R3W		
OWNER.....	BEARDMORE DRILLING CO.		TEXAS CO.			RAYMOND OIL CO., INC.		
COMPLETED.....	12/19/64		08/31/50			07/30/70		
SAMPLED.....	02/27/65		11/10/50			03/03/71		
FORMATION.....	PENN-WHITE CLOUD		ORDO-SIMPSON			PENN---		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	2061		4746			2000		
WELLHEAD PRESSURE, PSIG.....	905		390			1025		
OPEN FLOW, MCFD.....	13		NOT GIVEN			1650		
COMPONENT, MOLE PCT								
METHANE.....	83.8		48.0			75.1		
ETHANE.....	4.7		19.6			2.5		
PROPANE.....	2.4		1.5			0.7		
N-BUTANE.....	0.8		4.1			0.7		
ISOBUTANE.....	0.4		1.1			0.7		
N-PENTANE.....	0.2		0.4			0.2		
ISOPENTANE.....	0.3		0.1			0.0		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.4			0.2		
NITROGEN.....	6.8		8.4			15.5		
OXYGEN.....	TRACE		0.3			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		0.4			TRACE		
HELIUM.....	1.26		0.98			0.55		
HEATING VALUE.....	1062		1508			979		
SPECIFIC GRAVITY.....	0.659		0.966			0.697		
INDEX 2746 SAMPLE 1552			INDEX 2747 SAMPLE 1553			INDEX 2748 SAMPLE 1677		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	SUMNER		SUMNER			SUMNER		
FIELD.....	LATTA		LATTA			LATTA		
WELL NAME.....	LOVE NO. 2		LOVE NO. 1			LOVE NO. 2		
LOCATION.....	SEC. 9, T30S, R2W		SEC. 9, T30S, R2W			SEC. 9, T30S, R2W		
OWNER.....	CHAMPLIN REFINING CO.		CHAMPLIN REFINING CO.			CHAMPLIN REFINING CO.		
COMPLETED.....	11/22/27		11/22/27			11/22/28		
SAMPLED.....	12/15/27		12/15/27			09/18/28		
FORMATION.....	-LIME		-LIME			-STRAY		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	2010		2011			2432		
WELLHEAD PRESSURE, PSIG.....	700		800			110		
OPEN FLOW, MCFD.....	8000		5250			3100		
COMPONENT, MOLE PCT								
METHANE.....	36.9		71.4			41.2		
ETHANE.....	15.3		18.2			18.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	46.2		9.3			39.2		
OXYGEN.....	0.3		0.6			0.7		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	1.05		1.34			0.77		
HEATING VALUE.....	648		1049			740		
SPECIFIC GRAVITY.....	0.820		0.687			0.807		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	2749 15725		INDEX SAMPLE	2750 12599		INDEX SAMPLE	2751 12600
STATE.....	KANSAS		KANSAS		KANSAS		KANSAS	
COUNTY.....	SUMNER		SUMNER		SUMNER		SUMNER	
FIELD.....	LOVE-THREE		LOVE-THREE		LOVE-THREE		LOVE-THREE	
WELL NAME.....	REIN BECK NO. 1		RUTH NO. 1		RUTH NO. 1		RUTH NO. 1	
LOCATION.....	SEC. 20, T30S, R2W		SEC. 13, T32S, R4W		SEC. 13, T32S, R4W		SEC. 13, T32S, R4W	
OWNER.....	SANDERS OIL CO.		OASIS PETROLEUM, INC.		OASIS PETROLEUM, INC.		OASIS PETROLEUM, INC.	
COMPLETED.....	7/7/00		09/15/70		09/15/70		09/15/70	
SAMPLED.....	08/08/79		12/17/70		12/17/70		12/17/70	
FORMATION.....	PENN-STALNAKER		PENN-STALNAKER		PENN-STALNAKER		PENN-WHITE CLOUD	
GEOLOGIC PROVINCE CODE.....	375		375		375		375	
DEPTH, FEET.....	2871		2978		2042		2042	
WELLHEAD PRESSURE, PSIG.....	960		1125		950		950	
OPEN FLOW, MCFD.....	5000		7200		1720		1720	
COMPONENT, MOLE PCT								
METHANE.....	85.1		86.8		85.9		85.9	
ETHANE.....	4.8		4.7		4.6		4.6	
PROPANE.....	2.6		2.5		2.5		2.5	
N-BUTANE.....	0.9		0.7		0.8		0.8	
ISOBUTANE.....	0.5		0.4		0.4		0.4	
N-PENTANE.....	0.3		0.3		0.3		0.3	
ISOPENTANE.....	0.2		0.2		0.2		0.2	
CYCLOPENTANE.....	0.1		0.1		0.1		0.1	
HEXANES PLUS.....	0.2		0.2		0.2		0.2	
NITROGEN.....	5.0		3.9		4.8		4.8	
OXYGEN.....	0.0		0.0		0.0		0.0	
ARGON.....	0.0		0.0		0.0		0.0	
HYDROGEN.....	0.0		0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0		0.0	
CARBON DIOXIDE.....	0.1		0.1		0.1		0.1	
HELIUM.....	0.20		0.16		0.19		0.19	
HEATING VALUE.....	1098		1101		1093		1093	
SPECIFIC GRAVITY.....	0.663		0.653		0.657		0.657	

	INDEX SAMPLE	2752 12601		INDEX SAMPLE	2753 1750		INDEX SAMPLE	2754 14156
STATE.....	KANSAS		KANSAS		KANSAS		KANSAS	
COUNTY.....	SUMNER		SUMNER		MURPHY		MURPHY	
FIELD.....	LOVE-THREE		MURPHY		STALNAKER NO. 1		STALNAKER NO. 1	
WELL NAME.....	RUTH NO. 1		SEC. 11, T35S, R2E		SEC. 11, T35S, R2E		SEC. 11, T35S, R2E	
LOCATION.....	SEC. 13, T32S, R4W		TIDAL OIL CO.		HERNDON DRILLING CO.		HERNDON DRILLING CO.	
OWNER.....	OASIS PETROLEUM, INC.		02/14/29		04/11/74		04/11/74	
COMPLETED.....	10/14/70		04/22/29		09/25/74		09/25/74	
SAMPLED.....	10/17/70		MISS---		PENN-LAYTON		PENN-LAYTON	
FORMATION.....	MISS---		375		375		375	
GEOLOGIC PROVINCE CODE.....	375		3939		2275		2275	
DEPTH, FEET.....	1400		725		3260		3260	
WELLHEAD PRESSURE, PSIG.....	2700		4252					
OPEN FLOW, MCFD.....								
COMPONENT, MOLE PCT								
METHANE.....	66.7		57.0		70.3		70.3	
ETHANE.....	6.8		25.0		5.6		5.6	
PROPANE.....	3.6		---		3.0		3.0	
N-BUTANE.....	1.0		---		0.8		0.8	
ISOBUTANE.....	0.6		---		0.5		0.5	
N-PENTANE.....	0.3		---		0.2		0.2	
ISOPENTANE.....	0.2		---		0.3		0.3	
CYCLOPENTANE.....	0.1		---		0.1		0.1	
HEXANES PLUS.....	0.2		---		0.1		0.1	
NITROGEN.....	19.9		16.8		18.7		18.7	
OXYGEN.....	0.0		0.3		TRACE		TRACE	
ARGON.....	TRACE		---		TRACE		TRACE	
HYDROGEN.....	0.0		---		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		---		0.0		0.0	
CARBON DIOXIDE.....	0.1		0.2		0.1		0.1	
HELIUM.....	0.60		0.67		0.30		0.30	
HEATING VALUE.....	980		1025		964		964	
SPECIFIC GRAVITY.....	0.746		0.748		0.723		0.723	

	INDEX SAMPLE	2755 1059		INDEX SAMPLE	2756 1186		INDEX SAMPLE	2757 10293
STATE.....	KANSAS		KANSAS		KANSAS		KANSAS	
COUNTY.....	SUMNER		SUMNER		SUMNER		SUMNER	
FIELD.....	PADGETT		PADGETT		PADGETT NW		PADGETT NW	
WELL NAME.....	NO. 1		PADGETT NO. 1		TURNER NO. 1		TURNER NO. 1	
LOCATION.....	SEC. 23, T34S, R2E		SEC. 23, T34S, R2E		SEC. 30, T34S, R2E		SEC. 30, T34S, R2E	
OWNER.....	TEXAS OIL CO.		WARLAW OIL CO.		CARTER & MANDEL CO.		CARTER & MANDEL CO.	
COMPLETED.....	04/--/25		12/--/24		--/--/00		--/--/00	
SAMPLED.....	05/14/25		12/09/25		11/19/65		11/19/65	
FORMATION.....	-SAND		PENN-BURBANK		PENN-CATTLENAH		PENN-CATTLENAH	
GEOLOGIC PROVINCE CODE.....	375		375		375		375	
DEPTH, FEET.....	3445		3455		3428		3428	
WELLHEAD PRESSURE, PSIG.....	1250		1200		1300		1300	
OPEN FLOW, MCFD.....	40600		30000		6000		6000	
COMPONENT, MOLE PCT								
METHANE.....	59.9		61.5		52.9		52.9	
ETHANE.....	23.6		21.4		7.6		7.6	
PROPANE.....	---		---		4.7		4.7	
N-BUTANE.....	---		---		0.9		0.9	
ISOBUTANE.....	---		---		0.8		0.8	
N-PENTANE.....	---		---		TRACE		TRACE	
ISOPENTANE.....	---		---		0.1		0.1	
CYCLOPENTANE.....	---		---		TRACE		TRACE	
HEXANES PLUS.....	---		---		0.1		0.1	
NITROGEN.....	15.5		15.4		31.8		31.8	
OXYGEN.....	0.2		0.4		0.0		0.0	
ARGON.....	---		---		TRACE		TRACE	
HYDROGEN.....	---		---		0.0		0.0	
HYDROGEN SULFIDE.....	---		---		0.0		0.0	
CARBON DIOXIDE.....	0.1		0.6		0.2		0.2	
HELIUM.....	0.57		0.57		0.82		0.82	
HEATING VALUE.....	1030		1006		861		861	
SPECIFIC GRAVITY.....	0.734		0.729		0.799		0.799	

	INDEX SAMPLE	2758 15627		INDEX SAMPLE	2759 15911		INDEX SAMPLE	2760 12401
STATE.....	KANSAS		KANSAS		KANSAS		KANSAS	
COUNTY.....	SUMNER		SUMNER		SUMNER		SUMNER	
FIELD.....	STUHLSATZ		STUHLSATZ		PHILLIPS NO. 1		PHILLIPS NO. 1	
WELL NAME.....	RUTH NO. 1		JORDAN TRUST NO. 1		SEC. 26, T32S, R4W		SEC. 26, T32S, R4W	
LOCATION.....	SEC. 21, T30S, R2W		SEC. 29, T30S, R2W		ATLAS MINERALS		ATLAS MINERALS	
OWNER.....	TEXAS OIL & GAS CORP.		STELBAR OIL CORP.		--/--/00		--/--/00	
COMPLETED.....	11/17/79		05/18/79		09/03/70		09/03/70	
SAMPLED.....	05/29/79		02/31/80		MISS-CHAT		MISS-CHAT	
FORMATION.....	PENN-STALNAKER		PENN-STALNAKER		375		375	
GEOLOGIC PROVINCE CODE.....	375		375		3940		3940	
DEPTH, FEET.....	2830		2812		1215		1215	
WELLHEAD PRESSURE, PSIG.....	938		991		800		800	
OPEN FLOW, MCFD.....	NOT GIVEN		4451					
COMPONENT, MOLE PCT								
METHANE.....	85.3		83.5		67.3		67.3	
ETHANE.....	4.8		4.8		6.6		6.6	
PROPANE.....	2.6		2.5		3.6		3.6	
N-BUTANE.....	0.8		0.9		0.8		0.8	
ISOBUTANE.....	0.4		0.3		0.5		0.5	
N-PENTANE.....	0.3		0.2		0.4		0.4	
ISOPENTANE.....	0.2		0.3		0.0		0.0	
CYCLOPENTANE.....	TRACE		TRACE		TRACE		TRACE	
HEXANES PLUS.....	0.1		0.2		0.1		0.1	
NITROGEN.....	5.2		6.3		19.9		19.9	
OXYGEN.....	0.0		0.3		0.1		0.1	
ARGON.....	TRACE		TRACE		TRACE		TRACE	
HYDROGEN.....	0.1		0.0		0.1		0.1	
HYDROGEN SULFIDE.....	0.0		0.0		0.0		0.0	
CARBON DIOXIDE.....	TRACE		TRACE		TRACE		TRACE	
HELIUM.....	0.20		0.20		0.61		0.61	
HEATING VALUE.....	1085		1099		960		960	
SPECIFIC GRAVITY.....	0.655		0.666		0.733		0.733	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2761 SAMPLE 3626			INDEX 2762 SAMPLE 6159			INDEX 2763 SAMPLE 3836		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	WABANSEE		WALLACE			WALLACE		
FIELD.....	ALMA		SEXSON			WILDCAT		
WELL NAME.....	DAGENHART NO. 1		SEXSON NO. 1			GLAD & BRACK NO. 1		
LOCATION.....	SEC. 9, T12S, R10E		SEC. 19, T13S, R42W			SEC. 19, T13S, R42W		
OWNER.....	ALVA OIL CO.		SHELL OIL CO.			SINCLAIR-PRAIRIE OIL CO.		
COMPLETED.....	02/01/43		08/18/56			--/--/00		
SAMPLED.....	03/14/43		10/09/56			05/--/44		
FORMATION.....	NOT GIVEN		PENN-MORROW			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	335		360			360		
DEPTH, FEET.....	279		5008			2460		
WELLHEAD PRESSURE, PSIG.....	90		911			250		
OPEN FLOW, MCFD.....	NOT GIVEN		14034			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	8.7		31.0			0.0		
ETHANE.....	2.3		2.3			0.0		
PROPANE.....	---		0.3			0.0		
N-BUTANE.....	---		0.5			0.0		
ISOBUTANE.....	---		0.4			0.0		
N-PENTANE.....	---		0.2			0.0		
ISOPENTANE.....	---		0.3			0.0		
CYCLOPENTANE.....	---		0.1			0.0		
HEXANES PLUS.....	---		0.2			0.0		
NITROGEN.....	83.3		59.2			99.6		
OXYGEN.....	1.2		TRACE			0.2		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	1.0		0.5			0.1		
HELIUM.....	3.48		2.6			0.08		
HEATING VALUE.....	129		491			0		
SPECIFIC GRAVITY.....	0.911		0.862			0.967		
INDEX 2764 SAMPLE 199			INDEX 2765 SAMPLE 1809			INDEX 2766 SAMPLE 3181		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	WILSON		WILSON			WOODSON		
FIELD.....	BUXTON		NEEDLE CREEK			WOLA		
WELL NAME.....	LANTRY NO. 2		HYDE NO. 2			PERCELL NO. 2		
LOCATION.....	SEC. 25, T30S, R13E		SEC. 33, T29S, R16E			SEC. 3, T25S, R17E		
OWNER.....	C. E. ROTH		PRAIRIE OIL & GAS CO.			OKLAHOMA NATURAL GAS CO.		
COMPLETED.....	04/02/20		05/08/20			03/23/23		
SAMPLED.....	04/02/20		07/07/29			03/23/42		
FORMATION.....	-STRAY		MISS-			PENN-BARTLESVILLE		
GEOLOGIC PROVINCE CODE.....	365		365			365		
DEPTH, FEET.....	316		671			900		
WELLHEAD PRESSURE, PSIG.....	125		200			290		
OPEN FLOW, MCFD.....	NOT GIVEN		92			9000		
COMPONENT, MOLE PCT								
METHANE.....	75.1		94.4			93.6		
ETHANE.....	0.0		0.3			1.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	22.8		4.5			3.3		
OXYGEN.....	1.0		0.1			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.8			0.8		
HELIUM.....	0.91		0.05			0.11		
HEATING VALUE.....	761		962			950		
SPECIFIC GRAVITY.....	0.652		0.583			0.587		
INDEX 2767 SAMPLE 2583			INDEX 2768 SAMPLE 7621			INDEX 2769 SAMPLE 17048		
STATE.....	KANSAS		KENTUCKY			KENTUCKY		
COUNTY.....	WOODSON		BARREN			BELL		
FIELD.....	WINTERSCHIED		BLACK RIDGE			GREASY BRUSH		
WELL NAME.....	WIFFER NO. 7		GLASS FARM NO. 2			GREASY BRUSH NO. 8		
LOCATION.....	SEC. 51, T23S, R14E		3 MI. NW GLASGOW, KY.			EARTER COORDINATE 12-CN-68E		
OWNER.....	THETA OIL CO.		MID-CONTINENT OIL & GAS CORP			WISER OIL CO.		
COMPLETED.....	--/--/32		06/06/60			08/03/81		
SAMPLED.....	--/--/00		07/25/60			09/02/83		
FORMATION.....	NOT GIVEN		DEVO-LAUREL			MISS-MAXTON		
GEOLOGIC PROVINCE CODE.....	365		300			160		
DEPTH, FEET.....	NOT GIVEN		380			1972		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		83			430		
OPEN FLOW, MCFD.....	NOT GIVEN		400			3000		
COMPONENT, MOLE PCT								
METHANE.....	82.5		68.3			82.1		
ETHANE.....	6.3		11.9			5.8		
PROPANE.....	---		7.9			3.4		
N-BUTANE.....	---		1.8			1.1		
ISOBUTANE.....	---		0.6			0.3		
N-PENTANE.....	---		0.1			0.2		
ISOPENTANE.....	---		0.5			0.4		
CYCLOPENTANE.....	---		0.1			0.1		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	9.4		2.1			5.5		
OXYGEN.....	0.4		TRACE			TRACE		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.2			0.4		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.4		1.0			0.1		
HELIUM.....	0.95		0.20			0.43		
HEATING VALUE.....	949		1231			1107		
SPECIFIC GRAVITY.....	0.626		0.784			0.674		
INDEX 2770 SAMPLE 16420			INDEX 2771 SAMPLE 14310			INDEX 2772 SAMPLE 9275		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	BELL		BELL			BOYD		
FIELD.....	HATFIELD GAP		WILDCAT			ASHLAND		
WELL NAME.....	THRACKER COAL NO. 1		AMERICAN ASSOCIATION NO. 1			NO. K-106		
LOCATION.....	EARTER COORDINATE 21-B-67		EARTER COORDINATE 5-B-70			U-K106		
OWNER.....	WISER OIL CO.		SAN JUAN OIL CO.			INLAND GAS CO., INC.		
COMPLETED.....	11/04/79		11/08/74			05/28/63		
SAMPLED.....	01/25/82		04/04/75			04/07/64		
FORMATION.....	MISS-BIG LIME		MISS-BIG LIME			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2930		2928			2931		
WELLHEAD PRESSURE, PSIG.....	735		1050			910		
OPEN FLOW, MCFD.....	1374		11000			926		
COMPONENT, MOLE PCT								
METHANE.....	79.1		98.1			94.8		
ETHANE.....	9.7		0.2			1.8		
PROPANE.....	2.7		0.1			0.3		
N-BUTANE.....	0.6		0.0			0.1		
ISOBUTANE.....	0.1		0.0			TRACE		
N-PENTANE.....	0.1		0.0			TRACE		
ISOPENTANE.....	0.1		0.0			TRACE		
CYCLOPENTANE.....	0.1		0.0			TRACE		
HEXANES PLUS.....	0.1		0.0			0.1		
NITROGEN.....	7.1		1.0			2.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.3		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			TRACE		
HELIUM.....	0.09		0.05			0.14		
HEATING VALUE.....	1087		1000			1013		
SPECIFIC GRAVITY.....	0.676		0.567			0.582		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2775 10064	INDEX SAMPLE	2774 1033	INDEX SAMPLE	2775 8654
STATE.....	KENTUCKY			KENTUCKY		KENTUCKY	
COUNTY.....	BOYD			BOYD		CHRISTIAN	
FIELD.....	ASHLAND			SUMMIT		PENNYVILLE	
WELL NAME.....	WADSWORTH NO. K-30			NO. 14		NO. 7	
LOCATION.....	KEYES CREEK			NOT GIVEN		NOT GIVEN	
OWNER.....	INLAND GAS CO., INC.			AMERICAN ROLLING WELL CO.		RYAN OIL CO.	
COMPLETED.....	06/01/27			04/01/25		08/-/62	
SAMPLED.....	08/13/65			04/23/25		08/23/62	
FORMATION.....	DEVON			MISS-BEREA		MISS-PAINT CREEK	
GEOLOGIC PROVINCE CODE.....	160			160		315	
DEPTH, FEET.....	2157			1330		1409	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			400		510	
OPEN FLOW, MCFD.....	NOT GIVEN			250		2000	
COMPONENT, MOLE PCT							
METHANE.....	86.2			81.0		97.5	
ETHANE.....	5.9			13.9		0.4	
PROPANE.....	2.9			---		0.1	
N-BUTANE.....	0.5			---		TRACE	
ISOBUTANE.....	0.2			---		TRACE	
N-PENTANE.....	TRACE			---		TRACE	
ISOPENTANE.....	0.1			---		0.1	
CYCLOPENTANE.....	TRACE			---		TRACE	
HEXANES PLUS.....	TRACE			---		0.0	
NITROGEN.....	4.1			4.7		1.7	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	TRACE			---		0.0	
HYDROGEN.....	0.3			---		0.0	
HYDROGEN SULFIDE**.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.1			0.3		TRACE	
HELIUM.....	0.18			0.14		0.10	
HEATING VALUE.....	1070			1070		1002	
SPECIFIC GRAVITY.....	0.636			0.646		0.565	
		INDEX SAMPLE	2776 3505	INDEX SAMPLE	2777 3511	INDEX SAMPLE	2778 3508
STATE.....	KENTUCKY			KENTUCKY		KENTUCKY	
COUNTY.....	CLAY			CLAY		CLAY	
FIELD.....	BURNING SPRINGS			BURNING SPRINGS		ONEIDA	
WELL NAME.....	RAWLINGS			H. CLARK NO. 3		HENRY B.	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	PETROLEUM EXPLORATION CORP.			PETROLEUM EXPLORATION CORP.		PETROLEUM EXPLORATION CORP.	
COMPLETED.....	7/-/70			7/-/70		7/-/70	
SAMPLED.....	06/04/42			06/04/42		06/04/42	
FORMATION.....	MISS-BIG LIME			MISS-BIG LIME		DEVON-CORNIFEROUS	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	200			200		200	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	69.4			77.4		71.4	
ETHANE.....	27.7			20.6		26.7	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	2.5			1.4		1.0	
OXYGEN.....	0.2			0.4		0.5	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.1			0.1		0.3	
HELIUM.....	0.12			0.09		0.08	
HEATING VALUE.....	1199			1153		1202	
SPECIFIC GRAVITY.....	0.703			0.665		0.696	
		INDEX SAMPLE	2779 3509	INDEX SAMPLE	2780 3517	INDEX SAMPLE	2781 16899
STATE.....	KENTUCKY			KENTUCKY		KENTUCKY	
COUNTY.....	CLAY			CLAY		CLAY	
FIELD.....	ONEIDA			ONEIDA		WILDCAT	
WELL NAME.....	W. J. LEFORD NO. 1			W. W. RAWLINGS NO. 1		HERBERT BYRD ET AL. NO. 1	
LOCATION.....	NOT GIVEN			NOT GIVEN		CARTER COORDINATE 10-J-70	
OWNER.....	PETROLEUM EXPLORATION CORP.			PETROLEUM EXPLORATION CORP.		TENNESSEE LAND & EXPL. CO.	
COMPLETED.....	7/-/70			7/-/70		11/01/81	
SAMPLED.....	06/04/42			06/03/42		04/20/83	
FORMATION.....	DEVON-CORNIFEROUS			MISS-BIG LIME		ORDO-KNOX	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		3570	
WELLHEAD PRESSURE, PSIG.....	200			NOT GIVEN		1140	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		250	
COMPONENT, MOLE PCT							
METHANE.....	71.7			71.8		85.5	
ETHANE.....	25.8			25.9		5.4	
PROPANE.....	---			---		2.1	
N-BUTANE.....	---			---		0.7	
ISOBUTANE.....	---			---		0.4	
N-PENTANE.....	---			---		0.2	
ISOPENTANE.....	---			---		0.4	
CYCLOPENTANE.....	---			---		0.1	
HEXANES PLUS.....	---			---		0.2	
NITROGEN.....	1.7			1.7		4.4	
OXYGEN.....	0.5			0.4		0.0	
ARGON.....	---			---		TRACE	
HYDROGEN.....	---			---		0.3	
HYDROGEN SULFIDE**.....	---			---		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.14			0.13		0.15	
HEATING VALUE.....	1189			1191		1095	
SPECIFIC GRAVITY.....	0.693			0.692		0.654	
		INDEX SAMPLE	2782 16900	INDEX SAMPLE	2783 16901	INDEX SAMPLE	2784 17424
STATE.....	KENTUCKY			KENTUCKY		KENTUCKY	
COUNTY.....	CLAY			CLAY		DAVESS	
FIELD.....	WILDCAT			WILDCAT		ONEIDA	
WELL NAME.....	FLOYD FROST ET AL. NO. 1			HERBERT BYRD ET AL. NO. 1		DONALD FISHER NO. 1	
LOCATION.....	CARTER COORDINATE 10-J-70			CARTER COORDINATE 10-J-70		CARTER COORDINATE 7-0-29	
OWNER.....	TENNESSEE LAND & EXPL. CO.			TENNESSEE LAND & EXPL. CO.		JAMES S. COLLINS	
COMPLETED.....	01/01/83			01/01/81		11/-/80	
SAMPLED.....	04/20/83			04/20/83		09/22/84	
FORMATION.....	ORDO-TRENTON			MISS-BIG LIME		MISS-WALTERSBURG	
GEOLOGIC PROVINCE CODE.....	160			160		315	
DEPTH, FEET.....	2623			850		1170	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			300		10	
OPEN FLOW, MCFD.....	NOT GIVEN			200		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	84.6			85.2		4.2	
ETHANE.....	7.6			5.7		0.1	
PROPANE.....	0.6			0.2		TRACE	
N-BUTANE.....	0.7			0.7		0.0	
ISOBUTANE.....	0.2			0.4		0.0	
N-PENTANE.....	0.2			0.3		0.0	
ISOPENTANE.....	0.3			0.4		0.0	
CYCLOPENTANE.....	TRACE			TRACE		0.0	
HEXANES PLUS.....	0.1			0.1		0.0	
NITROGEN.....	4.3			---		89.9	
OXYGEN.....	0.0			---		0.1	
ARGON.....	TRACE			---		1.1	
HYDROGEN.....	0.3			---		4.6	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		TRACE	
HELIUM.....	0.15			0.13		0.04	
HEATING VALUE.....	1118			1087		59	
SPECIFIC GRAVITY.....	0.656			0.648		0.913	

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

241

INDEX 2785			INDEX 2786			INDEX 2787		
SAMPLE 4279			SAMPLE 8658			SAMPLE 9882		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	DAVIESS		ESTILL			FLOYD		
FIELD.....	STANLEY		FLYNN			MUD CREEK		
WELL NAME.....	PH 315 SAUER NO. 1		NO. 1			WM. HAMILTON NO. 6835		
LOCATION.....	SEC. 1, TP. R27		NOT GIVEN			CARTER COORDINATE 7-K-83		
OWNER.....	SONHO PETROLEUM CO.		LOUISA FLYNN			KENTUCKY WEST VIRGINIA GAS C		
COMPLETED.....	09/01/45		06/01/54			01/18/65		
SAMPLED.....	01/09/47		08/27/62			04/30/65		
FORMATION.....	MISS-		DEVO-CORNIFEROUS			PENN-SALT SAND & MISS-MAXTON		
GEOLOGIC PROVINCE CODE.....	315		160			160		
DEPTH, FEET.....	1120		360			1838		
WELLHEAD PRESSURE, PSIG.....	534		86			440		
OPEN FLOW, MCFD.....	591		1200			641		
COMPONENT, MOLE PCT								
METHANE.....	98.8		81.8			83.9		
ETHANE.....	0.0		0.8			7.6		
PROPANE.....	---		1.9			3.4		
N-BUTANE.....	---		1.5			0.8		
ISOBUTANE.....	---		0.3			0.4		
N-PENTANE.....	---		0.4			0.1		
ISOPENTANE.....	---		0.2			0.2		
CYCLOPENTANE.....	---		0.1			TRACE		
HEXANES PLUS.....	---		0.2			0.1		
NITROGEN.....	0.0		0.0			3.1		
OXYGEN.....	0.3		TRACE			TRACE		
ARGON.....	---		0.0			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		TRACE			0.0		
CARBON DIOXIDE.....	0.9		12.7			0.1		
HELIUM.....	0.04		0.04			0.23		
HEATING VALUE.....	1001		993			1130		
SPECIFIC GRAVITY.....	0.565		0.746			0.665		

INDEX 2788			INDEX 2789			INDEX 2790		
SAMPLE 3492			SAMPLE 3503			SAMPLE 11641		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	FLOYD		FLOYD			GARRARD		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	W. B. SUMBO		ALICE ENDICOTT			LEONARD KIRBY NO. 1		
LOCATION.....	1 1/2 MI. S OF PRESTONBURG		6 MI. SE OF PRESTONBURG			CARTER COORDINATE 8-0-59		
OWNER.....	KENTUCKY WEST VIRGINIA GAS C		KENTUCKY WEST VIRGINIA GAS C			TEXACO INC.		
COMPLETED.....	06/15/29		11/12/31			10/29/68		
SAMPLED.....	06/02/42		06/03/42			09/-/68		
FORMATION.....	DEVO-SHALE		DEVO-SHALE			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			300		
DEPTH, FEET.....	1940		1915			4546		
WELLHEAD PRESSURE, PSIG.....	385		420			NOT GIVEN		
OPEN FLOW, MCFD.....	302		990			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	67.7		74.5			14.1		
ETHANE.....	31.6		24.6			2.0		
PROPANE.....	---		---			0.5		
N-BUTANE.....	---		---			0.4		
ISOBUTANE.....	---		---			0.0		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.2		
NITROGEN.....	0.1		0.3			80.3		
OXYGEN.....	0.4		0.3			0.2		
ARGON.....	---		---			0.4		
HYDROGEN.....	---		---			0.1		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.06		0.06			1.69		
HEATING VALUE.....	1252		1196			228		
SPECIFIC GRAVITY.....	0.714		0.681			0.916		

INDEX 2791			INDEX 2792			INDEX 2793		
SAMPLE 11642			SAMPLE 11643			SAMPLE 11644		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	GARRARD		GARRARD			GARRARD		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	LEONARD KIRBY NO. 1		LEONARD KIRBY NO. 1			LEONARD KIRBY NO. 1		
LOCATION.....	CARTER COORDINATE 8-0-59		CARTER COORDINATE 8-0-59			CARTER COORDINATE 8-0-59		
OWNER.....	TEXACO INC.		TEXACO INC.			TEXACO INC.		
COMPLETED.....	10/29/68		10/29/68			10/29/68		
SAMPLED.....	09/-/68		09/-/68			09/-/68		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	300		300			300		
DEPTH, FEET.....	4546		4546			4574		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	14.1		13.6			14.5		
ETHANE.....	2.0		2.2			2.2		
PROPANE.....	0.6		0.7			0.6		
N-BUTANE.....	0.3		0.3			0.3		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.3		0.2			0.4		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	80.0		80.9			79.3		
OXYGEN.....	0.1		0.1			0.1		
ARGON.....	0.4		0.5			0.4		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			TRACE		
HELIUM.....	1.92		1.24			1.81		
HEATING VALUE.....	228		224			240		
SPECIFIC GRAVITY.....	0.911		0.920			0.911		

INDEX 2794			INDEX 2795			INDEX 2796		
SAMPLE 13286			SAMPLE 3522			SAMPLE 4113		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	GARRARD		HART			HENDERSON		
FIELD.....	WILDCAT		WILDCAT			DIXIE		
WELL NAME.....	ANDREW BURDETT UNIT NO. 1		ALONZO DAVIS NO. 2			C. T. ARNETT NO. 1		
LOCATION.....	3 MI. W OF LANCASTER		NOT GIVEN			4 MI. S OF CORYDON		
OWNER.....	PETE WIDNER		CUMBERLAND PETROLEUM CO.			KENTUCKY NATURAL GAS CORP.		
COMPLETED.....	06/27/72		05/21/42			12/31/45		
SAMPLED.....	06/27/72		05/21/42			09/24/46		
FORMATION.....	CAMB-ROME		DEVO-CORNIFEROUS			PENN-		
GEOLOGIC PROVINCE CODE.....	300		300			313		
DEPTH, FEET.....	4450		530			1042		
WELLHEAD PRESSURE, PSIG.....	1300		100			452		
OPEN FLOW, MCFD.....	500		2500			1500		
COMPONENT, MOLE PCT								
METHANE.....	19.3		81.3			95.3		
ETHANE.....	4.5		4.1			---		
PROPANE.....	0.7		---			---		
N-BUTANE.....	0.5		---			---		
ISOBUTANE.....	0.3		---			---		
N-PENTANE.....	0.2		---			---		
ISOPENTANE.....	0.1		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	70.7		13.7			4.0		
OXYGEN.....	0.0		0.3			0.3		
ARGON.....	0.5		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	1.8		0.2			0.2		
HELIUM.....	1.32		0.35			0.16		
HEATING VALUE.....	339		897			965		
SPECIFIC GRAVITY.....	0.912		0.633			0.574		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2797 13294			INDEX SAMPLE	2798 10032			INDEX SAMPLE	2799 11637
STATE.....	KENTUCKY			KENTUCKY				KENTUCKY			
COUNTY.....	HOPKINS			HOPKINS				HOPKINS			
FIELD.....	DIAMOND E			NEW HOPE				SISK SCHOOL			
WELL NAME.....	HARNED NO. 1			JOSEPH A. KANE NO. 1				WEST KENTUCKY COAL NO. 2			
LOCATION.....	CARTER COORDINATE 12-J-25			CARTER COORDINATE 5-J-21				CARTER COORDINATE 12-I-24			
OWNER.....	AMES OIL & GAS			L & H DRILLING CO.				TEXAS GAS EXPLORATION CORP.			
COMPLETED.....	08/12/71			06/18/65				12/05/67			
SAMPLED.....	07/03/72			08/02/65				--/--/00			
FORMATION.....	MISS-BETHEL			MISS-HARDINSBURG				MISS-BETHEL			
GEOLOGIC PROVINCE CODE.....	315			315				315			
DEPTH, FEET.....	2100			1529				2271			
WELLHEAD PRESSURE, PSIG.....	1000			710				NOT GIVEN			
OPEN FLOW, MCFD.....	5000			7800				4200			
COMPONENT, MOLE PCT											
METHANE.....	97.5			94.8				96.6			
ETHANE.....	0.4			0.6				2.0			
PROPANE.....	TRACE			0.4				0.5			
N-BUTANE.....	TRACE			0.1				0.0			
ISOBUTANE.....	TRACE			0.0				0.0			
N-PENTANE.....	TRACE			0.0				0.0			
ISOPENTANE.....	TRACE			0.0				0.0			
CYCLOPENTANE.....	TRACE			0.0				0.0			
HEXANES PLUS.....	TRACE			0.0				0.0			
NITROGEN.....	1.2			3.8				0.6			
OXYGEN.....	TRACE			0.0				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.7			TRACE				0.3			
HELIUM.....	0.06			0.29				0.04			
HEATING VALUE.....	990			985				1027			
SPECIFIC GRAVITY.....	0.567			0.577				0.575			
		INDEX SAMPLE	2800 13470			INDEX SAMPLE	2801 16721			INDEX SAMPLE	2802 3489
STATE.....	KENTUCKY			KENTUCKY				KENTUCKY			
COUNTY.....	HOPKINS			HOPKINS				JACKSON			
FIELD.....	ST. CHARLES S			WHITE PLAINS				BRADSHAW AREA			
WELL NAME.....	HANNON NO. 1			HUNT-CRICK NO. 1				IKE ADDISSON NO. 1			
LOCATION.....	CARTER COORDINATE 20-I-24			CARTER COORDINATE 4-H-26				NOT GIVEN			
OWNER.....	HAR-KEN OIL CO.			HAR-KEN OIL CO.				THOMAS WHITTNER ESTATE			
COMPLETED.....	05/17/71			04/28/80				--/--/37			
SAMPLED.....	11/09/72			12/01/82				05/30/42			
FORMATION.....	MISS-TAR SPRINGS			MISS-TAR SPRINGS				DEVO-CORNIFEROUS			
GEOLOGIC PROVINCE CODE.....	315			315				160			
DEPTH, FEET.....	1493			1222				975			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			520				142			
OPEN FLOW, MCFD.....	3000			2480				350			
COMPONENT, MOLE PCT											
METHANE.....	84.9			91.0				81.2			
ETHANE.....	1.8			0.1				12.9			
PROPANE.....	2.0			TRACE				---			
N-BUTANE.....	0.7			---				---			
ISOBUTANE.....	0.4			0.0				---			
N-PENTANE.....	0.2			0.0				---			
ISOPENTANE.....	TRACE			0.0				---			
CYCLOPENTANE.....	TRACE			0.0				---			
HEXANES PLUS.....	0.1			0.0				---			
NITROGEN.....	9.5			8.2				5.2			
OXYGEN.....	TRACE			0.0				0.4			
ARGON.....	TRACE			TRACE				---			
HYDROGEN.....	0.0			0.1				---			
HYDROGEN SULFIDE.....	0.0			0.2				---			
CARBON DIOXIDE.....	TRACE			0.2				0.1			
HELIUM.....	0.24			0.26				0.15			
HEATING VALUE.....	990			924				1054			
SPECIFIC GRAVITY.....	0.644			0.588				0.642			
		INDEX SAMPLE	2803 3488			INDEX SAMPLE	2804 4530			INDEX SAMPLE	2805 10062
STATE.....	KENTUCKY			KENTUCKY				KENTUCKY			
COUNTY.....	JACKSON			JACKSON				JOHNSON			
FIELD.....	GRAY HAWK AREA			PUNCHEON				JOHNSON COUNTY			
WELL NAME.....	ROBERT WELCH NO. 1			NO. 858				MATTIE DAVIS NO. 272			
LOCATION.....	NOT GIVEN			NOT GIVEN				ROCKHOUSE CREEK			
OWNER.....	THOMAS WHITTNER ESTATE			KENTUCKY WEST VIRGINIA GAS C				INLAND GAS CO., INC.			
COMPLETED.....	--/--/37			09/04/45				09/13/45			
SAMPLED.....	05/30/42			06/30/48				08/12/65			
FORMATION.....	DEVO-CORNIFEROUS			DEVO-BLACK SHALE				SILU-BIG SIX			
GEOLOGIC PROVINCE CODE.....	160			160				160			
DEPTH, FEET.....	1025			2985				2386			
WELLHEAD PRESSURE, PSIG.....	142			345				NOT GIVEN			
OPEN FLOW, MCFD.....	1000			146				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	81.1			70.0				89.3			
ETHANE.....	16.4			28.5				2.5			
PROPANE.....	---			---				0.8			
N-BUTANE.....	---			---				0.2			
ISOBUTANE.....	---			---				0.1			
N-PENTANE.....	---			---				TRACE			
ISOPENTANE.....	---			---				0.1			
CYCLOPENTANE.....	---			---				TRACE			
HEXANES PLUS.....	---			---				0.1			
NITROGEN.....	1.9			1.2				5.8			
OXYGEN.....	0.4			0.1				0.0			
ARGON.....	---			---				TRACE			
HYDROGEN.....	---			---				0.0			
HYDROGEN SULFIDE.....	---			---				0.0			
CARBON DIOXIDE.....	0.1			0.2				0.7			
HELIUM.....	0.12			0.03				0.26			
HEATING VALUE.....	1115			1220				990			
SPECIFIC GRAVITY.....	0.646			0.703				0.613			
		INDEX SAMPLE	2806 10063			INDEX SAMPLE	2807 3506			INDEX SAMPLE	2808 9933
STATE.....	KENTUCKY			KENTUCKY				KENTUCKY			
COUNTY.....	JOHNSON			JOHNSON				KNOX			
FIELD.....	JOHNSON COUNTY			PAINTSVILLE				CANEY			
WELL NAME.....	ELSIE SPRADLIN			TOPSY RATLIFF				ALEX FRANCIS NO. 6858			
LOCATION.....	ROCKHOUSE CREEK			NOT GIVEN				CARTER COORDINATE 13-K-78			
OWNER.....	CRATE RICE, TRUSTEE			OLIVER JENKINS				KENTUCKY WEST VIRGINIA GAS C			
COMPLETED.....	09/15/43			03/12/42				03/12/65			
SAMPLED.....	08/12/65			06/03/42				06/15/65			
FORMATION.....	MISS-BIG INJUN			SILU-BIG SIX				MISS-MAXTON			
GEOLOGIC PROVINCE CODE.....	160			160				160			
DEPTH, FEET.....	726			2368				1704			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			640				560			
OPEN FLOW, MCFD.....	NOT GIVEN			581				424			
COMPONENT, MOLE PCT											
METHANE.....	79.2			88.4				85.0			
ETHANE.....	8.5			5.2				5.1			
PROPANE.....	4.1			---				0.6			
N-BUTANE.....	1.1			---				0.8			
ISOBUTANE.....	0.5			---				0.3			
N-PENTANE.....	0.3			---				0.1			
ISOPENTANE.....	0.1			---				0.2			
CYCLOPENTANE.....	0.1			---				TRACE			
HEXANES PLUS.....	0.2			---				0.1			
NITROGEN.....	5.1			3.9				5.2			
OXYGEN.....	0.1			0.3				0.1			
ARGON.....	TRACE			---				TRACE			
HYDROGEN.....	0.4			---				0.0			
HYDROGEN SULFIDE.....	0.0			---				0.0			
CARBON DIOXIDE.....	0.2			2.0				0.1			
HELIUM.....	0.12			0.18				0.40			
HEATING VALUE.....	1147			---				1075			
SPECIFIC GRAVITY.....	0.698			0.617				0.652			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

248

INDEX 2809 SAMPLE 3490			INDEX 2810 SAMPLE 3491			INDEX 2811 SAMPLE 4529		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	KNOTT		KNOTT			KNOTT		
FIELD.....	NOT GIVEN		NOT GIVEN			PUNcheon		
WELL NAME.....	J. G. SUTTON		J. G. SUTTON			NO. 888		
LOCATION.....	9 MI. NE OF HINDMAN		9 MI. NE OF HINDMAN			NOT GIVEN		
OWNER.....	P. E. DUFENDACH		P. E. DUFENDACH			KENTUCKY WEST VIRGINIA GAS C		
COMPLETED.....	02/24/42		12/21/41			03/19/48		
SAMPLED.....	06/02/42		06/02/42			--/--/00		
FORMATION.....	DEVO-SHALE		MISS-BIG LIME			DEVO-BLACK SHALE		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1900		1349			2567		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		235			410		
OPEN FLOW, MCFD.....	94		1905			63		
COMPONENT, MOLE PCT								
METHANE.....	72.6		62.6			78.3		
ETHANE.....	26.7		36.2			21.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	0.0		0.5			0.1		
OXYGEN.....	0.4		0.4			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.0		
HELIUM.....	0.06		0.06			0.03		
HEATING VALUE.....	1214		1283			1177		
SPECIFIC GRAVITY.....	0.690		0.739			0.662		
INDEX 2812 SAMPLE 11658			INDEX 2813 SAMPLE 13632			INDEX 2814 SAMPLE 3513		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	KNOW		KNOW			KNOW		
FIELD.....	CAMPBELL CHURCH N		GRAY			GRAY		
WELL NAME.....	R. E. VIAL NO. 2		MEEDLIN NO. 1			ELIZ. GREY NO. 1		
LOCATION.....	CARTER COORDINATE 19-F-67		CARTER COORDINATE 11-F-66			NOT GIVEN		
OWNER.....	PETROLEUM EXPLORATION, INC.		WISER OIL CO.			PETROLEUM EXPLORATION CORP.		
COMPLETED.....	01/16/68		04/04/72			--/--/00		
SAMPLED.....	10/01/68		06/20/73			06/05/42		
FORMATION.....	MISS-BIG LIME & WAVERLY		MISS-BIG LIME			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1599		1365			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	300		245			300		
OPEN FLOW, MCFD.....	4290		3200			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.1		80.0			75.4		
ETHANE.....	11.8		11.5			23.4		
PROPANE.....	3.9		---			---		
N-BUTANE.....	0.8		0.8			---		
ISOBUTANE.....	0.4		0.3			---		
N-PENTANE.....	0.1		0.1			---		
ISOPENTANE.....	0.0		0.1			---		
CYCLOPENTANE.....	TRACE		TRACE			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	8.5		1.7			0.5		
OXYGEN.....	1.5		0.0			0.4		
ARGON.....	TRACE		0.0			---		
HYDROGEN.....	0.5		0.5			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.1		0.0			0.2		
HELIUM.....	0.08		0.08			0.11		
HEATING VALUE.....	1087		1186			1183		
SPECIFIC GRAVITY.....	0.710		0.682			0.676		
INDEX 2815 SAMPLE 3514			INDEX 2816 SAMPLE 3512			INDEX 2817 SAMPLE 10427		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	KNOW		KNOW			LAUREL		
FIELD.....	INMAN CREEK AREA		KNOW COUNTY			RACCOON MOUNTAIN		
WELL NAME.....	NORTH GELICO NO. 1		PURSUFUL COAL CO. NO. 1			LUCAS NO. 1		
LOCATION.....	NOT GIVEN		HOG PEN HOLLOW			NOT GIVEN		
OWNER.....	PETROLEUM EXPLORATION CORP.		PETROLEUM EXPLORATION CORP.			O. O. ROBERTS, ET AL.		
COMPLETED.....	--/--/00		--/--/00			11/29/55		
SAMPLED.....	06/05/42		06/05/42			02/28/66		
FORMATION.....	MISS-BIG LIME		DEVO-CORNIFEROUS			CAMO-KNOX		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			3462		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		320			800		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			488		
COMPONENT, MOLE PCT								
METHANE.....	70.0		76.0			81.4		
ETHANE.....	28.9		22.6			5.5		
PROPANE.....	---		---			3.0		
N-BUTANE.....	---		---			1.0		
ISOBUTANE.....	---		---			0.2		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.4		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	0.3		0.7			7.8		
OXYGEN.....	0.4		0.4			0.1		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.0		
HELIUM.....	0.18		0.14			0.20		
HEATING VALUE.....	1227		1175			1076		
SPECIFIC GRAVITY.....	0.702		0.673			0.678		
INDEX 2818 SAMPLE 7679			INDEX 2819 SAMPLE 10065			INDEX 2820 SAMPLE 10067		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	LAWRENCE		LAWRENCE			LAWRENCE		
FIELD.....	BIG SANDY		BLEVINS			BLEVINS		
WELL NAME.....	MOORE NO. 1124		CARROLL L. GARTIN ET AL.			CAROLINE CORDELL		
LOCATION.....	NOT GIVEN		BRUSHY FORK			BRUSHY CREEK		
OWNER.....	KENTUCKY WEST VIRGINIA GAS C		CREST OIL CO.			CREST OIL CO.		
COMPLETED.....	09/08/60		01/17/60			06/06/61		
SAMPLED.....	09/08/60		08/12/65			08/12/65		
FORMATION.....	DEVO-CORNIFEROUS L		MISS-BEREA			SILU-BIG SIX		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2698		1100			2635		
WELLHEAD PRESSURE, PSIG.....	350		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	273		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.6		81.1			80.6		
ETHANE.....	3.3		6.4			7.8		
PROPANE.....	1.1		0.1			3.5		
N-BUTANE.....	0.3		0.8			0.8		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	7.2		7.1			6.4		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		---			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.1		
HELIUM.....	0.20		0.19			0.20		
HEATING VALUE.....	1179		1077			1098		
SPECIFIC GRAVITY.....	0.630		0.673			0.678		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2821			INDEX 2822			INDEX 2823		
SAMPLE 10046			SAMPLE 10048			SAMPLE 10162		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	LAWRENCE		LAWRENCE			LAWRENCE		
FIELD.....	LITTLE BLAINE		LITTLE BLAINE			LITTLE BLAINE		
WELL NAME.....	NO. 1107		OLIVER SAUL NO. 1116			STELLA MOORE NO. 1213		
LOCATION.....	NOT GIVEN		LITTLE BLAINE CREEK			LITTLE BLAINE CREEK		
OWNER.....	KENTUCKY WEST VIRGINIA GAS C		KENTUCKY WEST VIRGINIA GAS C			KENTUCKY WEST VIRGINIA GAS C		
COMPLETED.....	12/12/58		02/02/60			01/22/63		
SAMPLED.....	08/03/65		08/03/65			09/23/65		
FORMATION.....	MISS-BEREA		DEVO-			DEVO-CORNIFEROUS		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1148		1831			2621		
WELLHEAD PRESSURE, PSIG.....	400		420			700		
OPEN FLOW, MCFD.....	292		163			1094		
COMPONENT, MOLE PCT								
METHANE.....	81.0		82.0			85.3		
ETHANE.....	6.6		6.3			2.9		
PROPANE.....	3.5		2.8			1.0		
N-BUTANE.....	0.9		0.7			0.4		
ISOBUTANE.....	0.3		0.2			0.2		
N-PENTANE.....	0.1		TRACE			0.2		
ISOPENTANE.....	0.2		0.2			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	6.8		6.9			9.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.2		TRACE			TRACE		
HYDROGEN.....	0.2		0.4			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.6		
HELIUM.....	0.17		0.16			0.23		
HEATING VALUE.....	1089		1062			981		
SPECIFIC GRAVITY.....	0.676		0.661			0.639		
INDEX 2824			INDEX 2825			INDEX 2826		
SAMPLE 2547			SAMPLE 16679			SAMPLE 10733		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	LAWRENCE		LESLIE			LESLIE		
FIELD.....	NOT GIVEN		CUTSHAM			HAZARD		
WELL NAME.....	HINKLE		WILLIAM CRESS NO. 7302			FORDSON COAL CO.		
LOCATION.....	NOT GIVEN		CARTER COORDINATE 2-G-75			NOT GIVEN		
OWNER.....	J. W. HINKLE		KENTUCKY WEST VIRGINIA GAS C			UNITED FUEL GAS CO.		
COMPLETED.....	01/09/80		01/09/80			01/25/55		
SAMPLED.....	09/01/32		10/05/82			09/29/66		
FORMATION.....	NOT GIVEN		MISS-BIG LIME			MISS-GREENBRIER		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2165		2801			2046		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		620			460		
OPEN FLOW, MCFD.....	75		1100			1245		
COMPONENT, MOLE PCT								
METHANE.....	80.0		77.9			79.9		
ETHANE.....	14.4		9.0			10.6		
PROPANE.....	---		4.3			3.9		
N-BUTANE.....	---		0.8			1.0		
ISOBUTANE.....	---		0.3			0.2		
N-PENTANE.....	---		0.2			0.2		
ISOPENTANE.....	---		0.2			0.2		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	4.8		6.0			3.1		
OXYGEN.....	0.3		0.9			0.1		
ARGON.....	---		0.1			TRACE		
HYDROGEN.....	---		0.9			0.5		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.1			0.0		
HELIUM.....	0.14		0.14			0.22		
HEATING VALUE.....	1069		0.98			1169		
SPECIFIC GRAVITY.....	0.651		0.686			0.690		
INDEX 2827			INDEX 2828			INDEX 2829		
SAMPLE 17188			SAMPLE 14031			SAMPLE 17902		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	LESLIE		LESLIE			LESLIE		
FIELD.....	HAZARD		LESLIE COUNTY			NOT GIVEN		
WELL NAME.....	WILLIAM CRESS NO. K69-7323		C. A. DIXON NO. 2			HUBER NO. 1		
LOCATION.....	CARTER COORDINATES 12-G-75		CARTER COORDINATE 2-H-73			CARTER COORDINATES 22-GN-74E		
OWNER.....	KEPCO, INC.		WISER OIL CO.			WISER OIL CO.		
COMPLETED.....	01/01/80		06/10/72			06/20/82		
SAMPLED.....	02/22/84		02/26/74			11/13/85		
FORMATION.....	MISS-BIG LIME		MISS-BIG LIME			MISS-BIG LIME		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3360		2208			2820		
WELLHEAD PRESSURE, PSIG.....	690		425			695		
OPEN FLOW, MCFD.....	119		5603			1164		
COMPONENT, MOLE PCT								
METHANE.....	84.9		81.1			84.5		
ETHANE.....	8.1		10.4			6.3		
PROPANE.....	1.6		3.9			3.0		
N-BUTANE.....	0.6		0.8			1.1		
ISOBUTANE.....	0.1		0.3			0.1		
N-PENTANE.....	0.3		0.1			0.5		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.4		
NITROGEN.....	3.5		2.5			3.3		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.4		0.4			0.2		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.1		
HELIUM.....	0.24		0.15			0.27		
HEATING VALUE.....	1098		1165			1138		
SPECIFIC GRAVITY.....	0.645		0.677			0.669		
INDEX 2830			INDEX 2831			INDEX 2832		
SAMPLE 11717			SAMPLE 11532			SAMPLE 12150		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	LETCHE		LETCHE			LETCHE		
FIELD.....	BULL CREEK		HAYTOWN			HAYTOWN		
WELL NAME.....	JOHN B. CORNETT NO. 7015		GEORGE W. FIELDS NO. 6990			JOHN B. CORNETT NO. 1		
LOCATION.....	CARTER COORDINATE 8-H-78		CARTER COORDINATE 21-1-78			CARTER COORDINATE 8-H-78		
OWNER.....	KENTUCKY WEST VIRGINIA GAS C		KENTUCKY WEST VIRGINIA GAS C			KENTUCKY WEST VIRGINIA GAS C		
COMPLETED.....	05/09/68		01/26/68			07/31/69		
SAMPLED.....	12/26/68		06/10/68			12/15/69		
FORMATION.....	MISS-BIG LIME		MISS-BIG LIME			MISS-BIG LIME		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2993		3171			3002		
WELLHEAD PRESSURE, PSIG.....	450		640			510		
OPEN FLOW, MCFD.....	6433		3038			1850		
COMPONENT, MOLE PCT								
METHANE.....	78.6		79.9			83.4		
ETHANE.....	12.9		11.0			11.0		
PROPANE.....	4.6		4.3			2.8		
N-BUTANE.....	1.1		1.1			0.0		
ISOBUTANE.....	0.3		0.2			0.0		
N-PENTANE.....	0.3		0.2			0.0		
ISOPENTANE.....	0.0		0.2			0.0		
CYCLOPENTANE.....	0.1		0.1			0.0		
HEXANES PLUS.....	1.1		0.1			0.0		
NITROGEN.....	1.4		1.8			2.2		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.4		0.4			0.3		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.06		0.10			0.07		
HEATING VALUE.....	1217		1196			1115		
SPECIFIC GRAVITY.....	0.700		0.691			0.643		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2833 SAMPLE 10066		INDEX 2834 SAMPLE 4533		INDEX 2835 SAMPLE 4536	
STATE.....	KENTUCKY	KENTUCKY	MAGOFFIN	KENTUCKY	MAGOFFIN
COUNTY.....	MACFARLIN	LICKING RIVER	LICKING RIVER	LICKING RIVER	LICKING RIVER
FIELD.....	BEE TREE	NO. 5756	NO. 5799	NO. 5799	NO. 5799
WELL NAME.....	MORGAN ROWE	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
LOCATION.....	BEE TREE BRANCH	KENTUCKY WEST VIRGINIA GAS C	KENTUCKY WEST VIRGINIA GAS C	KENTUCKY WEST VIRGINIA GAS C	KENTUCKY WEST VIRGINIA GAS C
OWNER.....	U. D. COMPTON	10/29/47	10/29/47	10/29/47	10/29/47
COMPLETED.....	01/01/48	04/29/48	04/29/48	05/07/48	05/07/48
SAMPLED.....	08/12/65	STLU-816 SIX	STLU-816 SIX	STLU-816 SIX	STLU-816 SIX
FORMATION.....	160	160	160	160	160
GEOLOGIC PROVINCE CODE.....	160	2309	2309	2110	2110
DEPTH, FEET.....	2510	610	610	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	98	2768	2768	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN				
COMPONENT, MOLE PCT					
METHANE.....	80.0	80.5	80.5	73.3	73.3
ETHANE.....	8.3	10.4	10.4	20.4	20.4
PROPANE.....	3.7				
N-BUTANE.....	1.0				
ISOBUTANE.....	0.4				
N-PENTANE.....	0.1				
ISOPENTANE.....	0.3				
CYCLOPENTANE.....	TRACE				
HEXANES PLUS.....	0.1				
NITROGEN.....	5.7	7.9	7.9	5.6	5.6
OXYGEN.....	0.0	0.2	0.2	0.2	0.2
ARGON.....	TRACE				
HYDROGEN.....	0.0				
HYDROGEN SULFIDE.....	0.0				
CARBON DIOXIDE.....	0.2	0.5	0.5	0.3	0.3
HELIUM.....	0.21	0.31	0.31	0.18	0.18
HEATING VALUE.....	1125	1005	1005	1108	1108
SPECIFIC GRAVITY.....	0.689	0.644	0.644	0.682	0.682

INDEX 2836 SAMPLE 7065		INDEX 2837 SAMPLE 10068		INDEX 2838 SAMPLE 3608	
STATE.....	KENTUCKY	KENTUCKY	MAGOFFIN	KENTUCKY	MAGOFFIN
COUNTY.....	MACFARLIN	LICKING RIVER	LICKING RIVER	LICKING RIVER	LICKING RIVER
FIELD.....	NO. 6457	J. W. HOWARD NO. 305	J. W. HOWARD NO. 305	JOHNNIE BLANTON NO. 1-A	JOHNNIE BLANTON NO. 1-A
WELL NAME.....	LICKING RIVER	LICKING RIVER AT ROYALTON	LICKING RIVER AT ROYALTON	NOT GIVEN	NOT GIVEN
LOCATION.....	LAT. 37DEG. 32FT. 10IN.	ROYALTON GAS CO., INC.	ROYALTON GAS CO., INC.	A. V. HOENIG	A. V. HOENIG
OWNER.....	KENTUCKY WEST VIRGINIA GAS C	05/31/47	05/31/47	09/14/42	09/14/42
COMPLETED.....	08/19/58	--/--/00	--/--/00	10/16/42	10/16/42
SAMPLED.....	03/02/59	STLU-816 SIX	STLU-816 SIX	PENN-SALT SAND	PENN-SALT SAND
FORMATION.....	PENN-SALT SAND	160	160	160	160
GEOLOGIC PROVINCE CODE.....	160	2259	2259	268	268
DEPTH, FEET.....	1400	85	85	50	50
WELLHEAD PRESSURE, PSIG.....	348	NOT GIVEN	NOT GIVEN	130	130
OPEN FLOW, MCFD.....	684				
COMPONENT, MOLE PCT					
METHANE.....	81.1	87.4	87.4	70.3	70.3
ETHANE.....	8.1	1.5	1.5	0.8	0.8
PROPANE.....	4.5	0.8	0.8		
N-BUTANE.....	1.0	0.4	0.4		
ISOBUTANE.....	0.5	0.2	0.2		
N-PENTANE.....	0.1	0.3	0.3		
ISOPENTANE.....	0.1	0.1	0.1		
CYCLOPENTANE.....	TRACE				
HEXANES PLUS.....	0.1				
NITROGEN.....	0.7	5.4	5.4	28.5	28.5
OXYGEN.....	0.0	0.0	0.0	0.4	0.4
ARGON.....	0.0	TRACE	TRACE		
HYDROGEN.....	0.4				
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	0.1	0.1	0.1	0.3	0.3
HELIUM.....	0.05	0.25	0.25	0.47	0.47
HEATING VALUE.....	1206	1061	1061	712	712
SPECIFIC GRAVITY.....	0.685	0.643	0.643	0.675	0.675

INDEX 2839 SAMPLE 3487		INDEX 2840 SAMPLE 3500		INDEX 2841 SAMPLE 3502	
STATE.....	KENTUCKY	KENTUCKY	MARTIN	KENTUCKY	MARTIN
COUNTY.....	MARTIN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
FIELD.....	NOT GIVEN	L. T. MILLS	L. T. MILLS	J. J. WARD	J. J. WARD
WELL NAME.....	S. A. D. WARD	4 MI. SW OF INEZ	4 MI. SW OF INEZ	172 MI. SW OF INEZ	172 MI. SW OF INEZ
LOCATION.....	1 MI. SW OF INEZ	KENTUCKY WEST VIRGINIA GAS C	KENTUCKY WEST VIRGINIA GAS C	WARFIELD NATURAL GAS CO.	WARFIELD NATURAL GAS CO.
OWNER.....	WARFIELD NATURAL GAS CO.	06/16/30	06/16/30	01/16/32	01/16/32
COMPLETED.....	06/02/42	06/02/42	06/02/42	06/02/42	06/02/42
SAMPLED.....	06/02/42	--SALT SAND	--SALT SAND	DEVCO-CORNIFEROUS	DEVCO-CORNIFEROUS
FORMATION.....	MISS-MAXTON	160	160	160	160
GEOLOGIC PROVINCE CODE.....	160	408	408	1901	1901
DEPTH, FEET.....	1140	180	180	215	215
WELLHEAD PRESSURE, PSIG.....	112	719	719	169	169
OPEN FLOW, MCFD.....	3000				
COMPONENT, MOLE PCT					
METHANE.....	74.2	83.4	83.4	76.4	76.4
ETHANE.....	23.2	13.3	13.3	8.3	8.3
PROPANE.....					
N-BUTANE.....					
ISOBUTANE.....					
N-PENTANE.....					
ISOPENTANE.....					
CYCLOPENTANE.....					
HEXANES PLUS.....					
NITROGEN.....	1.9	2.0	2.0	1.3	1.3
OXYGEN.....	0.3	0.4	0.4	0.4	0.4
ARGON.....					
HYDROGEN.....					
HYDROGEN SULFIDE.....					
CARBON DIOXIDE.....	0.3	0.8	0.8	13.5	13.5
HELIUM.....	0.1	0.13	0.13	0.09	0.09
HEATING VALUE.....	1167	1083	1083	923	923
SPECIFIC GRAVITY.....	0.681	0.638	0.638	0.734	0.734

INDEX 2842 SAMPLE 9764		INDEX 2843 SAMPLE 8688		INDEX 2844 SAMPLE 321	
STATE.....	KENTUCKY	KENTUCKY	MCLEAN	KENTUCKY	MCLEAN
COUNTY.....	MARTIN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
FIELD.....	TOHAWK	ROSE BATES NO. 1	ROSE BATES NO. 1	BARTHS	BARTHS
WELL NAME.....	NO. 8608	NOT GIVEN	NOT GIVEN	NO. 36	NO. 36
LOCATION.....	CARTER COORDINATE 15-0-84	HAR-KEN OIL CO.	HAR-KEN OIL CO.	J. PERRY FARM	J. PERRY FARM
OWNER.....	KENTUCKY WEST VIRGINIA GAS C	10/04/62	10/04/62	LOUISVILLE GAS & ELEC. CO.	LOUISVILLE GAS & ELEC. CO.
COMPLETED.....	02/23/65	MISS-PAINT CREEK	MISS-PAINT CREEK	DEVCO-CORNIFEROUS	DEVCO-CORNIFEROUS
SAMPLED.....	02/23/65	312	312	300	300
FORMATION.....	MISS-BIG LIME	1674	1674	368	368
GEOLOGIC PROVINCE CODE.....	160	575	575	28	28
DEPTH, FEET.....	1523	NOT GIVEN	NOT GIVEN	500	500
WELLHEAD PRESSURE, PSIG.....	515				
OPEN FLOW, MCFD.....	671				
COMPONENT, MOLE PCT					
METHANE.....	79.0	2.7	2.7	91.1	91.1
ETHANE.....	11.0	0.1	0.1	0.0	0.0
PROPANE.....	1.0	0.1	0.1		
N-BUTANE.....	1.1				
ISOBUTANE.....	0.5	TRACE	TRACE		
N-PENTANE.....	0.2	TRACE	TRACE		
ISOPENTANE.....	0.2	TRACE	TRACE		
CYCLOPENTANE.....	TRACE	TRACE	TRACE		
HEXANES PLUS.....	0.2	TRACE	TRACE		
NITROGEN.....	0.1	TRACE	TRACE	6.9	6.9
OXYGEN.....	0.1	TRACE	TRACE	1.0	1.0
ARGON.....	0.0	TRACE	TRACE		
HYDROGEN.....	0.2	TRACE	TRACE		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	TRACE	11.5	11.5	1.1	1.1
HELIUM.....	0.08	TRACE	TRACE	TRACE	TRACE
HEATING VALUE.....	1205	95	95	923	923
SPECIFIC GRAVITY.....	0.703	1.025	1.025	0.600	0.600

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2845			INDEX 2846			INDEX 2847		
SAMPLE 3498			SAMPLE 3525			SAMPLE 17672		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	NEFEE		NEFEE			NUHLENBERG		
FIELD.....	RED RIVER AREA		RED RIVER AREA			BEVIER CONSOLIDATED EXT.		
WELL NAME.....	SKIDMORE NO. 2		DANA NO. 3			DRAKE HEIRS NO. 1		
LOCATION.....	NOT GIVEN		NOT GIVEN			CARTER COORDINATE 8-I-30		
OWNER.....	T. J. GILBERT		T. J. GILBERT			HAR-KEN OIL CO.		
COMPLETED.....	04/--/40		05/--/41			06/07/84		
SAMPLED.....	05/29/42		05/29/42			05/14/85		
FORMATION.....	MISS-CHATTANOOGA		DEVO-CORNIFEROUS			PENN-SAND		
GEOLOGIC PROVINCE CODE.....	160		160			315		
DEPTH, FEET.....	440		585			1090		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		140			485		
OPEN FLOW, MCFD.....	25		743			1828		
COMPONENT, MOLE PCT								
METHANE.....	89.3		85.8			97.7		
ETHANE.....	7.2		7.8			0.0		
PROPANE.....	---		---			0.0		
N-BUTANE.....	---		---			0.0		
ISOBUTANE.....	---		---			0.0		
N-PENTANE.....	---		---			0.0		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			0.0		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	2.6		4.8			2.0		
OXYGEN.....	0.3		0.4			TRACE		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.2		
HELIUM.....	0.06		0.13			0.06		
HEATING VALUE.....	1034		1019			990		
SPECIFIC GRAVITY.....	0.607		0.616			0.564		
INDEX 2848			INDEX 2849			INDEX 2850		
SAMPLE 3515			SAMPLE 3518			SAMPLE 9688		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	OWSLEY		OWSLEY			PERRY		
FIELD.....	OWSLEY COUNTY		OWSLEY COUNTY			CANEY		
WELL NAME.....	MARION BRADENBURG NO. 3		ALEX BOND NO. 1			NO. 6818		
LOCATION.....	WILD DOG CREEK AREA		NOT GIVEN			CARTER COORDINATE 16-I-77		
OWNER.....	PETROLEUM EXPLORATION CORP.		PETROLEUM EXPLORATION CORP.			KENTUCKY WEST VIRGINIA GAS C		
COMPLETED.....	--/--/00		--/--/00			07/29/64		
SAMPLED.....	06/06/42		06/06/42			01/04/65		
FORMATION.....	MISS-BIG LINE		DEVO-CORNIFEROUS			DEVO-		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			2983		
WELLHEAD PRESSURE, PSIG.....	25		25			513		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			231		
COMPONENT, MOLE PCT								
METHANE.....	69.6		70.2			78.7		
ETHANE.....	25.7		25.6			13.2		
PROPANE.....	---		---			0.3		
N-BUTANE.....	---		---			0.9		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.2		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	3.1		3.4			1.8		
OXYGEN.....	0.4		0.5			TRACE		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.2		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.13		0.19			0.03		
HEATING VALUE.....	1184		1170			1204		
SPECIFIC GRAVITY.....	0.702		0.698			0.696		
INDEX 2851			INDEX 2852			INDEX 2853		
SAMPLE 9887			SAMPLE 10007			SAMPLE 16139		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	PERRY		PERRY			PERRY		
FIELD.....	CANEY		CANEY			COCKEREL		
WELL NAME.....	W. C. BRASHEAR NO. 6840		W. C. BRASHEAR NO. 6856			H. CLAIBOURNE NO. 7309		
LOCATION.....	CARTER COORDINATE 23-101-78E		CARTER COORDINATE 23-1-78			CARTER COORDINATE 7-K-76		
OWNER.....	KENTUCKY WEST VIRGINIA GAS C		KENTUCKY WEST VIRGINIA GAS C			KENTUCKY WEST VIRGINIA GAS C		
COMPLETED.....	01/14/65		03/11/65			05/14/80		
SAMPLED.....	05/03/65		07/03/65			11/26/80		
FORMATION.....	MISS-GREENBRIER		MISS-MAXTON			MISS-BIG LINE		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2531		2176			1756		
WELLHEAD PRESSURE, PSIG.....	610		710			525		
OPEN FLOW, MCFD.....	984		782			4169		
COMPONENT, MOLE PCT								
METHANE.....	80.2		82.9			81.1		
ETHANE.....	12.0		6.6			8.9		
PROPANE.....	3.8		3.0			3.2		
N-BUTANE.....	0.7		0.6			0.7		
ISOBUTANE.....	0.3		0.3			0.2		
N-PENTANE.....	TRACE		0.2			0.1		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		0.2			0.1		
NITROGEN.....	2.0		5.4			5.1		
OXYGEN.....	0.2		0.1			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.3		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.07		0.26			0.35		
HEATING VALUE.....	1169		1092			1108		
SPECIFIC GRAVITY.....	0.679		0.663			0.669		
INDEX 2854			INDEX 2855			INDEX 2856		
SAMPLE 16777			SAMPLE 11795			SAMPLE 8702		
STATE.....	KENTUCKY		KENTUCKY			KENTUCKY		
COUNTY.....	PERRY		PERRY			PIKE		
FIELD.....	CUTSHIN		HAZARD			BIG SANDY		
WELL NAME.....	SAHUEL COUCH NO. K343-7296		JOE EVERSOLE NO. 1382			NO. 9001		
LOCATION.....	CARTER COORDINATE 16-J-75		CARTER COORDINATE 23-H-77			NOT GIVEN		
OWNER.....	KEPCO, INC.		KENTUCKY WEST VIRGINIA GAS C			UNITED FUEL GAS CO.		
COMPLETED.....	08/07/81		10/30/68			06/20/62		
SAMPLED.....	02/23/83		03/13/69			10/08/62		
FORMATION.....	MISS-BIG LINE		MISS-MAXTON			MISS-RAVENCLIFF		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1980		2471			2231		
WELLHEAD PRESSURE, PSIG.....	740		440			640		
OPEN FLOW, MCFD.....	2477		2844			959		
COMPONENT, MOLE PCT								
METHANE.....	80.3		80.1			89.2		
ETHANE.....	8.8		7.8			4.6		
PROPANE.....	3.5		3.2			1.9		
N-BUTANE.....	0.9		0.7			0.6		
ISOBUTANE.....	0.3		0.6			0.1		
N-PENTANE.....	0.2		0.6			0.1		
ISOPENTANE.....	0.2		0.3			0.3		
CYCLOPENTANE.....	0.2		---			TRACE		
HEXANES PLUS.....	0.3		1.3			0.1		
NITROGEN.....	4.3		4.3			2.1		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.4		0.1			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.34		0.32			0.23		
HEATING VALUE.....	1144		1202			1095		
SPECIFIC GRAVITY.....	0.686		0.720			0.629		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

247

		INDEX SAMPLE	2857 9738	INDEX SAMPLE	2858 10041	INDEX SAMPLE	2859 10042
STATE.....	KENTUCKY			KENTUCKY		KENTUCKY	
COUNTY.....	PIKE			PIKE		PIKE	
FIELD.....	BIG SANDY			BIG SANDY		BIG SANDY	
WELL NAME.....	V. FLETCHER, ET AL. NO. 9317			8560		9330	
LOCATION.....	CARTER COORDINATE 5-L-88			CARTER COORDINATE 18-L-89		CARTER COORDINATE 10-L-87	
OWNER.....	UNITED FUEL GAS CO.			UNITED FUEL GAS CO.		UNITED FUEL GAS CO.	
COMPLETED.....	08/05/64			07/21/58		09/08/64	
SAMPLED.....	02/10/65			08/03/65		08/03/65	
FORMATION.....	MISS-BEREA			MISS-GREENBRIER		MISS-BEREA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3837			2354		4251	
WELLHEAD PRESSURE, PSIG.....	585			800		705	
OPEN FLOW, MCFD.....	822			7925		1299	
COMPONENT, MOLE PCT.....							
METHANE.....	89.1			91.4		94.4	
ETHANE.....	7.7			3.8		4.4	
PROPANE.....	1.7			1.3		0.5	
N-BUTANE.....	0.3			0.4		0.2	
ISOBUTANE.....	0.2			0.2		0.0	
N-PENTANE.....	0.1			0.1		0.0	
ISOPENTANE.....	0.1			0.2		0.0	
CYCLOPENTANE.....	TRACE			TRACE		0.0	
HEXANES PLUS.....	0.1			0.2		0.0	
NITROGEN.....	0.6			1.9		0.4	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.3		TRACE	
HELIUM.....	TRACE			0.19		0.05	
HEATING VALUE.....	1115			1071		1055	
SPECIFIC GRAVITY.....	0.625			0.616		0.585	
		INDEX SAMPLE	2860 4532	INDEX SAMPLE	2861 4534	INDEX SAMPLE	2862 3495
STATE.....	KENTUCKY			KENTUCKY		KENTUCKY	
COUNTY.....	PIKE			PIKE		PIKE	
FIELD.....	JOHNS CREEK			JOHNS CREEK		NOT GIVEN	
WELL NAME.....	NO. 891			NO. 3775		JIM HAMILTON	
LOCATION.....	NOT GIVEN			NOT GIVEN		5 MI. SE OF PIKEVILLE	
OWNER.....	KENTUCKY WEST VIRGINIA GAS C			KENTUCKY WEST VIRGINIA GAS C		UNITED CARBON CO.	
COMPLETED.....	03/24/48			02/06/48		07/06/48	
SAMPLED.....	05/03/48			04/30/48		06/03/42	
FORMATION.....	DEVO-BLACK SHALE			MISS-		DEVO-SHALE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2261			1701		2885	
WELLHEAD PRESSURE, PSIG.....	460			525		675	
OPEN FLOW, MCFD.....	2523			1212		1750	
COMPONENT, MOLE PCT.....							
METHANE.....	76.2			80.3		87.0	
ETHANE.....	22.5			18.5		12.4	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.7			0.4		TRACE	
OXYGEN.....	0.2			0.3		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.4			0.4		0.1	
HELIUM.....	0.04			0.06		0.08	
HEATING VALUE.....	1175			1145		1104	
SPECIFIC GRAVITY.....	0.674			0.653		0.619	
		INDEX SAMPLE	2863 3496	INDEX SAMPLE	2864 6264	INDEX SAMPLE	2865 6265
STATE.....	KENTUCKY			KENTUCKY		KENTUCKY	
COUNTY.....	PIKE			PIKE		PIKE	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	U. C. POLLY			NO. 6212		NO. 6212	
LOCATION.....	5 MI. SE OF PIKEVILLE			BEEFHIDE CREEK		ELKINS FORK OF BIG CREEK	
OWNER.....	UNITED CARBON CO.			KENTUCKY WEST VIRGINIA GAS C		KENTUCKY WEST VIRGINIA GAS C	
COMPLETED.....	12/01/39			07/23/34		07/15/34	
SAMPLED.....	06/03/42			02/28/57		02/28/57	
FORMATION.....	MISS-WEIR			MISS-BIG LIME		DEVO-SHALE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2270			2651		3291	
WELLHEAD PRESSURE, PSIG.....	730			650		500	
OPEN FLOW, MCFD.....	2			7557		1917	
COMPONENT, MOLE PCT.....							
METHANE.....	85.0			77.9		76.2	
ETHANE.....	14.4			14.4		15.2	
PROPANE.....	---			4.5		5.4	
N-BUTANE.....	---			1.2		1.2	
ISOBUTANE.....	---			0.5		0.3	
N-PENTANE.....	---			0.2		0.1	
ISOPENTANE.....	---			0.2		0.2	
CYCLOPENTANE.....	---			TRACE		TRACE	
HEXANES PLUS.....	---			0.1		0.1	
NITROGEN.....	TRACE			0.4		0.5	
OXYGEN.....	---			0.2		0.2	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.1		0.3	
HYDROGEN SULFIDE.....	---			0.1		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.08			0.08		0.04	
HEATING VALUE.....	1119			1254		1254	
SPECIFIC GRAVITY.....	0.628			0.709		0.716	
		INDEX SAMPLE	2866 4531	INDEX SAMPLE	2867 3516	INDEX SAMPLE	2868 12883
STATE.....	KENTUCKY			KENTUCKY		LOUISIANA	
COUNTY.....	PIKE			POWELL		ACADIA	
FIELD.....	RACCOON			ROSSLYN		BOSCO S	
WELL NAME.....	NO. 879			RUBIN CROW NO. 1		E. B. HANKS NO. 1	
LOCATION.....	NOT GIVEN			NEAR COMPRESSOR STA.		SEC. 34, T8S	
OWNER.....	KENTUCKY WEST VIRGINIA GAS C			PETROLEUM EXPLORATION CORP.		CHEVRON OIL CO.	
COMPLETED.....	02/06/48			---/---/700		09/18/70	
SAMPLED.....	05/03/48			05/03/48		06/17/70	
FORMATION.....	DEVO-BLACK SHALE			DEVO-CORNIFEROUS		OLIG-NODOSARIA A	
GEOLOGIC PROVINCE CODE.....	160			160		220	
DEPTH, FEET.....	2825			NOT GIVEN		13307	
WELLHEAD PRESSURE, PSIG.....	295			NOT GIVEN		8845	
OPEN FLOW, MCFD.....	82			NOT GIVEN		6100	
COMPONENT, MOLE PCT.....							
METHANE.....	76.5			71.0		83.5	
ETHANE.....	21.4			25.7		4.3	
PROPANE.....	---			---		1.5	
N-BUTANE.....	---			---		1.5	
ISOBUTANE.....	---			---		0.0	
N-PENTANE.....	---			---		0.0	
ISOPENTANE.....	---			---		0.0	
CYCLOPENTANE.....	---			---		1.2	
HEXANES PLUS.....	---			---		TRACE	
NITROGEN.....	1.6			2.5		0.1	
OXYGEN.....	0.2			0.4		5.4	
ARGON.....	---			---		1.1	
HYDROGEN.....	---			---		0.1	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	0.2			0.3		0.0	
HELIUM.....	0.05			0.07		1.3	
HEATING VALUE.....	1158			1180		0.01	
SPECIFIC GRAVITY.....	0.649			0.699		1069	
						0.681	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2869 6491			INDEX SAMPLE	2870 14015			INDEX SAMPLE	2871 13629
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARTISH	ACADIA			ACADIA				ACADIA			
FIELD	CHURCH POINT			CROWLEY S				DUSON			
WELL NAME	H. THIBODEAUX NO. 1			DAVID BREAUX EST. NO. 1				FRANCES PREJEAN NO. 1			
LOCATION	SEC. 83, T8S, R2E			SEC. 17, T10S, R1E				SEC. 20, T9S, R3E			
OWNER	TIDEWATER OIL CO.			DANSON OIL CORP.				SUN OIL CO.			
COMPLETED	04/-/57			05/30/74				01/17/73			
SAMPLED	01/29/58			05/30/74				06/15/73			
FORMATION	OLIG-FRIO			OLIG-HAYES				OLIG-FRIO NON UNION STRUMA			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	14400			11952				13900			
WELLHEAD PRESSURE, PSIG	12135			2350				7077			
OPEN FLOW, MCFD	16000			2000				1700			
COMPONENT, MOLE PCT											
METHANE	92.1			89.6				81.6			
ETHANE	3.8			3.0				8.0			
PROPANE	1.0			0.3				5.3			
N-BUTANE	0.3			0.2				1.0			
ISOBUTANE	0.3			0.2				1.7			
N-PENTANE	0.1			TRACE				0.1			
ISOPENTANE	TRACE			0.1				0.4			
CYCLOPENTANE	TRACE			TRACE				TRACE			
HEXANES PLUS	0.2			0.1				0.2			
NITROGEN	0.5			4.2				0.5			
OXYGEN	0.2			1.0				0.0			
ARGON	TRACE			TRACE				0.0			
HYDROGEN	0.0			0.0				TRACE			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	1.1			0.7				1.1			
HELIUM	TRACE			0.01				TRACE			
HEATING VALUE*	1062			1008				1230			
SPECIFIC GRAVITY	0.615			0.619				0.715			
		INDEX SAMPLE	2872 4482			INDEX SAMPLE	2873 4681			INDEX SAMPLE	2874 4895
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARTISH	ACADIA			ACADIA				ACADIA			
FIELD	EGAN			LOITA				MAXIE			
WELL NAME	KOLLITZ UNIT NO. 1, WELL NO. 1			HAYS LECKELT MOODY NO. 1				S. W. ROBINSON NO. 1			
LOCATION	SEC. 7, T10S, R1W			SEC. 13, T8S, R2W				SEC. 31, T8S, R1E			
OWNER	SUN OIL CO.			SOHIO PETROLEUM CO.				HASSIE HUNT TRUST			
COMPLETED	01/11/48			09/08/48				01/20/50			
SAMPLED	04/10/48			01/7/49				05/13/50			
FORMATION	OLIG-FRIO			EOCE-MOODY'S BRANCH				OLIG-MARTEX			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	10856			9092				10562			
WELLHEAD PRESSURE, PSIG	5100			3100				4775			
OPEN FLOW, MCFD	NOT GIVEN			15000				1000			
COMPONENT, MOLE PCT											
METHANE	84.7			89.7				91.9			
ETHANE	12.5			5.8				4.7			
PROPANE	---			2.3				1.7			
N-BUTANE	---			0.5				0.4			
ISOBUTANE	---			0.3				0.3			
N-PENTANE	---			TRACE				0.2			
ISOPENTANE	---			0.2				0.0			
CYCLOPENTANE	---			TRACE				TRACE			
HEXANES PLUS	---			0.0				0.2			
NITROGEN	2.1			0.7				0.0			
ARGON	0.3			TRACE				0.1			
HYDROGEN	---			---				---			
HYDROGEN SULFIDE**	---			---				---			
CARBON DIOXIDE	0.4			0.3				0.4			
HELIUM	TRACE			TRACE				TRACE			
HEATING VALUE*	1082			1110				1106			
SPECIFIC GRAVITY	0.630			0.629				0.618			
		INDEX SAMPLE	2875 13926			INDEX SAMPLE	2876 14493			INDEX SAMPLE	2877 4038
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARTISH	ACADIA			ACADIA				ACADIA			
FIELD	MIDLAND			RAYNE				TEPETATE N			
WELL NAME	WALTON GUIDRY NO. 1			E. B. PETITJEAN NO. 1				KLUMPP NO. 1			
LOCATION	SEC. 53, T10S, R2W			SEC. 53, T9S, R2E				SEC. 13, T7S, R2W			
OWNER	GOLDKING-SERIO-TIPCO-DILLON			CONTINENTAL OIL CO.				ATLANTIC REFINING CO.			
COMPLETED	08/29/73			07/18/75				10/09/38			
SAMPLED	02/18/74			10/17/75				06/11/45			
FORMATION	OLIG-DISCORBIS			OLIG-NODOSARIA				MIOC-KLUMPP			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	9704			16079				7960			
WELLHEAD PRESSURE, PSIG	1425			10600				2900			
OPEN FLOW, MCFD	2000			950				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE	58.7			85.7				91.3			
ETHANE	12.7			7.7				8.5			
PROPANE	12.2			2.3				---			
N-BUTANE	4.4			0.4				---			
ISOBUTANE	1.3			0.6				---			
N-PENTANE	1.1			0.1				---			
ISOPENTANE	2.4			0.1				---			
CYCLOPENTANE	0.4			TRACE				---			
HEXANES PLUS	1.9			0.1				---			
NITROGEN	0.1			0.4				0.0			
OXYGEN	0.0			0.0				0.0			
ARGON	0.0			0.0				---			
HYDROGEN	TRACE			0.0				---			
HYDROGEN SULFIDE**	0.0			0.0				---			
CARBON DIOXIDE	0.4			2.6				0.2			
HELIUM	TRACE			TRACE				TRACE			
HEATING VALUE*	1740			1113				1077			
SPECIFIC GRAVITY	1.018			0.664				0.598			
		INDEX SAMPLE	2878 4039			INDEX SAMPLE	2879 4040			INDEX SAMPLE	2880 17779
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARTISH	ACADIA			ACADIA				ALLEN			
FIELD	TEPETATE N			TEPETATE N				CASTOR CREEK			
WELL NAME	KLUMPP NO. 5			KLUMPP NO. 2				HARVEY ADAMS ET AL NO. 1			
LOCATION	SEC. 13, T7W, R2W			SEC. 13, T7S, R2W				SEC. 16, T5S, R3W			
OWNER	ATLANTIC REFINING CO.			ATLANTIC REFINING CO.				LGS EXPLORATION CO.			
COMPLETED	08/30/39			12/4/39				02/13/82			
SAMPLED	06/11/45			06/11/45				07/22/85			
FORMATION	MIOC-KLUMPP			MIOC-KLUMPP				EOCE-OBERLIN			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	9040			8478				9490			
WELLHEAD PRESSURE, PSIG	4700			3000				NOT GIVEN			
OPEN FLOW, MCFD	3787			1333				1998			
COMPONENT, MOLE PCT											
METHANE	83.0			83.7				83.7			
ETHANE	16.9			16.3				7.6			
PROPANE	---			---				3.7			
N-BUTANE	---			---				1.0			
ISOBUTANE	---			---				1.1			
N-PENTANE	---			---				0.2			
ISOPENTANE	---			---				0.6			
CYCLOPENTANE	---			---				0.2			
HEXANES PLUS	---			---				0.6			
NITROGEN	0.0			0.0				0.5			
OXYGEN	0.0			0.0				TRACE			
ARGON	---			---				0.0			
HYDROGEN	---			---				TRACE			
HYDROGEN SULFIDE**	---			---				0.0			
CARBON DIOXIDE	0.1			0.0				0.5			
HELIUM	0.00			TRACE				TRACE			
HEATING VALUE*	1344			---				1234			
SPECIFIC GRAVITY	0.639			0.635				0.705			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2881 SAMPLE 16172			INDEX 2882 SAMPLE 10854			INDEX 2883 SAMPLE 15554		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ALLEN		ALLEN			ALLEN		
FIELD.....	INDIAN VILLAGE N		KINDER S			LYLES		
WELL NAME.....	POWELL LUMBER CO. NO. 1		CHARLES KUNTZ NO. 1			ALLEN NO. 1		
LOCATION.....	SEC. 8, T7S, R6W		SEC. 14, T7S, R5W			SEC. 7, T6S, R4W		
OWNER.....	WATINOCO OIL & GAS CO.		W. M. F. OIL CORP.			GETTY OIL CO.		
COMPLETED.....	05/12/80		07/01/86			03/31/78		
SAMPLED.....	01/15/81		01/28/67			01/15/79		
FORMATION.....	-6150 FT. SAND		OLIG-FRIO			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	6180		8216			12576		
WELLHEAD PRESSURE, PSIG.....	2335		2300			7400		
OPEN FLOW, MCFD.....	390		900			2000		
COMPONENT, MOLE PCT								
METHANE.....	97.5		91.7			80.9		
ETHANE.....	1.1		3.9			9.3		
PROPANE.....	0.1		1.9			5.0		
N-BUTANE.....	TRACE		0.6			1.0		
ISOBUTANE.....	TRACE		0.5			0.8		
N-PENTANE.....	0.0		TRACE			0.2		
ISOPENTANE.....	TRACE		0.3			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.0		0.6			0.7		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			1.6		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	1015		1107			1199		
SPECIFIC GRAVITY.....	0.568		0.623			0.707		
INDEX 2884 SAMPLE 13987			INDEX 2885 SAMPLE 14507			INDEX 2886 SAMPLE 14718		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ASSUMPTION		ASSUMPTION			ASSUMPTION		
FIELD.....	BAY HATCHEZ		BAYOU SHERMAN			BAYOU ST. VINCENT		
WELL NAME.....	GRAND LOG NO. C-1		SCHOOL BOARD NO. 1-A			LABARRE-TRICHE NO. 4		
LOCATION.....	SEC. 23, T12S, R12E		SEC. 16, T15S, R14E			SEC. 8, T13S, R13E		
OWNER.....	CITIES SERVICE OIL CO.		EXCHANGE OIL & GAS CORP.			SUN OIL CO.		
COMPLETED.....	04/17/74		11/10/73			11/15/75		
SAMPLED.....	04/17/74		10/14/75			07/08/76		
FORMATION.....	MIOC-SIPHONINA DAVISI		OLIG-DISCORBIS			MIOC-CRISTELLARIA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	13930		15790			15051		
WELLHEAD PRESSURE, PSIG.....	4949		5300			8941		
OPEN FLOW, MCFD.....	80000		NOT GIVEN			5246		
COMPONENT, MOLE PCT								
METHANE.....	84.0		90.5			94.2		
ETHANE.....	2.7		4.0			3.1		
PROPANE.....	0.7		0.9			0.9		
N-BUTANE.....	0.2		0.4			0.2		
ISOBUTANE.....	0.2		0.4			0.3		
N-PENTANE.....	0.1		0.1			TRACE		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	9.0		0.5			0.4		
OXYGEN.....	2.1		0.0			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		1.8			0.6		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	948		1078			1055		
SPECIFIC GRAVITY.....	0.646		0.630			0.598		
INDEX 2887 SAMPLE 12353			INDEX 2888 SAMPLE 15595			INDEX 2889 SAMPLE 12240		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ASSUMPTION		ASSUMPTION			ASSUMPTION		
FIELD.....	GRAND BAYOU		GRAVEYARD ISLAND			LAKE VERRET		
WELL NAME.....	O. C. LOG BLANCHARD NO. 1		MICHELLE NO. 1			STATE LEASE 4919 NO. 1		
LOCATION.....	SEC. 19, T12S, R13E		SEC. 12, T14S, R12E			T14S, R13E		
OWNER.....	TEXACO INC.		TEXAS CRUDE, INC.			GENERAL CRUDE OIL CO., ET AL		
COMPLETED.....	12/04/69		11/20/78			06/08/69		
SAMPLED.....	08/12/70		04/02/79			04/14/79		
FORMATION.....	MIOC-B-1 SAND		NOT GIVEN			MIOC-PLANULINA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	13594		7678			14676		
WELLHEAD PRESSURE, PSIG.....	1750		1250			3900		
OPEN FLOW, MCFD.....	954		7			9600		
COMPONENT, MOLE PCT								
METHANE.....	94.4		88.5			94.4		
ETHANE.....	3.0		4.5			2.5		
PROPANE.....	0.9		2.1			1.0		
N-BUTANE.....	0.1		1.0			0.2		
ISOBUTANE.....	0.2		1.5			0.2		
N-PENTANE.....	0.1		0.4			0.1		
ISOPENTANE.....	TRACE		0.5			0.1		
CYCLOPENTANE.....	TRACE		0.5			TRACE		
HEXANES PLUS.....	0.1		0.5			0.1		
NITROGEN.....	0.4		0.4			0.6		
OXYGEN.....	TRACE		0.5			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.4			0.7		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1055		1185			1054		
SPECIFIC GRAVITY.....	0.594		0.673			0.598		
INDEX 2890 SAMPLE 14629			INDEX 2891 SAMPLE 17233			INDEX 2892 SAMPLE 4045		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	BEAUREGARD		BEAUREGARD			BEAUREGARD		
FIELD.....	FIELDS 5		LITTLE BARNES CREEK			NEALE		
WELL NAME.....	ARES NO. 7		OWENS ILLINOIS NO. 1			KEYTE NO. 1		
LOCATION.....	SEC. 36, T13S, R12W		SEC. 36, T13S, R9W			SEC. 30, T13S, R10W		
OWNER.....	SHOH PETROLEUM CO.		FOREST OIL CORP.			ATLANTIC REFINING CO.		
COMPLETED.....	02/26/75		10/05/81			10/23/44		
SAMPLED.....	03/02/76		03/26/84			05/25/45		
FORMATION.....	EOCE-WILCOX		EOCE-COCKFIELD 9TH			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	11124		7976			10874		
WELLHEAD PRESSURE, PSIG.....	4000		2300			1650		
OPEN FLOW, MCFD.....	10000					200		
COMPONENT, MOLE PCT								
METHANE.....	78.1		83.9			73.3		
ETHANE.....	11.8		6.6			24.8		
PROPANE.....	5.5		5.2			---		
N-BUTANE.....	0.8		1.2			---		
ISOBUTANE.....	0.8		1.3			---		
N-PENTANE.....	0.1		0.3			---		
ISOPENTANE.....	0.2		0.3			---		
CYCLOPENTANE.....	TRACE		0.1			---		
HEXANES PLUS.....	0.1		0.2			---		
NITROGEN.....	0.5		0.5			0.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE**.....	0.0		0.0			---		
CARBON DIOXIDE.....	2.0		0.0			1.9		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	1217		1227			1187		
SPECIFIC GRAVITY.....	0.721		0.703			0.696		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2893			INDEX 2894			INDEX 2895		
SAMPLE 4050			SAMPLE 4747			SAMPLE 11086		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	BEAUREGARD		BIENVILLE			BIENVILLE		
FIELD.....	NEAL		BEAR CREEK			BEAR CREEK		
WELL NAME.....	IRA SPIERS T-5		ADVANCE NO. 1			T. J. CUMMINGS NO. 2		
LOCATION.....	SEC. 26, T3S, R11W		SEC. 8, T16N, R5W			SEC. 1, T16N, R6W		
OWNER.....	ATLANTIC REFINING CO.		C. H. MURPHY & CO.			SOUTHERN NATURAL GAS CO.		
COMPLETED.....	03/11/45		07/27/48			05/25/66		
SAMPLED.....	05/25/45		05/17/49			08/31/67		
FORMATION.....	EGEE-WILCOX		CRET-PETIT & SLIGO			JURA-COTTON VALLEY		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	11172		7061			10203		
WELLHEAD PRESSURE, PSIG.....	2600		2325			5625		
OPEN FLOW, MCFD.....	130		7300			4300		
COMPONENT, MOLE PCT.....								
METHANE.....	52.9		96.2			94.8		
ETHANE.....	45.1		0.9			1.6		
PROPANE.....	---		0.2			0.4		
N-BUTANE.....	---		0.1			0.1		
ISOBUTANE.....	---		TRACE			0.1		
N-PENTANE.....	---		0.0			0.1		
ISOPENTANE.....	---		0.0			TRACE		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	0.0		1.3			0.3		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			TRACE		
HYDROGEN SULFIDE**.....	---		---			0.0		
CARBON DIOXIDE.....	2.0		0.8			2.4		
HELIUM.....	TRACE		0.13			TRACE		
HEATING VALUE*.....	1364		1013			1019		
SPECIFIC GRAVITY.....	0.797		0.579			0.600		
INDEX 2896			INDEX 2897			INDEX 2898		
SAMPLE 5487			SAMPLE 13042			SAMPLE 10778		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	BIENVILLE		BIENVILLE			DANVILLE		
FIELD.....	BRUCELAND W		SMITH NO. 1			NOAH BRADLEY NO. 1		
WELL NAME.....	SEC. 20, T17N, R6W		SEC. 26, T17N, R7W			SEC. 30, T15N, R4W		
LOCATION.....	PAN AMERICAN SOUTHERN CORP.		FRANKS & PETROFUNDS, INC.			ARKANSAS LOUISIANA GAS CO.		
OWNER.....	06/05/52		07/10/71			---/---/00		
COMPLETED.....	05/21/53		09/30/73			---/---/00		
SAMPLED.....	CRET-TRAVIS PEAK		CRET-HOSSTON B			CRET-HOSSTON		
FORMATION.....	230		230			230		
GEOLOGIC PROVINCE CODE.....								
DEPTH, FEET.....	7612		8600			8280		
WELLHEAD PRESSURE, PSIG.....	3382		4692			3250		
OPEN FLOW, MCFD.....	16800		NOT GIVEN			13000		
COMPONENT, MOLE PCT.....								
METHANE.....	95.9		91.8			95.9		
ETHANE.....	1.7		1.5			0.3		
PROPANE.....	0.2		0.3			TRACE		
N-BUTANE.....	0.2		---			0.0		
ISOBUTANE.....	0.1		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.4		4.0			2.0		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.1		1.2			1.6		
HELIUM.....	0.02		0.01			0.06		
HEATING VALUE*.....	1022		971			977		
SPECIFIC GRAVITY.....	0.578		0.603			0.579		
INDEX 2899			INDEX 2900			INDEX 2901		
SAMPLE 14191			SAMPLE 14192			SAMPLE 13050		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	BIENVILLE		BIENVILLE			BIENVILLE		
FIELD.....	DANVILLE		DANVILLE			DRISCOLL		
WELL NAME.....	BROWN NO. 1		BROWN NO. 1-D			DAVIS BROTHERS NO. 1		
LOCATION.....	SEC. 26, T14N, R5W		SEC. 26, T14N, R5W			SEC. 4, T16N, R4W		
OWNER.....	SKLAR & PHILLIPS OIL CO.		SKLAR & PHILLIPS OIL CO.			FRANKS & PETROFUNDS, INC.		
COMPLETED.....	06/-/74		06/-/74			02/25/71		
SAMPLED.....	10/25/74		10/25/74			09/30/71		
FORMATION.....	CRET-HOSSTON C		CRET-HOSSTON A			CRET-HOSSTON		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	8800		8000			8131		
WELLHEAD PRESSURE, PSIG.....	6250		12200			2575		
OPEN FLOW, MCFD.....	60000		10000			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	96.6		95.5			96.6		
ETHANE.....	0.3		1.2			1.4		
PROPANE.....	TRACE		TRACE			0.2		
N-BUTANE.....	TRACE		TRACE			0.2		
ISOBUTANE.....	TRACE		TRACE			0.0		
N-PENTANE.....	0.1		0.8			TRACE		
ISOPENTANE.....	TRACE		0.0			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	1.3		2.5			0.1		
NITROGEN.....	1.1		0.6			0.5		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.9		1.6			1.2		
HELIUM.....	0.03		0.03			1.02		
HEATING VALUE*.....	984		976			1017		
SPECIFIC GRAVITY.....	0.578		0.583			0.582		
INDEX 2902			INDEX 2903			INDEX 2904		
SAMPLE 3865			SAMPLE 16075			SAMPLE 16958		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	BIENVILLE		BIENVILLE			BIENVILLE		
FIELD.....	LUCKY		LUCKY			RINGDALE W		
WELL NAME.....	NEBO OIL CO. A-1		TOBIN NO. 1			CV RA SUSA J. F. BOYET NO. 1		
LOCATION.....	SEC. 11, T15N, R7W		SEC. 18, T15N, R6W			SEC. 31, T16W, R9W		
OWNER.....	PLACID OIL CO.		PLACID OIL CO.			AMOCO PRODUCTION CO. (USA)		
COMPLETED.....	08/22/43		08/22/43			06/01/83		
SAMPLED.....	09/13/44		09/22/80			06/01/83		
FORMATION.....	CRET-PETIT		JURA-COTTON VALLEY			JURA-COTTON VALLEY		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	6834		9987			9600		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		4100			2900		
OPEN FLOW, MCFD.....	1950		8000			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	97.7		94.9			86.1		
ETHANE.....	1.1		1.3			3.9		
PROPANE.....	---		0.2			1.4		
N-BUTANE.....	---		0.1			0.6		
ISOBUTANE.....	---		0.1			0.3		
N-PENTANE.....	---		TRACE			0.3		
ISOPENTANE.....	---		TRACE			0.5		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		0.1			0.3		
NITROGEN.....	0.0		0.6			0.1		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.4		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	1.1		2.7			6.0		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE*.....	1009		1002			1063		
SPECIFIC GRAVITY.....	0.571		0.597			0.683		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2905 SAMPLE 16795		INDEX 2906 SAMPLE 4325		INDEX 2907 SAMPLE 14904	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	BIENVILLE	BIENVILLE		BIENVILLE	
FIELD.....	SAILES	WILDCAT		WOODARDVILLE	
WELL NAME.....	CRAYFORD ET AL. NO. 1	CRAY NO. 1		T. A. MARTIN NO. 1	
LOCATION.....	SEC. 7, T16N, R7W	SEC. 13, T17N, R6W		SEC. 28, T15N, R9W	
OWNER.....	FRANKS & PETROFUNDS, INC.	LION OIL CO.		MAY PETROLEUM, INC.	
COMPLETED.....	04/04/81	05/14/87		07/23/76	
SAMPLED.....	03/03/83	06/21/87		02/11/77	
FORMATION.....	CRET-HOUSTON B	CRET-L		CRET-RODESSA	
GEOLOGIC PROVINCE CODE.....	230	230		230	
DEPTH, FEET.....	9205	7696		5147	
WELLHEAD PRESSURE, PSIG.....	1300	3546		2200	
OPEN FLOW, MCFD.....	994	50000		2651	
COMPONENT, MOLE PCT					
METHANE.....	95.7	94.2		94.3	
ETHANE.....	1.0	3.1		1.4	
PROPANE.....	0.1	---		0.2	
N-BUTANE.....	0.1	---		0.1	
ISOBUTANE.....	TRACE	---		0.1	
N-PENTANE.....	0.1	---		TRACE	
ISOPENTANE.....	0.0	---		0.1	
CYCLOPENTANE.....	TRACE	---		TRACE	
HEXANES PLUS.....	0.2	---		0.1	
NITROGEN.....	0.7	1.2		0.7	
OXYGEN.....	TRACE	0.3		0.1	
ARGON.....	TRACE	---		TRACE	
HYDROGEN.....	0.2	---		0.0	
HYDROGEN SULFIDE.....	0.0	---		0.0	
CARBON DIOXIDE.....	1.7	1.2		2.9	
HELIUM.....	0.02	0.03		0.01	
HEATING VALUE.....	1009	1010		1002	
SPECIFIC GRAVITY.....	0.586	0.588		0.602	

INDEX 2908 SAMPLE 16540		INDEX 2909 SAMPLE 17421		INDEX 2910 SAMPLE 16185	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	BOSSIER	BOSSIER		BOSSIER	
FIELD.....	ANTRIM	ANTRIM N		ARKANA	
WELL NAME.....	ANTRIM TRUST NO. 1	FOSTER NO. 1		WILLIAMETTE NO. 1	
LOCATION.....	SEC. 1, T21N, R13W	SEC. 21, T22N, R13W		SEC. 8, T23N, R13W	
OWNER.....	POGO PRODUCING CO.	JUSTISS OIL CO.		CRYSTAL OIL CO.	
COMPLETED.....	04/02/81	05/02/84		---/---/00	
SAMPLED.....	06/08/82	09/19/84		02/09/81	
FORMATION.....	JURA-COTTON VALLEY	JURA-COTTON VALLEY & MCFERRI		JURA-HAYNESVILLE	
GEOLOGIC PROVINCE CODE.....	230	230		230	
DEPTH, FEET.....	9152	9277		10689	
WELLHEAD PRESSURE, PSIG.....	2940	3000		1000	
OPEN FLOW, MCFD.....	545	300		20	
COMPONENT, MOLE PCT					
METHANE.....	77.4	75.6		80.2	
ETHANE.....	11.1	12.4		7.0	
PROPANE.....	5.1	5.0		2.9	
N-BUTANE.....	1.4	1.5		1.0	
ISOBUTANE.....	0.7	0.6		0.9	
N-PENTANE.....	0.4	0.4		0.3	
ISOPENTANE.....	0.3	0.4		0.3	
CYCLOPENTANE.....	0.1	---		TRACE	
HEXANES PLUS.....	0.2	0.2		0.3	
NITROGEN.....	1.2	2.0		3.7	
OXYGEN.....	0.0	---		0.0	
ARGON.....	0.0	TRACE		TRACE	
HYDROGEN.....	0.1	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	2.0	1.7		3.3	
HELIUM.....	0.01	0.02		0.02	
HEATING VALUE.....	1230	1237		1118	
SPECIFIC GRAVITY.....	0.737	0.745		0.713	

INDEX 2911 SAMPLE 16957		INDEX 2912 SAMPLE 160		INDEX 2913 SAMPLE 162	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	BOSSIER	BOSSIER		BOSSIER	
FIELD.....	COOTERVILLE	ELM GROVE		ELM GROVE	
WELL NAME.....	CV RA SUA R. L. MOSIER NO. 1	W. H. HODGES NO. 1		R. C. MCDADE NO. 1	
LOCATION.....	SEC. 35, T15N, R11W	SEC. 19, T16N, R11W		SEC. 29, T16N, R11W	
OWNER.....	AMOCO PRODUCTION CO. (USA)	STANDARD OIL CO.		STANDARD OIL CO.	
COMPLETED.....	04/21/83	02/12/20		---/---/00	
SAMPLED.....	06/01/83	03/23/20		03/02/20	
FORMATION.....	JURA-COTTON VALLEY	CRET---		CRET---	
GEOLOGIC PROVINCE CODE.....	230	230		230	
DEPTH, FEET.....	9450	2497		2483	
WELLHEAD PRESSURE, PSIG.....	2900	580		600	
OPEN FLOW, MCFD.....	400	3000		1500	
COMPONENT, MOLE PCT					
METHANE.....	93.0	93.5		93.7	
ETHANE.....	2.7	2.5		---	
PROPANE.....	0.3	---		---	
N-BUTANE.....	0.1	---		---	
ISOBUTANE.....	0.0	---		---	
N-PENTANE.....	0.1	---		---	
ISOPENTANE.....	0.1	---		---	
CYCLOPENTANE.....	TRACE	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	0.1	0.3		2.7	
OXYGEN.....	TRACE	0.4		0.4	
ARGON.....	TRACE	---		---	
HYDROGEN.....	0.3	---		---	
HYDROGEN SULFIDE.....	0.0	---		---	
CARBON DIOXIDE.....	0.1	0.1		TRACE	
HELIUM.....	TRACE	0.11		TRACE	
HEATING VALUE.....	1016	1010		1005	
SPECIFIC GRAVITY.....	0.607	0.564		0.583	

INDEX 2914 SAMPLE 172		INDEX 2915 SAMPLE 175		INDEX 2916 SAMPLE 17620	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	BOSSIER	BOSSIER		BOSSIER	
FIELD.....	ELM GROVE	ELM GROVE		ELM GROVE	
WELL NAME.....	A. F. MCDADE NO. 2	MCCONNELL NO. 1		VUA L.A. COWLEY NO. 2	
LOCATION.....	SEC. 11, T16N, R12W	SEC. 10, T16N, R11W		SEC. 2, T16N, R13W	
OWNER.....	OIL CO.	ARTASADO NATURAL GAS CO.		TRIGSBY PETROLEUM, INC.	
COMPLETED.....	10/01/19	01/06/20		12/14/84	
SAMPLED.....	03/27/20	03/27/20		03/19/85	
FORMATION.....	CRET---	CRET-TRINITY		CRET-JETER	
GEOLOGIC PROVINCE CODE.....	230	230		230	
DEPTH, FEET.....	1254	2526		4689	
WELLHEAD PRESSURE, PSIG.....	380	600		2300	
OPEN FLOW, MCFD.....	15000	7000		950	
COMPONENT, MOLE PCT					
METHANE.....	96.4	97.4		92.9	
ETHANE.....	0.0	0.0		4.1	
PROPANE.....	---	---		1.1	
N-BUTANE.....	---	---		0.3	
ISOBUTANE.....	---	---		0.3	
N-PENTANE.....	---	---		0.1	
ISOPENTANE.....	---	---		TRACE	
CYCLOPENTANE.....	---	---		TRACE	
HEXANES PLUS.....	---	---		0.2	
NITROGEN.....	2.6	1.8		0.2	
OXYGEN.....	0.6	0.5		TRACE	
ARGON.....	---	---		0.0	
HYDROGEN.....	---	---		0.0	
HYDROGEN SULFIDE.....	---	---		0.0	
CARBON DIOXIDE.....	0.3	0.0		0.8	
HELIUM.....	TRACE	0.13		0.03	
HEATING VALUE.....	977	987		1078	
SPECIFIC GRAVITY.....	0.571	0.563		0.610	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2917 17621			INDEX SAMPLE	2918 15279			INDEX SAMPLE	2919 4757
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	BOSSIER			BOSSIER				BOSSIER			
FIELD.....	ELM GROVE			ROCKY MOUNT				SAREPTA S			
WELL NAME.....	L.A. COWLEY NO. 1			ANTRIM ESTATE NO. 2-25				ARDIS NO. 1			
LOCATION.....	SEC. 2, T16N, R13W			SEC. 25, T22N, R12W				SEC. 27, T22N, R11W			
OWNER.....	GRIEBSBY PETROLEUM, INC.			ARKLA EXPLORATION CO.				BARNSDALL OIL CO.			
COMPLETED.....	09/10/84			12/08/77				07/05/49			
SAMPLED.....	03/19/85			05/10/78				10/01/49			
FORMATION.....	CRET-HOSSTON			JURA-COTTON VALLEY				JURA-SCHULER			
GEOLOGIC PROVINCE CODE.....	230			230				230			
DEPTH, FEET.....	5938			9186				9155			
WELLHEAD PRESSURE, PSIG.....	2450			3150				4492			
OPEN FLOW, MCFD.....	2500			1400				596			
COMPONENT, MOLE PCT.....											
METHANE.....	95.8			79.5				77.0			
ETHANE.....	2.2			10.4				11.7			
PROpane.....	0.2			4.5				5.0			
N-BUTANE.....	0.1			1.3				1.3			
ISOBUTANE.....	0.0			0.6				0.8			
N-PENTANE.....	0.0			0.4				0.4			
ISOPENTANE.....	0.0			0.4				0.2			
CYCLOPENTANE.....	TRACE			0.1				TRACE			
HEXANES PLUS.....	0.1			0.3				0.4			
NITROGEN.....	0.5			0.8				1.6			
OXYGEN.....	0.0			0.0				0.1			
ARGON.....	TRACE			0.0				TRACE			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.9			1.7				1.6			
HELIUM.....	0.02			0.02				0.01			
HEATING VALUE.....	1028			1026				1251			
SPECIFIC GRAVITY.....	0.584			0.724				0.739			
		INDEX SAMPLE	2920 4819			INDEX SAMPLE	2921 1973			INDEX SAMPLE	2922 159
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	BOSSIER			BOSSIER				CADDO			
FIELD.....	SAREPTA S			SLIGO				CEDAR GROVE			
WELL NAME.....	ARDIS NO. 1			MURFF NO. 2				CHAS. DIAL NO. 2			
LOCATION.....	SEC. 27, T22N, R11W			SEC. 24, T17N, R12W				SEC. 17, T17N, R13W			
OWNER.....	BARNSDALL OIL CO., ET AL.			LOUISIANA GAS & FUEL CO.				TEXAS CO.			
COMPLETED.....	06/05/49			12/22/29				05/06/18			
SAMPLED.....	12/02/49			03/18/30				03/23/20			
FORMATION.....	JURA-COTTON VALLEY			CRET-NACATOCH				-GUMBO			
GEOLOGIC PROVINCE CODE.....	230			230				230			
DEPTH, FEET.....	8700			844				2215			
WELLHEAD PRESSURE, PSIG.....	4122			325				60			
OPEN FLOW, MCFD.....	10000			7200				500			
COMPONENT, MOLE PCT.....											
METHANE.....	77.0			95.4				88.5			
ETHANE.....	11.5			0.0				1.1			
PROpane.....	5.1			---				---			
N-BUTANE.....	1.3			---				---			
ISOBUTANE.....	0.5			---				---			
N-PENTANE.....	0.3			---				---			
ISOPENTANE.....	TRACE			---				---			
CYCLOPENTANE.....	TRACE			---				---			
HEXANES PLUS.....	0.4			---				---			
NITROGEN.....	2.2			3.0				8.8			
OXYGEN.....	0.1			0.3				1.3			
ARGON.....	TRACE			---				---			
HYDROGEN.....	0.0			---				---			
HYDROGEN SULFIDE.....	0.0			---				---			
CARBON DIOXIDE.....	1.6			0.3				0.3			
HELIUM.....	0.02			0.03				TRACE			
HEATING VALUE.....	1214			977				916			
SPECIFIC GRAVITY.....	0.731			0.571				0.606			
		INDEX SAMPLE	2923 14937			INDEX SAMPLE	2924 17619			INDEX SAMPLE	2925 15043
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	CADDO			CADDO				CADDO			
FIELD.....	ELM GROVE			ELM GROVE				JOHNSON BRANCH			
WELL NAME.....	WHITTINGTON NO. 2			L.A. COWLEY NO. 3				NORMAN G. ALEXANDER NO. 1			
LOCATION.....	SEC. 30, T16N, R12W			SEC. 1, T16N, R13W				SEC. 1, T15N, R16W			
OWNER.....	ARKLA EXPLORATION CO.			GRIEBSBY PETROLEUM, INC.				NORTH AMERICAN ROYALTIES INC			
COMPLETED.....	--/--/00			02/01/85				07/01/77			
SAMPLED.....	02/22/77			03/19/85				06/30/77			
FORMATION.....	JURA-COTTON VALLEY			CRET-HILL				JURA-COTTON VALLEY			
GEOLOGIC PROVINCE CODE.....	230			230				230			
DEPTH, FEET.....	8500			4597				9500			
WELLHEAD PRESSURE, PSIG.....	3200			2300				3000			
OPEN FLOW, MCFD.....	500			900				2000			
COMPONENT, MOLE PCT.....											
METHANE.....	87.6			93.2				52.5			
ETHANE.....	4.8			1.9				17.0			
PROpane.....	2.0			1.0				12.4			
N-BUTANE.....	0.7			0.3				5.6			
ISOBUTANE.....	0.4			0.3				4.0			
N-PENTANE.....	0.2			0.4				1.9			
ISOPENTANE.....	0.2			TRACE				1.9			
CYCLOPENTANE.....	TRACE			TRACE				0.2			
HEXANES PLUS.....	0.2			0.2				1.6			
NITROGEN.....	0.2			0.2				0.0			
OXYGEN.....	0.0			TRACE				0.0			
ARGON.....	TRACE			0.0				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	2.6			0.7				3.0			
HELIUM.....	0.01			0.01				TRACE			
HEATING VALUE.....	1108			1075				1734			
SPECIFIC GRAVITY.....	0.658			0.607				1.055			
		INDEX SAMPLE	2926 14125			INDEX SAMPLE	2927 1272			INDEX SAMPLE	2928 1816
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	CADDO			CADDO				CADDO			
FIELD.....	LONGWOOD			PINE ISLAND				PINE ISLAND			
WELL NAME.....	W. E. NOEL FEE NO. 11			NO. 43 DILLON				DILLON NO. 92			
LOCATION.....	SEC. 33, T19N, R16W			SEC. 13, T15N, R21W				SEC. 13, T21N, R15W			
OWNER.....	TEXACO INC.			DIXIE OIL CO., INC.				DIXIE OIL CO., INC.			
COMPLETED.....	02/11/74			10/11/74				--/--/00			
SAMPLED.....	08/06/74			05/28/26				07/16/29			
FORMATION.....	CRET-HOSSTON "B"			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	230			230				230			
DEPTH, FEET.....	6011			3623				6125			
WELLHEAD PRESSURE, PSIG.....	2300			1550				NOT GIVEN			
OPEN FLOW, MCFD.....	1000			46000				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	91.9			82.2				63.5			
ETHANE.....	4.1			15.4				29.7			
PROpane.....	1.0			---				---			
N-BUTANE.....	0.3			---				---			
ISOBUTANE.....	0.3			---				---			
N-PENTANE.....	0.1			---				---			
ISOPENTANE.....	0.1			---				---			
CYCLOPENTANE.....	TRACE			---				---			
HEXANES PLUS.....	0.2			0.6				5.8			
NITROGEN.....	0.1			0.3				0.2			
OXYGEN.....	0.0			---				---			
ARGON.....	TRACE			---				---			
HYDROGEN.....	0.1			---				---			
HYDROGEN SULFIDE.....	0.0			---				---			
CARBON DIOXIDE.....	0.7			1.5				0.8			
HELIUM.....	0.0			0.01				0.04			
HEATING VALUE.....	1070			1109				1175			
SPECIFIC GRAVITY.....	0.616			0.649				0.734			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

268

		INDEX SAMPLE	2929 2269	INDEX SAMPLE	2930 4898	INDEX SAMPLE	2931 4843
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	CADDO			CADDO		CADDO	
FIELD.....	RODESSA			RODESSA		WILDCAT	
WELL NAME.....	FRENCH NO. 1			PITTS NO. 5		ELLERBE NO. 1	
LOCATION.....	SEC. 34, T23N, R16W			SEC. 11, T23N, R16W		SEC. 17, T15N, R12W	
OWNER.....	UNITED PRODUCTION CORP.			ARKLA OIL CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	01/13/31			04/-/49		05/22/49	
SAMPLED.....	01/15/31			04/20/50		02/07/50	
FORMATION.....	CRET-GLEN ROSE			JURA-SMACKOVER		CRET-KILPATRICK LINE ZONE	
GEOLOGIC PROVINCE CODE.....	230			230		230	
DEPTH, FEET.....	5501			10820		4459	
WELLHEAD PRESSURE, PSIG.....	2350			4100		2600	
OPEN FLOW, MCFD.....	20000			5000		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	85.5	-----	86.8	-----	90.4	-----	90.4
ETHANE.....	8.2	-----	2.4	-----	4.3	-----	4.3
PROPANE.....	---	-----	0.9	-----	1.9	-----	1.9
N-BUTANE.....	---	-----	0.6	-----	0.7	-----	0.7
ISOBUTANE.....	---	-----	0.6	-----	0.3	-----	0.3
N-PENTANE.....	---	-----	0.3	-----	0.2	-----	0.2
ISOPENTANE.....	---	-----	0.0	-----	0.4	-----	0.4
CYCLOPENTANE.....	---	-----	0.1	-----	0.1	-----	0.1
HEXANES PLUS.....	---	-----	0.6	-----	0.4	-----	0.4
NITROGEN.....	4.8	-----	6.0	-----	0.9	-----	0.9
OXYGEN.....	0.3	-----	0.1	-----	0.2	-----	0.2
ARGON.....	---	-----	0.0	-----	TRACE	-----	TRACE
HYDROGEN.....	---	-----	---	-----	0.1	-----	0.1
HYDROGEN SULFIDE.....	---	-----	---	-----	---	-----	---
CARBON DIOXIDE.....	1.2	-----	1.7	-----	0.2	-----	0.2
HELIUM.....	0.03	-----	0.03	-----	0.03	-----	0.03
HEATING VALUE.....	1013	-----	1030	-----	1125	-----	1125
SPECIFIC GRAVITY.....	0.628	-----	0.656	-----	0.640	-----	0.640
		INDEX SAMPLE	2932 15534	INDEX SAMPLE	2933 14717	INDEX SAMPLE	2934 16102
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	CALCASIEU			CALCASIEU		CALCASIEU	
FIELD.....	BECKWITH CREEK			CHALKLEY N		CHLOE	
WELL NAME.....	LC NAVAL STORE NO. 1			F. R. HOLLAND NO. 1		TOBILAR INC. NO. 1	
LOCATION.....	SEC. 17, T8S, R9W			SEC. 29, T11S, R6W		SEC. 36, T9S, R8W	
OWNER.....	TEXAS PACIFIC OIL CO., INC.			SUN OIL CO.		MEMORAN EXPLORATION CO.	
COMPLETED.....	03/03/78			02/29/76		10/07/88	
SAMPLED.....	12/07/78			07/01/76		10/17/88	
FORMATION.....	OLIG-MODOSARIA			OLIG-FR10		OLIG-HACKBERRY	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8730			11356		11592	
WELLHEAD PRESSURE, PSIG.....	375			490		5100	
OPEN FLOW, MCFD.....	20			NOT GIVEN		2000	
COMPONENT, MOLE PCT.....							
METHANE.....	80.4	-----	89.2	-----	91.1	-----	91.1
ETHANE.....	8.5	-----	5.3	-----	5.3	-----	5.3
PROPANE.....	5.1	-----	2.4	-----	1.4	-----	1.4
N-BUTANE.....	1.6	-----	0.6	-----	0.3	-----	0.3
ISOBUTANE.....	1.0	-----	0.3	-----	0.3	-----	0.3
N-PENTANE.....	0.4	-----	0.2	-----	0.1	-----	0.1
ISOPENTANE.....	0.8	-----	0.2	-----	0.2	-----	0.2
CYCLOPENTANE.....	0.5	-----	TRACE	-----	0.1	-----	0.1
HEXANES PLUS.....	0.5	-----	0.2	-----	0.2	-----	0.2
NITROGEN.....	0.3	-----	0.4	-----	0.3	-----	0.3
OXYGEN.....	0.0	-----	0.0	-----	0.1	-----	0.1
ARGON.....	0.0	-----	TRACE	-----	TRACE	-----	TRACE
HYDROGEN.....	0.1	-----	0.0	-----	0.0	-----	0.0
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0
CARBON DIOXIDE.....	0.4	-----	0.7	-----	0.5	-----	0.5
HELIUM.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE
HEATING VALUE.....	1295	-----	1135	-----	1101	-----	1101
SPECIFIC GRAVITY.....	0.741	-----	0.647	-----	0.622	-----	0.622
		INDEX SAMPLE	2935 7083	INDEX SAMPLE	2936 4651	INDEX SAMPLE	2937 13357
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	CALCASIEU			CALCASIEU		CALCASIEU	
FIELD.....	CHLOE			EDSELY		HOLWOOD	
WELL NAME.....	C. O. NOBLE 3 NO. 2			KRAUSEMANAGAN LUMBER NO. 1		PAN AM FEE NO. 1	
LOCATION.....	SEC. 11, T11S, R11W			SEC. 17, T9S, R11W		SEC. 34, T10S, R7W	
OWNER.....	CHLOE OIL CO.			GULF OIL CO.		MOBIL OIL CORP.	
COMPLETED.....	05/29/59			10/12/48		12/06/72	
SAMPLED.....	05/31/59			01/11/49		08/17/72	
FORMATION.....	OLIG-ORTEGO			NOT GIVEN		OLIG-HACKBERRY	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9032			8620		14060	
WELLHEAD PRESSURE, PSIG.....	4000			4063		2500	
OPEN FLOW, MCFD.....	4044			NOT GIVEN		5000	
COMPONENT, MOLE PCT.....							
METHANE.....	87.9	-----	89.0	-----	68.3	-----	68.3
ETHANE.....	4.6	-----	9.1	-----	9.3	-----	9.3
PROPANE.....	1.2	-----	---	-----	3.6	-----	3.6
N-BUTANE.....	0.4	-----	---	-----	0.8	-----	0.8
ISOBUTANE.....	0.7	-----	---	-----	1.2	-----	1.2
N-PENTANE.....	0.1	-----	---	-----	0.3	-----	0.3
ISOPENTANE.....	0.1	-----	---	-----	0.2	-----	0.2
CYCLOPENTANE.....	0.1	-----	---	-----	TRACE	-----	TRACE
HEXANES PLUS.....	0.3	-----	---	-----	0.3	-----	0.3
NITROGEN.....	1.1	-----	0.0	-----	11.7	-----	11.7
OXYGEN.....	0.0	-----	0.8	-----	2.9	-----	2.9
ARGON.....	0.0	-----	---	-----	0.1	-----	0.1
HYDROGEN.....	TRACE	-----	---	-----	0.0	-----	0.0
HYDROGEN SULFIDE.....	0.0	-----	---	-----	0.0	-----	0.0
CARBON DIOXIDE.....	3.5	-----	1.1	-----	1.3	-----	1.3
HELIUM.....	0.01	-----	0.01	-----	0.01	-----	0.01
HEATING VALUE.....	1066	-----	1065	-----	1056	-----	1056
SPECIFIC GRAVITY.....	0.658	-----	0.615	-----	0.762	-----	0.762
		INDEX SAMPLE	2938 16664	INDEX SAMPLE	2939 11528	INDEX SAMPLE	2940 16503
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	CALCASIEU			CALCASIEU		CALCASIEU	
FIELD.....	LAF. CHARLES S			MANCHESTER S		MANCHESTER S	
WELL NAME.....	W.T. BURTON INDUSTRIES NO. 1			FARMERS LAND & CANAL NO. A-4		FARMERS LAND & CANAL NO. 1	
LOCATION.....	SEC. 18, T11S, R8W			SEC. 27, T10S, R7W		SEC. 27, T10S, R7W	
OWNER.....	MORAN EXPLORATION, INC.			COASTAL STATES GAS PROD. CO		DAWSON OIL CORP.	
COMPLETED.....	07/27/82			09/08/66		03/05/80	
SAMPLED.....	09/20/82			-/-/700		04/26/82	
FORMATION.....	OLIG-HACKBERRY			OLIG-HACKBERRY		OLIG-HACKBERRY	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	14591			12886		13301	
WELLHEAD PRESSURE, PSIG.....	10300			7900		4950	
OPEN FLOW, MCFD.....	24000			8600		2700	
COMPONENT, MOLE PCT.....							
METHANE.....	47.4	-----	87.7	-----	84.1	-----	84.1
ETHANE.....	20.4	-----	6.9	-----	8.5	-----	8.5
PROPANE.....	17.3	-----	2.3	-----	3.5	-----	3.5
N-BUTANE.....	3.7	-----	0.6	-----	0.8	-----	0.8
ISOBUTANE.....	5.8	-----	0.4	-----	1.1	-----	1.1
N-PENTANE.....	0.2	-----	0.2	-----	0.3	-----	0.3
ISOPENTANE.....	1.7	-----	0.2	-----	0.2	-----	0.2
CYCLOPENTANE.....	0.1	-----	0.1	-----	0.1	-----	0.1
HEXANES PLUS.....	0.5	-----	0.1	-----	0.3	-----	0.3
NITROGEN.....	0.3	-----	0.3	-----	0.5	-----	0.5
OXYGEN.....	TRACE	-----	0.1	-----	0.0	-----	0.0
ARGON.....	0.0	-----	TRACE	-----	0.0	-----	0.0
HYDROGEN.....	0.1	-----	TRACE	-----	0.0	-----	0.0
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0
CARBON DIOXIDE.....	2.2	-----	1.0	-----	0.6	-----	0.6
HELIUM.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE
HEATING VALUE.....	1738	-----	1131	-----	1199	-----	1199
SPECIFIC GRAVITY.....	1.051	-----	0.650	-----	0.687	-----	0.687

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2941 11760	INDEX SAMPLE	2942 17918	INDEX SAMPLE	2943 4616
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	CALCASIEU			CALCASIEU		CALCASIEU	
FIELD.....	MANCHESTER W			NOT GIVEN		WILDCAT	
WELL NAME.....	LAKE CHARLES SUGAR CO. NO. 2			MAYO REALTY CO., INC. NO. 1		SHEETLAKE LD. & OIL C NO. 1	
LOCATION.....	SEC. 14, T10S, R9W			SEC. 1, T11S, R9W		SEC. 34, T10S, R6W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			KANAB ENERGY CO.		SOMIO PETROLEUM CO.	
COMPLETED.....	11/08/67			07/01/85		05/20/48	
SAMPLED.....	02/10/69			11/25/85		11/09/48	
FORMATION.....	-12200 FT. SAND			MIO-CRISTELLARIA		OLIO-CIBICIDES HAZZARDI	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	12200			10420		10882	
WELLHEAD PRESSURE, PSIG.....	9400			4975		4400	
OPEN FLOW, MCFD.....	NOT GIVEN			2800		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	91.2	---	---	76.3	---	61.9	---
ETHANE.....	4.9	---	---	10.9	---	34.9	---
PROPANE.....	1.3	---	---	6.0	---	---	---
N-BUTANE.....	0.4	---	---	1.7	---	---	---
ISOBUTANE.....	0.4	---	---	0.2	---	---	---
N-PENTANE.....	0.2	---	---	0.6	---	---	---
ISOPENTANE.....	0.1	---	---	0.6	---	---	---
CYCLOPENTANE.....	0.1	---	---	0.2	---	---	---
HEXANES PLUS.....	0.2	---	---	0.6	---	---	---
NITROGEN.....	0.2	---	---	0.1	---	2.6	---
OXYGEN.....	0.0	---	---	TRACE	---	0.3	---
ARGON.....	0.0	---	---	0.0	---	---	---
HYDROGEN.....	0.1	---	---	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	---	---
CARBON DIOXIDE.....	1.0	---	---	0.9	---	0.3	---
HELIUM.....	TRACE	---	---	TRACE	---	TRACE	---
HEATING VALUE.....	1099	---	---	1345	---	1252	---
SPECIFIC GRAVITY.....	0.627	---	---	0.779	---	0.742	---
		INDEX SAMPLE	2944 13360	INDEX SAMPLE	2945 15620	INDEX SAMPLE	2946 13377
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	CALDWELL			CALDWELL		CALDWELL	
FIELD.....	BANKS SPRINGS			BANKS SPRINGS SW		CLARKS N	
WELL NAME.....	OLINKRAFT NO. 0-1			PARKER NO. 1		CENTRAL MINERALS NO. 1	
LOCATION.....	SEC. 26, T13N, R3E			SEC. 35, T13N, R3E		SEC. 10, T12N, R3E	
OWNER.....	FRANK SPOONER			MARLIN EXPLORATION, INC.		SCOTT PRODUCTION CO., INC.	
COMPLETED.....	10/02/71			08/21/78		01/22/72	
SAMPLED.....	08/--/72			05/15/79		09/05/72	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	230			230		230	
DEPTH, FEET.....	2510			2306		1553	
WELLHEAD PRESSURE, PSIG.....	1020			860		630	
OPEN FLOW, MCFD.....	420			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	96.9	---	---	96.8	---	95.6	---
ETHANE.....	0.1	---	---	0.1	---	0.1	---
PROPANE.....	TRACE	---	---	0.1	---	TRACE	---
N-BUTANE.....	0.0	---	---	0.0	---	0.0	---
ISOBUTANE.....	0.0	---	---	0.0	---	0.0	---
N-PENTANE.....	0.0	---	---	0.0	---	0.0	---
ISOPENTANE.....	0.0	---	---	0.0	---	0.0	---
CYCLOPENTANE.....	0.0	---	---	0.0	---	0.0	---
HEXANES PLUS.....	0.0	---	---	0.0	---	0.0	---
NITROGEN.....	0.0	---	---	0.0	---	0.0	---
OXYGEN.....	0.0	---	---	0.0	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.3	---	---	0.2	---	0.1	---
HELIUM.....	0.03	---	---	0.03	---	0.04	---
HEATING VALUE.....	983	---	---	985	---	970	---
SPECIFIC GRAVITY.....	0.569	---	---	0.568	---	0.572	---
		INDEX SAMPLE	2947 14142	INDEX SAMPLE	2948 11811	INDEX SAMPLE	2949 14139
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	CALDWELL			CALDWELL		CALDWELL	
FIELD.....	CLARKS S			COLUMBIA		COOPER	
WELL NAME.....	LOUISIANA-CENTRAL NO. 11-23			OLIN NO. 1		HOOG NO. 1	
LOCATION.....	SEC. 23, T12N, R3E			SEC. 17, T13N, R4E		SEC. 31, T13N, R3E	
OWNER.....	JUSTISS-MEARS OIL CO., INC.			JAMES C. STORM CO.		SOUTH LOUISIANA PROD. CO.	
COMPLETED.....	02/13/74			04/23/68		04/26/74	
SAMPLED.....	09/06/74			04/06/69		08/28/74	
FORMATION.....	EOCE-WILCOX			NOT GIVEN		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	230			230		230	
DEPTH, FEET.....	2602			NOT GIVEN		2494	
WELLHEAD PRESSURE, PSIG.....	510			NOT GIVEN		940	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	97.0	---	---	96.9	---	97.3	---
ETHANE.....	0.1	---	---	0.1	---	0.1	---
PROPANE.....	0.0	---	---	TRACE	---	TRACE	---
N-BUTANE.....	0.0	---	---	0.0	---	0.0	---
ISOBUTANE.....	TRACE	---	---	0.0	---	0.0	---
N-PENTANE.....	0.0	---	---	0.0	---	0.0	---
ISOPENTANE.....	0.1	---	---	0.0	---	0.0	---
CYCLOPENTANE.....	TRACE	---	---	0.0	---	0.0	---
HEXANES PLUS.....	0.1	---	---	0.0	---	0.0	---
NITROGEN.....	2.4	---	---	2.6	---	2.4	---
OXYGEN.....	0.0	---	---	0.0	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	TRACE	---	---	0.1	---	TRACE	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.4	---	---	0.2	---	0.1	---
HELIUM.....	0.03	---	---	0.04	---	0.03	---
HEATING VALUE.....	994	---	---	984	---	987	---
SPECIFIC GRAVITY.....	0.574	---	---	0.571	---	0.565	---
		INDEX SAMPLE	2950 15621	INDEX SAMPLE	2951 16275	INDEX SAMPLE	2952 3897
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	CALDWELL			CALDWELL		CALDWELL	
FIELD.....	PINEY CREEK			SPAULDING		VIXEN	
WELL NAME.....	RUSSELL NO. 2			PIONEER #1		LA. CENTRAL LMBR. CO. NO. 1	
LOCATION.....	SEC. 8, T12N, R3E			SEC. 13, T11N, R2E		SEC. 31, T15N, R3W	
OWNER.....	FARMERS UNION CENT. EXCH. IN			LYONS PETROLEUM, INC.		SHELL OIL CO.	
COMPLETED.....	10/27/78			05/27/81		--/--/00	
SAMPLED.....	05/15/79			05/27/81		09/30/44	
FORMATION.....	EOCE-WILCOX			NOT GIVEN		CRET-HOSSSTON	
GEOLOGIC PROVINCE CODE.....	230			230		230	
DEPTH, FEET.....	2623			NOT GIVEN		11615	
WELLHEAD PRESSURE, PSIG.....	1112			185		3230	
OPEN FLOW, MCFD.....	NOT GIVEN			185		5980	
COMPONENT, MOLE PCT							
METHANE.....	97.2	---	---	97.1	---	87.2	---
ETHANE.....	0.1	---	---	0.1	---	6.0	---
PROPANE.....	TRACE	---	---	TRACE	---	---	---
N-BUTANE.....	0.0	---	---	0.0	---	---	---
ISOBUTANE.....	0.0	---	---	0.0	---	---	---
N-PENTANE.....	0.0	---	---	0.0	---	---	---
ISOPENTANE.....	0.0	---	---	0.0	---	---	---
CYCLOPENTANE.....	0.0	---	---	0.0	---	---	---
HEXANES PLUS.....	0.0	---	---	0.0	---	---	---
NITROGEN.....	2.4	---	---	2.5	---	0.0	---
OXYGEN.....	0.1	---	---	0.1	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	---	---
HYDROGEN.....	0.1	---	---	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	---	---
CARBON DIOXIDE.....	0.4	---	---	0.1	---	2.8	---
HELIUM.....	0.03	---	---	0.03	---	0.03	---
HEATING VALUE.....	987	---	---	985	---	991	---
SPECIFIC GRAVITY.....	0.564	---	---	0.568	---	0.650	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2953 SAMPLE 7090			INDEX 2954 SAMPLE 15722			INDEX 2955 SAMPLE 17487		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	CAMERON		CAMERON			CAMERON		
FIELD.....	VIXEN		BACKRIDGE			BACKRIDGE S		
WELL NAME.....	LOUISIANA CEN. OIL & GAS FEE		J. A. DAVIS NO. 1			LONNIE A. DAVIS ET AL NO. 1		
LOCATION.....	SEC. 23, T15N, R2E		SEC. 23, T14S, R9W			SEC. 23, T14S, R9W		
OWNER.....	BARNWELL DRILLING CO., INC.		PEND ORVILLE OIL & GAS CO.			WILLIAMS EXPLORATION CO.		
COMPLETED.....	05/11/59		07/01/79			12/--/83		
SAMPLED.....	05/29/59		08/10/79			--/--/00		
FORMATION.....	CRET-RODESSA		PLIO-CLARKE			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	230		220			220		
DEPTH, FEET.....	6597		13353			13360		
WELLHEAD PRESSURE, PSIG.....	2668		8400			NOT GIVEN		
OPEN FLOW, MCFD.....	14000		21500			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	85.3		89.3			85.3		
ETHANE.....	1.0		5.3			8.1		
PROPANE.....	0.4		1.8			2.8		
N-BUTANE.....	0.1		0.3			0.7		
ISOBUTANE.....	0.5		0.1			0.9		
N-PENTANE.....	TRACE		0.1			0.3		
ISOPENTANE.....	TRACE		0.1			TRACE		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.3		0.1			0.4		
NITROGEN.....	7.4		0.3			0.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	4.8		1.0			1.5		
HELIUM.....	0.10		TRACE			TRACE		
HEATING VALUE.....	932		1105			1173		
SPECIFIC GRAVITY.....	0.658		0.632			0.679		
INDEX 2956 SAMPLE 12012			INDEX 2957 SAMPLE 13806			INDEX 2958 SAMPLE 3669		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	CAMERON		CAMERON			CAMERON		
FIELD.....	BLACK BAYOU S		BLUE BUCK POINT			CAMERON		
WELL NAME.....	BROWN-ODOM NO. 4		NOBLE-CRAIN NO. 2			ADOLPH HEBERT NO. 1		
LOCATION.....	SEC. 34, T12S, R12W		T15S, R16W			SEC. 18, T12S, R8W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		TEXAS CRUDE, INC.			CONTINENTAL OIL CO.		
COMPLETED.....	06/15/69		08/04/73			09/15/43		
SAMPLED.....	08/27/69		11/10/73			09/21/43		
FORMATION.....	OLIG-MACKBERRY		MIOC-8400 FT. SAND			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	11750		8435			8571		
WELLHEAD PRESSURE, PSIG.....	5700		3100			4119		
OPEN FLOW, MCFD.....	10000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.7		94.1			88.2		
ETHANE.....	2.1		0.5			10.2		
PROPANE.....	2.1		0.7			---		
N-BUTANE.....	0.5		0.1			---		
ISOBUTANE.....	0.5		0.2			---		
N-PENTANE.....	0.2		TRACE			---		
ISOPENTANE.....	0.5		TRACE			---		
CYCLOPENTANE.....	0.2		TRACE			---		
HEXANES PLUS.....	0.7		---			---		
NITROGEN.....	1.2		1.1			0.9		
OXYGEN.....	0.0		0.1			0.4		
ARGON.....	0.0		TRACE			---		
HYDROGEN.....	0.1		0.0			---		
HYDROGEN SULFIDE**.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.4		0.1			0.3		
HELIUM.....	0.01		TRACE			0.00		
HEATING VALUE.....	1154		1048			1076		
SPECIFIC GRAVITY.....	0.662		0.591			0.614		
INDEX 2959 SAMPLE 16286			INDEX 2960 SAMPLE 4913			INDEX 2961 SAMPLE 15468		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	CAMERON		CAMERON			CAMERON		
FIELD.....	CANAL		CAMERON W			CAMERON W BLK. 10		
WELL NAME.....	BLANCHETTE FREMAUX NO. 1		NO. 4-2			STATE LEASE 6930 NO. 1		
LOCATION.....	SEC. 25, T12S, R3W		BLK. 33, STATE LSE. NO. 1123			OFFSHORE		
OWNER.....	MOBIL OIL CORP.		PHILLIPS PETROLEUM CO.			WAINOCO OIL & GAS CO.		
COMPLETED.....	06/04/81		01/22/50			08/14/78		
SAMPLED.....	06/22/81		06/28/50			10/26/78		
FORMATION.....	OLIG-SUB ALLIANCE		PLIO-			MIOC-ABBEVILLE		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	12455		1665			12440		
WELLHEAD PRESSURE, PSIG.....	8000		425			2750		
OPEN FLOW, MCFD.....	1200		600			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	90.9		98.3			89.3		
ETHANE.....	4.9		0.2			6.2		
PROPANE.....	1.6		0.1			1.8		
N-BUTANE.....	0.3		0.1			0.4		
ISOBUTANE.....	0.9		0.0			0.5		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.0			0.2		
NITROGEN.....	0.8		0.0			0.5		
OXYGEN.....	0.0		0.2			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	TRACE		---			0.1		
HYDROGEN SULFIDE**.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.6		0.1			0.8		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	1104		1006			1120		
SPECIFIC GRAVITY.....	0.626		0.567			0.640		
INDEX 2962 SAMPLE 13094			INDEX 2963 SAMPLE 13444			INDEX 2964 SAMPLE 13361		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	CAMERON		CAMERON			CAMERON		
FIELD.....	CAMERON W BLK. 28		CHENIER PERDUE			CREOLE S		
WELL NAME.....	STATE LEASE 5033 NO. 1		STATE CORP. NO. 1			SEC. 10, T14S, R7W		
LOCATION.....	BLK. 28		SEC. 10, T14S, R7W			SEC. 29, T14S, R7W		
OWNER.....	OIL & GAS FUTURES, INC.		BALLARD & CORDELL CORP.			MCCORMICK OIL & GAS CORP.		
COMPLETED.....	01/17/77		01/17/77			--/--/00		
SAMPLED.....	10/22/77		10/04/72			08/--/72		
FORMATION.....	-1400 SAND		MIOC-SIPHONINA DAVISI H			MIOC-PLANULINA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	15230		9900			12848		
WELLHEAD PRESSURE, PSIG.....	10240		5700			5000		
OPEN FLOW, MCFD.....	NOT GIVEN		2500			1500		
COMPONENT, MOLE PCT								
METHANE.....	94.9		92.1			92.8		
ETHANE.....	2.2		4.6			3.9		
PROPANE.....	0.5		1.0			1.1		
N-BUTANE.....	0.1		0.5			0.2		
ISOBUTANE.....	0.1		0.6			0.5		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	TRACE		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.3		0.3			0.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.7		0.3			0.9		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1028		1016			1078		
SPECIFIC GRAVITY.....	0.595		0.615			0.612		

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	2965 13725			INDEX SAMPLE	2966 15278			INDEX SAMPLE	2967 13105
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH	CAMERON			CAMERON				CAMERON			
FIELD	DEEP LAKE			DEEP LAKE N				GRAND CHEVIER S			
WELL NAME	ROCKFELLER NO. 12			MIAMI NO. 4				WATKINS MILLER NO. 1			
LOCATION	SEC. 24, T16S, R4W			SEC. 15, T15S, R3W				SEC. 5, T15S, R5W			
OWNER	PENNZOIL PRODUCING CO.			QUINTANA PETROLEUM CORP.				SUPERIOR OIL CO.			
COMPLETED	02/26/73			10/08/77				12/20/70			
SAMPLED	09/16/73			05/09/78				11/04/71			
FORMATION	-15400 SAND			MIOC-				MIOC-			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	16156			12300				11150			
WELLHEAD PRESSURE, PSIG	6000			2400				3968			
OPEN FLOW, MCFD	NOT GIVEN			3000				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE	89.1			93.7				95.7			
ETHANE	4.3			2.8				2.4			
PROPANE	1.5			0.8				0.7			
N-BUTANE	0.3			0.2				0.0			
ISOBUTANE	0.5			0.2				0.0			
N-PENTANE	TRACE			0.1				0.0			
ISOPENTANE	0.2			0.1				0.0			
CYCLOPENTANE	TRACE			TRACE				0.0			
HEXANES PLUS	0.1			0.1				0.0			
NITROGEN	0.3			0.4				0.5			
OXYGEN	0.0			0.0				0.0			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	TRACE			0.0				TRACE			
HYDROGEN SULFIDE	0.0			0.0				0.0			
CARBON DIOXIDE	3.5			1.5				0.7			
HELIUM	TRACE			TRACE				TRACE			
HEATING VALUE	1059			1047				1031			
SPECIFIC GRAVITY	0.643			0.604				0.582			
		INDEX SAMPLE	2968 13010			INDEX SAMPLE	2969 17275			INDEX SAMPLE	2970 4349
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH	CAMERON			CAMERON				CAMERON			
FIELD	GUEYDAN W			HIGH ISLAND				JOHNSON BAYOU			
WELL NAME	DIXIE RICE CO. NO. 1			MIAMI #1 NO. 1				G. J. MCMAHON NO. 1			
LOCATION	SEC. 1, T12S, R3W			SEC. 32, T13S, R7W				SEC. 20, T13S, R14W			
OWNER	TEXACO INC.			ARCO OIL & GAS CO.				STANOLIND OIL & GAS CO.			
COMPLETED	09/03/70			07/07/83				07/03/47			
SAMPLED	09/07/71			05/02/84				08/22/47			
FORMATION	MIOC-ZWAN			MLG-CAMERINA				MIOC-			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	12542			17029				4480			
WELLHEAD PRESSURE, PSIG	7500			12860				1750			
OPEN FLOW, MCFD	7400			3310				3200			
COMPONENT, MOLE PCT											
METHANE	92.7			92.8				97.2			
ETHANE	3.6			3.3				2.4			
PROPANE	1.4			0.6				---			
N-BUTANE	0.3			0.1				---			
ISOBUTANE	0.4			0.1				---			
N-PENTANE	TRACE			0.1				---			
ISOPENTANE	0.1			TRACE				---			
CYCLOPENTANE	TRACE			TRACE				---			
HEXANES PLUS	0.1			0.1				---			
NITROGEN	0.5			0.0				0.0			
OXYGEN	0.0			0.0				0.3			
ARGON	0.0			TRACE				---			
HYDROGEN	0.0			0.0				---			
HYDROGEN SULFIDE	0.0			0.0				---			
CARBON DIOXIDE	0.7			3.0				0.1			
HELIUM	TRACE			TRACE				0.01			
HEATING VALUE	1080			1031				1028			
SPECIFIC GRAVITY	0.613			0.614				0.569			
		INDEX SAMPLE	2971 16150			INDEX SAMPLE	2972 13180			INDEX SAMPLE	2973 15589
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH	CAMERON			CAMERON				CAMERON			
FIELD	JOHNSON BAYOU			JOHNSON BAYOU W				KINGS BAYOU			
WELL NAME	SAUSCHUH NO. 1			F. J. PAVELL C NO. 1				M. STEWART NO. 1			
LOCATION	SEC. 3, T15S, R14W			SEC. 15, T15S, R15W				SEC. 1, T15S, R7W			
OWNER	GREAT SOUTHERN O&G CO., INC.			AMOCO PRODUCTION CO.				HOUSTON OIL & MINERALS CORP.			
COMPLETED	02/13/80			12/01/71				09/30/78			
SAMPLED	12/06/80			03/23/72				03/23/79			
FORMATION	MIOC-			MIOC-CRISTELLARIA				MIOC-PLANULINA			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	9000			9095				11580			
WELLHEAD PRESSURE, PSIG	3100			3450				6800			
OPEN FLOW, MCFD	400			NOT GIVEN				3000			
COMPONENT, MOLE PCT											
METHANE	90.6			90.5				89.5			
ETHANE	4.4			2.6				3.6			
PROPANE	0.6			0.2				0.9			
N-BUTANE	0.3			0.2				0.2			
ISOBUTANE	0.7			0.4				0.2			
N-PENTANE	0.1			TRACE				0.1			
ISOPENTANE	0.3			0.1				0.1			
CYCLOPENTANE	0.4			0.1				TRACE			
HEXANES PLUS	0.8			0.1				0.1			
NITROGEN	0.6			4.3				3.5			
OXYGEN	0.0			0.1				0.8			
ARGON	0.0			TRACE				TRACE			
HYDROGEN	0.0			0.0				TRACE			
HYDROGEN SULFIDE	0.0			0.0				0.0			
CARBON DIOXIDE	0.2			0.8				0.7			
HELIUM	TRACE			TRACE				TRACE			
HEATING VALUE	1144			1022				1022			
SPECIFIC GRAVITY	0.646			0.617				0.618			
		INDEX SAMPLE	2974 12957			INDEX SAMPLE	2975 17580			INDEX SAMPLE	2976 9628
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH	CAMERON			CAMERON				CAMERON			
FIELD	LACASSANE			LAKE ARTHUR S				LAKE ARTHUR SW			
WELL NAME	LACASSANE CO. NO. 4-B			DIXIE RICE NO. 1				P. DAVID NO. 1			
LOCATION	SEC. 8, T12S, R5W			SEC. 3, T12S, R3W				SEC. 12, T12S, R4W			
OWNER	TEXAS PACIFIC OIL CO., INC.			FORMAN PETROLEUM CORP.				BRAZOS OIL & GAS CO.			
COMPLETED	01/02/70			05/26/83				08/17/63			
SAMPLED	08/20/71			01/30/85				10/28/64			
FORMATION	OLIG-MARGINULINA HOWE 2			MIOC-ZWAN				MIOC-			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	13421			12337				10760			
WELLHEAD PRESSURE, PSIG	8900			2100				3775			
OPEN FLOW, MCFD	30000			1250				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE	88.2			88.8				92.8			
ETHANE	5.2			5.4				4.1			
PROPANE	2.6			2.2				1.2			
N-BUTANE	0.5			0.6				0.4			
ISOBUTANE	1.1			0.6				0.3			
N-PENTANE	0.3			0.2				0.1			
ISOPENTANE	0.0			0.2				0.1			
CYCLOPENTANE	TRACE			0.1				TRACE			
HEXANES PLUS	0.2			0.3				0.2			
NITROGEN	0.8			0.4				0.4			
OXYGEN	0.0			0.1				TRACE			
ARGON	0.0			TRACE				TRACE			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE	0.0			0.0				0.0			
CARBON DIOXIDE	1.1			0.6				0.3			
HELIUM	TRACE			TRACE				TRACE			
HEATING VALUE	1131			1147				1087			
SPECIFIC GRAVITY	0.655			0.654				0.610			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

257

		INDEX SAMPLE 15974	INDEX SAMPLE 11036	INDEX SAMPLE 10073
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	CAMERON	CAMERON	CAMERON	CAMERON
FIELD.....	LAKE ARTHUR SW	LAKE MISERE	LAKE MISERE	LITTLE PECAN LAKE
WELL NAME.....	DIYCE NO. 1	MIAMI CORP. C NO. 1	STATE LEASE #183 WELL NO. 1	STATE LEASE #183 WELL NO. 1
LOCATION.....	SEC. 2, T12S, R3W	SEC. 28, T13S, R5W	SEC. 19, T14S, R10W	ROCKEFELLER REFUGE
OWNER.....	AMERICAN QUASAR PET. CO.	MOBIL OIL CORP.	PAN AMERICAN PETROLEUM CORP.	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	01/07/80	12/16/66	03/03/64	03/03/64
SAMPLED.....	03/14/80	07/20/67	08/20/65	08/20/65
FORMATION.....	MIOC-ZWAN	MIOC-PLANULINA A	MIOC-	MIOC-
GEOLOGIC PROVINCE CODE.....	220	220	220	220
DEPTH, FEET.....	12510	10700	15000	15000
WELLHEAD PRESSURE, PSIG.....	2400	6600	1100	1100
OPEN FLOW, MCFD.....	4000	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	89.7	96.2	90.9	90.9
ETHANE.....	5.3	2.1	3.8	3.8
PROPANE.....	2.1	0.4	2.0	2.0
N-BUTANE.....	0.5	0.1	0.4	0.4
ISOBUTANE.....	0.9	0.1	0.7	0.7
N-PENTANE.....	0.1	TRACE	TRACE	TRACE
ISOPENTANE.....	0.3	0.0	10.2	10.2
CYCLOPENTANE.....	0.1	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.1	0.1
NITROGEN.....	0.1	0.4	0.3	0.3
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	0.0	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	0.4	1.5	1.5
HELIUM.....	TRACE	TRACE	0.01	0.01
HEATING VALUE.....	1135	1034	1091	1091
SPECIFIC GRAVITY.....	0.645	0.579	0.632	0.632
		INDEX SAMPLE 14721	INDEX SAMPLE 13709	INDEX SAMPLE 15466
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	CAMERON	CAMERON	CAMERON	CAMERON
FIELD.....	MALLARD BAY	MUD LAKE E	OCEAN VIEW	OCEAN VIEW
WELL NAME.....	STATE LEASE 6574 LONG NO. 1	VINCENT HEIRS NO. 1	STREAM TRUST NO. 2	STREAM TRUST NO. 2
LOCATION.....	SEC. 2, T13S, R3W	SEC. 19, T14S, R10W	SEC. 42, T15S, R13W	SEC. 42, T15S, R13W
OWNER.....	TESORO PETROLEUM CORP.	MCCORMICK OIL & GAS CORP.	WAINOCO OIL & GAS CO.	WAINOCO OIL & GAS CO.
COMPLETED.....	07/12/76	12/31/71	06/16/77	06/16/77
SAMPLED.....	07/23/76	08/-/73	10/26/77	10/26/77
FORMATION.....	OLIG-MARGINULINA	MIOC-PLANULINA	MIOC-ABBEVILLE	MIOC-ABBEVILLE
GEOLOGIC PROVINCE CODE.....	220	220	220	220
DEPTH, FEET.....	8404	10220	11091	11091
WELLHEAD PRESSURE, PSIG.....	2650	5750	1800	1800
OPEN FLOW, MCFD.....	550000	4000	3037	3037
COMPONENT, MOLE PCT				
METHANE.....	93.3	91.0	89.7	89.7
ETHANE.....	2.9	4.3	5.6	5.6
PROPANE.....	1.4	1.7	1.8	1.8
N-BUTANE.....	0.4	0.4	0.4	0.4
ISOBUTANE.....	0.5	0.7	0.5	0.5
N-PENTANE.....	0.1	0.2	0.1	0.1
ISOPENTANE.....	0.1	0.2	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE
HEXANES PLUS.....	0.1	0.3	0.2	0.2
NITROGEN.....	0.6	0.5	0.6	0.6
OXYGEN.....	0.0	0.5	TRACE	TRACE
ARGON.....	TRACE	0.0	TRACE	TRACE
HYDROGEN.....	0.0	TRACE	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.6	0.6	0.8	0.8
HELIUM.....	TRACE	TRACE	0.01	0.01
HEATING VALUE.....	1077	1116	1109	1109
SPECIFIC GRAVITY.....	0.611	0.634	0.634	0.634
		INDEX SAMPLE 15467	INDEX SAMPLE 5403	INDEX SAMPLE 17538
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	CAMERON	CAMERON	CAMERON	CAMERON
FIELD.....	OCEAN VIEW	PECAN LAKE S	SABINE LAKE	SABINE LAKE
WELL NAME.....	STREAM TRUST NO. 2	MIAMI CORP. NO. 6	SABINE LAKE V.U.-A NO. 2	SABINE LAKE V.U.-A NO. 2
LOCATION.....	SEC. 42, T15S, R13W	SEC. 8, T15S, R3W	SABINE LAKE	SABINE LAKE
OWNER.....	WAINOCO OIL & GAS CO.	PAN AMERICAN PETROLEUM CORP.	STATE OF LOUISIANA	STATE OF LOUISIANA
COMPLETED.....	06/16/77	12/31/52	10/28/83	10/28/83
SAMPLED.....	10/26/78	02/25/53	12/13/84	12/13/84
FORMATION.....	MIOC-ABBEVILLE	MIOC-	OLIG-HACKBERRY	OLIG-HACKBERRY
GEOLOGIC PROVINCE CODE.....	220	220	220	220
DEPTH, FEET.....	11091	10710	11940	11940
WELLHEAD PRESSURE, PSIG.....	1800	3950	5250	5250
OPEN FLOW, MCFD.....	3037	34000	8500	8500
COMPONENT, MOLE PCT				
METHANE.....	89.7	93.7	85.7	85.7
ETHANE.....	6.7	2.3	1.2	1.2
PROPANE.....	1.7	2.3	3.5	3.5
N-BUTANE.....	0.4	0.3	0.8	0.8
ISOBUTANE.....	0.5	0.3	0.8	0.8
N-PENTANE.....	0.2	0.2	0.2	0.2
ISOPENTANE.....	0.2	0.0	0.3	0.3
CYCLOPENTANE.....	TRACE	0.0	0.1	0.1
HEXANES PLUS.....	0.1	0.2	0.2	0.2
NITROGEN.....	0.5	0.0	0.5	0.5
OXYGEN.....	0.0	TRACE	TRACE	TRACE
ARGON.....	TRACE	0.0	TRACE	TRACE
HYDROGEN.....	0.1	0.1	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.9	0.3	0.8	0.8
HELIUM.....	TRACE	0.02	TRACE	TRACE
HEATING VALUE.....	1109	1088	1177	1177
SPECIFIC GRAVITY.....	0.634	0.606	0.676	0.676
		INDEX SAMPLE 13718	INDEX SAMPLE 15209	INDEX SAMPLE 13119
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	CAMERON	CLAIBORNE	CLAIBORNE	CLAIBORNE
FIELD.....	SECOND BAYOU	ATHEENS	JOHN FERRELL ESTATE NO. 1	JOHN FERRELL ESTATE NO. 1
WELL NAME.....	JOHN W. MECOM NO. 2	SEC. 22, T20N, R7W	SEC. 7, T22N, R8W	SEC. 7, T22N, R8W
LOCATION.....	SEC. 33, T14S, R11W	SEC. 22, T20N, R7W	SUN OIL CO.	SUN OIL CO.
OWNER.....	SIGNAL PETROLEUM	JOHN FERRELL ESTATE NO. 1	SUN OIL CO.	SUN OIL CO.
COMPLETED.....	02/10/71	02/13/78	07/-/71	07/-/71
SAMPLED.....	09/11/73	NOT GIVEN	12/20/71	12/20/71
FORMATION.....	MIOC-P-3 SAND	NOT GIVEN	JURA-MCCRARY	JURA-MCCRARY
GEOLOGIC PROVINCE CODE.....	220	230	230	230
DEPTH, FEET.....	12412	NOT GIVEN	8720	8720
WELLHEAD PRESSURE, PSIG.....	1400	NOT GIVEN	2640	2640
OPEN FLOW, MCFD.....	3000	NOT GIVEN	12000	12000
COMPONENT, MOLE PCT				
METHANE.....	88.8	87.9	63.5	63.5
ETHANE.....	6.5	1.8	10.9	10.9
PROPANE.....	1.7	1.8	5.8	5.8
N-BUTANE.....	0.4	0.7	1.3	1.3
ISOBUTANE.....	0.5	0.8	0.6	0.6
N-PENTANE.....	0.1	0.8	0.2	0.2
ISOPENTANE.....	0.1	0.1	0.3	0.3
CYCLOPENTANE.....	TRACE	0.2	TRACE	TRACE
HEXANES PLUS.....	0.2	1.4	12.7	12.7
NITROGEN.....	0.4	TRACE	3.0	3.0
OXYGEN.....	0.0	TRACE	0.1	0.1
ARGON.....	0.0	TRACE	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.5	0.4	0.4
CARBON DIOXIDE.....	0.1	0.3	0.02	0.02
HELIUM.....	TRACE	1178	1080	1080
HEATING VALUE.....	1109	0.679	0.790	0.790
SPECIFIC GRAVITY.....	0.637			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 2989 SAMPLE 17190			INDEX 2990 SAMPLE 17070			INDEX 2991 SAMPLE 14152		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	CLAIBORNE		CLAIBORNE			CLAIBORNE		
FIELD.....	FRAZIER CREEK		LEATHERMAN CREEK			OAKS		
WELL NAME.....	CONTINENTAL CAN NO. 1-29		SHERILL NO. 8			MORELOCK NO. 1		
LOCATION.....	SEC. 29, T19N, R6W		SEC. 21, T19N, R7W			SEC. 35, T23N, R8W		
OWNER.....	ARKLA EXPLORATION CO.		MCGOLDRICK OIL CO.			LOME STAR PRODUCING CO.		
COMPLETED.....	06/23/83		11/22/82			07/13/73		
SAMPLED.....	02/21/84		09/26/83			09/21/74		
FORMATION.....	JURA-TAYLOR		JURA-COTTON VALLEY			JURA-SHACKOVER		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	11456		10030			10955		
WELLHEAD PRESSURE, PSIG.....	5950		1700			1790		
OPEN FLOW, MCFD.....	6500		4200			1000		
COMPONENT, MOLE PCT								
METHANE.....	96.7		92.0			84.8		
ETHANE.....	0.9		3.1			5.1		
PROPANE.....	0.1		0.9			2.0		
N-BUTANE.....	0.1		0.3			0.6		
ISOBUTANE.....	TRACE		0.3			0.8		
N-PENTANE.....	TRACE		0.1			0.2		
ISOPENTANE.....	TRACE		0.2			TRACE		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.2			0.2		
NITROGEN.....	0.3		0.3			4.2		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.3			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.6		2.1			1.8		
HELIUM.....	0.01		TRACE			0.03		
HEATING VALUE.....	1002		1059			1077		
SPECIFIC GRAVITY.....	0.578		0.621			0.668		
INDEX 2992 SAMPLE 14926			INDEX 2993 SAMPLE 1951			INDEX 2994 SAMPLE 2444		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	CLAIBORNE		CLAIBORNE			CLAIBORNE		
FIELD.....	OAKS		SUGAR CREEK			SUGAR CREEK		
WELL NAME.....	WARE NO. 1		KILPATRICK NO. 1			TREADWELL HAWK NO. 1		
LOCATION.....	SEC. 18, T22N, R7W		SEC. 7, T19N, R5W			SEC. 6, T19N, R5W		
OWNER.....	LYONS PETROLEUM, INC.		TRIANGLE DRILLING CO., INC.			SUGAR CREEK SYNDICATE		
COMPLETED.....	07/07/76		--/--/00			10/14/31		
SAMPLED.....	02/17/77		03/10/30			01/03/32		
FORMATION.....	JURA-SHACKOVER		NOT GIVEN			CRET-GLEN ROSE		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	10763		4355			4367		
WELLHEAD PRESSURE, PSIG.....	5600		NOT GIVEN			1615		
OPEN FLOW, MCFD.....	1000		NOT GIVEN			29170		
COMPONENT, MOLE PCT								
METHANE.....	85.1		85.2			83.1		
ETHANE.....	7.7		12.6			15.3		
PROPANE.....	2.9		---			---		
N-BUTANE.....	0.9		---			---		
ISOBUTANE.....	0.8		---			---		
N-PENTANE.....	0.3		---			---		
ISOPENTANE.....	0.3		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.2		---			---		
NITROGEN.....	0.3		1.4			0.9		
OXYGEN.....	0.0		0.3			0.3		
ARGON.....	0.0		0.06			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	1.4		0.5			0.3		
HELIUM.....	0.01		1.08			0.06		
HEATING VALUE.....	1168		1089			1116		
SPECIFIC GRAVITY.....	0.678		0.629			0.638		
INDEX 2995 SAMPLE 5486			INDEX 2996 SAMPLE 2309			INDEX 2997 SAMPLE 4015		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	CLAIBORNE		CONCORDIA			CONCORDIA		
FIELD.....	WILDCAT		FERRISDAY			NOT GIVEN		
WELL NAME.....	SEC. 30, T22N, R8W		SAUNDERS NO. 3			KENNETT NO. 1		
LOCATION.....	SEC. 30, T22N, R8W		SEC. 42, T8, R10			SEC. 27, T9N, R10E		
OWNER.....	PAN AMERICAN SOUTHERN CORP.		UNITED GAS PUBLIC SERVICE CO			CALIFORNIA CO.		
COMPLETED.....	05/04/53		04/07/31			--/--/00		
SAMPLED.....	05/21/53		04/07/31			--/--/00		
FORMATION.....	JURA-BODCAW		EOCE-JACKSON			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	8711		1420			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	3000		615			NOT GIVEN		
OPEN FLOW, MCFD.....	1480		28000			NOT GIVEN		
COMPONENT, MOLE PCT						NOT GIVEN		
METHANE.....	95.5		97.1			69.9		
ETHANE.....	1.8		0.0			26.7		
PROPANE.....	0.2		---			---		
N-BUTANE.....	0.1		---			---		
ISOBUTANE.....	0.0		---			---		
N-PENTANE.....	0.1		---			---		
ISOPENTANE.....	0.0		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.2		---			---		
NITROGEN.....	0.5		1.7			0.8		
OXYGEN.....	TRACE		0.1			0.2		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.1		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	1.3		1.1			2.4		
HELIUM.....	0.02		0.00			TRACE		
HEATING VALUE.....	1031		987			1187		
SPECIFIC GRAVITY.....	0.587		0.573			0.714		
INDEX 2998 SAMPLE 14735			INDEX 2999 SAMPLE 15368			INDEX 3000 SAMPLE 15219		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	DE SOTO		DE SOTO			DE SOTO		
FIELD.....	BENSON		BETHANY LONGSTREET			BRUSHY BAYOU		
WELL NAME.....	CLAYTON ENGLISH NO. 1		BURFORD NO. 3			B. E. WILBURN NO. 1		
LOCATION.....	SEC. 2, T10N, R14W		SEC. 19, T13N, R13N			SEC. 34, T11N, R12W		
OWNER.....	TERRA RESOURCES, INC.		CRYSTAL OIL CO.			SUN PRODUCTION CO.		
COMPLETED.....	04/16/76		04/28/78			08/27/77		
SAMPLED.....	04/17/76		09/11/78			03/08/78		
FORMATION.....	CRET-PALUXY		CRET-PALUXY			CRET-PALUXY		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	3124		3248			2969		
WELLHEAD PRESSURE, PSIG.....	1320		1328			1350		
OPEN FLOW, MCFD.....	2300		2528			557		
COMPONENT, MOLE PCT								
METHANE.....	94.0		91.0			93.1		
ETHANE.....	2.4		2.5			1.8		
PROPANE.....	1.1		1.0			1.0		
N-BUTANE.....	0.4		0.3			0.6		
ISOBUTANE.....	0.3		0.3			0.5		
N-PENTANE.....	0.2		0.1			0.4		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.4		
NITROGEN.....	1.3		4.2			1.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.2			0.1		
HELIUM.....	0.03		0.03			0.03		
HEATING VALUE.....	1065		1027			1088		
SPECIFIC GRAVITY.....	0.601		0.610			0.622		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

269

INDEX 3001		INDEX 3002		INDEX 3003	
SAMPLE 4612		SAMPLE 14611		SAMPLE 15031	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	DE SOTO	DE SOTO	DE SOTO	DE SOTO	
FIELD.....	BUTLER	CASPIANA	CASPIANA	CASPIANA	
WELL NAME.....	J. J. RAMBIN NO. 1	SUSIE B. OSBY NO. 1	OLINKRAFT NO. 2	OLINKRAFT NO. 2	
LOCATION.....	SEC. 23, T11N, R11W	SEC. 14, T15N, R13W	SEC. 19, T15N, R13W	SEC. 19, T15N, R13W	
OWNER.....	TEXAS CO.	YENNECO OIL CO.	MAY PETROLEUM, INC.	MAY PETROLEUM, INC.	
COMPLETED.....	04/13/48	--/700	09/02/76	09/02/76	
SAMPLED.....	11/08/48	03/12/76	06/23/77	06/23/77	
FORMATION.....	CRET-RODESSA	JURA-COTTON VALLEY	CRET-RODESSA	CRET-RODESSA	
GEOLOGIC PROVINCE CODE.....	230	230	230	230	
DEPTH, FEET.....	4972	9142	5170	5170	
WELLHEAD PRESSURE, PSIG.....	2350	1500	1700	1700	
OPEN FLOW, MCFD.....	150	1659	1200	1200	
COMPONENT, MOLE PCT.....					
METHANE.....	85.8	90.4	93.1	93.1	
ETHANE.....	8.0	4.9	3.8	3.8	
PROPANE.....	---	1.3	1.1	1.1	
N-BUTANE.....	---	0.3	0.4	0.4	
ISOBUTANE.....	---	0.3	0.2	0.2	
N-PENTANE.....	---	0.1	0.2	0.2	
ISOPENTANE.....	---	0.1	0.1	0.1	
CYCLOPENTANE.....	---	TRACE	TRACE	TRACE	
HEXANES PLUS.....	---	0.2	0.2	0.2	
NITROGEN.....	---	0.0	0.0	0.0	
OXYGEN.....	4.3	0.0	0.0	0.0	
ARGON.....	0.2	0.0	0.0	0.0	
HYDROGEN.....	---	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.6	0.0	0.0	0.0	
HELIUM.....	0.08	2.3	0.5	0.5	
HEATING VALUE.....	1013	TRACE	0.02	0.02	
SPECIFIC GRAVITY.....	0.628	0.631	1053	1053	

INDEX 3004		INDEX 3005		INDEX 3006	
SAMPLE 196		SAMPLE 15303		SAMPLE 14931	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	DE SOTO	DE SOTO	DE SOTO	DE SOTO	
FIELD.....	DE SOTO	GRAND CANE	HOLLY	HOLLY	
WELL NAME.....	MURD NO. 1	A. F. WILLIAMS NO. 1	BURFORD ESTATE NO. 1	BURFORD ESTATE NO. 1	
LOCATION.....	SEC. 12, T12N, R12W	SEC. 13, T13N, R15W	SEC. 27, T14N, R14W	SEC. 27, T14N, R14W	
OWNER.....	TEXAS CO.	MAY PETROLEUM, INC.	PLACID OIL CO.	PLACID OIL CO.	
COMPLETED.....	11/01/12	--/700	09/12/76	09/12/76	
SAMPLED.....	04/10/20	06/10/78	03/02/77	03/02/77	
FORMATION.....	BLUE GAS SAND	CRET-HOSSTON	CRET-HOSSTON	CRET-HOSSTON	
GEOLOGIC PROVINCE CODE.....	230	230	230	230	
DEPTH, FEET.....	2610	7173	NOT GIVEN	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	---	1500	2700	2700	
OPEN FLOW, MCFD.....	200000	1220	2000	2000	
COMPONENT, MOLE PCT.....					
METHANE.....	95.4	94.2	96.4	96.4	
ETHANE.....	0.0	2.1	0.9	0.9	
PROPANE.....	---	0.5	0.1	0.1	
N-BUTANE.....	---	0.2	0.1	0.1	
ISOBUTANE.....	---	0.1	TRACE	TRACE	
N-PENTANE.....	---	0.1	0.0	0.0	
ISOPENTANE.....	---	0.1	TRACE	TRACE	
CYCLOPENTANE.....	---	TRACE	TRACE	TRACE	
HEXANES PLUS.....	---	0.1	TRACE	TRACE	
NITROGEN.....	3.9	1.2	1.3	1.3	
OXYGEN.....	0.5	0.1	0.0	0.0	
ARGON.....	---	TRACE	TRACE	TRACE	
HYDROGEN.....	---	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	1.0	1.0	
HELIUM.....	TRACE	0.02	0.02	0.02	
HEATING VALUE.....	966	1029	999	999	
SPECIFIC GRAVITY.....	0.575	0.596	0.575	0.575	

INDEX 3007		INDEX 3008		INDEX 3009	
SAMPLE 15355		SAMPLE 15801		SAMPLE 11077	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	DE SOTO	DE SOTO	DE SOTO	DE SOTO	
FIELD.....	KINGSTON	KINGSTON	KINGSTON	KINGSTON	
WELL NAME.....	STATE LEASE 6760 NO. 1	JOE E. MORAN NO. 1	MANSFIELD	MANSFIELD	
LOCATION.....	SEC. 8, T14N, R13W	SEC. 15, T14N, R13W	NABORS N-J NO. 1	NABORS N-J NO. 1	
OWNER.....	YENNECO OIL CO.	ENERGY RESERVES GROUP, INC.	SEC. 8, T12N, R13W	SEC. 8, T12N, R13W	
COMPLETED.....	01/06/78	12/13/77	W. C. NABORS	W. C. NABORS	
SAMPLED.....	08/30/78	09/20/79	08/26/67	08/26/67	
FORMATION.....	JURA-COTTON VALLEY	JURA-COTTON VALLEY	CRET-PETTIT	CRET-PETTIT	
GEOLOGIC PROVINCE CODE.....	230	230	230	230	
DEPTH, FEET.....	9515	9250	6532	6532	
WELLHEAD PRESSURE, PSIG.....	3750	5370	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	1575	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	88.9	89.6	96.8	96.8	
ETHANE.....	5.5	1.5	0.3	0.3	
PROPANE.....	1.6	0.4	0.1	0.1	
N-BUTANE.....	0.4	0.4	0.0	0.0	
ISOBUTANE.....	0.3	0.2	0.0	0.0	
N-PENTANE.....	0.2	0.2	0.0	0.0	
ISOPENTANE.....	0.2	0.2	0.0	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	0.0	
HEXANES PLUS.....	0.2	0.1	0.0	0.0	
NITROGEN.....	0.2	0.1	1.9	1.9	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.2	0.1	0.0	0.0	
HELIUM.....	0.01	TRACE	0.03	0.03	
HEATING VALUE.....	1092	1096	989	989	
SPECIFIC GRAVITY.....	0.642	0.641	0.572	0.572	

INDEX 3010		INDEX 3011		INDEX 3012	
SAMPLE 4183		SAMPLE 14534		SAMPLE 14535	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	DE SOTO	DE SOTO	DE SOTO	DE SOTO	
FIELD.....	SPIDER	WILDCAT	WILDCAT	WILDCAT	
WELL NAME.....	NABORS NO. 1	JACKSON B. DAVIS NO. 2	JACKSON B. DAVIS NO. 2	JACKSON B. DAVIS NO. 2	
LOCATION.....	SEC. 28, T12N, R14W	SEC. 24, T15N, R14W	SEC. 24, T15N, R14W	SEC. 24, T15N, R14W	
OWNER.....	PETROLEUM CO.	MAY PETROLEUM, INC.	MAY PETROLEUM, INC.	MAY PETROLEUM, INC.	
COMPLETED.....	07/18/46	11/17/75	11/17/75	11/17/75	
SAMPLED.....	11/09/46	11/17/75	11/17/75	11/17/75	
FORMATION.....	CRET-L	CRET-RODESSA	CRET-RODESSA	CRET-RODESSA	
GEOLOGIC PROVINCE CODE.....	230	230	230	230	
DEPTH, FEET.....	6180	5200	6300	6300	
WELLHEAD PRESSURE, PSIG.....	2010	2100	2450	2450	
OPEN FLOW, MCFD.....	39000	1700	2100	2100	
COMPONENT, MOLE PCT.....					
METHANE.....	86.0	92.1	92.7	92.7	
ETHANE.....	11.0	3.7	3.7	3.7	
PROPANE.....	---	1.1	1.1	1.1	
N-BUTANE.....	---	0.4	0.3	0.3	
ISOBUTANE.....	---	0.3	0.3	0.3	
N-PENTANE.....	---	0.1	0.1	0.1	
ISOPENTANE.....	---	0.1	0.1	0.1	
CYCLOPENTANE.....	---	TRACE	TRACE	TRACE	
HEXANES PLUS.....	---	0.2	0.1	0.1	
NITROGEN.....	1.7	0.2	0.4	0.4	
OXYGEN.....	0.3	0.0	0.0	0.0	
ARGON.....	---	0.0	0.0	0.0	
HYDROGEN.....	---	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.0	0.5	1.2	1.2	
HELIUM.....	0.03	0.03	0.01	0.01	
HEATING VALUE.....	1068	1075	1068	1068	
SPECIFIC GRAVITY.....	0.627	0.614	0.612	0.612	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3013 SAMPLE 17628			INDEX 3014 SAMPLE 15913			INDEX 3015 SAMPLE 17313		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	E. BATON ROUGE		E. BATON ROUGE			E. BATON ROUGE		
FIELD.....	COMITE		PORT HUDSON			PORT HUDSON		
WELL NAME.....	EISWORTH NO. 1		GEORGIA PACIFIC NO. 1			HAZEL ANDREWS NO. 1		
LOCATION.....	SEC. 41, T6S, R2E		SEC. 64, T4S, R2W			SEC. 61, T4S, R2W		
OWNER.....	AMAREX, INC.		AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO. (USA)		
COMPLETED.....	10/09/82		12/17/77			05/02/84		
SAMPLED.....	03/19/85		02/28/80			06/06/84		
FORMATION.....	CRET-TUSCALOOSA		CRET-TUSCALOOSA			CRET-TUSCALOOSA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	18100		16616			16986		
WELLHEAD PRESSURE, PSIG.....	10970		4925			4900		
OPEN FLOW, MCFD.....	NOT GIVEN		9300			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	85.3		83.7			67.4		
ETHANE.....	5.9		4.3			10.5		
PROPANE.....	1.7		1.7			6.5		
N-BUTANE.....	0.4		0.5			1.9		
ISOBUTANE.....	0.5		0.5			2.0		
N-PENTANE.....	0.2		0.2			0.6		
ISOPENTANE.....	0.1		0.3			0.6		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.3			0.5		
NITROGEN.....	0.6		1.7			0.6		
OXYGEN.....	TRACE		0.3			0.2		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			9.1		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	1076		1043			1252		
SPECIFIC GRAVITY.....	0.681		0.696			0.860		
INDEX 3016 SAMPLE 16264			INDEX 3017 SAMPLE 17489			INDEX 3018 SAMPLE 14527		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	E. BATON ROUGE		EVANGELINE			EVANGELINE		
FIELD.....	PROFIT ISLAND		BASILET			OURALDE		
WELL NAME.....	TRANSMATCH NO. 1		THOMAS YOUNG NO. 1			PINELANDS PETROLEUM NO. 1		
LOCATION.....	SEC. 22, T5S, R2W		NOT GIVEN			SEC. 21, T5S, R2W		
OWNER.....	HUNT PETROLEUM CORP.		STRIKER PETROLEUM CORP.			SKLAR & PHILLIPS, INC.		
COMPLETED.....	04/15/81		01/24/83			10/12/75		
SAMPLED.....	05/21/81		10/11/84			11/04/75		
FORMATION.....	CRET-TUSCALOOSA		OLIG-FRIO B			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	19069		8337			7704		
WELLHEAD PRESSURE, PSIG.....	8420		500			2700		
OPEN FLOW, MCFD.....	13000		30			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	83.0		87.2			91.9		
ETHANE.....	6.1		6.7			3.6		
PROPANE.....	1.8		0.8			2.1		
N-BUTANE.....	0.4		0.8			0.5		
ISOBUTANE.....	0.6		0.7			0.7		
N-PENTANE.....	0.4		0.2			0.2		
ISOPENTANE.....	0.3		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.3			0.2		
NITROGEN.....	0.3		0.2			0.7		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	6.9		0.3			0.1		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1071		1174			1121		
SPECIFIC GRAVITY.....	0.705		0.663			0.631		
INDEX 3019 SAMPLE 17259			INDEX 3020 SAMPLE 3698			INDEX 3021 SAMPLE 17059		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	EVANGELINE		EVANGELINE			IBERIA		
FIELD.....	PORT BARRY		REDELL			EVERY ISLAND SE		
WELL NAME.....	HIRSCH TRUST NO. 1		PARDEE NO. 3			E. T. WEEKS SR. EST. NO. 1-0		
LOCATION.....	SEC. 29, T5S, R2W		SEC. 20, T4S, R2E			SEC. 50, T13S, R6E		
OWNER.....	WOODS PETROLEUM CORP.		CONTINENTAL OIL CO.			ENERGY RESERVES GROUP, INC.		
COMPLETED.....	09/~/83		11/10/43			09/12/82		
SAMPLED.....	01/19/72		11/20/43			09/12/82		
FORMATION.....	OLIG-FRIO		EOCE-SPARTA			MIOC-SIPHONINA DAVISI-2		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8488		9960			17338		
WELLHEAD PRESSURE, PSIG.....	500		4779			5800		
OPEN FLOW, MCFD.....	20		160000			400		
COMPONENT, MOLE PCT								
METHANE.....	88.0		73.0			91.4		
ETHANE.....	6.9		24.4			3.1		
PROPANE.....	2.2		---			1.0		
N-BUTANE.....	0.6		---			0.3		
ISOBUTANE.....	0.6		---			0.2		
N-PENTANE.....	0.2		---			0.1		
ISOPENTANE.....	0.4		---			0.2		
CYCLOPENTANE.....	0.2		---			TRACE		
HEXANES PLUS.....	0.4		---			0.1		
NITROGEN.....	TRACE		0.7			0.9		
OXYGEN.....	TRACE		0.4			0.0		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	0.0		---			0.3		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.4		1.5			2.3		
HELIUM.....	TRACE		0.00			TRACE		
HEATING VALUE.....	1166		1177			1043		
SPECIFIC GRAVITY.....	0.657		0.695			0.620		
INDEX 3022 SAMPLE 13137			INDEX 3023 SAMPLE 13136			INDEX 3024 SAMPLE 15184		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	IBERIA		IBERIA			IBERIA		
FIELD.....	BAYOU PIGEON E		BAYOU PIGEON E			BAYOU POSTILLION		
WELL NAME.....	WILLIAMS, INC. NO. 1		WILLIAMS, INC. NO. 1			WILLIAMS U NO 1		
LOCATION.....	SEC. 10, T12S, R1E		SEC. 10, T12S, R1E			SEC. 28, T12S, R1E		
OWNER.....	GULF OIL CO.- U.S.		GULF OIL CO.- U.S.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	03/05/70		03/05/70			09/02/76		
SAMPLED.....	01/19/72		01/19/72			01/07/78		
FORMATION.....	OLIG-DISCORBIS 15		OLIG-DISCORBIS 14			OLIG-DISCORBIS 10		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	12487		12420			11882		
WELLHEAD PRESSURE, PSIG.....	4474		4459			3750		
OPEN FLOW, MCFD.....	24500		52000			14500		
COMPONENT, MOLE PCT								
METHANE.....	96.0		96.0			94.5		
ETHANE.....	0.2		0.3			0.2		
PROPANE.....	0.5		0.5			0.7		
N-BUTANE.....	0.2		0.2			0.2		
ISOBUTANE.....	0.1		0.1			0.1		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	0.2		0.3			0.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.4			0.6		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1053		1047			1057		
SPECIFIC GRAVITY.....	0.590		0.585			0.595		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

261

INDEX 3025 SAMPLE 17668		INDEX 3026 SAMPLE 14442		INDEX 3027 SAMPLE 17085	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	IBERIA	IBERIA		IBERIA	
FIELD.....	BAYOU POSTILLION	BAYOU POSTILLION E		EUGENE ISLAND	
WELL NAME.....	WILLIAMS INC. NO. 1	E. H. PETERMAN ET AL. NO C-2		STATE LEASE 7634 NO. 2	
LOCATION.....	SEC. 13, T12S, R11E	SEC. 36, T12S, R11E		BLK. 9	
OWNER.....	GOODRICH OIL CO.	CHEVRON OIL CO.		VOLVO PETROLEUM, INC.	
COMPLETED.....	10/18/83	02/18/77		03/03/80	
SAMPLED.....	05/13/85	08/14/75		10/10/83	
FORMATION.....	OLIG-DISCORBIS 15	-14800 FT. SAND		-BIG NOD NO. 3 SAND	
GEOLOGIC PROVINCE CODE.....	220	220		952	
DEPTH, FEET.....	13691	14588		10813	
WELLHEAD PRESSURE, PSIG.....	2700	5500		4400	
OPEN FLOW, MCFD.....	2000	13300		3500	
COMPONENT, MOLE PCT					
METHANE.....	95.6	94.0		96.9	
ETHANE.....	2.2	2.6		1.6	
PROPANE.....	0.4	0.8		0.3	
N-BUTANE.....	0.2	0.2		0.1	
ISOBUTANE.....	0.1	0.2		0.1	
N-PENTANE.....	0.1	0.1		0.1	
ISOPENTANE.....	TRACE	0.1		TRACE	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.1	0.1		0.1	
NITROGEN.....	0.6	0.4		0.5	
OXYGEN.....	TRACE	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.7	1.4		0.4	
HELIUM.....	TRACE	0.01		TRACE	
HEATING VALUE.....	1038	1047		1034	
SPECIFIC GRAVITY.....	0.587	0.602		0.577	

INDEX 3028 SAMPLE 14665		INDEX 3029 SAMPLE 14993		INDEX 3030 SAMPLE 14994	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	IBERIA	IBERIA		IBERIA	
FIELD.....	IBERIA	JEFFERSON ISLAND		JEFFERSON ISLAND	
WELL NAME.....	DUHE NO. 2	J. L. BAYLESS NO. 1		J. L. BAYLESS NO. 1-D	
LOCATION.....	SEC. 41, T12S, R8E	SEC. 65, T12S, R5E		SEC. 65, T12S, R5E	
OWNER.....	ASHLAND OIL, INC.	C & K PETROLEUM, INC.		C & K PETROLEUM, INC.	
COMPLETED.....	06/18/75	02/14/77		02/04/77	
SAMPLED.....	04/27/76	05/04/77		05/04/77	
FORMATION.....	MIOC-ROCHAN	MIOC		MIOC	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	11412	13759		13381	
WELLHEAD PRESSURE, PSIG.....	4042	5000		4960	
OPEN FLOW, MCFD.....	1321	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	93.9	87.8		85.6	
ETHANE.....	3.6	5.1		6.2	
PROPANE.....	1.0	2.7		3.0	
N-BUTANE.....	0.2	0.9		0.7	
ISOBUTANE.....	0.3	0.8		0.9	
N-PENTANE.....	TRACE	0.3		0.2	
ISOPENTANE.....	0.1	0.3		0.1	
CYCLOPENTANE.....	TRACE	0.1		TRACE	
HEXANES PLUS.....	0.1	0.3		0.2	
NITROGEN.....	0.4	0.1		1.0	
OXYGEN.....	0.0	0.0		0.2	
ARGON.....	TRACE	0.0		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.4	0.0		1.9	
HELIUM.....	TRACE	0.00		0.00	
HEATING VALUE.....	1068	1153		1133	
SPECIFIC GRAVITY.....	0.600	0.669		0.674	

INDEX 3031 SAMPLE 15109		INDEX 3032 SAMPLE 12413		INDEX 3033 SAMPLE 4341	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	IBERIA	IBERIA		IBERIA	
FIELD.....	JEFFERSON ISLAND	MOUND POINT		RABBIT ISLAND	
WELL NAME.....	CLEVELAND DUHON NO. 1	MOUND POINT NO. 38		STATE RABBIT ISLAND NO. 10	
LOCATION.....	SEC. 65, T12S, R5E	STATE LEASE 340, OFFSHORE		ATCHAFALAYA BAY	
OWNER.....	C & K PETROLEUM, INC.	TEXACO INC.		TEXAS CO.	
COMPLETED.....	07/24/77	08/01/69		06/22/47	
SAMPLED.....	09/26/77	08/31/70		08/12/47	
FORMATION.....	MIOC-SD2	MIOC-Y SAND, SEG. D.		MIOC	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	13592	12050		10545	
WELLHEAD PRESSURE, PSIG.....	100	3500		4200	
OPEN FLOW, MCFD.....	NOT GIVEN	5300		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	84.2	92.2		83.1	
ETHANE.....	6.0	3.0		9.5	
PROPANE.....	3.2	1.4		---	
N-BUTANE.....	1.0	0.2		---	
ISOBUTANE.....	0.3	0.2		---	
N-PENTANE.....	0.3	0.0		---	
ISOPENTANE.....	0.3	0.0		---	
CYCLOPENTANE.....	0.1	0.1		---	
HEXANES PLUS.....	0.4	0.3		---	
NITROGEN.....	1.5	1.4		5.6	
OXYGEN.....	0.0	0.0		1.4	
ARGON.....	TRACE	TRACE		---	
HYDROGEN.....	0.0	0.1		---	
HYDROGEN SULFIDE.....	0.0	0.0		---	
CARBON DIOXIDE.....	1.0	0.7		0.4	
HELIUM.....	0.01	TRACE		0.01	
HEATING VALUE.....	1170	1076		1012	
SPECIFIC GRAVITY.....	0.685	0.620		0.636	

INDEX 3034 SAMPLE 12378		INDEX 3035 SAMPLE 12386		INDEX 3036 SAMPLE 4021	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	IBERIA	IBERIA		IBERIA	
FIELD.....	WEEKS ISLAND	RABBIT ISLAND		WEEKS ISLAND	
WELL NAME.....	STATE LEASE 340 NO. 93	STATE LEASE 340 NO. 93		SMITH STATE UNIT 1 NO. 1	
LOCATION.....	ATCHAFALAYA BAY, OFFSHORE	OFFSHORE		SEC. 13, T14S, R6E	
OWNER.....	ATKINS INC.	ATKINS INC.		SHELL OIL CO.	
COMPLETED.....	02/01/63	02/01/63		---/---/00	
SAMPLED.....	08/12/70	08/12/70		05/10/45	
FORMATION.....	MIOC-NO. 20 SAND, SEG. A	MIOC-NO. 20 SAND, SEG. A		MIOC	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	11072	11072		13400	
WELLHEAD PRESSURE, PSIG.....	4300	4300		4500	
OPEN FLOW, MCFD.....	8800	8800		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	94.5	94.5		84.7	
ETHANE.....	2.8	2.9		14.4	
PROPANE.....	1.0	0.9		---	
N-BUTANE.....	0.3	0.2		---	
ISOBUTANE.....	0.3	0.2		---	
N-PENTANE.....	0.1	0.0		---	
ISOPENTANE.....	0.0	0.0		---	
CYCLOPENTANE.....	TRACE	TRACE		---	
HEXANES PLUS.....	0.2	0.3		---	
NITROGEN.....	0.0	0.0		0.3	
OXYGEN.....	0.0	TRACE		0.0	
ARGON.....	TRACE	TRACE		---	
HYDROGEN.....	0.0	0.0		---	
HYDROGEN SULFIDE.....	0.0	0.0		---	
CARBON DIOXIDE.....	0.6	0.5		0.6	
HELIUM.....	TRACE	TRACE		TRACE	
HEATING VALUE.....	1068	1061		1116	
SPECIFIC GRAVITY.....	0.602	0.596		0.633	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3037 4096			INDEX SAMPLE	3038 5633			INDEX SAMPLE	3039 17595
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	IBERIA			IBERIA				IBERIA			
FIELD.....	WEEKS ISLAND			WEEKS ISLAND				BAYOU SORRELL NW			
WELL NAME.....	SMITH-STATE UNIT 1			CONSOULIN STATE UNIT NO. 2				BAIST NO. 1			
LOCATION.....	SEC. 13, T14S, R8E			SEC. 41, T14S, R7E				SEC. 87, T10S, R10E			
OWNER.....	SHELL OIL CO.			SHELL OIL CO.				HOUSTON OILFIELDS CO.			
COMPLETED.....	7/77/00			10/01/53				03/23/84			
SAMPLED.....	06/04/54			MIOC-L				02/20/85			
FORMATION.....	MIOC			MIOC-L				OLIG-CIBICIDES HAZZARDI			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	13551			17186				11324			
WELLHEAD PRESSURE, PSIG.....	5000			5800				3500			
OPEN FLOW, MCFD.....	NOT GIVEN			4847				1425			
COMPONENT, MOLE PCT											
METHANE.....	85.5			93.5				91.3			
ETHANE.....	10.9			2.6				4.9			
PROPANE.....	---			0.6				1.7			
N-BUTANE.....	---			0.2				0.4			
ISOBUTANE.....	---			0.2				0.5			
N-PENTANE.....	---			0.0				0.1			
ISOPENTANE.....	---			0.2				0.2			
CYCLOPENTANE.....	---			0.0				TRACE			
HEXANES PLUS.....	---			TRACE				0.1			
NITROGEN.....	3.1			1.3				0.4			
OXYGEN.....	0.1			TRACE				0.0			
ARGON.....	---			TRACE				TRACE			
HYDROGEN.....	---			0.0				0.0			
HYDROGEN SULFIDE**.....	---			0.0				0.0			
CARBON DIOXIDE.....	0.4			1.2				0.3			
HELIUM.....	0.01			0.01				0.01			
HEATING VALUE.....	1061			1032				1105			
SPECIFIC GRAVITY.....	0.626			0.599				0.622			
		INDEX SAMPLE	3040 15569			INDEX SAMPLE	3041 3945			INDEX SAMPLE	3042 3946
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	IBERVILLE			IBERVILLE				IBERVILLE			
FIELD.....	GROSSE TETE			LAUREL RIDGE				LAUREL RIDGE			
WELL NAME.....	WILBERTS "C" NO. 1			ADAM HYHEL NO. 1				C. G. ROBINSON NO. 1			
LOCATION.....	SEC. 22, T8S, R11E			SEC. 91, T10S, R13E				SEC. 91, T10S, R13E			
OWNER.....	GOULDING PRODUCTION CO.			HUMBLE OIL & REFINING CO.				HUMBLE OIL & REFINING CO.			
COMPLETED.....	12/02/75			07/03/44				11/20/44			
SAMPLED.....	02/19/79			11/21/44				11/21/44			
FORMATION.....	PEAN-ROME			OLIG-MET LINE				OLIG-MET LINE			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	10448			10688				10620			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			4449				2978			
COMPONENT, MOLE PCT											
METHANE.....	86.8			90.0				91.0			
ETHANE.....	8.9			8.9				8.3			
PROPANE.....	3.5			---				---			
N-BUTANE.....	0.7			---				---			
ISOBUTANE.....	0.7			---				---			
N-PENTANE.....	0.2			---				---			
ISOPENTANE.....	0.3			---				---			
CYCLOPENTANE.....	0.1			---				---			
HEXANES PLUS.....	0.2			---				---			
NITROGEN.....	0.4			0.0				0.0			
OXYGEN.....	0.0			0.3				0.2			
ARGON.....	0.0			---				---			
HYDROGEN.....	0.0			---				---			
HYDROGEN SULFIDE**.....	0.0			---				---			
CARBON DIOXIDE.....	0.2			0.8				0.5			
HELIUM.....	TRACE			0.00				0.01			
HEATING VALUE.....	1176			1071				1071			
SPECIFIC GRAVITY.....	0.665			0.608				0.601			
		INDEX SAMPLE	3043 16046			INDEX SAMPLE	3044 4146			INDEX SAMPLE	3045 15158
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	IBERVILLE			JACKSON				JACKSON			
FIELD.....	MARINGOUIN			CHATHAM				CHATHAM			
WELL NAME.....	G. G. HYMES ET AL. NO. 1			TREMONT				TREMONT A NO. 1			
LOCATION.....	SEC. 98, T15S, R9E			SEC. 22, T15N, R1W				SEC. 15, T15N, R1W			
OWNER.....	RIO BRAVO OIL CO.			SHELL OIL CO.				PHILLIPS PETROLEUM CO.			
COMPLETED.....	08/31/78			05/27/46				11/27/62			
SAMPLED.....	08/11/80			10/31/46				11/04/63			
FORMATION.....	OLIG-FR10			NOT GIVEN				CRET-JAMES			
GEOLOGIC PROVINCE CODE.....	220			230				230			
DEPTH, FEET.....	3402			9620				6840			
WELLHEAD PRESSURE, PSIG.....	3400			3100				2800			
OPEN FLOW, MCFD.....	1000			150				44000			
COMPONENT, MOLE PCT											
METHANE.....	91.1			95.9				89.1			
ETHANE.....	3.8			0.0				1.0			
PROPANE.....	1.8			---				0.6			
N-BUTANE.....	0.5			---				0.2			
ISOBUTANE.....	0.6			---				TRACE			
N-PENTANE.....	0.2			---				TRACE			
ISOPENTANE.....	0.3			---				0.2			
CYCLOPENTANE.....	0.1			---				TRACE			
HEXANES PLUS.....	0.4			---				0.2			
NITROGEN.....	1.0			0.4				8.4			
OXYGEN.....	0.1			---				TRACE			
ARGON.....	0.0			---				TRACE			
HYDROGEN.....	0.0			---				0.0			
HYDROGEN SULFIDE**.....	0.0			---				0.0			
CARBON DIOXIDE.....	TRACE			3.2				TRACE			
HELIUM.....	0.01			0.05				0.10			
HEATING VALUE.....	113			---				962			
SPECIFIC GRAVITY.....	0.655			0.589				0.610			
		INDEX SAMPLE	3046 15646			INDEX SAMPLE	3047 14447			INDEX SAMPLE	3048 15883
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	JACKSON			JACKSON				JACKSON			
FIELD.....	CLEAR BRANCH			DANVILLE				DANVILLE			
WELL NAME.....	M. S. SMITH NO. 1			CAN B NO. 1				HODGE-HUNT NO. 1			
LOCATION.....	SEC. 2, T14N, R2W			SEC. 29, T14N, R4W				SEC. 30, T14N, R4W			
OWNER.....	HUNT PETROLEUM CORP.			PHILLIPS PETROLEUM CO.				JUSTISS-NEARS OIL CO., INC.			
COMPLETED.....	07/22/78			01/26/74				09/17/79			
SAMPLED.....	06/27/75			09/02/75				11/16/80			
FORMATION.....	CRET-HOSSTON			CRET-HOSSTON				CRET-HOSSTON			
GEOLOGIC PROVINCE CODE.....	230			230				230			
DEPTH, FEET.....	9828			8530				8443			
WELLHEAD PRESSURE, PSIG.....	3900			3259				1350			
OPEN FLOW, MCFD.....	6900			3000				1581			
COMPONENT, MOLE PCT											
METHANE.....	92.5			94.1				95.1			
ETHANE.....	0.1			0.2				0.2			
PROPANE.....	TRACE			TRACE				0.1			
N-BUTANE.....	0.0			0.0				0.0			
ISOBUTANE.....	0.0			0.0				0.0			
N-PENTANE.....	0.0			0.0				0.0			
ISOPENTANE.....	0.0			0.0				0.0			
CYCLOPENTANE.....	0.0			0.0				0.0			
HEXANES PLUS.....	0.0			0.0				0.0			
NITROGEN.....	1.4			3.0				2.4			
OXYGEN.....	0.0			---				0.1			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			0.0				0.0			
HYDROGEN SULFIDE**.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	5.8			2.6				2.1			
HELIUM.....	0.03			0.08				0.05			
HEATING VALUE.....	939			957				970			
SPECIFIC GRAVITY.....	0.616			0.593				0.587			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3049 SAMPLE 14555		INDEX 3050 SAMPLE 16175		INDEX 3051 SAMPLE 16729	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	JACKSON	JACKSON		JACKSON	
FIELD.....	KEPNER CREEK	VERNON		VERNON	
WELL NAME.....	L 6- STEWART NO. 1	WILLIAMETTE NO. 1		DAVIS BROS. LUMBER NO. A-1	
LOCATION.....	SEC. 14, T16N, R3W	SEC. 33, T17N, R2W		SEC. 21, T6N, R2E	
OWNER.....	JONES-O'BRIEN, INC.	WESSELY ENERGY CORP.		CRYSTAL OIL CO.	
COMPLETED.....	12/09/74	--/--/00		05/--/82	
SAMPLED.....	12/--/75	01/23/81		12/10/82	
FORMATION.....	CRET-JAMES	NOT GIVEN		JURA-COTTON VALLEY	
GEOLOGIC PROVINCE CODE.....	230	230		230	
DEPTH, FEET.....	6572	NOT GIVEN		13684	
WELLHEAD PRESSURE, PSIG.....	1892	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	2008	NOT GIVEN		3900	
COMPONENT, MOLE PCT					
METHANE.....	84.9	95.9		96.1	
ETHANE.....	0.9	0.3		0.3	
PROPANE.....	0.3	TRACE		TRACE	
N-BUTANE.....	0.1	TRACE		0.0	
ISOBUTANE.....	0.1	TRACE		0.0	
N-PENTANE.....	TRACE	TRACE		0.1	
ISOPENTANE.....	0.1	0.0		0.0	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.1	0.1		0.1	
NITROGEN.....	0.2	0.1		0.1	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		0.0	
HYDROGEN.....	0.0	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	3.0	1.5		3.1	
HELIUM.....	0.09	0.05		TRACE	
HEATING VALUE.....	900	982		989	
SPECIFIC GRAVITY.....	0.650	0.580		0.590	

INDEX 3052 SAMPLE 17545		INDEX 3053 SAMPLE 13157		INDEX 3054 SAMPLE 12947	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	JEFFERSON	JEFFERSON		JEFFERSON DAVIS	
FIELD.....	RAY DE CHENE	GOOD HOPE E		BON AIR	
WELL NAME.....	S 1217 NO. 1	UNIV. CITY SUBDIVISION NO. 1		E. MALLETT NO. 1	
LOCATION.....	SEC. 26, T19S, R24E	SEC. 11, T12S, R9E		SEC. 21, T10S, R6W	
OWNER.....	SUPERIOR OIL CO.	DANSON EXPLORATION CORP.		AUSTRAL GAS CO.	
COMPLETED.....	05/05/83	08/01/70		04/06/70	
SAMPLED.....	12/17/84	02/--/72		08/11/71	
FORMATION.....	-1900 RA SU	-UNIV. SAND		OLIG-HACKBERRY M	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	1928	9544		11958	
WELLHEAD PRESSURE, PSIG.....	805	3000		5980	
OPEN FLOW, MCFD.....	539	4500		55000	
COMPONENT, MOLE PCT					
METHANE.....	99.3	93.4		77.8	
ETHANE.....	0.0	1.4		6.3	
PROPANE.....	0.0	0.0		5.7	
N-BUTANE.....	0.0	0.3		1.8	
ISOBUTANE.....	0.0	0.5		2.9	
N-PENTANE.....	0.0	0.2		0.8	
ISOPENTANE.....	0.0	0.2		0.4	
CYCLOPENTANE.....	0.0	0.2		0.2	
HEXANES PLUS.....	0.0	0.4		0.6	
NITROGEN.....	0.5	1.9		2.4	
OXYGEN.....	0.0	0.3		0.3	
ARGON.....	TRACE	TRACE		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.2		0.7	
HELIUM.....	0.03	0.01		TRACE	
HEATING VALUE.....	1106	1055		1297	
SPECIFIC GRAVITY.....	0.557	0.614		0.773	

INDEX 3055 SAMPLE 13882		INDEX 3056 SAMPLE 17540		INDEX 3057 SAMPLE 3830	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	JEFFERSON DAVIS	JEFFERSON DAVIS		JEFFERSON DAVIS	
FIELD.....	BON AIR N	HATHAWAY		LAKE ARTHUR	
WELL NAME.....	EUGENE LEBLANC NO. 1	GLENN F. LITTEAL NO. 1		J. STURDIVANT NO. 4	
LOCATION.....	SEC. 1, T10S, R6W	SEC. 9, T18S, R3W		SEC. 35, T10S, R4W	
OWNER.....	AMOCO PRODUCTION CO.	TEE OPERATING CO.		CONTINENTAL OIL CO.	
COMPLETED.....	06/13/73	06/--/83		04/26/44	
SAMPLED.....	01/28/74	12/11/84		05/05/44	
FORMATION.....	OLIG-HACKBERRY	OLIG-FRIO		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	12300	10351		11348	
WELLHEAD PRESSURE, PSIG.....	7600	1800		5400	
OPEN FLOW, MCFD.....	7500	NOT GIVEN		5000	
COMPONENT, MOLE PCT					
METHANE.....	92.2	90.6		80.6	
ETHANE.....	4.7	4.3		14.0	
PROPANE.....	1.4	1.7		---	
N-BUTANE.....	0.2	0.3		---	
ISOBUTANE.....	0.3	0.9		---	
N-PENTANE.....	TRACE	0.2		---	
ISOPENTANE.....	0.1	0.2		---	
CYCLOPENTANE.....	TRACE	---		---	
HEXANES PLUS.....	TRACE	0.3		---	
NITROGEN.....	0.4	0.6		4.4	
OXYGEN.....	0.0	0.0		0.4	
ARGON.....	0.0	TRACE		---	
HYDROGEN.....	0.0	TRACE		---	
HYDROGEN SULFIDE.....	0.0	0.0		---	
CARBON DIOXIDE.....	0.8	0.3		0.6	
HELIUM.....	TRACE	TRACE		0.00	
HEATING VALUE.....	1076	1122		1067	
SPECIFIC GRAVITY.....	0.611	0.638		0.650	

INDEX 3058 SAMPLE 12303		INDEX 3059 SAMPLE 16462		INDEX 3060 SAMPLE 15166	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	JEFFERSON DAVIS	JEFFERSON DAVIS		JEFFERSON DAVIS	
FIELD.....	LAKE ARTHUR E	ROANOKE E		THORNWELL	
WELL NAME.....	J. T. FERGUSON NO. 1	H.A. WILKINSON NO. 1		J. M. PETITJEAN NO. 1	
LOCATION.....	SEC. 1, T11S, R3W	SEC. 16, T11S, R3W		SEC. 15, T11S, R4W	
OWNER.....	TEXACO INC.	CONOCO, INC.		ANSCHUTZ CORP.	
COMPLETED.....	02/02/70	09/23/81		11/01/76	
SAMPLED.....	06/07/70	03/26/82		12/08/77	
FORMATION.....	OLIG-ALLIANCE SEG. A	OLIG-HACKBERRY SD 2ND		HTOC	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	11953	12284		15744	
WELLHEAD PRESSURE, PSIG.....	13100	7900		5500	
OPEN FLOW, MCFD.....	7329	4080		3700	
COMPONENT, MOLE PCT					
METHANE.....	91.0	84.5		87.3	
ETHANE.....	4.2	5.5		6.0	
PROPANE.....	1.9	3.9		2.3	
N-BUTANE.....	0.4	1.5		0.5	
ISOBUTANE.....	0.8	1.4		0.5	
N-PENTANE.....	0.1	0.6		0.2	
ISOPENTANE.....	0.1	0.7		0.2	
CYCLOPENTANE.....	0.1	TRACE		TRACE	
HEXANES PLUS.....	0.4	0.8		0.3	
NITROGEN.....	0.6	0.7		0.1	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.0	0.0		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.1		2.7	
HELIUM.....	TRACE	TRACE		TRACE	
HEATING VALUE.....	1120	1257		1118	
SPECIFIC GRAVITY.....	0.631	0.717		0.665	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	INDEX SAMPLE	3061 6049	INDEX SAMPLE	3062 3810	INDEX SAMPLE	3063 4824
LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....		JEFFERSON DAVIS	JEFFERSON DAVIS	JEFFERSON DAVIS	JEFFERSON DAVIS	
FIELD.....		THORNWELL S	WELSH	WELSH	WELSH	
WELL NAME.....		EDDIE BENOT NO. 1	W. L. TRIMBLE NO. 1	R. A. ESTES NO. 1	R. A. ESTES NO. 1	
LOCATION.....		SEC. 25, T11S, R5W	SEC. 35, T9S, R5W	SEC. 11, T9S, R5W	SEC. 11, T9S, R5W	
OWNER.....		PAN AMERICAN PETROLEUM CORP.	STANOLIND OIL & GAS CO.	CONTINENTAL OIL CO.	CONTINENTAL OIL CO.	
COMPLETED.....		05/08/55	07/05/43	08/05/49	08/05/49	
SAMPLED.....		05/07/56	04/16/44	11/30/49	11/30/49	
FORMATION.....		OLIG-BENOIT	OLIG-H	OLIG-HACKBERRY	OLIG-HACKBERRY	
GEOLOGIC PROVINCE CODE.....		220	220	220	220	
DEPTH, FEET.....		12778	8838	11263	11263	
WELLHEAD PRESSURE, PSIG.....		7500	3500	4875	4875	
OPEN FLOW, MCFD.....		NOT GIVEN	19000	1580	1580	
COMPONENT, MOLE PCT						
METHANE.....		70.7	85.0	93.3	93.3	
ETHANE.....		14.3	9.4	3.7	3.7	
PROPANE.....		7.2	---	1.1	1.1	
N-BUTANE.....		1.7	---	0.3	0.3	
ISOBUTANE.....		2.5	---	0.2	0.2	
N-PENTANE.....		0.3	---	0.1	0.1	
ISOPENTANE.....		0.7	---	0.2	0.2	
CYCLOPENTANE.....		0.1	---	TRACE	TRACE	
HEXANES PLUS.....		0.4	---	0.0	0.0	
NITROGEN.....		0.0	4.8	0.4	0.4	
OXYGEN.....		0.1	0.3	0.1	0.1	
ARGON.....		0.0	---	0.0	0.0	
HYDROGEN.....		TRACE	---	0.0	0.0	
HYDROGEN SULFIDE.....		0.0	---	0.6	0.6	
CARBON DIOXIDE.....		2.1	0.5	TRACE	TRACE	
HELIUM.....		0.03	0.00	1070	1070	
HEATING VALUE.....		1368	1030	0.605	0.605	
SPECIFIC GRAVITY.....		0.814	0.627			
STATE	INDEX SAMPLE	3064 16740	INDEX SAMPLE	3065 10417	INDEX SAMPLE	3066 16283
LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....		JEFFERSON DAVIS	LA SALLE	LA SALLE	LA SALLE	
FIELD.....		WELSH	LA SALLE	LA SALLE	LA SALLE	
WELL NAME.....		IRVIN FONTENOT NO. 1	URANIA LUMBER CO. NO. E-2	IPB NO. 6	IPB NO. 6	
LOCATION.....		SEC. 7, T8S, R5W	SEC. 10, T10N, R2E	SEC. 4, T8N, R2E	SEC. 4, T8N, R2E	
OWNER.....		GETTY OIL CO.	PLACID OIL CO.	PLACID OIL CO.	PLACID OIL CO.	
COMPLETED.....		07/1/82	09/30/65	10/31/80	10/31/80	
SAMPLED.....		12/1/82	02/24/66	06/15/81	06/15/81	
FORMATION.....		OLIG-HACKBERRY	EOCE-WILCOX	EOCE-WILCOX	EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....		220	230	230	230	
DEPTH, FEET.....		9688	2482	2810	2810	
WELLHEAD PRESSURE, PSIG.....		NOT GIVEN	1100	1300	1300	
OPEN FLOW, MCFD.....		3000	650	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....		91.4	97.0	97.1	97.1	
ETHANE.....		3.9	0.2	0.2	0.2	
PROPANE.....		1.7	0.0	TRACE	TRACE	
N-BUTANE.....		0.5	0.0	TRACE	TRACE	
ISOBUTANE.....		0.6	0.0	TRACE	TRACE	
N-PENTANE.....		0.1	0.0	TRACE	TRACE	
ISOPENTANE.....		0.4	0.0	0.0	0.0	
CYCLOPENTANE.....		0.1	0.0	TRACE	TRACE	
HEXANES PLUS.....		0.2	0.0	0.1	0.1	
NITROGEN.....		0.4	0.0	0.5	0.5	
OXYGEN.....		TRACE	0.0	TRACE	TRACE	
ARGON.....		TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....		0.2	0.0	0.0	0.0	
HYDROGEN SULFIDE.....		0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....		0.4	0.3	1.0	1.0	
HELIUM.....		TRACE	0.03	0.02	0.02	
HEATING VALUE.....		1113	986	0.592	0.592	
SPECIFIC GRAVITY.....		0.628	0.569	0.573	0.573	
STATE	INDEX SAMPLE	3067 16842	INDEX SAMPLE	3068 15622	INDEX SAMPLE	3069 10039
LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....		LA SALLE	LAFAYETTE	LAFAYETTE	LAFAYETTE	
FIELD.....		SUMMERVILLE S	ANSEL COULEE	ANSEL COULEE	ANSEL COULEE	
WELL NAME.....		IPB LLS NO. 22	RICHARD NO. 1	RICHARD NO. 1	RICHARD NO. 1	
LOCATION.....		SEC. 35, T9N, R2E	SEC. 10, T11S, R4E	SEC. 3, T11S, R4E	SEC. 3, T11S, R4E	
OWNER.....		PLACID OIL CO.	REB PETROLEUM CO.	SUPERIOR OIL CO.	SUPERIOR OIL CO.	
COMPLETED.....		11/1/82	05/14/79	08/19/64	08/19/64	
SAMPLED.....		03/1/83	05/10/79	08/04/65	08/04/65	
FORMATION.....		EOCE-E-3 SAND	NOT GIVEN	OLIG-MARTEX	OLIG-MARTEX	
GEOLOGIC PROVINCE CODE.....		230	220	220	220	
DEPTH, FEET.....		3964	12634	15155	15155	
WELLHEAD PRESSURE, PSIG.....		900	6015	7725	7725	
OPEN FLOW, MCFD.....		170	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....		96.0	89.1	93.7	93.7	
ETHANE.....		0.3	6.2	3.0	3.0	
PROPANE.....		TRACE	2.3	1.3	1.3	
N-BUTANE.....		0.0	0.0	0.3	0.3	
ISOBUTANE.....		0.0	0.5	0.2	0.2	
N-PENTANE.....		0.0	0.2	0.1	0.1	
ISOPENTANE.....		0.0	0.1	0.1	0.1	
CYCLOPENTANE.....		0.0	TRACE	TRACE	TRACE	
HEXANES PLUS.....		0.0	0.2	0.1	0.1	
NITROGEN.....		1.8	0.0	0.2	0.2	
OXYGEN.....		0.1	0.0	0.0	0.0	
ARGON.....		TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....		0.2	0.1	0.0	0.0	
HYDROGEN SULFIDE.....		0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....		1.4	0.5	1.0	1.0	
HELIUM.....		0.02	TRACE	TRACE	TRACE	
HEATING VALUE.....		979	1130	1067	1067	
SPECIFIC GRAVITY.....		0.575	0.640	0.607	0.607	
STATE	INDEX SAMPLE	3070 11634	INDEX SAMPLE	3071 17533	INDEX SAMPLE	3072 14253
LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....		LAFAYETTE	LAFAYETTE	LAFAYETTE	LAFAYETTE	
FIELD.....		MAURICE N	MAURICE N	MAURICE N	MAURICE N	
WELL NAME.....		J. M. BROUSSARD NO. 1	PAUL DE CLOUT NO. 1	GUINDY NO. 1	GUINDY NO. 1	
LOCATION.....		SEC. 19, T10S, R4E	SEC. 24, T10S, R3E	SEC. 23, T11S, R4E	SEC. 23, T11S, R4E	
OWNER.....		EDWIN L. COX	EXCHANGE OIL & GAS CORP.	PHILLIPS PETROLEUM CO.	PHILLIPS PETROLEUM CO.	
COMPLETED.....		08/05/67	12/03/84	06/12/74	06/12/74	
SAMPLED.....		07/1/70	01/23/84	01/03/75	01/03/75	
FORMATION.....		OLIG-MARGINULINA TEXANA	MOC-MEXICANA	OLIG-CAHERINA	OLIG-CAHERINA	
GEOLOGIC PROVINCE CODE.....		220	220	220	220	
DEPTH, FEET.....		13076	15100	15735	15735	
WELLHEAD PRESSURE, PSIG.....		9900	10000	8900	8900	
OPEN FLOW, MCFD.....		6500	10	52000	52000	
COMPONENT, MOLE PCT						
METHANE.....		91.3	85.4	87.0	87.0	
ETHANE.....		4.7	6.4	6.5	6.5	
PROPANE.....		1.3	3.2	2.9	2.9	
N-BUTANE.....		0.5	0.8	0.5	0.5	
ISOBUTANE.....		0.2	0.1	0.2	0.2	
N-PENTANE.....		0.2	0.2	0.2	0.2	
ISOPENTANE.....		0.1	0.3	0.1	0.1	
CYCLOPENTANE.....		0.2	0.3	TRACE	TRACE	
HEXANES PLUS.....		0.4	0.3	0.1	0.1	
NITROGEN.....		0.4	0.3	0.4	0.4	
OXYGEN.....		0.0	TRACE	0.0	0.0	
ARGON.....		0.0	TRACE	0.0	0.0	
HYDROGEN.....		TRACE	0.0	0.0	0.0	
HYDROGEN SULFIDE.....		0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....		0.8	0.0	1.0	1.0	
HELIUM.....		0.01	TRACE	TRACE	TRACE	
HEATING VALUE.....		1107	1167	1148	1148	
SPECIFIC GRAVITY.....		0.631	0.687	0.660	0.660	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

285

INDEX 3073 SAMPLE 17564		INDEX 3074 SAMPLE 8187		INDEX 3075 SAMPLE 13919	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	LAFAYETTE	LAFAYETTE	LAFAYETTE	LAFAYETTE	
FIELD.....	RIDGE W	WILDCAT	WILDCAT	BAY LIZETTE	
WELL NAME.....	PRIDGEON NEAUX NO. 1	C. R. MAYER NO. 1	C. R. MAYER NO. 1	STATE LEASE 5918 NO. 1	
LOCATION.....	SEC. 2, T10S, R2E	SEC. 2, T9S, R3E	SEC. 2, T9S, R3E	SEC. 11, T21S, R23E	
OWNER.....	MAY PETROLEUM, INC.	SKELLY OIL CO.	SKELLY OIL CO.	ATLANTIC RICHFIELD CO.	
COMPLETED.....	02/27/84	05/19/61	05/19/61	06/24/73	
SAMPLED.....	01/10/85	09/05/61	09/05/61	02/04/74	
FORMATION.....	OLIG-MIOGYF	NOT GIVEN	NOT GIVEN	MIOC-TEXTULARIA L-1	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	12160	13495	14495	14495	
WELLHEAD PRESSURE, PSIG.....	5300	8600	5234	5234	
OPEN FLOW, MCFD.....	1103	200000	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	91.9	89.7	96.8	96.8	
ETHANE.....	4.5	4.6	1.1	1.1	
PROPANE.....	1.5	2.2	0.2	0.2	
N-BUTANE.....	0.4	0.5	0.1	0.1	
ISOBUTANE.....	0.4	0.5	0.0	0.0	
N-PENTANE.....	0.1	0.1	0.0	0.0	
ISOPENTANE.....	0.2	0.2	0.0	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	0.0	
HEXANES PLUS.....	0.1	0.1	0.0	0.0	
NITROGEN.....	0.3	0.6	0.8	0.8	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.6	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.6	0.9	1.0	1.0	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	1095	1104	1009	1009	
SPECIFIC GRAVITY.....	0.619	0.633	0.576	0.576	

INDEX 3076 SAMPLE 13751		INDEX 3077 SAMPLE 17322		INDEX 3078 SAMPLE 3812	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	LAFAYETTE	LAFAYETTE	LAFAYETTE	LAFAYETTE	
FIELD.....	BOUYOU RAPHAEL	BOURB	BOURB	BULLY CAMP	
WELL NAME.....	ALTA F. STONE ET AL. NO. 1	STATE LEASE 9637 NO. 2	STATE LEASE 9637 NO. 2	DELTA SECURITIES CO. NO. 1	
LOCATION.....	SEC. 45, T19S, R22E	T17S, R19E	T17S, R19E	SEC. 1, T19S, R22E	
OWNER.....	NORTHCOIT EXPLORATION CO.	MCCORMICK PRODUCTION CO.	MCCORMICK PRODUCTION CO.	GULF OIL CO.	
COMPLETED.....	06/19/73	06/06/83	06/06/83	11/11/42	
SAMPLED.....	09/19/73	06/13/84	06/13/84	04/18/44	
FORMATION.....	STONE	KRUMBAUER C	KRUMBAUER C	MIOC-	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	1687	11917	996	996	
WELLHEAD PRESSURE, PSIG.....	735	1100	200	200	
OPEN FLOW, MCFD.....	0.87	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	99.3	94.9	94.0	94.0	
ETHANE.....	TRACE	0.4	0.2	0.2	
PROPANE.....	0.1	0.8	---	---	
N-BUTANE.....	0.0	0.2	---	---	
ISOBUTANE.....	0.0	0.3	---	---	
N-PENTANE.....	0.0	0.1	---	---	
ISOPENTANE.....	0.0	0.1	---	---	
CYCLOPENTANE.....	0.0	TRACE	---	---	
HEXANES PLUS.....	0.0	0.0	---	---	
NITROGEN.....	0.5	0.3	5.1	5.1	
OXYGEN.....	0.0	TRACE	0.4	0.4	
ARGON.....	TRACE	TRACE	---	---	
HYDROGEN.....	0.0	0.0	---	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	---	
CARBON DIOXIDE.....	0.1	0.6	0.3	0.3	
HELIUM.....	TRACE	TRACE	0.09	0.09	
HEATING VALUE.....	1008	1056	956	956	
SPECIFIC GRAVITY.....	0.558	0.594	0.582	0.582	

INDEX 3079 SAMPLE 10094		INDEX 3080 SAMPLE 15935		INDEX 3081 SAMPLE 14241	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	LAFAYETTE	LAFAYETTE	LAFAYETTE	LAFAYETTE	
FIELD.....	CRISTELLARIA A SUA BOWIE 1-A	CUT OFF	CUT OFF	GOLDEN MEADOW	
WELL NAME.....	CRISTELLARIA A SUA BOWIE 1-A	BRANJ NO. 1	BRANJ NO. 1	SL378 CATFISH LAKE NO. 101	
LOCATION.....	SEC. 6, T14S, R17E	SEC. 3, T18S, R21E	SEC. 3, T18S, R21E	SEC. 3, T20S, R21E	
OWNER.....	TEXACO PACIFIC OIL CO.	MCALISTER FUEL CO.	MCALISTER FUEL CO.	TEXACO INC.	
COMPLETED.....	03/08/64	12/28/78	12/28/78	11/13/74	
SAMPLED.....	09/02/65	04/10/80	04/10/80	12/06/74	
FORMATION.....	MIOC-CRISTELLARIA	MIOC-UL-2	MIOC-UL-2	MIOC-	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	12040	13867	10286	10286	
WELLHEAD PRESSURE, PSIG.....	6150	9160	1800	1800	
OPEN FLOW, MCFD.....	7600	200000	518000	518000	
COMPONENT, MOLE PCT					
METHANE.....	92.9	94.9	93.8	93.8	
ETHANE.....	4.0	2.9	2.9	2.9	
PROPANE.....	2.4	0.7	0.4	0.4	
N-BUTANE.....	0.3	0.2	0.4	0.4	
ISOBUTANE.....	0.3	0.2	0.5	0.5	
N-PENTANE.....	0.1	0.1	TRACE	TRACE	
ISOPENTANE.....	0.2	0.1	0.2	0.2	
CYCLOPENTANE.....	TRACE	TRACE	0.1	0.1	
HEXANES PLUS.....	0.1	0.1	0.2	0.2	
NITROGEN.....	0.3	0.0	0.4	0.4	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.5	0.5	0.4	0.4	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	1083	1059	1086	1086	
SPECIFIC GRAVITY.....	0.610	0.594	0.611	0.611	

INDEX 3082 SAMPLE 12944		INDEX 3083 SAMPLE 14565		INDEX 3084 SAMPLE 15747	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	LAFAYETTE	LAFAYETTE	LAFAYETTE	LAFAYETTE	
FIELD.....	GRAND ISLE-OFFSHORE	JOE MCHUGH	JOE MCHUGH	LAKE BOEUF	
WELL NAME.....	STATE LEASE 3523 NO. 5	ARNAUD BOURG ET AL. NO. 1	ARNAUD BOURG ET AL. NO. 1	SABINE ROYALTY CORP. NO. 1	
LOCATION.....	GRAND ISLE BLK. NO. 25	SEC. 37, T15S, R20E	SEC. 37, T15S, R20E	SEC. 29, T15S, R18E	
OWNER.....	HUNT OIL CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	MCMORAN EXPLORATION CO.	
COMPLETED.....	08/05/71	02/11/70	02/11/70	05/---/78	
SAMPLED.....	08/05/71	02/26/75	02/26/75	09/12/79	
FORMATION.....	MIOC-X-SERIES	MIOC-	MIOC-	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	17948	11788	9510	9510	
WELLHEAD PRESSURE, PSIG.....	5100	5100	3100	3100	
OPEN FLOW, MCFD.....	1500	NOT GIVEN	650	650	
COMPONENT, MOLE PCT					
METHANE.....	96.1	92.3	93.6	93.6	
ETHANE.....	1.0	4.4	2.9	2.9	
PROPANE.....	0.6	1.7	1.2	1.2	
N-BUTANE.....	0.2	0.3	0.3	0.3	
ISOBUTANE.....	0.2	0.5	0.4	0.4	
N-PENTANE.....	0.1	0.1	0.1	0.1	
ISOPENTANE.....	0.1	0.1	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	0.2	0.2	
HEXANES PLUS.....	0.1	0.1	0.3	0.3	
NITROGEN.....	0.4	0.0	0.7	0.7	
OXYGEN.....	0.0	0.0	TRACE	TRACE	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.2	0.2	0.2	0.2	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	1034	1013	1086	1086	
SPECIFIC GRAVITY.....	0.591	0.618	0.611	0.611	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3085 13208			INDEX SAMPLE	3086 13200			INDEX SAMPLE	3087 14114
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH	LAFOURCHE			LAFOURCHE				LAFOURCHE			
FIELD	LAKE BOEUF SW			LEEVI				RACCOON LAKE			
WELL NAME	LAUREL VALLEY PLAN NO. 1			LL & E NO. 44				STATE LEASE 6052 NO. 1			
LOCATION	SEC. 51, T15S, R17E			SEC. 13, T21S, R22E				SEC. 20, T21S, R24E			
OWNER	R. L. BURNS OIL & GAS CORP.			TEC. CO. INC.				AMCO PRODUCTION CO.			
COMPLETED	--/--/00			05/05/72				01/29/74			
SAMPLED	02/13/78			05/04/72				01/30/74			
FORMATION	NOT GIVEN			10-1900 FT. SAND				MIOC-TEXTULARIA L-6			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	NOT GIVEN			1908				15178			
WELLHEAD PRESSURE, PSIG	4200			810				5200			
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE	86.7			99.4				87.5			
ETHANE	5.6			TRACE				3.0			
PROPANE	3.2			TRACE				2.9			
N-BUTANE	0.9			TRACE				0.8			
ISOBUTANE	1.1			TRACE				2.0			
N-PENTANE	0.3			TRACE				0.1			
ISOPENTANE	0.4			TRACE				0.5			
CYCLOPENTANE	0.1			TRACE				TRACE			
HEXANES PLUS	0.4			TRACE				0.1			
NITROGEN	0.6			0.4				0.6			
OXYGEN	0.1			0.0				0.0			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	0.0			TRACE				0.0			
HYDROGEN SULFIDE	0.0			0.0				0.0			
CARBON DIOXIDE	0.6			TRACE				2.4			
HELIUM	TRACE			TRACE				0.01			
HEATING VALUE*	1183			1097				1140			
SPECIFIC GRAVITY	0.678			0.555				0.680			
		INDEX SAMPLE	3088 14140			INDEX SAMPLE	3089 13348			INDEX SAMPLE	3090 13349
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH	LAFOURCHE			LAFOURCHE				LAFOURCHE			
FIELD	RACCOON LAKE			STATE LEASE 3088				TIMBALIER BAY			
WELL NAME	FASTERLING NO. 9			STATE LEASE 3088 NO. 11				STATE LEASE 3088 NO. 12			
LOCATION	SEC. 20, T21S, R24E			TIMBALIER BAY				TIMBALIER BAY			
OWNER	AMCO PRODUCTION CO.			UNION OIL CO. OF CALIF.				UNION OIL CO. OF CALIF.			
COMPLETED	--/--/00			02/23/71				11/28/71			
SAMPLED	07/22/74			08/09/72				08/09/72			
FORMATION	NOT GIVEN			NOT GIVEN				MIOC-			
GEOLOGIC PROVINCE CODE	220			220				220			
DEPTH, FEET	NOT GIVEN			2912				2295			
WELLHEAD PRESSURE, PSIG	750			1200				900			
OPEN FLOW, MCFD	4000			2650				3000			
COMPONENT, MOLE PCT											
METHANE	92.0			99.3				99.3			
ETHANE	3.0			0.1				0.1			
PROPANE	1.7			0.0				TRACE			
N-BUTANE	0.3			0.0				0.0			
ISOBUTANE	0.6			0.0				0.0			
N-PENTANE	0.1			0.0				0.0			
ISOPENTANE	0.2			0.0				0.0			
CYCLOPENTANE	TRACE			0.0				0.0			
HEXANES PLUS	0.1			0.0				0.0			
NITROGEN	0.4			0.5				0.5			
OXYGEN	0.0			0.0				0.0			
ARGON	0.0			TRACE				TRACE			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE	0.0			0.0				0.0			
CARBON DIOXIDE	1.5			0.1				0.1			
HELIUM	TRACE			TRACE				TRACE			
HEATING VALUE*	1078			1010				1008			
SPECIFIC GRAVITY	0.624			0.559				0.558			
		INDEX SAMPLE	3091 15115			INDEX SAMPLE	3092 17860			INDEX SAMPLE	3093 17861
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH	LAFOURCHE			LINCOLN				LINCOLN			
FIELD	VALENTINE NE			CHOUVRANT				CHOUVRANT			
WELL NAME	D. V. DOUSSEN O&PLNTG NO. 1			PIPES NO. 1				LEWIS NO. 1			
LOCATION	SEC. 100, T17S, R20E			SEC. 27, T18N, R2W				SEC. 28, T18N, R2W			
OWNER	SUPERIOR OIL CO.			MCCONATHY PRODUCTION CO.				MCCONATHY PRODUCTION CO.			
COMPLETED	07/27/76			03/-/84				03/-/84			
SAMPLED	09/07/77			10/09/85				10/09/85			
FORMATION	MIOC-			CRET-RA-SUC				JURA-RA-SUD			
GEOLOGIC PROVINCE CODE	220			230				230			
DEPTH, FEET	12338			6982				9614			
WELLHEAD PRESSURE, PSIG	NOT GIVEN			2300				2600			
OPEN FLOW, MCFD	2014			3200				700			
COMPONENT, MOLE PCT											
METHANE	96.1			96.4				79.2			
ETHANE	1.4			0.4				7.5			
PROPANE	0.5			0.1				4.8			
N-BUTANE	0.2			0.0				1.3			
ISOBUTANE	0.2			0.0				1.4			
N-PENTANE	0.1			0.0				0.5			
ISOPENTANE	0.1			0.0				0.5			
CYCLOPENTANE	TRACE			0.0				0.1			
HEXANES PLUS	0.1			0.0				0.6			
NITROGEN	0.6			1.7				0.5			
OXYGEN	0.0			0.0				0.1			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE	0.0			0.0				0.0			
CARBON DIOXIDE	0.7			1.4				2.9			
HELIUM	TRACE			0.05				0.01			
HEATING VALUE*	1039			986				1240			
SPECIFIC GRAVITY	0.588			0.578				0.750			
		INDEX SAMPLE	3094 15850			INDEX SAMPLE	3095 4713			INDEX SAMPLE	3096 15711
STATE	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH	LINCOLN			LINCOLN				LINCOLN			
FIELD	BENNETT NO. 1			HICO-KNOWLES				HICO-KNOWLES			
WELL NAME	SEC. 2, T17N, R3W			T. L. MCCRARY UNIT 8-31				RAY E. UPCHURCH NO. 1			
LOCATION	SEC. 2, T17N, R3W			SEC. 14, T19N, R4W				SEC. 7, T19N, R3W			
OWNER	ARMA EXPLORATION CO.			CALIFORNIA CO.				HICO EXPLORATION CO.			
COMPLETED	06/18/79			10/13/48				03/08/79			
SAMPLED	12/06/79			01/14/49				07/25/79			
FORMATION	JURA-HOSSTON			JURA-COTTON VALLEY				JURA-COTTON VALLEY			
GEOLOGIC PROVINCE CODE	230			230				230			
DEPTH, FEET	8189			8910				9466			
WELLHEAD PRESSURE, PSIG	3375			3223				4800			
OPEN FLOW, MCFD	2300			14500				500			
COMPONENT, MOLE PCT											
METHANE	96.0			78.4				86.3			
ETHANE	0.0			9.5				7.2			
PROPANE	0.1			4.5				2.7			
N-BUTANE	0.1			1.2				0.6			
ISOBUTANE	TRACE			0.6				0.5			
N-PENTANE	TRACE			0.2				0.2			
ISOPENTANE	TRACE			0.3				0.2			
CYCLOPENTANE	TRACE			TRACE				TRACE			
HEXANES PLUS	1.1			2.5				9.2			
NITROGEN	1.2			0.2				0.5			
OXYGEN	0.0			TRACE				0.0			
ARGON	TRACE			0.0				0.0			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE	0.0			0.0				0.0			
CARBON DIOXIDE	1.6			2.5				1.5			
HELIUM	0.04			0.01				0.01			
HEATING VALUE*	998			1173				1138			
SPECIFIC GRAVITY	0.583			0.726				0.662			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3097 SAMPLE 12837			INDEX 3098 SAMPLE 5106			INDEX 3099 SAMPLE 3851		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	NOT GIVEN		NOT GIVEN			RUSTON		
WELL NAME.....	RESER NO. 1		BURFORD NO. 1			W. F. JILES NO. 1		
LOCATION.....	SEC. 2, T20N, R3W		SEC. 11, T17N, R4W			SEC. 19, T19N, R2W		
OWNER.....	CRYSTAL OIL CO.		PAN AMERICAN SOUTHERN CORP.			ARKANSAS LOUISIANA GAS CO.		
COMPLETED.....	01/24/71		06/09/51			10/26/43		
SAMPLED.....	05/24/71		09/26/51			03/20/44		
FORMATION.....	JURA-SNACKOVER		CRET-GARDNER			CRET-TRAVIS PEAK		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	10775		6533			5878		
WELLHEAD PRESSURE, PSIG.....	850		2221			2350		
OPEN FLOW, MCFD.....	300000		7300			84000		
COMPONENT, MOLE PCT.....								
METHANE.....	81.8		96.6			93.8		
ETHANE.....	5.1		1.0			1.5		
PROPANE.....	0.0		0.2			---		
N-BUTANE.....	5.0		0.1			---		
ISOBUTANE.....	0.0		0.0			---		
N-PENTANE.....	0.0		0.0			---		
ISOPENTANE.....	2.7		0.1			---		
CYCLOPENTANE.....	TRACE		TRACE			---		
HEXANES PLUS.....	0.4		0.0			3.5		
NITROGEN.....	1.7		0.05			0.5		
OXYGEN.....	0.0		TRACE			---		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.6			---		
HYDROGEN SULFIDE**.....	0.0		---			---		
CARBON DIOXIDE.....	3.3		0.2			0.6		
HELIUM.....	0.02		1.11			0.09		
HEATING VALUE.....	1225		1311			977		
SPECIFIC GRAVITY.....	0.757		0.571			0.584		
INDEX 3100 SAMPLE 3910			INDEX 3101 SAMPLE 4775			INDEX 3102 SAMPLE 4776		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	RUSTON		RUSTON			RUSTON		
WELL NAME.....	DOOLING NO. 1		DOOLING UNIT NO. 2-T			DOOLING UNIT NO. 2-C		
LOCATION.....	SEC. 30, T19N, R2W		SEC. 30, T19N, R2W			SEC. 30, T19N, R2W		
OWNER.....	ARKANSAS LOUISIANA GAS CO.		ARKANSAS LOUISIANA GAS CO.			ARKANSAS LOUISIANA GAS CO.		
COMPLETED.....	05/25/44		01/17/49			01/17/49		
SAMPLED.....	12/16/44		06/19/49			06/19/49		
FORMATION.....	CRET-PETIT		JURA			JURA		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	5312		8760			8674		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		3294			4011		
OPEN FLOW, MCFD.....	NOT GIVEN		26000			8000		
COMPONENT, MOLE PCT.....								
METHANE.....	94.9		92.3			87.5		
ETHANE.....	0.5		3.1			6.5		
PROPANE.....	---		0.0			2.4		
N-BUTANE.....	---		0.4			0.7		
ISOBUTANE.....	---		0.0			0.3		
N-PENTANE.....	---		0.2			0.2		
ISOPENTANE.....	---		0.0			0.0		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		0.2			0.3		
NITROGEN.....	0.0		0.0			0.4		
OXYGEN.....	0.2		TRACE			0.1		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.9		1.1			1.6		
HELIUM.....	0.09		0.03			0.01		
HEATING VALUE.....	970		1049			1127		
SPECIFIC GRAVITY.....	0.580		0.611			0.657		
INDEX 3103 SAMPLE 10082			INDEX 3104 SAMPLE 10083			INDEX 3105 SAMPLE 14158		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	RUSTON		RUSTON			RUSTON		
WELL NAME.....	HOSS SUB., GILES NO. 4-D		HOSS SUB., GILES NO. 4			PAUL E. BLACKMOND NO. 1		
LOCATION.....	SEC. 19, T19N, R2W		SEC. 19, T19N, R2W			SEC. 1, T18N, R2W		
OWNER.....	ARKANSAS LOUISIANA GAS CO.		ARKANSAS LOUISIANA GAS CO.			CONSOLIDATED GAS SUPPLY CORP		
COMPLETED.....	04/15/65		04/15/64			07/06/73		
SAMPLED.....	08/26/65		08/26/65			10/24/74		
FORMATION.....	CRET-HOSSSTON		CRET-HOSSSTON			JURA-BODCAM		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	6703		7918			9320		
WELLHEAD PRESSURE, PSIG.....	2700		3100			3000		
OPEN FLOW, MCFD.....	2400		2300			6000		
COMPONENT, MOLE PCT.....								
METHANE.....	96.0		94.2			86.9		
ETHANE.....	1.3		2.2			5.3		
PROPANE.....	0.6		0.7			1.9		
N-BUTANE.....	0.1		0.1			0.5		
ISOBUTANE.....	0.1		0.1			0.5		
N-PENTANE.....	TRACE		0.1			0.1		
ISOPENTANE.....	TRACE		TRACE			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	1.1		0.7			1.2		
OXYGEN.....	0.0		0.1			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		1.6			2.9		
HELIUM.....	0.03		0.02			0.02		
HEATING VALUE.....	1023		1081			1081		
SPECIFIC GRAVITY.....	0.582		0.593			0.659		
INDEX 3106 SAMPLE 5105			INDEX 3107 SAMPLE 5107			INDEX 3108 SAMPLE 5108		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	SIMSBORO		SIMSBORO			SIMSBORO		
WELL NAME.....	GIVINS NO. 1		GIVINS NO. 2			GIVINS NO. 3		
LOCATION.....	SEC. 11, T17N, R4W		SEC. 11, T17N, R4W			SEC. 2, T17N, R4W		
OWNER.....	PAN AMERICAN SOUTHERN CORP.		PAN AMERICAN SOUTHERN CORP.			PAN AMERICAN SOUTHERN CORP.		
COMPLETED.....	03/03/51		03/31/51			06/27/51		
SAMPLED.....	09/26/51		09/26/51			09/26/51		
FORMATION.....	CRET-JAMES		CRET-RODESSA			CRET-TRAVIS PEAK		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	5698		5434			7946		
WELLHEAD PRESSURE, PSIG.....	2575		4449			3134		
OPEN FLOW, MCFD.....	36200		4400			16500		
COMPONENT, MOLE PCT.....								
METHANE.....	89.9		90.5			94.4		
ETHANE.....	0.9		1.0			2.4		
PROPANE.....	0.5		0.3			0.7		
N-BUTANE.....	0.0		0.1			0.4		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.1			0.2		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.0		0.2			0.2		
NITROGEN.....	7.6		7.1			0.4		
OXYGEN.....	0.1		0.1			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.9		0.3			1.2		
HELIUM.....	0.03		0.09			0.02		
HEATING VALUE.....	943		964			1050		
SPECIFIC GRAVITY.....	0.604		0.604			0.601		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	3109 5109		INDEX SAMPLE	3110 5137		INDEX SAMPLE	3111 9210
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	SIMSBORO		SIMSBORO			TERRYVILLE		
WELL NAME.....	GIVINS NO. 3		GIVINS NO. 2			GALLOWAY UNIT		
LOCATION.....	SEC. 2, T17N, R4W		SEC. 2, T17N, R4W			SEC. 17, T19N, R4W		
OWNER.....	PAN AMERICAN SOUTHERN CORP.		PAN AMERICAN SOUTHERN CORP.			CROW DRUG. & PROD. CO., ET A		
COMPLETED.....	06/27/51		03/31/51			03/31/62		
SAMPLED.....	09/26/51		01/16/52			12/18/63		
FORMATION.....	CRET-GARDNER		CRET-RODESSA			JURA-COTTON VALLEY		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	6570		5434			9354		
WELLHEAD PRESSURE, PSIG.....	1700		2449			4000		
OPEN FLOW, MCFD.....	8000		4400			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	96.5		90.6			82.6		
ETHANE.....	0.0		0.9			2.2		
PROPANE.....	0.3		0.3			3.8		
N-BUTANE.....	0.1		0.2			1.1		
ISOBUTANE.....	0.0		0.0			0.3		
N-PENTANE.....	0.0		0.1			0.3		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.0		0.2			0.3		
NITROGEN.....	0.9		0.3			0.3		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	1.1		---			0.0		
CARBON DIOXIDE.....	0.03		0.09			1.3		
HEATING VALUE.....	1011		969			0.01		
SPECIFIC GRAVITY.....	0.580		0.604			1184		
						0.696		
	INDEX SAMPLE	3112 15712		INDEX SAMPLE	3113 16252		INDEX SAMPLE	3114 16608
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	LINCOLN		LIVINGSTON			MADISON		
FIELD.....	TERRYVILLE		HATSFORD			NEWLIGHT N		
WELL NAME.....	LORRAINE HOWARD ESTATE NO. 1		M. E. CARAWAY NO. 1			CHICAGO MILL NO. B-1		
LOCATION.....	SEC. 32, T19N, R4W		SEC. 22, T5S, R3E			SEC. 30, T15N, R10E		
OWNER.....	1. M. OIL CO., ET AL.		1. M. OIL CO., ET AL.			CRYSTAL OIL CO.		
COMPLETED.....	10/26/78		11/17/80			08/04/82		
SAMPLED.....	07/25/79		05/07/81			08/04/82		
FORMATION.....	CRET-HOSSTON		CRET-TUSCALOOSA			JURA-COTTON VALLEY		
GEOLOGIC PROVINCE CODE.....	230		220			230		
DEPTH, FEET.....	9367		15630			12900		
WELLHEAD PRESSURE, PSIG.....	3600		2150			5900		
OPEN FLOW, MCFD.....	250		NOT GIVEN			185		
COMPONENT, MOLE PCT								
METHANE.....	86.2		64.5			91.8		
ETHANE.....	3.1		14.0			0.1		
PROPANE.....	1.7		0.9			0.0		
N-BUTANE.....	0.5		1.8			0.1		
ISOBUTANE.....	1.5		1.4			0.0		
N-PENTANE.....	0.8		0.3			0.2		
ISOPENTANE.....	0.4		0.5			0.0		
CYCLOPENTANE.....	0.4		0.1			0.2		
HEXANES PLUS.....	2.4		1.5			0.7		
NITROGEN.....	0.4		1.5			0.1		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.8		0.3			6.5		
HEATING VALUE.....	1252		0.01			0.02		
SPECIFIC GRAVITY.....	0.734		1283			958		
			0.859			0.633		
	INDEX SAMPLE	3115 9529		INDEX SAMPLE	3116 15475		INDEX SAMPLE	3117 15090
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	NATCHITOCHES		NATCHITOCHES			NATCHITOCHES		
FIELD.....	BLACK LAKE		DEMERY CREEK			GROGAN		
WELL NAME.....	CONROBOR, INC. NO. 3		MARTIN LBR. CO. NO. 1			MARTIN NO. B-1		
LOCATION.....	SEC. 11, T11N, R6W		SEC. 3, T12N, R7W			SEC. 28, T11N, R10W		
OWNER.....	PLACID OIL CO.		RODCAV CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	06/23/64		02/11/78			08/09/76		
SAMPLED.....	08/05/64		10/31/78			09/05/77		
FORMATION.....	CRET-PETTIT		CRET-PALUXY			JURA-SMACKOVER		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	8000		3817			13282		
WELLHEAD PRESSURE, PSIG.....	3060		1615			8300		
OPEN FLOW, MCFD.....	14000		414			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.3		90.8			93.7		
ETHANE.....	3.9		1.3			0.1		
PROPANE.....	4.3		0.6			0.1		
N-BUTANE.....	SEC. 1		0.5			0.0		
ISOBUTANE.....	TRACE		0.2			0.0		
N-PENTANE.....	0.4		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	1.6		6.3			0.1		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.1		
CARBON DIOXIDE.....	6.0		0.1			5.4		
HEATING VALUE.....	0.04		0.07			TRACE		
SPECIFIC GRAVITY.....	0.713		1.004			975		
			0.607			0.619		
	INDEX SAMPLE	3118 16618		INDEX SAMPLE	3119 17568		INDEX SAMPLE	3120 17560
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	NATCHITOCHES		OFFSHORE-OCS			OFFSHORE-OCS		
FIELD.....	ROBELINE		BLK. 10			CAMERON E		
WELL NAME.....	B.E. CHRISTMAS NO. 1		OCS-G-2892 NO. 2			OCS G-4777 NO. A-3		
LOCATION.....	SEC. 18, T18N, R9W		EULEN. 7 ISLAND AREA			EAST CAMERON		
OWNER.....	GETTY OIL CO.		TRANSCO EXPLORATION CO.			SONAT EXPLORATION CO.		
COMPLETED.....	01/29/82		--/--/00			--/--/00		
SAMPLED.....	01/29/82		01/11/85			01/05/85		
FORMATION.....	CRET-HOSSTON		MIOC-NOT GIVEN			MIOC-NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	230		952			220		
DEPTH, FEET.....	8897		15193			13298		
WELLHEAD PRESSURE, PSIG.....	4350		10095			1337		
OPEN FLOW, MCFD.....	6700		27000			11280		
COMPONENT, MOLE PCT								
METHANE.....	96.1		91.9			93.3		
ETHANE.....	0.1		3.3			2.7		
PROPANE.....	TRACE		1.3			1.0		
N-BUTANE.....	0.0		0.4			0.3		
ISOBUTANE.....	0.0		0.4			0.4		
N-PENTANE.....	0.0		0.2			0.1		
ISOPENTANE.....	0.0		0.1			0.2		
CYCLOPENTANE.....	0.0		0.1			0.1		
HEXANES PLUS.....	0.0		0.4			0.2		
NITROGEN.....	0.9		0.2			0.4		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.8		1.6			1.9		
HEATING VALUE.....	976		TRACE			TRACE		
SPECIFIC GRAVITY.....	0.585		1088			1070		
			0.630			0.617		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3121 SAMPLE 12960		INDEX 3122 SAMPLE 13007		INDEX 3123 SAMPLE 13523	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS	
FIELD.....	CAMERON E BLK. 195	CAMERON E BLK. 265	CAMERON E BLK. 265	CAMERON E BLK. 33	
WELL NAME.....	OCS-G-0958 NO. A-1	OCS-0972 NO. A-2	OCS-0972 NO. A-2	OCS-G-1972 NO. 2	
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OWNER.....	SIGNAL OIL & GAS CO.	TEXACO INC.	TEXACO INC.	MOBIL OIL CORP.	
COMPLETED.....	11/23/69	10/21/70	10/21/70	01/22/72	
SAMPLED.....	08/21/71	08/12/71	08/12/71	01/18/73	
FORMATION.....	UNKN-CP-25 SAND	NOT GIVEN	NOT GIVEN	WIOC-ROBULUS	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	11846	8476	8476	10200	
WELLHEAD PRESSURE, PSIG.....	6000	3655	3655	3750	
OPEN FLOW, MCFD.....	5400	NOT GIVEN	NOT GIVEN	15000	
COMPONENT, MOLE PCT					
METHANE.....	85.0	97.5	97.5	94.9	
ETHANE.....	4.9	1.1	1.1	2.7	
PROPANE.....	4.4	0.4	0.4	0.8	
N-BUTANE.....	1.0	0.1	0.1	0.1	
ISOBUTANE.....	2.2	0.2	0.2	0.3	
N-PENTANE.....	0.8	TRACE	TRACE	TRACE	
ISOPENTANE.....	0.0	TRACE	TRACE	0.1	
CYCLOPENTANE.....	0.1	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.7	TRACE	TRACE	0.1	
NITROGEN.....	0.6	0.5	0.4	0.4	
OXYGEN.....	0.0	0.0	0.0	TRACE	
ARGON.....	0.0	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	0.6	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	1244	1028	1028	1053	
SPECIFIC GRAVITY.....	0.708	0.571	0.571	0.594	

INDEX 3124 SAMPLE 12538		INDEX 3125 SAMPLE 13040		INDEX 3126 SAMPLE 11035	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS	
FIELD.....	CAMERON W BLK. 192	CAMERON W BLK. 47	CAMERON W BLK. 49	CAMERON W BLK. 49	
WELL NAME.....	OCS-0187, H-2 WELL	OCS-G-1437 NO. 1	STATE LEASE 4291 NO. 1	STATE LEASE 4291 NO. 1	
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OWNER.....	CONTINENTAL OIL CO.	CHEVRON OIL CO.	CHEVRON OIL CO.	CHEVRON OIL CO.	
COMPLETED.....	02/24/69	04/02/67	07/07/67	07/07/67	
SAMPLED.....	07/28/70	09/23/71	07/18/67	07/18/67	
FORMATION.....	WIOC-KP SAND	WIOC---	WIOC-8700 FOOT SAND	WIOC-8700 FOOT SAND	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	11632	12700	8694	8694	
WELLHEAD PRESSURE, PSIG.....	8950	8200	5953	5953	
OPEN FLOW, MCFD.....	80000	NOT GIVEN	12000	12000	
COMPONENT, MOLE PCT					
METHANE.....	93.1	92.0	95.8	95.8	
ETHANE.....	4.5	0.9	0.5	0.5	
PROPANE.....	1.1	0.9	0.6	0.6	
N-BUTANE.....	0.3	0.2	0.1	0.1	
ISOBUTANE.....	0.3	0.4	0.1	0.1	
N-PENTANE.....	0.1	0.1	0.1	0.1	
ISOPENTANE.....	0.1	0.0	0.0	0.0	
CYCLOPENTANE.....	0.1	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.3	0.1	0.1	0.1	
NITROGEN.....	0.3	1.7	0.5	0.5	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.8	1.2	0.1	0.1	
HELIUM.....	TRACE	0.01	0.01	0.01	
HEATING VALUE.....	1082	1046	1054	1054	
SPECIFIC GRAVITY.....	0.614	0.612	0.587	0.587	

INDEX 3127 SAMPLE 17520		INDEX 3128 SAMPLE 17868		INDEX 3129 SAMPLE 12962	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS	
FIELD.....	CAMERON W BLK. 197	CAMERON W BLK. 273	CAMERON W BLK. 273	CAMERON W BLK. 273	
WELL NAME.....	OCS-G-3972 NO. A-1	OCS-G-5470 NO. A-1	OCS-G-0986 NO. 5	OCS-G-0986 NO. 5	
LOCATION.....	NOT GIVEN	BLOCK 29-A	NOT GIVEN	NOT GIVEN	
OWNER.....	CHEVRON U.S.A., INC.	TENNECO OIL CO.	FOREST OIL CORP.	FOREST OIL CORP.	
COMPLETED.....	01/26/83	07/07/84	08/26/77	08/26/77	
SAMPLED.....	10/04/84	10/06/85	08/03/71	08/03/71	
FORMATION.....	PLEI-SAND	OLIG-H SAND	PLEI-4500 FT. SAND	PLEI-4500 FT. SAND	
GEOLOGIC PROVINCE CODE.....	952	952	220	220	
DEPTH, FEET.....	4970	5000	4746	4746	
WELLHEAD PRESSURE, PSIG.....	2425	1920	1829	1829	
OPEN FLOW, MCFD.....	38581	5400	138800	138800	
COMPONENT, MOLE PCT					
METHANE.....	99.6	98.3	99.2	99.2	
ETHANE.....	0.1	1.0	0.5	0.5	
PROPANE.....	0.1	0.2	0.1	0.1	
N-BUTANE.....	0.0	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	0.0	
NITROGEN.....	0.2	0.3	0.2	0.2	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.2	TRACE	TRACE	
HELIUM.....	TRACE	0.01	0.01	0.01	
HEATING VALUE.....	1011	1019	1016	1016	
SPECIFIC GRAVITY.....	0.557	0.565	0.559	0.559	

INDEX 3130 SAMPLE 12963		INDEX 3131 SAMPLE 13765		INDEX 3132 SAMPLE 13767	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS	OFFSHORE-OCS	
FIELD.....	EUGENE ISLAND BLK. 273	EUGENE ISLAND BLK. 273	EUGENE ISLAND BLK. 273	EUGENE ISLAND BLK. 273	
WELL NAME.....	OCS-G-0987 NO. A-1	EUGENE ISLAND 273 NO. A-1	EUGENE ISLAND 273 NO. A-1	EUGENE ISLAND 273 NO. A-1	
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OWNER.....	FOREST OIL CORP.	FOREST OIL CORP.	FOREST OIL CORP.	FOREST OIL CORP.	
COMPLETED.....	08/31/70	09/01/70	09/01/70	09/01/70	
SAMPLED.....	08/03/71	09/15/73	09/15/73	09/15/73	
FORMATION.....	PLEI-3500 FT. SAND	PLEI-3500 FT. SAND	PLEI-4600 FT. SAND	PLEI-4600 FT. SAND	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	3498	4982	4712	4712	
WELLHEAD PRESSURE, PSIG.....	1426	1340	1860	1860	
OPEN FLOW, MCFD.....	36600	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	99.7	99.6	98.3	98.3	
ETHANE.....	0.1	0.1	1.0	1.0	
PROPANE.....	0.1	0.1	0.3	0.3	
N-BUTANE.....	0.0	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	0.0	
NITROGEN.....	0.2	0.3	0.3	0.3	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	0.1	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	1014	1011	1021	1021	
SPECIFIC GRAVITY.....	0.559	0.558	0.565	0.565	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 3133 13768	INDEX SAMPLE 3134 13771	INDEX SAMPLE 3135 13773
STATE.....	LOUISIANA		LOUISIANA	LOUISIANA
PARISH.....	OFFSHORE-OCS		OFFSHORE-OCS	OFFSHORE-OCS
FIELD.....	EUGENE ISLAND BLK. 273		EUGENE ISLAND BLK. 273	EUGENE ISLAND BLK. 273
WELL NAME.....	EUGENE ISLAND 273 NO. A-7		EUGENE ISLAND 273 NO. A-5	EUGENE ISLAND 273 NO. A-3
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	FOREST OIL CORP.		FOREST OIL CORP.	FOREST OIL CORP.
COMPLETED.....	06/11/70		08/26/70	08/23/70
SAMPLED.....	09/15/73		09/15/73	09/15/73
FORMATION.....	PLEI-3100 FT. SAND		PLEI-4500 FT. SAND	PLEI-4900 FT. SAND
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	3213		4746	4982
WELLHEAD PRESSURE, PSIG.....	1300		1650	1620
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	99.6	99.1	97.1	
ETHANE.....	0.2	0.5	1.6	
PROPANE.....	0.0	0.1	0.6	
N-BUTANE.....	0.0	0.0	TRACE	
ISOBUTANE.....	0.0	0.0	0.1	
N-PENTANE.....	0.0	0.0	TRACE	
ISOPENTANE.....	0.0	0.0	TRACE	
CYCLOPENTANE.....	0.0	0.0	TRACE	
HEXANES PLUS.....	0.0	0.0	TRACE	
NITROGEN.....	0.1	0.3	0.3	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	TRACE	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.2	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1013	1015	1031	
SPECIFIC GRAVITY.....	0.557	0.561	0.572	
		INDEX SAMPLE 3136 13774	INDEX SAMPLE 3137 13769	INDEX SAMPLE 3138 13778
STATE.....	LOUISIANA		LOUISIANA	LOUISIANA
PARISH.....	OFFSHORE-OCS		OFFSHORE-OCS	OFFSHORE-OCS
FIELD.....	EUGENE ISLAND BLK. 287		EUGENE ISLAND BLK. 292	EUGENE ISLAND BLK. 292
WELL NAME.....	EUGENE ISLAND 287 NO. D-2		EUGENE ISLAND 292 NO. 85-D	EUGENE ISLAND 287 NO. D-8
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	FOREST OIL CORP.		FOREST OIL CORP.	FOREST OIL CORP.
COMPLETED.....	04/05/71		12/31/69	04/07/71
SAMPLED.....	09/14/73		09/14/73	09/14/73
FORMATION.....	PLEI-E.E. SAND		PLEI-E.B. SAND	PLEI-C.H. SAND
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	4928		4958	3564
WELLHEAD PRESSURE, PSIG.....	1840		1995	1450
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	97.2	95.8	99.4	
ETHANE.....	1.5	0.9	0.1	
PROPANE.....	0.6	0.2	TRACE	
N-BUTANE.....	0.1	0.2	0.0	
ISOBUTANE.....	0.1	0.2	0.0	
N-PENTANE.....	TRACE	0.1	0.0	
ISOPENTANE.....	TRACE	0.0	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	TRACE	TRACE	0.0	
NITROGEN.....	0.4	0.3	0.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	0.1	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1034	1053	1009	
SPECIFIC GRAVITY.....	0.575	0.586	0.558	
		INDEX SAMPLE 3139 13770	INDEX SAMPLE 3140 13776	INDEX SAMPLE 3141 16773
STATE.....	LOUISIANA		LOUISIANA	LOUISIANA
PARISH.....	OFFSHORE-OCS		OFFSHORE-OCS	OFFSHORE-OCS
FIELD.....	EUGENE ISLAND BLK. 307		EUGENE ISLAND BLK. 314	EUGENE ISLAND BLK. 322
WELL NAME.....	EUGENE ISLAND 307 NO. E-2		EUGENE ISLAND 292 NO. B-5	NO. A-2
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	FOREST OIL CORP.		FOREST OIL CORP.	AMOCO PRODUCTION CO. (USA)
COMPLETED.....	12/30/71		09/14/70	02/14/83
SAMPLED.....	09/15/73		09/14/73	02/14/83
FORMATION.....	PLEI-E.H. SAND		PLEI-E.E. SAND	PLEI-ANG-B1
GEOLOGIC PROVINCE CODE.....	220		220	952
DEPTH, FEET.....	6084		5289	5998
WELLHEAD PRESSURE, PSIG.....	1650		1995	2100
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	5000
COMPONENT, MOLE PCT				
METHANE.....	96.8	95.5	99.2	
ETHANE.....	1.8	2.4	0.1	
PROPANE.....	0.6	0.0	TRACE	
N-BUTANE.....	0.1	0.2	0.0	
ISOBUTANE.....	0.2	0.2	0.0	
N-PENTANE.....	TRACE	TRACE	0.0	
ISOPENTANE.....	TRACE	TRACE	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	0.1	0.1	0.0	
NITROGEN.....	0.3	0.3	0.1	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.3	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.4	0.3	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1044	1053	1006	
SPECIFIC GRAVITY.....	0.578	0.590	0.557	
		INDEX SAMPLE 3142 13168	INDEX SAMPLE 3143 13370	INDEX SAMPLE 3144 13222
STATE.....	LOUISIANA		LOUISIANA	LOUISIANA
PARISH.....	OFFSHORE-OCS		OFFSHORE-OCS	OFFSHORE-OCS
FIELD.....	GRAND ISLE BLK. 25		GRAND ISLE BLK. 25	MAIN PASS BLK. 27
WELL NAME.....	STATE LEASE 5015 NO. 1		STATE LEASE 3523 NO. 6	OCS-6-1312 NO. 2
LOCATION.....	GRAND ISLE		GRAND ISLE BLK. 25	NOT GIVEN
OWNER.....	HUNT OIL CO.		HUNT OIL CO.	CHEVRON OIL CO.
COMPLETED.....	11/05/71		03/12/72	02/21/79
SAMPLED.....	03/12/72		06/31/72	05/23/72
FORMATION.....	MIOC-Y SERIES		MIOC-NOT GIVEN	MIOC-7900 FT. SAND
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	20440		18480	7952
WELLHEAD PRESSURE, PSIG.....	9000		3550	3300
OPEN FLOW, MCFD.....	5100		5000	1266
COMPONENT, MOLE PCT				
METHANE.....	92.7	92.6	95.6	
ETHANE.....	2.5	3.4	1.5	
PROPANE.....	1.7	1.1	1.1	
N-BUTANE.....	0.4	0.2	0.4	
ISOBUTANE.....	0.4	0.4	0.4	
N-PENTANE.....	0.1	0.1	0.1	
ISOPENTANE.....	0.1	TRACE	0.2	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.2	
NITROGEN.....	0.6	0.3	0.2	
OXYGEN.....	TRACE	TRACE	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.4	1.8	0.2	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1068	1051	1074	
SPECIFIC GRAVITY.....	0.618	0.614	0.598	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3145 SAMPLE 16784		INDEX 3146 SAMPLE 17922		INDEX 3147 SAMPLE 17615	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	OFFSHORE-OCS	OFFSHORE-OCS		OFFSHORE-OCS	
FIELD.....	MISSISSIPPI CANYON BLK 148-A	SOUTH MARSH ISLAND N BLK.274		TINBALLER S BLK. 195	
WELL NAME.....	OC 6-1222 NO. A-1	OC 6-1222 NO. A1		A-3	
LOCATION.....	MISSISSIPPI CANYON BLK 148-A	NOT GIVEN		OC 6-3593	
OWNER.....	ARCO OIL & GAS CO.	TEHNECO OIL CO.		GULF OIL CORP.	
COMPLETED.....	09/12/81	02/16/85		08/-/-81	
SAMPLED.....	03/04/83	11/30/85		03/07/85	
FORMATION.....	PLIO-9100 RA	PLIO-HE SAND		PLIO-6SD. RESVR. "A"	
GEOLOGIC PROVINCE CODE.....	952	952		952	
DEPTH, FEET.....	3752	8534		9966	
WELLHEAD PRESSURE, PSIG.....	3721	3000		2700	
OPEN FLOW, MCFD.....	7501	9500		60000	
COMPONENT, MOLE PCT					
METHANE.....	96.5	97.2		97.8	
ETHANE.....	1.3	1.5		1.1	
PROPANE.....	0.5	0.2		0.1	
N-BUTANE.....	0.2	0.1		0.1	
ISOBUTANE.....	0.1	0.0		0.1	
N-PENTANE.....	0.1	TRACE		0.1	
ISOPENTANE.....	0.1	0.1		0.0	
CYCLOPENTANE.....	0.1	0.1		TRACE	
HEXANES PLUS.....	0.1	TRACE		0.1	
NITROGEN.....	0.3	0.5		0.4	
OXYGEN.....	TRACE	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.2	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.4	0.4		0.2	
HELIUM.....	TRACE	TRACE		TRACE	
HEATING VALUE.....	1034	1028		1034	
SPECIFIC GRAVITY.....	0.582	0.576		0.575	

INDEX 3148 SAMPLE 11822		INDEX 3149 SAMPLE 12289		INDEX 3150 SAMPLE 11819	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	OFFSHORE-OCS	OFFSHORE-OCS		OFFSHORE-OCS	
FIELD.....	VERMILION BLK. 131	VERMILION BLK. 255		VERMILION BLK. 46	
WELL NAME.....	OC 6-1152 A-4	OC 6-1152 A-4		OC 6-079, NO. 2	
LOCATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OWNER.....	MOBIL OIL CORP.	FOREST OIL CORP.		MOBIL OIL CORP.	
COMPLETED.....	12/16/68	05/24/69		09/19/67	
SAMPLED.....	02/04/69	06/05/70		02/02/69	
FORMATION.....	MIOC-NO. 14 SAND	PLIO-8350 FT. SAND		MIOC---	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	12556	8350		15242	
WELLHEAD PRESSURE, PSIG.....	4400	3270		7400	
OPEN FLOW, MCFD.....	NOT GIVEN	5500		8000	
COMPONENT, MOLE PCT					
METHANE.....	92.3	93.9		90.9	
ETHANE.....	3.4	2.9		3.3	
PROPANE.....	1.3	1.3		2.0	
N-BUTANE.....	0.4	0.4		0.5	
ISOBUTANE.....	0.4	0.4		0.9	
N-PENTANE.....	0.3	0.1		0.3	
ISOPENTANE.....	0.1	TRACE		0.0	
CYCLOPENTANE.....	0.2	TRACE		0.2	
HEXANES PLUS.....	0.5	0.1		0.3	
NITROGEN.....	0.2	0.5		0.3	
OXYGEN.....	0.0	0.1		0.0	
ARGON.....	TRACE	0.0		0.0	
HYDROGEN.....	0.1	TRACE		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.8	0.2		1.4	
HELIUM.....	0.01	TRACE		TRACE	
HEATING VALUE.....	1107	1070		1115	
SPECIFIC GRAVITY.....	0.628	0.600		0.644	

INDEX 3151 SAMPLE 11820		INDEX 3152 SAMPLE 9184		INDEX 3153 SAMPLE 10081	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	OFFSHORE-OCS	OFFSHORE-OCS		OFFSHORE-OCS	
FIELD.....	VERMILION BLK. 46	WEST DELTA BLK. 20		WEST DELTA BLK. 30	
WELL NAME.....	OC 6-079, NO. A-40	SL 1998 I-1		OC 6-016, S-18	
LOCATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OWNER.....	MOBIL OIL CORP.	KERR-MCGEE OIL IND., INC.		LUMBLE OIL & REFINING CO.	
COMPLETED.....	06/10/57	12/04/62		08/25/65	
SAMPLED.....	02/02/69	11/27/63		08/25/65	
FORMATION.....	MIOC---	OLIS-DISCORBIS 12		MIOC-D-3D, BB	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	6981	5296		9320	
WELLHEAD PRESSURE, PSIG.....	2150	2150		3700	
OPEN FLOW, MCFD.....	6000	13		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	96.5	97.8		93.8	
ETHANE.....	1.2	0.8		3.4	
PROPANE.....	0.4	0.5		1.1	
N-BUTANE.....	0.1	0.0		0.3	
ISOBUTANE.....	0.0	0.0		0.5	
N-PENTANE.....	0.2	0.0		TRACE	
ISOPENTANE.....	0.0	0.0		0.1	
CYCLOPENTANE.....	0.1	0.1		TRACE	
HEXANES PLUS.....	0.1	0.0		TRACE	
NITROGEN.....	0.6	0.8		0.4	
OXYGEN.....	0.1	0.1		0.0	
ARGON.....	0.0	TRACE		TRACE	
HYDROGEN.....	0.1	0.0		0.3	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	TRACE		0.0	
HELIUM.....	TRACE	0.01		0.01	
HEATING VALUE.....	1038	1018		1069	
SPECIFIC GRAVITY.....	0.579	0.567		0.594	

INDEX 3154 SAMPLE 12622		INDEX 3155 SAMPLE 13817		INDEX 3156 SAMPLE 15068	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	OFFSHORE-OCS	OFFSHORE-OCS		OFFSHORE-OCS	
FIELD.....	WEST DELTA BLK. 41	WEST DELTA BLK. 55		WEST DELTA BLK. 55	
WELL NAME.....	OC 6-1072 NO. B-2	SL 2549 NO. 11		STATE LEASE 979 NO. 21	
LOCATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OWNER.....	CONTINENTAL OIL CO.	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	05/15/69	12/14/76		11/15/76	
SAMPLED.....	12/18/70	11/17/73		08/02/77	
FORMATION.....	MIOC---	MIOC---		MIOC---	
GEOLOGIC PROVINCE CODE.....	220	220		952	
DEPTH, FEET.....	9460	3202		7764	
WELLHEAD PRESSURE, PSIG.....	3500	1275		2700	
OPEN FLOW, MCFD.....	NOT GIVEN	500		2448	
COMPONENT, MOLE PCT					
METHANE.....	97.7	99.0		94.0	
ETHANE.....	1.2	0.1		2.2	
PROPANE.....	0.4	0.1		1.5	
N-BUTANE.....	0.0	0.0		0.5	
ISOBUTANE.....	0.0	0.0		0.4	
N-PENTANE.....	0.0	TRACE		0.2	
ISOPENTANE.....	0.0	0.1		0.1	
CYCLOPENTANE.....	0.0	TRACE		TRACE	
HEXANES PLUS.....	0.0	0.4		0.1	
NITROGEN.....	0.5	0.0		0.7	
OXYGEN.....	0.0	0.0		TRACE	
ARGON.....	0.0	0.0		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	TRACE		0.3	
HELIUM.....	0.01	TRACE		TRACE	
HEATING VALUE.....	1022	1020		1074	
SPECIFIC GRAVITY.....	0.568	0.563		0.605	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3157 16277	INDEX SAMPLE	3158 17382	INDEX SAMPLE	3159 17673
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	OUACHITA			OUACHITA		OUACHITA	
FIELD.....	WEST DELTA BLK. 56			CADEVILLE		CADEVILLE	
WELL NAME.....	STATE LEASE 2550 NO. 2			J. WHITE NO. 1		J. HEAD NO. 1	
LOCATION.....	NOT GIVEN			SEC. 36, T17N, R1E		SEC. 32, T17N, R2E	
OWNER.....	CONOCO, INC.			DIAMOND SHAMROCK CORP.		FRANKS PETROLEUM, INC.	
COMPLETED.....	02/01/81			08/16/84		01/31/84	
SAMPLED.....	06/05/81			08/16/84		05/10/85	
FORMATION.....	PLEI-DT56-2			JURA-COTTON VALLEY		CRET-JAMES	
GEOLOGIC PROVINCE CODE.....	220			230		230	
DEPTH, FEET.....	4145			10178		5618	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			5800		2800	
OPEN FLOW, MCFD.....	NOT GIVEN			3100		5000	
COMPONENT, MOLE PCT.....							
METHANE.....	98.7			86.8		90.0	
ETHANE.....	0.3			5.8		1.2	
PROPANE.....	0.1			1.8		0.3	
N-BUTANE.....	TRACE			0.6		0.2	
ISOBUTANE.....	TRACE			0.4		TRACE	
N-PENTANE.....	TRACE			0.3		0.1	
ISOPENTANE.....	TRACE			0.2		0.1	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.3		0.1	
NITROGEN.....	0.5			0.7		7.1	
OXYGEN.....	TRACE			0.1		TRACE	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.3		0.3	
HELIUM.....	TRACE			0.01		0.02	
HEATING VALUE.....	1017			1100		961	
SPECIFIC GRAVITY.....	0.564			0.666		0.603	

		INDEX SAMPLE	3160 9201	INDEX SAMPLE	3161 15143	INDEX SAMPLE	3162 17559
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	OUACHITA			OUACHITA		OUACHITA	
FIELD.....	CADEVILLE SW			CALHOUN		CHENIERE CREEK	
WELL NAME.....	GOLSON NO. 1			BRIMBERRY GAS UNIT NO. 1		MC HENRY ESTATE NO. 1	
LOCATION.....	SEC. 27, T17N, R1E			SEC. 7, T17N, R1E		SEC. 2, T16N, R3E	
OWNER.....	SINCLAIR OIL & GAS CO.			MITCHELL ENERGY CORP.		HARVEY BROYLES	
COMPLETED.....	02/01/62			04/27/77		--/--/00	
SAMPLED.....	01/10/64			11/09/77		01/06/85	
FORMATION.....	JURA-COTTON VALLEY			JURA-CADEVILLE		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	230			230		230	
DEPTH, FEET.....	10056			9580		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	4700			6000		NOT GIVEN	
OPEN FLOW, MCFD.....	1850			NOT GIVEN		250	
COMPONENT, MOLE PCT.....							
METHANE.....	96.1			77.2		92.4	
ETHANE.....	0.2			0.3		0.6	
PROPANE.....	0.6			5.5		0.1	
N-BUTANE.....	0.0			2.5		0.1	
ISOBUTANE.....	0.0			1.6		TRACE	
N-PENTANE.....	0.0			1.0		TRACE	
ISOPENTANE.....	0.0			1.0		TRACE	
CYCLOPENTANE.....	0.0			0.1		TRACE	
HEXANES PLUS.....	0.0			0.7		0.1	
NITROGEN.....	0.2			0.6		4.4	
OXYGEN.....	0.0			0.1		TRACE	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.9			1.2		2.1	
HELIUM.....	0.01			0.01		0.09	
HEATING VALUE.....	1011			1335		958	
SPECIFIC GRAVITY.....	0.586			0.788		0.600	

		INDEX SAMPLE	3163 17711	INDEX SAMPLE	3164 13759	INDEX SAMPLE	3165 14676
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	OUACHITA			OUACHITA		OUACHITA	
FIELD.....	CHENIERE CREEK			DREW S		DREW S	
WELL NAME.....	THOMPSON NO. 1			J. WILLIAMS NO. 1		MONROE SD. & GRAVEL NO. 1	
LOCATION.....	SEC. 7, T16N, R3E			SEC. 22, T18N, R2E		SEC. 6, T17N, R3E	
OWNER.....	L. R. RESOURCES			FRANKS PETROLEUM, INC.		JUSTISS-MEARS OIL CO., INC.	
COMPLETED.....	06/--/85			07/13/72		10/06/79	
SAMPLED.....	11/27/86			10/17/73		05/11/76	
FORMATION.....	CRET-HOUSTON E2-RES B			JURA-COTTON VALLEY		JURA-COTTON VALLEY	
GEOLOGIC PROVINCE CODE.....	230			230		230	
DEPTH, FEET.....	9249			9065		9551	
WELLHEAD PRESSURE, PSIG.....	2200			4000		3150	
OPEN FLOW, MCFD.....	1000			7500		1960	
COMPONENT, MOLE PCT.....							
METHANE.....	91.2			91.9		79.2	
ETHANE.....	2.1			3.7		8.1	
PROPANE.....	0.5			0.2		0.0	
N-BUTANE.....	0.2			0.2		0.7	
ISOBUTANE.....	0.2			0.3		0.6	
N-PENTANE.....	0.0			TRACE		0.2	
ISOPENTANE.....	0.0			TRACE		0.3	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.6			0.1		0.3	
NITROGEN.....	2.5			0.5		1.1	
OXYGEN.....	TRACE			0.1		TRACE	
ARGON.....	0.1			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.2			1.8		6.4	
HELIUM.....	0.03			0.02		0.02	
HEATING VALUE.....	1035			1035		1110	
SPECIFIC GRAVITY.....	0.631			0.616		0.730	

		INDEX SAMPLE	3166 14858	INDEX SAMPLE	3167 15223	INDEX SAMPLE	3168 15474
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	OUACHITA			OUACHITA		OUACHITA	
FIELD.....	DREW S			MILLHAVEN		MILLHAVEN	
WELL NAME.....	J. MCINTOSH NO. 1			FATHEREE NO. 1		B. RYHES NO. 1	
LOCATION.....	SEC. 19, T18N, R2E			SEC. 14, T17N, R4E		SEC. 22, T17N, R4E	
OWNER.....	FRANKS PETROLEUM, INC.			JUSTISS-MEARS OIL CO., INC.		JUSTISS-MEARS OIL CO., INC.	
COMPLETED.....	--/--/00			10/15/77		10/17/78	
SAMPLED.....	11/27/86			03/12/88		10/17/78	
FORMATION.....	NOT GIVEN			CRET-HOUSTON		CRET-HOUSTON	
GEOLOGIC PROVINCE CODE.....	230			230		230	
DEPTH, FEET.....	NOT GIVEN			6633		5517	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2675		2325	
OPEN FLOW, MCFD.....	NOT GIVEN			825		750	
COMPONENT, MOLE PCT.....							
METHANE.....	89.1			93.2		93.2	
ETHANE.....	4.4			0.9		0.9	
PROPANE.....	1.5			0.2		0.2	
N-BUTANE.....	0.1			0.1		0.1	
ISOBUTANE.....	0.2			TRACE		0.1	
N-PENTANE.....	0.1			0.1		TRACE	
ISOPENTANE.....	0.2			0.0		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	0.7			4.2		3.3	
OXYGEN.....	0.0			TRACE		0.2	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			1.9		1.8	
HELIUM.....	0.03			0.08		0.08	
HEATING VALUE.....	1062			978		978	
SPECIFIC GRAVITY.....	0.643			0.591		0.597	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3169 SAMPLE 1406			INDEX 3170 SAMPLE 1408			INDEX 3171 SAMPLE 4332		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	OUACHITA		OUACHITA			OUACHITA		
FIELD.....	MONROE		MONROE			MONROE		
WELL NAME.....	FUDICKER NO. 1		PEERLESS NO. 1			FEE 152 NO. 1		
LOCATION.....	SEC. 13, T18N, R4E		SEC. 28, T19N, R5E			SEC. 8, T18N, R4E		
OWNER.....	J. H. HUBER CORP.		PEERLESS CARBON CO.			UNION PRODUCING CO.		
COMPLETED.....	--/--/00		--/--/00			06/09/47		
SAMPLED.....	06/20/27		07/12/27			07/31/47		
FORMATION.....	NOT GIVEN		CRET-MONROE			CRET-U		
GEOLOGIC PROVINCE CODE.....	230		230			230		
DEPTH, FEET.....	2206		2219			2160		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			335		
OPEN FLOW, MCFD.....	1056		1872			1743		
COMPONENT, MOLE PCT								
METHANE.....	80.3		79.2			91.7		
ETHANE.....	10.7		15.8			1.5		
PROpane.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	8.4		2.9			6.3		
OXYGEN.....	0.6		1.6			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.0		0.6			0.3		
HELIUM.....	0.07		0.09			0.11		
HEATING VALUE*.....	1005		1085			956		
SPECIFIC GRAVITY.....	0.645		0.660			0.591		
INDEX 3172 SAMPLE 5267			INDEX 3173 SAMPLE 4712			INDEX 3174 SAMPLE 13848		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	OUACHITA		OUACHITA			PLAQUEMINES		
FIELD.....	SWATZ AREA		WILDCAT			BASTIAN BAY		
WELL NAME.....	BREECE LUMBER CO. NO. 1		BREECE LUMBER CO. NO. 2			FASTERLING 9 WEN NO. 9		
LOCATION.....	SEC. 3, T18N, R5E		SEC. 30, T17N, R5E			NOT GIVEN		
OWNER.....	MONLA GAS CO.		CALIFORNIA CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	01/06/42		09/28/48			--/--/00		
SAMPLED.....	07/10/52		07/09/49			12/26/73		
FORMATION.....	JURA-BODCAW		CRET-L			MIOC-9200 FT. SAND		
GEOLOGIC PROVINCE CODE.....	230		230			220		
DEPTH, FEET.....	7345		5232			9328		
WELLHEAD PRESSURE, PSIG.....	3437		2200			1000		
OPEN FLOW, MCFD.....	30000		2240			1000		
COMPONENT, MOLE PCT								
METHANE.....	91.5		92.8			94.3		
ETHANE.....	3.0		0.9			2.6		
PROpane.....	0.9		0.1			1.3		
N-BUTANE.....	0.3		0.1			0.4		
ISOBUTANE.....	0.2		0.0			0.4		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	0.2		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	TRACE		0.0			0.2		
NITROGEN.....	3.3		3.9			0.5		
OXYGEN.....	TRACE		0.1			0.0		
ARGON.....	TRACE		0.1			0.0		
HYDROGEN.....	0.0		0.2			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.5		1.8			0.2		
HELIUM.....	0.06		0.02			TRACE		
HEATING VALUE*.....	1029		963			1085		
SPECIFIC GRAVITY.....	0.608		0.616			0.608		
INDEX 3175 SAMPLE 13851			INDEX 3176 SAMPLE 13846			INDEX 3177 SAMPLE 13847		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	PLAQUEMINES		PLAQUEMINES			PLAQUEMINES		
FIELD.....	BASTIAN BAY		BASTIAN BAY E			BASTIAN BAY E		
WELL NAME.....	DISC 12-SUA-FEE B NO. 1		FASTERLING NO. 1			FASTERLING B NO. 1		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	12/26/73		12/26/73			12/26/73		
FORMATION.....	OLIG-DISCORBIS		-5700 FT. SAND			MIOC-L SAND		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10008		5720			11416		
WELLHEAD PRESSURE, PSIG.....	2750		1800			300		
OPEN FLOW, MCFD.....	6000		1000			330		
COMPONENT, MOLE PCT								
METHANE.....	94.7		95.6			92.5		
ETHANE.....	2.4		1.7			3.2		
PROpane.....	1.1		0.6			1.5		
N-BUTANE.....	0.3		TRACE			0.4		
ISOBUTANE.....	0.4		---			0.5		
N-PENTANE.....	0.1		TRACE			0.1		
ISOPENTANE.....	0.1		0.0			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	0.6		0.8			0.7		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.7		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE*.....	1077		1042			1090		
SPECIFIC GRAVITY.....	0.604		0.587			0.622		
INDEX 3178 SAMPLE 13849			INDEX 3179 SAMPLE 13853			INDEX 3180 SAMPLE 13807		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	PLAQUEMINES		PLAQUEMINES			PLAQUEMINES		
FIELD.....	BASTIAN BAY E		BASTIAN BAY E			BASTIAN BAY SE		
WELL NAME.....	FEE H NO. 1		LL & E NO. 25			ABERCROMBIE NO. 5		
LOCATION.....	NOT GIVEN		NOT GIVEN			SEC. 4, T21S, R29E		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			GULF OIL CO.- U.S.		
COMPLETED.....	--/--/00		02/01/74			02/03/71		
SAMPLED.....	12/26/73		12/26/73			11/09/73		
FORMATION.....	MIOC-RORULUS #15* ZONE		-6600 FT. SAND			MIOC-P-2 SAND		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10263		6692			13171		
WELLHEAD PRESSURE, PSIG.....	2500		2300			1950		
OPEN FLOW, MCFD.....	4500		2300			1250		
COMPONENT, MOLE PCT								
METHANE.....	93.5		87.8			96.4		
ETHANE.....	3.1		1.8			1.5		
PROpane.....	1.3		0.9			0.4		
N-BUTANE.....	0.4		0.1			0.1		
ISOBUTANE.....	0.4		0.3			0.2		
N-PENTANE.....	0.1		TRACE			TRACE		
ISOPENTANE.....	0.1		0.1			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	0.6		7.0			0.5		
OXYGEN.....	0.0		1.3			0.0		
ARGON.....	0.0		0.1			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.4			0.7		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE*.....	1082		968			1029		
SPECIFIC GRAVITY.....	0.609		0.623			0.581		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3181 13808	INDEX SAMPLE	3182 13809	INDEX SAMPLE	3183 13810
STATE	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH	PLAQUEMINES			PLAQUEMINES		PLAQUEMINES	
FIELD	BASTIAN BAY SE			BASTIAN BAY SE		BASTIAN BAY SE	
WELL NAME	P. P. NO. 3-D			ABERCROMBIE NO. A-2		ABERCROMBIE NO. 3	
LOCATION	SEC. 4, T21S, R29E			SEC. 4, T21S, R29E		SEC. 9, T21S, R29E	
OWNER	GULF OIL CO.- U.S.			GULF OIL CO.- U.S.		GULF OIL CO.- U.S.	
COMPLETED	07/04/70			03/10/67		05/28/73	
SAMPLED	11/09/73			11/09/73		11/09/73	
FORMATION	-SE S RA SUA			-SE ORA SUB		-SE R RA SUA	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	13761			12753		13769	
WELLHEAD PRESSURE, PSIG	2600			1640		1650	
OPEN FLOW, MCFD	8000			4400		1000	
COMPONENT	MOLE PCT						
METHANE	93.6			91.2		92.9	
ETHANE	2.6			4.1		2.7	
PROpane	1.1			1.6		1.3	
N-BUTANE	0.3			0.5		0.3	
ISOBUTANE	0.4			0.5		0.4	
N-PENTANE	0.1			0.1		0.1	
ISOPENTANE	0.1			0.2		0.1	
CYCLOPENTANE	TRACE			0.1		TRACE	
HEXANES PLUS	0.1			0.2		0.2	
NITROGEN	0.6			0.7		0.9	
OXYGEN	TRACE			0.0		0.0	
ARGON	0.0			0.0		0.0	
HYDROGEN	TRACE			0.0		TRACE	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.9			0.8		1.1	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE*	1061			1099		1066	
SPECIFIC GRAVITY	0.605			0.629		0.615	
		INDEX SAMPLE	3184 13811	INDEX SAMPLE	3185 13812	INDEX SAMPLE	3186 13850
STATE	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH	PLAQUEMINES			PLAQUEMINES		PLAQUEMINES	
FIELD	BASTIAN BAY SE			BASTIAN BAY SE		BASTIAN BAY W	
WELL NAME	P. P. NO. 3			ABERCROMBIE NO. A-2-D		LL & E FEE 24 NO. 24	
LOCATION	SEC. 4, T21S, R29E			SEC. 4, T21S, R29E		NOT GIVEN	
OWNER	GULF OIL CO.- U.S.			GULF OIL CO.- U.S.		PHILLIPS PETROLEUM CO.	
COMPLETED	07/04/70			03/10/67		--/--/00	
SAMPLED	11/09/73			11/09/73		12/26/73	
FORMATION	-SE S-3 RA SUB			-SE N RB SUB		OLIG-S100 FT. SAND	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	13913			12244		5176	
WELLHEAD PRESSURE, PSIG	3000			2740		1025	
OPEN FLOW, MCFD	13500			10200		330	
COMPONENT	MOLE PCT						
METHANE	93.6			92.7		97.4	
ETHANE	2.5			3.3		1.3	
PROpane	1.2			0.4		0.4	
N-BUTANE	0.3			0.3		TRACE	
ISOBUTANE	0.4			0.5		0.1	
N-PENTANE	0.1			0.1		TRACE	
ISOPENTANE	0.1			0.1		TRACE	
CYCLOPENTANE	0.1			0.1		TRACE	
HEXANES PLUS	0.2			0.2		0.1	
NITROGEN	0.7			0.7		0.5	
OXYGEN	0.0			0.0		0.0	
ARGON	0.0			0.0		0.0	
HYDROGEN	0.0			TRACE		TRACE	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.9			0.6		0.1	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE*	1070			1084		1029	
SPECIFIC GRAVITY	0.612			0.616		0.571	
		INDEX SAMPLE	3187 13852	INDEX SAMPLE	3188 17243	INDEX SAMPLE	3189 17244
STATE	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH	PLAQUEMINES			PLAQUEMINES		PLAQUEMINES	
FIELD	BASTIAN BAY W			BAY BATISTE		BAY BATISTE	
WELL NAME	SUA-LL&E NO. 24-D			LASL 9570 NO. 1		LASL 9570 NO. 3	
LOCATION	NOT GIVEN			PORT SULPHUR		PORT SULPHUR	
OWNER	PHILLIPS PETROLEUM CO.			PEND OREILLE OIL & GAS CO.		PEND OREILLE OIL & GAS CO.	
COMPLETED	--/--/00			02/--/83		02/--/83	
SAMPLED	12/26/73			04/06/84		04/06/84	
FORMATION	-7000 FT. SAND			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	6984			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG	2100			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD				NOT GIVEN		NOT GIVEN	
COMPONENT	MOLE PCT						
METHANE	95.1			87.6		71.6	
ETHANE	2.7			5.7		8.0	
PROpane	1.2			2.6		8.0	
N-BUTANE	0.2			0.9		2.4	
ISOBUTANE	0.3			0.7		2.1	
N-PENTANE	0.1			0.3		0.6	
ISOPENTANE	0.1			0.4		0.7	
CYCLOPENTANE	0.1			0.1		0.2	
HEXANES PLUS	0.2			0.3		0.5	
NITROGEN	0.4			0.2		0.0	
OXYGEN	0.0			TRACE		TRACE	
ARGON	0.0			TRACE		TRACE	
HYDROGEN	TRACE			0.0		0.0	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	TRACE			0.0		1.1	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE*	1075			1160		1406	
SPECIFIC GRAVITY	0.599			0.665		0.820	
		INDEX SAMPLE	3190 17245	INDEX SAMPLE	3191 17264	INDEX SAMPLE	3192 17266
STATE	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH	PLAQUEMINES			PLAQUEMINES		PLAQUEMINES	
FIELD	BAY BATISTE			BAY JEWRY		BAY JEWRY	
WELL NAME	LASL 9570 NO. 2			STATE LEASE 8512 NO. 1		STATE LEASE 8512 NO. 2	
LOCATION	SEC. 8, T19S, R26E			PORT SULPHUR		PORT SULPHUR	
OWNER	PEND OREILLE OIL & GAS CO.			PEND OREILLE OIL & GAS CO.		PEND OREILLE OIL & GAS CO.	
COMPLETED	02/--/83			02/--/83		02/--/83	
SAMPLED	04/06/84			04/20/84		04/20/84	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	13770			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG	2525			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	630			NOT GIVEN		NOT GIVEN	
COMPONENT	MOLE PCT						
METHANE	86.1			90.0		83.7	
ETHANE	6.7			4.6		7.0	
PROpane	3.3			3.1		3.3	
N-BUTANE	1.0			0.8		1.5	
ISOBUTANE	0.6			0.7		1.1	
N-PENTANE	0.3			0.7		0.5	
ISOPENTANE	0.3			0.2		0.4	
CYCLOPENTANE	0.1			0.2		0.2	
HEXANES PLUS	0.3			0.5		0.4	
NITROGEN	0.2			0.1		0.1	
OXYGEN	TRACE			TRACE		TRACE	
ARGON	TRACE			0.0		0.0	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.9			0.5		0.8	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE*	1063			1158		1239	
SPECIFIC GRAVITY	0.678			0.654		0.711	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3193 SAMPLE 17267		INDEX 3194 SAMPLE 11429		INDEX 3195 SAMPLE 14752	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES	
FIELD.....	BAY JIMMY	BATOU GENTILLY	BATOU GENTILLY	BRETON SOUND BLK. 20	
WELL NAME.....	STATE LEASE NO. 1	DELACROIX NO. 1	DELACROIX NO. 1	STATE LEASE 1959 NO. 23	
LOCATION.....	PORT SULPHUR	SEC. 17, T15S, R14E	SEC. 17, T15S, R14E	BRETON SOUND AREA	
OWNER.....	PEND OREILLE OIL & GAS CO.	SINCLAIR OIL & GAS CO.	SINCLAIR OIL & GAS CO.	KERR-MCGEE CORP.	
COMPLETED.....	02/-/83	11/15/66	11/15/66	-/-/70	
SAMPLED.....	04/20/84	04/04/68	04/04/68	09/07/76	
FORMATION.....	NOT GIVEN	MIOC-CIBICIDES OPIMA	MIOC-CIBICIDES OPIMA	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	NOT GIVEN	10859	10859	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	6600	6600	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	84.8	93.4	93.4	95.6	
ETHANE.....	7.1	2.4	2.4	1.8	
PROPANE.....	1.5	1.1	1.1	0.9	
N-BUTANE.....	1.3	0.4	0.4	0.4	
ISOBUTANE.....	0.9	0.4	0.4	0.3	
N-PENTANE.....	0.4	0.2	0.2	0.2	
ISOPENTANE.....	0.3	0.1	0.1	0.1	
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	
HEXANES PLUS.....	0.3	0.2	0.2	0.3	
NITROGEN.....	0.0	1.6	1.6	0.3	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	0.3	0.3	TRACE	
HELIUM.....	TRACE	TRACE	TRACE	1080	
HEATING VALUE.....	1208	1068	1068	0.599	
SPECIFIC GRAVITY.....	0.690	0.615	0.615		

INDEX 3196 SAMPLE 13473		INDEX 3197 SAMPLE 15028		INDEX 3198 SAMPLE 17519	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES	
FIELD.....	BRETON SOUND BLK. 30	CLAM LAKE	CLAM LAKE	COK BAY	
WELL NAME.....	STATE LEASE 5670 NO. 1	ORLEANS LEVEE BOARD NO. 1	ORLEANS LEVEE BOARD NO. 1	ORLEANS LEVEE BOARD NO. 1	
LOCATION.....	BLK. 30 OFFSHORE	SEC. 28, T15S, R15E	SEC. 28, T15S, R15E	SEC. 28, T15S, R15E	
OWNER.....	DESPOT EXPLORATION, INC.	PEL-TEX OIL CO., INC.	PEL-TEX OIL CO., INC.	CAMPBELL ENERGY	
COMPLETED.....	02/20/72	06/09/76	06/09/76	09/-/82	
SAMPLED.....	11/20/72	06/05/77	06/05/77	1/06/84	
FORMATION.....	NOT GIVEN	MIOC-BASAL	MIOC-BASAL	MIOC-1200 FT. SAND	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	12652	12390	12390	12000	
WELLHEAD PRESSURE, PSIG.....	2520	4426	4426	3150	
OPEN FLOW, MCFD.....	NOT GIVEN	2700	2700	30000	
COMPONENT, MOLE PCT					
METHANE.....	97.0	70.4	70.4	97.8	
ETHANE.....	1.6	11.4	11.4	0.7	
PROPANE.....	0.7	8.8	8.8	0.2	
N-BUTANE.....	0.3	1.3	1.3	0.1	
ISOBUTANE.....	0.0	2.8	2.8	TRACE	
N-PENTANE.....	TRACE	0.8	0.8	TRACE	
ISOPENTANE.....	TRACE	0.2	0.2	TRACE	
CYCLOPENTANE.....	TRACE	0.1	0.1	TRACE	
HEXANES PLUS.....	TRACE	0.6	0.6	TRACE	
NITROGEN.....	0.5	0.0	0.0	0.5	
OXYGEN.....	0.0	0.0	0.0	0.1	
ARGON.....	0.0	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.8	0.8	0.4	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	1033	1464	1464	1012	
SPECIFIC GRAVITY.....	0.574	0.852	0.852	0.567	

INDEX 3199 SAMPLE 12843		INDEX 3200 SAMPLE 17578		INDEX 3201 SAMPLE 16026	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES	
FIELD.....	CROOKED BAYOU	DELTA DUCK CLUB	DELTA DUCK CLUB	DRAKES BAY	
WELL NAME.....	STATE-SMITH NO. 1	DELTA DUCK CLUB UT. 1-A NO.1	DELTA DUCK CLUB UT. 1-A NO.1	LL & E NO. 1	
LOCATION.....	SEC. 33, T15S, R15E	SEC. 29, T20S, R20E	SEC. 29, T20S, R20E	SEC. 33, T20S, R29E	
OWNER.....	JONES-O'BRIEN, INC.	SUPERIOR OIL CO. (TEXACO)	SUPERIOR OIL CO. (TEXACO)	SEC. K PETROLEUM, INC.	
COMPLETED.....	11/-/70	08/13/84	08/13/84	01/10/78	
SAMPLED.....	05/29/71	08/13/84	08/13/84	07/30/80	
FORMATION.....	NOT GIVEN	TERT-MIOCENE U	TERT-MIOCENE U	MIOC	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	8507	12000	12000	10732	
WELLHEAD PRESSURE, PSIG.....	1550	5405	5405	1000	
OPEN FLOW, MCFD.....	1550	800	800	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	95.3	83.7	83.7	95.7	
ETHANE.....	1.8	1.6	1.6	1.6	
PROPANE.....	0.8	4.3	4.3	0.8	
N-BUTANE.....	0.2	1.3	1.3	0.3	
ISOBUTANE.....	0.4	1.0	1.0	0.2	
N-PENTANE.....	0.2	0.3	0.3	0.2	
ISOPENTANE.....	TRACE	0.3	0.3	0.1	
CYCLOPENTANE.....	0.2	1.0	1.0	0.1	
HEXANES PLUS.....	0.2	0.2	0.2	0.2	
NITROGEN.....	0.8	0.6	0.6	0.4	
OXYGEN.....	0.0	TRACE	TRACE	0.0	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	1.0	1.0	0.4	
HELIUM.....	TRACE	TRACE	TRACE	0.01	
HEATING VALUE.....	1061	1206	1206	1063	
SPECIFIC GRAVITY.....	0.596	0.699	0.699	0.596	

INDEX 3202 SAMPLE 17391		INDEX 3203 SAMPLE 10085		INDEX 3204 SAMPLE 12949	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES	PLAQUEMINES	
FIELD.....	NOT GIVEN	POINTE-A-LA-HACHE	POINTE-A-LA-HACHE	POTASH	
WELL NAME.....	STATE LEASE 7896 NO. 1	UL-5 RJ SU A H. LESLEY NO. 1	UL-5 RJ SU A H. LESLEY NO. 1	C. J. EDGERSON NO. 1	
LOCATION.....	BRETON SOUND BLK.23	SEC. 25, T16S, R14E	SEC. 25, T16S, R14E	SEC. 6, T18S, R27E	
OWNER.....	POGO PRODUCING CO.	HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.	
COMPLETED.....	07/30/80	06/04/64	06/04/64	02/01/70	
SAMPLED.....	08/20/84	08/26/65	08/26/65	08/06/71	
FORMATION.....	PLCT-3500 FT. SAND	MIOC-UL-5	MIOC-UL-5	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	3490	10900	10900	11732	
WELLHEAD PRESSURE, PSIG.....	1440	3900	3900	6150	
OPEN FLOW, MCFD.....	1508	3500	3500	3500	
COMPONENT, MOLE PCT					
METHANE.....	98.8	95.7	95.7	94.7	
ETHANE.....	0.1	0.8	0.8	1.1	
PROPANE.....	TRACE	0.8	0.8	0.4	
N-BUTANE.....	0.0	0.3	0.3	0.1	
ISOBUTANE.....	0.0	0.4	0.4	0.1	
N-PENTANE.....	0.0	0.1	0.1	TRACE	
ISOPENTANE.....	0.0	0.1	0.1	TRACE	
CYCLOPENTANE.....	0.0	0.1	0.1	TRACE	
HEXANES PLUS.....	0.0	0.2	0.2	0.1	
NITROGEN.....	0.8	0.5	0.5	0.4	
OXYGEN.....	0.1	0.0	0.0	0.0	
ARGON.....	0.1	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.0	0.0	3.0	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	1003	1065	1065	1001	
SPECIFIC GRAVITY.....	0.562	0.596	0.596	0.600	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3205 14169	INDEX SAMPLE	3206 14238	INDEX SAMPLE	3207 17423
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	PLAQUEMINES			PLAQUEMINES		PLAQUEMINES	
FIELD.....	SOUTH PASS BLK. 27			SOUTH PASS BLK. 27		SPANISH LAKE	
WELL NAME.....	0C5069 NO. 129			0C5 0637 NO. C-17		10800 RASUA DELACROIX NO-F-1	
LOCATION.....	EAST BAY OFF SHORE			BLK. 27 OFFSHORE		SEC. 21, T15S, R13E	
OWNER.....	SHELL OIL CO.			TEXACO INC.		ARCO OIL & GAS CO.	
COMPLETED.....	12/08/72			02/15/72		04/19/83	
SAMPLED.....	10/07/74			11/21/74		09/19/84	
FORMATION.....	PLIO-M-4			EOCE-WILCOX		MIOC-10800 FT. SAND	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7409			10555		10810	
WELLHEAD PRESSURE, PSIG.....	2300			1450		4500	
OPEN FLOW, MCFD.....	2900			1453		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	94.4	-----		91.4	-----	98.5	-----
ETHANE.....	2.5	-----		3.8	-----	0.4	-----
PROPANE.....	1.2	-----		1.8	-----	0.1	-----
N-BUTANE.....	0.3	-----		0.6	-----	0.1	-----
ISOBUTANE.....	0.3	-----		0.5	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.3	-----	TRACE	-----
ISOPENTANE.....	0.2	-----		0.3	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.4	-----	TRACE	-----
NITROGEN.....	0.3	-----		0.5	-----	0.3	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.4	-----	0.6	-----
HELIUM.....	TRACE	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1079	-----		1123	-----	1011	-----
SPECIFIC GRAVITY.....	0.604	-----		0.635	-----	0.566	-----
		INDEX SAMPLE	3208 6488	INDEX SAMPLE	3209 6489	INDEX SAMPLE	3210 15169
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	PLAQUEMINES			PLAQUEMINES		PLAQUEMINES	
FIELD.....	VENICE			VENICE		WEST BAY	
WELL NAME.....	MANHATTAN LAND&FRUIT CO. 2			MANHATTAN LAND&FRUIT CO. 19		STATE LEASE 192 "PP" 133	
LOCATION.....	SEC. 21, T12S, R30E			SEC. 26, T21S, R30E		LAT 29 07 42 LONG 89 26 2	
OWNER.....	TIDEWATER OIL CO.			TIDEWATER OIL CO.		GULF ENERGY & MINERALS CO.	
COMPLETED.....	05/-/-56			11/-/-48		05/20/77	
SAMPLED.....	01/22/58			01/22/58		12/15/77	
FORMATION.....	MIOC-L			MIOC-L		PLCT-MKR SAND 2ND	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	15700			8500		2484	
WELLHEAD PRESSURE, PSIG.....	2520			2500		1000	
OPEN FLOW, MCFD.....	NOT GIVEN			10000		2400	
COMPONENT, MOLE PCT							
METHANE.....	88.7	-----		86.4	-----	99.2	-----
ETHANE.....	4.3	-----		2.6	-----	0.0	-----
PROPANE.....	2.6	-----		2.6	-----	TRACE	-----
N-BUTANE.....	0.8	-----		1.2	-----	0.0	-----
ISOBUTANE.....	0.7	-----		1.0	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.5	-----	0.0	-----
ISOPENTANE.....	0.1	-----		0.5	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		0.2	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		0.7	-----	0.0	-----
NITROGEN.....	0.7	-----		0.5	-----	0.6	-----
OXYGEN.....	0.1	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.7	-----		0.5	-----	0.1	-----
HELIUM.....	TRACE	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1107	-----		1210	-----	1005	-----
SPECIFIC GRAVITY.....	0.650	-----		0.691	-----	0.557	-----
		INDEX SAMPLE	3211 15246	INDEX SAMPLE	3212 15553	INDEX SAMPLE	3213 16057
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	POINTE COUPEE			POINTE COUPEE		POINTE COUPEE	
FIELD.....	FALSE RIVER			JUDGE DIBBY		JUDGE DIBBY	
WELL NAME.....	ALMA PLANTATION NO. 1			W. C. PARLANGE NO. 2		LE BLANC-LE JUENE NO. 1	
LOCATION.....	SEC. 87, T6S, R11E			SEC. 49, T5S, R9E		SEC. 65, T5S, R10E	
OWNER.....	CHEVRON U.S.A., INC.			CHEVRON U.S.A., INC.		CHEVRON U.S.A., INC.	
COMPLETED.....	06/04/75			06/02/78		09/14/79	
SAMPLED.....	03/29/78			01/11/79		08/26/80	
FORMATION.....	CRET-TUSCALOOSA			CRET-TUSCALOOSA		CRET-TUSCALOOSA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	19800			20268		20490	
WELLHEAD PRESSURE, PSIG.....	13100			11620		10160	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		17260	
COMPONENT, MOLE PCT							
METHANE.....	90.6	-----		90.2	-----	89.8	-----
ETHANE.....	1.8	-----		1.7	-----	2.2	-----
PROPANE.....	0.2	-----		0.2	-----	0.4	-----
N-BUTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOBUTANE.....	0.1	-----		0.1	-----	0.1	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	0.5	-----		0.3	-----	0.2	-----
OXYGEN.....	0.1	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	6.3	-----		7.2	-----	7.0	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.02	-----
HEATING VALUE.....	978	-----		976	-----	976	-----
SPECIFIC GRAVITY.....	0.639	-----		0.643	-----	0.646	-----
		INDEX SAMPLE	3214 16807	INDEX SAMPLE	3215 16869	INDEX SAMPLE	3216 17588
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	POINTE COUPEE			POINTE COUPEE		POINTE COUPEE	
FIELD.....	MOORE-SAMS			MORGANZA		MORGANZA	
WELL NAME.....	J. HURST NO. 1			DOROTHY C. BROWN NO. 3		REX CALLICOTT NO. 2	
LOCATION.....	SEC. 55, T4S, R9E			SEC. 48, T4S, R8E		SEC. 84, T4S, R8E	
OWNER.....	AMOCO PRODUCTION CO. (USA)			AMOCO PRODUCTION CO. (USA)		AMOCO PRODUCTION CO.	
COMPLETED.....	08/14/82			11/08/82		08/30/83	
SAMPLED.....	03/05/83			03/05/83		02/07/85	
FORMATION.....	CRET-TUSCALOOSA			CRET-TUSCALOOSA		CRET-TUSCALOOSA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	18892			18478		18946	
WELLHEAD PRESSURE, PSIG.....	8400			6015		8850	
OPEN FLOW, MCFD.....	NOT GIVEN			8000		25000	
COMPONENT, MOLE PCT							
METHANE.....	90.3	-----		89.2	-----	90.8	-----
ETHANE.....	2.0	-----		3.1	-----	2.3	-----
PROPANE.....	0.4	-----		0.6	-----	0.3	-----
N-BUTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOBUTANE.....	0.1	-----		0.1	-----	0.1	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	0.4	-----		0.2	-----	0.2	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.2	-----		0.2	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	5.9	-----		5.9	-----	5.7	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	987	-----		1012	-----	994	-----
SPECIFIC GRAVITY.....	0.637	-----		0.651	-----	0.636	-----

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3217 SAMPLE 16706		INDEX 3218 SAMPLE 16446		INDEX 3219 SAMPLE 4939	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	POINTE COUPEE	POINTE COUPEE		POINTE COUPEE	
FIELD.....	NOT GIVEN	PROFIT ISLAND		SHERBURNE	
WELL NAME.....	RAVENWOOD CO. INC. NO. 2	HURST-RICARD NO. 1		V. J. KURZWEG NO. 1	
LOCATION.....	SEC. 42, T4S, R9E	SEC. 49, T5S, R11E		SEC. 24, T6S, R7E	
OWNER.....	AMOCO PRODUCTION CO.	CHEVRON U.S.A., INC.		TEXAS CO.	
COMPLETED.....	10/--/82	12/02/80		04/29/50	
SAMPLED.....	11/--/82	03/12/82		10/10/50	
FORMATION.....	CRET-TUSCALOOSA	-19-100 SU "U"		FOCE-COCKFIELD	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	18880	18640		10324	
WELLHEAD PRESSURE, PSIG.....	3672	700		6100	
OPEN FLOW, MCFD.....	5200	10000		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	88.0	86.4		89.9	
ETHANE.....	1.8	4.9		5.3	
PROPANE.....	0.2	1.5		2.5	
N-BUTANE.....	0.1	0.4		0.7	
ISOBUTANE.....	TRACE	0.5		0.4	
N-PENTANE.....	TRACE	0.2		0.2	
ISOPENTANE.....	TRACE	0.1		TRACE	
CYCLOPENTANE.....	TRACE	0.1		0.1	
HEXANES PLUS.....	0.1	0.3		0.2	
NITROGEN.....	3.6	0.4		TRACE	
OXYGEN.....	0.7	0.1		0.2	
ARGON.....	0.1	0.0		0.0	
HYDROGEN.....	0.1	TRACE		---	
HYDROGEN SULFIDE.....	0.0	0.0		---	
CARBON DIOXIDE.....	5.2	---		0.5	
HELIUM.....	TRACE	TRACE		TRACE	
HEATING VALUE.....	938	1064		1130	
SPECIFIC GRAVITY.....	0.638	0.674		0.639	

INDEX 3220 SAMPLE 13706		INDEX 3221 SAMPLE 14964		INDEX 3222 SAMPLE 16400	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	RAPIDES	RAPIDES		RED RIVER	
FIELD.....	HUMPHREY	NOT GIVEN		ALPHA	
WELL NAME.....	L. O. RIGGS NO. 2	R-1109(312442N0921210.01)		CHARLES BEACH NO. 1	
LOCATION.....	SEC. 18, T17S, R16E	SEC. 19, T5N, R3E		SEC. 34, T12N, R8W	
OWNER.....	UNION TEXAS PETROLEUM CORP.	U.S. GEOLOGICAL SURVEY		AMERADA HESS CORP.	
COMPLETED.....	11/05/72	04/11/77		08/10/80	
SAMPLED.....	08/29/73	04/11/77		12/23/81	
FORMATION.....	MIOC-HOLLYWOOD	PLET-1 PRAIRIE TERRACE		CRET-HOUSTON	
GEOLOGIC PROVINCE CODE.....	220	220		230	
DEPTH, FEET.....	11574	50		9353	
WELLHEAD PRESSURE, PSIG.....	1810	3-150		4800	
OPEN FLOW, MCFD.....	165000	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	92.7	59.8		96.7	
ETHANE.....	2.6	0.2		0.2	
PROPANE.....	1.4	0.0		TRACE	
N-BUTANE.....	0.3	0.0		0.0	
ISOBUTANE.....	0.5	0.0		0.0	
N-PENTANE.....	0.1	0.0		0.0	
ISOPENTANE.....	0.2	0.0		0.0	
CYCLOPENTANE.....	0.1	0.0		0.0	
HEXANES PLUS.....	0.2	0.0		0.0	
NITROGEN.....	0.5	33.6		0.7	
OXYGEN.....	0.0	0.4		0.0	
ARGON.....	0.0	0.4		TRACE	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.4	0.4		2.4	
HELIUM.....	0.01	0.02		0.02	
HEATING VALUE.....	1094	609		983	
SPECIFIC GRAVITY.....	0.617	0.752		0.582	

INDEX 3223 SAMPLE 3953		INDEX 3224 SAMPLE 3954		INDEX 3225 SAMPLE 3955	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	RED RIVER	RED RIVER		RED RIVER	
FIELD.....	GAHAGAN	GAHAGAN		GAHAGAN	
WELL NAME.....	SEMP RUSS NO. 1	SEMP RUSS NO. 1		SEMP RUSS NO. 1	
LOCATION.....	SEC. 16, T12N, R10W	SEC. 16, T12N, R10W		SEC. 16, T12N, R10W	
OWNER.....	TEXAS CO.	TEXAS CO.		TEXAS CO.	
COMPLETED.....	--/45/00	--/45/00		12/21/40	
SAMPLED.....	11/18/44	--/45/00		12/19/44	
FORMATION.....	CRET-TRAVIS PEAK	CRET-L		CRET-RODESSA	
GEOLOGIC PROVINCE CODE.....	230	230		230	
DEPTH, FEET.....	7146	6750		5000	
WELLHEAD PRESSURE, PSIG.....	2250	710		2480	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		20000	
COMPONENT, MOLE PCT					
METHANE.....	96.4	96.3		97.7	
ETHANE.....	1.6	2.8		0.0	
PROPANE.....	---	---		---	
N-BUTANE.....	---	---		---	
ISOBUTANE.....	---	---		---	
N-PENTANE.....	---	---		---	
ISOPENTANE.....	---	---		---	
CYCLOPENTANE.....	---	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	0.0	0.0		0.0	
OXYGEN.....	0.4	0.4		0.2	
ARGON.....	---	---		---	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE.....	---	---		---	
CARBON DIOXIDE.....	1.6	0.5		2.0	
HELIUM.....	0.05	0.05		0.05	
HEATING VALUE.....	1005	1026		990	
SPECIFIC GRAVITY.....	0.580	0.575		0.576	

INDEX 3226 SAMPLE 16357		INDEX 3227 SAMPLE 16922		INDEX 3228 SAMPLE 17891	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	RED RIVER	RED RIVER		RED RIVER	
FIELD.....	MARTIN	MARTIN		MARTIN	
WELL NAME.....	TEER NO. 1	CROWN ZELLERBACH NO. 1		J. D. HUCKABY NO. 1	
LOCATION.....	SEC. 19, T13N, R9W	SEC. 18, T13N, R9W		SEC. 1, T13N, R9W	
OWNER.....	PIONEER PRODUCTION CORP.	PIONEER PRODUCTION CORP.		AMERADA HESS CORP.	
COMPLETED.....	03/18/81	05/04/83		06/04/85	
SAMPLED.....	10/10/81	05/04/83		11/--/85	
FORMATION.....	NOT GIVEN	NOT GIVEN		JURA-COTTON VALLEY L	
GEOLOGIC PROVINCE CODE.....	230	NOT GIVEN		230	
DEPTH, FEET.....	1405	NOT GIVEN		11254	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	3400		6000	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		4000	
COMPONENT, MOLE PCT					
METHANE.....	94.3	94.5		94.5	
ETHANE.....	0.2	0.2		0.2	
PROPANE.....	0.1	TRACE		0.1	
N-BUTANE.....	0.0	TRACE		0.0	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	TRACE		0.0	
ISOPENTANE.....	0.0	TRACE		0.0	
CYCLOPENTANE.....	0.0	TRACE		0.0	
HEXANES PLUS.....	0.0	TRACE		0.0	
NITROGEN.....	0.1	0.1		0.1	
OXYGEN.....	TRACE	TRACE		TRACE	
ARGON.....	TRACE	0.0		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	5.3	4.5		4.7	
HELIUM.....	0.01	TRACE		TRACE	
HEATING VALUE.....	961	965		963	
SPECIFIC GRAVITY.....	0.608	0.600		0.603	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3229 SAMPLE 16977		INDEX 3230 SAMPLE 4299		INDEX 3231 SAMPLE 5028	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	RED RIVER	RICHLAND	RICHLAND	RICHLAND	
FIELD.....	THORN LAKE	DELHI	RICHLAND	RICHLAND	
WELL NAME.....	CV RA SUB SAMPLE NO. 2	SEC. 4, T17N, R9E	SEC. 35, T17N, R6E	SEC. 35, T17N, R6E	
LOCATION.....	SEC. 9, T17N, R11W	MURPHY-SUN INTERESTS	MURPHY-SUN INTERESTS	UNITED CARBON CO., INC.	
OWNER.....	AMOCO PRODUCTION CO. (USA)	08/08/82	08/08/82	08/12/51	
COMPLETED.....	06/16/83	04/09/87	04/09/87	03/29/51	
SAMPLED.....	JURA-COTTON VALLEY	CRET-U	CRET-U	CRET-U	
FORMATION.....	230	230	230	230	
GEOLOGIC PROVINCE CODE.....	9800	3323	2394	2394	
DEPTH, FEET.....	3600	1467	200	200	
WELLHEAD PRESSURE, PSIG.....	225	30	400	400	
OPEN FLOW, MCFD.....					
COMPONENT, MOLE PCT					
METHANE.....	93.9	58.4	86.9	86.9	
ETHANE.....	1.9	40.5	5.0	5.0	
PROPANE.....	0.2	---	2.1	2.1	
N-BUTANE.....	0.1	---	0.7	0.7	
ISOBUTANE.....	0.0	---	0.3	0.3	
N-PENTANE.....	0.1	---	0.3	0.3	
ISOPENTANE.....	0.0	---	0.1	0.1	
CYCLOPENTANE.....	TRACE	---	TRACE	TRACE	
HEXANES PLUS.....	0.1	---	0.3	0.3	
NITROGEN.....	0.1	0.0	2.7	2.7	
OXYGEN.....	TRACE	0.8	0.2	0.2	
ARGON.....	0.3	---	0.0	0.0	
HYDROGEN.....	0.0	---	---	---	
HYDROGEN SULFIDE.....	3.2	0.3	1.3	1.3	
CARBON DIOXIDE.....	TRACE	TRACE	0.05	0.05	
HELIUM.....	1004	1317	1090	1090	
HEATING VALUE.....	0.601	0.762	0.655	0.655	
SPECIFIC GRAVITY.....					
INDEX 3232 SAMPLE 16199		INDEX 3233 SAMPLE 17696		INDEX 3234 SAMPLE 4148	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	RICHLAND	RICHLAND	RICHLAND	RICHLAND	
FIELD.....	SACKSONIA	SACKSONIA	WILDCAT	WILDCAT	
WELL NAME.....	MAY A. LINTON ET AL. NO. 1	PATRICK NO. 1	SATRE NO. 1	SATRE NO. 1	
LOCATION.....	SEC. 11, T17N, R8E	SEC. 4, T17N, R8E	SEC. 34, T17N, R7E	SEC. 34, T17N, R7E	
OWNER.....	HUNT ENERGY CORP.	SPIRIT PETROLEUM CO.	LVO CORP.	LVO CORP.	
COMPLETED.....	08/31/80	12/22/83	08/02/46	08/02/46	
SAMPLED.....	02/24/81	05/31/85	10/26/46	10/26/46	
FORMATION.....	CRET-RODESSA	CRET-RODESSA	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	230	230	230	230	
DEPTH, FEET.....	2858	2784	2598	2598	
WELLHEAD PRESSURE, PSIG.....	1272	1240	900	900	
OPEN FLOW, MCFD.....	889	300	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	93.5	93.3	87.0	87.0	
ETHANE.....	0.2	0.1	10.1	10.1	
PROPANE.....	TRACE	0.0	---	---	
N-BUTANE.....	0.1	0.0	---	---	
ISOBUTANE.....	0.0	0.0	---	---	
N-PENTANE.....	0.0	0.0	---	---	
ISOPENTANE.....	0.3	0.0	---	---	
CYCLOPENTANE.....	0.2	0.0	---	---	
HEXANES PLUS.....	0.2	0.0	---	---	
NITROGEN.....	5.4	5.9	2.6	2.6	
OXYGEN.....	0.0	0.0	0.2	0.2	
ARGON.....	TRACE	TRACE	---	---	
HYDROGEN.....	0.0	0.0	---	---	
HYDROGEN SULFIDE.....	0.0	0.4	0.1	0.1	
CARBON DIOXIDE.....	TRACE	0.09	TRACE	TRACE	
HELIUM.....	985	951	1062	1062	
HEATING VALUE.....	0.593	0.584	0.617	0.617	
SPECIFIC GRAVITY.....					
INDEX 3235 SAMPLE 4368		INDEX 3236 SAMPLE 13723		INDEX 3237 SAMPLE 15293	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	RICHLAND	SABINE	SABINE	SABINE	
FIELD.....	WILDCAT	PLEASANT HILL	WILDCAT	WILDCAT	
WELL NAME.....	SEC. 10, T17N, R9E	LOGAN NO. 1	LOISE SOUTHERN B-5 NO. 1	LOISE SOUTHERN B-5 NO. 1	
LOCATION.....	SEC. 10, T17N, R9E	SEC. 21, T10N, R12W	SEC. 32, T9N, R12W	SEC. 32, T9N, R12W	
OWNER.....	MURPHY-SUN INTERESTS	MCCULLOCH OIL CORP.	SUN PRODUCTION CO.	SUN PRODUCTION CO.	
COMPLETED.....	10/02/47	12/04/72	12/29/77	12/29/77	
SAMPLED.....	09/20/73	09/20/73	05/25/78	05/25/78	
FORMATION.....	CRET-L	CRET-HOSSTON	CRET-MOORINGSPORT	CRET-MOORINGSPORT	
GEOLOGIC PROVINCE CODE.....	230	230	230	230	
DEPTH, FEET.....	3153	7470	4703	4703	
WELLHEAD PRESSURE, PSIG.....	1515	3365	2490	2490	
OPEN FLOW, MCFD.....	9400	19500	878	878	
COMPONENT, MOLE PCT					
METHANE.....	94.7	94.9	93.4	93.4	
ETHANE.....	1.9	0.3	0.5	0.5	
PROPANE.....	---	0.1	0.2	0.2	
N-BUTANE.....	---	0.1	0.1	0.1	
ISOBUTANE.....	---	0.1	TRACE	TRACE	
N-PENTANE.....	---	TRACE	TRACE	TRACE	
ISOPENTANE.....	---	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	---	TRACE	0.1	0.1	
HEXANES PLUS.....	---	0.1	0.1	0.1	
NITROGEN.....	2.8	2.9	5.1	5.1	
OXYGEN.....	0.1	0.0	0.0	0.0	
ARGON.....	---	TRACE	TRACE	TRACE	
HYDROGEN.....	---	TRACE	0.1	0.1	
HYDROGEN SULFIDE.....	---	0.1	0.0	0.0	
CARBON DIOXIDE.....	0.5	1.6	0.4	0.4	
HELIUM.....	0.04	0.05	0.06	0.06	
HEATING VALUE.....	993	973	973	973	
SPECIFIC GRAVITY.....	0.581	0.588	0.589	0.589	
INDEX 3238 SAMPLE 11821		INDEX 3239 SAMPLE 11826		INDEX 3240 SAMPLE 16055	
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA	
PARISH.....	ST. BERNARD	ST. BERNARD	ST. BERNARD	ST. BERNARD	
FIELD.....	MAIN PASS BLK. 6	MAIN PASS BLK. 6	RIGOLETS	RIGOLETS	
WELL NAME.....	OCS-G-1366 NO. 7D	OCS-G-1499 NO. 2	STATE LEASE 6651 NO. 2	STATE LEASE 6651 NO. 2	
LOCATION.....	OFFSHORE	OFFSHORE	11S, R16E, LAKE BORGNE	11S, R16E, LAKE BORGNE	
OWNER.....	MOBIL OIL CORP.	MOBIL OIL CORP.	CHEVRON U.S.A., INC.	CHEVRON U.S.A., INC.	
COMPLETED.....	03/06/68	01/26/68	05/02/80	05/02/80	
SAMPLED.....	02/07/69	02/07/69	08/20/80	08/20/80	
FORMATION.....	-4800 FT. SAND	MIOC	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	4800	6950	13777	13777	
WELLHEAD PRESSURE, PSIG.....	2100	2725	3200	3200	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	1700	1700	
COMPONENT, MOLE PCT					
METHANE.....	98.3	98.5	86.3	86.3	
ETHANE.....	0.5	0.4	6.1	6.1	
PROPANE.....	0.1	TRACE	2.3	2.3	
N-BUTANE.....	0.0	0.1	0.6	0.6	
ISOBUTANE.....	0.0	0.0	0.4	0.4	
N-PENTANE.....	0.0	0.1	0.1	0.1	
ISOPENTANE.....	0.0	TRACE	0.2	0.2	
CYCLOPENTANE.....	0.0	0.1	0.1	0.1	
HEXANES PLUS.....	0.0	0.1	0.2	0.2	
NITROGEN.....	0.7	0.4	0.9	0.9	
OXYGEN.....	0.1	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.0	2.8	2.8	
HELIUM.....	0.01	TRACE	0.01	0.01	
HEATING VALUE.....	1008	1022	1104	1104	
SPECIFIC GRAVITY.....	0.563	0.567	0.666	0.666	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSENCE OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3241 SAMPLE 11804			INDEX 3242 SAMPLE 13763			INDEX 3243 SAMPLE 3701		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. BERNARD		ST. CHARLES			ST. CHARLES		
FIELD.....	STUARDS BLUFF		NOT GIVEN			PARADIS		
WELL NAME.....	STATE LEASE 4909 NO. 2		RATHBORNE NO. 1			LOUISIANA LAND & EXPL. NO. 3		
LOCATION.....	SEC. 17, T15S, R17E		SEC. 2, T13S, R19E			SEC. 40, T14S, R20E		
OWNER.....	TEXAS CRUDE OIL CO.		MIDWEST OIL CORP.			TEXAS CO.		
COMPLETED.....	06/28/68		--/--/00			--/--/00		
SAMPLED.....	03/29/69		10/--/73			11/28/43		
FORMATION.....	TELT		NOT GIVEN			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8932		11131			11394		
WELLHEAD PRESSURE, PSIG.....	3300		NOT GIVEN			5457		
OPEN FLOW, MCFD.....	NOT GIVEN		3141			20000		
COMPONENT, MOLE PCT								
METHANE.....	97.9		93.5			88.7		
ETHANE.....	0.4		2.8			10.1		
PROPANE.....	0.1		1.1			---		
N-BUTANE.....	0.0		0.2			---		
ISOBUTANE.....	0.0		0.6			---		
N-PENTANE.....	0.0		TRACE			---		
ISOPENTANE.....	0.0		0.2			---		
CYCLOPENTANE.....	0.0		0.1			---		
HEXANES PLUS.....	0.0		0.2			---		
NITROGEN.....	1.1		0.6			0.1		
OXYGEN.....	0.2		0.0			0.4		
ARGON.....	0.0		0.0			---		
HYDROGEN.....	TRACE		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.6		0.6			0.7		
HELIUM.....	TRACE		TRACE			0.00		
HEATING VALUE.....	1001		1075			1080		
SPECIFIC GRAVITY.....	0.566		0.610			0.614		

INDEX 3244 SAMPLE 3720			INDEX 3245 SAMPLE 14130			INDEX 3246 SAMPLE 14374		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. CHARLES		ST. CHARLES			ST. JAMES		
FIELD.....	PARADIS		TAFT S			BAYOU CITAMON		
WELL NAME.....	LOUISIANA LAND & EXPL. CO.		OCCIDENTAL PET. CORP. NO. 1			BOWIE LUMBER CO. NO. 1		
LOCATION.....	SEC. 40, T142, R20E		SEC. 38, T13S, R20E			SEC. 18, T13S, R17E		
OWNER.....	TEXAS CO.		ASHLAND OIL, INC.			UNION TEXAS PETROLEUM CORP.		
COMPLETED.....	--/--/00		04/15/74			11/19/74		
SAMPLED.....	02/19/44		08/16/74			05/22/75		
FORMATION.....	MIOC		MIOC			MIOC-MA-3		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10237		11122			11450		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		4000			6300		
OPEN FLOW, MCFD.....	10000		1600			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.8		94.6			95.1		
ETHANE.....	9.9		0.1			2.5		
PROPANE.....	---		0.9			0.6		
N-BUTANE.....	---		0.2			0.1		
ISOBUTANE.....	---		0.4			0.3		
N-PENTANE.....	---		0.1			TRACE		
ISOPENTANE.....	---		0.2			0.2		
CYCLOPENTANE.....	---		0.2			TRACE		
HEXANES PLUS.....	---		0.2			0.1		
NITROGEN.....	0.0		0.6			0.5		
OXYGEN.....	0.4		TRACE			0.0		
ARGON.....	---		0.0			0.0		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.5			0.4		
HELIUM.....	0.03		0.01			TRACE		
HEATING VALUE.....	1077		1066			1051		
SPECIFIC GRAVITY.....	0.614		0.602			0.590		

INDEX 3247 SAMPLE 13363			INDEX 3248 SAMPLE 15161			INDEX 3249 SAMPLE 17660		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. JAMES		ST. JAMES			ST. JAMES		
FIELD.....	COLE POINT "HESTER"		LAPCE			VACHERIE		
WELL NAME.....	MAI RA SUB. MATHERNE NO. 1		HANTHORNE NO. 1			ST. JOSEPH PLT & MFG NO. 1		
LOCATION.....	SEC. 34, T12S, R4E		SEC. 41, T12S, R15E			SEC. 52, T13S, R17E		
OWNER.....	KEMORE OIL CO., INC.		BROCK EXPLORATION CORP.			REPUBLIC MINERAL CORP.		
COMPLETED.....	01/04/71		04/29/77			04/09/83		
SAMPLED.....	08/29/72		11/25/77			05/01/85		
FORMATION.....	MIOC-MA-1		MIOC-J SAND			OLIG-MARGINULINA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10264		11314			10742		
WELLHEAD PRESSURE, PSIG.....	1949		3900			NOT GIVEN		
OPEN FLOW, MCFD.....	4694		1250			4207		
COMPONENT, MOLE PCT								
METHANE.....	90.8		89.3			91.1		
ETHANE.....	4.8		5.1			3.0		
PROPANE.....	1.9		0.4			1.6		
N-BUTANE.....	0.5		0.4			0.6		
ISOBUTANE.....	0.7		0.5			0.9		
N-PENTANE.....	0.2		0.1			0.4		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.4		
HEXANES PLUS.....	0.2		0.2			1.0		
NITROGEN.....	0.3		1.4			0.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.8			0.3		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE.....	1124		1098			1161		
SPECIFIC GRAVITY.....	0.634		0.640			0.656		

INDEX 3250 SAMPLE 14235			INDEX 3251 SAMPLE 4174			INDEX 3252 SAMPLE 14873		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. LANDRY		ST. LANDRY			ST. LANDRY		
FIELD.....	ANDREPONT		CANKTON			LAUREL		
WELL NAME.....	DALLAS PITRE NO. 1		VINCENT BOAGNI NO. 1			0. RICHARD ET AL. NO. 1		
LOCATION.....	SEC. 99, T5S, R3E		SEC. 28, T8S, R4E			SEC. 27, T6S, R3E		
OWNER.....	SOUTH LOUISIANA PROD. CO.		HUMBLE OIL & REFINING CO.			SABINE PRODUCTION CO.		
COMPLETED.....	08/05/74		09/05/74			08/26/75		
SAMPLED.....	11/19/74		11/07/76			12/16/76		
FORMATION.....	EOCE-WILCOX		MIOC-U			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	12573		3065			9340		
WELLHEAD PRESSURE, PSIG.....	4760		NOT GIVEN			3789		
OPEN FLOW, MCFD.....	750		NOT GIVEN			3000		
COMPONENT, MOLE PCT								
METHANE.....	83.7		99.7			88.4		
ETHANE.....	7.8		0.0			5.1		
PROPANE.....	3.9		---			3.2		
N-BUTANE.....	0.9		---			0.9		
ISOBUTANE.....	0.8		---			0.8		
N-PENTANE.....	0.2		---			0.2		
ISOPENTANE.....	0.4		---			0.3		
CYCLOPENTANE.....	0.1		---			TRACE		
HEXANES PLUS.....	0.2		---			0.2		
NITROGEN.....	0.8		0.0			0.6		
OXYGEN.....	TRACE		0.1			0.0		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	1.3		0.2			0.3		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1186		1110			1159		
SPECIFIC GRAVITY.....	0.693		0.557			0.657		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3253 4690			INDEX SAMPLE	3254 15738			INDEX SAMPLE	3255 9069
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	ST. LANDRY			ST. LANDRY				ST. LANDRY			
FIELD.....	MELVILLE			MONCRIEF				SHUTESTON			
WELL NAME.....	SUITE NO. 1			TURNER LUMBER CO. NO. 1				AL L. ALBARADO NO. 1			
LOCATION.....	SEC. 23, T4S, R6E			SEC. 4, T3S, R6E				SEC. 34, T7S, R3E			
OWNER.....	SUN OIL CO.			GULF OIL CORP.				FALCON SEABOARD DRILLING CO.			
COMPLETED.....	11/04/48			10/10/77				09/19/62			
SAMPLED.....	03/03/49			08/30/79				08/21/63			
FORMATION.....	EOCE-MILCOX			CRET-TUSCALOOSA				OLIG-NODOSARIA BLANPIEDI			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	11239			16498				10374			
WELLHEAD PRESSURE, PSIG.....	3125			5740				1600			
OPEN FLOW, MCFD.....	NOT GIVEN			7500				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	83.9			89.2				89.6			
ETHANE.....	5.7			3.3				5.0			
PROPANE.....	3.9			0.7				1.9			
N-BUTANE.....	1.2			0.2				0.5			
ISOBUTANE.....	0.7			0.2				0.6			
N-PENTANE.....	0.5			0.1				0.1			
ISOPENTANE.....	0.5			TRACE				0.3			
CYCLOPENTANE.....	0.1			TRACE				TRACE			
HEXANES PLUS.....	0.6			0.1				0.1			
NITROGEN.....	1.8			0.6				1.5			
OXYGEN.....	0.1			0.0				0.0			
ARGON.....	TRACE			TRACE				0.0			
HYDROGEN.....	0.1			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.1			5.6				0.4			
HELIUM.....	0.01			0.01				0.01			
HEATING VALUE.....	1189			1004				1106			
SPECIFIC GRAVITY.....	0.708			0.645				0.635			
		INDEX SAMPLE	3256 14020			INDEX SAMPLE	3257 13729			INDEX SAMPLE	3258 14623
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	ST. MARTIN			ST. MARTIN				ST. MARTIN			
FIELD.....	ARNAUDVILLE S			BAYOU DES GLAISES				BAYOU LONG			
WELL NAME.....	DR. SIDNEY FREDRICK NO. 1			STATE LEASE 5770 NO. 1				JEANERETTE L & S NO. 1			
LOCATION.....	SEC. 38, T8S, R5E			SEC. 84, T8S, R8E				SEC. 13, T13S, R1E			
OWNER.....	TEXACO INC.			TEXACO INC.				UNION OIL CO. OF CALIF.			
COMPLETED.....	12/10/73			08/12/72				11/20/74			
SAMPLED.....	05/29/74			09/26/73				03/17/76			
FORMATION.....	EOCE-MILCOX			OLIG-FRIO				MIOC-PLANULINA			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	15886			12470				13570			
WELLHEAD PRESSURE, PSIG.....	7000			4000				5200			
OPEN FLOW, MCFD.....	2300			3800				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	85.8			93.9				94.8			
ETHANE.....	7.0			2.9				2.3			
PROPANE.....	2.0			1.1				0.8			
N-BUTANE.....	0.3			0.2				0.1			
ISOBUTANE.....	0.5			0.4				0.3			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	0.1			0.1				TRACE			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	0.3			0.6				0.5			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	0.0			0.0				TRACE			
HYDROGEN.....	0.0			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	3.7			0.6				1.1			
HELIUM.....	TRACE			TRACE				TRACE			
HEATING VALUE.....	1087			1066				1045			
SPECIFIC GRAVITY.....	0.664			0.603				0.598			
		INDEX SAMPLE	3259 14624			INDEX SAMPLE	3260 14958			INDEX SAMPLE	3261 4763
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	ST. MARTIN			ST. MARTIN				ST. MARTIN			
FIELD.....	BAYOU LONG			BAYOU LONG				DUCK LAKE			
WELL NAME.....	JEANERETTE L & S NO. 3			JEANERETTE L & S NO. 1				STATE GOODRICH NO. 1			
LOCATION.....	SEC. 13, T13S, R1E			SEC. 12, T13S, R1E				SEC. 2, T15S, R1E			
OWNER.....	UNION OIL CO. OF CALIF.			CHEVRON OIL CO.				HUNT OIL CO.			
COMPLETED.....	07/14/75			07/14/75				07/16/49			
SAMPLED.....	03/17/76			03/28/77				10/19/49			
FORMATION.....	MIOC-PLANULINA			MIOC-14900 SAND				MIOC-D-1 SAND			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	13380			13966				12342			
WELLHEAD PRESSURE, PSIG.....	5200			5400				4580			
OPEN FLOW, MCFD.....	NOT GIVEN			3500				70			
COMPONENT, MOLE PCT											
METHANE.....	94.7			84.2				92.7			
ETHANE.....	2.3			2.3				3.6			
PROPANE.....	0.8			0.8				1.1			
N-BUTANE.....	0.2			0.3				0.2			
ISOBUTANE.....	0.3			0.3				0.3			
N-PENTANE.....	TRACE			0.2				0.2			
ISOPENTANE.....	0.1			TRACE				0.0			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.2			
NITROGEN.....	0.5			0.7				0.6			
OXYGEN.....	0.0			2.0				0.1			
ARGON.....	0.0			0.1				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.9			0.9				1.0			
HELIUM.....	TRACE			TRACE				TRACE			
HEATING VALUE.....	1048			1079				1070			
SPECIFIC GRAVITY.....	0.596			0.645				0.612			
		INDEX SAMPLE	3262 14373			INDEX SAMPLE	3263 15626			INDEX SAMPLE	3264 17617
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	ST. MARTIN			ST. MARTIN				ST. MARTIN			
FIELD.....	FAUSSE POINTE			HAPPYTOWN				LAKE MARTIN			
WELL NAME.....	STATE LEASE 293 NO. 109			IBERVILLE LAND CO. NO. 1				BALDWIN LUMBER CO. FEE NO. 1			
LOCATION.....	SEC. 11, T12S, R8E			SEC. 12, T13S, R8E				SEC. 3, T10S, R5E			
OWNER.....	TEXACO INC.			DOM CHEMICAL CO.				TEXACO U.S.A.			
COMPLETED.....	10/28/74			05/29/77				12/18/84			
SAMPLED.....	05/22/75			06/24/79				03/04/85			
FORMATION.....	PLIO-			OLIG-FRIO				OLIG-MARGINULINA TEXANA			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	810			10668				12700			
WELLHEAD PRESSURE, PSIG.....	320			3350				8400			
OPEN FLOW, MCFD.....	180			2375				1750			
COMPONENT, MOLE PCT											
METHANE.....	94.8			87.5				85.2			
ETHANE.....	2.6			5.4				7.7			
PROPANE.....	1.0			3.1				3.8			
N-BUTANE.....	0.1			0.9				0.8			
ISOBUTANE.....	0.1			0.9				1.0			
N-PENTANE.....	TRACE			0.3				0.2			
ISOPENTANE.....	TRACE			0.5				0.3			
CYCLOPENTANE.....	TRACE			0.7				TRACE			
HEXANES PLUS.....	0.1			0.3				0.2			
NITROGEN.....	0.8			0.6				0.3			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	TRACE			0.0				TRACE			
HYDROGEN.....	0.4			0.3				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	2.2			TRACE				0.4			
HELIUM.....	0.01			0.01				TRACE			
HEATING VALUE.....	1046			1178				1192			
SPECIFIC GRAVITY.....	0.587			0.665				0.677			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3265 3684	INDEX SAMPLE	3266 12943	INDEX SAMPLE	3267 13281
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	ST. MARTIN			ST. MARTIN		ST. MARTIN	
FIELD.....	LAKE VERRET U			LITTLE BAY		SIMON PASS N	
WELL NAME.....	JEANETTE STATE UNIT NO. 1			STATE EASE 5097 NO. 2		W. T. SHINN NO. 1	
LOCATION.....	SEC. 15, T14S, R12E			ATCHAFALAYA BAY		SEC. 23, T15S, R13E	
OWNER.....	SHELL OIL CO.			AMERADA HESS CORP.		OCCIDENTAL PETROLEUM CORP.	
COMPLETED.....	10/20/43			09/06/69		09/18/77	
SAMPLED.....	10/20/43			08/03/71		06/22/72	
FORMATION.....	MIOC-			MIOC-CIBICIDES OPIMA		MIOC-	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4633			19705		12782	
WELLHEAD PRESSURE, PSIG.....	1500			6600		4100	
OPEN FLOW, MCFD.....	NOT GIVEN			3800		4510	
COMPONENT, MOLE PCT							
METHANE.....	94.0			85.3		92.8	
ETHANE.....	4.7			5.8		2.9	
PROPANE.....	---			2.8		1.3	
N-BUTANE.....	---			0.7		0.4	
ISOBUTANE.....	---			0.7		0.5	
N-PENTANE.....	---			0.2		0.2	
ISOPENTANE.....	---			TRACE		0.2	
CYCLOPENTANE.....	---			TRACE		0.2	
HEXANES PLUS.....	---			0.1		0.4	
NITROGEN.....	0.0			1.8		0.5	
OXYGEN.....	0.4			0.1		0.0	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.9			2.6		0.6	
HELIUM.....	0.00			TRACE		TRACE	
HEATING VALUE.....	1036			1101		1101	
SPECIFIC GRAVITY.....	0.589			0.673		0.625	
		INDEX SAMPLE	3268 13282	INDEX SAMPLE	3269 14395	INDEX SAMPLE	3270 13891
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	ST. MARTIN			ST. MARY		ST. MARY	
FIELD.....	SIMON PASS N			BAWDWIN		BATEMAN LAKE	
WELL NAME.....	HEBERT NO. 2D			J. R. HEINEN NO. 1		W&L NO. 30	
LOCATION.....	NOT GIVEN			SEC. 13, T14S, R9E		NOT GIVEN	
OWNER.....	OCCIDENTAL PETROLEUM CORP.			SUN OIL CO.		TEXACO INC.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	06/20/72			06/20/75		02/02/74	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		3000	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		5000	
COMPONENT, MOLE PCT							
METHANE.....	93.8			93.2		93.9	
ETHANE.....	2.6			3.3		2.8	
PROPANE.....	1.1			1.0		1.1	
N-BUTANE.....	0.5			0.2		0.2	
ISOBUTANE.....	0.4			0.5		0.4	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.3			0.1		0.2	
NITROGEN.....	0.4			0.8		0.4	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			1.0		0.8	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	1081			1060		1073	
SPECIFIC GRAVITY.....	0.612			0.608		0.609	
		INDEX SAMPLE	3271 13892	INDEX SAMPLE	3272 13893	INDEX SAMPLE	3273 13894
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	ST. MARY			ST. MARY		ST. MARY	
FIELD.....	BATEMAN LAKE			BATEMAN LAKE		BATEMAN LAKE	
WELL NAME.....	WAX BAYOU NO. 28			ST. MARY PARISH S.B. NO. 1		W&L NO. 8	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	TEXACO INC.			TEXACO INC.		TEXACO INC.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	02/03/74			02/03/74		02/03/74	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	2000			6000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	88.1			94.8		94.3	
ETHANE.....	2.7			2.8		2.4	
PROPANE.....	2.3			0.9		1.1	
N-BUTANE.....	0.5			0.1		0.2	
ISOBUTANE.....	0.1			0.1		0.4	
N-PENTANE.....	0.1			TRACE		0.0	
ISOPENTANE.....	0.3			0.1		0.1	
CYCLOPENTANE.....	0.2			TRACE		TRACE	
HEXANES PLUS.....	0.2			TRACE		TRACE	
NITROGEN.....	1.2			0.4		0.4	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	TRACE			0.0		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.5		0.4	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	1108			1057		1061	
SPECIFIC GRAVITY.....	0.653			0.594		0.595	
		INDEX SAMPLE	3274 13895	INDEX SAMPLE	3275 13896	INDEX SAMPLE	3276 13897
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	ST. MARY			ST. MARY		ST. MARY	
FIELD.....	BATEMAN LAKE			BATEMAN LAKE		BATEMAN LAKE	
WELL NAME.....	WAX BAYOU NO. 32			WAX BAYOU NO. 11		ST. MARY PARISH S.B. NO. 3	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	TEXACO INC.			TEXACO INC.		TEXACO INC.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	02/03/74			02/02/74		02/03/74	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220			NOT GIVEN		220	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			3350		NOT GIVEN	
OPEN FLOW, MCFD.....	6000			5000		3000	
COMPONENT, MOLE PCT							
METHANE.....	94.2			94.7		93.2	
ETHANE.....	3.0			2.8		3.0	
PROPANE.....	1.2			0.9		1.2	
N-BUTANE.....	0.3			0.2		0.3	
ISOBUTANE.....	0.4			0.3		0.4	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	0.4			0.5		0.8	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.3		0.5	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	1081			1063		1076	
SPECIFIC GRAVITY.....	0.606			0.596		0.610	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3277 13898			INDEX SAMPLE	3278 13899			INDEX SAMPLE	3279 13901
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	ST. MARY			ST. MARY				ST. MARY			
FIELD.....	BATEMAN LAKE			BATEMAN LAKE				BATEMAN LAKE			
WELL NAME.....	W&L NO. 18			W&L NO. 3				W&L NO. 7			
LOCATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OWNER.....	TEXACO INC.			TEXACO INC.				TEXACO INC.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	02/02/74			02/03/74				02/05/74			
FORMATION.....	NOT GIVEN			NOT GIVEN				MIOC-10900 FT. SAND			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	7000			6000				7000			
COMPONENT, MOLE PCT											
METHANE.....	93.0			93.0				93.9			
ETHANE.....	3.1			3.1				2.9			
PROpane.....	1.3			1.3				1.2			
N-BUTANE.....	0.3			0.3				0.3			
ISOBUTANE.....	0.4			0.5				0.3			
N-PENTANE.....	0.2			0.1				0.1			
ISOPENTANE.....	0.2			0.2				0.1			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.3			0.4				0.2			
NITROGEN.....	0.4			0.3				0.3			
OXYGEN.....	TRACE			0.0				0.0			
ARGON.....	0.0			0.0				0.0			
HYDROGEN.....	0.0			0.0				TRACE			
HYDROGEN SULFIDE**.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.8			0.7				0.6			
HELIUM.....	TRACE			TRACE				TRACE			
HEATING VALUE.....	1067			1095				1077			
SPECIFIC GRAVITY.....	0.618			0.620				0.608			
		INDEX SAMPLE	3280 13902			INDEX SAMPLE	3281 13903			INDEX SAMPLE	3282 13904
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	ST. MARY			ST. MARY				ST. MARY			
FIELD.....	BATEMAN LAKE			BATEMAN LAKE				BATEMAN LAKE			
WELL NAME.....	W&L NO. 1			W&L NO. 52				W&L NO. 22			
LOCATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OWNER.....	TEXACO INC.			TEXACO INC.				TEXACO INC.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	02/05/74			02/05/74				02/05/74			
FORMATION.....	MIOC-9900 FT. SAND			MIOC-10100 FT. SAND				MIOC-10500 FT. SAND			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	3000			3000				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	94.3			91.7				92.8			
ETHANE.....	3.1			3.5				3.7			
PROpane.....	1.2			1.6				1.6			
N-BUTANE.....	0.2			0.3				0.3			
ISOBUTANE.....	0.3			0.7				0.4			
N-PENTANE.....	0.1			0.2				0.1			
ISOPENTANE.....	0.1			0.2				0.1			
CYCLOPENTANE.....	TRACE			0.2				TRACE			
HEXANES PLUS.....	0.1			0.6				0.1			
NITROGEN.....	0.4			0.4				0.4			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	0.0			0.0				0.0			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE**.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.3			0.3				0.5			
HELIUM.....	TRACE			TRACE				TRACE			
HEATING VALUE.....	1072			1129				1085			
SPECIFIC GRAVITY.....	0.601			0.636				0.612			
		INDEX SAMPLE	3283 13905			INDEX SAMPLE	3284 13906			INDEX SAMPLE	3285 13907
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	ST. MARY			ST. MARY				ST. MARY			
FIELD.....	BATEMAN LAKE			BATEMAN LAKE				BATEMAN LAKE			
WELL NAME.....	W&L NO. 22			W&L NO. 6				W&L NO. 39			
LOCATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OWNER.....	TEXACO INC.			TEXACO INC.				TEXACO INC.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	02/05/74			02/05/74				02/06/74			
FORMATION.....	-SUN STATE			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT				12800				535			
METHANE.....	85.2			84.9				84.9			
ETHANE.....	4.0			6.0				5.0			
PROpane.....	3.0			3.7				4.2			
N-BUTANE.....	1.5			1.0				1.3			
ISOBUTANE.....	1.4			1.0				1.6			
N-PENTANE.....	0.7			0.5				0.3			
ISOPENTANE.....	1.1			0.6				0.5			
CYCLOPENTANE.....	0.3			0.1				TRACE			
HEXANES PLUS.....	22.0			2.4				0.3			
NITROGEN.....	0.4			0.4				0.5			
OXYGEN.....	0.0			0.1				TRACE			
ARGON.....	0.0			0.0				0.0			
HYDROGEN.....	TRACE			TRACE				0.0			
HYDROGEN SULFIDE**.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.3			0.7				1.4			
HELIUM.....	TRACE			TRACE				TRACE			
HEATING VALUE.....	1250			1208				1206			
SPECIFIC GRAVITY.....	0.727			0.693				0.704			
		INDEX SAMPLE	3286 13908			INDEX SAMPLE	3287 13909			INDEX SAMPLE	3288 4033
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	ST. MARY			ST. MARY				ST. MARY			
FIELD.....	BATEMAN LAKE			BATEMAN LAKE				BATEMAN LAKE			
WELL NAME.....	HERANTO NO. 1			W&L NO. 35				W&L NO. 5			
LOCATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OWNER.....	TEXACO INC.			TEXACO INC.				TEXACO INC.			
COMPLETED.....	--/--/00			--/--/00				05/23/42			
SAMPLED.....	02/06/74			02/06/74				07/12/45			
FORMATION.....	NOT GIVEN			NOT GIVEN				MIOC-			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				10202			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				3825			
OPEN FLOW, MCFD.....	831			5000				218			
COMPONENT, MOLE PCT											
METHANE.....	91.4			89.6				91.7			
ETHANE.....	3.8			4.4				8.0			
PROpane.....	1.8			2.2				---			
N-BUTANE.....	0.4			0.6				---			
ISOBUTANE.....	0.6			0.9				---			
N-PENTANE.....	0.1			0.4				---			
ISOPENTANE.....	0.2			0.2				---			
CYCLOPENTANE.....	TRACE			0.1				---			
HEXANES PLUS.....	0.1			0.3				---			
NITROGEN.....	0.5			0.1				0.0			
OXYGEN.....	0.0			0.1				0.1			
ARGON.....	0.0			0.0				---			
HYDROGEN.....	TRACE			0.0				---			
HYDROGEN SULFIDE**.....	0.0			0.0				0.2			
CARBON DIOXIDE.....	1.2			0.9				0.2			
HELIUM.....	TRACE			TRACE				TRACE			
HEATING VALUE.....	1092			1150				1072			
SPECIFIC GRAVITY.....	0.629			0.648				0.596			

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3289 SAMPLE 4034			INDEX 3290 SAMPLE 4035			INDEX 3291 SAMPLE 10009		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. MARY		ST. MARY			ST. MARY		
FIELD.....	BAYOU SALE		BAYOU SALE			BELLE ISLE W		
WELL NAME.....	ST. MARY PSH. LD. CO. NO. 3		ST. MARY PSH. LD. CO. NO. C-1			ST. MARY LAND D NO. 2		
LOCATION.....	SEC. 41, T16S, R9E		SEC. 2, T17S, R9E			SEC. 15, T17S, R10E		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.			SUN OIL CO.		
COMPLETED.....	04/27/42		--/--/00			05/09/64		
SAMPLED.....	07/12/45		07/12/45			07/23/65		
FORMATION.....	MIOC-C		MIOC-TECHE			MIOC-X-5 SAND		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10698		10460			13764		
WELLHEAD PRESSURE, PSIG.....	3950		3900			6000		
OPEN FLOW, MCFD.....	2000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	90.3		91.5			89.9		
ETHANE.....	9.2		8.0			4.1		
PROPANE.....	---		---			1.5		
N-BUTANE.....	---		---			0.6		
ISOBUTANE.....	---		---			0.8		
N-PENTANE.....	---		---			0.3		
ISOPENTANE.....	---		---			0.1		
CYCLOPENTANE.....	---		---			0.3		
HEXANES PLUS.....	---		---			0.8		
NITROGEN.....	0.0		0.0			0.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	---		---			0.0		
HYDROGEN.....	---		---			0.6		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.5		0.5			0.1		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	1080		1070			1142		
SPECIFIC GRAVITY.....	0.605		0.599			0.645		
INDEX 3292 SAMPLE 13775			INDEX 3293 SAMPLE 13772			INDEX 3294 SAMPLE 13777		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. MARY		ST. MARY			ST. MARY		
FIELD.....	EUGENE ISLAND BLK. 273		EUGENE ISLAND BLK. 292			EUGENE ISLAND BLK. 292		
WELL NAME.....	EUGENE ISLAND 273 NO. A-2		EUGENE ISLAND 292 NO. B1-D			EUGENE ISLAND 287 NO. D-1		
LOCATION.....	OFFSHORE		OFFSHORE			OFFSHORE		
OWNER.....	FOREST OIL CORP.		FOREST OIL CORP.			FOREST OIL CORP.		
COMPLETED.....	01/16/70		01/16/70			04/06/71		
SAMPLED.....	09/15/73		09/14/73			09/14/73		
FORMATION.....	PLEI-4000 FT. SAND		PLEI-D.B. SAND			PLEI-E.N. SAND		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	4130		4208			5488		
WELLHEAD PRESSURE, PSIG.....	1620		1675			1930		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	99.2		98.1			96.9		
ETHANE.....	0.5		1.3			1.6		
PROPANE.....	TRACE		0.0			0.0		
N-BUTANE.....	0.0		0.0			0.1		
ISOBUTANE.....	0.0		0.0			0.1		
N-PENTANE.....	0.0		0.0			TRACE		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			TRACE		
NITROGEN.....	0.5		0.0			0.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.3		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1008		1022			1053		
SPECIFIC GRAVITY.....	0.558		0.565			0.575		
INDEX 3295 SAMPLE 13766			INDEX 3296 SAMPLE 10965			INDEX 3297 SAMPLE 14187		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. MARY		ST. MARY			ST. MARY		
FIELD.....	EUGENE ISLAND BLK. 314		FRANKLIN E			GARDEN CITY		
WELL NAME.....	EUGENE ISLAND 314 NO. F-4		P. FOSTER ET AL. NO. 1			BLANCHE L. SMITH NO. 1		
LOCATION.....	OFFSHORE		SEC. 39, T15S, R10E			SEC. 27, T15S, R9E		
OWNER.....	FOREST OIL CORP.		ATLANTIC RICHFIELD CO.			NORTH AMERICAN ROYALTIES INC		
COMPLETED.....	05/03/71		01/12/66			08/16/73		
SAMPLED.....	09/15/73		12/29/66			10/17/74		
FORMATION.....	PLEI-B.C. SAND		MIOC-MA-5 SAND			MIOC-MA-5 SAND		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	2416		15395			15948		
WELLHEAD PRESSURE, PSIG.....	900		10300			8400		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			11000		
COMPONENT, MOLE PCT								
METHANE.....	99.6		90.6			85.6		
ETHANE.....	TRACE		5.8			6.7		
PROPANE.....	TRACE		0.9			3.2		
N-BUTANE.....	0.0		0.0			0.6		
ISOBUTANE.....	0.0		0.0			1.0		
N-PENTANE.....	0.0		0.0			0.2		
ISOPENTANE.....	0.0		0.0			0.2		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.0		0.0			0.2		
NITROGEN.....	0.3		1.1			0.9		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		1.1			1.3		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE.....	1009		1022			1155		
SPECIFIC GRAVITY.....	0.557		0.611			0.674		
INDEX 3298 SAMPLE 14196			INDEX 3299 SAMPLE 4032			INDEX 3300 SAMPLE 17342		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. MARY		ST. MARY			ST. MARY		
FIELD.....	HORSESHOE BAYOU		JEANERETTE N			LAKE SAND E		
WELL NAME.....	PARISH LAND CO. NO. 22		TECHE SUGAR FACT. NO. 1			S/L 10251 NO. 1		
LOCATION.....	SEC. 7, T17S, R10E		SEC. 7, T17S, R9E			SEC. 7, T17S, R8E		
OWNER.....	TEXACO INC.		ATLANTIC REFINING CO.			UNION TEXAS PETROLEUM CORP.		
COMPLETED.....	09/03/73		01/25/45			06/08/84		
SAMPLED.....	11/29/74		11/13/45			06/28/84		
FORMATION.....	NOT GIVEN		MIOC-			MIOC-ROB CHAMBERS: 3RD		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	13715		11880			17543		
WELLHEAD PRESSURE, PSIG.....	7800		1200			13400		
OPEN FLOW, MCFD.....	NOT GIVEN		551			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.7		89.3			93.4		
ETHANE.....	3.7		9.6			2.6		
PROPANE.....	1.8		---			0.7		
N-BUTANE.....	0.8		---			0.2		
ISOBUTANE.....	0.9		---			0.2		
N-PENTANE.....	0.3		---			0.1		
ISOPENTANE.....	0.5		---			0.1		
CYCLOPENTANE.....	1.1		---			TRACE		
HEXANES PLUS.....	0.4		---			0.1		
NITROGEN.....	4.1		0.0			0.6		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.7		1.0			2.2		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1107		1077			1038		
SPECIFIC GRAVITY.....	0.667		0.612			0.612		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3301 SAMPLE 13388			INDEX 3302 SAMPLE 13819			INDEX 3303 SAMPLE 5067		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. MARY		ST. MARY			ST. MARY		
FIELD.....	WYETTE BAY		WYETTE POINT			PATTERSON		
WELL NAME.....	STATE LEASE 5097 NO. 2		STATE LEASE 5705 NO. 1			ZENOR NO. 1		
LOCATION.....	T19S, R11E		T13S R10E			SEC. 42, T15S, R11E		
OWNER.....	AMERADA HESS CORP.		MCCORRICK OIL & GAS CORP.			SUN OIL CO.		
COMPLETED.....	03/09/71		03/03/72			01/15/51		
SAMPLED.....	09/19/72		11/26/72			06/15/51		
FORMATION.....	MIOC-CIBICIDES OPINA		MIOC-			MIOC-L		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	18705		15156			11365		
WELLHEAD PRESSURE, PSIG.....	6500		8800			3500		
OPEN FLOW, MCFD.....	6650		1900			18000		
COMPONENT, MOLE PCT								
METHANE.....	83.4		77.8			89.3		
ETHANE.....	7.0		7.8			4.5		
PROPANE.....	3.4		1.6			2.0		
N-BUTANE.....	0.9		1.6			0.6		
ISOBUTANE.....	0.9		1.8			0.8		
N-PENTANE.....	0.3		0.8			0.6		
ISOPENTANE.....	TRACE		0.7			0.0		
CYCLOPENTANE.....	0.1		0.7			0.1		
HEXANES PLUS.....	0.2		1.5			0.8		
NITROGEN.....	0.7		0.3			0.8		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.1		1.6			0.4		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1146		1351			1155		
SPECIFIC GRAVITY.....	0.696		0.795			0.659		

INDEX 3304 SAMPLE 11855			INDEX 3305 SAMPLE 11832			INDEX 3306 SAMPLE 14376		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	ST. MARY		LOUISIANA			ST. MARY		
FIELD.....	POINT CHEVREUIL		SHELL ISLAND			SWEET BAY LAKE		
WELL NAME.....	STATE LEASE 5047 NO. 1		CITRUS LAND CO. INC. NO. 1-A			MEAMI CORP. NO. 12		
LOCATION.....	ATMAFLAYA BAY		SEC. 2, T18S, R11E			SEC. 20, T17S, R12E		
OWNER.....	TEXACO INC.		CHEVRON OIL CO.			TEXACO INC.		
COMPLETED.....	11/28/68		06/14/68			10/31/74		
SAMPLED.....	05/06/69		04/23/69			05/23/75		
FORMATION.....	MIOC-TEXTULARIA W		MIOC-13800 FT. SAND			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10650		13844			12852		
WELLHEAD PRESSURE, PSIG.....	3920		4457			850		
OPEN FLOW, MCFD.....	3746		3200			1200		
COMPONENT, MOLE PCT								
METHANE.....	96.1		88.0			88.5		
ETHANE.....	2.1		5.7			5.0		
PROPANE.....	0.7		2.4			2.5		
N-BUTANE.....	0.0		0.8			0.7		
ISOBUTANE.....	0.0		0.5			0.8		
N-PENTANE.....	0.0		0.3			0.2		
ISOPENTANE.....	0.0		0.2			0.4		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		0.3			0.2		
NITROGEN.....	0.8		0.6			0.8		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.9			0.8		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1030		1137			1137		
SPECIFIC GRAVITY.....	0.578		0.653			0.655		

INDEX 3307 SAMPLE 16577			INDEX 3308 SAMPLE 4696			INDEX 3309 SAMPLE 4791		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TANGIPAHOLA		TERREBONNE			TERREBONNE		
FIELD.....	WITCHELS LAKE		BAY BAPTISTE			BAY ST. ELAINE		
WELL NAME.....	A.C. POWELL NO. 1		STATE BAY BAPTISTE NO. 1			STATE NO. 1-C		
LOCATION.....	SEC. 40, T7S, R8E		SEC. 41, T19S, R19E			SEC. 15, T22S, R18E		
OWNER.....	UNITOR OIL CO.		UNITOR PRODUCING CO.			TEXAS CO.		
COMPLETED.....	03/29/82		09/09/45			09/26/48		
SAMPLED.....	07/13/82		01/20/49			06/23/49		
FORMATION.....	NO GIVEN		MIOC-			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7360		8780			13718		
WELLHEAD PRESSURE, PSIG.....	2500		3375			4500		
OPEN FLOW, MCFD.....	1300		49000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.7		95.7			94.3		
ETHANE.....	1.3		2.1			3.3		
PROPANE.....	0.7		0.7			0.3		
N-BUTANE.....	0.6		0.3			0.3		
ISOBUTANE.....	1.3		0.1			0.1		
N-PENTANE.....	0.6		0.1			TRACE		
ISOPENTANE.....	0.3		0.1			0.2		
CYCLOPENTANE.....	0.5		TRACE			TRACE		
HEXANES PLUS.....	1.2		0.2			0.0		
NITROGEN.....	1.9		0.5			0.4		
OXYGEN.....	1.7		0.1			0.1		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.1		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.0			0.4		
HELIUM.....	1023		TRACE			TRACE		
HEATING VALUE.....	1083		1058			1060		
SPECIFIC GRAVITY.....	0.705		0.590			0.596		

INDEX 3310 SAMPLE 14907			INDEX 3311 SAMPLE 14908			INDEX 3312 SAMPLE 17606		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TERREBONNE		TERREBONNE			TERREBONNE		
FIELD.....	BAYOU CAPASAY		BAYOU CAPASAY			BAYOU PLOQUANT		
WELL NAME.....	CONTINENTAL L&F CO. A NO. 1		CONTINENTAL L&F CO. A NO. 1			CONT. LAND & FUR CO. NO.1		
LOCATION.....	SEC. 18, T18S, R15E		SEC. 18, T18S, R15E			SEC. 36, T18S, R14E		
OWNER.....	SOUTHPORT EXPLORATION, INC.		SOUTHPORT EXPLORATION, INC.			SANTA FE MINERALS, INC.		
COMPLETED.....	03/29/84		03/29/84			03/29/84		
SAMPLED.....	02/17/77		02/17/77			03/06/85		
FORMATION.....	MIOC-		MIOC-TEXTULARIA			MIOC-TEXTULARIA W-4		
GEOLOGIC PROVINCE CODE.....	220		220			230		
DEPTH, FEET.....	10188		10617			13036		
WELLHEAD PRESSURE, PSIG.....	3500		3300			8134		
OPEN FLOW, MCFD.....	2000		500			10000		
COMPONENT, MOLE PCT								
METHANE.....	96.9		94.9			97.2		
ETHANE.....	1.7		2.6			1.2		
PROPANE.....	0.3		1.0			0.2		
N-BUTANE.....	TRACE		0.3			0.1		
ISOBUTANE.....	0.1		0.2			0.1		
N-PENTANE.....	TRACE		TRACE			TRACE		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.1			0.1		
NITROGEN.....	0.6		0.7			0.6		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.3		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1023		1023			1024		
SPECIFIC GRAVITY.....	0.572		0.595			0.573		

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3313 SAMPLE 15091			INDEX 3314 SAMPLE 10679			INDEX 3315 SAMPLE 3849		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TERREBORNE		TERREBORNE			TERREBORNE		
FIELD.....	CAISSE ISLAND		CRESCENT FARMS			DEER ISLAND		
WELL NAME.....	STATE LEASE 188 NO. 645		REALTY RB-SUA TRAHAN, ET AL.			CONTINENTAL LAND & FUR NO. 2		
LOCATION.....	TIMBALIER BAY, T23S, R20E		SEC. 49, T17S, R16E			SEC. 24, T18S, R12E		
OWNER.....	TEXACO INC.		GULF OIL CORP.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	11/09/76		10/19/62			09/25/42		
SAMPLED.....	09/07/77		07/20/66			05/25/44		
FORMATION.....	MIOC-X SAND		MIOC-REALTY			MIOC-		
GEOLOGIC PROVINCE CODE.....	952		11116			220		
DEPTH, FEET.....	19970		4710			9565		
WELLHEAD PRESSURE, PSIG.....	12000		NOT GIVEN			4200		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	77.7	95.0	89.0					
ETHANE.....	6.3	3.1	7.0					
PROPANE.....	5.0	0.2	---					
N-BUTANE.....	3.3	0.4	---					
ISOBUTANE.....	2.1	0.0	---					
N-PENTANE.....	1.1	0.0	---					
ISOPENTANE.....	1.3	0.0	---					
CYCLOPENTANE.....	0.1	0.0	---					
HEXANES PLUS.....	0.9	0.0	---					
NITROGEN.....	0.2	0.0	3.4					
OXYGEN.....	0.0	0.0	0.4					
ARGON.....	0.0	0.1	---					
HYDROGEN.....	0.0	0.0	---					
HYDROGEN SULFIDE.....	0.0	0.0	---					
CARBON DIOXIDE.....	1.9	0.3	0.2					
HELIUM.....	TRACE	0.6	0.00					
HEATING VALUE.....	1564	1055	1027					
SPECIFIC GRAVITY.....	0.807	0.590	0.607					
INDEX 3316 SAMPLE 3786			INDEX 3317 SAMPLE 10105			INDEX 3318 SAMPLE 14250		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TERREBORNE		TERREBORNE			TERREBORNE		
FIELD.....	DELRAGE		FIDDLERS LAKE			FOUR ISLE DOME		
WELL NAME.....	FITZPATRICK-VIZARD NO. 1		LL 8-1			R. W. BUCKLEY U9 NO. 6		
LOCATION.....	SEC. 77, T19S, R17E		SEC. 12, T21S, R13E			SEC. 11, T12S, R16E		
OWNER.....	UNION PRODUCING CO., ET AL.		TEXACO INC.			SUPERIOR OIL CO.		
COMPLETED.....	07/06/43		07/06/43			01/57/4		
SAMPLED.....	--/--/00		09/05/65			12/37/74		
FORMATION.....	MIOC-		MIOC-			-NO. 92 SAND		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	13460		15510			17203		
WELLHEAD PRESSURE, PSIG.....	4500		10175			4550		
OPEN FLOW, MCFD.....	12		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.4	89.9	88.6					
ETHANE.....	9.9	5.5	5.0					
PROPANE.....	---	1.8	2.0					
N-BUTANE.....	---	0.5	0.3					
ISOBUTANE.....	---	0.4	0.8					
N-PENTANE.....	---	0.1	0.1					
ISOPENTANE.....	---	TRACE	0.2					
CYCLOPENTANE.....	---	0.0	0.3					
HEXANES PLUS.....	---	0.2	0.2					
NITROGEN.....	0.3	0.5	0.0					
OXYGEN.....	0.4	0.0	TRACE					
ARGON.....	---	TRACE	0.0					
HYDROGEN.....	---	0.0	0.0					
HYDROGEN SULFIDE.....	---	0.0	0.0					
CARBON DIOXIDE.....	1.0	0.9	2.6					
HELIUM.....	0.00	TRACE	TRACE					
HEATING VALUE.....	0.75	1109	1099					
SPECIFIC GRAVITY.....	0.617	0.635	0.654					
INDEX 3319 SAMPLE 13175			INDEX 3320 SAMPLE 17307			INDEX 3321 SAMPLE 6490		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TERREBORNE		TERREBORNE			TERREBORNE		
FIELD.....	GIBSON		GRAND BOIS			HOLLYWOOD		
WELL NAME.....	KLEINSCHMIDT NO. 1		TENNECO FEE R NO. 7			SOUTHDOWN UNIT 3, WELL NO. 1		
LOCATION.....	SEC. 5, T17S, R15E		SEC. 5, T17S, R20E			SEC. 5, T17S, R17E		
OWNER.....	QUINTANA PETROLEUM CORP.		YENNECO OIL CO.			TIDEWATER OIL CO.		
COMPLETED.....	10/20/71		05/29/84			08/--/57		
SAMPLED.....	04/29/72		05/29/84			01/28/58		
FORMATION.....	MIOC-		MIOC-TEX-O			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	15136		12168			14400		
WELLHEAD PRESSURE, PSIG.....	10500		2789			10500		
OPEN FLOW, MCFD.....	15000		10000			22000		
COMPONENT, MOLE PCT								
METHANE.....	92.8	94.1	93.2					
ETHANE.....	3.0	2.8	3.0					
PROPANE.....	1.0	0.8	1.0					
N-BUTANE.....	0.2	0.4	0.3					
ISOBUTANE.....	0.3	0.4	0.3					
N-PENTANE.....	0.1	0.2	TRACE					
ISOPENTANE.....	0.1	0.1	0.2					
CYCLOPENTANE.....	0.1	0.1	0.1					
HEXANES PLUS.....	0.2	0.4	0.2					
NITROGEN.....	0.9	0.3	0.5					
OXYGEN.....	0.1	TRACE	0.1					
ARGON.....	TRACE	0.0	TRACE					
HYDROGEN.....	0.0	0.0	0.0					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	0.2	0.0	1.0					
HELIUM.....	TRACE	TRACE	TRACE					
HEATING VALUE.....	1059	1085	1067					
SPECIFIC GRAVITY.....	0.613	0.611	0.611					
INDEX 3322 SAMPLE 13722			INDEX 3323 SAMPLE 17566			INDEX 3324 SAMPLE 5022		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TERREBORNE		TERREBORNE			TERREBORNE		
FIELD.....	HUMPHREYS		HUMPHREYS			KENT BAYOU		
WELL NAME.....	J. A. ANTILL NO. 1		JOSEPH BLANCHARD NO. 1			CONTINENTAL LD & FUR CO. 1		
LOCATION.....	SEC. 35, T17S, R15E		SEC. 42, T17S, R16E			SEC. 35, T17S, R13E		
OWNER.....	PENNZOIL PRODUCING CO.		PENNZOIL PRODUCING CO.			UNION PRODUCING CO.		
COMPLETED.....	11/29/71		06/06/83			10/07/50		
SAMPLED.....	09/14/73		01/14/84			03/22/51		
FORMATION.....	MIOC-LL SAND		MIOC-FF RA SUA			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	14800		12520			11085		
WELLHEAD PRESSURE, PSIG.....	15000		19000			4464		
OPEN FLOW, MCFD.....	15000		11776			56000		
COMPONENT, MOLE PCT								
METHANE.....	92.9	91.7	91.2					
ETHANE.....	3.1	3.4	4.0					
PROPANE.....	1.1	1.3	1.8					
N-BUTANE.....	0.2	0.3	0.6					
ISOBUTANE.....	0.4	0.4	0.7					
N-PENTANE.....	TRACE	0.1	0.4					
ISOPENTANE.....	0.2	0.3	0.0					
CYCLOPENTANE.....	0.1	0.3	0.1					
HEXANES PLUS.....	0.3	0.8	0.5					
NITROGEN.....	0.4	0.5	0.2					
OXYGEN.....	0.0	0.1	0.1					
ARGON.....	0.0	0.0	TRACE					
HYDROGEN.....	TRACE	0.0	0.0					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	0.3	0.0	0.5					
HELIUM.....	TRACE	TRACE	TRACE					
HEATING VALUE.....	1073	1120	1128					
SPECIFIC GRAVITY.....	0.617	0.637	0.640					

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3325 SAMPLE 13113			INDEX 3326 SAMPLE 13269			INDEX 3327 SAMPLE 14637		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TERREBONNE		TERREBONNE			TERREBONNE		
FIELD.....	LAKE BOUDREAU		LAKE GERO			LAKE HATCH		
WELL NAME.....	STATE LEASE 5351 NO. 1		C. RICE NO. 1			FEE NO. 2		
LOCATION.....	T19S, R18W		SEC. 13, T19S, R17E			SEC. 8, T18S, R16E		
OWNER.....	AMOCO PRODUCTION CO., ET AL.		LOUISIANA LAND & EXPL. CO.			LOUISIANA LAND & EXPL. CO.		
COMPLETED.....	08/30/71		10/12/70			09/29/74		
SAMPLED.....	12/16/71		06/--/72			03/30/76		
FORMATION.....	MIOC-TEXTULARIA		MIOC-DULARGE			MIOC-DD-1		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	12637		14710			8670		
WELLHEAD PRESSURE, PSIG.....	7200		3200			3096		
OPEN FLOW, MCFD.....	30000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	92.4		94.1			96.6		
ETHANE.....	4.1		2.8			1.9		
PROPANE.....	1.7		0.8			0.5		
N-BUTANE.....	0.3		0.3			0.1		
ISOBUTANE.....	0.4		0.3			0.2		
N-PENTANE.....	TRACE		TRACE			0.0		
ISOPENTANE.....	0.2		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		TRACE			TRACE		
NITROGEN.....	0.4		0.6			0.5		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		1.3			0.2		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1096		1038			1040		
SPECIFIC GRAVITY.....	0.616		0.597			0.580		
INDEX 3328 SAMPLE 13984			INDEX 3329 SAMPLE 15294			INDEX 3330 SAMPLE 15247		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TERREBONNE		TERREBONNE			TERREBONNE		
FIELD.....	LAPEYROUSE		MONTEGUT NE			MOSQUITO BAY		
WELL NAME.....	AURELIE ESCHETE NO. 1		ELLENDER NO. 1			JOHN M. SMYTH ET AL. NO. 1		
LOCATION.....	SEC. 30, T19S, R19E		SEC. 35, T18S, R19E			SEC. 35, T20S, R12E		
OWNER.....	QUINTANA PETROLEUM CORP.		GOLDKING PRODUCTION CO.			LADD PETROLEUM CORP.		
COMPLETED.....	11/06/73		10/20/77			02/19/78		
SAMPLED.....	04/18/74		05/--/78			03/22/78		
FORMATION.....	MIOC-TEXTULARIA W-4		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	16284		11674			12116		
WELLHEAD PRESSURE, PSIG.....	19940		NOT GIVEN			4200		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			2620		
COMPONENT, MOLE PCT.....								
METHANE.....	89.1		95.2			90.0		
ETHANE.....	5.9		0.2			3.8		
PROPANE.....	2.1		0.9			2.0		
N-BUTANE.....	0.3		0.3			0.7		
ISOBUTANE.....	0.6		0.3			1.5		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.1		0.1			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.3		
NITROGEN.....	0.4		0.3			0.7		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.3			0.6		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1107		1070			1146		
SPECIFIC GRAVITY.....	0.637		0.598			0.655		
INDEX 3331 SAMPLE 15276			INDEX 3332 SAMPLE 15277			INDEX 3333 SAMPLE 14193		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TERREBONNE		TERREBONNE			TERREBONNE		
FIELD.....	MOSQUITO BAY		MOSQUITO BAY			POINT AU FER		
WELL NAME.....	JOHN M. SMYTH ET AL. NO. 1		JOHN M. SMYTH ET AL. NO. 1			SL 649, NELSON LL&E VUA NO.5		
LOCATION.....	SEC. 35, T20S, R12E		SEC. 35, T20S, R12E			SEC. 6, T20S, R11E		
OWNER.....	LADD PETROLEUM CORP.		LADD PETROLEUM CORP.			TEXACO INC.		
COMPLETED.....	05/19/78		02/19/78			03/07/73		
SAMPLED.....	05/--/78		05/--/78			10/27/74		
FORMATION.....	NOT GIVEN		NOT GIVEN			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	12116		12116			9075		
WELLHEAD PRESSURE, PSIG.....	4200		4200			3300		
OPEN FLOW, MCFD.....	2620		2620			4400		
COMPONENT, MOLE PCT.....								
METHANE.....	92.3		92.2			93.4		
ETHANE.....	3.3		3.3			2.9		
PROPANE.....	1.4		0.4			0.6		
N-BUTANE.....	0.4		0.4			0.2		
ISOBUTANE.....	0.7		0.7			0.3		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	0.7		0.7			1.1		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.8			0.5		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1095		1067			1067		
SPECIFIC GRAVITY.....	0.626		0.628			0.609		
INDEX 3334 SAMPLE 13399			INDEX 3335 SAMPLE 13752			INDEX 3336 SAMPLE 13753		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	TERREBONNE		TERREBONNE			TERREBONNE		
FIELD.....	SHIP SHOAL BLK. 23		SHIP SHORE BLK. 23			SHIP SHORE BLK. 23		
WELL NAME.....	STATE LEASE 4533 NO. 2		STATE LEASE 4533 NO. 2			STATE LEASE 4533 NO. 2		
LOCATION.....	STATE LEASE BLOCK 23		SEC. 22, T22S, R15E			SEC. 22, T22S, R15E		
OWNER.....	EXCHANGE OIL & GAS CORP.		EXCHANGE OIL & GAS CORP.			EXCHANGE OIL & GAS CORP.		
COMPLETED.....	11/08/71		11/01/72			11/01/72		
SAMPLED.....	09/26/72		10/11/73			10/11/73		
FORMATION.....	MIOC-14400 FT. SAND		MIOC-14400 FT. SAND			MIOC-14200 FT. SAND		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	14424		19198			13834		
WELLHEAD PRESSURE, PSIG.....	4952		2200			3900		
OPEN FLOW, MCFD.....	2000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	92.3		83.2			92.1		
ETHANE.....	3.8		6.7			3.6		
PROPANE.....	1.3		4.6			1.4		
N-BUTANE.....	0.3		1.0			0.6		
ISOBUTANE.....	0.3		1.4			0.5		
N-PENTANE.....	TRACE		0.2			0.1		
ISOPENTANE.....	0.1		0.3			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	0.6		0.9			0.8		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.1		1.0			0.8		
HELIUM.....	0.01		TRACE			0.01		
HEATING VALUE.....	1071		1070			1063		
SPECIFIC GRAVITY.....	0.615		0.706			0.620		

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3337 17137	INDEX SAMPLE	3338 15020	INDEX SAMPLE	3339 15347
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	UNION			UNION		UNION	
FIELD.....	DARBONNE			MONROE		MONROE	
WELL NAME.....	DILLARD NO. 1			LITTLE NO. 1		C. H. ALLEN NO. 1	
LOCATION.....	SEC. 27, T20N, R1W			SEC. 23, T22N, R2E		SEC. 26, T22N, R2E	
OWNER.....	MIDROC OIL CO.			ERGON INC.		ERGON INC.	
COMPLETED.....	07/-/81			02/03/77		99/99/77	
SAMPLED.....	11/09/83			06/10/77		08/15/78	
FORMATION.....	JURA-COTTON VALLEY-DAVIS			CRET-SARATOGA		CRET-	
GEOLOGIC PROVINCE CODE.....	230			230		230	
DEPTH, FEET.....	8574			2130		2100	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			500		420	
OPEN FLOW, MCFD.....	211			40		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	83.6			89.6		90.9	
ETHANE.....	8.4			0.7		0.7	
PROPANE.....	3.5			0.2		0.1	
N-BUTANE.....	1.0			0.1		0.1	
ISOBUTANE.....	0.6			0.1		0.0	
N-PENTANE.....	0.2			TRACE		0.1	
ISOPENTANE.....	0.5			TRACE		TRACE	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.3			0.1		0.1	
NITROGEN.....	0.4			9.1		7.6	
OXYGEN.....	0.0			TRACE		0.1	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.3			TRACE		0.1	
HELIUM.....	0.02			0.09		0.08	
HEATING VALUE.....	1191			937		949	
SPECIFIC GRAVITY.....	0.692			0.604		0.597	
		INDEX SAMPLE	3340 14640	INDEX SAMPLE	3341 17634	INDEX SAMPLE	3342 13686
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	UNION			UNION		VERMILION	
FIELD.....	MOUNT OLIVE			NOT GIVEN		ABBENVILLE	
WELL NAME.....	L. C. MINTER NO. 1			HAMONS A NO. 1		L. S. GOLDBERG NO. 1	
LOCATION.....	SEC. 3, T21N, R3W			SEC. 27, T19N, R2E		SEC. 30, T12S, R3E	
OWNER.....	CITY OIL CO.			CITIES SERVICE OIL & GAS COR		SUPERIOR OIL CO.	
COMPLETED.....	01/13/76			-/-/70		05/22/73	
SAMPLED.....	04/22/76			-/-/70		08/21/73	
FORMATION.....	JURA-HAYNESVILLE			NOT GIVEN		MIOC-DUHOH	
GEOLOGIC PROVINCE CODE.....	230			230		220	
DEPTH, FEET.....	10310			11942		11110	
WELLHEAD PRESSURE, PSIG.....	2531			1915		4275	
OPEN FLOW, MCFD.....	8600			2804		5054	
COMPONENT, MOLE PCT							
METHANE.....	81.7			91.7		95.1	
ETHANE.....	8.3			4.4		2.6	
PROPANE.....	3.5			1.4		0.8	
N-BUTANE.....	1.0			0.5		0.2	
ISOBUTANE.....	0.9			0.6		0.2	
N-PENTANE.....	0.2			0.3		TRACE	
ISOPENTANE.....	0.3			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	2.5			0.6		0.3	
OXYGEN.....	0.3			TRACE		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.2			0.1		0.5	
HELIUM.....	0.02			0.02		TRACE	
HEATING VALUE.....	1158			1108		1054	
SPECIFIC GRAVITY.....	0.695			0.622		0.591	
		INDEX SAMPLE	3343 13087	INDEX SAMPLE	3344 13088	INDEX SAMPLE	3345 6492
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	VERMILION			VERMILION		VERMILION	
FIELD.....	BUCK POINT N			BUCK POINT N		ERATH	
WELL NAME.....	STATE LEASE 3020 NO. 1			STATE LEASE 3020 NO. 1		R. Y. ROSE	
LOCATION.....	NOT GIVEN			NOT GIVEN		SEC. 40, T13S, R4E	
OWNER.....	SAMEDAN OIL CORP.			SAMEDAN OIL CORP.		TIDEWATER OIL CO.	
COMPLETED.....	11/04/70			11/04/70		-/-/70	
SAMPLED.....	10/19/71			10/19/71		01/29/58	
FORMATION.....	MIOC-11600 FT. SAND			MIOC-11900 FT. SAND		OLIG-U	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	11602			11936		7800	
WELLHEAD PRESSURE, PSIG.....	3785			3985		2450	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		25000	
COMPONENT, MOLE PCT							
METHANE.....	90.3			90.7		93.9	
ETHANE.....	4.4			4.4		3.5	
PROPANE.....	2.0			2.0		1.9	
N-BUTANE.....	0.5			0.5		0.2	
ISOBUTANE.....	0.7			0.7		0.4	
N-PENTANE.....	0.2			TRACE		0.0	
ISOPENTANE.....	0.0			TRACE		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	0.0			0.6		0.4	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.8			0.8		0.2	
HELIUM.....	0.01			0.01		0.03	
HEATING VALUE.....	1132			1099		1069	
SPECIFIC GRAVITY.....	0.637			0.628		0.599	
		INDEX SAMPLE	3346 16276	INDEX SAMPLE	3347 15948	INDEX SAMPLE	3348 17594
STATE.....	LOUISIANA			LOUISIANA		LOUISIANA	
PARISH.....	VERMILION			VERMILION		VERMILION	
FIELD.....	ESTHER			FLORENCE S		FLORENCE S	
WELL NAME.....	AMERADA HEIRS NO. 4			E. M. WATKINS NO. 33		E. M. WATKINS NO. 39	
LOCATION.....	SEC. 18, T14S, R3E			SEC. 25, T13S, R2W		SEC. 25, T13S, R2W	
OWNER.....	AMERADA HESS CORP.			AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	02/14/81			07/24/79		01/29/85	
SAMPLED.....	06/05/81			04/02/80		02/15/85	
FORMATION.....	MIOC-14060 SAND			MIOC-P-3 SAND		MIOC-P-3 SAND	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	14040			11028		10978	
WELLHEAD PRESSURE, PSIG.....	9400			3800		4200	
OPEN FLOW, MCFD.....	3000			1000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	94.8			95.1		94.9	
ETHANE.....	2.7			2.4		2.5	
PROPANE.....	0.8			0.7		0.8	
N-BUTANE.....	0.2			0.2		0.2	
ISOBUTANE.....	0.1			0.2		0.3	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			TRACE		0.1	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.2		0.2	
NITROGEN.....	0.3			0.0		0.3	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.8			0.6		0.8	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	1053			1063		1063	
SPECIFIC GRAVITY.....	0.596			0.595		0.601	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3349 SAMPLE 3808			INDEX 3350 SAMPLE 15228			INDEX 3351 SAMPLE 14438		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	VERMILION		VERMILION			VERMILION		
FIELD.....	FRESH WATER BAYOU		GROSSE ISLE			GUEYDAN E		
WELL NAME.....	LOUISIANA FURS, INC. 1-C		MOLEUS RICHARD NO. 1			CAMILE ADAM NO. 1		
LOCATION.....	SEC. 33, T15S, R2E		SEC. 15, T12S, R4E			SEC. 30, T11S, R1E		
OWNER.....	UNION OIL CO. OF CALIF.		TEXACO INC.			ATLANTIC RICHFIELD CO.		
COMPLETED.....	11/29/43		07/19/77			--/--/00		
SAMPLED.....	04/16/44		03/13/78			08/15/75		
FORMATION.....	MIOC-BASAL		UNKN-RICHARD			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	1115		14496			12896		
WELLHEAD PRESSURE, PSIG.....	4000		750			9650		
OPEN FLOW, MCFD.....	NOT GIVEN		677			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	87.0		77.1			93.5		
ETHANE.....	7.2		7.6			3.3		
PROPANE.....	---		5.8			1.0		
N-BUTANE.....	---		2.1			0.1		
ISOBUTANE.....	---		0.7			0.3		
N-PENTANE.....	---		0.7			TRACE		
ISOPENTANE.....	---		0.8			0.1		
CYCLOPENTANE.....	---		0.1			TRACE		
HEXANES PLUS.....	---		0.6			0.1		
NITROGEN.....	3.8		0.2			0.7		
OXYGEN.....	0.4		0.0			TRACE		
ARGON.....	---		0.0			0.0		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.8			0.9		
HELIUM.....	0.00		TRACE			TRACE		
HEATING VALUE.....	1028		1382			1055		
SPECIFIC GRAVITY.....	0.619		0.802			0.603		
INDEX 3352 SAMPLE 14439			INDEX 3353 SAMPLE 13041			INDEX 3354 SAMPLE 15798		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	VERMILION		VERMILION			VERMILION		
FIELD.....	GUEYDAN E		GUEYDAN SE			GUEYDAN SW		
WELL NAME.....	CAMILE ADAM ET AL. NO. 3		GAYLE ET AL. NO. 1			GARDINER NO. 1		
LOCATION.....	SEC. 31, T11S, R1E		SEC. 18, T12S, R1W			SEC. 14, T12S, R2W		
OWNER.....	ATLANTIC RICHFIELD CO.		SUPERIOR OIL CO.			WCALESTER FUEL CO.		
COMPLETED.....	--/--/00		07/16/70			03/23/79		
SAMPLED.....	08/--/75		07/08/71			10/02/79		
FORMATION.....	OLIG-FRIO		MIOC-			OLIG-ALLIANCE		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	11469		16308			11610		
WELLHEAD PRESSURE, PSIG.....	5950		9700			3668		
OPEN FLOW, MCFD.....	NOT GIVEN		6605			8000		
COMPONENT, MOLE PCT								
METHANE.....	93.0		86.3			93.6		
ETHANE.....	3.8		5.2			3.1		
PROPANE.....	1.4		2.9			1.1		
N-BUTANE.....	0.3		0.7			0.3		
ISOBUTANE.....	0.5		0.9			0.5		
N-PENTANE.....	TRACE		0.2			0.2		
ISOPENTANE.....	0.1		0.3			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.3			0.2		
NITROGEN.....	0.4		0.7			0.4		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		2.4			0.5		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1083		1137			1090		
SPECIFIC GRAVITY.....	0.609		0.679			0.615		
INDEX 3355 SAMPLE 17459			INDEX 3356 SAMPLE 14286			INDEX 3357 SAMPLE 14878		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	VERMILION		VERMILION			VERMILION		
FIELD.....	GUEYDAN SW		KAPLAN			KAPLAN S		
WELL NAME.....	HARDSCRAMBLE NO. 3		E. DARTZ NO. 1			W. J. GREEN NO. 1		
LOCATION.....	SEC. 25, T12S, R2W		SEC. 14, T12S, R1E			SEC. 23, T12S, R1E		
OWNER.....	HAWTHORNE OIL & GAS CORP.		SUPERIOR OIL CO.			SUPERIOR OIL CO.		
COMPLETED.....	--/--/80		06/11/74			--/--/00		
SAMPLED.....	09/--/84		02/27/75			12/27/76		
FORMATION.....	OLIG-SUB8 ALLIANCE 2		OLIG-MIOGYF			OLIG-CAMERINA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	12035		19434			17200		
WELLHEAD PRESSURE, PSIG.....	7131		NOT GIVEN			19514		
OPEN FLOW, MCFD.....	6000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	89.8		91.6			82.6		
ETHANE.....	5.0		2.0			8.3		
PROPANE.....	1.7		0.3			3.6		
N-BUTANE.....	0.4		0.1			0.9		
ISOBUTANE.....	0.8		0.1			0.8		
N-PENTANE.....	0.3		TRACE			0.2		
ISOPENTANE.....	0.0		TRACE			0.3		
CYCLOPENTANE.....	0.4		TRACE			0.1		
HEXANES PLUS.....	0.8		0.1			0.2		
NITROGEN.....	0.1		1.6			0.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		4.2			2.6		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1153		983			1171		
SPECIFIC GRAVITY.....	0.651		0.620			0.700		
INDEX 3358 SAMPLE 16399			INDEX 3359 SAMPLE 10870			INDEX 3360 SAMPLE 13683		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	VERMILION		VERMILION			VERMILION		
FIELD.....	LAC BLANC		LE ROY S			LELEUX		
WELL NAME.....	STATE LEASE 3057 NO 40		MONTEI NO. 1			T. M. ABSHIRE NO. 1		
LOCATION.....	SEC. 19, T15S, R1E		SEC. 30, T11S, R3E			SEC. 8, T11S, R2E		
OWNER.....	SUPERIOR OIL CO.		OWEN DRILLING CO.			EASON OIL CO.		
COMPLETED.....	03/13/81		11/30/66			11/01/71		
SAMPLED.....	12/18/81		--/--/00			08/19/73		
FORMATION.....	MIOC-75 SAND		MIOC-ALLIANCE			OLIG-MARGINULINA TEXANA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	14930		11230			16352		
WELLHEAD PRESSURE, PSIG.....	7600		4050			6750		
OPEN FLOW, MCFD.....	8084		2000			6700		
COMPONENT, MOLE PCT								
METHANE.....	82.3		92.6			90.4		
ETHANE.....	4.2		1.6			4.8		
PROPANE.....	4.0		1.3			1.3		
N-BUTANE.....	1.3		0.3			0.2		
ISOBUTANE.....	0.1		0.1			0.4		
N-PENTANE.....	0.7		0.2			TRACE		
ISOPENTANE.....	0.9		0.1			0.1		
CYCLOPENTANE.....	0.3		TRACE			TRACE		
HEXANES PLUS.....	1.2		0.1			0.1		
NITROGEN.....	0.7		0.9			0.2		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.5			2.3		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE.....	1286		1078			1065		
SPECIFIC GRAVITY.....	0.751		0.613			0.627		

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3361 SAMPLE 14160			INDEX 3362 SAMPLE 5090			INDEX 3363 SAMPLE 17698		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	VERMILION		VERMILION			VERMILION		
FIELD.....	LIVE OAK		NOT GIVEN			OUTSIDE ISLAND		
WELL NAME.....	600CHAUX NO. 7-D		NO. A-5			AMOS BROUSSARD NO. 1		
LOCATION.....	SEC. 88, T14S, R3E		STATE LEASE 880, BLK. 39			SEC. 1, T14S, R1W		
OWNER.....	ATLANTIC RICHFIELD CO.		PURE OIL CO.			EXPLORATION CO. OF LA.		
COMPLETED.....	07/01/73		02/09/51			08/17/83		
SAMPLED.....	10/03/74		06/24/51			--/--/00		
FORMATION.....	MIOC-12300 FT. SAND		MIOC-			MIOC-PLANULINA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	12282		7360			12040		
WELLHEAD PRESSURE, PSIG.....	2265		1420			NOT GIVEN		
OPEN FLOW, MCFD.....	5400		10000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	91.7		96.0			89.7		
ETHANE.....	4.1		1.6			4.8		
PROPANE.....	1.5		0.6			1.9		
N-BUTANE.....	0.3		0.2			0.6		
ISOBUTANE.....	0.5		0.1			0.6		
N-PENTANE.....	TRACE		0.1			0.4		
ISOPENTANE.....	0.2		0.0			0.1		
CYCLOPENTANE.....	TRACE		0.0			0.2		
HEXANES PLUS.....	0.1		0.1			0.7		
NITROGEN.....	0.4		0.7			0.3		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.4			0.7		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1082		1040			1149		
SPECIFIC GRAVITY.....	0.618		0.584			0.654		
INDEX 3364 SAMPLE 13918			INDEX 3365 SAMPLE 13164			INDEX 3366 SAMPLE 12950		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	VERMILION		VERMILION			VERMILION		
FIELD.....	PARCERDUE N		PARCERDUE W			PECAN ISLAND		
WELL NAME.....	LANDRY A NO. 1		DUMON NO. 1			VERMILION NO. 1		
LOCATION.....	SEC. 27, T11S, R4E		SEC. 53, T11S, R4E			SEC. 16, T17S, R1E		
OWNER.....	PHILLIPS PETROLEUM CO.		CHEVRON OIL CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	--/--/00		05/05/70			12/19/69		
SAMPLED.....	02/13/74		03/02/72			08/05/71		
FORMATION.....	OL16-CAMERINA		OL16-CAMERINA			--HARY 36-A		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	15550		15649			18414		
WELLHEAD PRESSURE, PSIG.....	10100		11400			10500		
OPEN FLOW, MCFD.....	50000		3125			10200		
COMPONENT, MOLE PCT								
METHANE.....	87.0		92.3			98.7		
ETHANE.....	0.3		0.8			0.5		
PROPANE.....	2.8		1.5			0.1		
N-BUTANE.....	0.6		0.2			0.0		
ISOBUTANE.....	1.2		0.4			0.0		
N-PENTANE.....	0.2		0.1			0.0		
ISOPENTANE.....	0.2		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.1			0.0		
HEXANES PLUS.....	0.2		0.1			0.0		
NITROGEN.....	0.3		0.2			0.4		
OXYGEN.....	0.0		0.0			0.6		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.2			0.2		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1155		1080			1011		
SPECIFIC GRAVITY.....	0.666		0.618			0.561		
INDEX 3367 SAMPLE 13975			INDEX 3368 SAMPLE 13976			INDEX 3369 SAMPLE 16598		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	VERMILION		VERMILION			VERMILION		
FIELD.....	RED FISH POINT		RED FISH POINT			TRICEVILLE		
WELL NAME.....	STATE LEASE 3306 NO. 3		STATE LEASE 3306 NO. 3			FIRST NATIONAL FARMS NO. 1		
LOCATION.....	T16S, R4E		OFFSHORE, T16S, R4E			SEC. 24, T11S, R2W		
OWNER.....	GULF OIL CO.- U.S.		GULF OIL CO.- U.S.			AMERICAN QUASAR PET. CO.		
COMPLETED.....	03/06/72		03/06/72			05/04/80		
SAMPLED.....	03/19/74		03/19/74			07/08/82		
FORMATION.....	OL16-M SAND		OL16-M SAND			OL16-ARA SUB		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	15192		15629			11700		
WELLHEAD PRESSURE, PSIG.....	9000		NOT GIVEN			4120		
OPEN FLOW, MCFD.....	1600		NOT GIVEN			5763		
COMPONENT, MOLE PCT								
METHANE.....	79.8		80.5			95.2		
ETHANE.....	5.1		5.1			2.4		
PROPANE.....	4.8		1.4			0.7		
N-BUTANE.....	1.8		1.7			0.2		
ISOBUTANE.....	2.8		2.6			0.3		
N-PENTANE.....	0.7		0.6			0.1		
ISOPENTANE.....	1.0		0.9			0.1		
CYCLOPENTANE.....	0.2		0.2			0.1		
HEXANES PLUS.....	1.0		0.7			0.1		
NITROGEN.....	1.2		0.3			0.3		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.7		1.7			0.6		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1311		1284			1060		
SPECIFIC GRAVITY.....	0.782		0.766			0.597		
INDEX 3370 SAMPLE 5074			INDEX 3371 SAMPLE 5075			INDEX 3372 SAMPLE 5097		
STATE.....	LOUISIANA		LOUISIANA			LOUISIANA		
PARISH.....	VERMILION		VERMILION			VERMILION		
FIELD.....	ROLLOVER		ROLLOVER			ROLLOVER		
WELL NAME.....	NO. A-3		NO. A-3			A-5		
LOCATION.....	STATE LEASE 880, BLK. 39		STATE LEASE 879, BLK. 39			STATE LEASE 878, BLK. 38		
OWNER.....	PURE OIL CO.		PURE OIL CO.			PURE OIL CO.		
COMPLETED.....	01/27/51		01/27/51			12/30/50		
SAMPLED.....	06/24/51		06/24/51			06/24/51		
FORMATION.....	MIOC-		MIOC-			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7736		7783			7824		
WELLHEAD PRESSURE, PSIG.....	3700		3709			3713		
OPEN FLOW, MCFD.....	10000		10000			10000		
COMPONENT, MOLE PCT								
METHANE.....	95.9		96.1			94.6		
ETHANE.....	2.1		2.0			1.7		
PROPANE.....	0.7		0.6			0.6		
N-BUTANE.....	0.2		0.1			0.2		
ISOBUTANE.....	0.1		0.2			0.0		
N-PENTANE.....	0.1		0.1			0.0		
ISOPENTANE.....	0.1		TRACE			TRACE		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.7		0.1			1.1		
OXYGEN.....	0.1		0.1			0.3		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.3		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1045		1043			1043		
SPECIFIC GRAVITY.....	0.588		0.584			0.591		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3373 15012			INDEX SAMPLE	3374 13652			INDEX SAMPLE	3375 3918
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	VERMILION			VERMILION				VERMILION			
FIELD.....	TIGRE LAGOON			VERMILION BLK. 16				WHITE LAKE W			
WELL NAME.....	EDNA DELCambre NO. 1			ST. L. 5008 NO. 1				STATE LEASE 540 NO. 1-A			
LOCATION.....	8 MI. S OF DELCambre			BLK. 3, ZONE 1				T18S, R2W			
OWNER.....	GEOTHERMIC RESOURCES			EXCHANGE OIL & GAS CORP.				UNION OIL CO. OF CALIF.			
COMPLETED.....	05/17/77			01/29/73				12/31/43			
SAMPLED.....	05/29/77			06/17/73				10/15/44			
FORMATION.....	MIOC-PLANULINA			15700* SAND				MIOC-			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	12870			NOT GIVEN				10650			
WELLHEAD PRESSURE, PSIG.....	5600			9100				3750			
OPEN FLOW, MCFD.....	250			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	93.4			91.6				92.4			
ETHANE.....	2.6			2.7				5.9			
PROPANE.....	0.8			1.2							
N-BUTANE.....	0.2			0.2							
ISOBUTANE.....	0.3			0.4							
N-PENTANE.....	0.1			0.1							
ISOPENTANE.....	0.1			0.1							
CYCLOPENTANE.....	TRACE			TRACE							
HEXANES PLUS.....	0.1			0.1				0.0			
NITROGEN.....	0.5			1.1				0.4			
OXYGEN.....	0.1			0.2				0.4			
ARGON.....	TRACE			TRACE							
HYDROGEN.....	0.0			TRACE							
HYDROGEN SULFIDE.....	0.0			0.0							
CARBON DIOXIDE.....	1.8			2.2				1.3			
HELIUM.....	0.01			TRACE				0.01			
HEATING VALUE.....	1044			1041				1042			
SPECIFIC GRAVITY.....	0.609			0.622				0.598			
		INDEX SAMPLE	3376 15517			INDEX SAMPLE	3377 15201			INDEX SAMPLE	3378 17486
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	VERMILION			W. BATON ROUGE				W. BATON ROUGE			
FIELD.....	WELDCAT			FALSE RIVER				FALSE RIVER			
WELL NAME.....	BRUSSARD LAND CO. NO. 2			POPLAR GROVE P & R CO. NO. 1				F. E. FARMWELL NO. 4			
LOCATION.....	SEC. 20, T14S, R2E			SEC. 9, T6S, R1E				SEC. 61, T6S, R1W			
OWNER.....	INECO OIL CO.			CHEVRON U.S.A., INC.				CHEVRON U.S.A., INC.			
COMPLETED.....	--/--/00			06/18/76				03/31/83			
SAMPLED.....	11/15/78			01/13/78				10/09/84			
FORMATION.....	NOT GIVEN			CRET-TUSCALOOSA				CRET-TUSCALOOSA			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	NOT GIVEN			19700				19957			
WELLHEAD PRESSURE, PSIG.....	4300			12380				4325			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				1515			
COMPONENT, MOLE PCT											
METHANE.....	91.0			89.5				90.6			
ETHANE.....	4.9			2.7				0.4			
PROPANE.....	1.5			0.3				TRACE			
N-BUTANE.....	0.4			0.1				0.1			
ISOBUTANE.....	0.4			0.1				0.0			
N-PENTANE.....	0.2			TRACE				TRACE			
ISOPENTANE.....	0.1			TRACE				0.0			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.2			0.2				0.1			
NITROGEN.....	0.4			0.5				0.4			
OXYGEN.....	0.0			0.1				0.1			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.1			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.9			6.4				8.3			
HEATING VALUE.....	1099			975				933			
SPECIFIC GRAVITY.....	0.627			0.640				0.643			
		INDEX SAMPLE	3379 5233			INDEX SAMPLE	3380 16959			INDEX SAMPLE	3381 1980
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	WASHINGTON			WEBSTER				WEBSTER			
FIELD.....	ANGLE			ADA				CARTERSVILLE			
WELL NAME.....	GAYLORD CONTAINER CORP. C-1			MOZINGO C NO. 1				BAKER NO. 2			
LOCATION.....	SEC. 47, T1S, R14E			SEC. 27, T18N, R8W				SEC. 32, T23N, R11W			
OWNER.....	HUMBLE OIL & REFINING CO.			PHILLIPS PETROLEUM CO.				MAGNOLIA PETROLEUM CO.			
COMPLETED.....	07/06/51			09/24/50				06/05/28			
SAMPLED.....	04/24/52			05/18/83				04/03/30			
FORMATION.....	CRET-TUSCALOOSA			JURA-COTTON VALLEY				CRET-TOKIO			
GEOLOGIC PROVINCE CODE.....	220			230				230			
DEPTH, FEET.....	9004			9296				3078			
WELLHEAD PRESSURE, PSIG.....	4143			5406				150			
OPEN FLOW, MCFD.....	51500			10500				1500			
COMPONENT, MOLE PCT											
METHANE.....	96.3			86.6				97.8			
ETHANE.....	0.5			5.5				1.1			
PROPANE.....	0.3			0.8							
N-BUTANE.....	0.1			0.8							
ISOBUTANE.....	0.1			0.8							
N-PENTANE.....	0.1			0.4							
ISOPENTANE.....	0.0			0.4							
CYCLOPENTANE.....	0.0			0.4							
HEXANES PLUS.....	0.1			1.1							
NITROGEN.....	1.5			0.2				0.8			
OXYGEN.....	TRACE			0.1				0.2			
ARGON.....	TRACE			0.0							
HYDROGEN.....	0.1			0.3							
HYDROGEN SULFIDE.....	0.0			0.0							
CARBON DIOXIDE.....	0.9			1.6				0.2			
HEATING VALUE.....	1003			TRACE				0.03			
SPECIFIC GRAVITY.....	0.582			0.683				1010			
		INDEX SAMPLE	3382 17237			INDEX SAMPLE	3383 6878			INDEX SAMPLE	3384 15310
STATE.....	LOUISIANA			LOUISIANA				LOUISIANA			
PARISH.....	WEBSTER			WEBSTER				WINN			
FIELD.....	DYKESVILLE E			MINDEN				CALVIN			
WELL NAME.....	HEARN "A" NO. 1			IC. W. YOUNGBLOOD NO. 1				U.S.A. 3-31 NO. 1			
LOCATION.....	SEC. 1, T22N, R9W			SEC. 21, T19N, R8W				SEC. 31, T12N, R4W			
OWNER.....	CITIES SERVICE OIL & GAS CORP.			PAN AMERICAN PETROLEUM CORP.				GETTY OIL CO.			
COMPLETED.....	07/22/83			09/29/58				02/06/78			
SAMPLED.....	04/02/84			11/25/58				07/01/78			
FORMATION.....	JURA-SHACKOVER C			CRET-PALUXY				-TERRYVILLE			
GEOLOGIC PROVINCE CODE.....	230			230				230			
DEPTH, FEET.....	11565			7468				13000			
WELLHEAD PRESSURE, PSIG.....	7325			2875				7200			
OPEN FLOW, MCFD.....	6305			45000				750			
COMPONENT, MOLE PCT											
METHANE.....	93.5			94.1				91.6			
ETHANE.....	3.1			3.0				0.2			
PROPANE.....	0.7			0.8				0.1			
N-BUTANE.....	0.4			0.8				0.0			
ISOBUTANE.....	0.4			0.5				0.0			
N-PENTANE.....	0.2			0.1				0.0			
ISOPENTANE.....	0.0			0.0				0.0			
CYCLOPENTANE.....	TRACE			TRACE				0.0			
HEXANES PLUS.....	0.2			0.2				0.0			
NITROGEN.....	0.1			0.1				1.0			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	TRACE			0.0				TRACE			
HYDROGEN.....	0.0			0.1				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.5			0.0				7.1			
HEATING VALUE.....	1060			0.01				0.02			
SPECIFIC GRAVITY.....	0.609			1059				934			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3385 SAMPLE 15311		INDEX 3386 SAMPLE 15224		INDEX 3387 SAMPLE 14970	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	WINN	WINN		WINN	
FIELD.....	CALVIN	HATTAWAY BRANCH		HICKORY VALLEY	
WELL NAME.....	F. 8. TREAT NO. 1	PARDEE NO. 1		LOUISIANA-PACIFIC 8 NO. 1	
LOCATION.....	SEC. 5, T12N, R4W	SEC. 22, T12N, R1E		SEC. 10, T12N, R1E	
OWNER.....	GETTY OIL CO.	JUSTISS-NEARS OIL CO., INC.		TRIDENT OIL & GAS CORP.	
COMPLETED.....	01/05/78	11/02/77		12/15/75	
SAMPLED.....	07/01/78	03/22/78		04/18/77	
FORMATION.....	-TROY	EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	230	230		230	
DEPTH, FEET.....	15520	2781		2007	
WELLHEAD PRESSURE, PSIG.....	10650	1100		855	
OPEN FLOW, MCFD.....	650	347		1000	
COMPONENT, MOLE PCT					
METHANE.....	91.0	97.6		97.1	
ETHANE.....	0.1	0.1		0.2	
PROPANE.....	TRACE	0.0		0.1	
N-BUTANE.....	0.0	TRACE		0.0	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.1		0.0	
ISOPENTANE.....	0.0	TRACE		0.0	
CYCLOPENTANE.....	0.0	TRACE		0.0	
HEXANES PLUS.....	0.0	TRACE		0.0	
NITROGEN.....	0.3	1.8		1.9	
OXYGEN.....	0.0	TRACE		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	8.5	0.2		0.1	
HELIUM.....	0.01	0.02		0.03	
HEATING VALUE.....	924	995		996	
SPECIFIC GRAVITY.....	0.638	0.565		0.565	

INDEX 3388 SAMPLE 14961		INDEX 3389 SAMPLE 14971		INDEX 3390 SAMPLE 14206	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	WINN	WINN		WINN	
FIELD.....	HICKORY VALLEY N	HICKORY VALLEY NE		HICKORY VALLEY W	
WELL NAME.....	HERRING NO. 1	MORRIS EST. & BOZEMAN NO. 1		OLLINKRAFT NO. 2	
LOCATION.....	SEC. 33, T13N, R1E	SEC. 2, T12N, R1E		SEC. 24, T12N, R1W	
OWNER.....	JUSTISS-NEARS OIL CO., INC.	TRIDENT OIL & GAS CORP.		TRIDENT OIL & GAS CORP.	
COMPLETED.....	07/16/76	05/24/76		01/16/74	
SAMPLED.....	04/06/77	04/18/77		10/20/74	
FORMATION.....	EOCE-WILCOX	EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	230	230		230	
DEPTH, FEET.....	2050	2136		2471	
WELLHEAD PRESSURE, PSIG.....	800	920		1000	
OPEN FLOW, MCFD.....	250	1000		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	97.1	97.3		97.8	
ETHANE.....	0.1	0.1		TRACE	
PROPANE.....	0.1	TRACE		TRACE	
N-BUTANE.....	0.0	0.0		0.0	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.0		0.0	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.0	0.0		0.0	
HEXANES PLUS.....	0.0	0.0		0.0	
NITROGEN.....	2.5	2.3		2.0	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.2		0.1	
HELIUM.....	0.03	0.03		0.03	
HEATING VALUE.....	988	987		991	
SPECIFIC GRAVITY.....	0.567	0.566		0.563	

INDEX 3391 SAMPLE 2479		INDEX 3392 SAMPLE 17633		INDEX 3393 SAMPLE 14988	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
PARISH.....	NOT GIVEN	NOT GIVEN		WINN	
FIELD.....	SALT MINE	CON CAN NO. A-1		WILDCAT	
WELL NAME.....	SEC. 20, T11N, R3W	SEC. 24, T13N, R4W		BODCAW NO. 1	
LOCATION.....	CAREY SALT CO.	CLEMENTS ENERGY, INC.		SEC. 30, T12N, R4W	
OWNER.....	---	---		GETTY OIL CO.	
COMPLETED.....	--/--/00	--/--/00		12/31/76	
SAMPLED.....	--/--/00	03/29/85		04/29/77	
FORMATION.....	NOT GIVEN	UGRA-COTTON VALLEY		CRET-HOSSTON	
GEOLOGIC PROVINCE CODE.....	230	230		230	
DEPTH, FEET.....	800	13640		9081	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	9200		2900	
OPEN FLOW, MCFD.....	NOT GIVEN	600		1500	
COMPONENT, MOLE PCT					
METHANE.....	0.0	99.5		94.2	
ETHANE.....	0.0	0.2		0.2	
PROPANE.....	---	TRACE		0.1	
N-BUTANE.....	---	0.0		0.0	
ISOBUTANE.....	---	0.0		0.0	
N-PENTANE.....	---	0.0		0.0	
ISOPENTANE.....	---	0.0		0.0	
CYCLOPENTANE.....	---	0.0		0.0	
HEXANES PLUS.....	---	0.0		0.0	
NITROGEN.....	5.8	0.2		2.4	
OXYGEN.....	0.0	TRACE		0.0	
ARGON.....	---	0.0		TRACE	
HYDROGEN.....	---	0.0		0.0	
HYDROGEN SULFIDE.....	---	0.0		0.0	
CARBON DIOXIDE.....	94.2	TRACE		3.1	
HELIUM.....	0.03	0.01		0.06	
HEATING VALUE.....	0	1010		960	
SPECIFIC GRAVITY.....	1.496	0.555		0.597	

INDEX 3394 SAMPLE 14995		INDEX 3395 SAMPLE 5008		INDEX 3396 SAMPLE 5240	
STATE.....	LOUISIANA	MARYLAND		MARYLAND	
PARISH.....	WINN	GARRETT		GARRETT	
FIELD.....	WILDCAT	DEER PARK ANTICLINE		LOCH LYNN HEIGHTS	
WELL NAME.....	BODCAW NO. 1	OREN T. GRASER NO. 1		GEORGE PERRINE NO. 1	
LOCATION.....	SEC. 30, T12N, R4W	NOT GIVEN		NOT GIVEN	
OWNER.....	GETTY OIL CO.	COLUMBIAN CARBON CO.		PANHANDLE EASTERN PIPELINE C	
COMPLETED.....	12/31/76	01/14/51		12/16/51	
SAMPLED.....	05/11/77	03/13/51		04/24/52	
FORMATION.....	GETT-SL160	DEVO-M		DEVO-CORNIFEROUS & CHERT	
GEOLOGIC PROVINCE CODE.....	230	160		160	
DEPTH, FEET.....	8413	2969		3711	
WELLHEAD PRESSURE, PSIG.....	3400	1435		1000	
OPEN FLOW, MCFD.....	1650	249		1500	
COMPONENT, MOLE PCT					
METHANE.....	77.3	95.6		96.4	
ETHANE.....	0.9	1.1		1.0	
PROPANE.....	0.9	0.1		TRACE	
N-BUTANE.....	1.2	0.0		0.0	
ISOBUTANE.....	0.9	TRACE		0.0	
N-PENTANE.....	0.6	TRACE		0.0	
ISOPENTANE.....	0.8	TRACE		TRACE	
CYCLOPENTANE.....	0.1	0.0		TRACE	
HEXANES PLUS.....	0.5	0.0		0.0	
NITROGEN.....	6.4	2.8		2.2	
OXYGEN.....	0.2	0.2		0.1	
ARGON.....	TRACE	TRACE		0.0	
HYDROGEN.....	0.0	0.1		0.1	
HYDROGEN SULFIDE.....	0.0	---		---	
CARBON DIOXIDE.....	10.1	0.0		0.1	
HELIUM.....	0.05	0.08		0.08	
HEATING VALUE.....	986	992		995	
SPECIFIC GRAVITY.....	0.767	0.573		0.569	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3397 SAMPLE 10418			INDEX 3398 SAMPLE 4852			INDEX 3399 SAMPLE 4972		
STATE.....	MARYLAND		MARYLAND			MARYLAND		
COUNTY.....	GARRETT		GARRETT			GARRETT		
FIELD.....	NEGRO MOUNTAIN		NOT GIVEN			OAKLAND		
WELL NAME.....	U.S.A. TRACT NO. 186-A		ELMER N. BEACHY NO. 424			N. K. WELCH NO. 1		
LOCATION.....	GRANTSVILLE TWP.		NOT GIVEN			NOT GIVEN		
OWNER.....	CUMBERLAND & ALLEGHENY GAS C		CUMBERLAND & ALLEGHENY GAS C			COLUMBIAN CARBON CO.		
COMPLETED.....	12/17/65		06/23/49			09/25/50		
SAMPLED.....	02/08/66		02/21/50			01/15/51		
FORMATION.....	DEVO-ORISKANY		DEVO-ORISKANY			DEVO-ONONDAGA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	8545		4910			2834		
WELLHEAD PRESSURE, PSIG.....	3050		1400			1610		
OPEN FLOW, MCFD.....	8250		582			8029		
COMPONENT, MOLE PCT.....								
METHANE.....	98.0		95.5			95.9		
ETHANE.....	1.0		1.0			1.1		
PROPANE.....	0.0		0.2			0.1		
N-BUTANE.....	0.0		TRACE			0.1		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		TRACE			0.0		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.1			0.0		
NITROGEN.....	0.8		2.7			2.1		
OXYGEN.....	0.0		0.2			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.1			0.3		
HELIUM.....	0.04		0.08			0.07		
HEATING VALUE.....	1011		1003			1003		
SPECIFIC GRAVITY.....	0.565		0.577			0.576		
INDEX 3400 SAMPLE 5084			INDEX 3401 SAMPLE 5156			INDEX 3402 SAMPLE 5372		
STATE.....	MARYLAND		MARYLAND			MARYLAND		
COUNTY.....	GARRETT		GARRETT			GARRETT		
FIELD.....	OAKLAND		OAKLAND			OAKLAND		
WELL NAME.....	JONI J. MILLER NO. 1 6W-1504		H. M. WEEKS NO. 1			JASPER RILEY NO. 2		
LOCATION.....	NOT GIVEN		NOT GIVEN			DIST. 7		
OWNER.....	COLUMBIAN CARBON CO.		CUMBERLAND & ALLEGHENY GAS C			CUMBERLAND & ALLEGHENY GAS C		
COMPLETED.....	03/14/51		11/14/51			06/7/52		
SAMPLED.....	07/14/51		01/28/52			10/29/52		
FORMATION.....	DEVO-M		DEVO-CHERT & ORISKANY			DEVO-HUNTERSVILLE		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3860		3608			3293		
WELLHEAD PRESSURE, PSIG.....	1600		670			1300		
OPEN FLOW, MCFD.....	363		409			1430		
COMPONENT, MOLE PCT.....								
METHANE.....	94.2		95.9			96.2		
ETHANE.....	1.0		0.1			1.0		
PROPANE.....	0.1		0.1			0.0		
N-BUTANE.....	0.0		0.1			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	0.0		0.1			0.0		
NITROGEN.....	4.3		2.2			2.6		
OXYGEN.....	0.2		0.2			0.1		
ARGON.....	0.1		TRACE			0.0		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.0		0.1			TRACE		
HELIUM.....	0.08		0.08			0.08		
HEATING VALUE.....	975		985			992		
SPECIFIC GRAVITY.....	0.580		0.565			0.570		
INDEX 3403 SAMPLE 3130			INDEX 3404 SAMPLE 5001			INDEX 3405 SAMPLE 14409		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ALLEGAN		ANTRIM			ANTRIM		
FIELD.....	WILDCAT		ANTRIM COUNTY			MANCERLONA		
WELL NAME.....	HEASLEY NO. 2		STATE-CUSTER NO. 1			STATE MANCERLONA C NO. 1		
LOCATION.....	SEC. 21, T4N, R13W		SEC. 34, T29N, R7W			SEC. 34, T29N, R5W		
OWNER.....	REGAL DUTCH PETROLEUM CO.		OHIO OIL CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	10/21/41		11/08/50			06/13/74		
SAMPLED.....	02/21/42		01/24/51			07/07/75		
FORMATION.....	SILU-SALINA BASAL		DEVO-TRAVERSE			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	2706		1070			6580		
WELLHEAD PRESSURE, PSIG.....	1200		500			2668		
OPEN FLOW, MCFD.....	314		3000			22000		
COMPONENT, MOLE PCT.....								
METHANE.....	71.5		93.1			82.6		
ETHANE.....	26.6		1.6			8.9		
PROPANE.....	---		0.2			4.0		
N-BUTANE.....	---		0.1			1.0		
ISOBUTANE.....	---		TRACE			1.3		
N-PENTANE.....	---		0.0			0.2		
ISOPENTANE.....	---		0.0			0.5		
CYCLOPENTANE.....	---		0.0			TRACE		
HEXANES PLUS.....	---		0.0			0.2		
NITROGEN.....	1.5		3.9			1.3		
OXYGEN.....	0.1		0.1			TRACE		
ARGON.....	---		0.1			TRACE		
HYDROGEN.....	---		0.1			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.7			TRACE		
HELIUM.....	0.10		0.01			0.02		
HEATING VALUE.....	1201		981			1218		
SPECIFIC GRAVITY.....	0.694		0.589			0.697		
INDEX 3406 SAMPLE 3833			INDEX 3407 SAMPLE 3132			INDEX 3408 SAMPLE 3137		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ARENA		ARENA			ARENA		
FIELD.....	ADAMS		ARENA			ARENA		
WELL NAME.....	MEE NO. 1		SWAFFIELD NO. 1			CRANDALL NO. 1		
LOCATION.....	SEC. 4, T19N, R3E		SEC. 10, T20N, R4E			SEC. 14, T20N, R4E		
OWNER.....	DOON RAYBURN		ARENA OIL & GAS CO.			ARENA OIL & GAS CO.		
COMPLETED.....	11/15/42		07/20/37			08/11/37		
SAMPLED.....	05/03/44		02/20/42			02/10/42		
FORMATION.....	NISS-BEREA		NISS-BEREA			NISS-BEREA		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	1500		1128			1190		
WELLHEAD PRESSURE, PSIG.....	800		414			434		
OPEN FLOW, MCFD.....	500		3720			2870		
COMPONENT, MOLE PCT.....								
METHANE.....	60.2		61.7			66.0		
ETHANE.....	10.0		14.6			12.1		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	28.7		22.1			21.0		
OXYGEN.....	0.4		0.9			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.0		0.2			0.1		
HELIUM.....	0.72		0.46			0.46		
HEATING VALUE.....	789		887			885		
SPECIFIC GRAVITY.....	0.722		0.723			0.701		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3409 SAMPLE 3134			INDEX 3410 SAMPLE 3632			INDEX 3411 SAMPLE 3133		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ARENAC		ARENAC			BAY		
FIELD.....	DEEP RIVER		DEEP RIVER			KAWKAWLIN		
WELL NAME.....	MUTCH NO. 2		KLINEK NO. 1			BATESON NO. 1		
LOCATION.....	SEC. 17, T19N, R4E		SEC. 18, T19N, R4E			SEC. 2, T14N, R4E		
OWNER.....	ARENAC OIL & GAS CO.		ARENAC OIL & GAS CO.			GULF OIL CO.		
COMPLETED.....	02/07/42		--/--/00			10/26/41		
SAMPLED.....	02/10/42		05/03/44			02/11/42		
FORMATION.....	MISS-BEREA		MISS-BEREA			SILU-SALINA BASAL		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	1493		1500			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	835		750			5113		
OPEN FLOW, MCFD.....	6200		10000			7000		
COMPONENT, MOLE PCT								
METHANE.....	68.8		60.8			65.8		
ETHANE.....	9.8		10.0			31.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		0.0			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	20.2		28.0			0.4		
OXYGEN.....	0.4		0.4			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	0.1		0.0			1.8		
CARBON DIOXIDE.....	0.68		0.75			0.00		
HEATING VALUE.....	873		795			1238		
SPECIFIC GRAVITY.....	0.687		0.718			0.732		
INDEX 3412 SAMPLE 3073			INDEX 3413 SAMPLE 7198			INDEX 3414 SAMPLE 11508		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	CALHOUN		CALHOUN			CALHOUN		
FIELD.....	ALBION		ALBION			CAL-LEE		
WELL NAME.....	J. C. TURNER NO. 1		MILLER-FARLEY NO. 1			R-K-V NO. 1		
LOCATION.....	SEC. 15, T3S, R4W		SEC. 22, T3S, R4W			SEC. 16, T1S, R5W		
OWNER.....	CONTINENTAL OIL CO.		OHIO OIL CO.			MASK-MARKEL-WOOD		
COMPLETED.....	02/07/41		04/20/59			--/--/00		
SAMPLED.....	02/04/42		09/02/59			05/03/68		
FORMATION.....	DEVO-TRAVERSE		ORDO-TRENTON & BLACK RIVER			SILU-SALINA & NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	1592		4164			3200		
WELLHEAD PRESSURE, PSIG.....	552		825			1000		
OPEN FLOW, MCFD.....	10300		810			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.9		63.0			78.5		
ETHANE.....	4.0		7.2			7.6		
PROPANE.....	---		2.2			3.4		
N-BUTANE.....	---		0.7			0.9		
ISOBUTANE.....	---		TRACE			1.2		
N-PENTANE.....	---		TRACE			0.4		
ISOPENTANE.....	---		2.7			0.1		
CYCLOPENTANE.....	---		0.1			0.1		
HEXANES PLUS.....	---		0.1			0.5		
NITROGEN.....	5.7		22.0			7.0		
OXYGEN.....	0.9		0.0			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		TRACE			0.1		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HEATING VALUE.....	972		998			1141		
SPECIFIC GRAVITY.....	0.602		0.783			0.709		
INDEX 3415 SAMPLE 17639			INDEX 3416 SAMPLE 11486			INDEX 3417 SAMPLE 3129		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	CALHOUN		CALHOUN			CALHOUN		
FIELD.....	CONVIS		PARTELL			WILDCAT		
WELL NAME.....	J. C. WALTERS ET AL NO. 1-12		PUTNEY-ROOP COMM. NO. 3			J. C. TURNER NO. 1		
LOCATION.....	SEC. 12, T1S, R6W		SEC. 13, T1S, R5W			SEC. 15, T3S, R4W		
OWNER.....	SMITH PETROLEUM CO.		HUMBLE OIL & REFINING CO.			CONTINENTAL OIL CO.		
COMPLETED.....	10/08/82		10/28/65			12/27/41		
SAMPLED.....	03/25/85		05/10/68			02/12/42		
FORMATION.....	SILU-NIAGARAN		SILU-SALINA A-2			DEVO-TRAVERSE		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	3124		3184			1600		
WELLHEAD PRESSURE, PSIG.....	50		1200			565		
OPEN FLOW, MCFD.....	30		15600			3004		
COMPONENT, MOLE PCT								
METHANE.....	65.9		75.9			86.0		
ETHANE.....	16.3		6.7			4.5		
PROPANE.....	7.8		0.8			---		
N-BUTANE.....	1.9		0.9			---		
ISOBUTANE.....	2.3		0.6			---		
N-PENTANE.....	0.6		0.3			---		
ISOPENTANE.....	0.9		0.1			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.5		0.4			---		
NITROGEN.....	3.9		11.9			8.7		
OXYGEN.....	TRACE		0.0			0.3		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.1			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HEATING VALUE.....	0.05		0.13			0.37		
SPECIFIC GRAVITY.....	0.831		0.705			0.614		
INDEX 3418 SAMPLE 3144			INDEX 3419 SAMPLE 3149			INDEX 3420 SAMPLE 5363		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	CLARE		CLARE			CLARE		
FIELD.....	FREEMAN		FREEMAN			HAMILTON W		
WELL NAME.....	PERKINS-WILLEN NO. 3		N. H. SMITH NO. 16			UTZ1-WOODS, ET AL. NO. 1		
LOCATION.....	SEC. 15, T18N, R6W		SEC. 15, T18N, R6W			SEC. 6, T19N, R3W		
OWNER.....	TAGGART BROTHERS CO.		TAGGART BROTHERS CO.			SUN OIL CO.		
COMPLETED.....	07/10/39		09/09/39			05/27/52		
SAMPLED.....	02/04/42		02/04/42			07/08/52		
FORMATION.....	MISS-MICHIGAN STRAY		MISS-MICHIGAN STRAY			MISS-MICHIGAN STRAY		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	1469		1474			1469		
WELLHEAD PRESSURE, PSIG.....	562		555			600		
OPEN FLOW, MCFD.....	6175		468			9000		
COMPONENT, MOLE PCT								
METHANE.....	72.7		79.6			71.7		
ETHANE.....	17.0		12.3			6.1		
PROPANE.....	---		---			1.9		
N-BUTANE.....	---		---			0.3		
ISOBUTANE.....	---		---			0.1		
N-PENTANE.....	---		---			0.0		
ISOPENTANE.....	---		---			0.1		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	8.6		7.2			19.1		
OXYGEN.....	1.1		0.2			TRACE		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.1		
HEATING VALUE.....	0.39		0.40			0.69		
SPECIFIC GRAVITY.....	0.680		0.647			0.689		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3433 SAMPLE 17919			INDEX 3434 SAMPLE 15160			INDEX 3435 SAMPLE 12153		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	GLADWIN		GRAND TRAVERSE			GRAND TRAVERSE		
FIELD.....	NOT GIVEN		BLAIR 21			BOARDMAN S		
WELL NAME.....	LETTS UNIT NO. 2-36		STATE-BLAIR NO 2-21A			STATE-UNION NO. 1		
LOCATION.....	SEC. 36, T18N, R1W		SEC. 21, T26N, R1W			SEC. 12, T26N, R9W		
OWNER.....	AMOCO PRODUCTION CO.		NORTHERN MICHIGAN EXPL. CO.			NECLURE OIL CO.		
COMPLETED.....	11/29/84		02/04/77			10/13/69		
SAMPLED.....	11/27/85		11/28/77			12/02/69		
FORMATION.....	ORDO-PAIRIE DU CHIEN		SILU-NIAGARAN			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	11218		5533			6779		
WELLHEAD PRESSURE, PSIG.....	4400		2519			2191		
OPEN FLOW, MCFD.....	9119		5825			18400		
COMPONENT, MOLE PCT.....								
METHANE.....	90.9		84.4			76.8		
ETHANE.....	3.4		1.4			8.6		
PROPANE.....	1.1		3.2			5.6		
N-BUTANE.....	0.5		1.0			1.9		
ISOBUTANE.....	0.3		0.2			3.1		
N-PENTANE.....	0.3		0.5			0.7		
ISOPENTANE.....	0.1		0.5			0.3		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.3		0.6			0.6		
NITROGEN.....	2.9		1.3			1.5		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		TRACE			0.6		
HELIUM.....	0.00		0.04			0.01		
HEATING VALUE.....	1070		1213			1320		
SPECIFIC GRAVITY.....	0.623		0.694			0.773		
INDEX 3436 SAMPLE 15746			INDEX 3437 SAMPLE 14173			INDEX 3438 SAMPLE 16367		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	GRAND TRAVERSE		GRAND TRAVERSE			GRAND TRAVERSE		
FIELD.....	MAYFIELD		MAYFIELD			MAYFIELD		
WELL NAME.....	SCHAUB NO. 6		SCHNUCHAL NO. 1-3			NICKERSON NO. 1		
LOCATION.....	SEC. 13, T25N, R11W		SEC. 3, T25N, R11W			SEC. 1, T25N, R11W		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			TRAVERSE OIL CO.		
COMPLETED.....	04/13/78		04/03/73			01/29/80		
SAMPLED.....	09/07/79		09/20/74			10/30/81		
FORMATION.....	SILU-NIAGARAN		SILU-NIAGARAN			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	6594		5974			6450		
WELLHEAD PRESSURE, PSIG.....	2250		2120			2400		
OPEN FLOW, MCFD.....	3619		80000			5000		
COMPONENT, MOLE PCT.....								
METHANE.....	87.3		84.0			81.0		
ETHANE.....	2.5		1.9			10.2		
PROPANE.....	0.9		3.4			4.5		
N-BUTANE.....	0.9		0.9			1.1		
ISOBUTANE.....	1.4		1.1			1.3		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.4		0.4			0.4		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	0.9		1.7			1.1		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.1		
HELIUM.....	0.02		0.03			0.01		
HEATING VALUE.....	1166		1184			1236		
SPECIFIC GRAVITY.....	0.666		0.682			0.708		
INDEX 3439 SAMPLE 15810			INDEX 3440 SAMPLE 13717			INDEX 3441 SAMPLE 15059		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	GRAND TRAVERSE		GRAND TRAVERSE			GRAND TRAVERSE		
FIELD.....	UNION		UNION 8			WHITEWATER		
WELL NAME.....	ST. UNION "0" NO. 1-22		UNION NO. 1-8			STATE WHITEWATER-E NO. 1		
LOCATION.....	SEC. 22, T26N, R9W		NOT GIVEN			SEC. 22, T27N, R9W		
OWNER.....	AMOCO PRODUCTION CO.		SHELL OIL CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	07/10/78		07/10/78			10/05/76		
SAMPLED.....	10/23/79		09/05/73			07/18/77		
FORMATION.....	SILU-NIAGARAN		NOT GIVEN			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			6172		
WELLHEAD PRESSURE, PSIG.....	2022		NOT GIVEN			2440		
OPEN FLOW, MCFD.....	12200		NOT GIVEN			5500		
COMPONENT, MOLE PCT.....								
METHANE.....	87.8		87.3			86.1		
ETHANE.....	5.6		6.1			6.8		
PROPANE.....	0.9		0.5			5.0		
N-BUTANE.....	0.9		0.7			0.9		
ISOBUTANE.....	1.6		0.9			1.1		
N-PENTANE.....	0.1		0.2			0.3		
ISOPENTANE.....	0.5		0.3			0.3		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	0.9		1.7			1.2		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.1		
HELIUM.....	0.02		0.03			0.02		
HEATING VALUE.....	1175		1144			1176		
SPECIFIC GRAVITY.....	0.666		0.656			0.668		
INDEX 3442 SAMPLE 13785			INDEX 3443 SAMPLE 3899			INDEX 3444 SAMPLE 4623		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	GRAND TRAVERSE		GRATIOT			GRATIOT		
FIELD.....	WILDCAT		ITHACA NW			NEWARK		
WELL NAME.....	WHITEWATER NO. 1-36		DAVIDSON NO. 1			WILLIAMS-GRAY ET AL. NO. 1		
LOCATION.....	SEC. 36, T27N, R9W		SEC. 36, T11N, R3W			SEC. 25, T10N, R4W		
OWNER.....	AMOCO PRODUCTION CO.		C. E. WELLER & F. CALDWELL			SOHIO PETROLEUM CO.		
COMPLETED.....	03/27/71		11/28/43			09/02/48		
SAMPLED.....	10/25/71		06/15/44			11/08/48		
FORMATION.....	SILU-NIAGARAN		MISS-MICHIGAN STRAY			MISS-MICHIGAN STRAY		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	6360		890			985		
WELLHEAD PRESSURE, PSIG.....	1340		420			450		
OPEN FLOW, MCFD.....	6000		16000			5200		
COMPONENT, MOLE PCT.....								
METHANE.....	87.2		84.8			78.4		
ETHANE.....	5.7		14.4			11.5		
PROPANE.....	0.6		---			---		
N-BUTANE.....	0.8		---			---		
ISOBUTANE.....	1.4		---			---		
N-PENTANE.....	0.2		---			---		
ISOPENTANE.....	0.4		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.3		---			---		
NITROGEN.....	0.0		0.0			9.2		
OXYGEN.....	0.0		0.0			0.3		
ARGON.....	0.0		---			---		
HYDROGEN.....	TRACE		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.8			0.0		
HELIUM.....	0.02		0.03			0.65		
HEATING VALUE.....	1168		1168			1000		
SPECIFIC GRAVITY.....	0.667		0.634			0.649		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3445 SAMPLE 3158			INDEX 3446 SAMPLE 6553			INDEX 3447 SAMPLE 7199		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	GRATIOT		HILLSDALE			HILLSDALE		
FIELD.....	NOT GIVEN		SCIPIO			SCIPIO		
WELL NAME.....	EARL COOK NO. 1		STEPHENS NO. 1			LATTAS NO. 1		
LOCATION.....	SEC. 4, T10N, R2W		SEC. 10, T5S, R3W			SEC. 10, T5S, R3W		
OWNER.....	VICTOR R. WILSON		MCCLURE OIL CO.			OHIO OIL CO.		
COMPLETED.....	10/01/40		09/18/57			02/22/58		
SAMPLED.....	02/02/42		04/14/58			09/02/59		
FORMATION.....	MISS-MICHIGAN STRAY		ORDO-TRENTON			ORDO-TRENTON & BLACK RIVER		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	870		NOT GIVEN			3744		
WELLHEAD PRESSURE, PSIG.....	391		1529			585		
OPEN FLOW, MCFD.....	1180		NOT GIVEN			206		
COMPONENT, MOLE PCT								
METHANE.....	77.4		50.2			50.4		
ETHANE.....	10.5		9.6			17.1		
PROPANE.....	---		9.5			15.0		
N-BUTANE.....	---		3.9			4.6		
ISOBUTANE.....	---		1.6			1.9		
N-PENTANE.....	---		1.0			0.4		
ISOPENTANE.....	---		0.7			2.1		
CYCLOPENTANE.....	---		0.1			0.1		
HEXANES PLUS.....	---		0.4			0.4		
NITROGEN.....	10.8		22.0			7.9		
OXYGEN.....	0.5		0.6			TRACE		
ARGON.....	---		TRACE			0.0		
HYDROGEN.....	---		---			TRACE		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.1		
HELIUM.....	0.65		0.20			0.03		
HEATING VALUE.....	972		1210			1556		
SPECIFIC GRAVITY.....	0.652		0.917			0.982		
INDEX 3448 SAMPLE 7200			INDEX 3449 SAMPLE 7201			INDEX 3450 SAMPLE 7203		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	HILLSDALE		HILLSDALE			HILLSDALE		
FIELD.....	SCIPIO		SCIPIO			SCIPIO		
WELL NAME.....	STEPHENS NO. 1		ROBE NO. 2			W. ROBE A-2		
LOCATION.....	SEC. 10, T5S, R3W		SEC. 10, T5S, R3W			SEC. 3, T5S, R3W		
OWNER.....	OHIO OIL CO.		OHIO OIL CO.			OHIO OIL CO.		
COMPLETED.....	09/13/57		04/20/59			03/30/59		
SAMPLED.....	09/02/59		09/02/59			09/02/59		
FORMATION.....	ORDO-TRENTON & BLACK RIVER		ORDO-TRENTON & BLACK RIVER			ORDO-TRENTON & BLACK RIVER		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	3755		3898			3948		
WELLHEAD PRESSURE, PSIG.....	900		200			400		
OPEN FLOW, MCFD.....	956		NOT GIVEN			237		
COMPONENT, MOLE PCT								
METHANE.....	50.0		49.8			60.2		
ETHANE.....	TRACE		17.9			7.4		
PROPANE.....	5.6		6.3			4.4		
N-BUTANE.....	2.8		4.7			1.3		
ISOBUTANE.....	TRACE		3.6			0.7		
N-PENTANE.....	TRACE		0.3			0.2		
ISOPENTANE.....	2.7		0.0			1.1		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.3		0.5			0.4		
NITROGEN.....	36.6		10.9			23.7		
OXYGEN.....	1.2		0.2			TRACE		
ARGON.....	0.1		0.2			TRACE		
HYDROGEN.....	0.2		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.1			0.0		
CARBON DIOXIDE.....	0.3		2.6			0.1		
HELIUM.....	0.20		0.01			0.20		
HEATING VALUE.....	881		1443			1004		
SPECIFIC GRAVITY.....	0.875		0.984			0.799		
INDEX 3451 SAMPLE 17753			INDEX 3452 SAMPLE 13648			INDEX 3453 SAMPLE 3145		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	INGHAM		INGHAM			ISABELLA		
FIELD.....	ONANDAGA		VEVA 19			BROOMFIELD		
WELL NAME.....	NORMAN D. REESE NO. 6-2		F. LOVETTE UNIT NO. 1			WINTERS NO. 1		
LOCATION.....	SEC. 16, T1N, R2W		SEC. 18, T2N, R1W			SEC. 10, T14N, R6W		
OWNER.....	MORIL OIL CORP.		MORIL OIL CORP.			FLETCHER & LEMAN		
COMPLETED.....	06/04/84		05/04/72			05/03/41		
SAMPLED.....	07/12/85		07/13/73			02/05/42		
FORMATION.....	DEVO-TRAVERSE		ILLU-NIAGARAN			MISS-MICHIGAN STRAY		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	2056		3998			1332		
WELLHEAD PRESSURE, PSIG.....	1258		1475			335		
OPEN FLOW, MCFD.....	250		8736			500		
COMPONENT, MOLE PCT								
METHANE.....	72.1		82.4			74.3		
ETHANE.....	7.9		7.4			19.8		
PROPANE.....	4.1		3.7			---		
N-BUTANE.....	1.1		0.9			---		
ISOBUTANE.....	0.3		1.1			---		
N-PENTANE.....	0.2		0.2			---		
ISOPENTANE.....	0.2		0.4			---		
CYCLOPENTANE.....	0.1		TRACE			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	13.4		2.1			5.2		
OXYGEN.....	TRACE		0.0			0.3		
ARGON.....	TRACE		0.0			---		
HYDROGEN.....	0.1		TRACE			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	TRACE		0.4			0.1		
HELIUM.....	0.30		0.06			0.34		
HEATING VALUE.....	1052		1166			1107		
SPECIFIC GRAVITY.....	0.721		0.696			0.675		
INDEX 3454 SAMPLE 3150			INDEX 3455 SAMPLE 10255			INDEX 3456 SAMPLE 3146		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ISABELLA		ISABELLA			ISABELLA		
FIELD.....	FRÉMONT		UNION TWP.			VERNON		
WELL NAME.....	RIGGLE NO. 1		ELMER THERING NO. 1			GUSS POLLARD NO. 1		
LOCATION.....	SEC. 21, T13N, R5W		SEC. 6, T14N, R4W			SEC. 1, T15N, R4W		
OWNER.....	BELVIERE OIL CO.		MERRILL DRILLING CO.			CHARTIERS OIL CO.		
COMPLETED.....	09/15/41		09/-/65			02/28/35		
SAMPLED.....	01/30/42		10/28/65			02/05/42		
FORMATION.....	MISS-MICHIGAN STRAY		MISS-MICHIGAN STRAY			MISS-MICHIGAN STRAY		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	1311		1387			1288		
WELLHEAD PRESSURE, PSIG.....	529		470			NOT GIVEN		
OPEN FLOW, MCFD.....	1000		7450			100		
COMPONENT, MOLE PCT								
METHANE.....	75.8		81.8			77.4		
ETHANE.....	17.5		3.6			5.7		
PROPANE.....	---		0.0			---		
N-BUTANE.....	---		0.0			---		
ISOBUTANE.....	---		0.0			---		
N-PENTANE.....	---		0.0			---		
ISOPENTANE.....	---		0.0			---		
CYCLOPENTANE.....	---		0.0			---		
HEXANES PLUS.....	---		0.0			---		
NITROGEN.....	5.9		13.3			15.6		
OXYGEN.....	0.3		0.1			0.5		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.1		0.0			0.1		
HELIUM.....	0.38		0.71			0.73		
HEATING VALUE.....	1081		906			886		
SPECIFIC GRAVITY.....	0.666		0.630			0.648		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3457 SAMPLE 3138			INDEX 3458 SAMPLE 7202			INDEX 3459 SAMPLE 13196		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ISABELLA		JACKSON			KALKASKA		
FIELD.....	SEC. 2		PULASKI			BLUE LAKE		
WELL NAME.....	COMMUNITY LEASE A		BARTLETT NO. 1			STATE BLUE LAKE NO. 1-28		
LOCATION.....	SEC. 21, T16N, R3W		SEC. 7, T4S, R3W			SEC. 28, T28N, R5W		
OWNER.....	CITIES SERVICE OIL CO.		OHIO OIL CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	10/29/40		06/20/59			12/15/70		
SAMPLED.....	02/05/42		09/03/59			04/24/72		
FORMATION.....	NISS-MICHIGAN STRAY		ORDO-TRENTON & BLACK RIVER			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	1248		4196			7105		
WELLHEAD PRESSURE, PSIG.....	577		600			2840		
OPEN FLOW, MCFD.....	2970		459			17762		
COMPONENT, MOLE PCT.....								
METHANE.....	78.9		51.6			89.6		
ETHANE.....	4.3		16.8			5.0		
PROPANE.....	---		13.1			2.4		
N-BUTANE.....	---		3.7			0.7		
ISOBUTANE.....	---		2.1			1.3		
N-PENTANE.....	---		0.7			0.1		
ISOPENTANE.....	---		1.8			0.3		
CYCLOPENTANE.....	---		0.7			TRACE		
HEXANES PLUS.....	---		2.0			0.2		
NITROGEN.....	15.7		7.4			0.4		
OXYGEN.....	0.2		TRACE			TRACE		
ARGON.....	---		0.0			0.0		
HYDROGEN.....	---		TRACE			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			TRACE		
HELIUM.....	0.10		0.03			0.01		
HEATING VALUE.....	876		1595			1154		
SPECIFIC GRAVITY.....	0.639		0.997			0.648		

INDEX 3460 SAMPLE 13786			INDEX 3461 SAMPLE 15749			INDEX 3462 SAMPLE 13080		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	KALKASKA		KALKASKA			KALKASKA		
FIELD.....	BLUE LAKE		BLUE LAKE			BOARDMAN S		
WELL NAME.....	SIMPSON C NO. 1-33		RICHMAN STATE-BLUE NO. 5			UNIT NO. -4		
LOCATION.....	SEC. 33, T28N, R5W		SEC. 23, T28N, R5W			SEC. 4, T26N, R8W		
OWNER.....	AMOCO PRODUCTION CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	10/23/73		12/20/77			10/09/71		
SAMPLED.....	09/05/73		09/05/79			10/12/71		
FORMATION.....	SILU-NIAGARAN		SILU-NIAGARAN			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	7350		6785			6925		
WELLHEAD PRESSURE, PSIG.....	1150		1480			2680		
OPEN FLOW, MCFD.....	1000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	89.1		73.1			76.7		
ETHANE.....	4.7		5.0			6.2		
PROPANE.....	2.3		0.9			3.2		
N-BUTANE.....	0.9		0.3			0.7		
ISOBUTANE.....	1.5		1.3			1.3		
N-PENTANE.....	0.2		0.4			0.2		
ISOPENTANE.....	0.5		0.4			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.3		0.4			0.2		
NITROGEN.....	0.0		12.7			8.8		
OXYGEN.....	0.0		3.0			2.0		
ARGON.....	0.0		0.1			0.1		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.2			0.4		
HELIUM.....	0.01		0.01			0.02		
HEATING VALUE.....	1173		1027			1066		
SPECIFIC GRAVITY.....	0.659		0.757			0.712		

INDEX 3463 SAMPLE 13716			INDEX 3464 SAMPLE 14410			INDEX 3465 SAMPLE 14054		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	KALKASKA		KALKASKA			KALKASKA		
FIELD.....	BOARDMAN UNIT		EXCELSIOR			KALKASKA N		
WELL NAME.....	BOARDMAN NO. 2-4		SIMPSON-WESTERMAN NO. 1			STATE KALKASKA "F" NO. 1-24		
LOCATION.....	SEC. 31, T28N, R6W		SEC. 31, T28N, R6W			SEC. 24, T27N, R8W		
OWNER.....	SHELL OIL CO.		AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	12/10/74		12/10/74			07/17/74		
SAMPLED.....	07/07/75		07/07/75			07/16/74		
FORMATION.....	NOT GIVEN		SILU-NIAGARAN			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	NOT GIVEN		6880			6388		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2736			2382		
OPEN FLOW, MCFD.....	NOT GIVEN		150000			95000		
COMPONENT, MOLE PCT.....								
METHANE.....	75.1		87.1			76.4		
ETHANE.....	10.2		6.0			10.9		
PROPANE.....	6.4		2.9			6.1		
N-BUTANE.....	2.1		0.5			1.8		
ISOBUTANE.....	3.0		0.4			2.3		
N-PENTANE.....	0.4		0.1			0.3		
ISOPENTANE.....	0.0		0.5			0.7		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.4		0.1			0.1		
NITROGEN.....	1.2		0.8			0.7		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.6			0.6		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1362		1173			1313		
SPECIFIC GRAVITY.....	0.787		0.667			0.762		

INDEX 3466 SAMPLE 14172			INDEX 3467 SAMPLE 3126			INDEX 3468 SAMPLE 15080		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	KALKASKA		KENT			LAPEER		
FIELD.....	RAPID RIVER		WALKER			RICH		
WELL NAME.....	RAPID RIVER NO. 1-35		BERLIN STATE BANK NO. 8			COOPER CONSOLIDATED NO. 1		
LOCATION.....	SEC. 35, T28N, R7W		SEC. 5, T6N, R12W			SEC. 27, T10N, R10E		
OWNER.....	SHELL OIL CO.		WEST MICHIGAN CONSUMERS CO.			MID-STATE OIL & GAS CO.		
COMPLETED.....	10/04/73		05/03/41			07/17/75		
SAMPLED.....	09/20/74		02/18/42			08/25/77		
FORMATION.....	SILU-NIAGARAN		NISS-BEREA			NISS-BEREA		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	6613		1083			1500		
WELLHEAD PRESSURE, PSIG.....	6613		2582			720		
OPEN FLOW, MCFD.....	770000		NOT GIVEN			260		
COMPONENT, MOLE PCT.....								
METHANE.....	88.3		59.0			71.9		
ETHANE.....	4.7		17.7			5.8		
PROPANE.....	2.3		---			1.9		
N-BUTANE.....	0.9		---			0.4		
ISOBUTANE.....	1.7		---			0.1		
N-PENTANE.....	0.1		---			TRACE		
ISOPENTANE.....	0.4		---			0.1		
CYCLOPENTANE.....	TRACE		---			TRACE		
HEXANES PLUS.....	0.2		---			TRACE		
NITROGEN.....	0.3		22.3			19.4		
OXYGEN.....	0.0		0.3			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		0.67			TRACE		
HELIUM.....	0.01		0.13			0.38		
HEATING VALUE.....	1158		913			903		
SPECIFIC GRAVITY.....	0.667		0.733			0.690		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3469 SAMPLE 15081		INDEX 3470 SAMPLE 10951		INDEX 3471 SAMPLE 10952	
STATE.....	MICHIGAN	MICHIGAN	LENAMÉE	MICHIGAN	LENAMÉE
COUNTY.....	LAPEER	LENAMÉE	ROBERT	LENAMÉE	ROBERT
FIELD.....	RICHTER	ROBERT	ROBERT	ROBERT	ROBERT
WELL NAME.....	RANDALL NO. 2	ALLEN NO. 1	WOODLEY NO. 1	WOODLEY NO. 1	WOODLEY NO. 1
LOCATION.....	SEC. 27, T10N, R10E	SEC. 10, T8S, R2W	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	MID-STATE OIL & GAS CO.	LIBERTY PETROLEUM CORP.	LIBERTY PETROLEUM CORP.	LIBERTY PETROLEUM CORP.	LIBERTY PETROLEUM CORP.
COMPLETED.....	--/--/74	07/01/66	08/01/66	08/01/66	08/01/66
SAMPLED.....	08/25/77	05/04/67	05/04/67	05/04/67	05/04/67
FORMATION.....	DEVO-DETROIT RIVER	DEVO-TRAVERSE	DEVO-TRAVERSE	DEVO-TRAVERSE	DEVO-TRAVERSE
GEOLOGIC PROVINCE CODE.....	305	305	305	305	305
DEPTH, FEET.....	3000	620	620	620	620
WELLHEAD PRESSURE, PSIG.....	980	172	170	170	170
OPEN FLOW, MCFD.....	NOT GIVEN	6000	2500	2500	2500
COMPONENT, MOLE PCT.....					
METHANE.....	59.7	80.5	93.0	93.0	93.0
ETHANE.....	13.5	2.2	2.9	2.9	2.9
PROPANE.....	6.4	0.2	0.4	0.4	0.4
N-BUTANE.....	1.8	0.0	0.2	0.2	0.2
ISOBUTANE.....	0.6	0.0	0.0	0.0	0.0
N-PENTANE.....	0.4	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.3	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	TRACE	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.2	0.0	0.0	0.0	0.0
NITROGEN.....	0.2	12.9	2.7	2.7	2.7
OXYGEN.....	0.0	2.5	0.0	0.0	0.0
ARGON.....	TRACE	0.2	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**.....	13.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	3.9	1.4	0.0	0.0	0.0
HELIUM.....	0.03	0.04	0.05	0.05	0.05
HEATING VALUE.....	1217	860	1011	1011	1011
SPECIFIC GRAVITY.....	0.862	0.649	0.593	0.593	0.593

INDEX 3472 SAMPLE 11468		INDEX 3473 SAMPLE 8356		INDEX 3474 SAMPLE 4445	
STATE.....	MICHIGAN	MICHIGAN	LIVINGSTON	MICHIGAN	LIVINGSTON
COUNTY.....	WILCOAT	LIVINGSTON	FOWLERVILLE	LIVINGSTON	FOWLERVILLE
FIELD.....	BROWER ET AL.	HOUSE NO. 1	BRAYTON NO. 1	BRAYTON NO. 1	BRAYTON NO. 1
WELL NAME.....	SEC. 27, T7S, R2E	SEC. 1, T3N, R3E	SEC. 1, T2N, R4E	SEC. 1, T2N, R4E	SEC. 1, T2N, R4E
LOCATION.....	BELL & GAULT DRILLING, INC.	HUMBLE OIL & REFINING CO.	PANHANDLE EASTERN PIPELINE C	PANHANDLE EASTERN PIPELINE C	PANHANDLE EASTERN PIPELINE C
OWNER.....	03/07/68	01/08/77	02/27/48	02/27/48	02/27/48
COMPLETED.....	04/30/68	01/03/62	02/27/48	02/27/48	02/27/48
SAMPLED.....	04/30/68	01/03/62	02/27/48	02/27/48	02/27/48
FORMATION.....	DEVO-TRAVERSE	SILU-NIAGARAN	SILU-NIAGARAN	SILU-NIAGARAN	SILU-NIAGARAN
GEOLOGIC PROVINCE CODE.....	305	305	305	305	305
DEPTH, FEET.....	737	3835	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	290	1435	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	1000	3500	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT.....					
METHANE.....	94.9	86.4	70.0	70.0	70.0
ETHANE.....	1.3	4.6	24.6	24.6	24.6
PROPANE.....	0.2	2.8	---	---	---
N-BUTANE.....	0.0	0.0	---	---	---
ISOBUTANE.....	0.0	1.3	---	---	---
N-PENTANE.....	0.0	0.2	---	---	---
ISOPENTANE.....	0.0	0.4	---	---	---
CYCLOPENTANE.....	0.0	TRACE	---	---	---
HEXANES PLUS.....	0.0	0.3	---	---	---
NITROGEN.....	2.8	2.2	4.1	4.1	4.1
OXYGEN.....	0.0	0.0	0.2	0.2	0.2
ARGON.....	TRACE	0.0	---	---	---
HYDROGEN.....	0.0	TRACE	---	---	---
HYDROGEN SULFIDE**.....	0.0	0.0	---	---	---
CARBON DIOXIDE.....	0.7	0.9	1.0	1.0	1.0
HELIUM.....	0.13	0.16	0.08	0.08	0.08
HEATING VALUE.....	990	1192	1150	1150	1150
SPECIFIC GRAVITY.....	0.581	0.675	0.703	0.703	0.703

INDEX 3475 SAMPLE 4333		INDEX 3476 SAMPLE 11501		INDEX 3477 SAMPLE 8496	
STATE.....	MICHIGAN	MICHIGAN	MACOMB	MICHIGAN	MACOMB
COUNTY.....	LIVINGSTON	MACOMB	MUTTONVILLE	MACOMB	MUTTONVILLE
FIELD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELL NAME.....	CARRIE FRANCIS NO. 1	KETHE NO. 1	OHMAN	OHMAN	OHMAN
LOCATION.....	SEC. 1, T4N, R13E	SEC. 13, T4N, R13E	SEC. 1, T4N, R13E	SEC. 1, T4N, R13E	SEC. 1, T4N, R13E
OWNER.....	PANHANDLE EASTERN PIPELINE C	MICHIGAN CONSOLIDATED GAS CO	PANHANDLE EASTERN PIPELINE C	PANHANDLE EASTERN PIPELINE C	PANHANDLE EASTERN PIPELINE C
COMPLETED.....	--/--/00	08/09/67	12/12/61	12/12/61	12/12/61
SAMPLED.....	08/11/47	05/10/68	04/09/62	04/09/62	04/09/62
FORMATION.....	-8AY	SILU-NIAGARAN	SILU-NIAGARAN	SILU-NIAGARAN	SILU-NIAGARAN
GEOLOGIC PROVINCE CODE.....	305	305	305	305	305
DEPTH, FEET.....	NOT GIVEN	2760	2945	2945	2945
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1217	1317	1317	1317
OPEN FLOW, MCFD.....	4000	52	53800	53800	53800
COMPONENT, MOLE PCT.....					
METHANE.....	83.6	88.5	88.4	88.4	88.4
ETHANE.....	6.8	0.7	5.0	5.0	5.0
PROPANE.....	2.6	2.2	2.2	2.2	2.2
N-BUTANE.....	0.5	0.7	0.7	0.7	0.7
ISOBUTANE.....	0.6	0.0	1.0	1.0	1.0
N-PENTANE.....	0.7	0.2	0.1	0.1	0.1
ISOPENTANE.....	---	0.2	0.3	0.3	0.3
CYCLOPENTANE.....	---	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	---	0.2	0.1	0.1	0.1
NITROGEN.....	3.8	2.2	1.8	1.8	1.8
OXYGEN.....	0.2	0.1	TRACE	TRACE	TRACE
ARGON.....	---	0.1	TRACE	TRACE	TRACE
HYDROGEN.....	---	0.1	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	---	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.1	0.9	0.07	0.07	0.07
HELIUM.....	0.08	1116	1122	1122	1122
HEATING VALUE.....	1103	0.644	0.644	0.644	0.644
SPECIFIC GRAVITY.....	0.671				

INDEX 3478 SAMPLE 10206		INDEX 3479 SAMPLE 15032		INDEX 3480 SAMPLE 15750	
STATE.....	MICHIGAN	MICHIGAN	MANISTEE	MICHIGAN	MANISTEE
COUNTY.....	MACOMB	MANISTEE	CLEON	MANISTEE	CLEON
FIELD.....	LASKOWSKI NO. 5-1	STATE-CLEON NO. 1-19	DROTLIEFF NO. 1	DROTLIEFF NO. 1	DROTLIEFF NO. 1
WELL NAME.....	SEC. 1, T4N, R13E	SEC. 19, T24N, R13W	SEC. 31, T24N, R13W	SEC. 31, T24N, R13W	SEC. 31, T24N, R13W
LOCATION.....	CONSUMERS POWER CO.	MILLER BROTHERS	SHELL OIL CO.	SHELL OIL CO.	SHELL OIL CO.
OWNER.....	06/29/69	--/--/00	11/18/77	11/18/77	11/18/77
COMPLETED.....	10/12/65	06/17/77	05/07/79	05/07/79	05/07/79
SAMPLED.....	10/12/65	06/17/77	05/07/79	05/07/79	05/07/79
FORMATION.....	SILU-SALINA A-1	SILU-NIAGARAN	SILU-NIAGARAN	SILU-NIAGARAN	SILU-NIAGARAN
GEOLOGIC PROVINCE CODE.....	305	305	305	305	305
DEPTH, FEET.....	3213	5073	5262	5262	5262
WELLHEAD PRESSURE, PSIG.....	1101	2266	2025	2025	2025
OPEN FLOW, MCFD.....	3100	5500	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT.....					
METHANE.....	87.3	83.2	81.7	81.7	81.7
ETHANE.....	5.0	8.0	7.9	7.9	7.9
PROPANE.....	2.4	3.1	4.4	4.4	4.4
N-BUTANE.....	0.8	1.1	1.3	1.3	1.3
ISOBUTANE.....	1.2	1.1	1.5	1.5	1.5
N-PENTANE.....	0.2	0.3	0.6	0.6	0.6
ISOPENTANE.....	0.3	0.3	0.5	0.5	0.5
CYCLOPENTANE.....	TRACE	TRACE	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.2	0.5	0.5	0.5
NITROGEN.....	2.4	1.8	1.7	1.7	1.7
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	0.0	TRACE	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.1	0.1	0.1
HELIUM.....	0.10	0.04	0.04	0.04	0.04
HEATING VALUE.....	1135	1192	1242	1242	1242
SPECIFIC GRAVITY.....	0.659	0.688	0.718	0.718	0.718

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3481 SAMPLE 16848		INDEX 3482 SAMPLE 2622		INDEX 3483 SAMPLE 3730	
STATE.....	MICHIGAN	MICHIGAN		MICHIGAN	
COUNTY.....	MANISTEE	MECOSTA		MECOSTA	
FIELD.....	CLEON 17	AUSTIN		BIG RAPIDS	
WELL NAME.....	REBMAN NO. 3-16 A	FISH NO. 1		GUS HAMELUND NO. 1	
LOCATION.....	SEC. 16, T24N, R13W	SEC. 10, T14N, R9W		SEC. 13, T15N, R10W	
OWNER.....	NORTHERN MICHIGAN EXPL. CO.	TAGGART BROTHERS CO.		MICHIGAN CONSOLIDATED GAS CO	
COMPLETED.....	02/04/80	07/01/33		08/16/43	
SAMPLED.....	03/23/83	07/19/33		03/27/44	
FORMATION.....	SILU-NIAGARAN BROWN	MISS-MICHIGAN STRAY		MISS-MICHIGAN STRAY	
GEOLOGIC PROVINCE CODE.....	305	305		305	
DEPTH, FEET.....	5376	1449		1140	
WELLHEAD PRESSURE, PSIG.....	2100	530		NOT GIVEN	
OPEN FLOW, MCFD.....	22440	4000		726	
COMPONENT, MOLE PCT					
METHANE.....	82.8	74.8		70.0	
ETHANE.....	7.8	16.9		18.0	
PROPANE.....	3.6	---		---	
N-BUTANE.....	1.1	---		---	
ISOBUTANE.....	1.1	---		---	
N-PENTANE.....	0.2	---		---	
ISOPENTANE.....	0.7	---		---	
CYCLOPENTANE.....	0.7	---		---	
HEXANES PLUS.....	0.5	---		---	
NITROGEN.....	1.8	6.7		10.9	
OXYGEN.....	0.0	0.4		0.4	
ARGON.....	TRACE	---		---	
HYDROGEN.....	0.2	---		---	
HYDROGEN SULFIDE.....	0.0	---		---	
CARBON DIOXIDE.....	0.1	0.1		0.1	
HELIUM.....	0.04	0.42		0.55	
HEATING VALUE.....	1208	1351		1032	
SPECIFIC GRAVITY.....	0.698	0.616		0.689	

INDEX 3484 SAMPLE 11479		INDEX 3485 SAMPLE 11483		INDEX 3486 SAMPLE 4018	
STATE.....	MICHIGAN	MICHIGAN		MICHIGAN	
COUNTY.....	MECOSTA	MECOSTA		MECOSTA	
FIELD.....	BIG RAPIDS	BIG RAPIDS		COLFAX	
WELL NAME.....	10TH-COTTER	CUREY NO. 4		BUSH NO. 1	
LOCATION.....	BIG RAPIDS TWP.	BIG RAPIDS TWP.		SEC. 4, T15N, R9W	
OWNER.....	N. H. DONLEY, ET AL.	MICHIGAN CONSOLIDATED GAS CO		MICHIGAN CONSOLIDATED GAS CO	
COMPLETED.....	06/22/65	12/04/45		04/14/45	
SAMPLED.....	05/06/68	05/06/68		05/12/45	
FORMATION.....	DEV0-DUNDEE	MISS-MICHIGAN STRAY		MISS-MICHIGAN STRAY	
GEOLOGIC PROVINCE CODE.....	305	305		305	
DEPTH, FEET.....	3450	1180		1290	
WELLHEAD PRESSURE, PSIG.....	1500	475		498	
OPEN FLOW, MCFD.....	---	1750		9000	
COMPONENT, MOLE PCT					
METHANE.....	79.0	78.1		76.3	
ETHANE.....	10.5	---		15.5	
PROPANE.....	3.7	2.8		---	
N-BUTANE.....	1.0	0.9		---	
ISOBUTANE.....	0.2	0.0		---	
N-PENTANE.....	0.3	0.0		---	
ISOPENTANE.....	0.2	0.0		---	
CYCLOPENTANE.....	0.1	0.0		---	
HEXANES PLUS.....	0.1	0.0		---	
NITROGEN.....	3.6	8.3		6.7	
OXYGEN.....	0.0	0.1		0.0	
ARGON.....	TRACE	0.1		---	
HYDROGEN.....	0.1	0.1		---	
HYDROGEN SULFIDE.....	0.0	0.0		---	
CARBON DIOXIDE.....	TRACE	0.1		1.4	
HELIUM.....	0.14	0.45		0.45	
HEATING VALUE.....	1173	1056		1044	
SPECIFIC GRAVITY.....	0.694	0.675		0.668	

INDEX 3487 SAMPLE 3966		INDEX 3488 SAMPLE 4280		INDEX 3489 SAMPLE 4821	
STATE.....	MICHIGAN	MICHIGAN		MICHIGAN	
COUNTY.....	MECOSTA	MECOSTA		MECOSTA	
FIELD.....	EVANS NO. 1	HORTON		PARIS	
WELL NAME.....	EVANS NO. 1	F. S. STICKLER NO. 1		LEO BRENNAN NO. 1	
LOCATION.....	SEC. 12, T15N, R8W	SEC. 15, T14N, R8W		SEC. 28, T16N, R10W	
OWNER.....	MICHIGAN CONSOLIDATED GAS CO	MICHIGAN CONSOLIDATED GAS CO		CITIES SERVICE OIL CO.	
COMPLETED.....	11/11/44	11/23/46		07/09/49	
SAMPLED.....	01/05/45	01/14/47		12/29/49	
FORMATION.....	MISS-MICHIGAN STRAY	MISS-MICHIGAN STRAY		DEV0-	
GEOLOGIC PROVINCE CODE.....	305	305		305	
DEPTH, FEET.....	1386	1280		3404	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	520		1526	
OPEN FLOW, MCFD.....	400	1663		1840	
COMPONENT, MOLE PCT					
METHANE.....	67.2	99.0		77.8	
ETHANE.....	23.4	0.0		12.0	
PROPANE.....	---	---		3.9	
N-BUTANE.....	---	---		0.9	
ISOBUTANE.....	---	---		0.3	
N-PENTANE.....	---	---		0.5	
ISOPENTANE.....	---	---		TRACE	
CYCLOPENTANE.....	---	---		TRACE	
HEXANES PLUS.....	---	---		0.3	
NITROGEN.....	8.9	0.0		3.9	
OXYGEN.....	0.0	0.2		0.1	
ARGON.....	---	---		TRACE	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE.....	---	---		---	
CARBON DIOXIDE.....	0.1	0.4		0.1	
HELIUM.....	0.35	0.40		0.13	
HEATING VALUE.....	1100	1003		1184	
SPECIFIC GRAVITY.....	0.706	0.558		0.705	

INDEX 3490 SAMPLE 5024		INDEX 3491 SAMPLE 3156		INDEX 3492 SAMPLE 4479	
STATE.....	MICHIGAN	MICHIGAN		MICHIGAN	
COUNTY.....	MECOSTA	MECOSTA		MECOSTA	
FIELD.....	MC FARLANE NO. 1	SIX LAKES		WHEATLAND	
WELL NAME.....	MC FARLANE NO. 1	R. S. SWETT NO. 1		SMITH PET. CO. NO. 1	
LOCATION.....	SEC. 21, T16N, R10W	SEC. 23, T13N, R8W		SEC. 9, T14N, R7W	
OWNER.....	CITIES SERVICE OIL CO.	COLUMBIA OIL & GAS CO.		CARTER OIL CO.	
COMPLETED.....	01/11/44	06/19/36		11/04/47	
SAMPLED.....	03/20/51	01/30/42		04/15/48	
FORMATION.....	MISS-U	MISS-MICHIGAN STRAY		MISS-	
GEOLOGIC PROVINCE CODE.....	305	305		305	
DEPTH, FEET.....	1215	1326		1399	
WELLHEAD PRESSURE, PSIG.....	480	425		NOT GIVEN	
OPEN FLOW, MCFD.....	2000	1800		400	
COMPONENT, MOLE PCT					
METHANE.....	77.0	72.4		67.7	
ETHANE.....	8.7	18.9		15.8	
PROPANE.....	2.9	---		---	
N-BUTANE.....	0.5	---		---	
ISOBUTANE.....	0.2	---		---	
N-PENTANE.....	0.1	---		---	
ISOPENTANE.....	TRACE	---		---	
CYCLOPENTANE.....	TRACE	---		---	
HEXANES PLUS.....	0.1	---		---	
NITROGEN.....	9.6	7.7		14.0	
OXYGEN.....	0.2	0.5		1.9	
ARGON.....	---	---		---	
HYDROGEN.....	TRACE	---		---	
HYDROGEN SULFIDE.....	---	---		---	
CARBON DIOXIDE.....	0.3	0.1		0.3	
HELIUM.....	0.50	0.81		0.33	
HEATING VALUE.....	1042	1072		969	
SPECIFIC GRAVITY.....	0.684	0.682		0.703	

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3493 SAMPLE 3078			INDEX 3494 SAMPLE 11466			INDEX 3495 SAMPLE 17013		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	WILDCAT		MISSAUKEE			MISSAUKEE		
FIELD.....	GEORGE R. SAPP NO. 1		FALMOUTH			FALMOUTH		
WELL NAME.....	SEC. 36, T14N, R8W		EDWARDS NO. 1-36			GILDE ET AL. NO. 1-25		
LOCATION.....	COLUMBIA OIL & GAS SYNDICATE		SEC. 36, T22N, R7W			SEC. 25, T22N, R7W		
OWNER.....	08/29/34		CONSUMERS POWER CO.			PATRICK PETROLEUM CO.		
COMPLETED.....	01/27/42		05/01/62			10/08/82		
SAMPLED.....	MISS-MICHIGAN STRAY		04/30/68			08/--/83		
FORMATION.....	305		MISS-MICHIGAN STRAY			OROO-PRAIRIE DU CHIEN		
GEOLOGIC PROVINCE CODE.....	1292		305			305		
DEPTH, FEET.....	156		1424			10580		
WELLHEAD PRESSURE, PSIG.....	196		185			3652		
OPEN FLOW, MCFD.....			779			17500		
COMPONENT, MOLE PCT								
METHANE.....	77.0		80.6			95.0		
ETHANE.....	15.1		9.3			2.0		
PROPANE.....	---		2.4			0.2		
N-BUTANE.....	---		0.5			0.0		
ISOBUTANE.....	---		---			0.0		
N-PENTANE.....	---		0.0			0.0		
ISOPENTANE.....	---		0.0			0.0		
CYCLOPENTANE.....	---		0.0			0.0		
HEXANES PLUS.....	---		0.0			0.0		
NITROGEN.....	6.2		5.8			2.1		
OXYGEN.....	1.1		TRACE			TRACE		
ARGON.....	---		---			---		
HYDROGEN.....	---		0.1			0.3		
HYDROGEN SULFIDE**.....	---		0.5			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.3		
HELIUM.....	0.42		0.22			0.03		
HEATING VALUE*.....	1051		1066			1004		
SPECIFIC GRAVITY.....	0.661		0.664			0.576		

INDEX 3496 SAMPLE 11465			INDEX 3497 SAMPLE 2305			INDEX 3498 SAMPLE 9626		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	MISSAUKEE		MISSAUKEE			MISSAUKEE		
FIELD.....	BAAS BROTHERS NO. 1-25		NOT GIVEN			REEDER		
WELL NAME.....	SEC. 25, T21N, R7W		MILLER NO. 1			STROTH MCBAIN NO. 1		
LOCATION.....	CONSUMERS POWER CO.		SEC. 24, T24N, R7W			SEC. 32, T22N, R7W		
OWNER.....	03/11/61		HENRY MILTNER			CONSUMERS POWER CO.		
COMPLETED.....	04/30/68		03/22/31			08/--/64		
SAMPLED.....	MISS-MICHIGAN STRAY		03/22/31			11/13/64		
FORMATION.....	305		305			MISS-MICHIGAN STRAY		
GEOLOGIC PROVINCE CODE.....	1399		2610			305		
DEPTH, FEET.....	140		1200			1385		
WELLHEAD PRESSURE, PSIG.....	590		100			535		
OPEN FLOW, MCFD.....						1495		
COMPONENT, MOLE PCT								
METHANE.....	79.3		83.6			82.4		
ETHANE.....	9.3		1.3			8.6		
PROPANE.....	0.6		---			2.2		
N-BUTANE.....	0.2		---			0.4		
ISOBUTANE.....	0.2		---			0.2		
N-PENTANE.....	0.1		---			TRACE		
ISOPENTANE.....	0.1		---			0.1		
CYCLOPENTANE.....	TRACE		---			TRACE		
HEXANES PLUS.....	0.1		---			TRACE		
NITROGEN.....	5.9		11.7			5.5		
OXYGEN.....	0.2		0.3			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	TRACE		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.0		3.1			0.3		
HELIUM.....	0.23		0.05			0.25		
HEATING VALUE*.....	1108		870			1070		
SPECIFIC GRAVITY.....	0.680		0.641			0.654		

INDEX 3499 SAMPLE 9674			INDEX 3500 SAMPLE 3074			INDEX 3501 SAMPLE 3084		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	MISSAUKEE		MISSAUKEE			MISSAUKEE		
FIELD.....	REEDER		RIVERSIDE			RIVERSIDE		
WELL NAME.....	DESWAN-DYKSTRA-STATE NO. 1		SCHURMAN NO. 38			GEESCHMAN NO. 25		
LOCATION.....	SEC. 15, T21N, R7W		SEC. 15, T21N, R7W			SEC. 20, T21N, R7W		
OWNER.....	CONSUMERS POWER CO.		TAGGART BROTHERS CO.			TAGGART BROTHERS CO.		
COMPLETED.....	11/09/64		09/03/40			09/05/41		
SAMPLED.....	12/22/64		01/28/42			01/28/42		
FORMATION.....	MISS-MICHIGAN STRAY		MISS-MICHIGAN STRAY			MISS-MICHIGAN STRAY		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	1388		1423			1431		
WELLHEAD PRESSURE, PSIG.....	561		538			531		
OPEN FLOW, MCFD.....	1230		8500			2350		
COMPONENT, MOLE PCT								
METHANE.....	82.7		72.4			80.0		
ETHANE.....	8.5		16.4			14.7		
PROPANE.....	1.9		---			---		
N-BUTANE.....	0.3		---			---		
ISOBUTANE.....	0.3		---			---		
N-PENTANE.....	0.0		---			---		
ISOPENTANE.....	0.1		---			---		
CYCLOPENTANE.....	0.0		---			---		
HEXANES PLUS.....	0.0		---			---		
NITROGEN.....	5.7		9.3			4.4		
OXYGEN.....	TRACE		1.5			0.4		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.3		0.2			0.3		
HELIUM.....	0.24		0.23			0.22		
HEATING VALUE*.....	1064		1027			1074		
SPECIFIC GRAVITY.....	0.652		0.683			0.650		

INDEX 3502 SAMPLE 3085			INDEX 3503 SAMPLE 3135			INDEX 3504 SAMPLE 3136		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	MISSAUKEE		MONTCALM			MONTCALM		
FIELD.....	WILDCAT		SIX LAKES			SIX LAKES		
WELL NAME.....	MILLER NO. 1		F. L. PETERSON NO. 1			SUMNER-NEW HAVEN-CRYSTAL		
LOCATION.....	SEC. 24, T24N, R7W		SEC. 12, T12N, R7W			WONDERICH NO. 1		
OWNER.....	HENRY MILTNER		FLETCHER & LEMAN, TR.			SEC. 11, T10N, R5E		
COMPLETED.....	05/26/31		01/09/36			ROWNER CORP.		
SAMPLED.....	01/28/42		02/16/42			05/04/36		
FORMATION.....	MISS-MICHIGAN STRAY		MISS-MICHIGAN STRAY			MISS-MICHIGAN STRAY		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	2630		1245			963		
WELLHEAD PRESSURE, PSIG.....	60		11625			283		
OPEN FLOW, MCFD.....						13800		
COMPONENT, MOLE PCT								
METHANE.....	80.0		77.2			73.9		
ETHANE.....	14.1		14.2			12.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	3.1		6.0			12.5		
OXYGEN.....	0.6		0.2			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	2.2		0.0			0.0		
HELIUM.....	0.00		0.38			0.64		
HEATING VALUE*.....	1063		1072			980		
SPECIFIC GRAVITY.....	0.662		0.659			0.668		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	3505 3172		INDEX SAMPLE	3506 6596		INDEX SAMPLE	3507 3072
STATE.....	MICHIGAN			MICHIGAN			MICHIGAN	
COUNTY.....	MONTICALLY			MONTICALLY			MONTICALLY	
FIELD.....	WILDCAT			WILDCAT			WILDCAT	
WELL NAME.....	PACKARD & WARD COM. NO. 1			MADDOES NO. 1			WEIKERT-SCHNICK NO. 13	
LOCATION.....	SEC. 27, T11N, R8W			SEC. 16, T11N, R9W			SEC. 7, T12N, R9W	
OWNER.....	H. L. GENTRY			MCCLURE OIL CO.			TAGGART BROTHERS CO.	
COMPLETED.....	09/17/40			05/06/58			06/07/39	
SAMPLED.....	02/03/42			05/09/58			01/27/42	
FORMATION.....	MISS-MICHIGAN STRAY			MISS-MICHIGAN STRAY			MISS-MICHIGAN STRAY	
GEOLOGIC PROVINCE CODE.....	305			305			305	
DEPTH, FEET.....	1134			1132			1122	
WELLHEAD PRESSURE, PSIG.....	480			400			390	
OPEN FLOW, MCFD.....	225			660			10400	
COMPONENT, MOLE PCT.....								
METHANE.....	76.2			76.7			74.4	
ETHANE.....	10.0			6.3			13.2	
PROPANE.....	---			2.0			---	
N-BUTANE.....	---			0.4			---	
ISOBUTANE.....	---			0.1			---	
N-PENTANE.....	---			TRACE			---	
ISOPENTANE.....	---			0.1			---	
CYCLOPENTANE.....	---			TRACE			---	
HEXANES PLUS.....	---			0.1			---	
NITROGEN.....	12.1			13.2			11.4	
OXYGEN.....	0.5			0.0			0.2	
ARGON.....	---			TRACE			---	
HYDROGEN.....	---			0.0			---	
HYDROGEN SULFIDE.....	---			0.0			---	
CARBON DIOXIDE.....	0.3			---			0.0	
HELIUM.....	0.94			1.00			0.75	
HEATING VALUE.....	951			968			990	
SPECIFIC GRAVITY.....	0.656			0.667			0.664	
	INDEX	3508		INDEX	3509		INDEX	3510
	SAMPLE	3080		SAMPLE	4589		SAMPLE	4849
STATE.....	MICHIGAN			MICHIGAN			MICHIGAN	
COUNTY.....	MUSKEGON			MUSKEGON			MUSKEGON	
FIELD.....	WINFIELD			CASSNOVA			NOT GIVEN	
WELL NAME.....	CARR-JACK-ROWE NO. 8			DEWEY TODD NO. 1			BERGHUIS-GILES ET AL.	
LOCATION.....	SEC. 6, T12N, R9W			SEC. 26, T10N, R13W			SEC. 7, T10N, R15W	
OWNER.....	TAGGART BROTHERS CO.			REX OIL & GAS CO.			P. K. DEBENTHER	
COMPLETED.....	12/05/38			---			12/09/49	
SAMPLED.....	01/27/42			10/13/48			02/16/50	
FORMATION.....	MISS-MICHIGAN STRAY			NOT GIVEN			MISS-BEREA	
GEOLOGIC PROVINCE CODE.....	305			305			305	
DEPTH, FEET.....	1141			1530			1047	
WELLHEAD PRESSURE, PSIG.....	390			720			540	
OPEN FLOW, MCFD.....	1075			NOT GIVEN			NOT GIVEN	
COMPONENT, MOLE PCT.....								
METHANE.....	72.9			74.5			69.3	
ETHANE.....	13.8			8.6			3.2	
PROPANE.....	---			---			0.6	
N-BUTANE.....	---			---			0.6	
ISOBUTANE.....	---			---			TRACE	
N-PENTANE.....	---			---			0.1	
ISOPENTANE.....	---			---			0.2	
CYCLOPENTANE.....	---			---			TRACE	
HEXANES PLUS.....	---			---			0.0	
NITROGEN.....	11.9			15.9			21.3	
OXYGEN.....	0.4			0.2			0.1	
ARGON.....	---			---			TRACE	
HYDROGEN.....	---			---			---	
HYDROGEN SULFIDE.....	---			---			---	
CARBON DIOXIDE.....	0.2			0.1			0.3	
HELIUM.....	0.75			0.72			0.81	
HEATING VALUE.....	986			909			881	
SPECIFIC GRAVITY.....	0.673			0.662			0.703	
	INDEX	3511		INDEX	3512		INDEX	3513
	SAMPLE	2754		SAMPLE	3968		SAMPLE	3915
STATE.....	MICHIGAN			MICHIGAN			MICHIGAN	
COUNTY.....	MUSKEGON			NEWAYGO			NEWAYGO	
FIELD.....	RAVENNA			BIG PRAIRIE			WILDCAT	
WELL NAME.....	JACKSON WELL 108			CONSUMERS POWER CO. NO. 1			W. J. JAMES NO. 1	
LOCATION.....	SEC. 8, T9N, R14W			SEC. 16, T13N, R11W			SEC. 3, T15N, R12W	
OWNER.....	WEST MICHIGAN CONSUMERS CO.			TAGGART BROTHERS CO.			REX OIL & GAS CO.	
COMPLETED.....	01/08/37			08/07/44			05/24/44	
SAMPLED.....	05/30/37			03/01/45			05/06/44	
FORMATION.....	MISS-BEREA			MISS-MICHIGAN STRAY			DEVO-TRAVERSE	
GEOLOGIC PROVINCE CODE.....	305			305			305	
DEPTH, FEET.....	1191			1031			2671	
WELLHEAD PRESSURE, PSIG.....	550			410			NOT GIVEN	
OPEN FLOW, MCFD.....	260			4			NOT GIVEN	
COMPONENT, MOLE PCT.....								
METHANE.....	63.4			85.5			0.0	
ETHANE.....	13.2			1.6			29.4	
PROPANE.....	---			---			42.5	
N-BUTANE.....	---			---			---	
ISOBUTANE.....	---			---			---	
N-PENTANE.....	---			---			---	
ISOPENTANE.....	---			---			---	
CYCLOPENTANE.....	---			---			---	
HEXANES PLUS.....	---			---			---	
NITROGEN.....	22.1			11.3			25.6	
OXYGEN.....	0.6			0.1			0.0	
ARGON.....	---			---			---	
HYDROGEN.....	---			---			---	
HYDROGEN SULFIDE.....	---			---			---	
CARBON DIOXIDE.....	0.0			0.4			2.5	
HELIUM.....	0.65			1.11			TRACE	
HEATING VALUE.....	875			0.609			1627	
SPECIFIC GRAVITY.....	0.711						1.255	
	INDEX	3514		INDEX	3515		INDEX	3516
	SAMPLE	3795		SAMPLE	11482		SAMPLE	17325
STATE.....	MICHIGAN			MICHIGAN			MICHIGAN	
COUNTY.....	NEWAYGO			OGEMAW			OSCEOLA	
FIELD.....	WOODYVILLE			LOGAN CHURCHILL			HERSEY-EWART	
WELL NAME.....	GAS UNIT NO. 1			STANLBUSH			BALDINO NO. 1-36	
LOCATION.....	SEC. 29, T15N, R11W			SEC. ---, T22N, R14E			SEC. 36, T17N, R9W	
OWNER.....	OHIO OIL CO.			MINNESOTA MINING & MFG.			PPG OIL & GAS CO.	
COMPLETED.....	06/23/43			05/16/61			11/16/83	
SAMPLED.....	04/13/44			05/08/68			05/31/84	
FORMATION.....	DEVO-TRAVERSE			MISS-BEREA			SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	305			305			305	
DEPTH, FEET.....	1138			1510			8075	
WELLHEAD PRESSURE, PSIG.....	415			520			3622	
OPEN FLOW, MCFD.....	2500			590			2942	
COMPONENT, MOLE PCT.....								
METHANE.....	73.2			76.5			96.3	
ETHANE.....	13.7			5.1			2.6	
PROPANE.....	---			2.2			0.2	
N-BUTANE.....	---			0.0			0.1	
ISOBUTANE.....	---			0.0			0.0	
N-PENTANE.....	---			0.0			TRACE	
ISOPENTANE.....	---			0.0			0.0	
CYCLOPENTANE.....	---			0.0			TRACE	
HEXANES PLUS.....	---			0.0			TRACE	
NITROGEN.....	11.9			15.1			0.6	
OXYGEN.....	0.5			0.0			TRACE	
ARGON.....	---			0.1			TRACE	
HYDROGEN.....	---			0.1			0.0	
HYDROGEN SULFIDE.....	---			0.0			0.0	
CARBON DIOXIDE.....	0.0			0.31			0.1	
HELIUM.....	0.63			0.31			0.03	
HEATING VALUE.....	947			947			1031	
SPECIFIC GRAVITY.....	0.671			0.674			0.574	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3517 3082			INDEX SAMPLE	3519 3081			INDEX SAMPLE	3519 3162
STATE	MICHIGAN			MICHIGAN				MICHIGAN			
COUNTY	OSCEOLA			OSCEOLA				OSCEOLA			
FIELD	OSCEOLA TOWNSHIP			REED CITY				WILDCAT			
WELL NAME	COOKE NO. 2			GRILL-KINGSBURY NO. 31				PRITCHARD NO. 1			
LOCATION	SEC. 27, T18N, R8W			SEC. 16, T18N, R10W				SEC. 7, T18N, R7W			
OWNER	TAGART BROTHERS CO.			TAGART BROTHERS CO.				TURNER PETROLEUM CORP.			
COMPLETED	12/17/41			12/24/41				06/27/41			
SAMPLED	01/28/42			01/28/42				02/04/42			
FORMATION	MISS-MICHIGAN STRAY			MISS-MICHIGAN STRAY				MISS-MICHIGAN STRAY			
GEOLOGIC PROVINCE CODE	305			305				305			
DEPTH, FEET	1391			1202				1538			
WELLHEAD PRESSURE, PSIG	572			415				NOT GIVEN			
OPEN FLOW, MCFD	3100			5050				3900			
COMPONENT, MOLE PCT											
METHANE	75.6			73.8				69.4			
ETHANE	18.1			14.9				15.3			
PROPANE	---			---				---			
N-BUTANE	---			---				---			
ISOBUTANE	---			---				---			
N-PENTANE	---			---				---			
ISOPENTANE	---			---				---			
CYCLOPENTANE	---			---				---			
HEXANES PLUS	---			---				---			
NITROGEN	5.2			9.5				13.3			
OXYGEN	0.6			1.2				1.2			
ARGON	---			---				---			
HYDROGEN	---			---				---			
HYDROGEN SULFIDE	---			---				---			
CARBON DIOXIDE	0.2			0.2				0.3			
HELIUM	0.32			0.38				0.34			
HEATING VALUE	1090			1015				977			
SPECIFIC GRAVITY	0.669			0.674				0.695			
		INDEX SAMPLE	3520 14171			INDEX SAMPLE	3521 13082			INDEX SAMPLE	3522 15084
STATE	MICHIGAN			MICHIGAN				MICHIGAN			
COUNTY	OTSEGO			OTSEGO				OTSEGO			
FIELD	CHARLTON			CHESTER				CHESTER TOWNSHIP			
WELL NAME	CHARLTON NO. 1-31			CHESTER N NO. 1				CHESTER NO. N-1			
LOCATION	SEC. 31, T30N, R1W			SEC. 15, T29N, R2W				SEC. 15, T29N, R2W			
OWNER	SHELL OIL CO.			SHELL OIL CO.				MURELL L. WELCH			
COMPLETED	01/05/73			05/18/77				---			
SAMPLED	09/17/74			10/13/77				08/29/77			
FORMATION	SILU-NIAGARAN			SILU-SALINA & NIAGARAN				SILU-NIAGARAN			
GEOLOGIC PROVINCE CODE	305			305				305			
DEPTH, FEET	5822			6352				6500			
WELLHEAD PRESSURE, PSIG	2250			2250				2800			
OPEN FLOW, MCFD	52000			NOT GIVEN				50			
COMPONENT, MOLE PCT											
METHANE	78.6			82.2				83.7			
ETHANE	8.7			7.2				8.3			
PROPANE	5.1			3.5				3.5			
N-BUTANE	2.0			0.7				1.0			
ISOBUTANE	2.4			1.3				1.2			
N-PENTANE	0.5			0.2				0.3			
ISOPENTANE	1.2			0.2				0.4			
CYCLOPENTANE	TRACE			TRACE				TRACE			
HEXANES PLUS	0.5			0.2				0.2			
NITROGEN	0.9			3.6				1.1			
OXYGEN	0.0			0.7				0.1			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE	0.0			0.0				0.0			
CARBON DIOXIDE	TRACE			0.1				0.3			
HELIUM	0.02			0.02				0.01			
HEATING VALUE	1331			1150				1202			
SPECIFIC GRAVITY	0.764			0.689				0.691			
		INDEX SAMPLE	3523 15085			INDEX SAMPLE	3524 11226			INDEX SAMPLE	3525 3125
STATE	MICHIGAN			MICHIGAN				MICHIGAN			
COUNTY	OTSEGO			OTSEGO				OTSEGO			
FIELD	CHESTER TOWNSHIP			STATE CHESTER				COPPERSVILLE			
WELL NAME	STATE CHESTER NO. 1			CHESTER NO. 7				HARBELTON NO. 1			
LOCATION	SEC. 15, T29N, R2W			SEC. 10, T29N, R2W				SEC. 19, T8N, R13W			
OWNER	MURELL L. WELCH			MURELL L. WELCH				WEST MICHIGAN CONSUMERS CO.			
COMPLETED	11/05/66			11/05/66				12/24/39			
SAMPLED	08/29/77			12/15/67				02/17/42			
FORMATION	DEVON-ANTRIM			DEVON-ANTRIM				MISS-BEREA			
GEOLOGIC PROVINCE CODE	305			305				305			
DEPTH, FEET	1500			1500				1190			
WELLHEAD PRESSURE, PSIG	400			456				625			
OPEN FLOW, MCFD	200			2250				3440			
COMPONENT, MOLE PCT											
METHANE	91.9			93.3				62.5			
ETHANE	0.6			0.1				14.0			
PROPANE	0.3			0.1				---			
N-BUTANE	0.0			0.0				---			
ISOBUTANE	0.0			0.0				---			
N-PENTANE	0.0			0.0				---			
ISOPENTANE	0.0			0.0				---			
CYCLOPENTANE	0.0			0.0				---			
HEXANES PLUS	0.0			0.0				---			
NITROGEN	0.3			0.3				22.3			
OXYGEN	0.0			0.0				0.4			
ARGON	TRACE			0.1				---			
HYDROGEN	0.0			0.1				---			
HYDROGEN SULFIDE	0.0			0.0				---			
CARBON DIOXIDE	6.9			0.0				0.1			
HELIUM	TRACE			0.01				0.66			
HEATING VALUE	949			950				884			
SPECIFIC GRAVITY	0.629			0.618				0.716			
		INDEX SAMPLE	3526 4379			INDEX SAMPLE	3527 2820			INDEX SAMPLE	3528 11496
STATE	MICHIGAN			MICHIGAN				MICHIGAN			
COUNTY	OTTAWA			SAGINAW				ST. CLAIR			
FIELD	ZEBELAND			NOT GIVEN				ALPINE			
WELL NAME	GEORGE TIMMER NO. 1			WATER WELL				RAUSCH NO. 1			
LOCATION	SEC. 10, T5N, R14W			NOT GIVEN				SEC. 32, T6N, R16E			
OWNER	TRIC-COUNTY DEVELOPMENT CO.			EDSON CO. SC06IN				SULLIVAN & LEROUX			
COMPLETED	02/-/47			---				11/20/63			
SAMPLED	11/22/47			08/14/39				05/10/68			
FORMATION	MISS-			NOT GIVEN				SILU-NIAGARAN			
GEOLOGIC PROVINCE CODE	305			305				305			
DEPTH, FEET	976			67				3353			
WELLHEAD PRESSURE, PSIG	425			NOT GIVEN				1340			
OPEN FLOW, MCFD	1			NOT GIVEN				1			
COMPONENT, MOLE PCT											
METHANE	61.7			0.0				84.6			
ETHANE	4.0			0.0				5.1			
PROPANE	---			---				2.5			
N-BUTANE	---			---				0.7			
ISOBUTANE	---			---				1.4			
N-PENTANE	---			---				0.1			
ISOPENTANE	---			---				0.3			
CYCLOPENTANE	---			---				TRACE			
HEXANES PLUS	---			---				0.2			
NITROGEN	33.1			99.2				4.5			
OXYGEN	0.2			0.2				0.3			
ARGON	---			---				TRACE			
HYDROGEN	---			---				0.1			
HYDROGEN SULFIDE	---			---				0.0			
CARBON DIOXIDE	0.1			0.6				0.3			
HELIUM	0.86			0.02				0.11			
HEATING VALUE	697			0				1102			
SPECIFIC GRAVITY	0.709			0.971				0.669			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3529 SAMPLE 9912			INDEX 3530 SAMPLE 10415			INDEX 3531 SAMPLE 10196		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ST. CLAIR		ST. CLAIR			ST. CLAIR		
FIELD.....	BELLE RIVER MILLS		BIG HAND			CAPAC		
WELL NAME.....	G. ROOD NO. 1		FRANK CHASE NO. 1			WM. KERSTEN UNIT NO. 1		
LOCATION.....	SEC. 18, T4N, R16E		SEC. 23, T5N, R15E			SEC. 5, T7N, R13E		
OWNER.....	MICHIGAN CONSOLIDATED GAS CO		SUN OIL CO.			SUNRAY OX OIL CO.		
COMPLETED.....	11/11/61		01/24/66			08/30/65		
SAMPLED.....	06/03/65		02/23/66			10/04/65		
FORMATION.....	SILU-NIAGARAN		SILU-NIAGARAN			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	2176		3122			4592		
WELLHEAD PRESSURE, PSIG.....	1710		1170			1280		
OPEN FLOW, MCFD.....	164000		5000			1225		
COMPONENT, MOLE PCT								
METHANE.....	87.2		87.4			80.8		
ETHANE.....	4.8		4.3			5.1		
PROPANE.....	2.2		1.8			1.9		
N-BUTANE.....	0.7		0.8			0.7		
ISOBUTANE.....	0.0		0.0			1.0		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.3			0.4		
NITROGEN.....	3.2		3.6			9.1		
OXYGEN.....	0.0		0.0			0.2		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.10		0.11			0.09		
HEATING VALUE.....	1106		1110			1058		
SPECIFIC GRAVITY.....	0.650		0.655			0.684		
INDEX 3532 SAMPLE 11843			INDEX 3533 SAMPLE 9675			INDEX 3534 SAMPLE 12143		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ST. CLAIR		ST. CLAIR			ST. CLAIR		
FIELD.....	CAPAC		COLUMBUS			COLUMBUS		
WELL NAME.....	BEEBE NO. 1		DUPONT NO. 1			F. WINN B NO. 1		
LOCATION.....	SEC. 16, T7N, R13E		SEC. 22, T5N, R15E			SEC. 10, T5N, R15E		
OWNER.....	LAMPHAR OIL & GAS CORP.		MICHIGAN CONSOLIDATED GAS CO			SUN OIL CO.		
COMPLETED.....	04/28/69		08/25/64			09/11/69		
SAMPLED.....	03/28/69		12/18/64			12/13/69		
FORMATION.....	SILU-NIAGARAN		SILU-NIAGARAN			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	4600		2738			3202		
WELLHEAD PRESSURE, PSIG.....	800		1220			1201		
OPEN FLOW, MCFD.....	900		62			3000		
COMPONENT, MOLE PCT								
METHANE.....	85.6		87.5			78.9		
ETHANE.....	5.3		5.3			4.8		
PROPANE.....	2.1		1.8			2.5		
N-BUTANE.....	0.8		0.7			0.6		
ISOBUTANE.....	0.8		0.9			0.9		
N-PENTANE.....	0.4		0.2			0.3		
ISOPENTANE.....	0.1		0.3			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.3			0.1		
NITROGEN.....	4.2		3.5			10.8		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.4			0.9		
HELIUM.....	0.10		0.11			0.18		
HEATING VALUE.....	1106		1101			1023		
SPECIFIC GRAVITY.....	0.659		0.653			0.695		
INDEX 3535 SAMPLE 11360			INDEX 3536 SAMPLE 11671			INDEX 3537 SAMPLE 11434		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ST. CLAIR		ST. CLAIR			ST. CLAIR		
FIELD.....	BERNEY UNIT NO. 1		COLUMBUS			COTTRELLVILLE		
WELL NAME.....	SEC. 18, T5N, R15E		ED & MARIE SZYSKA NO. 1			ORVILLE JONES NO. 1		
LOCATION.....	SUN OIL CO.		COLUMBUS TWP.			SEC. 7, T3N, R16E		
OWNER.....	SUN OIL CO.		NORTH AMERICAN DRILLING CO.			GLENN A. MILLS		
COMPLETED.....	11/13/67		10/25/67			07/24/62		
SAMPLED.....	03/07/68		10/02/68			04/04/68		
FORMATION.....	SILU-NIAGARAN		SILU-NIAGARAN			SILU-NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	2995		3233			2355		
WELLHEAD PRESSURE, PSIG.....	1295		1196			800		
OPEN FLOW, MCFD.....	100000		4380			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.4		83.9			87.1		
ETHANE.....	4.4		4.5			4.4		
PROPANE.....	2.3		2.3			2.0		
N-BUTANE.....	0.9		0.8			0.6		
ISOBUTANE.....	0.9		1.2			0.8		
N-PENTANE.....	0.4		0.3			0.1		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.3			0.1		
NITROGEN.....	4.2		4.8			4.5		
OXYGEN.....	0.1		0.3			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		1.2			0.1		
HELIUM.....	0.11		0.10			0.16		
HEATING VALUE.....	1106		1091			1074		
SPECIFIC GRAVITY.....	0.660		0.677			0.643		
INDEX 3538 SAMPLE 11435			INDEX 3539 SAMPLE 11500			INDEX 3540 SAMPLE 11499		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ST. CLAIR		ST. CLAIR			ST. CLAIR		
FIELD.....	COTTRELLVILLE		FOUR CORNERS AREA			MARSH CREEK		
WELL NAME.....	SAUER-CLAYTON NO. 1		CHAIN NO. 1			KUSKOWSKI NO. 2		
LOCATION.....	SEC. 7, T3N, R16E		SEC. 36, T4N, R15E			SEC. 30, T4N, R15E		
OWNER.....	GLENN A. MILLS		CONSUMERS POWER CO.			CONSUMERS POWER CO.		
COMPLETED.....	04/04/68		2/10/66			07/12/62		
SAMPLED.....	04/04/68		05/07/68			05/07/68		
FORMATION.....	SILU-NIAGARAN		SILU-SALINA & NIAGARAN			SILU-SALINA & NIAGARAN		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	2478		2436			2689		
WELLHEAD PRESSURE, PSIG.....	800		1000			1000		
OPEN FLOW, MCFD.....	NOT GIVEN		47500			33500		
COMPONENT, MOLE PCT								
METHANE.....	75.1		86.3			87.1		
ETHANE.....	3.9		4.0			4.8		
PROPANE.....	1.8		2.0			2.3		
N-BUTANE.....	0.9		0.5			0.6		
ISOBUTANE.....	0.7		0.8			0.9		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	14.5		4.8			3.6		
OXYGEN.....	2.6		0.1			0.1		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			TRACE		
HELIUM.....	0.12		0.17			0.13		
HEATING VALUE.....	1106		1078			1102		
SPECIFIC GRAVITY.....	0.693		0.651			0.650		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3541			INDEX 3542			INDEX 3543		
SAMPLE 9737			SAMPLE 5306			SAMPLE 11498		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ST. CLAIR		ST. CLAIR			ST. CLAIR		
FIELD.....	PETERS		PORT HURON			PUTTIGUT		
WELL NAME.....	SCHOMBERG-BOUSSON NO. 2		RINGEL NO. 1-31			DOMOGHUE	SROKA NO. 1	
LOCATION.....	SEC. 25, T4N, R15E		SEC. 31, T4N, R15E			SEC. 11, T4N, R15E		
OWNER.....	SUN OIL CO.		PANHANDLE EASTERN PIPELINE C			CONSUMERS POWER CO.		
COMPLETED.....	02/16/64		06/16/52			10/31/61		
SAMPLED.....	02/10/65		09/27/52			05/07/68		
FORMATION.....	SILU-SALINA		NOT GIVEN			SILU-SALINA A-1		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	2474		2468			2782		
WELLHEAD PRESSURE, PSIG.....	450		1151			300		
OPEN FLOW, MCFD.....	2119		NOT GIVEN			6300		
COMPONENT, MOLE PCT								
METHANE.....	83.5		81.9			86.7		
ETHANE.....	4.7		5.7			5.2		
PROPANE.....	2.2		2.2			2.6		
N-BUTANE.....	1.1		0.5			0.9		
ISOBUTANE.....	1.2		0.7			1.3		
N-PENTANE.....	0.7		0.3			0.3		
ISOPENTANE.....	0.6		0.1			0.1		
CYCLOPENTANE.....	0.2		TRACE			TRACE		
HEXANES PLUS.....	1.7		0.1			0.1		
NITROGEN.....	3.9		8.0			2.5		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.9		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.18		0.14			0.09		
HEATING VALUE.....	1215		1051			1135		
SPECIFIC GRAVITY.....	0.721		0.667			0.660		
INDEX 3544			INDEX 3545			INDEX 3546		
SAMPLE 11984			SAMPLE 5420			SAMPLE 11395		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	ST. CLAIR		ST. CLAIR			WASHTENAW		
FIELD.....	SWAN CREEK		WILDCAT			LYNDON		
WELL NAME.....	WESSMAN-DRAVES NO. 3		ADAMSKI NO. 2			SCHOONOVER NO. 1		
LOCATION.....	SEC. 36, T4N, R15E		SEC. 1, T3N, R15E			SEC. 6, T1S, R3E		
OWNER.....	CONSUMERS POWER CO.		PANHANDLE EASTERN PIPELINE C			WM. R. ALBERS		
COMPLETED.....	08/26/67		01/19/53			05/08/59		
SAMPLED.....	07/22/69		03/20/53			03/18/68		
FORMATION.....	SILU-NIAGARAN		SILU-SALINA			DEVO-DETROIT RIVER		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	2368		2276			1730		
WELLHEAD PRESSURE, PSIG.....	1110		878			695		
OPEN FLOW, MCFD.....	25000		8900			1500		
COMPONENT, MOLE PCT								
METHANE.....	85.8		86.1			79.0		
ETHANE.....	4.8		4.5			12.5		
PROPANE.....	2.2		2.1			3.9		
N-BUTANE.....	0.6		0.7			0.8		
ISOBUTANE.....	0.8		0.7			0.2		
N-PENTANE.....	0.3		0.1			0.2		
ISOPENTANE.....	0.0		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	5.0		4.7			2.3		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.5			0.4		
HELIUM.....	0.16		0.15			0.14		
HEATING VALUE.....	1083		1078			1185		
SPECIFIC GRAVITY.....	0.651		0.653			0.696		
INDEX 3547			INDEX 3548			INDEX 3549		
SAMPLE 11396			SAMPLE 3173			SAMPLE 9743		
STATE.....	MICHIGAN		MICHIGAN			MICHIGAN		
COUNTY.....	WASHTENAW		WASHTENAW			WAYNE		
FIELD.....	LYNDON		WILDCAT			NORTHVILLE		
WELL NAME.....	MAY NO. 1		REHRL NO. 1			N-206		
LOCATION.....	SEC. 6, T1S, R3E		SEC. 12, T1S, R7E			SEC. 16, T1S, R8E		
OWNER.....	WM. R. ALBERS		LEE BROWN			CONSUMERS POWER CO.		
COMPLETED.....	08/04/64		03/25/57			12/01/64		
SAMPLED.....	03/18/68		02/06/42			02/11/65		
FORMATION.....	DEVO-TRAVERSE		SILU-SALINA BASAL			ORDO-TRENTON		
GEOLOGIC PROVINCE CODE.....	305		305			305		
DEPTH, FEET.....	1321		2900			3988		
WELLHEAD PRESSURE, PSIG.....	545		1000			1100		
OPEN FLOW, MCFD.....	650		300			3000		
COMPONENT, MOLE PCT								
METHANE.....	81.4		63.2			70.4		
ETHANE.....	6.3		21.6			8.5		
PROPANE.....	2.7		---			0.5		
N-BUTANE.....	0.6		---			0.7		
ISOBUTANE.....	0.0		---			0.2		
N-PENTANE.....	0.0		---			0.2		
ISOPENTANE.....	0.2		---			0.2		
CYCLOPENTANE.....	0.1		---			TRACE		
HEXANES PLUS.....	0.3		---			0.2		
NITROGEN.....	9.3		14.6			15.6		
OXYGEN.....	0.0		0.2			TRACE		
ARGON.....	TRACE		---			0.1		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		0.1			0.0		
CARBON DIOXIDE.....	0.1		0.25			1.2		
HELIUM.....	0.16		0.02			0.21		
HEATING VALUE.....	1019		1027			988		
SPECIFIC GRAVITY.....	0.658		0.722			0.724		
INDEX 3550			INDEX 3551			INDEX 3552		
SAMPLE 9744			SAMPLE 15748			SAMPLE 2794		
STATE.....	MICHIGAN		MICHIGAN			MINNESOTA		
COUNTY.....	WAYNE		WEXFORD			COTTONWOOD		
FIELD.....	NORTHVILLE		WEXFORD			NOT GIVEN		
WELL NAME.....	WILDCAT		WILDCAT NO. 2			WATER WELL		
LOCATION.....	SEC. 16, T1S, R8E		SEC. 4, T24N, R12W			SEC. 34, T105, R35		
OWNER.....	CONSUMERS POWER CO.		SHELL OIL CO.			JAMES S. THOMPSON		
COMPLETED.....	02/11/65		01/20/78			08/02/38		
SAMPLED.....	02/11/65		09/07/79			08/02/38		
FORMATION.....	ORDO-TRENTON		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	305		305			320		
DEPTH, FEET.....	3977		6095			85		
WELLHEAD PRESSURE, PSIG.....	1275		NOT GIVEN			260		
OPEN FLOW, MCFD.....	3000		NOT GIVEN			3000		
COMPONENT, MOLE PCT								
METHANE.....	66.9		83.5			0.0		
ETHANE.....	7.7		8.1			0.0		
PROPANE.....	3.7		3.7			---		
N-BUTANE.....	0.6		0.8			---		
ISOBUTANE.....	TRACE		1.2			---		
N-PENTANE.....	0.2		0.2			---		
ISOPENTANE.....	0.2		0.3			---		
CYCLOPENTANE.....	TRACE		TRACE			---		
HEXANES PLUS.....	0.2		0.2			---		
NITROGEN.....	15.2		0.2			89.4		
OXYGEN.....	TRACE		TRACE			1.9		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	6.9		TRACE			2.9		
HELIUM.....	0.20		0.03			0.00		
HEATING VALUE.....	1155		1155			1155		
SPECIFIC GRAVITY.....	0.769		0.684			0.930		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3553			INDEX 3554			INDEX 3555		
SAMPLE 2850			SAMPLE 4145			SAMPLE 5269		
STATE.....	MINNESOTA		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	FLOYD		ADAMS			ADAMS		
FIELD.....	NOT GIVEN		CRANFIELD			STANTON		
WELL NAME.....	SOUTH WILLOW LAKE FARM		ELLA G. LEES NO. 9			LETTE PROBY NO. 1		
LOCATION.....	SEC. 3, T104N, R35W		SEC. 45, T7N, R1W			SEC. 41, T8N, R1W		
OWNER.....	JAMES THOMPSON		CALIFORNIA CO.			AUSTIN STEWART		
COMPLETED.....	--/--/00		06/24/46			02/23/52		
SAMPLED.....	08/12/40		10/03/46			06/26/52		
FORMATION.....	NOT GIVEN		CRET-PALUXY			EPOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	350		210			210		
DEPTH, FEET.....	60		11768			3980		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		4400			1724		
OPEN FLOW, MCFD.....	NOT GIVEN		5750			20000		
COMPONENT, MOLE PCT.....								
METHANE.....	0.0		87.4			98.0		
ETHANE.....	0.0		1.5			0.4		
PROPANE.....	---		---			0.0		
N-BUTANE.....	---		---			0.0		
ISOBUTANE.....	---		---			0.1		
N-PENTANE.....	---		---			0.0		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	98.5		4.0			1.3		
OXYGEN.....	0.2		0.1			TRACE		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.4		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.3		6.9			0.2		
HELIUM.....	0.00		0.17			0.02		
HEATING VALUE.....	0		912			1003		
SPECIFIC GRAVITY.....	0.975		0.646			0.565		

INDEX 3556			INDEX 3557			INDEX 3558		
SAMPLE 16868			SAMPLE 17750			SAMPLE 9242		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	CHICKASAW		CHICKASAW			CHICKASAW		
FIELD.....	BACON		SUGAR RUN			THORN		
WELL NAME.....	ASHBY 22-1 NO. 1		FRANKLIN ELLIS NO. 1			H. J. BLACK UNIT NO. 1		
LOCATION.....	SEC. 22, T12S, R4E		SEC. 15, T12S, R5E			SEC. 22, T2S, R13E		
OWNER.....	MOON-HINES-TIGRETT OPER. CO.		LOUISIANA LAND & EXPL. CO.			PAN-AMERICAN PETROLEUM CORP.		
COMPLETED.....	03/--/82		07/09/85			01/27/64		
SAMPLED.....	04/08/83		07/09/85			02/18/64		
FORMATION.....	MISS-CARTER		MISS-CARTER			MISS-SANDERS		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	NOT GIVEN		2741			3461		
WELLHEAD PRESSURE, PSIG.....	525		700			1330		
OPEN FLOW, MCFD.....	125		350			20000		
COMPONENT, MOLE PCT.....								
METHANE.....	97.3		97.8			97.7		
ETHANE.....	1.0		0.1			1.3		
PROPANE.....	0.1		TRACE			TRACE		
N-BUTANE.....	0.1		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	TRACE		0.0			0.0		
NITROGEN.....	1.0		1.9			0.7		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.2		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.1		
HELIUM.....	0.07		0.11			0.10		
HEATING VALUE.....	1014		1013			1013		
SPECIFIC GRAVITY.....	0.568		0.562			0.564		

INDEX 3559			INDEX 3560			INDEX 3561		
SAMPLE 3969			SAMPLE 12324			SAMPLE 14739		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	CLAIBORNE		CLARKE			CLAY		
FIELD.....	BRUNSBURG		NANCY W			CORRINE		
WELL NAME.....	R. HAMMETT NO. 1-A		R. W. MCCOY 6-10 NO. 1			WILSON NO. 24-1		
LOCATION.....	SEC. 2, T11N, R1W		SEC. 6, T11N, R14E			SEC. 24, T16S, R7E		
OWNER.....	SUN OIL CO.		GETTY OIL CO.			R. L. BURNS CORP.		
COMPLETED.....	11/22/44		02/01/70			12/29/73		
SAMPLED.....	02/14/45		07/16/70			08/23/76		
FORMATION.....	ECCO-MOODYS BRANCH		JURA-SMACKOVER			MISS-CARTER		
GEOLOGIC PROVINCE CODE.....	210		210			200		
DEPTH, FEET.....	930		13800			5191		
WELLHEAD PRESSURE, PSIG.....	406		21			1890		
OPEN FLOW, MCFD.....	14000		760000			2000		
COMPONENT, MOLE PCT.....								
METHANE.....	94.9		61.0			87.1		
ETHANE.....	4.8		16.1			6.8		
PROPANE.....	---		3.7			2.7		
N-BUTANE.....	---		3.2			0.8		
ISOBUTANE.....	---		1.9			0.4		
N-PENTANE.....	---		0.8			0.3		
ISOPENTANE.....	---		0.6			0.3		
CYCLOPENTANE.....	---		0.1			0.1		
HEXANES PLUS.....	---		0.6			0.2		
NITROGEN.....	0.0		---			1.0		
OXYGEN.....	---		TRACE			0.0		
ARGON.....	---		0.0			TRACE		
HYDROGEN.....	---		TRACE			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.3		1.8			0.1		
HELIUM.....	0.04		0.02			0.08		
HEATING VALUE.....	1047		1046			1154		
SPECIFIC GRAVITY.....	0.581		0.890			0.656		

INDEX 3562			INDEX 3563			INDEX 3564		
SAMPLE 15978			SAMPLE 16203			SAMPLE 16845		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	CLAY		COPIAH			COVINGTON		
FIELD.....	WILDCAT		GLANCY			GUM BRANCH		
WELL NAME.....	JAMES C. FOSTER NO. 1		INT. PAPER CO. NO. 2			BOOTH NO. A-1		
LOCATION.....	SEC. 29, T1, R6E		SEC. 6, T9N, R7E			SEC. 28, T8N, R17W		
OWNER.....	SHELL OIL CO.		KILROY CO. OF AMERICA			CALLON PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			03/11/82		
SAMPLED.....	--/--/00		03/01/81			03/25/83		
FORMATION.....	MISS-LEWIS		NOT GIVEN			CRET-SLIGO		
GEOLOGIC PROVINCE CODE.....	200		210			210		
DEPTH, FEET.....	10310		NOT GIVEN			14598		
WELLHEAD PRESSURE, PSIG.....	396		2100			3200		
OPEN FLOW, MCFD.....	2610		NOT GIVEN			600		
COMPONENT, MOLE PCT.....								
METHANE.....	91.5		85.1			83.1		
ETHANE.....	5.5		2.8			1.7		
PROPANE.....	1.3		1.0			1.6		
N-BUTANE.....	0.3		0.3			1.4		
ISOBUTANE.....	0.2		1.3			1.5		
N-PENTANE.....	0.1		0.1			1.8		
ISOPENTANE.....	0.1		0.1			0.5		
CYCLOPENTANE.....	---		---			0.6		
HEXANES PLUS.....	0.1		0.2			2.9		
NITROGEN.....	0.3		3.7			0.9		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.5			3.9		
HELIUM.....	0.03		0.03			0.01		
HEATING VALUE.....	1090		981			1282		
SPECIFIC GRAVITY.....	0.614		0.672			0.790		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3565 SAMPLE 8820			INDEX 3566 SAMPLE 12427			INDEX 3567 SAMPLE 17022		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	MAXIE		MAXIE			HANCOCK		
FIELD.....	MAXIE		STATE LINE S			CATAHOULA CREEK		
WELL NAME.....	MAXIE G.U. NO. 1		LUCAS NO. 1			GORDON BROWN NO. 1		
LOCATION.....	SEC. 13, T1S, R13W		SEC. 14, T1S, R5W			SEC. 29, T6S, R15W		
OWNER.....	MAYFIELD OIL CO.		SHELL OIL CO.			HUNT ENERGY CORP.		
COMPLETED.....	12/31/62		05/24/70			12/01/82		
SAMPLED.....	01/05/63		09/30/70			08/12/83		
FORMATION.....	CRET-EUTAW		JURA-NORPHLET			JURA-COTTON VALLEY U		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	7012		18207			19702		
WELLHEAD PRESSURE, PSIG.....	2600		5770			349		
OPEN FLOW, MCFD.....	7000		3560			1059		
COMPONENT, MOLE PCT								
METHANE.....	94.4		69.4			92.7		
ETHANE.....	0.9		11.6			0.1		
PROPANE.....	0.5		6.4			TRACE		
N-BUTANE.....	0.2		2.2			0.0		
ISOBUTANE.....	0.2		2.9			0.0		
N-PENTANE.....	0.1		0.8			0.0		
ISOPENTANE.....	0.1		0.6			0.0		
CYCLOPENTANE.....	TRACE		0.1			0.0		
HEXANES PLUS.....	0.2		0.8			0.0		
NITROGEN.....	2.7		2.6			2.1		
OXYGEN.....	TRACE		0.1			0.2		
ARGON.....	0.0		TRACE			0.1		
HYDROGEN.....	TRACE		0.1			0.3		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		2.5			4.6		
HELIUM.....	0.03		0.01			0.02		
HEATING VALUE.....	1018		1354			942		
SPECIFIC GRAVITY.....	0.595		0.837			0.609		

INDEX 3568 SAMPLE 10678			INDEX 3569 SAMPLE 15210			INDEX 3570 SAMPLE 2605		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	HANCOCK		HANCOCK			HINDS		
FIELD.....	WAVELAND		WAVELAND			JACKSON		
WELL NAME.....	WAVELAND G.U. NO. 1		CROSBY ESTATE "F" NO. 1			FONDREN NO. 1		
LOCATION.....	SEC. 22, T8S, R15W		SEC. 1, T8S, R15W			SEC. 24, T6N, R1E		
OWNER.....	HUMBLE OIL & REFINING CO.		PHILLIPS PETROLEUM CO.			UNITED GAS PUBLIC SERVICE CO		
COMPLETED.....	07/15/65		01/25/65			01/07/33		
SAMPLED.....	07/15/66		02/--/78			02/15/33		
FORMATION.....	CRET-MOORINGSPOINT		CRET-MOORINGSPOINT			EOCE-NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	13848		13338			2440		
WELLHEAD PRESSURE, PSIG.....	4100		3715			970		
OPEN FLOW, MCFD.....	NOT GIVEN		4100			28000		
COMPONENT, MOLE PCT								
METHANE.....	90.7		92.0			92.7		
ETHANE.....	1.6		0.8			0.0		
PROPANE.....	0.7		0.2			---		
N-BUTANE.....	0.4		0.2			---		
ISOBUTANE.....	0.2		TRACE			---		
N-PENTANE.....	0.1		0.2			---		
ISOPENTANE.....	0.1		0.1			---		
CYCLOPENTANE.....	TRACE		0.1			---		
HEXANES PLUS.....	0.2		0.2			---		
NITROGEN.....	1.2		1.5			6.2		
OXYGEN.....	0.0		0.0			0.3		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	4.8		4.5			0.7		
HELIUM.....	0.03		0.03			0.08		
HEATING VALUE.....	1005		988			339		
SPECIFIC GRAVITY.....	0.640		0.626			0.588		

INDEX 3571 SAMPLE 12241			INDEX 3572 SAMPLE 17576			INDEX 3573 SAMPLE 13179		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	HINDS		HINDS			HUMPHREYS		
FIELD.....	LEARNED		NEWMAN			FOMOSLA		
WELL NAME.....	SHELL-MCNAIR NO. 1		TOMPKINS NO. 1			PAT BARRETT NO. 1		
LOCATION.....	SEC. 33, T1N, R4W		SEC. 33, T1S, R5E			PAT BARRETT LEASE		
OWNER.....	SHELL OIL CO.		INDREX INC.			AMOCO PRODUCTION CO.		
COMPLETED.....	10/21/69		11/--/83			12/19/71		
SAMPLED.....	04/15/70		01/28/85			12/19/71		
FORMATION.....	CRET-SLIGO		JURA-COTTON VALLEY			JURA-SMACKOVER		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	13300		17742			9384		
WELLHEAD PRESSURE, PSIG.....	910		6666			NOT GIVEN		
OPEN FLOW, MCFD.....	5100		4650			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	92.0		83.7			57.8		
ETHANE.....	0.2		1.0			4.2		
PROPANE.....	TRACE		0.2			1.7		
N-BUTANE.....	0.0		0.1			0.7		
ISOBUTANE.....	0.0		0.1			0.6		
N-PENTANE.....	0.0		0.1			0.3		
ISOPENTANE.....	0.0		TRACE			0.3		
CYCLOPENTANE.....	0.0		TRACE			0.1		
HEXANES PLUS.....	0.0		0.1			0.3		
NITROGEN.....	3.7		5.3			3.5		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	4.0		9.4			30.1		
HELIUM.....	0.05		0.04			0.04		
HEATING VALUE.....	936		887			800		
SPECIFIC GRAVITY.....	0.609		0.682			0.944		

INDEX 3574 SAMPLE 17395			INDEX 3575 SAMPLE 16253			INDEX 3576 SAMPLE 12044		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	JASPER		JASPER			JASPER		
FIELD.....	CENTRAL HEIDELBERG		HEIDELBERG W			PAULDING W		
WELL NAME.....	MASONITE NO. 1C36-6		COTTON VALLEY UNIT 5-5-2			MASONITE NO. 1		
LOCATION.....	SEC. 36, T1N, R12E		SEC. 3, T10N, R10W			SEC. 8, T2N, R12E		
OWNER.....	SAV PRODUCTION CO.		SAV OIL EXPL. & PROD. CO.			GETTY OIL CO.		
COMPLETED.....	08/29/84		01/23/81			06/24/69		
SAMPLED.....	08/29/84		05/06/81			09/16/69		
FORMATION.....	CRET-EUTAW		JURA-COTTON VALLEY			JURA-BUCKNER		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	4977		11290			14186		
WELLHEAD PRESSURE, PSIG.....	50		2000			2100		
OPEN FLOW, MCFD.....	500		2895			825		
COMPONENT, MOLE PCT								
METHANE.....	90.3		0.7			70.0		
ETHANE.....	1.0		0.2			13.4		
PROPANE.....	1.7		0.1			7.4		
N-BUTANE.....	1.2		0.1			2.2		
ISOBUTANE.....	1.0		TRACE			2.5		
N-PENTANE.....	0.9		TRACE			0.7		
ISOPENTANE.....	0.3		TRACE			0.4		
CYCLOPENTANE.....	0.3		TRACE			TRACE		
HEXANES PLUS.....	1.0		0.1			0.4		
NITROGEN.....	2.0		85.1			2.6		
OXYGEN.....	TRACE		0.1			0.1		
ARGON.....	0.0		1.0			0.0		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		12.4			0.1		
HELIUM.....	0.03		TRACE			0.02		
HEATING VALUE.....	1165		22			1367		
SPECIFIC GRAVITY.....	0.676		1.040			0.808		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

207

INDEX 3577 SAMPLE 4020			INDEX 3578 SAMPLE 4175			INDEX 3579 SAMPLE 5066		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	JASPER		JEFFERSON			JEFFERSON		
FIELD.....	SOSO		FAYETTE			FAYETTE S		
WELL NAME.....	EDWARDS-BATLEY UNIT NO. 1		M. R. SMITH NO. C-1			R. T. LIDDELL		
LOCATION.....	SEC. 27, T10N, R13W		SEC. 27, T9N, R1W			SEC. 67, T9N, R1E		
OWNER.....	GULF OIL CO.		HUMBLE OIL & REFINING CO.			SINCLAIR OIL & GAS CO.		
COMPLETED.....	02/28/45		11/05/46			02/04/51		
SAMPLED.....	05/10/45		12/21/46			07/13/51		
FORMATION.....	CRET-EUTAW & TUSCALOOSA		CRET-TUSCALOOSA			CRET-TUSCALOOSA		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	6590		3650			10064		
WELLHEAD PRESSURE, PSIG.....	2550		NOT GIVEN			4106		
OPEN FLOW, MCFD.....	62000		NOT GIVEN			42600		
COMPONENT, MOLE PCT								
METHANE.....	52.7		99.8			83.2		
ETHANE.....	46.5		0.0			7.6		
PROPANE.....	---		---			2.7		
N-BUTANE.....	---		---			0.3		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			0.3		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	0.4		---			0.2		
NITROGEN.....	0.4		0.0			2.4		
OXYGEN.....	0.1		0.0			0.4		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			2.1		
HELIUM.....	0.05		0.02			0.12		
HEATING VALUE.....	1367		1011			1106		
SPECIFIC GRAVITY.....	0.788		0.556			0.677		
INDEX 3580 SAMPLE 13075			INDEX 3581 SAMPLE 13076			INDEX 3582 SAMPLE 15548		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	JEFFERSON		JEFFERSON			JEFFERSON		
FIELD.....	WINVILLE		WINVILLE			UNION CHURCH		
WELL NAME.....	WINVILLE GAS UNIT NO. 3		WINVILLE GAS UNIT NO. 3			SARAH G. CUPIT NO. 1		
LOCATION.....	SEC. 21, T9N, R1E		SEC. 21, T9N, R1E			SEC. 2, T8N, R4E		
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.			INEXCO OIL CO.		
COMPLETED.....	02/24/71		02/24/71			05/-/78		
SAMPLED.....	10/06/71		10/06/71			12/27/78		
FORMATION.....	CRET-PALUXY		CRET-PALUXY			CRET-HOSSTON		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	12256		11116			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	2430		3650			6200		
OPEN FLOW, MCFD.....	7200		6600			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	95.8		95.9			91.3		
ETHANE.....	0.3		0.1			0.8		
PROPANE.....	0.1		0.1			0.8		
N-BUTANE.....	0.1		TRACE			0.2		
ISOBUTANE.....	0.1		TRACE			0.2		
N-PENTANE.....	TRACE		0.1			0.1		
ISOPENTANE.....	TRACE		0.0			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.0			0.1		
NITROGEN.....	1.7		1.8			1.0		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.7		0.5			3.6		
HELIUM.....	0.04		0.04			0.02		
HEATING VALUE.....	990		992			1018		
SPECIFIC GRAVITY.....	0.585		0.584			0.626		
INDEX 3583 SAMPLE 4288			INDEX 3584 SAMPLE 14956			INDEX 3585 SAMPLE 15909		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	JEFFERSON		JEFFERSON DAVIS			JEFFERSON DAVIS		
FIELD.....	W. G. GREER NO. 2		WASSFIELD			CARSON		
WELL NAME.....	SEC. 10, T9N, R4E		G. L. DEEN NO. 1			MAGNOLIA NO. 1		
LOCATION.....	CALIFORNIA CO.		SEC. 27, T7N, R17W			SEC. 11, T7N, R18W		
OWNER.....	FOREST OIL CORP.		SUN OIL CO.			FOREST OIL CORP.		
COMPLETED.....	01/05/47		12/15/46			10/-/78		
SAMPLED.....	03/17/47		04/02/77			02/24/80		
FORMATION.....	EOCE		CRET-HOSSTON & BOOTH			CRET-HOSSTON		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	1452		16143			14766		
WELLHEAD PRESSURE, PSIG.....	579		5200			4600		
OPEN FLOW, MCFD.....	986		10500			1600		
COMPONENT, MOLE PCT								
METHANE.....	95.3		93.5			88.5		
ETHANE.....	0.1		0.3			3.7		
PROPANE.....	---		0.1			1.5		
N-BUTANE.....	---		0.1			0.7		
ISOBUTANE.....	---		TRACE			0.5		
N-PENTANE.....	---		0.1			0.3		
ISOPENTANE.....	---		TRACE			0.2		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		0.1			0.3		
NITROGEN.....	4.4		1.5			2.4		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	---		TRACE			0.0		
HYDROGEN.....	---		0.0			TRACE		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.2		4.1			2.9		
HELIUM.....	0.02		0.8			0.02		
HEATING VALUE.....	967		968			1083		
SPECIFIC GRAVITY.....	0.575		0.608			0.659		
INDEX 3586 SAMPLE 15910			INDEX 3587 SAMPLE 7137			INDEX 3588 SAMPLE 15949		
STATE.....	MISSISSIPPI		MISSISSIPPI			MISSISSIPPI		
COUNTY.....	JEFFERSON DAVIS		JEFFERSON DAVIS			JEFFERSON DAVIS		
FIELD.....	CARSON		GRANGE			GREEN'S CREEK		
WELL NAME.....	MAGNOLIA NO. 1		JEFF HOLLOWAY NO. 1			DAL UNIT 8-10 NO. 1		
LOCATION.....	SEC. 11, T7N, R18W		SEC. 24, T8N, R20W			SEC. 8, T5N, R19W		
OWNER.....	FOREST OIL CORP.		PAN AMERICAN PETROLEUM CORP.			HARRIS & CO.		
COMPLETED.....	02/24/80		05/17/79			09/22/79		
SAMPLED.....	02/24/80		07/01/59			04/27/80		
FORMATION.....	-SINCLAIR		CRET-PALUXY			CRET-HOSSTON		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	14605		13248			16272		
WELLHEAD PRESSURE, PSIG.....	3237		5300			5800		
OPEN FLOW, MCFD.....	5300		NOT GIVEN			5500		
COMPONENT, MOLE PCT								
METHANE.....	93.0		95.0			89.0		
ETHANE.....	1.5		0.7			0.3		
PROPANE.....	0.0		0.0			0.1		
N-BUTANE.....	0.2		0.1			0.1		
ISOBUTANE.....	0.1		TRACE			0.1		
N-PENTANE.....	0.2		TRACE			0.0		
ISOPENTANE.....	TRACE		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	1.7		1.6			4.4		
OXYGEN.....	TRACE		0.0			0.9		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.2		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.6		2.1			4.8		
HELIUM.....	0.03		0.01			0.02		
HEATING VALUE.....	1008		1008			935		
SPECIFIC GRAVITY.....	0.611		0.587			0.639		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	3589 16033	INDEX SAMPLE	3590 4190	INDEX SAMPLE	3591 17687
STATE.....	MISSISSIPPI		MISSISSIPPI		MISSISSIPPI	
COUNTY.....	JEFFERSON DAVIS		JEFFERSON DAVIS		JEFFERSON DAVIS	
FIELD.....	GREEN'S CREEK		WINVILLE		HOLIDAY CREEK	
WELL NAME.....	W. H. LANGSTON NO. 1		VINNIE WALKER NO. 1		DUMAS-BURKETT NO. 1	
LOCATION.....	SEC. 4, T5N, R19W		SEC. 34, T9N, R19W		SEC. 13, T6N, R18W	
OWNER.....	WARTON CORP.		GULF OIL CO.		INEXCO OIL CO.	
COMPLETED.....	10/18/79		02/02/46		--/--/00	
SAMPLED.....	08/11/80		11/19/46		05/28/85	
FORMATION.....	CRET-SLIGO		CRET-U		CRET-HOSSTON	
GEOLOGIC PROVINCE CODE.....	210		210		210	
DEPTH, FEET.....	15780		8074		16338	
WELLHEAD PRESSURE, PSIG.....	6000		3280		2800	
OPEN FLOW, MCFD.....	3400		31000		1700	
COMPONENT, MOLE PCT						
METHANE.....	94.0		95.3		92.8	
ETHANE.....	0.3		2.0		0.5	
PROpane.....	0.1		---		0.2	
N-BUTANE.....	0.1		---		0.2	
ISOBUTANE.....	TRACE		---		TRACE	
N-PENTANE.....	0.1		---		0.2	
ISOPENTANE.....	TRACE		---		0.0	
CYCLOPENTANE.....	TRACE		---		0.1	
HEXANES PLUS.....	0.1		---		0.3	
NITROGEN.....	1.2		1.4		1.8	
OXYGEN.....	0.0		0.4		0.0	
ARGON.....	TRACE		---		TRACE	
HYDROGEN.....	0.0		---		0.0	
HYDROGEN SULFIDE**.....	0.0		---		0.0	
CARBON DIOXIDE.....	4.1		0.9		3.8	
HELIUM.....	0.03		0.04		0.03	
HEATING VALUE*.....	969		1001		989	
SPECIFIC GRAVITY.....	0.605		0.581		0.619	
	INDEX	3592	INDEX	3593	INDEX	3594
	SAMPLE	16456	SAMPLE	16660	SAMPLE	17665
STATE.....	MISSISSIPPI		MISSISSIPPI		MISSISSIPPI	
COUNTY.....	JEFFERSON DAVIS		JEFFERSON DAVIS		JEFFERSON DAVIS	
FIELD.....	AMOCO-SABINE NO. 1		VINTAGE		CHAMPAGNE NO. 1	
WELL NAME.....	SEC. 26, T6N, R19W		SEC. 17, T6N, R18W		SEC. 8, T6N, R18W	
LOCATION.....	J-O-B OPERATING CO.		FOREST OIL CORP.		LYONS PETROLEUM CO.	
OWNER.....	12/04/80		01/08/81		--/--/85	
COMPLETED.....	03/17/82		09/15/82		05/10/85	
SAMPLED.....	CRET-SLIGO "C"		CRET-HARPER		NOT GIVEN	
FORMATION.....	210		210		210	
GEOLOGIC PROVINCE CODE.....	15750		16182		16592	
DEPTH, FEET.....	5380		4861		4500	
WELLHEAD PRESSURE, PSIG.....	3991		6000		1900	
OPEN FLOW, MCFD.....						
COMPONENT, MOLE PCT						
METHANE.....	94.7		93.5		92.6	
ETHANE.....	0.2		0.3		0.2	
PROpane.....	0.1		0.1		0.1	
N-BUTANE.....	0.1		0.1		0.1	
ISOBUTANE.....	0.1		0.1		0.0	
N-PENTANE.....	0.1		0.1		0.1	
ISOPENTANE.....	0.0		0.1		0.0	
CYCLOPENTANE.....	TRACE		TRACE		TRACE	
HEXANES PLUS.....	0.1		0.1		0.1	
NITROGEN.....	1.2		1.1		2.1	
OXYGEN.....	TRACE		TRACE		0.2	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	3.4		4.6		4.5	
HELIUM.....	0.03		0.03		0.03	
HEATING VALUE*.....	982		964		957	
SPECIFIC GRAVITY.....	0.602		0.609		0.616	
	INDEX	3595	INDEX	3596	INDEX	3597
	SAMPLE	9243	SAMPLE	4077	SAMPLE	5131
STATE.....	MISSISSIPPI		MISSISSIPPI		MISSISSIPPI	
COUNTY.....	KEMPER		LAMAR		LAMAR	
FIELD.....	NOT GIVEN		BAXTERVILLE		BAXTERVILLE	
WELL NAME.....	ROSS BEATTY NO. 8-7		SNOWDEN NO. 1		VIRGIL DAVIS ET AL. NO. G-2	
LOCATION.....	SEC. 32, T10N, R14E		SEC. 7, T1N, R16W		SEC. 7, T1N, R16W	
OWNER.....	ROSIE MCNEIL		SUN OIL CO.		GULF OIL CO.	
COMPLETED.....	--/--/00		05/22/45		04/06/51	
SAMPLED.....	02/26/64		07/09/45		11/13/51	
FORMATION.....	EOCE-WILCOX		CRET-U		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	200		210		210	
DEPTH, FEET.....	175		1674		5182	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1048		2341	
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		6000	
COMPONENT, MOLE PCT						
METHANE.....	0.0		94.8		96.6	
ETHANE.....	0.0		3.3		0.5	
PROpane.....	0.0		---		0.3	
N-BUTANE.....	0.0		---		0.1	
ISOBUTANE.....	0.0		---		0.1	
N-PENTANE.....	0.0		---		0.1	
ISOPENTANE.....	0.0		---		0.0	
CYCLOPENTANE.....	0.0		---		TRACE	
HEXANES PLUS.....	0.0		---		0.2	
NITROGEN.....	96.8		0.5		1.5	
OXYGEN.....	0.0		0.0		TRACE	
ARGON.....	1.1		---		0.0	
HYDROGEN.....	0.0		---		0.0	
HYDROGEN SULFIDE.....	0.0		---		0.0	
CARBON DIOXIDE.....	2.0		1.3		0.6	
HELIUM.....	0.11		0.05		0.03	
HEATING VALUE*.....	0		1019		1017	
SPECIFIC GRAVITY.....	0.982		0.585		0.582	
	INDEX	3598	INDEX	3599	INDEX	3600
	SAMPLE	15968	SAMPLE	15549	SAMPLE	15931
STATE.....	MISSISSIPPI		MISSISSIPPI		MISSISSIPPI	
COUNTY.....	TATUM'S CAMP		LAURENCE		LOWMEYER	
FIELD.....	ROSS BEATTY NO. 8-7		MONTICELLO		CALENDONIA	
WELL NAME.....	SEC. 8, T3N, R15W		SMITH ESTATE NO. 1		SMITH NO. 1-4	
LOCATION.....	SUN GAS CO.		SEC. 3, T3N, R11E		SEC. 4, T16S, R17W	
OWNER.....	07/19/79		INEXCO OIL CO.		ELC AQUITAINE OIL & GAS	
COMPLETED.....	05/27/80		07/--/78		12/23/79	
SAMPLED.....	05/27/80		12/28/78		03/25/80	
FORMATION.....	CRET-HOSSTON		CRET-HOSSTON		RIGGS-CARTER	
GEOLOGIC PROVINCE CODE.....	210		210		200	
DEPTH, FEET.....	15699		15791		4652	
WELLHEAD PRESSURE, PSIG.....	3843		5000		1860	
OPEN FLOW, MCFD.....			5000		2700	
COMPONENT, MOLE PCT						
METHANE.....	90.3		91.3		94.5	
ETHANE.....	0.8		1.0		3.0	
PROpane.....	0.4		0.2		0.2	
N-BUTANE.....	0.3		0.1		TRACE	
ISOBUTANE.....	0.3		0.1		0.2	
N-PENTANE.....	0.2		0.1		0.0	
ISOPENTANE.....	0.1		0.1		0.1	
CYCLOPENTANE.....	0.0		0.1		0.2	
HEXANES PLUS.....	0.4		TRACE		0.1	
NITROGEN.....	2.3		2.3		1.0	
OXYGEN.....	TRACE		TRACE		0.1	
ARGON.....	TRACE		---		0.0	
HYDROGEN.....	0.0		0.1		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	4.8		0.0		0.4	
HELIUM.....	0.03		0.04		0.10	
HEATING VALUE*.....	997		967		1040	
SPECIFIC GRAVITY.....	0.645		0.624		0.590	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 3601 17425	INDEX SAMPLE 3602 16724	INDEX SAMPLE 3603 17843
STATE.....	MISSISSIPPI		MISSISSIPPI	MISSISSIPPI
COUNTY.....	LOWNDES		LOWNDES	LOWNDES
FIELD.....	CORNWINE		MAPLE BRANCH	MAPLE BRANCH S
WELL NAME.....	COLUMBUS A F BASE 19-15 NO.1		ALDRIDGE NO. 18-9	SIZEMORE NO. 28-11
LOCATION.....	SEC. 30, T16S, R19W		SEC. 18, T16S, R17W	SEC. 28, T16S, R17W
OWNER.....	TKO PRODUCTION CORP.		PRUET PRODUCTION CO.	PRUET PRODUCTION CO.
COMPLETED.....	12/01/83		12/10/81	10/06/83
SAMPLED.....	09/20/84		12/--/82	09/24/85
FORMATION.....	MISS-CARTER		MISS-CARTER	MISS-LEWIS
GEOLOGIC PROVINCE CODE.....	200		200	200
DEPTH, FEET.....	6765		4470	5353
WELLHEAD PRESSURE, PSIG.....	610		1842	600
OPEN FLOW, MCFD.....	283		NOT GIVEN	1081
COMPONENT, MOLE PCT				
METHANE.....	80.3	90.2	80.6	
ETHANE.....	7.6	4.1	10.1	
PROPANE.....	3.9	0.6	4.6	
N-BUTANE.....	1.5	0.1	1.5	
ISOBUTANE.....	1.4	0.4	0.5	
N-PENTANE.....	0.9	0.0	0.4	
ISOPENTANE.....	0.6	1.4	0.4	
CYCLOPENTANE.....	1.2	0.8	0.2	
HEXANES PLUS.....	1.8	0.4	0.4	
NITROGEN.....	0.7	1.2	1.2	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.4	TRACE	
HYDROGEN SULFIDE**.....	0.0	0.1	0.0	
CARBON DIOXIDE.....	0.0	0.1	0.1	
HELIUM.....	0.08	0.1	0.09	
HEATING VALUE.....	1350	1131	1246	
SPECIFIC GRAVITY.....	0.773	0.642	0.716	
		INDEX SAMPLE 3604 16755	INDEX SAMPLE 3605 15599	INDEX SAMPLE 3606 5060
STATE.....	MISSISSIPPI		MISSISSIPPI	MISSISSIPPI
COUNTY.....	MADISON		MADISON	MADISON
FIELD.....	CENTRAL FANNEGUSHA		GLUCKSTADT	NOT GIVEN
WELL NAME.....	HAUBERG NO. 1-CF		D. R. YANDALL NO. 1	J. R. CAMERON NO. 1
LOCATION.....	SEC. 34, T9N, R4E		NOT GIVEN	SEC. 36, T10N, R1E
OWNER.....	SHELL OIL CO.		TEXAS PACIFIC OIL CO., INC.	CONTINENTAL OIL CO.
COMPLETED.....	01/22/83		12/18/78	--/00
SAMPLED.....	01/22/83		04/07/79	05/30/51
FORMATION.....	JURA-NORPHLET		JURA-NORPHLET	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	210		210	210
DEPTH, FEET.....	14810	16050	13780	
WELLHEAD PRESSURE, PSIG.....	2500	6800	2200	
OPEN FLOW, MCFD.....	8000	5000	2760	
COMPONENT, MOLE PCT				
METHANE.....	0.2	0.9	3.4	
ETHANE.....	TRACE	0.1	TRACE	
PROPANE.....	0.0	TRACE	0.1	
N-BUTANE.....	0.0	TRACE	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	TRACE	0.0	
ISOPENTANE.....	0.0	TRACE	0.0	
CYCLOPENTANE.....	0.0	TRACE	0.0	
HEXANES PLUS.....	0.0	0.1	0.0	
NITROGEN.....	1.2	0.4	0.5	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	---	
CARBON DIOXIDE.....	98.5	98.5	95.6	
HELIUM.....	0.01	1.6	0.4	
HEATING VALUE.....	2	16	36	
SPECIFIC GRAVITY.....	1.519	1.519	1.488	
		INDEX SAMPLE 3607 6493	INDEX SAMPLE 3608 16273	INDEX SAMPLE 3609 4080
STATE.....	MISSISSIPPI		MISSISSIPPI	MISSISSIPPI
COUNTY.....	MARION		MARION	MARION
FIELD.....	BAKTERVILLE		GREENS CREEK	HUB
WELL NAME.....	W. C. DAVIS NO. 2		ROGERS 28-11 NO. 1	H. EVANS NO. 1
LOCATION.....	SEC. 31, T2N, R16W		SEC. 28, T2N, R19W	SEC. 15, T2N, R18W
OWNER.....	TIDEWATER OIL CO.		GETTY OIL CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	03/12/71		04/26/80	03/03/45
SAMPLED.....	01/29/58		05/30/81	05/19/45
FORMATION.....	CRET-TUSCALOOSA		CRET-HARPER-5	CRET-U
GEOLOGIC PROVINCE CODE.....	210		210	210
DEPTH, FEET.....	7800	16150	9127	
WELLHEAD PRESSURE, PSIG.....	2450	4600	2800	
OPEN FLOW, MCFD.....	5000	7000	NOT GIVEN	
COMPONENT, MOLE PCT				
METHANE.....	96.5	92.2	93.2	
ETHANE.....	0.5	0.4	3.7	
PROPANE.....	0.2	0.1	---	
N-BUTANE.....	0.1	0.1	---	
ISOBUTANE.....	0.1	0.1	---	
N-PENTANE.....	0.1	TRACE	---	
ISOPENTANE.....	0.1	TRACE	---	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	0.2	1.4	---	
NITROGEN.....	1.9	0.1	1.9	
OXYGEN.....	TRACE	TRACE	0.1	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	TRACE	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	0.9	5.5	1.1	
HELIUM.....	TRACE	0.02	0.03	
HEATING VALUE.....	1013	978	1010	
SPECIFIC GRAVITY.....	0.583	0.622	0.592	
		INDEX SAMPLE 3610 13039	INDEX SAMPLE 3611 7669	INDEX SAMPLE 3612 7670
STATE.....	MISSISSIPPI		MISSISSIPPI	MISSISSIPPI
COUNTY.....	MARION		MARION	MARION
FIELD.....	HUB		KNOXD	KNOXD
WELL NAME.....	W. C. WALKER NO. 4		BOARD OF SUPV. NO. 1-LT	BOARD OF SUPV. NO. 1-UT
LOCATION.....	SEC. 10, T2N, R18W		SEC. 16, T2N, R12E	SEC. 16, T2N, R12E
OWNER.....	CHEVRON OIL CO.		TEXACO-SEABOARD, INC.	TEXACO-SEABOARD, INC.
COMPLETED.....	03/12/71		06/07/60	06/07/60
SAMPLED.....	09/22/71		09/02/60	03/03/60
FORMATION.....	CRET-PALUXY		CRET-PALUXY U	CRET-WASHITA
GEOLOGIC PROVINCE CODE.....	210		210	210
DEPTH, FEET.....	11704	12532	12386	
WELLHEAD PRESSURE, PSIG.....	4124	4722	4620	
OPEN FLOW, MCFD.....	5000	80000	4600	
COMPONENT, MOLE PCT				
METHANE.....	95.5	96.3	97.6	
ETHANE.....	0.5	0.1	0.0	
PROPANE.....	0.2	0.0	0.0	
N-BUTANE.....	0.1	0.0	0.0	
ISOBUTANE.....	0.1	0.0	0.0	
N-PENTANE.....	0.1	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	TRACE	0.0	TRACE	
HEXANES PLUS.....	0.1	0.0	TRACE	
NITROGEN.....	1.2	0.0	0.1	
OXYGEN.....	TRACE	TRACE	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.2	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.3	2.3	2.2	
HELIUM.....	0.03	0.03	0.03	
HEATING VALUE.....	998	978	989	
SPECIFIC GRAVITY.....	0.594	0.580	0.576	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3613 4838	INDEX SAMPLE	3614 16289	INDEX SAMPLE	3615 5757
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	MONROE			MONROE		MONROE	
FIELD.....	SANDY HOOK			SANDY HOOK		ABERDEEN	
WELL NAME.....	PTTMAN NO. 2			GAS UNIT NO. 28-1		LEE HARRINGTON NO. 1	
LOCATION.....	SEC. 12, T1N, R18W			SEC. 16, T1N, R14E		NOT GIVEN	
OWNER.....	UNION PRODUCING CO.			EXXON CO., U.S.A.		SHELL OIL CO.	
COMPLETED.....	01/02/49			03/19/80		01/15/53	
SAMPLED.....	12/28/49			06/29/81		01/19/55	
FORMATION.....	CRET-TUSCALOOSA			CRET-JAMES		MISS-	
GEOLOGIC PROVINCE CODE.....	210			210		200	
DEPTH, FEET.....	9006			14330		3500	
WELLHEAD PRESSURE, PSIG.....	3340			7400		1442	
OPEN FLOW, MCFD.....	32000			3250		3000	
COMPONENT, MOLE PCT.....							
METHANE.....	88.1			94.8		95.3	
ETHANE.....	1.0			0.2		2.4	
PROPANE.....	0.6			TRACE		0.2	
N-BUTANE.....	0.3			0.0		TRACE	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.3			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.1	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.2			0.0		TRACE	
NITROGEN.....	6.9			1.0		1.4	
OXYGEN.....	1.3			0.0		0.0	
ARGON.....	0.1			TRACE		0.0	
HYDROGEN.....	---			TRACE		0.1	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	1.2			3.9		0.4	
HELIUM.....	0.03			0.02		0.10	
HEATING VALUE.....	993			964		1018	
SPECIFIC GRAVITY.....	0.629			0.597		0.579	
		INDEX SAMPLE	3616 17185	INDEX SAMPLE	3617 1781	INDEX SAMPLE	3618 1825
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	MONROE			MONROE		MONROE	
FIELD.....	ABERDEEN			AMORY		AMORY	
WELL NAME.....	CROSBY NO. 9-11			CARTER NO. 1		CARTER NO. 2	
LOCATION.....	SEC. 9, T15S, R7E			SEC. 7, T13N, R17E		SEC. 7, T13N, R17E	
OWNER.....	PRUET PRODUCTION CO.			AMORY PETROLEUM CO.		AMORY PETROLEUM CO.	
COMPLETED.....	09/27/82			10/05/26		--/--/00	
SAMPLED.....	02/20/84			05/20/29		08/03/29	
FORMATION.....	MISS-CARTER			MISS-HARTSELLE		MISS-HARTSELLE	
GEOLOGIC PROVINCE CODE.....	200			200		200	
DEPTH, FEET.....	3828			2412		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	740			700		NOT GIVEN	
OPEN FLOW, MCFD.....	1100			5000		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	93.9			96.9		96.1	
ETHANE.....	0.3			1.4		0.1	
PROPANE.....	0.1			---		---	
N-BUTANE.....	0.0			---		---	
ISOBUTANE.....	0.0			---		---	
N-PENTANE.....	0.0			---		---	
ISOPENTANE.....	0.0			---		---	
CYCLOPENTANE.....	0.0			---		---	
HEXANES PLUS.....	0.0			---		---	
NITROGEN.....	2.4			1.4		1.5	
OXYGEN.....	TRACE			0.1		0.5	
ARGON.....	TRACE			---		---	
HYDROGEN.....	0.1			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.0			0.2		0.8	
HELIUM.....	0.15			0.12		0.16	
HEATING VALUE.....	1013			1007		993	
SPECIFIC GRAVITY.....	0.580			0.570		0.577	
		INDEX SAMPLE	3619 17186	INDEX SAMPLE	3620 15536	INDEX SAMPLE	3621 14975
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	MONROE			MONROE		MONROE	
FIELD.....	ABERDEEN			BUTTAHATCHIE RIVER		CORINNE	
WELL NAME.....	YOUNG NO. 35-2			HARMON NO. 16		SELBY NO. 12-1	
LOCATION.....	SEC. 35, T11S, R7E			SEC. 24, T15S, R18W		SEC. 12, T16S, R19W	
OWNER.....	PRUET PRODUCTION CO.			PRUET & HUGHES OPER. CO.		CLEARAY PETROLEUM CO.	
COMPLETED.....	03/27/83			10/25/78		--/--/00	
SAMPLED.....	02/20/84			12/08/78		04/13/77	
FORMATION.....	MISS-EVANS			MISS-CARTER		MISS-CARTER	
GEOLOGIC PROVINCE CODE.....	200			200		200	
DEPTH, FEET.....	1798			4577		5010	
WELLHEAD PRESSURE, PSIG.....	120			1825		1150	
OPEN FLOW, MCFD.....	464			2900		4000	
COMPONENT, MOLE PCT.....							
METHANE.....	95.4			94.5		88.0	
ETHANE.....	2.1			3.0		5.3	
PROPANE.....	0.1			0.3		2.2	
N-BUTANE.....	0.0			0.1		0.7	
ISOBUTANE.....	0.0			0.1		0.4	
N-PENTANE.....	0.0			TRACE		0.2	
ISOPENTANE.....	0.0			0.1		0.3	
CYCLOPENTANE.....	0.0			0.1		0.1	
HEXANES PLUS.....	0.0			0.1		0.2	
NITROGEN.....	0.5			0.8		1.3	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.7			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.7		0.2	
HELIUM.....	0.07			0.06		0.08	
HEATING VALUE.....	1039			1059		1134	
SPECIFIC GRAVITY.....	0.569			0.591		0.648	
		INDEX SAMPLE	3622 17841	INDEX SAMPLE	3623 17219	INDEX SAMPLE	3624 17220
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	MONROE			MONROE		MONROE	
FIELD.....	GOODWIN			HAMILTON S		NAPLE BRANCH	
WELL NAME.....	HESTER NO. 27-9			TAYLOR NO. 35-13		WELLS NO. 5-5	
LOCATION.....	SEC. 27, T11S, R7E			NOT GIVEN		NOT GIVEN	
OWNER.....	PRUET PRODUCTION CO.			DOUGLAS EXPLORATION CO., INC		DOUGLAS EXPLORATION CO., INC	
COMPLETED.....	07/28/85			12/16/83		12/16/83	
SAMPLED.....	03/24/85			03/21/84		03/21/84	
FORMATION.....	MISS-EVANS			MISS-LEWIS		MISS-LEWIS	
GEOLOGIC PROVINCE CODE.....	200			200		200	
DEPTH, FEET.....	1770			5326		5236	
WELLHEAD PRESSURE, PSIG.....	830			40		20	
OPEN FLOW, MCFD.....	920			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	96.3			70.9		77.8	
ETHANE.....	0.4			12.8		10.7	
PROPANE.....	0.0			7.6		5.5	
N-BUTANE.....	0.6			0.1		1.7	
ISOBUTANE.....	0.0			1.4		0.8	
N-PENTANE.....	0.1			0.9		0.6	
ISOPENTANE.....	0.3			0.1		0.8	
CYCLOPENTANE.....	0.1			0.5		0.4	
HEXANES PLUS.....	0.2			0.8		0.6	
NITROGEN.....	1.6			0.6		0.8	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			TRACE		0.1	
HELIUM.....	0.05			0.05		0.08	
HEATING VALUE.....	1034			1048		1312	
SPECIFIC GRAVITY.....	0.589			0.83		0.753	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3625 SAMPLE 17222		INDEX 3626 SAMPLE 7502		INDEX 3627 SAMPLE 17075	
STATE.....	MISSISSIPPI	MISSISSIPPI		MISSISSIPPI	
COUNTY.....	MONROE	MONROE		MONROE	
FIELD.....	MCKINLEY CREEK	OKLOONA		SPRUNGE	
WELL NAME.....	ROBINSON NO. 19-15	MURPHREE NO. 1		WILLIAMSON 21-15 NO. 1	
LOCATION.....	SEC. 19, T15S, R18W	SEC. 28, T12N, R6E		SEC. 21, T12S, R16W	
OWNER.....	DOUGLAS EXPLORATION CO., INC	PURE OIL CO.		TXO PRODUCTION CORP.	
COMPLETED.....	08/20/83	02/18/86		09/28/83	
SAMPLED.....	03/22/84	04/14/80		09/27/83	
FORMATION.....	MISS-LEWIS	MISS-CARTER		MISS-CARTER B	
GEOLOGIC PROVINCE CODE.....	210	200		200	
DEPTH, FEET.....	5304	2012		1720	
WELLHEAD PRESSURE, PSIG.....	1890	845		750	
OPEN FLOW, MCFD.....	NOT GIVEN	9950		600	
COMPONENT, MOLE PCT					
METHANE.....	87.4	97.0		97.6	
ETHANE.....	6.4	0.1		0.2	
PROPANE.....	2.3	0.0		TRACE	
N-BUTANE.....	0.8	0.0		0.0	
ISOBUTANE.....	0.6	0.0		0.0	
N-PENTANE.....	0.3	0.0		0.0	
ISOPENTANE.....	0.5	0.0		0.0	
CYCLOPENTANE.....	0.3	0.0		0.0	
HEXANES PLUS.....	0.4	0.0		0.0	
NITROGEN.....	0.5	1.4		1.6	
OXYGEN.....	TRACE	TRACE		0.1	
ARGON.....	0.0	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.3	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.1		0.1	
HELIUM.....	0.08	0.10		0.09	
HEATING VALUE.....	1173	987		993	
SPECIFIC GRAVITY.....	0.665	0.566		0.562	

INDEX 3628 SAMPLE 7231		INDEX 3629 SAMPLE 17774		INDEX 3630 SAMPLE 17775	
STATE.....	MISSISSIPPI	MISSISSIPPI		MISSISSIPPI	
COUNTY.....	PIKE	PONTOTOC		PONTOTOC	
FIELD.....	MCCOMB	GOODFOOD E		TROY	
WELL NAME.....	GILLESPOPE UNIT NO. 1	D. L. ABERNATHY 26-13 NO. 1		J. R. FALKNER 28-2 NO. 2	
LOCATION.....	SEC. 10, T7E, R3N	SEC. 26, T1, R4E		NOT GIVEN	
OWNER.....	SUN OIL CO., ET AL.	LOUISIANA LAND & EXPL. CO.		LOUISIANA LAND & EXPL. CO.	
COMPLETED.....	07/20/59	--/--/00		--/--/00	
SAMPLED.....	09/24/59	07/17/85		07/17/85	
FORMATION.....	CRET-TUSCALOOSA	NOT -ABERNATHY		MISS-LEWIS	
GEOLOGIC PROVINCE CODE.....	210	200		200	
DEPTH, FEET.....	1068	1861		2450	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	850		650	
OPEN FLOW, MCFD.....	NOT GIVEN	650		500	
COMPONENT, MOLE PCT					
METHANE.....	70.0	98.3		97.9	
ETHANE.....	11.3	0.1		0.2	
PROPANE.....	3.2	TRACE		0.1	
N-BUTANE.....	0.2	0.0		0.0	
ISOBUTANE.....	1.4	0.0		0.0	
N-PENTANE.....	0.4	0.0		0.0	
ISOPENTANE.....	1.6	0.0		0.0	
CYCLOPENTANE.....	0.2	0.0		0.0	
HEXANES PLUS.....	0.8	0.0		0.0	
NITROGEN.....	0.5	1.4		1.5	
OXYGEN.....	TRACE	TRACE		TRACE	
ARGON.....	0.0	TRACE		TRACE	
HYDROGEN.....	TRACE	TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	2.0	0.1		0.1	
HELIUM.....	0.01	0.09		0.08	
HEATING VALUE.....	1412	998		998	
SPECIFIC GRAVITY.....	0.842	0.561		0.564	

INDEX 3631 SAMPLE 16565		INDEX 3632 SAMPLE 16892		INDEX 3633 SAMPLE 11714	
STATE.....	MISSISSIPPI	MISSISSIPPI		MISSISSIPPI	
COUNTY.....	RANKIN	RANKIN		RANKIN	
FIELD.....	HOLLYBUSH CREEK	PISGAH S		PUCKETT	
WELL NAME.....	MCKAY NO. 2	HAUBERG NO. 6-R		G. U. PUCKETT NO. 2	
LOCATION.....	SEC. 29, T7N, R5E	SEC. 39, T7N, R4E		NOT GIVEN	
OWNER.....	SHELL OIL CO.	SHELL OIL CO.		LARCO DRILLING CORP.	
COMPLETED.....	06/29/82	--/--/00		02/--/67	
SAMPLED.....	06/28/82	04/22/83		12/17/68	
FORMATION.....	JURA-BUCKNER	JURA-BUCKNER		CRET-8630 GAS SAND	
GEOLOGIC PROVINCE CODE.....	210	210		210	
DEPTH, FEET.....	14700	14644		8630	
WELLHEAD PRESSURE, PSIG.....	2200	2632		3100	
OPEN FLOW, MCFD.....	10000	6875		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	0.3	0.3		92.0	
ETHANE.....	TRACE	TRACE		0.4	
PROPANE.....	0.0	0.0		TRACE	
N-BUTANE.....	0.0	0.0		0.2	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.0		0.5	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.0	0.0		0.2	
HEXANES PLUS.....	0.0	0.0		0.6	
NITROGEN.....	0.2	0.8		5.1	
OXYGEN.....	TRACE	0.1		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	TRACE		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	99.4	98.7		0.8	
HELIUM.....	0.01	TRACE		0.06	
HEATING VALUE.....	3	3		1006	
SPECIFIC GRAVITY.....	1.523	1.520		0.615	

INDEX 3634 SAMPLE 11715		INDEX 3635 SAMPLE 11520		INDEX 3636 SAMPLE 10957	
STATE.....	MISSISSIPPI	MISSISSIPPI		MISSISSIPPI	
COUNTY.....	PUCKETT	WILDCAT		SCOTT	
FIELD.....	PUCKETT 6-U, NO. 1	J. A. SPANN EST. NO. 1		NOT GIVEN	
WELL NAME.....	SEC. 18, T6N, R5E	SEC. 19, T6N, R5E		WILLIE J. WADE NO. 1	
LOCATION.....	LARCO DRILLING CORP.	GENERAL CRUDE OIL CO.		SEC. 32, T8N, R7E	
OWNER.....	LARCO DRILLING CORP.	--/--/05		TEXACO INC.	
COMPLETED.....	01/15/67	05/--/68		--/--/00	
SAMPLED.....	12/17/68	JURA-SHACKOVER		05/09/67	
FORMATION.....	CRET-8630 GAS SAND	JURA-SHACKOVER		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	210	210		210	
DEPTH, FEET.....	8630	NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	42000	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	42000	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	91.7	0.2		22.6	
ETHANE.....	0.4	0.0		0.8	
PROPANE.....	TRACE	TRACE		TRACE	
N-BUTANE.....	0.2	0.0		0.0	
ISOBUTANE.....	TRACE	0.0		0.0	
N-PENTANE.....	0.4	0.0		0.0	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.2	0.0		0.0	
HEXANES PLUS.....	0.2	0.0		0.0	
NITROGEN.....	5.4	1.1		11.0	
OXYGEN.....	0.0	0.0		TRACE	
ARGON.....	0.0	0.0		TRACE	
HYDROGEN.....	TRACE	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	99.9	0.02		65.3	
HELIUM.....	0.04	0.02		0.05	
HEATING VALUE.....	1003	2		244	
SPECIFIC GRAVITY.....	0.623	1.519		1.239	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3637 13046	INDEX SAMPLE	3638 13047	INDEX SAMPLE	3639 15182
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	SIMPSON			SIMPSON		SIMPSON	
FIELD.....	HERIT			HERIT		OAK CREEK	
WELL NAME.....	COX H NO. 1			COX H NO. 1		WILLIAMSON NO. 1	
LOCATION.....	SEC. 8, T1N, R4E			SEC. 8, T1N, R4E		SEC. 15, T10N, R19W	
OWNER.....	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		R. L. BURNS OIL & GAS CORP.	
COMPLETED.....	10/01/70			10/01/70		--/--/00	
SAMPLED.....	09/28/71			09/28/71		01/01/78	
FORMATION.....	CRET-RODESSA U			CRET-RODESSA L		CRET-TUSCALOOSA	
GEOLOGIC PROVINCE CODE.....	210			210		210	
DEPTH, FEET.....	13204			13276		13777	
WELLHEAD PRESSURE, PSIG.....	3000			3600		3700	
OPEN FLOW, MCFD.....	1000			1350		4758	
COMPONENT, MOLE PCT							
METHANE.....	91.9	-----		92.5	-----	81.6	-----
ETHANE.....	0.5	-----		0.4	-----	0.3	-----
PROPANE.....	0.2	-----		0.2	-----	0.1	-----
N-BUTANE.....	0.1	-----		0.2	-----	0.1	-----
ISOBUTANE.....	0.1	-----		0.1	-----	0.1	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.4	-----
NITROGEN.....	3.7	-----		3.7	-----	5.5	-----
OXYGEN.....	0.3	-----		0.0	-----	0.1	-----
ARGON.....	TRACE	-----		0.0	-----	0.1	-----
HYDROGEN.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	3.0	-----		2.7	-----	11.3	-----
HELIUM.....	0.05	-----		0.05	-----	0.03	-----
HEATING VALUE.....	961	-----		974	-----	874	-----
SPECIFIC GRAVITY.....	0.613	-----		0.612	-----	0.709	-----
		INDEX SAMPLE	3640 17404	INDEX SAMPLE	3641 17589	INDEX SAMPLE	3642 17316
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	SIMPSON			SIMPSON		SMITH	
FIELD.....	OAK GROVE			OAK GROVE		BOYKIN CHURCH	
WELL NAME.....	PAUL NEWSOME NO. 1			GEORGE HAGEE NO. 1		USA 17-9 NO. 1	
LOCATION.....	SEC. 2, T9N, R19W			SEC. 27, T10N, R19W		SEC. 17, T3N, R7E	
OWNER.....	CALLON PETROLEUM CO.			CALLON PETROLEUM CO.		XMCO, INC.	
COMPLETED.....	09/05/84			01/13/84		03/08/84	
SAMPLED.....	09/05/84			02/13/85		06/08/84	
FORMATION.....	CRET-RODESSA A			CRET-WARE		CRET-RODESSA	
GEOLOGIC PROVINCE CODE.....	210			210		210	
DEPTH, FEET.....	13552			14004		10882	
WELLHEAD PRESSURE, PSIG.....	2000			3200		2700	
OPEN FLOW, MCFD.....	450			8000		500	
COMPONENT, MOLE PCT							
METHANE.....	91.2	-----		92.1	-----	89.7	-----
ETHANE.....	0.5	-----		0.6	-----	0.4	-----
PROPANE.....	0.5	-----		0.3	-----	0.2	-----
N-BUTANE.....	0.3	-----		0.3	-----	0.5	-----
ISOBUTANE.....	0.6	-----		0.3	-----	0.9	-----
N-PENTANE.....	0.6	-----		0.5	-----	0.9	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.2	-----		0.2	-----	0.3	-----
HEXANES PLUS.....	1.1	-----		1.0	-----	1.4	-----
NITROGEN.....	1.0	-----		1.4	-----	3.5	-----
OXYGEN.....	0.1	-----		0.1	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	4.0	-----		3.2	-----	1.4	-----
HELIUM.....	0.02	-----		0.03	-----	0.06	-----
HEATING VALUE.....	1066	-----		1052	-----	1108	-----
SPECIFIC GRAVITY.....	0.662	-----		0.645	-----	0.671	-----
		INDEX SAMPLE	3643 16847	INDEX SAMPLE	3644 7227	INDEX SAMPLE	3645 7230
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	WALTHALL			WALTHALL		WALTHALL	
FIELD.....	DARTON N			DARTON N		DARTON N	
WELL NAME.....	BOYD 34-10 NO. 1			M. B. HENGST NO. 1		JOE PITTMAN A NO. 1	
LOCATION.....	SEC. 34, T4N, R11E			SEC. 7, T1N, R13E		SEC. 7, T1N, R13E	
OWNER.....	PRUE PRODUCTION CO.			SKELLY OIL CO.		SKELLY OIL CO.	
COMPLETED.....	10/19/80			07/--/59		01/--/59	
SAMPLED.....	03/25/83			09/29/59		09/29/59	
FORMATION.....	CRET-MOORINGSPOIT			CRET-TUSCALOOSA		CRET-L	
GEOLOGIC PROVINCE CODE.....	210			210		210	
DEPTH, FEET.....	14364			9596		11062	
WELLHEAD PRESSURE, PSIG.....	4700			3498		4200	
OPEN FLOW, MCFD.....	29000			2050		10000	
COMPONENT, MOLE PCT							
METHANE.....	94.0	-----		95.7	-----	96.7	-----
ETHANE.....	0.3	-----		0.4	-----	0.2	-----
PROPANE.....	0.1	-----		0.1	-----	0.2	-----
N-BUTANE.....	TRACE	-----		0.1	-----	0.0	-----
ISOBUTANE.....	TRACE	-----		0.2	-----	TRACE	-----
N-PENTANE.....	TRACE	-----		0.3	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.9	-----
NITROGEN.....	1.1	-----		1.3	-----	TRACE	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.2	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	4.1	-----		1.8	-----	1.9	-----
HELIUM.....	0.02	-----		1.02	-----	0.03	-----
HEATING VALUE.....	966	-----		1002	-----	993	-----
SPECIFIC GRAVITY.....	0.602	-----		0.591	-----	0.582	-----
		INDEX SAMPLE	3646 16839	INDEX SAMPLE	3647 13380	INDEX SAMPLE	3648 8405
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	WALTHALL			WALTHALL		WALTHALL	
FIELD.....	DARTON N			KIRKLIN		KOKOMO	
WELL NAME.....	SEC. 2-9 NO. 1			LACY DAVIS NO. 1		J. O. McDONALD NO. 1	
LOCATION.....	SEC. 2, T1N, R12E			SEC. 11, T1N, R11E		SEC. 26, T3N, R11E	
OWNER.....	GETTY OIL CO.			SOUTHEASTERN EXPLORATION, LT		SUN OIL CO.	
COMPLETED.....	03/--/83			02/05/78		04/01/60	
SAMPLED.....	03/--/83			09/12/72		02/07/62	
FORMATION.....	CRET-PALUXY P-3			CRET-PALUXY		CRET-PALUXY	
GEOLOGIC PROVINCE CODE.....	210			210		210	
DEPTH, FEET.....	12306			13257		12944	
WELLHEAD PRESSURE, PSIG.....	3690			1500		4833	
OPEN FLOW, MCFD.....	6175			2150		23500	
COMPONENT, MOLE PCT							
METHANE.....	86.3	-----		95.7	-----	96.3	-----
ETHANE.....	0.2	-----		0.1	-----	0.1	-----
PROPANE.....	0.1	-----		TRACE	-----	0.1	-----
N-BUTANE.....	0.1	-----		0.0	-----	0.0	-----
ISOBUTANE.....	TRACE	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.3	-----		0.0	-----	0.0	-----
NITROGEN.....	6.9	-----		0.0	-----	0.0	-----
OXYGEN.....	1.7	-----		0.0	-----	TRACE	-----
ARGON.....	0.1	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.2	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	3.8	-----		3.2	-----	2.7	-----
HELIUM.....	0.02	-----		0.02	-----	0.03	-----
HEATING VALUE.....	908	-----		908	-----	909	-----
SPECIFIC GRAVITY.....	0.643	-----		0.589	-----	0.586	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	MISSISSIPPI	MISSISSIPPI	MISSISSIPPI
COUNTY	WALTON	WALTHALL	WARREN
FIELD	KOKOMO-DURBAN	TYLERTOWN	BOVINA
WELL NAME	WILMER HAMMOND NO. 1	MITCHELL-LAIRD NO. 1	UNIT NO. 7-9
LOCATION	SEC. 6, T2N, R12E	SEC. 26, T2N, R11E	SEC. 7, T16N, R5E
OWNER	MOON & HINES	FLORIDA GAS EXPL. CO.	PLACID OIL CO.
COMPLETED	--/--/00	03/28/77	05/28/82
SAMPLED	03/28/74	06/23/77	09/20/83
FORMATION	CRET-PALUXY	CRET-PALUXY	JURA-COTTON VALLEY
GEOLOGIC PROVINCE CODE	210	210	210
DEPTH, FEET	12866	12698	16700
WELLHEAD PRESSURE, PSIG	2600	3200	5850
OPEN FLOW, MCFD	3500	NOT GIVEN	1200
COMPONENT, MOLE PCT			
METHANE	95.9	95.8	88.0
ETHANE	0.1	0.2	0.7
PROPANE	TRACE	0.1	0.1
N-BUTANE	0.0	0.0	0.0
ISOBUTANE	0.0	0.0	0.0
N-PENTANE	0.0	0.0	0.0
ISOPENTANE	0.0	0.0	0.0
CYCLOPENTANE	0.0	0.0	0.0
HEXANES PLUS	0.0	0.0	0.0
NITROGEN	1.0	1.0	4.4
OXYGEN	0.0	TRACE	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	TRACE	0.0	0.3
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	2.9	0.0	6.5
HELIUM	0.03	0.03	0.06
HEATING VALUE	973	977	988
SPECIFIC GRAVITY	0.587	0.590	0.639

STATE	MISSISSIPPI	MISSOURI	MONTANA
COUNTY	YAZOO	PLATTE	BIG HORN
FIELD	MECHANICSBURG	WILDCAT	WILDCAT
WELL NAME	WILLIAMS ESTATE NO. 2	TIFFANY SPRINGS IND. NO. 4	NO. 17
LOCATION	SEC. 9, T9N, R3W	SEC. 36, T52N, R34W	SEC. 21, T1S, R33E
OWNER	CARDELL-TLAPEX CO.	TIFFANY SPRINGS INDUSTRY	BIG HORN OIL & GAS DEV. CO.
COMPLETED	07/28/81	06/--/83	08/11/30
SAMPLED	11/06/81	10/--/83	09/22/30
FORMATION	JURA-COTTON VALLEY	PENN-	CRET-FRONTIER
GEOLOGIC PROVINCE CODE	210	335	515
DEPTH, FEET	12552	621	670
WELLHEAD PRESSURE, PSIG	750	NOT GIVEN	145
OPEN FLOW, MCFD	4000	425	161
COMPONENT, MOLE PCT			
METHANE	89.3	95.4	98.1
ETHANE	3.1	0.1	0.0
PROPANE	0.0	TRACE	---
N-BUTANE	0.4	0.1	---
ISOBUTANE	0.3	TRACE	---
N-PENTANE	0.2	TRACE	---
ISOPENTANE	0.1	TRACE	---
CYCLOPENTANE	TRACE	TRACE	---
HEXANES PLUS	0.2	0.1	---
NITROGEN	0.7	3.8	1.7
OXYGEN	0.0	0.0	0.0
ARGON	TRACE	TRACE	---
HYDROGEN	0.0	0.0	---
HYDROGEN SULFIDE	0.0	0.0	---
CARBON DIOXIDE	4.6	0.2	0.1
HELIUM	0.02	0.17	0.07
HEATING VALUE	1033	977	994
SPECIFIC GRAVITY	0.648	0.575	0.562

STATE	MONTANA	MONTANA	MONTANA
COUNTY	BLAINE	BLAINE	BLAINE
FIELD	BLACK COULEE	BOWES	BOWES
WELL NAME	STATE NO. 14-36	NO. 6	NO. R STEVENS NO. 1
LOCATION	SEC. 36, T32N, R18E	SEC. 9, T31N, R19E	SEC. 26, T32N, R19E
OWNER	MONTANA POWER CO.	MID-NORTHERN OIL CO.	TEXACO INC.
COMPLETED	02/26/79	09/26/79	07/08/57
SAMPLED	06/24/80	09/18/30	11/05/63
FORMATION	CRET-EAGLE	CRET-EAGLE	CRET-EAGLE
GEOLOGIC PROVINCE CODE	395	395	395
DEPTH, FEET	1148	1060	735
WELLHEAD PRESSURE, PSIG	349	250	181
OPEN FLOW, MCFD	3215	17500	1395
COMPONENT, MOLE PCT			
METHANE	95.6	89.0	94.8
ETHANE	0.5	0.2	0.3
PROPANE	0.1	---	0.1
N-BUTANE	TRACE	---	0.0
ISOBUTANE	TRACE	---	0.0
N-PENTANE	TRACE	---	0.0
ISOPENTANE	0.0	---	0.0
CYCLOPENTANE	TRACE	---	0.0
HEXANES PLUS	TRACE	---	0.0
NITROGEN	3.6	10.6	5.4
OXYGEN	0.0	0.1	0.0
ARGON	TRACE	---	TRACE
HYDROGEN	0.0	---	0.0
HYDROGEN SULFIDE	0.0	---	0.0
CARBON DIOXIDE	0.1	0.0	0.1
HELIUM	0.08	0.11	0.10
HEATING VALUE	980	980	960
SPECIFIC GRAVITY	0.573	0.599	0.580

STATE	MONTANA	MONTANA	MONTANA
COUNTY	BLAINE	BLAINE	BLAINE
FIELD	BOX ELDER	CHINOOK	LEROY
WELL NAME	PERKINS, STRANAHAN NO. 1	SEC. 1	GEORGE BLEHA NO. 1
LOCATION	SEC. 14, T32N, R17E	SEC. 9, T31N, R19E	SEC. 11, T24N, R18E
OWNER	H. A. PERKINS	CALIFORNIA CO.	GUTHRIE OIL & GAS CO.
COMPLETED	06/17/31	--/--/24	10/07/76
SAMPLED	07/27/31	05/27/26	02/18/77
FORMATION	CRET-EAGLE	CRET-EAGLE	CRET-EAGLE
GEOLOGIC PROVINCE CODE	395	395	395
DEPTH, FEET	1272	1026	1530
WELLHEAD PRESSURE, PSIG	425	245	406
OPEN FLOW, MCFD	7250	25000	2875
COMPONENT, MOLE PCT			
METHANE	93.7	95.7	94.7
ETHANE	1.7	0.3	0.3
PROPANE	---	---	TRACE
N-BUTANE	---	---	0.0
ISOBUTANE	---	---	0.0
N-PENTANE	---	---	0.0
ISOPENTANE	---	---	0.0
CYCLOPENTANE	---	---	0.0
HEXANES PLUS	---	---	0.0
NITROGEN	4.3	3.1	4.8
OXYGEN	0.2	0.4	0.0
ARGON	---	---	TRACE
HYDROGEN	---	---	0.0
HYDROGEN SULFIDE	---	---	0.0
CARBON DIOXIDE	0.1	0.5	0.1
HELIUM	0.04	0.10	0.07
HEATING VALUE	980	975	965
SPECIFIC GRAVITY	0.583	0.576	0.576

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3661 SAMPLE 13190			INDEX 3662 SAMPLE 13183			INDEX 3663 SAMPLE 13184		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	SAUTOOTH MOUNTAIN		SHERARD			SHERARD		
WELL NAME.....	MODE NO. 33-14		ROBINSON NO. 11-34			ROBINSON NO. 11-34		
LOCATION.....	SEC. 14, T27N, R18E		SEC. 34, T26N, R19E			SEC. 34, T26N, R19E		
OWNER.....	WISE OIL CO.		WISE OIL CO.			WISE OIL CO.		
COMPLETED.....	02/18/72		08/30/71			08/30/71		
SAMPLED.....	04/11/72		04/07/72			04/07/72		
FORMATION.....	CRET-EAGLE		CRET-EAGLE			CRET-JUDITH RIVER		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	1850		1508			850		
WELLHEAD PRESSURE, PSIG.....	480		521			210		
OPEN FLOW, MCFD.....	743		10088			444		
COMPONENT, MOLE PCT								
METHANE.....	87.1	-----	94.2	-----		95.1	-----	
ETHANE.....	2.7	-----	0.4	-----		0.3	-----	
PROpane.....	1.5	-----	0.1	-----		TRACE	-----	
N-BUTANE.....	0.4	-----	0.0	-----		0.0	-----	
ISOBUTANE.....	0.4	-----	0.0	-----		0.0	-----	
N-PENTANE.....	0.4	-----	0.0	-----		0.0	-----	
ISOPENTANE.....	0.0	-----	0.0	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	0.0	-----		0.0	-----	
HEXANES PLUS.....	0.1	-----	0.0	-----		0.0	-----	
NITROGEN.....	7.1	-----	5.2	-----		4.4	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	TRACE	-----		TRACE	-----	
HELIUM.....	0.08	-----	0.08	-----		0.08	-----	
HEATING VALUE.....	919	-----	964	-----		969	-----	
SPECIFIC GRAVITY.....	0.633	-----	0.578	-----		0.573	-----	
INDEX 3664 SAMPLE 13191			INDEX 3665 SAMPLE 13464			INDEX 3666 SAMPLE 13465		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	SHERARD		SHERARD			SHERARD		
WELL NAME.....	ROBINSON NO. 11-13		WILLIAMSON NO. 68-9			FED. NO. 11-15		
LOCATION.....	SEC. 13, T25N, R19E		SEC. 9, T26N, R19E			SEC. 15, T25N, R18E		
OWNER.....	WISE OIL CO.		WISE OIL CO.			WISE OIL CO.		
COMPLETED.....	10/10/71		04/20/72			09/28/71		
SAMPLED.....	04/11/72		1/05/72			11/05/72		
FORMATION.....	CRET-EAGLE		CRET-EAGLE			CRET-EAGLE		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	400		1990			1558		
WELLHEAD PRESSURE, PSIG.....	100		NOT GIVEN			500		
OPEN FLOW, MCFD.....	65		8900			2600		
COMPONENT, MOLE PCT								
METHANE.....	94.0	-----	90.6	-----		94.8	-----	
ETHANE.....	0.3	-----	0.4	-----		0.3	-----	
PROpane.....	0.1	-----	0.1	-----		TRACE	-----	
N-BUTANE.....	0.0	-----	TRACE	-----		0.0	-----	
ISOBUTANE.....	0.0	-----	TRACE	-----		0.0	-----	
N-PENTANE.....	0.0	-----	TRACE	-----		0.0	-----	
ISOPENTANE.....	0.0	-----	TRACE	-----		0.0	-----	
CYCLOPENTANE.....	0.0	-----	TRACE	-----		0.0	-----	
HEXANES PLUS.....	0.0	-----	TRACE	-----		0.0	-----	
NITROGEN.....	5.5	-----	8.6	-----		4.7	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HELIUM.....	0.08	-----	0.12	-----		0.07	-----	
HEATING VALUE.....	960	-----	928	-----		966	-----	
SPECIFIC GRAVITY.....	0.579	-----	0.591	-----		0.574	-----	
INDEX 3667 SAMPLE 13466			INDEX 3668 SAMPLE 16192			INDEX 3669 SAMPLE 11966		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	SHERARD		SHERARD			TIGER RIDGE		
WELL NAME.....	FED. NO. 11-15		U.S. NO. 6-15			DEHLBON NO. 3-2		
LOCATION.....	SEC. 15, T25N, R18E		SEC. 6, T25N, R18E			SEC. 3, T30N, R18E		
OWNER.....	CO.		TRICENTROL U.S., INC.			HIGH CREST OILS, INC.		
COMPLETED.....	09/28/71		--/--/00			04/04/67		
SAMPLED.....	11/05/72		02/19/81			07/11/69		
FORMATION.....	CRET-JUDITH RIVER		CRET-EAGLE			CRET-EAGLE		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	805		1580			1204		
WELLHEAD PRESSURE, PSIG.....	200		460			307		
OPEN FLOW, MCFD.....	40		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	93.8	-----	95.5	-----		94.0	-----	
ETHANE.....	0.3	-----	0.3	-----		1.5	-----	
PROpane.....	0.1	-----	TRACE	-----		0.6	-----	
N-BUTANE.....	TRACE	-----	0.0	-----		0.2	-----	
ISOBUTANE.....	TRACE	-----	0.0	-----		0.0	-----	
N-PENTANE.....	TRACE	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	TRACE	-----	0.1	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	TRACE	-----	0.1	-----		0.1	-----	
NITROGEN.....	5.5	-----	3.9	-----		3.1	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	TRACE	-----		TRACE	-----	
HELIUM.....	0.09	-----	0.06	-----		0.09	-----	
HEATING VALUE.....	958	-----	986	-----		1011	-----	
SPECIFIC GRAVITY.....	0.580	-----	0.578	-----		0.586	-----	
INDEX 3670 SAMPLE 7489			INDEX 3671 SAMPLE 7635			INDEX 3672 SAMPLE 5039		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	CARBON		CARBON			CARBON		
FIELD.....	BELFRY		BELFRY			CLARKS FORK		
WELL NAME.....	BELFRY UNIT NO. 1		BELFRY UNIT NO. 1			WELFELAN-GOVT. NO. 1		
LOCATION.....	SEC. 7, T9S, R22E		SEC. 7, T9S, R22E			SEC. 26, T9S, R22E		
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.			BRITISH AMERICAN OIL PROD. CO.		
COMPLETED.....	03/22/58		03/22/58			04/22/51		
SAMPLED.....	04/01/60		08/03/60			05/10/51		
FORMATION.....	CRET-CLOVERLY		CRET-L			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	9843		9844			7536		
WELLHEAD PRESSURE, PSIG.....	2390		2390			1325		
OPEN FLOW, MCFD.....	4		4500			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	3.3	-----	76.4	-----		81.2	-----	
ETHANE.....	1.0	-----	13.6	-----		11.7	-----	
PROpane.....	0.4	-----	0.4	-----		3.6	-----	
N-BUTANE.....	0.1	-----	1.3	-----		0.6	-----	
ISOBUTANE.....	0.1	-----	0.6	-----		0.4	-----	
N-PENTANE.....	0.0	-----	0.2	-----		0.1	-----	
ISOPENTANE.....	0.0	-----	0.3	-----		0.1	-----	
CYCLOPENTANE.....	0.0	-----	TRACE	-----		0.0	-----	
HEXANES PLUS.....	0.0	-----	0.2	-----		0.1	-----	
NITROGEN.....	93.8	-----	0.9	-----		1.1	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.1	-----	
ARGON.....	1.1	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.2	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.01	-----	1.3	-----		0.9	-----	
HELIUM.....	6.8	-----	0.02	-----		0.04	-----	
HEATING VALUE.....	968	-----	124	-----		1173	-----	
SPECIFIC GRAVITY.....	0.965	-----	0.731	-----		0.683	-----	

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3673			INDEX 3674			INDEX 3675		
SAMPLE 8961			SAMPLE 9555			SAMPLE 1771		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	CARBON		CARBON			CARBON		
FIELD.....	CLARKS FORK		CLARKS FORK			DRY CREEK		
WELL NAME.....	TEXACO-60VT, C-NO. 1		GDVT, C NO. 1			NO. 1		
LOCATION.....	SEC. 27, T9S, R22E		SEC. 27, T9S, R22E			SEC. 11, T7S, R21E		
OWNER.....	TEXACO INC.		TEXACO INC.			OHIO OIL CO.		
COMPLETED.....	02/--/63		03/23/63			--/--/60		
SAMPLED.....	05/17/63		08/31/64			05/11/29		
FORMATION.....	CRET-GREYBULL		CRET-GREYBULL			CRET-EAGLE		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	7920		7927			2350		
WELLHEAD PRESSURE, PSIG.....	1878		NOT GIVEN			960		
OPEN FLOW, MCFD.....	316		NOT GIVEN			2500		
COMPONENT, MOLE PCT.....								
METHANE.....	66.8		65.1			85.6		
ETHANE.....	13.8		13.9			12.6		
PROPANE.....	6.6		6.9			---		
N-BUTANE.....	2.2		2.5			---		
ISOBUTANE.....	1.0		1.3			---		
N-PENTANE.....	0.7		0.7			---		
ISOPENTANE.....	0.5		0.8			---		
CYCLOPENTANE.....	0.2		0.3			---		
HEXANES PLUS.....	0.8		1.0			---		
NITROGEN.....	6.1		6.4			0.6		
OXYGEN.....	0.7		0.1			0.2		
ARGON.....	0.1		TRACE			---		
HYDROGEN.....	1.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.5		0.9			1.1		
HELIUM.....	0.03		0.03			0.04		
HEATING VALUE.....	1303		1362			1093		
SPECIFIC GRAVITY.....	0.819		0.844			0.632		

INDEX 3676			INDEX 3677			INDEX 3678		
SAMPLE 1772			SAMPLE 2178			SAMPLE 2199		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	CARBON		CARBON			CARBON		
FIELD.....	DRY CREEK		DRY CREEK			DRY CREEK		
WELL NAME.....	NO. 1		NORTHERN PACIFIC NO. 1			NORTHERN PACIFIC NO. 2		
LOCATION.....	SEC. 11, T7S, R21E		SEC. 11, T7S, R21E			SEC. 11, T7S, R21E		
OWNER.....	OHIO OIL CO.		OHIO OIL CO.			OHIO OIL CO.		
COMPLETED.....	03/--/60		03/31/29			--/--/60		
SAMPLED.....	05/11/29		09/18/30			10/06/30		
FORMATION.....	CRET-EAGLE		CRET-FRONTIER			CRET-LAKOTA		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	4450		4410			5412		
WELLHEAD PRESSURE, PSIG.....	1400		1310			NOT GIVEN		
OPEN FLOW, MCFD.....	6500		9000			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	83.7		83.0			7.0		
ETHANE.....	14.0		12.8			92.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	0.9		3.0			0.1		
OXYGEN.....	0.3		0.1			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.1		1.1			0.5		
HELIUM.....	0.03		0.03			0.02		
HEATING VALUE.....	1099		1070			1727		
SPECIFIC GRAVITY.....	0.640		0.641			1.018		

INDEX 3679			INDEX 3680			INDEX 3681		
SAMPLE 9136			SAMPLE 14391			SAMPLE 9135		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	CARBON		CARBON			CARBON		
FIELD.....	DRY CREEK		DRY CREEK			GOLDEN DOME		
WELL NAME.....	CHAPMAN NO. 24		ROBINSON NO. 15			J. KUCKINSKI NO. 1		
LOCATION.....	SEC. 2, T7S, R21E		SEC. 3, T7S, R21E			SEC. 14, T7S, R22E		
OWNER.....	MARATHON OIL CO.		MONTANA POWER CO.			MONTANA POWER CO.		
COMPLETED.....	04/--/54		08/01/72			10/31/61		
SAMPLED.....	10/29/63		04/09/75			10/24/63		
FORMATION.....	CRET-FRONTIER		CRET-JUDITH RIVER			CRET-MESAVERDE		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	4062		1884			2633		
WELLHEAD PRESSURE, PSIG.....	421		375			495		
OPEN FLOW, MCFD.....	1800		500000			400		
COMPONENT, MOLE PCT.....								
METHANE.....	88.9		87.2			86.7		
ETHANE.....	6.8		7.1			5.4		
PROPANE.....	1.4		2.3			2.9		
N-BUTANE.....	0.3		0.4			0.9		
ISOBUTANE.....	0.5		0.8			0.5		
N-PENTANE.....	0.1		0.1			0.3		
ISOPENTANE.....	0.4		0.8			0.4		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.3		
NITROGEN.....	0.9		1.5			3.1		
OXYGEN.....	0.3		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.1		
HELIUM.....	0.02		0.03			0.10		
HEATING VALUE.....	1122		1142			1126		
SPECIFIC GRAVITY.....	0.635		0.653			0.659		

INDEX 3682			INDEX 3683			INDEX 3684		
SAMPLE 16764			SAMPLE 17752			SAMPLE 11427		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	CARBON		CARBON			CARTER		
FIELD.....	GOLDEN DOME		NOT GIVEN			BELL CREEK		
WELL NAME.....	RIEKEN NO. 16-11		NEWTON NO. 1			ESPY NO. 6-1		
LOCATION.....	SEC. 21, T7S, R22E		SEC. 21, T7S, R23E			SEC. 6, T8S, R55E		
OWNER.....	MONTANA POWER CO.		YVC, INC.			SINCLAIR OIL & GAS CO.		
COMPLETED.....	08/--/82		02/--/83			09/08/67		
SAMPLED.....	02/03/83		07/08/85			04/03/68		
FORMATION.....	CRET-GREYBULL		CRET-916 ELK			CRET-HUDDY		
GEOLOGIC PROVINCE CODE.....	520		520			395		
DEPTH, FEET.....	5442		823			4368		
WELLHEAD PRESSURE, PSIG.....	2473		270			1062		
OPEN FLOW, MCFD.....	900		20			14500		
COMPONENT, MOLE PCT.....								
METHANE.....	71.0		83.1			94.4		
ETHANE.....	13.2		---			0.3		
PROPANE.....	6.1		TRACE			0.1		
N-BUTANE.....	2.3		0.0			0.2		
ISOBUTANE.....	1.4		0.0			0.1		
N-PENTANE.....	0.4		0.0			0.1		
ISOPENTANE.....	1.5		0.0			0.1		
CYCLOPENTANE.....	0.2		0.0			0.1		
HEXANES PLUS.....	0.6		0.0			0.2		
NITROGEN.....	2.8		16.5			4.4		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.0			TRACE		
HELIUM.....	0.03		0.01			0.02		
HEATING VALUE.....	1359		844			997		
SPECIFIC GRAVITY.....	0.807		0.625			0.590		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3685 11928	INDEX SAMPLE	3686 2157	INDEX SAMPLE	3687 2854
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	CARTER			CARTER		CASCADE	
FIELD.....	BELL CREEK			WOLF CREEK		VAUGHN	
WELL NAME.....	ESPY NO. 7-1			NO. 1		SHANNON-ROBERTS NO. 1	
LOCATION.....	SEC. 7, T8S, R5SE			SEC. 7, T8S, R5TE		SEC. 12, T28N, R1E	
OWNER.....	SINCLAIR OIL & GAS CO.			JOHN R. POSS		BUSHFORD PETROLEUM SYND.	
COMPLETED.....	10/04/67			--/--/00		--/--/00	
SAMPLED.....	04/03/68			09/26/70		01/15/41	
FORMATION.....	CRET-MUDDY			NOT GIVEN		DEV0-	
GEOLOGIC PROVINCE CODE.....	395			395		500	
DEPTH, FEET.....	4478			NOT GIVEN		3168	
WELLHEAD PRESSURE, PSIG.....	1000			NOT GIVEN		50	
OPEN FLOW, MCFD.....	2000			NOT GIVEN		10	
COMPONENT, MOLE PCT							
METHANE.....	94.3	-----		97.0	-----	1.8	-----
ETHANE.....	0.5	-----		0.0	-----	0.0	-----
PROPANE.....	0.1	-----		---	-----	---	-----
N-BUTANE.....	0.2	-----		---	-----	---	-----
ISOBUTANE.....	0.1	-----		---	-----	---	-----
N-PENTANE.....	0.1	-----		---	-----	---	-----
ISOPENTANE.....	TRACE	-----		---	-----	---	-----
CYCLOPENTANE.....	0.1	-----		---	-----	---	-----
HEXANES PLUS.....	0.2	-----		---	-----	---	-----
NITROGEN.....	4.3	-----		2.7	-----	28.9	-----
OXYGEN.....	0.0	-----		0.1	-----	0.4	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	19.5	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.3	-----	49.4	-----
HELIUM.....	0.02	-----		0.02	-----	TRACE	-----
HEATING VALUE.....	995	-----		983	-----	86	-----
SPECIFIC GRAVITY.....	0.590	-----		0.570	-----	1.063	-----
		INDEX SAMPLE	3688 2305	INDEX SAMPLE	3689 14328	INDEX SAMPLE	3690 14943
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	CHOUTEAU			CHOUTEAU		CHOUTEAU	
FIELD.....	BARE PAW MOUNTAIN			BULLWACKER		BULLWACKER	
WELL NAME.....	COOLEGE & COOLEGE			NORDEN NO. 3		HENDERSON NO. 5-27	
LOCATION.....	SEC. 17, T25N, R1TE			SEC. 29, T27N, R1TE		SEC. 27, T27N, R1TE	
OWNER.....	COOLEGE & COOLEGE			ROLD S. BOND		MONTANA POWER CO.	
COMPLETED.....	01/01/22			09/23/74		09/03/76	
SAMPLED.....	03/28/31			11/25/74		03/16/77	
FORMATION.....	NOT GIVEN			CRET-EAGLE		CRET-EAGLE	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	1700			2052		2365	
WELLHEAD PRESSURE, PSIG.....	570			525		436	
OPEN FLOW, MCFD.....	7000			2434		2000	
COMPONENT, MOLE PCT							
METHANE.....	95.4	-----		87.2	-----	85.2	-----
ETHANE.....	0.0	-----		3.0	-----	1.8	-----
PROPANE.....	---	-----		0.3	-----	0.4	-----
N-BUTANE.....	---	-----		0.3	-----	0.3	-----
ISOBUTANE.....	---	-----		0.1	-----	0.1	-----
N-PENTANE.....	---	-----		0.1	-----	0.2	-----
ISOPENTANE.....	---	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	---	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	---	-----		0.5	-----	0.3	-----
NITROGEN.....	4.3	-----		TRACE	-----	0.0	-----
OXYGEN.....	0.1	-----		TRACE	-----	TRACE	-----
ARGON.....	---	-----		TRACE	-----	0.0	-----
HYDROGEN.....	---	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	TRACE	-----
CARBON DIOXIDE.....	0.2	-----		TRACE	-----	0.10	-----
HELIUM.....	0.05	-----		1.007	-----	994	-----
HEATING VALUE.....	966	-----		0.630	-----	0.640	-----
SPECIFIC GRAVITY.....	0.575	-----					
		INDEX SAMPLE	3691 17414	INDEX SAMPLE	3692 15880	INDEX SAMPLE	3693 2328
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	CHOUTEAU			CHOUTEAU		CHOUTEAU	
FIELD.....	BULLWACKER			CHIP CREEK		SAND CREEK	
WELL NAME.....	KANE NO. 3-28			STATE NO. 2-16		A. HUBSCHWERTEN NO. 1	
LOCATION.....	SEC. 28, T27N, R16E			SEC. 16, T26N, R1TE		SEC. 17, T25N, R1TE	
OWNER.....	MONTANA POWER CO.			CANKEE OIL & GAS CO.		TEXAS PACIFIC COAL & OIL CO.	
COMPLETED.....	04/11/84			06/05/79		04/05/25	
SAMPLED.....	09/11/84			01/10/80		05/03/31	
FORMATION.....	CRET-EAGLE			CRET-EAGLE		CRET-EAGLE	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	2042			1444		1748	
WELLHEAD PRESSURE, PSIG.....	527			389		570	
OPEN FLOW, MCFD.....	2200			2125		7000	
COMPONENT, MOLE PCT							
METHANE.....	87.2	-----		91.4	-----	90.0	-----
ETHANE.....	4.0	-----		0.4	-----	2.0	-----
PROPANE.....	1.5	-----		0.1	-----	---	-----
N-BUTANE.....	0.3	-----		0.1	-----	---	-----
ISOBUTANE.....	0.2	-----		0.0	-----	---	-----
N-PENTANE.....	0.1	-----		TRACE	-----	---	-----
ISOPENTANE.....	---	-----		TRACE	-----	---	-----
CYCLOPENTANE.....	---	-----		TRACE	-----	---	-----
HEXANES PLUS.....	0.1	-----		TRACE	-----	---	-----
NITROGEN.....	0.1	-----		7.7	-----	6.4	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.9	-----
ARGON.....	TRACE	-----		TRACE	-----	---	-----
HYDROGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.3	-----		0.1	-----	0.7	-----
HELIUM.....	0.08	-----		0.13	-----	0.05	-----
HEATING VALUE.....	1024	-----		0.591	-----	948	-----
SPECIFIC GRAVITY.....	0.631	-----				0.603	-----
		INDEX SAMPLE	3694 13182	INDEX SAMPLE	3695 13463	INDEX SAMPLE	3696 9149
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	CHOUTEAU			CHOUTEAU		DAWSON	
FIELD.....	SHERARD			WILDCAT		SAND CREEK	
WELL NAME.....	FED. NO. 10-29			STATE NO. 24-16		W. N. GUEFF NO. 1	
LOCATION.....	SEC. 29, T26N, R17E			SEC. 16, T25N, R17E		SEC. 4, T15N, R54E	
OWNER.....	WISE OIL CO.			WISE OIL CO.		TEXACO INC.	
COMPLETED.....	10/04/71			06/12/72		03/08/59	
SAMPLED.....	04/07/72			11/05/72		11/01/63	
FORMATION.....	CRET-EAGLE			CRET-EAGLE		SILU-INTERLAKE	
GEOLOGIC PROVINCE CODE.....	500			500		395	
DEPTH, FEET.....	1426			1706		8954	
WELLHEAD PRESSURE, PSIG.....	163			350		NOT GIVEN	
OPEN FLOW, MCFD.....	---			11000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	91.3	-----		94.6	-----	23.0	-----
ETHANE.....	0.4	-----		0.3	-----	21.6	-----
PROPANE.....	0.1	-----		TRACE	-----	21.8	-----
N-BUTANE.....	0.0	-----		TRACE	-----	11.3	-----
ISOBUTANE.....	0.0	-----		TRACE	-----	2.1	-----
N-PENTANE.....	0.0	-----		TRACE	-----	4.8	-----
ISOPENTANE.....	0.0	-----		TRACE	-----	3.2	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	0.2	-----
HEXANES PLUS.....	0.0	-----		TRACE	-----	0.7	-----
NITROGEN.....	8.0	-----		4.8	-----	8.9	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.11	-----		0.05	-----	0.10	-----
HELIUM.....	935	-----		964	-----	2023	-----
HEATING VALUE.....	0.589	-----		0.574	-----	1.318	-----
SPECIFIC GRAVITY.....							

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3697 5601	INDEX SAMPLE	3698 746	INDEX SAMPLE	3699 1667
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	FALLON			FALLON		FALLON	
FIELD.....	CEDAR CREEK			CEDAR CREEK		CEDAR CREEK	
WELL NAME.....	UNIT NO. 11-33			MONTANA PETROLEUM CO. NO. 1		FINDLATER NO. 1	
LOCATION.....	SEC. 33, T10N, R58E			SEC. 13, T7N, R59E		SEC. 13, T7N, R59E	
OWNER.....	SHELL CO.			MONTANA PETROLEUM CO.		J. G. FINDLATER	
COMPLETED.....	7/1/00			7/1/00		06/11/28	
SAMPLED.....	02/10/54			04/11/22		08/03/28	
FORMATION.....	CAMB-			NOT GIVEN		CRET-JUDITH RIVER	
GEOLOGIC PROVINCE CODE.....	395			395		395	
DEPTH, FEET.....	10086			1440		491	
WELLHEAD PRESSURE, PSIG.....	4360			150		95	
OPEN FLOW, MCFD.....	60000			NOT GIVEN		468	
COMPONENT, MOLE PCT							
METHANE.....	7.5	---	---	99.5	---	92.7	---
ETHANE.....	1.1	---	---	0.0	---	2.8	---
PROPANE.....	0.5	---	---	---	---	---	---
N-BUTANE.....	0.1	---	---	---	---	---	---
ISOBUTANE.....	0.0	---	---	---	---	---	---
N-PENTANE.....	0.0	---	---	---	---	---	---
ISOPENTANE.....	0.0	---	---	---	---	---	---
CYCLOPENTANE.....	TRACE	---	---	---	---	---	---
HEXANES PLUS.....	0.1	---	---	---	---	---	---
NITROGEN.....	89.3	---	---	0.0	---	4.2	---
OXYGEN.....	0.0	---	---	0.3	---	0.5	---
ARGON.....	0.2	---	---	---	---	---	---
HYDROGEN.....	TRACE	---	---	---	---	---	---
HYDROGEN SULFIDE**.....	0.0	---	---	---	---	---	---
CARBON DIOXIDE.....	0.0	---	---	0.1	---	0.6	---
HELIUM.....	0.40	---	---	0.08	---	0.18	---
HEATING VALUE.....	117	---	---	1008	---	975	---
SPECIFIC GRAVITY.....	0.944	---	---	0.557	---	0.590	---
		INDEX SAMPLE	3700 2082	INDEX SAMPLE	3701 2418	INDEX SAMPLE	3702 2419
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	FALLON			FALLON		FALLON	
FIELD.....	CEDAR CREEK			CEDAR CREEK		CEDAR CREEK	
WELL NAME.....	MONARCH NO. 6			NO. 7		NO. 7	
LOCATION.....	SEC. 12, T5N, R59E			SEC. 36, T9N, R58E		SEC. 27, T10N, R58E	
OWNER.....	MONARCH GAS CORP.			GAS DEVELOPMENT CO.		GAS DEVELOPMENT CO.	
COMPLETED.....	08/01/29			08/01/29		10/04/26	
SAMPLED.....	06/26/30			10/10/31		10/10/31	
FORMATION.....	CRET-EAGLE			CRET-JUDITH RIVER		CRET-JUDITH RIVER	
GEOLOGIC PROVINCE CODE.....	395			395		395	
DEPTH, FEET.....	1985			718		864	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			210		210	
OPEN FLOW, MCFD.....	15			26500		8000	
COMPONENT, MOLE PCT							
METHANE.....	97.7	---	---	85.8	---	92.6	---
ETHANE.....	0.0	---	---	5.0	---	1.9	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	2.0	---	---	8.5	---	5.2	---
OXYGEN.....	0.2	---	---	0.6	---	0.0	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE**.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.3	---
HELIUM.....	0.09	---	---	0.13	---	0.14	---
HEATING VALUE.....	990	---	---	959	---	972	---
SPECIFIC GRAVITY.....	0.565	---	---	0.619	---	0.588	---
		INDEX SAMPLE	3703 2420	INDEX SAMPLE	3704 2424	INDEX SAMPLE	3705 2426
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	FALLON			FALLON		FALLON	
FIELD.....	CEDAR CREEK			CEDAR CREEK		CEDAR CREEK	
WELL NAME.....	NO. 11			NO. 106		NO. 40	
LOCATION.....	SEC. 36, T11N, R57E			SEC. 23, T8N, R59E		SEC. 2, T5N, R60E	
OWNER.....	GAS DEVELOPMENT CO.			GAS DEVELOPMENT CO.		GAS DEVELOPMENT CO.	
COMPLETED.....	07/07/27			07/13/31		08/12/29	
SAMPLED.....	10/10/31			10/10/31		10/10/31	
FORMATION.....	CRET-JUDITH RIVER			CRET-JUDITH RIVER		CRET-JUDITH RIVER	
GEOLOGIC PROVINCE CODE.....	395			395		395	
DEPTH, FEET.....	761			762		937	
WELLHEAD PRESSURE, PSIG.....	200			193		200	
OPEN FLOW, MCFD.....	1000			5000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	94.4	---	---	91.9	---	92.4	---
ETHANE.....	0.0	---	---	2.5	---	1.6	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	5.5	---	---	5.5	---	5.9	---
OXYGEN.....	0.0	---	---	---	---	0.0	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE**.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.1	---
HELIUM.....	0.12	---	---	0.11	---	0.09	---
HEATING VALUE.....	956	---	---	976	---	965	---
SPECIFIC GRAVITY.....	0.578	---	---	0.591	---	0.588	---
		INDEX SAMPLE	3706 2427	INDEX SAMPLE	3707 2559	INDEX SAMPLE	3708 2561
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	FALLON			FALLON		FALLON	
FIELD.....	CEDAR CREEK			CEDAR CREEK		CEDAR CREEK	
WELL NAME.....	NO. 2			GAS DEVELOPMENT CO. NO. 93		GAS DEVELOPMENT CO. NO. 81	
LOCATION.....	SEC. 28, T8N, R60E			SEC. 28, T8N, R60E		SEC. 2, T8N, R59E	
OWNER.....	H. W. McDONALD			GAS DEVELOPMENT CO.		GAS DEVELOPMENT CO.	
COMPLETED.....	09/01/31			12/11/16		07/12/29	
SAMPLED.....	09/17/31			09/17/31		09/12/32	
FORMATION.....	CRET-EAGLE			CRET-JUDITH RIVER		CRET-JUDITH RIVER	
GEOLOGIC PROVINCE CODE.....	395			395		395	
DEPTH, FEET.....	1662			799		1009	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			135		197	
OPEN FLOW, MCFD.....	NOT GIVEN			1500		1187	
COMPONENT, MOLE PCT							
METHANE.....	93.9	---	---	95.9	---	96.0	---
ETHANE.....	1.6	---	---	0.0	---	0.0	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	4.1	---	---	3.9	---	3.6	---
OXYGEN.....	0.1	---	---	0.0	---	0.3	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE**.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.3	---	---	0.1	---	0.0	---
HELIUM.....	0.10	---	---	0.10	---	0.12	---
HEATING VALUE.....	980	---	---	971	---	972	---
SPECIFIC GRAVITY.....	0.583	---	---	0.571	---	0.571	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3709 9122	INDEX SAMPLE	3710 9123	INDEX SAMPLE	3711 934
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	FALLON			FALLON		FERGUS	
FIELD.....	CEDAR CREEK			CEDAR CREEK		ARNELLS	
WELL NAME.....	NO. 94			NO. 365		ROMUNDSTAD NO. 1-A	
LOCATION.....	SEC. 18, T7N, R60E			SEC. 29, T7N, R60E		SEC. 4, T17N, R20E	
OWNER.....	MONTANA-DAKOTA UTILITIES CO.			MONTANA-DAKOTA UTILITIES CO.		CALIFORNIA CO.	
COMPLETED.....	--/--/18			10/04/49		--/--/00	
SAMPLED.....	10/24/63			10/24/63		08/08/24	
FORMATION.....	CRET-JUDITH RIVER			CRET-EAGLE		CRET-KOOTENAI	
GEOLOGIC PROVINCE CODE.....	395			395		510	
DEPTH, FEET.....	837			1315		1240	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			322		345	
OPEN FLOW, MCFD.....	295			180		3000	
COMPONENT, MOLE PCT							
METHANE.....	95.4	-----		95.3	-----	42.3	-----
ETHANE.....	0.2	-----		0.4	-----	0.4	-----
PROPANE.....	0.1	-----		0.2	-----	---	-----
N-BUTANE.....	0.0	-----		TRACE	-----	---	-----
ISOBUTANE.....	0.0	-----		0.0	-----	---	-----
N-PENTANE.....	0.0	-----		0.0	-----	---	-----
ISOPENTANE.....	0.0	-----		0.0	-----	---	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	---	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	---	-----
NITROGEN.....	4.1	-----		3.9	-----	55.3	-----
ARGON.....	TRACE	-----		TRACE	-----	0.9	-----
OXYGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.3	-----
HELIUM.....	0.10	-----		0.10	-----	0.60	-----
HEATING VALUE.....	973	-----		978	-----	436	-----
SPECIFIC GRAVITY.....	0.574	-----		0.575	-----	0.789	-----
		INDEX SAMPLE	3712 935	INDEX SAMPLE	3713 2248	INDEX SAMPLE	3714 17390
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	FERGUS			FERGUS		FERGUS	
FIELD.....	ARNELLS			ARNELLS		LEROY	
WELL NAME.....	EDWARDS NO. 1			NO. 1		FED. NO. N-27-23-19-N	
LOCATION.....	SEC. 3, T17N, R20E			SEC. 4, T17N, R20E		SEC. 27, T23N, R19E	
OWNER.....	CALIFORNIA CO.			G. LANDHEIM		FUEL RESOURCES DEV. CO.	
COMPLETED.....	--/--/00			12/13/30		08/23/84	
SAMPLED.....	08/08/24			12/16/30		08/23/84	
FORMATION.....	NOT GIVEN			CRET-KOOTENAI		CRET-EAGLE	
GEOLOGIC PROVINCE CODE.....	510			510		510	
DEPTH, FEET.....	1470			1238		1323	
WELLHEAD PRESSURE, PSIG.....	345			400		275	
OPEN FLOW, MCFD.....	2900			2590		120	
COMPONENT, MOLE PCT							
METHANE.....	38.7	-----		42.1	-----	93.1	-----
ETHANE.....	1.0	-----		1.2	-----	0.3	-----
PROPANE.....	---	-----		---	-----	TRACE	-----
N-BUTANE.....	---	-----		---	-----	0.0	-----
ISOBUTANE.....	---	-----		---	-----	0.0	-----
N-PENTANE.....	---	-----		---	-----	0.0	-----
ISOPENTANE.....	---	-----		---	-----	0.0	-----
CYCLOPENTANE.....	---	-----		---	-----	0.0	-----
HEXANES PLUS.....	---	-----		---	-----	0.0	-----
NITROGEN.....	58.3	-----		56.0	-----	6.2	-----
OXYGEN.....	0.8	-----		0.0	-----	0.0	-----
ARGON.....	---	-----		---	-----	TRACE	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.1	-----	0.2	-----
HELIUM.....	0.60	-----		0.64	-----	0.08	-----
HEATING VALUE.....	410	-----		448	-----	948	-----
SPECIFIC GRAVITY.....	0.806	-----		0.790	-----	0.582	-----
		INDEX SAMPLE	3715 670	INDEX SAMPLE	3716 1396	INDEX SAMPLE	3717 1640
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	FERGUS			GALLATIN		GLACIER	
FIELD.....	MERCER DOME			NOT GIVEN		BIG ROCK	
WELL NAME.....	TRBAL NO. 1			SPRING		JAMES BOY HEIRS NO.11-8	
LOCATION.....	SEC. 4, T14N, R20E			SEC. 8, T3N, R3E		SEC. 8, T36N, R6W	
OWNER.....	GAULT INVESTMENT CO.			W. L. STOCKTON		MONTANA POWER CO.	
COMPLETED.....	01/01/18			--/--/27		08/21/84	
SAMPLED.....	09/--/21			05/27/27		04/02/85	
FORMATION.....	NOT GIVEN			NOT GIVEN		CRET-BLACK LEAF	
GEOLOGIC PROVINCE CODE.....	510			505		500	
DEPTH, FEET.....	194			NOT GIVEN		2035	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		170	
OPEN FLOW, MCFD.....	10			NOT GIVEN		101	
COMPONENT, MOLE PCT							
METHANE.....	0.0	-----		0.0	-----	82.9	-----
ETHANE.....	0.0	-----		1.9	-----	3.1	-----
PROPANE.....	---	-----		---	-----	3.4	-----
N-BUTANE.....	---	-----		---	-----	1.4	-----
ISOBUTANE.....	---	-----		---	-----	0.7	-----
N-PENTANE.....	---	-----		---	-----	0.3	-----
ISOPENTANE.....	---	-----		---	-----	0.3	-----
CYCLOPENTANE.....	---	-----		---	-----	0.1	-----
HEXANES PLUS.....	---	-----		---	-----	0.2	-----
NITROGEN.....	99.7	-----		91.9	-----	6.9	-----
OXYGEN.....	0.2	-----		0.8	-----	0.1	-----
ARGON.....	---	-----		---	-----	TRACE	-----
HYDROGEN.....	---	-----		---	-----	0.1	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		4.6	-----	0.1	-----
HELIUM.....	0.08	-----		0.76	-----	0.35	-----
HEATING VALUE.....	410	-----		0.989	-----	1094	-----
SPECIFIC GRAVITY.....	0.967	-----			-----	0.682	-----
		INDEX SAMPLE	3718 17878	INDEX SAMPLE	3719 1842	INDEX SAMPLE	3720 2154
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	GLACIER			GLACIER		GLACIER	
FIELD.....	BIG ROCK			CUT BANK		CUT BANK	
WELL NAME.....	TRBAL 355 NO. 10-11			YUNCK NO. 1		YUNCK NO. 1	
LOCATION.....	SEC. 10, T37N, R7W			SEC. 1, T34N, R6W		SEC. 1, T34N, R6W	
OWNER.....	MONTANA POWER CO.			PAR OIL CO.		JOSEPH DRUMHELLER	
COMPLETED.....	07/--/85			08/26/29		08/02/29	
SAMPLED.....	10/22/85			08/28/29		09/26/30	
FORMATION.....	CRET-BLACK LEAF			MISC-WADISON		CRET-KOOTENAI	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	2197			NOT GIVEN		2710	
WELLHEAD PRESSURE, PSIG.....	1232			NOT GIVEN		595	
OPEN FLOW, MCFD.....	300			5000		6250	
COMPONENT, MOLE PCT							
METHANE.....	76.7	-----		86.2	-----	80.6	-----
ETHANE.....	7.9	-----		---	-----	13.5	-----
PROPANE.....	6.4	-----		---	-----	---	-----
N-BUTANE.....	2.5	-----		---	-----	---	-----
ISOBUTANE.....	1.0	-----		---	-----	---	-----
N-PENTANE.....	0.5	-----		---	-----	---	-----
ISOPENTANE.....	0.6	-----		---	-----	---	-----
CYCLOPENTANE.....	0.2	-----		---	-----	---	-----
HEXANES PLUS.....	0.4	-----		---	-----	---	-----
NITROGEN.....	3.2	-----		3.8	-----	4.2	-----
OXYGEN.....	0.1	-----		0.2	-----	0.1	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	0.1	-----		---	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.0	-----		0.1	-----	1.5	-----
HELIUM.....	0.16	-----		0.55	-----	0.18	-----
HEATING VALUE.....	1278	-----		1036	-----	1058	-----
SPECIFIC GRAVITY.....	0.761	-----		0.615	-----	0.653	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3721 SAMPLE 2155			INDEX 3722 SAMPLE 4298			INDEX 3723 SAMPLE 7944		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	GLACIER		GLACIER			GLACIER		
FIELD.....	CUT BANK		CUT BANK			CUT BANK		
WELL NAME.....	MICHAEL NO. 1		MCGUINNESS NO. 8			WARFIELD U 1		
LOCATION.....	SEC. 28, T36N, R5W		SEC. 6, T35N, R6W			SEC. 9, T35N, R5W		
OWNER.....	O'NEIL & HILL		MONTANA POWER CO.			MONTANA POWER CO.		
COMPLETED.....	08/10/30		01/21/47			05/20/36		
SAMPLED.....	09/26/30		05/12/47			04/27/61		
FORMATION.....	CRET-KOOTENAI		CRET-KOOTENAI			CRET-KOOTENAI		
GEOLOGIC PROVINCE CODE.....	500		500			500		
DEPTH, FEET.....	2755		2804			2977		
WELLHEAD PRESSURE, PSIG.....	760		477			215		
OPEN FLOW, MCFD.....	15000		8600			940		
COMPONENT, MOLE PCT								
METHANE.....	78.6		76.4			77.4		
ETHANE.....	13.1		17.4			7.0		
PROPANE.....	---		---			3.2		
N-BUTANE.....	---		---			1.0		
ISOBUTANE.....	---		---			0.6		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.1		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	4.8		4.1			5.0		
OXYGEN.....	0.1		0.2			TRACE		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	3.2		1.7			5.0		
HELIUM.....	0.15		0.15			0.20		
HEATING VALUE.....	1031		1086			1064		
SPECIFIC GRAVITY.....	0.670		0.674			0.721		
INDEX 3724 SAMPLE 7945			INDEX 3725 SAMPLE 9142			INDEX 3726 SAMPLE 9146		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	GLACIER		GLACIER			GLACIER		
FIELD.....	CUT BANK		CUT BANK			CUT BANK		
WELL NAME.....	MCMURDO N 4		ANTHRON NO. 3			THAYER NO. 2		
LOCATION.....	SEC. 14, T36N, R5W		SEC. 34, T35N, R6W			SEC. 21, T35N, R6W		
OWNER.....	MONTANA POWER CO.		TEXACO INC.			TEXACO INC.		
COMPLETED.....	04/21/59		07/01/54			10/09/44		
SAMPLED.....	04/27/61		11/03/63			11/04/63		
FORMATION.....	MISS-MADISON		CRET-CUT BANK			CRET-BLACK LEAF		
GEOLOGIC PROVINCE CODE.....	500		500			500		
DEPTH, FEET.....	2825		2918			1725		
WELLHEAD PRESSURE, PSIG.....	753		50			52		
OPEN FLOW, MCFD.....	5900		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	81.7		58.6			85.1		
ETHANE.....	6.3		17.6			2.7		
PROPANE.....	2.3		10.5			2.3		
N-BUTANE.....	0.6		4.1			1.1		
ISOBUTANE.....	0.6		1.3			0.4		
N-PENTANE.....	0.1		0.8			0.2		
ISOPENTANE.....	0.1		1.3			0.3		
CYCLOPENTANE.....	TRACE		0.2			0.1		
HEXANES PLUS.....	0.1		0.6			0.1		
NITROGEN.....	4.9		TRACE			7.1		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.0		2.7			0.1		
HELIUM.....	0.20		0.04			0.40		
HEATING VALUE.....	1054		1492			1051		
SPECIFIC GRAVITY.....	0.681		0.923			0.657		
INDEX 3727 SAMPLE 9150			INDEX 3728 SAMPLE 9163			INDEX 3729 SAMPLE 10830		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	GLACIER		GLACIER			GLACIER		
FIELD.....	CUT BANK		CUT BANK			CUT BANK		
WELL NAME.....	ARONSON NO. 2		DE STUFF NO. 3			ELMER NO. 1		
LOCATION.....	SEC. 21, T35N, R6W		SEC. 21, T36N, R5W			SEC. 3, T36N, R5W		
OWNER.....	TEXACO INC.		TEXACO INC.			MONTANA POWER CO.		
COMPLETED.....	01/19/61		01/06/48			--/--/00		
SAMPLED.....	11/04/63		11/04/63			01/03/67		
FORMATION.....	ORDO-LANDER		MISS-MADISON			CRET-KOOTENAI		
GEOLOGIC PROVINCE CODE.....	500		500			500		
DEPTH, FEET.....	2953		3221			2676		
WELLHEAD PRESSURE, PSIG.....	50		NOT GIVEN			715		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			3000		
COMPONENT, MOLE PCT								
METHANE.....	41.0		77.8			82.0		
ETHANE.....	25.4		8.5			6.4		
PROPANE.....	13.9		4.1			2.3		
N-BUTANE.....	7.0		0.5			0.5		
ISOBUTANE.....	2.0		0.5			0.3		
N-PENTANE.....	1.7		0.4			0.1		
ISOPENTANE.....	2.9		0.3			0.0		
CYCLOPENTANE.....	0.4		TRACE			TRACE		
HEXANES PLUS.....	1.8		0.2			0.1		
NITROGEN.....	1.3		3.6			6.9		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.5		0.0			1.1		
HELIUM.....	0.00		0.10			0.25		
HEATING VALUE.....	1839		1151			1041		
SPECIFIC GRAVITY.....	1.126		0.728			0.663		
INDEX 3730 SAMPLE 14453			INDEX 3731 SAMPLE 6735			INDEX 3732 SAMPLE 8543		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	GLACIER		GLACIER			GLACIER		
FIELD.....	CUT BANK		DARLING AREA			TWO MEDICINE CREEK		
WELL NAME.....	CLAPPER NO U-1		MOBERLY NO. 1			TWO MEDICINE NO. 1		
LOCATION.....	SEC. 12, T35N, R5W		SEC. 12, T37N, R5W			SEC. 9, T31N, R11W		
OWNER.....	MONTANA POWER CO.		FRARY ASSOC.			MONTANA POWER CO.		
COMPLETED.....	08/13/35		01/14/58			--/--/61		
SAMPLED.....	05/05/75		07/15/58			05/02/62		
FORMATION.....	CRET-KOOTENAI		CRET-CUT BANK			MISS-MADISON		
GEOLOGIC PROVINCE CODE.....	500		500			500		
DEPTH, FEET.....	2625		2600			8895		
WELLHEAD PRESSURE, PSIG.....	110		825			2268		
OPEN FLOW, MCFD.....	15365		600			800		
COMPONENT, MOLE PCT								
METHANE.....	75.8		92.3			78.6		
ETHANE.....	7.9		1.1			7.5		
PROPANE.....	4.0		0.8			2.6		
N-BUTANE.....	1.3		0.4			0.6		
ISOBUTANE.....	0.2		0.2			0.3		
N-PENTANE.....	0.3		TRACE			0.2		
ISOPENTANE.....	0.4		0.4			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	5.3		0.9			4.4		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			5.4		
HELIUM.....	0.14		0.05			0.05		
HEATING VALUE.....	1121		1036			1051		
SPECIFIC GRAVITY.....	0.743		0.622			0.712		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3733 9154	INDEX SAMPLE	3734 9250	INDEX SAMPLE	3735 14672
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	GOLDEN VALLEY			GOLDEN VALLEY		HILL	
FIELD.....	BIG COULEE			BIG COULEE		BADLANDS	
WELL NAME.....	N. STATE 36			N. STATE 36		PATILLO NO. 28-1	
LOCATION.....	SEC. 36, T5N, R19E			SEC. 31, T5N, R20E		SEC. 28, T33N, R15E	
OWNER.....	NORTHERN NATURAL GAS PROD. CO.			UNION OIL CO. OF CALIF.		J. BURNS BROWN	
COMPLETED.....	10/17/59			10/17/59		10/17/59	
SAMPLED.....	10/23/63			02/28/64		05/12/76	
FORMATION.....	CRET-CAT CREEK 3RD			CRET-CAT CREEK 3RD		CRET-EAGLE	
GEOLOGIC PROVINCE CODE.....	515			515		500	
DEPTH, FEET.....	1987			NOT GIVEN		1000	
WELLHEAD PRESSURE, PSIG.....	888			882		450	
OPEN FLOW, MCFD.....	12700			NOT GIVEN		1400	
COMPONENT, MOLE PCT							
METHANE.....	90.3			89.8		93.5	
ETHANE.....	0.4			0.3		0.4	
PROPANE.....	0.2			0.3		0.1	
N-BUTANE.....	0.0			0.0		TRACE	
ISOBUTANE.....	0.0			0.0		0.1	
N-PENTANE.....	0.0			0.0		TRACE	
ISOPENTANE.....	0.0			0.0		TRACE	
CYCLOPENTANE.....	0.0			0.0		TRACE	
HEXANES PLUS.....	0.0			0.0		TRACE	
NITROGEN.....	8.5			8.6		5.1	
OXYGEN.....	TRACE			0.0		0.4	
ARGON.....	0.1			0.1		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.7		0.2	
HELIUM.....	0.30			0.25		0.08	
HEATING VALUE.....	927			923		960	
SPECIFIC GRAVITY.....	0.595			0.601		0.583	
		INDEX SAMPLE	3736 14673	INDEX SAMPLE	3737 10362	INDEX SAMPLE	3738 17430
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	HILL			HILL		FRESNO	
FIELD.....	BADLANDS			CANADIAN COULEE		STATE NO. 2-36	
WELL NAME.....	MILAM NO. 25-1			C. LINEWEAVER NO. 1		SEC. 36, T33N, R13E	
LOCATION.....	SEC. 25, T33N, R14E			SEC. 4, T36N, R8E		WESTERN NATURAL GAS CO.	
OWNER.....	J. BURNS BROWN			PAN AMERICAN PETROLEUM CORP.		09/27/84	
COMPLETED.....	10/17/59			01/11/66		09/27/84	
SAMPLED.....	10/17/59			01/11/66		09/27/84	
FORMATION.....	CRET-EAGLE			JURA-SAWTOOTH		CRET-EAGLE	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	1000			3356		1000	
WELLHEAD PRESSURE, PSIG.....	470			1570		305	
OPEN FLOW, MCFD.....	1200			7300		200	
COMPONENT, MOLE PCT							
METHANE.....	96.7			96.8		96.6	
ETHANE.....	0.4			0.1		0.4	
PROPANE.....	0.1			0.1		TRACE	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	TRACE			0.0		0.0	
N-PENTANE.....	TRACE			0.0		0.0	
ISOPENTANE.....	TRACE			0.0		0.0	
CYCLOPENTANE.....	TRACE			0.0		0.0	
HEXANES PLUS.....	TRACE			0.0		0.0	
NITROGEN.....	2.7			1.7		2.8	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			1.4		TRACE	
HELIUM.....	0.08			0.05		0.08	
HEATING VALUE.....	989			982		986	
SPECIFIC GRAVITY.....	0.568			0.576		0.567	
		INDEX SAMPLE	3739 16153	INDEX SAMPLE	3740 2308	INDEX SAMPLE	3741 10368
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	HILL			HILL		HILL	
FIELD.....	GILFORD			ROEBUCK NO. 1		NOT GIVEN	
WELL NAME.....	ARONOW NO. 1-7			SEC. 28, T33N, R12E		C. LINEWEAVER NO. 1	
LOCATION.....	SEC. 7, T33N, R11E			JONES OIL & GAS CO.		SEC. 4, T36N, R8E	
OWNER.....	ARONOW NO. 1-7			JONES OIL & GAS CO.		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	12/16/80			12/16/80		12/26/65	
SAMPLED.....	12/17/80			03/29/31		12/20/65	
FORMATION.....	JURA-SAWTOOTH			500 - 610 FEET		JURA-FIREMOON	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	3489			610		3406	
WELLHEAD PRESSURE, PSIG.....	1594			175		1584	
OPEN FLOW, MCFD.....	4855			200		4580	
COMPONENT, MOLE PCT							
METHANE.....	96.6			82.4		95.4	
ETHANE.....	0.1			0.0		0.1	
PROPANE.....	0.1			---		0.0	
N-BUTANE.....	0.1			---		0.0	
ISOBUTANE.....	0.1			---		0.0	
N-PENTANE.....	0.1			---		0.0	
ISOPENTANE.....	TRACE			---		0.0	
CYCLOPENTANE.....	0.1			---		0.0	
HEXANES PLUS.....	0.2			---		0.0	
NITROGEN.....	1.2			14.1		3.3	
OXYGEN.....	0.0			3.4		0.0	
ARGON.....	TRACE			---		TRACE	
HYDROGEN.....	0.0			---		0.0	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	1.4			0.1		1.2	
HELIUM.....	0.02			1.2		0.04	
HEATING VALUE.....	1008			835		968	
SPECIFIC GRAVITY.....	0.586			0.632		0.580	
		INDEX SAMPLE	3742 13347	INDEX SAMPLE	3743 6444	INDEX SAMPLE	3744 7571
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	HILL			RODYARD		RODYARD	
FIELD.....	RED ROCK			RODYARD		R. C. BAIR NO. 1	
WELL NAME.....	WALTER E. PAULSON NO. 1			SEC. 10, T33N, R9E		SEC. 28, T34N, R9E	
LOCATION.....	SEC. 32, T34N, R17E			TEXAS CO.		TEXACO INC.	
OWNER.....	AMOCO PRODUCTION CO.			07/06/60		06/09/60	
COMPLETED.....	07/16/72			11/13/57		06/09/60	
SAMPLED.....	07/18/72			JURA-SAWTOOTH		DEVON-SOURIS RIVER	
FORMATION.....	CRET-EAGLE			500		500	
GEOLOGIC PROVINCE CODE.....	500			3380		5068	
DEPTH, FEET.....	1140			1550		2312	
WELLHEAD PRESSURE, PSIG.....	515			2980		1150	
OPEN FLOW, MCFD.....	335						
COMPONENT, MOLE PCT							
METHANE.....	96.2			96.7		4.5	
ETHANE.....	0.4			0.1		0.2	
PROPANE.....	TRACE			0.2		0.0	
N-BUTANE.....	TRACE			0.1		0.1	
ISOBUTANE.....	TRACE			0.1		0.2	
N-PENTANE.....	TRACE			TRACE		TRACE	
ISOPENTANE.....	0.0			TRACE		0.1	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	TRACE			0.0		0.1	
NITROGEN.....	3.2			0.0		92.8	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	TRACE			0.0		0.2	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			1.7		0.7	
HELIUM.....	0.09			0.02		0.90	
HEATING VALUE.....	807			807		72	
SPECIFIC GRAVITY.....	0.569			0.585		0.955	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3745 7572	INDEX SAMPLE	3746 11720	INDEX SAMPLE	3747 11721
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	HILL			HILL		HILL	
FIELD.....	RUDYARD			TIGER RIDGE		TIGER RIDGE	
WELL NAME.....	Re. E. BAIR NO. 1			LUMPKIN NO. 23-1		SANDS NO. 15-1	
LOCATION.....	SEC. 28, T34N, R9E			SEC. 23, T32N, R15E		SEC. 15, T32N, R15E	
OWNER.....	TEXACO INC.			GOLDEN EAGLE EXPLORATION		GOLDEN EAGLE EXPLORATION	
COMPLETED.....	07/06/60			10/10/68		08/-/68	
SAMPLED.....	06/12/60			12/09/68		12/09/68	
FORMATION.....	ORDO-RED RIVER			CRET-EAGLE		CRET-EAGLE	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	5203			1071		1010	
WELLHEAD PRESSURE, PSIG.....	2130			450		435	
OPEN FLOW, MCFD.....	3060			4000		3800	
COMPONENT, MOLE PCT							
METHANE.....	0.9			90.0		96.4	
ETHANE.....	TRACE			0.3		0.3	
PROPANE.....	0.1			TRACE		TRACE	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	97.5			8.2		3.2	
OXYGEN.....	0.0			0.2		0.0	
ARGON.....	0.3			0.1		0.0	
HYDROGEN.....	0.0			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		0.0	
HELIUM.....	1.30			0.08		0.09	
HEATING VALUE.....	12			917		982	
SPECIFIC GRAVITY.....	0.956			0.597		0.569	
		INDEX SAMPLE	3748 14330	INDEX SAMPLE	3749 14333	INDEX SAMPLE	3750 14850
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	UNDESIGNATED			UNDESIGNATED		UNDESIGNATED	
FIELD.....	CUNNINGHAM NO. 1			MILLER NO. 1		LONG NO. 30-15	
WELL NAME.....	SEC. 14, T34N, R16E			SEC. 29, T34N, R16E		SEC. 30, T34N, R15E	
LOCATION.....	WAINOCO, INC.			WAINOCO, INC.		OIL RESOURCES, INC.	
OWNER.....	01/05/75			01/09/75		--/-/700	
COMPLETED.....	05/11/75			05/11/75		10/26/76	
SAMPLED.....	05/11/75			CRET-WIRGELLE		CRET-EAGLE	
FORMATION.....	500			500		500	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	670			1489		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	270			419			
OPEN FLOW, MCFD.....	2150			3400		16393	
COMPONENT, MOLE PCT							
METHANE.....	97.0			96.3		96.8	
ETHANE.....	0.3			0.3		0.4	
PROPANE.....	TRACE			TRACE		0.1	
N-BUTANE.....	0.0			TRACE		0.0	
ISOBUTANE.....	0.0			TRACE		0.0	
N-PENTANE.....	0.0			TRACE		0.0	
ISOPENTANE.....	0.0			TRACE		0.0	
CYCLOPENTANE.....	0.0			TRACE		0.0	
HEXANES PLUS.....	0.0			TRACE		0.0	
NITROGEN.....	2.6			3.2		2.6	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.0		0.1	
HELIUM.....	0.08			0.09		0.07	
HEATING VALUE.....	988			981		990	
SPECIFIC GRAVITY.....	0.566			0.568		0.569	
		INDEX SAMPLE	3751 13145	INDEX SAMPLE	3752 13951	INDEX SAMPLE	3753 1902
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	HILL			HILL		LIBERTY	
FIELD.....	WILDCAT			WILDCAT		BEARS DEN	
WELL NAME.....	GRANT NO. 12-22			MUELLER NO. 18-13		SUNBURST-RITTER NO. 1	
LOCATION.....	SEC. 22, T34N, R15E			SEC. 18, T37N, R8E		SEC. 7, T36N, R6E	
OWNER.....	NORTHERN PACIFIC RAILWAY CO.			OIL RESOURCES, INC.		SUNBURST OIL & REFINING CO.	
COMPLETED.....	12/13/71			12/07/73		06/21/77	
SAMPLED.....	02/07/72			03/12/74		12/09/79	
FORMATION.....	CRET-EAGLE			JURA-FIREMOON		CRET-KOOTENAI	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	602			3578		1783	
WELLHEAD PRESSURE, PSIG.....	186			1441		400	
OPEN FLOW, MCFD.....	4226			15500		14000	
COMPONENT, MOLE PCT							
METHANE.....	96.4			97.6		89.9	
ETHANE.....	0.2			0.2		4.1	
PROPANE.....	0.1			0.1		---	
N-BUTANE.....	0.0			TRACE		---	
ISOBUTANE.....	0.0			0.1		---	
N-PENTANE.....	0.0			TRACE		---	
ISOPENTANE.....	0.0			0.0		---	
CYCLOPENTANE.....	0.0			TRACE		---	
HEXANES PLUS.....	0.0			0.0		---	
NITROGEN.....	3.0			0.7		5.2	
OXYGEN.....	0.0			0.0		0.2	
ARGON.....	TRACE			0.0		---	
HYDROGEN.....	0.0			TRACE		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.1			1.3		0.6	
HELIUM.....	0.09			0.01		0.07	
HEATING VALUE.....	983			1002		984	
SPECIFIC GRAVITY.....	0.569			0.575		0.603	
		INDEX SAMPLE	3754 12060	INDEX SAMPLE	3755 9194	INDEX SAMPLE	3756 4516
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	LIBERTY			LIBERTY		LIBERTY	
FIELD.....	BLACK JACK			GRANDVIEW		KEITH BLOCK	
WELL NAME.....	N. P. MCGREGOR NO. 32-34			BLAIR NO. 1		GEORGE COLBRY NO. 1	
LOCATION.....	SEC. 32, T37N, R5E			SEC. 22, T34N, R4E		SEC. 13, T36N, R6E	
OWNER.....	NORTHERN PACIFIC RAILWAY CO.			MONTANA POWER CO.		TEXAS CO.	
COMPLETED.....	02/03/68			02/03/68		08/14/47	
SAMPLED.....	09/30/69			12/02/63		05/05/48	
FORMATION.....	CRET-SUNBURST			CRET-BOW ISLAND		MISS-L	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	2420			1745		3005	
WELLHEAD PRESSURE, PSIG.....	670			204		1215	
OPEN FLOW, MCFD.....	2650			1520		8980	
COMPONENT, MOLE PCT							
METHANE.....	97.2			95.4		97.4	
ETHANE.....	0.2			0.7		1.1	
PROPANE.....	TRACE			0.0		---	
N-BUTANE.....	0.0			0.0		---	
ISOBUTANE.....	0.0			0.0		---	
N-PENTANE.....	0.0			0.0		---	
ISOPENTANE.....	0.0			0.0		---	
CYCLOPENTANE.....	0.0			0.0		---	
HEXANES PLUS.....	0.0			0.0		---	
NITROGEN.....	1.5			0.7		0.5	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.1			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.9			0.0		1.0	
HELIUM.....	0.05			0.10		0.04	
HEATING VALUE.....	989			979		1006	
SPECIFIC GRAVITY.....	0.569			0.574		0.572	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3757 4517	INDEX SAMPLE	3758 8812	INDEX SAMPLE	3759 8813
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	LIBERTY			LIBERTY		LIBERTY	
FIELD.....	KEITH BLOCK			KEITH BLOCK		KEITH BLOCK	
WELL NAME.....	C-8, SORRELL-GOVT. NO. 1			KOLMET UNIT NO. 1		KOLMET UNIT NO. 1	
LOCATION.....	SEC. 29, T36N, R6E			SEC. 24, T36N, R6E		SEC. 24, T36N, R6E	
OWNER.....	TEXAS CO.			MONTANA POWER CO.		MONTANA POWER CO.	
COMPLETED.....	03/03/47			08/07/62		08/07/62	
SAMPLED.....	05/05/48			12/18/62		12/18/62	
FORMATION.....	JURA-U			JURA-SAWTOOTH		CRET-BOW ISLAND	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	2814			2850		1792	
WELLHEAD PRESSURE, PSIG.....	750			818		595	
OPEN FLOW, MCFD.....	998			2420		9000	
COMPONENT, MOLE PCT							
METHANE.....	97.3	-----		88.8	-----	95.5	-----
ETHANE.....	0.8	-----		0.2	-----	0.3	-----
PROPANE.....	---	-----		0.2	-----	TRACE	-----
N-BUTANE.....	---	-----		0.1	-----	TRACE	-----
ISOBUTANE.....	---	-----		TRACE	-----	TRACE	-----
N-PENTANE.....	---	-----		TRACE	-----	TRACE	-----
ISOPENTANE.....	---	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	---	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	---	-----		TRACE	-----	TRACE	-----
NITROGEN.....	0.8	-----		7.9	-----	0.7	-----
OXYGEN.....	0.2	-----		1.6	-----	0.7	-----
ARGON.....	---	-----		0.1	-----	TRACE	-----
HYDROGEN.....	---	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.8	-----		1.0	-----	0.2	-----
CARBON DIOXIDE.....	0.05	-----		0.05	-----	0.09	-----
HELIUM.....	1000	-----		916	-----	973	-----
HEATING VALUE.....	0.570	-----		0.613	-----	0.573	-----
SPECIFIC GRAVITY.....							
		INDEX SAMPLE	3760 14887	INDEX SAMPLE	3761 6993	INDEX SAMPLE	3762 9620
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	LIBERTY			LIBERTY		LIBERTY	
FIELD.....	KEITH BLOCK			KEITH E		MOUNT LILLY	
WELL NAME.....	GUNDERSON NO. 13-34			T. W. COLBRY NO. 1		SCHAFFER NO. 1	
LOCATION.....	SEC. 34, T37N, R6E			SEC. 13, T36N, R6E		SEC. 20, T37N, R5E	
OWNER.....	MONTANA POWER CO.			MONTANA POWER CO.		CARDINAL PETROLEUM CO., ET A	
COMPLETED.....	--/--/00			11/--/58		09/06/63	
SAMPLED.....	01/22/77			03/06/59		10/16/64	
FORMATION.....	JURA-SAWTOOTH			JURA-ELLIS & MISS-MADISON		MISS-MADISON	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	3150			NOT GIVEN		3020	
WELLHEAD PRESSURE, PSIG.....	1177			25000		975	
OPEN FLOW, MCFD.....	NOT GIVEN					6190	
COMPONENT, MOLE PCT							
METHANE.....	97.3	-----		96.3	-----	96.0	-----
ETHANE.....	0.2	-----		0.0	-----	0.4	-----
PROPANE.....	TRACE	-----		0.3	-----	0.3	-----
N-BUTANE.....	TRACE	-----		0.1	-----	0.2	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.1	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----		0.1	-----	TRACE	-----
NITROGEN.....	1.3	-----		1.4	-----	1.8	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----	0.9	-----
HELIUM.....	0.05	-----		TRACE	-----	0.06	-----
HEATING VALUE.....	989	-----		1000	-----	1007	-----
SPECIFIC GRAVITY.....	0.568	-----		0.587	-----	0.584	-----
		INDEX SAMPLE	3763 15966	INDEX SAMPLE	3764 16417	INDEX SAMPLE	3765 4882
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	LIBERTY			LIBERTY		LIBERTY	
FIELD.....	LIBERTY'S COULEE			TRAIL CREEK		UTOPIA	
WELL NAME.....	STATE NO. 6-17			STRATTON NO. 3-6		NICK LAAS NO. 2	
LOCATION.....	SEC. 17, T35N, R7E			SEC. 6, T36N, R4E		SEC. 14, T33N, R4E	
OWNER.....	MONTANA POWER CO.			MONTANA POWER CO.		TEXAS CO.	
COMPLETED.....	05/9/80			10/09/81		09/24/46	
SAMPLED.....	05/16/80			01/26/82		03/16/50	
FORMATION.....	CRET-WHITE SPECS			CRET-BOW ISLAND		DEVO-MISKU	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	1752			1548		3540	
WELLHEAD PRESSURE, PSIG.....	571			174		1360	
OPEN FLOW, MCFD.....	1630			800		4347	
COMPONENT, MOLE PCT							
METHANE.....	91.2	-----		96.5	-----	14.3	-----
ETHANE.....	0.4	-----		0.9	-----	2.1	-----
PROPANE.....	0.1	-----		0.2	-----	1.2	-----
N-BUTANE.....	0.0	-----		0.1	-----	0.2	-----
ISOBUTANE.....	0.0	-----		TRACE	-----	0.3	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.2	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		0.1	-----	0.2	-----
NITROGEN.....	8.1	-----		1.8	-----	78.8	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.2	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	1.4	-----
HELIUM.....	0.15	-----		0.06	-----	0.0	-----
HEATING VALUE.....	954	-----		1015	-----	268	-----
SPECIFIC GRAVITY.....	0.592	-----		0.577	-----	0.931	-----
		INDEX SAMPLE	3766 9180	INDEX SAMPLE	3767 9193	INDEX SAMPLE	3768 2173
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	LIBERTY			LIBERTY		LIBERTY	
FIELD.....	UTOPIA			UTOPIA		WHITBLASH	
WELL NAME.....	LAAS NO. 1			LAAS NO. 2		TOHNSHEAD NO. 2	
LOCATION.....	SEC. 14, T33N, R4E			SEC. 14, T34N, R4E		SEC. 22, T37N, R4E	
OWNER.....	MONTANA POWER CO.			MONTANA POWER CO.		WESTERN NATURAL GAS CO.	
COMPLETED.....	09/11/44			09/24/46		08/05/29	
SAMPLED.....	12/02/63			12/02/63		09/22/30	
FORMATION.....	MISS-MADISON			JURA-SAWTOOTH		CRET-SHALE	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	2346			2315		1565	
WELLHEAD PRESSURE, PSIG.....	651			595		280	
OPEN FLOW, MCFD.....	5400			9200		5000	
COMPONENT, MOLE PCT							
METHANE.....	96.2	-----		96.6	-----	95.0	-----
ETHANE.....	0.1	-----		0.1	-----	2.3	-----
PROPANE.....	0.5	-----		0.6	-----	---	-----
N-BUTANE.....	0.3	-----		0.1	-----	---	-----
ISOBUTANE.....	0.1	-----		0.1	-----	---	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	---	-----
ISOPENTANE.....	0.2	-----		TRACE	-----	---	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	---	-----
HEXANES PLUS.....	TRACE	-----		TRACE	-----	---	-----
NITROGEN.....	1.0	-----		0.9	-----	2.6	-----
OXYGEN.....	0.0	-----		0.0	-----	0.1	-----
ARGON.....	0.0	-----		TRACE	-----	---	-----
HYDROGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	1.5	-----		1.5	-----	0.1	-----
HELIUM.....	0.03	-----		0.03	-----	0.05	-----
HEATING VALUE.....	1011	-----		1007	-----	1004	-----
SPECIFIC GRAVITY.....	0.588	-----		0.584	-----	0.579	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3769 SAMPLE 2174			INDEX 3770 SAMPLE 2260			INDEX 3771 SAMPLE 2262		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	LIBERTY		LIBERTY			LIBERTY		
FIELD.....	WHITLASH		WHITLASH			WHITLASH		
WELL NAME.....	DOHR NO. 1		HAROLD BROWN NO. 1			ORR NO. 1		
LOCATION.....	SEC. 17, T37N, R4E		SEC. 19, T37N, R4E			SEC. 22, T37N, R4E		
OWNER.....	WESTERN NATURAL GAS CO.		WESTERN NATURAL GAS CO.			WESTERN NATURAL GAS CO.		
COMPLETED.....	11/10/27		11/1/30			01/01/29		
SAMPLED.....	09/22/30		01/14/31			01/14/31		
FORMATION.....	CRET-SHALE		CRET-BLACK LEAF			JURA-ELLIS		
GEOLOGIC PROVINCE CODE.....	500		500			500		
DEPTH, FEET.....	1485		1730			2200		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		300			400		
OPEN FLOW, MCFD.....	1500		10000			3000		
COMPONENT, MOLE PCT								
METHANE.....	99.3		94.7			91.6		
ETHANE.....	0.8		1.7			4.3		
PROpane.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	0.5		3.3			3.8		
OXYGEN.....	0.1		0.2			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.09		0.07			0.07		
HEATING VALUE.....	1006		990			1005		
SPECIFIC GRAVITY.....	0.558		0.579			0.594		
INDEX 3772 SAMPLE 2263			INDEX 3773 SAMPLE 2264			INDEX 3774 SAMPLE 2329		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	LIBERTY		LIBERTY			LIBERTY		
FIELD.....	WHITLASH		WHITLASH			WHITLASH		
WELL NAME.....	ELMER BROWN NO. 1		MAHONEY NO. 1			MAHONEY NO. 1		
LOCATION.....	SEC. 19, T37N, R4E		SEC. 23, T37N, R4E			SEC. 23, T37N, R4E		
OWNER.....	WESTERN NATURAL GAS CO.		WESTERN NATURAL GAS CO.			WESTERN NATURAL GAS CO.		
COMPLETED.....	12/01/30		01/14/31			04/23/31		
SAMPLED.....	01/14/31		CRET-SUNBURST			CRET-KOOTENAI		
FORMATION.....	CRET-BLACK LEAF		500			500		
GEOLOGIC PROVINCE CODE.....	500		2066			2063		
DEPTH, FEET.....	1570		700			600		
WELLHEAD PRESSURE, PSIG.....	350		10700			9000		
OPEN FLOW, MCFD.....	8000							
COMPONENT, MOLE PCT								
METHANE.....	95.0		86.1			87.1		
ETHANE.....	1.5		8.9			8.6		
PROpane.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	3.1		4.5			3.6		
OXYGEN.....	0.2		0.2			0.5		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.3			0.2		
HELIUM.....	0.07		0.04			0.09		
HEATING VALUE.....	989		1032			1036		
SPECIFIC GRAVITY.....	0.578		0.621			0.617		
INDEX 3775 SAMPLE 16885			INDEX 3776 SAMPLE 9658			INDEX 3777 SAMPLE 7454		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	LIBERTY		MCONE			MUSSELSHELL		
FIELD.....	WILDCAT		NOT GIVEN			BIG WALL		
WELL NAME.....	LYNN KOSTAD NO. 1, ET AL.		LYNN MCONE NO. 1			MOFFETT NO. 3		
LOCATION.....	SEC. 28, T29N, R4E		SEC. 25, T22N, R4E			SEC. 18, T10N, R27E		
OWNER.....	LYNN CO., INC.		SINCLAIR OIL & GAS CO.			TEXACO INC.		
COMPLETED.....	02/23/80		11/1/64			1/1/70		
SAMPLED.....	04/20/83		11/30/64			08/21/60		
FORMATION.....	CRET-COLORADO		MISS-KIBBEY			PENN-TYLER		
GEOLOGIC PROVINCE CODE.....	500		395			510		
DEPTH, FEET.....	448		NOT GIVEN			2966		
WELLHEAD PRESSURE, PSIG.....	200		NOT GIVEN			1475		
OPEN FLOW, MCFD.....	1023		NOT GIVEN			482		
COMPONENT, MOLE PCT								
METHANE.....	91.8		13.2			29.2		
ETHANE.....	0.4		3.6			2.6		
PROpane.....	TRACE		6.2			2.0		
N-BUTANE.....	---		---			0.8		
ISOBUTANE.....	0.0		2.0			0.4		
N-PENTANE.....	TRACE		2.4			0.3		
ISOPENTANE.....	TRACE		0.7			0.2		
CYCLOPENTANE.....	TRACE		0.3			0.1		
HEXANES PLUS.....	0.1		1.3			0.3		
NITROGEN.....	7.2		59.8			63.4		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	TRACE		0.1			---		
HYDROGEN.....	0.3		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		1.8			0.1		
HELIUM.....	0.13		1.38			0.50		
HEATING VALUE.....	943		865			475		
SPECIFIC GRAVITY.....	0.586		1.122			0.886		
INDEX 3778 SAMPLE 7455			INDEX 3779 SAMPLE 4627			INDEX 3780 SAMPLE 2181		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	MUSSELSHELL		MUSSELSHELL			PHILLIPS		
FIELD.....	BIG WALL		HOWARD COULEE			BOWDOIN		
WELL NAME.....	ZOORR NO. 3		NORTHERN PACIFIC C. NO. 1			NELSON NO. 515		
LOCATION.....	SEC. 18, T10N, R27E		SEC. 18, T11N, R27E			SEC. 8, T31N, R34E		
OWNER.....	TEXACO INC.		TEXAS CO.			BOWDOIN UTILITIES CO.		
COMPLETED.....	01/13/60		1/1/60			04/30/30		
SAMPLED.....	09/20/30		1/1/60			09/20/30		
FORMATION.....	PENN-TYLER		MISS-MADISON			-SHALE		
GEOLOGIC PROVINCE CODE.....	510		510			395		
DEPTH, FEET.....	2963		5000			668		
WELLHEAD PRESSURE, PSIG.....	1475		NOT GIVEN			205		
OPEN FLOW, MCFD.....	500		344			1045		
COMPONENT, MOLE PCT								
METHANE.....	22.7		3.0			95.2		
ETHANE.....	2.2		4.0			0.0		
PROpane.....	2.0		---			---		
N-BUTANE.....	1.0		---			---		
ISOBUTANE.....	0.6		---			---		
N-PENTANE.....	0.3		---			---		
ISOPENTANE.....	0.3		---			---		
CYCLOPENTANE.....	0.3		---			---		
HEXANES PLUS.....	0.4		---			---		
NITROGEN.....	69.4		68.0			4.5		
OXYGEN.....	TRACE		0.3			0.1		
ARGON.....	0.0		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		23.5			0.2		
HELIUM.....	0.60		1.16			0.07		
HEATING VALUE.....	943		102			964		
SPECIFIC GRAVITY.....	0.922		1.081			0.576		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	3781 1916		INDEX SAMPLE	3782 2167		INDEX SAMPLE	3783 9182
STATE.....	MONTANA			MONTANA			MONTANA	
COUNTY.....	PHILLIPS			PHILLIPS			PHILLIPS	
FIELD.....	BOWDOIN DOME AREA			BOWDOIN DOME AREA			BOWDOIN DOME AREA	
WELL NAME.....	NO. 501			NO. 504			NO. 959	
LOCATION.....	SEC. 36, T32N, R32E			SEC. 36, T32N, R32E			SEC. 20, T31N, R35E	
OWNER.....	MONTANA-DAKOTA UTILITIES CO.			MONTANA-DAKOTA UTILITIES CO.			FIDELITY GAS CO.	
COMPLETED.....	11/23/29			12/16/29			07/~757	
SAMPLED.....	01/09/30			09/29/30			12/02/63	
FORMATION.....	CRET-BOWDOIN			CRET-BOWDOIN			CRET-BOWDOIN	
GEOLOGIC PROVINCE CODE.....	395			395			395	
DEPTH, FEET.....	740			712			701	
WELLHEAD PRESSURE, PSIG.....	210			222			160	
OPEN FLOW, MCFD.....	370			414			448	
COMPONENT, MOLE PCT								
METHANE.....	95.1	-----		92.4	-----		93.2	-----
ETHANE.....	0.0	-----		0.0	-----		0.2	-----
PROpane.....	---	-----		---	-----		TRACE	-----
N-BUTANE.....	---	-----		---	-----		0.0	-----
ISOBUTANE.....	---	-----		---	-----		0.0	-----
N-PENTANE.....	---	-----		---	-----		0.0	-----
ISOPENTANE.....	---	-----		---	-----		0.0	-----
CYCLOPENTANE.....	---	-----		---	-----		0.0	-----
HEXANES PLUS.....	---	-----		---	-----		0.0	-----
NITROGEN.....	4.3	-----		7.4	-----		6.4	-----
OXYGEN.....	0.3	-----		0.0	-----		TRACE	-----
ARGON.....	---	-----		---	-----		TRACE	-----
HYDROGEN.....	---	-----		---	-----		0.0	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----		0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.2	-----		0.1	-----
HELIUM.....	0.07	-----		0.07	-----		0.10	-----
HEATING VALUE.....	963	-----		936	-----		948	-----
SPECIFIC GRAVITY.....	0.577	-----		0.587	-----		0.582	-----
	INDEX	3784		INDEX	3785		INDEX	3786
	SAMPLE	9183		SAMPLE	14583		SAMPLE	14584
STATE.....	MONTANA			MONTANA			MONTANA	
COUNTY.....	PHILLIPS			PHILLIPS			PHILLIPS	
FIELD.....	BOWDOIN DOME AREA			BOWDOIN DOME AREA			BOWDOIN DOME AREA	
WELL NAME.....	NO. 845			2970 NO. 1			2061 NO. 1	
LOCATION.....	SEC. 19, T32N, R32E			SEC. 29, T37N, R30E			SEC. 20, T36N, R31E	
OWNER.....	FIDELITY GAS CO.			MIDLANDS GAS CORP.			MIDLANDS GAS CORP.	
COMPLETED.....	08/~747			11/18/75			09/14/75	
SAMPLED.....	12/02/63			01/29/76			01/29/76	
FORMATION.....	CRET-BOWDOIN			CRET-BOWDOIN			CRET-BOWDOIN	
GEOLOGIC PROVINCE CODE.....	395			395			395	
DEPTH, FEET.....	1010			1397			1461	
WELLHEAD PRESSURE, PSIG.....	465			554			608	
OPEN FLOW, MCFD.....	400			225			450	
COMPONENT, MOLE PCT								
METHANE.....	93.0	-----		92.8	-----		93.0	-----
ETHANE.....	0.2	-----		0.2	-----		0.3	-----
PROpane.....	0.1	-----		0.1	-----		TRACE	-----
N-BUTANE.....	0.0	-----		0.0	-----		0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----		0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----		0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----		0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----		0.0	-----
HEXANES PLUS.....	0.0	-----		0.0	-----		0.0	-----
NITROGEN.....	6.5	-----		6.4	-----		6.3	-----
OXYGEN.....	TRACE	-----		0.0	-----		0.0	-----
ARGON.....	TRACE	-----		0.0	-----		0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----		0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----		0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.0	-----		0.2	-----
HELIUM.....	0.1	-----		0.09	-----		0.08	-----
HEATING VALUE.....	948	-----		948	-----		947	-----
SPECIFIC GRAVITY.....	0.582	-----		0.586	-----		0.583	-----
	INDEX	3787		INDEX	3788		INDEX	3789
	SAMPLE	14617		SAMPLE	15341		SAMPLE	17738
STATE.....	MONTANA			MONTANA			MONTANA	
COUNTY.....	PHILLIPS			PHILLIPS			PHILLIPS	
FIELD.....	BOWDOIN DOME AREA			BOWDOIN DOME AREA			BOWDOIN DOME AREA	
WELL NAME.....	FED. 23631 NO. 1			F. ANDERSON NO. 1			WHITEWATER 2 FED. NO. 2451	
LOCATION.....	SEC. 22, T36N, R31E			SEC. 1, T36N, R31E			SEC. 24, T35N, R31E	
OWNER.....	ODESSA NATURAL CORP.			JOSEPH J.C. PAINE & ASSOC.			MIDLANDS GAS CORP.	
COMPLETED.....	01/15/76			08/19/77			08/28/84	
SAMPLED.....	03/22/76			08/06/78			07/02/85	
FORMATION.....	CRET-BOWDOIN			CRET-BOWDOIN			CRET-BOWDOIN	
GEOLOGIC PROVINCE CODE.....	395			395			395	
DEPTH, FEET.....	1336			1355			1290	
WELLHEAD PRESSURE, PSIG.....	565			575			351	
OPEN FLOW, MCFD.....	2518			2253			520	
COMPONENT, MOLE PCT								
METHANE.....	92.9	-----		91.6	-----		92.9	-----
ETHANE.....	0.3	-----		0.3	-----		0.3	-----
PROpane.....	0.1	-----		0.1	-----		0.1	-----
N-BUTANE.....	0.0	-----		0.0	-----		0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----		0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----		0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----		0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----		0.0	-----
HEXANES PLUS.....	0.0	-----		0.0	-----		0.0	-----
NITROGEN.....	6.5	-----		7.6	-----		6.4	-----
OXYGEN.....	0.0	-----		0.0	-----		TRACE	-----
ARGON.....	TRACE	-----		0.2	-----		TRACE	-----
HYDROGEN.....	0.0	-----		0.2	-----		TRACE	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----		0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----		0.2	-----
HELIUM.....	0.08	-----		0.09	-----		0.07	-----
HEATING VALUE.....	948	-----		949	-----		949	-----
SPECIFIC GRAVITY.....	0.584	-----		0.586	-----		0.585	-----
	INDEX	3790		INDEX	3791		INDEX	3792
	SAMPLE	14452		SAMPLE	2393		SAMPLE	17284
STATE.....	MONTANA			MONTANA			MONTANA	
COUNTY.....	PHILLIPS			PHILLIPS			PHILLIPS	
FIELD.....	GUINN			GUINN DOME			LOVING E	
WELL NAME.....	NOT GIVEN			NO. 3			FED. NO. 2971-2	
LOCATION.....	SEC. 20, T24N, R24E			SEC. 20, T24N, R24E			SEC. 29, T37N, R31E	
OWNER.....	USGS, OIL & GAS DIVISION			THORSEN & BULL CREEK DOME CO			PETROLEUM CORP. OF AMERICA	
COMPLETED.....	--/~738			--/~700			08/13/83	
SAMPLED.....	--/~700			09/10/31			05/10/84	
FORMATION.....	CRET-EAGLE			CRET-EAGLE			CRET-BOWDOIN	
GEOLOGIC PROVINCE CODE.....	395			395			395	
DEPTH, FEET.....	NOT GIVEN			507			1556	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			190			530	
OPEN FLOW, MCFD.....	NOT GIVEN			2000			3047	
COMPONENT, MOLE PCT								
METHANE.....	36.8	-----		58.8	-----		93.1	-----
ETHANE.....	0.5	-----		2.3	-----		0.3	-----
PROpane.....	0.0	-----		---	-----		TRACE	-----
N-BUTANE.....	0.0	-----		---	-----		0.0	-----
ISOBUTANE.....	0.0	-----		---	-----		0.0	-----
N-PENTANE.....	0.0	-----		---	-----		0.0	-----
ISOPENTANE.....	0.0	-----		---	-----		0.0	-----
CYCLOPENTANE.....	0.0	-----		---	-----		0.0	-----
HEXANES PLUS.....	0.0	-----		---	-----		0.0	-----
NITROGEN.....	61.0	-----		38.8	-----		6.2	-----
OXYGEN.....	1.0	-----		0.0	-----		TRACE	-----
ARGON.....	0.5	-----		---	-----		TRACE	-----
HYDROGEN.....	0.0	-----		---	-----		0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		---	-----		0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----		0.0	-----
HELIUM.....	0.02	-----		0.06	-----		0.07	-----
HEATING VALUE.....	382	-----		637	-----		948	-----
SPECIFIC GRAVITY.....	0.819	-----		0.727	-----		0.581	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3793 SAMPLE 17285			INDEX 3794 SAMPLE 16256			INDEX 3795 SAMPLE 17161		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	PHILLIPS		PONDERA			PONDERA		
FIELD.....	LOVING 2		BOUDOIN DOME AREA			MARIAS RIVER		
WELL NAME.....	FED. NO. 2-0361		ANDERSON NO. 1			D. S. FED. NO. 21-13		
LOCATION.....	SEC. 3, T36N, R31E		SEC. 27, T27N, R2E			SEC. 13, T30N, R2E		
OWNER.....	PETROLEUM CORP. OF AMERICA		D. A. RESOURCE VENT., INC.			DIAMOND SHARROCK EXPL. CO.		
COMPLETED.....	--/--/00		05/09/79			08/26/83		
SAMPLED.....	05/10/84		04/29/81			01/20/84		
FORMATION.....	CRET-BOUDOIN GREENHORN PHIL.		CRET-BOW ISLAND			CRET-BOW ISLAND 4TH		
GEOLOGIC PROVINCE CODE.....	395		500			500		
DEPTH, FEET.....	NOT GIVEN		900			1128		
WELLHEAD PRESSURE, PSIG.....	440		200			430		
OPEN FLOW, MCFD.....	1593		1800			1339		
COMPONENT, MOLE PCT								
METHANE.....	93.2		87.7			80.4		
ETHANE.....	0.4		0.4			0.3		
PROPANE.....	TRACE		0.1			0.0		
N-BUTANE.....	0.0		0.0			TRACE		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			TRACE		
NITROGEN.....	6.1		11.4			16.7		
OXYGEN.....	TRACE		0.1			2.4		
ARGON.....	TRACE		0.1			0.2		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.07		0.15			0.22		
HEATING VALUE.....	951		898			820		
SPECIFIC GRAVITY.....	0.582		0.607			0.642		
INDEX 3796 SAMPLE 2197			INDEX 3797 SAMPLE 11524			INDEX 3798 SAMPLE 14639		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	PONDERA		PONDERA			PONDERA		
FIELD.....	BELL CREEK		POWDER RIVER			POWDER RIVER		
WELL NAME.....	NO. 4		BIDDLE NO. 2-33			PUMPKIN CREEK		
LOCATION.....	SEC. 16, T27N, R4W		SEC. 33, T8S, R54E			ALLEN NO. 1		
OWNER.....	MIDWEST REFINING CO.		CONSOLIDATED OIL & GAS, INC.			SEC. 24, T1S, R49E		
COMPLETED.....	02/28/79		12/22/67			MCCULLOUGH OIL CORP.		
SAMPLED.....	10/09/30		05/26/68			04/--/76		
FORMATION.....	MISS-MADISON		CRET-MUDDY			CRET-SHANNON		
GEOLOGIC PROVINCE CODE.....	500		515			515		
DEPTH, FEET.....	2029		4438			3058		
WELLHEAD PRESSURE, PSIG.....	10		880			706		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			42000		
COMPONENT, MOLE PCT								
METHANE.....	81.3		95.0			95.3		
ETHANE.....	13.9		0.3			0.3		
PROPANE.....	---		0.6			TRACE		
N-BUTANE.....	---		0.4			TRACE		
ISOBUTANE.....	---		0.4			0.1		
N-PENTANE.....	---		0.1			TRACE		
ISOPENTANE.....	---		0.3			0.1		
CYCLOPENTANE.....	---		0.1			TRACE		
HEXANES PLUS.....	---		0.2			0.1		
NITROGEN.....	2.8		0.5			3.0		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.1			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	1.7		TRACE			0.1		
HELIUM.....	0.31		0.01			0.04		
HEATING VALUE.....	1073		1047			984		
SPECIFIC GRAVITY.....	0.651		0.600			0.578		
INDEX 3799 SAMPLE 16521			INDEX 3800 SAMPLE 11228			INDEX 3801 SAMPLE 11229		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	RICHLAND		RICHLAND			RICHLAND		
FIELD.....	CHARLIE CREEK N		FAIRVIEW			FAIRVIEW		
WELL NAME.....	NO. 8-33		VANDERHOOF A NO. 1			VANDERHOOF A NO. 1		
LOCATION.....	SEC. 33, T26N, R54E		SEC. 13, T25N, R58E			SEC. 13, T25N, R58E		
OWNER.....	FARMERS UNION CENT. EXCH. IN		SUPERIOR OIL CO.			SUPERIOR OIL CO.		
COMPLETED.....	11/25/81		06/08/67			06/08/67		
SAMPLED.....	03/--/82		10/07/67			10/07/67		
FORMATION.....	ORDO-RED RIVER		DEVO-WINNIPEGOSIS			ORDO-RED RIVER		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	11496		11414			12546		
WELLHEAD PRESSURE, PSIG.....	4250		1850			2250		
OPEN FLOW, MCFD.....	3600		200			340		
COMPONENT, MOLE PCT								
METHANE.....	74.7		56.8			63.8		
ETHANE.....	12.4		19.9			18.9		
PROPANE.....	3.3		10.6			9.0		
N-BUTANE.....	0.1		0.4			2.7		
ISOBUTANE.....	1.0		1.3			0.8		
N-PENTANE.....	0.3		0.7			0.8		
ISOPENTANE.....	0.3		0.5			0.5		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.4			0.3		
NITROGEN.....	0.7		0.6			2.2		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.4		0.0			0.0		
CARBON DIOXIDE.....	5.5		0.6			0.8		
HELIUM.....	0.02		0.02			0.06		
HEATING VALUE.....	1474		1412			1412		
SPECIFIC GRAVITY.....	0.756		0.895			0.842		
INDEX 3802 SAMPLE 12630			INDEX 3803 SAMPLE 16520			INDEX 3804 SAMPLE 12958		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	RICHLAND		ROOSEVELT			ROOSEVELT		
FIELD.....	WILDCAT		RED BANK S			WILDCAT		
WELL NAME.....	FORT GILBERT NO. 1		PANASUK NO. 1-5			MCCABE NO. 1		
LOCATION.....	SEC. 32, T24N, R59E		SEC. 5, T28N, R59E			SEC. 1, T29N, R56E		
OWNER.....	CONSOLIDATED OIL & GAS, INC.		SOUTHLAND ROYALTY CO.			CONSOLIDATED OIL & GAS, INC.		
COMPLETED.....	10/30/70		11/--/81			12/23/70		
SAMPLED.....	03/14/71		05/17/82			08/17/71		
FORMATION.....	ORDO-RED RIVER		ORDO-RED RIVER			ORDO-RED RIVER		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	12502		12848			12054		
WELLHEAD PRESSURE, PSIG.....	1400		1125			NOT GIVEN		
OPEN FLOW, MCFD.....	1500		1038			320		
COMPONENT, MOLE PCT								
METHANE.....	61.8		54.8			62.8		
ETHANE.....	18.3		18.4			15.7		
PROPANE.....	10.7		12.2			9.7		
N-BUTANE.....	0.7		0.4			3.5		
ISOBUTANE.....	0.9		1.6			1.1		
N-PENTANE.....	1.0		2.3			1.1		
ISOPENTANE.....	0.7		1.5			0.1		
CYCLOPENTANE.....	0.1		0.5			TRACE		
HEXANES PLUS.....	0.4		1.1			0.3		
NITROGEN.....	1.5		1.5			4.4		
OXYGEN.....	TRACE		0.1			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.7			1.0		
HELIUM.....	0.04		0.05			0.04		
HEATING VALUE.....	1488		1658			1400		
SPECIFIC GRAVITY.....	0.880		0.933			0.861		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3805 SAMPLE 3693			INDEX 3806 SAMPLE 9159			INDEX 3807 SAMPLE 9160		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	ROSEBUD		STILLWATER			STILLWATER		
FIELD.....	INGOMAR		BIG COULEE			BIG COULEE		
WELL NAME.....	HILLESON NO. 1		N. N. NP. D 1 & 2			NNNP-2		
LOCATION.....	SEC. 22, T9N, R35E		SEC. 7, T4N, R20E			SEC. 7, T4N, R20E		
OWNER.....	NORTHERN ORDANANCE, INC.		NORTHERN NATURAL GAS PROD. C			NORTHERN NATURAL GAS PROD. C		
COMPLETED.....	10/28/43		09/12/62			--/--/00		
SAMPLED.....	11/20/43		10/23/63			10/23/63		
FORMATION.....	PENN-AMSDEN		CRET-CAT		CREEK&JURA-MORRISON	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	515		510			510		
DEPTH, FEET.....	3800		1955			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1000		904			NOT GIVEN		
OPEN FLOW, MCFD.....	8200		10			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	12.6		90.4			90.5		
ETHANE.....	8.0		0.2			0.3		
PROPANE.....	---		0.2			0.2		
N-BUTANE.....	---		0.0			0.0		
ISOBUTANE.....	---		0.0			0.0		
N-PENTANE.....	---		0.0			0.0		
ISOPENTANE.....	---		0.0			0.0		
CYCLOPENTANE.....	---		0.0			0.0		
HEXANES PLUS.....	---		0.0			0.0		
NITROGEN.....	79.2		8.5			8.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	---		0.1			0.1		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.4			0.7		
HELIUM.....	0.00		0.20			0.24		
HEATING VALUE.....	271		925			927		
SPECIFIC GRAVITY.....	0.923		0.596			0.598		

INDEX 3808 SAMPLE 14392			INDEX 3809 SAMPLE 14149			INDEX 3810 SAMPLE 14150		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	STILLWATER		STILLWATER			STILLWATER		
FIELD.....	BIG COULEE		BIG COULEE S			BIG COULEE S		
WELL NAME.....	SEC. 7, T4N, R20E		BRICKLEY NO. 1			BRICKLEY NO. 1		
LOCATION.....	BURLINGTON NORTHERN, INC.		SEC. 29, T4N, R20E			SEC. 29, T4N, R20E		
OWNER.....			CIG EXPLORATION, INC.			CIG EXPLORATION, INC.		
COMPLETED.....	04/15/75		04/21/74			04/21/74		
SAMPLED.....	04/15/75		09/13/74			09/13/74		
FORMATION.....	CRET-CAT CREEK 3RD		CRET-FRONTIER			CRET-LAKOTA		
GEOLOGIC PROVINCE CODE.....	510		510			510		
DEPTH, FEET.....	930		1715			2890		
WELLHEAD PRESSURE, PSIG.....	432		650			1050		
OPEN FLOW, MCFD.....	NOT GIVEN		930			1043		
COMPONENT, MOLE PCT								
METHANE.....	89.8		88.9			89.1		
ETHANE.....	0.3		0.2			0.2		
PROPANE.....	TRACE		0.1			TRACE		
N-BUTANE.....	TRACE		0.0			0.0		
ISOBUTANE.....	TRACE		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	TRACE		0.0			0.0		
NITROGEN.....	8.6		9.6			9.2		
OXYGEN.....	0.0		0.1			0.2		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.7			0.6		
HELIUM.....	0.23		0.25			0.24		
HEATING VALUE.....	915		906			906		
SPECIFIC GRAVITY.....	0.600		0.603			0.601		

INDEX 3811 SAMPLE 969			INDEX 3812 SAMPLE 9324			INDEX 3813 SAMPLE 887		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	STILLWATER		STILLWATER			STILLWATER		
FIELD.....	BROADVIEW DOME		DEAN DOME			LAKE BASIN		
WELL NAME.....	NOT GIVEN		ORR NO. 1			HEPP NO. 1		
LOCATION.....	SEC. 13, T3N, R22E		SEC. 18, T5S, R17E			SEC. 26, T1N, R21E		
OWNER.....	SECURITY PRODUCING CO.		TYLER OIL CO.			MID-NORTHERN OIL CO.		
COMPLETED.....	03/--/24		04/24/64			10/14/24		
SAMPLED.....	01/17/25		04/25/65			05/07/24		
FORMATION.....	CRET-FRONTIER		CRET-GREYBULL			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	510		510			510		
DEPTH, FEET.....	1462		2050			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	600		575			94		
OPEN FLOW, MCFD.....	8000		10000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	93.9		95.5			90.6		
ETHANE.....	2.6		0.2			6.9		
PROPANE.....	---		0.4			---		
N-BUTANE.....	---		0.0			---		
ISOBUTANE.....	---		0.0			---		
N-PENTANE.....	---		0.0			---		
ISOPENTANE.....	---		0.0			---		
CYCLOPENTANE.....	---		0.0			---		
HEXANES PLUS.....	---		0.0			---		
NITROGEN.....	2.2		3.3			2.0		
OXYGEN.....	0.5		0.0			0.3		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE**.....	---		0.0			---		
CARBON DIOXIDE.....	0.7		0.1			0.1		
HELIUM.....	0.23		TRACE			0.05		
HEATING VALUE.....	998		981			1041		
SPECIFIC GRAVITY.....	0.586		0.579			0.599		

INDEX 3814 SAMPLE 1795			INDEX 3815 SAMPLE 2171			INDEX 3816 SAMPLE 2177		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	STILLWATER		STILLWATER			STILLWATER		
FIELD.....	LAKE BASIN		LAKE BASIN			LAKE BASIN		
WELL NAME.....	C. D. MODURELL NO. 1		DIAMOND LEUTHOLD NO. 5			LUCE NO. 1		
LOCATION.....	SEC. 26, T1N, R21E		SEC. 24, T1N, R21E			SEC. 35, T1N, R21E		
OWNER.....	LICO PETROLEUM CO.		LICO PETROLEUM CO.			RECORD PETROLEUM CO.		
COMPLETED.....	--/--/24		09/22/27			--/--/00		
SAMPLED.....	06/13/29		09/18/30			09/19/30		
FORMATION.....	CRET-FRONTIER		CRET-FRONTIER			CRET-EAGLE		
GEOLOGIC PROVINCE CODE.....	510		510			510		
DEPTH, FEET.....	2995		3105			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		20			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		5500			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	78.1		97.7			97.1		
ETHANE.....	18.2		0.8			0.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	3.0		1.8			2.6		
OXYGEN.....	0.5		0.1			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.4			0.1		
HELIUM.....	0.09		0.04			0.13		
HEATING VALUE.....	1117		930			984		
SPECIFIC GRAVITY.....	0.662		0.566			0.566		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3817 SAMPLE 14017			INDEX 3818 SAMPLE 8178			INDEX 3819 SAMPLE 8604		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	STILLWATER		TETON			TETON		
FIELD.....	RAPELUE		WILDCAT			BLACK LEAF CANYON		
WELL NAME.....	STATE NO. 4-16		J. I. OSTRUM NO. 1			GOVT. PEARSON NO. 1		
LOCATION.....	SEC. 16, T2N, R20E		SEC. 9, T6S, R17E			SEC. 26, T27N, R9W		
OWNER.....	CONCEPT RESOURCES, INC.		TEXACO INC.			TEXACO INC.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	05/24/74		08/22/61			06/29/62		
FORMATION.....	CRET-EAGLE & VIRGELLE		CRET-DAKOTA			MISS-SUN RIVER		
GEOLOGIC PROVINCE CODE.....	510		510			500		
DEPTH, FEET.....	1230		3133			1079		
WELLHEAD PRESSURE, PSIG.....	539		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	26000		7			220		
COMPONENT, MOLE PCT								
METHANE.....	93.3	-----	95.0	-----		89.1	-----	
ETHANE.....	1.7	-----	0.4	-----		2.0	-----	
PROPANE.....	1.1	-----	TRACE	-----		1.2	-----	
N-BUTANE.....	0.3	-----	TRACE	-----		0.1	-----	
ISOBUTANE.....	0.4	-----	TRACE	-----		0.0	-----	
N-PENTANE.....	0.1	-----	TRACE	-----		0.1	-----	
ISOPENTANE.....	0.1	-----	TRACE	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	TRACE	-----		0.0	-----	
NITROGEN.....	2.8	-----	4.2	-----		1.5	-----	
OXYGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
ARGON.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE**.....	0.0	-----	TRACE	-----		0.1	-----	
CARBON DIOXIDE.....	0.0	-----	0.0	-----		5.9	-----	
HELIUM.....	0.09	-----	0.10	-----		0.06	-----	
HEATING VALUE.....	1041	-----	970	-----		978	-----	
SPECIFIC GRAVITY.....	0.602	-----	0.575	-----		0.644	-----	
INDEX 3820 SAMPLE 8620			INDEX 3821 SAMPLE 6786			INDEX 3822 SAMPLE 16849		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	TETON		TETON			TETON		
FIELD.....	BLACK LEAF CANYON		BLACKLEAF CANYON			HIGHVIEW		
WELL NAME.....	GOVT. PEARSON NO. 1		BLACKLEAF FED. NO. A-1			LARSON NO. 1-34		
LOCATION.....	SEC. 26, T27N, R9W		SEC. 13, T26N, R9W			SEC. 34, T28N, R6W		
OWNER.....	TEXACO INC.		NORTHERN NATURAL GAS CO.			QVY PETROLEUM, INC.		
COMPLETED.....	--/--/00		06/06/58			03/28/83		
SAMPLED.....	07/13/62		--/--/58			03/28/83		
FORMATION.....	MISS-SUN RIVER		MISS-SUN RIVER			MISS-MADISON		
GEOLOGIC PROVINCE CODE.....	500		500			500		
DEPTH, FEET.....	1759		3816			3089		
WELLHEAD PRESSURE, PSIG.....	40		710			NOT GIVEN		
OPEN FLOW, MCFD.....	525		6297			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	46.3	-----	79.3	-----		75.7	-----	
ETHANE.....	0.9	-----	4.4	-----		7.3	-----	
PROPANE.....	0.2	-----	0.8	-----		3.1	-----	
N-BUTANE.....	0.1	-----	0.0	-----		1.1	-----	
ISOBUTANE.....	TRACE	-----	0.0	-----		0.5	-----	
N-PENTANE.....	TRACE	-----	0.0	-----		0.3	-----	
ISOPENTANE.....	TRACE	-----	0.0	-----		0.5	-----	
CYCLOPENTANE.....	0.0	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.0	-----	0.3	-----		0.3	-----	
NITROGEN.....	42.3	-----	0.0	-----		6.7	-----	
OXYGEN.....	3.3	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.2	-----	
HYDROGEN SULFIDE**.....	0.0	-----	0.0	-----		0.4	-----	
CARBON DIOXIDE.....	3.7	-----	10.7	-----		3.5	-----	
HELIUM.....	0.07	-----	0.02	-----		0.27	-----	
HEATING VALUE.....	547	-----	1047	-----		1089	-----	
SPECIFIC GRAVITY.....	0.812	-----	0.749	-----		0.733	-----	
INDEX 3823 SAMPLE 7626			INDEX 3824 SAMPLE 7627			INDEX 3825 SAMPLE 7611		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	TETON		TETON			TOOLE		
FIELD.....	POUNDERA		POUNDERA			ARCH APEX		
WELL NAME.....	CAMPBELL NO. 1		CAMPBELL NO. 2			GORDON CHRISTIAN NO. 1		
LOCATION.....	SEC. 4, T27N, R5W		SEC. 4, T27N, R5W			SEC. 13, T35N, R2E		
OWNER.....	CARDINAL PETROLEUM CO.		CARDINAL PETROLEUM CO.			CARDINAL PETROLEUM CO.		
COMPLETED.....	08/15/59		09/28/59			09/17/59		
SAMPLED.....	07/25/60		07/25/60			07/19/60		
FORMATION.....	MISS-SUN RIVER		MISS-SUN RIVER			JURA-SWIFT		
GEOLOGIC PROVINCE CODE.....	500		500			500		
DEPTH, FEET.....	2489		2475			2217		
WELLHEAD PRESSURE, PSIG.....	200		540			742		
OPEN FLOW, MCFD.....	222		1300			8		
COMPONENT, MOLE PCT								
METHANE.....	78.4	-----	79.3	-----		94.0	-----	
ETHANE.....	5.4	-----	5.4	-----		1.4	-----	
PROPANE.....	1.1	-----	0.8	-----		0.3	-----	
N-BUTANE.....	1.1	-----	0.8	-----		0.2	-----	
ISOBUTANE.....	0.3	-----	0.3	-----		TRACE	-----	
N-PENTANE.....	0.3	-----	0.3	-----		TRACE	-----	
ISOPENTANE.....	0.3	-----	0.2	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.0	-----	
HEXANES PLUS.....	0.3	-----	0.1	-----		TRACE	-----	
NITROGEN.....	7.3	-----	7.8	-----		3.3	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		TRACE	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.2	-----	
HYDROGEN SULFIDE**.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	2.7	-----	2.5	-----		0.3	-----	
HELIUM.....	0.50	-----	0.00	-----		0.10	-----	
HEATING VALUE.....	1084	-----	1035	-----		997	-----	
SPECIFIC GRAVITY.....	0.707	-----	0.691	-----		0.584	-----	
INDEX 3826 SAMPLE 2150			INDEX 3827 SAMPLE 2156			INDEX 3828 SAMPLE 7946		
STATE.....	MONTANA		MONTANA			MONTANA		
COUNTY.....	TOOLE		TOOLE			TOOLE		
FIELD.....	BORDER		BORDER			CUT BANK		
WELL NAME.....	J. FARBO NO. 1		J. FARBO NO. 2			COBB NO. 2		
LOCATION.....	SEC. 1, T37N, R4W		SEC. 2, T37N, R4W			SEC. 30, T37N, R4W		
OWNER.....	INLAND PETROLEUM CO. LTD.		OHIO OIL CO.			MONTANA POWER CO.		
COMPLETED.....	09/29/30		09/25/30			1/28/37		
SAMPLED.....	09/29/30		09/26/30			04/27/61		
FORMATION.....	CRET-VANALTA		CRET-VANALTA			CRET-KOOTENAI		
GEOLOGIC PROVINCE CODE.....	500		500			500		
DEPTH, FEET.....	2477		2488			2596		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			483		
OPEN FLOW, MCFD.....	4000		3000			21000		
COMPONENT, MOLE PCT								
METHANE.....	76.2	-----	88.4	-----		79.9	-----	
ETHANE.....	14.2	-----	4.9	-----		8.5	-----	
PROPANE.....	---	-----	---	-----		3.1	-----	
N-BUTANE.....	---	-----	---	-----		0.7	-----	
ISOBUTANE.....	---	-----	---	-----		0.4	-----	
N-PENTANE.....	---	-----	---	-----		0.2	-----	
ISOPENTANE.....	---	-----	---	-----		TRACE	-----	
CYCLOPENTANE.....	---	-----	---	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	---	-----		0.1	-----	
NITROGEN.....	0.1	-----	0.1	-----		4.5	-----	
OXYGEN.....	---	-----	---	-----		TRACE	-----	
ARGON.....	---	-----	---	-----		TRACE	-----	
HYDROGEN.....	---	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE**.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	8.5	-----	5.9	-----		2.3	-----	
HELIUM.....	0.04	-----	0.04	-----		0.10	-----	
HEATING VALUE.....	1026	-----	1035	-----		1093	-----	
SPECIFIC GRAVITY.....	0.712	-----	0.640	-----		0.690	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3829 14948	INDEX SAMPLE	3830 14394	INDEX SAMPLE	3831 846
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	TOOLE			TOOLE		TOOLE	
FIELD.....	CUT BANK			DEVON		KEVIN SUNBURST	
WELL NAME.....	YULE NO. 11-20-36-4			STATE NO. 33		MAYBELLE OIL CO. NO. 1	
LOCATION.....	SEC. 20, T36N, R4W			SEC. 31, T32N, R2E		SEC. 34, T35, R2W	
OWNER.....	MONTANA POWER CO.			MONTANA POWER CO.		MAYBELLE OIL CO.	
COMPLETED.....	02/08/77			07/12/69		7/7/00	
SAMPLED.....	03/18/77			06/06/75		7/7/00	
FORMATION.....	CRET-CUT BANK			CRET-BOW ISLAND		CRET-SUNBURST	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	2790			850		1502	
WELLHEAD PRESSURE, PSIG.....	207			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	2050			4600		5800	
COMPONENT, MOLE PCT.....							
METHANE.....	87.0			91.8		90.3	
ETHANE.....	2.3			1.2		4.6	
PROPANE.....	1.5			0.2		---	
N-BUTANE.....	0.7			TRACE		---	
ISOBUTANE.....	0.3			TRACE		---	
N-PENTANE.....	0.2			TRACE		---	
ISOPENTANE.....	0.2			TRACE		---	
CYCLOPENTANE.....	TRACE			TRACE		---	
HEXANES PLUS.....	0.1			TRACE		---	
NITROGEN.....	0.8			6.4		2.8	
OXYGEN.....	0.0			0.0		0.3	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	6.8			0.1		1.9	
HELIUM.....	0.03			0.15		0.13	
HEATING VALUE.....	1017			957		997	
SPECIFIC GRAVITY.....	0.675			0.588		0.609	
		INDEX SAMPLE	3832 949	INDEX SAMPLE	3833 1502	INDEX SAMPLE	3834 1503
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	TOOLE			TOOLE		TOOLE	
FIELD.....	KEVIN SUNBURST			KEVIN SUNBURST		KEVIN SUNBURST	
WELL NAME.....	ADAMS NO. 1			LARSON NO. 2		REISE NO. 8	
LOCATION.....	SEC. 21, T34N, R1W			SEC. 17, T34N, R1W		SEC. 2, T35N, R2W	
OWNER.....	POTLATCH OIL & REFINING CO.			PONDERA VALLEY OIL CO.		HOMESTEAK EXPLORATION CO.	
COMPLETED.....	12/01/29			7/7/00		05/7/27	
SAMPLED.....	12/01/29			09/15/27		09/15/27	
FORMATION.....	CAMB-LIMESTONE			DEVON		CRET-SUNBURST	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	3250			3107		1540	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	3.2			7.6		73.3	
ETHANE.....	6.5			4.2		18.3	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	79.0			5.8		4.0	
OXYGEN.....	0.6			0.1		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	9.4			82.3		4.1	
HELIUM.....	1.20			0.04		0.01	
HEATING VALUE.....	149			152		1070	
SPECIFIC GRAVITY.....	1.002			1.402		0.704	
		INDEX SAMPLE	3835 1504	INDEX SAMPLE	3836 1666	INDEX SAMPLE	3837 1815
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	TOOLE			TOOLE		TOOLE	
FIELD.....	KEVIN SUNBURST			KEVIN SUNBURST		KEVIN SUNBURST	
WELL NAME.....	PETERS NO. 38			NO. 1		KITCHEN NO. 1	
LOCATION.....	SEC. 23, T35N, R2W			SEC. 16, T34N, R1W		SEC. 2, T34N, R1W	
OWNER.....	HOMESTEAK EXPLORATION CO.			KALISPELL-BAKER OIL CO.		SEC. 2, T34N, R1W	
COMPLETED.....	04/7/27			7/7/00		7/7/00	
SAMPLED.....	09/15/27			08/01/28		07/15/29	
FORMATION.....	JURA-ELLIS			WISS-MADISON		CAMB-	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	1379			1380		4596	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	1500			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	59.9			87.8		0.0	
ETHANE.....	10.0			8.1		4.1	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	23.7			2.2		43.0	
OXYGEN.....	4.3			0.5		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	2.1			1.5		52.7	
HELIUM.....	0.11			0.20		0.18	
HEATING VALUE.....	786			1035		73	
SPECIFIC GRAVITY.....	0.746			0.622		1.268	
		INDEX SAMPLE	3838 1901	INDEX SAMPLE	3839 2151	INDEX SAMPLE	3840 2152
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	TOOLE			TOOLE		TOOLE	
FIELD.....	KEVIN SUNBURST			KEVIN SUNBURST		KEVIN SUNBURST	
WELL NAME.....	NO. 1			SWENSON NO. 1		O'HEARN NO. 1	
LOCATION.....	SEC. 23, T33N, R3W			SEC. 12, T33N, R1E		SEC. 1, T32N, R2W	
OWNER.....	ALOES BIG 5 O&G SYNDICATE			F. & F. OIL & GAS CO.		NORTHERN NATURAL GAS DEV. CO.	
COMPLETED.....	12/09/29			04/24/30		08/21/27	
SAMPLED.....	12/09/29			09/29/30		09/27/30	
FORMATION.....	CRET-COLORADO			CRET-COLORADO SHALE		CRET-SUNBURST	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	1000			770		1430	
WELLHEAD PRESSURE, PSIG.....	102			175		355	
OPEN FLOW, MCFD.....	NOT GIVEN			800		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	88.1			96.2		94.1	
ETHANE.....	3.6			0.0		3.9	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	7.5			3.3		1.4	
OXYGEN.....	0.3			0.1		0.1	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.3		0.5	
HELIUM.....	0.35			0.13		0.08	
HEATING VALUE.....	975			973		1023	
SPECIFIC GRAVITY.....	0.606			0.571		0.585	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3841 2153	INDEX SAMPLE	3842 2193	INDEX SAMPLE	3843 2194
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	TOOLE			TOOLE		TOOLE	
FIELD.....	KEVIN SUNBURST			KEVIN SUNBURST		KEVIN SUNBURST	
WELL NAME.....	EDWARDS NO. 1			KITCHEN NO. 1		ADAMS NO. 1	
LOCATION.....	SEC. 30, T33N, R1W			SEC. 16, T34N, R1W		SEC. 20, T34N, R1W	
OWNER.....	NORTHERN NATURAL GAS DEV. CO			ADVANCE OIL CO.		BETHAL OIL CO., LTD.	
COMPLETED.....	08/28/27			--/--/00		08/15/28	
SAMPLED.....	09/27/30			10/03/30		10/02/30	
FORMATION.....	CRET-SUNBURST			CAMB--		MISS-MADISON	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	1210			14596		1438	
WELLHEAD PRESSURE, PSIG.....	375			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	20000			NOT GIVEN		77000	
COMPONENT, MOLE PCT							
METHANE.....	95.8			3.4		98.5	
ETHANE.....	2.6			0.5		0.7	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.8			38.8		0.5	
OXYGEN.....	0.1			0.2		0.1	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.7			56.8		0.3	
HELIUM.....	0.05			0.73		0.07	
HEATING VALUE.....	1017			1.267		1010	
SPECIFIC GRAVITY.....	0.578					0.564	
		INDEX SAMPLE	3844 2195	INDEX SAMPLE	3845 10119	INDEX SAMPLE	3846 14393
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	TOOLE			TOOLE		TOOLE	
FIELD.....	KEVIN SUNBURST			KEVIN SUNBURST		KEVIN SUNBURST	
WELL NAME.....	STATE NO. 50			GOEDDERTZ-AGEN NO. 1		VASHTI-MARMONT	
LOCATION.....	SEC. 36, T35N, R2W			SEC. 16, T35N, R3W		SEC. 28, T33N, R1W	
OWNER.....	TEXAS & PACIFIC COAL & OIL			GRANNELL DRILLING CO.		MONTANA POWER CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/02/30			09/09/65		06/06/75	
FORMATION.....	DEVO-JEFFERSON			DEVO-DUPEROW		CRET-SUNBURST	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	3125			3685		1122	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		93	
OPEN FLOW, MCFD.....	NOT GIVEN			3120		480	
COMPONENT, MOLE PCT							
METHANE.....	0.0			2.4		93.6	
ETHANE.....	0.0			0.7		1.3	
PROPANE.....	---			0.5		0.6	
N-BUTANE.....	---			0.1		0.3	
ISOBUTANE.....	---			0.1		0.1	
N-PENTANE.....	---			0.1		0.1	
ISOPENTANE.....	---			TRACE		0.2	
CYCLOPENTANE.....	---			TRACE		TRACE	
HEXANES PLUS.....	---			0.1		0.2	
NITROGEN.....	4.4			4.0		2.3	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	95.6			91.9		1.2	
HELIUM.....	0.04			0.10		0.06	
HEATING VALUE.....	0			66		1027	
SPECIFIC GRAVITY.....	1.504			1.482		0.606	
		INDEX SAMPLE	3847 14978	INDEX SAMPLE	3848 16014	INDEX SAMPLE	3849 4336
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	TOOLE			TOOLE		TOOLE	
FIELD.....	KEVIN SUNBURST			KEVIN SUNBURST		KICKING HORSE	
WELL NAME.....	LEONARD BASHOR NO. 1			POTLATCH O&R NCT-NO. 1		RANKIN NO. 1	
LOCATION.....	SEC. 34, T36N, R1W			SEC. 29, T34N, R1W		SEC. 8, T36N, R1E	
OWNER.....	ENERGY RESERVES GROUP, INC.			TEXACO INC.		MUSKY REFINING CO.	
COMPLETED.....	01/10/76			10/20/79		08/-/44	
SAMPLED.....	04/19/77			07/17/80		07/22/47	
FORMATION.....	DEVO-NISKU			DEVO-DUPEROW		CRET-U	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	2885			2959		1325	
WELLHEAD PRESSURE, PSIG.....	979			730		150	
OPEN FLOW, MCFD.....	1600			10000		600	
COMPONENT, MOLE PCT							
METHANE.....	82.2			5.4		93.8	
ETHANE.....	0.3			0.3		3.6	
PROPANE.....	2.1			0.1		---	
N-BUTANE.....	0.8			0.0		---	
ISOBUTANE.....	0.1			0.0		---	
N-PENTANE.....	0.3			0.0		---	
ISOPENTANE.....	0.1			0.0		---	
CYCLOPENTANE.....	TRACE			0.0		---	
HEXANES PLUS.....	0.1			0.0		---	
NITROGEN.....	5.8			15.7		2.0	
OXYGEN.....	0.0			0.1		0.2	
ARGON.....	TRACE			0.2		---	
HYDROGEN.....	0.0			0.2		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	2.0			77.1		0.3	
HELIUM.....	0.14			0.87		0.09	
HEATING VALUE.....	1053			67		1015	
SPECIFIC GRAVITY.....	0.673			1.370		0.584	
		INDEX SAMPLE	3850 8706	INDEX SAMPLE	3851 16651	INDEX SAMPLE	3852 7610
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	TOOLE			TOOLE		TOOLE	
FIELD.....	KICKING HORSE			LEDGER		MIDDLE BUTTE	
WELL NAME.....	THISTED NO. 1			CAMPBELL NO. 1-18		MORRIS NO. 1	
LOCATION.....	SEC. 17, T36N, R1E			SEC. 18, T30N, R1W		SEC. 13, T36N, R3E	
OWNER.....	TEXACO INC.			CARDINAL OIL CO.		CARDINAL PETROLEUM CO.	
COMPLETED.....	--/--/00			04/29/82		10/17/59	
SAMPLED.....	10/07/62			09/16/82		07/19/60	
FORMATION.....	DEVO-SOURIS RIVER			CRET-BOW ISLAND		CRET-BOW ISLAND	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	4230			1074		1582	
WELLHEAD PRESSURE, PSIG.....	1239			175		343	
OPEN FLOW, MCFD.....	1750			1122		1200	
COMPONENT, MOLE PCT							
METHANE.....	5.2			88.2		93.6	
ETHANE.....	0.8			0.3		1.6	
PROPANE.....	0.6			TRACE		0.8	
N-BUTANE.....	0.3			0.0		0.2	
ISOBUTANE.....	0.1			0.0		0.1	
N-PENTANE.....	0.1			0.0		TRACE	
ISOPENTANE.....	0.1			0.0		0.1	
CYCLOPENTANE.....	TRACE			0.0		0.0	
HEXANES PLUS.....	0.1			0.0		0.0	
NITROGEN.....	12.2			10.9		3.4	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	0.1			0.1		TRACE	
HYDROGEN.....	0.1			0.1		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	79.9			TRACE		0.2	
HELIUM.....	0.40			0.42		0.10	
HEATING VALUE.....	110			899		1002	
SPECIFIC GRAVITY.....	1.406			0.600		0.587	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

	INDEX SAMPLE	3862 2422		INDEX SAMPLE	3863 2423		INDEX SAMPLE	3864 13219
STATE.....	MONTANA			MONTANA			NEBRASKA	
COUNTY.....	WIBAUX			WIBAUX			CHEYENNE	
FIELD.....	CEDAR CREEK			CEDAR CREEK			ENGELLAND W	
WELL NAME.....	NO. 87			NO. 87			MARATHON-COVT. NO. 3	
LOCATION.....	SEC. 22, T11N, R57E			SEC. 9, T11N, R57E			SEC. 36, T15N, R50W	
OWNER.....	GAS DEVELOPMENT CO.			GAS DEVELOPMENT CO.			MARATHON OIL CO.	
ORIG. DATE.....	5/7/72			5/30/72			12/7/72	
SAMPLED.....	10/10/51			10/10/51			05/25/72	
FORMATION.....	CRET-JUDITH RIVER			CRET-JUDITH RIVER			CRET-DAKOTA D	
EDUCITY PROVINCE CODE.....	395			395			540	
DEPTH, FEET.....	806			876			4684	
WELLHEAD PRESSURE, PSIG.....	210			210			706	
OPEN FLOW, MCFD.....	2567			12000			1500	
COMPONENT, MOLE PCT.....								
METHANE.....	91.4			92.4			78.1	
ETHANE.....	0.0			2.0			4.6	
PROPANE.....	---			---			5.3	
N-BUTANE.....	---			---			1.7	
ISOBUTANE.....	---			---			0.9	
N-PENTANE.....	---			---			0.4	
ISOPENTANE.....	---			---			0.5	
CYCLOPENTANE.....	---			---			0.1	
HEXANES PLUS.....	---			---			0.2	
NITROGEN.....	7.3			5.0			7.4	
OXYGEN.....	0.9			0.3			TRACE	
ARGON.....	---			---			TRACE	
HYDROGEN.....	---			---			0.0	
HYDROGEN SULFIDE.....	---			---			0.0	
CARBON DIOXIDE.....	0.4			0.1			0.7	
HELIUM.....	0.14			0.12			0.11	
HEATING VALUE.....	9744			9744			11514	
SPECIFIC GRAVITY.....	0.594			0.598			0.731	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3865 SAMPLE 4869			INDEX 3866 SAMPLE 10486			INDEX 3867 SAMPLE 5288		
STATE.....	NEBRASKA		NEBRASKA			NEBRASKA		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	HUNTSMAN		HUNTSMAN			NOT GIVEN		
WELL NAME.....	A. L. CRUISE NO. 1		SPARKS A-2			G. E. WOOD NO. 1		
LOCATION.....	SEC. 7, T14N, R49W		SEC. 12, T14N, R50W			SEC. 7, T13N, R49W		
OWNER.....	OHIO OIL CO.		MARATHON OIL CO.			CHICAGO CORP.		
COMPLETED.....	01/19/50		05/01/51			08/14/52		
SAMPLED.....	03/22/50		03/29/66			10/08/52		
FORMATION.....	CRET-DAKOTA		CRET-DAKOTA D			CRET-DAKOTA J		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	4742		4692			4850		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1135		
OPEN FLOW, MCFD.....	NOT GIVEN		48			6500		
COMPONENT, MOLE PCT								
METHANE.....	77.2		65.4			75.9		
ETHANE.....	7.1		5.8			7.0		
PROPANE.....	5.0		7.8			5.4		
N-BUTANE.....	1.7		3.7			1.4		
ISOBUTANE.....	0.8		1.4			0.8		
N-PENTANE.....	0.5		1.0			0.3		
ISOPENTANE.....	0.1		1.3			0.1		
CYCLOPENTANE.....	0.1		0.3			TRACE		
HEXANES PLUS.....	0.4		0.7			0.1		
NITROGEN.....	6.1		11.4			7.9		
OXYGEN.....	0.1		0.5			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	1.0		1.1			1.0		
HELIUM.....	0.10		0.10			0.09		
HEATING VALUE.....	1166		1269			1131		
SPECIFIC GRAVITY.....	0.737		0.863			0.729		
INDEX 3868 SAMPLE 17886			INDEX 3869 SAMPLE 10485			INDEX 3870 SAMPLE 4997		
STATE.....	NEBRASKA		NEBRASKA			NEBRASKA		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	PEBBLE		REINERS			SIDNEY W		
WELL NAME.....	HAWKINS NO. 1		C. SCHERER NO. 1			STATE LAND NO. 1		
LOCATION.....	SEC. 17, T12N, R51W		SEC. 23, T16N, R50W			SEC. 16, T13N, R50W		
OWNER.....	BERENERGY CORP.		MARATHON OIL CO.			INDEPENDENT EXPLORATION CO.		
COMPLETED.....	11/12/52		03/01/51			12/22/50		
SAMPLED.....	10/30/85		03/29/66			01/24/51		
FORMATION.....	CRET-DAKOTA D		CRET-DAKOTA J			CRET-DAKOTA 1ST		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	5054		4820			4802		
WELLHEAD PRESSURE, PSIG.....	420		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	2444		170			8800		
COMPONENT, MOLE PCT								
METHANE.....	78.2		80.3			84.0		
ETHANE.....	5.3		4.2			4.5		
PROPANE.....	5.7		6.2			3.9		
N-BUTANE.....	2.1		3.1			0.9		
ISOBUTANE.....	0.6		0.9			0.3		
N-PENTANE.....	0.6		0.3			0.1		
ISOPENTANE.....	0.4		0.3			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	5.1		3.0			5.3		
OXYGEN.....	TRACE		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	1.3		1.0			0.8		
HELIUM.....	0.06		0.06			0.10		
HEATING VALUE.....	1168		1168			1030		
SPECIFIC GRAVITY.....	0.739		0.719			0.667		
INDEX 3871 SAMPLE 5360			INDEX 3872 SAMPLE 5589			INDEX 3873 SAMPLE 10484		
STATE.....	NEBRASKA		NEBRASKA			NEBRASKA		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	SIDNEY W		SIDNEY W			SIDNEY W		
WELL NAME.....	WICKMAN NO. 1		WESTMAN NO. 1			F. KURZ NO. 1		
LOCATION.....	SEC. 10, T13N, R50W		SEC. 23, T13N, R50W			SEC. 4, T13N, R50W		
OWNER.....	OHIO OIL CO.		OHIO OIL CO.			MARATHON OIL CO.		
COMPLETED.....	11/12/52		11/06/53			09/01/53		
SAMPLED.....	12/17/52		02/05/54			03/29/66		
FORMATION.....	CRET-DAKOTA		CRET-DAKOTA 1ST			CRET-DAKOTA D		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	4753		4822			4584		
WELLHEAD PRESSURE, PSIG.....	1213		1120			485		
OPEN FLOW, MCFD.....	NOT GIVEN		8250			6000		
COMPONENT, MOLE PCT								
METHANE.....	79.7		78.8			77.6		
ETHANE.....	6.5		5.0			4.8		
PROPANE.....	4.6		5.5			4.5		
N-BUTANE.....	2.1		3.1			1.5		
ISOBUTANE.....	0.5		1.0			0.7		
N-PENTANE.....	0.4		0.6			0.6		
ISOPENTANE.....	0.0		0.4			0.6		
CYCLOPENTANE.....	0.1		0.1			0.5		
HEXANES PLUS.....	0.1		0.3			1.0		
NITROGEN.....	5.9		5.3			6.8		
OXYGEN.....	0.1		0.1			0.4		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.0		0.9			0.9		
HELIUM.....	0.09		0.09			0.10		
HEATING VALUE.....	1123		1190			1184		
SPECIFIC GRAVITY.....	0.704		0.736			0.752		
INDEX 3874 SAMPLE 10487			INDEX 3875 SAMPLE 4995			INDEX 3876 SAMPLE 5161		
STATE.....	NEBRASKA		NEBRASKA			NEBRASKA		
COUNTY.....	CHEYENNE		CHEYENNE			DEUEL		
FIELD.....	SIDNEY W		SUNOL			816 SPRINGS		
WELL NAME.....	WESTMAN NO. 1		FENDER NO. 1			TRISTRUP NO. E-1		
LOCATION.....	SEC. 2, T13N, R50W		SEC. 2, T14N, R48W			SEC. 1, T12N, R43W		
OWNER.....	MARATHON OIL CO.		OHIO OIL CO.			CHARLES D. EDMONSON		
COMPLETED.....	10/01/53		12/22/50			--/--/00		
SAMPLED.....	10/24/56		01/24/51			01/30/52		
FORMATION.....	CRET-DAKOTA D		CRET-DAKOTA 1ST			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	540		540			540		
DEPTH, FEET.....	4824		4350			3208		
WELLHEAD PRESSURE, PSIG.....	1014		1014			NOT GIVEN		
OPEN FLOW, MCFD.....	4500		5800			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	79.5		64.4			90.3		
ETHANE.....	4.9		4.3			0.4		
PROPANE.....	5.3		6.0			0.1		
N-BUTANE.....	1.8		1.0			0.1		
ISOBUTANE.....	0.8		0.7			0.0		
N-PENTANE.....	0.6		0.2			0.0		
ISOPENTANE.....	0.3		0.0			TRACE		
CYCLOPENTANE.....	0.1		0.0			TRACE		
HEXANES PLUS.....	0.3		0.2			TRACE		
NITROGEN.....	5.4		21.8			8.3		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.9		1.0			0.6		
HELIUM.....	0.09		0.17			0.10		
HEATING VALUE.....	1176		965			929		
SPECIFIC GRAVITY.....	0.728		0.773			0.601		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3877 5802			INDEX SAMPLE	3878 5803			INDEX SAMPLE	3879 5808
STATE.....	NEBRASKA			NEBRASKA				NEBRASKA			
COUNTY.....	DEUEL			DEUEL				DEUEL			
FIELD.....	BIG SPRINGS			BIG SPRINGS				BIG SPRINGS			
WELL NAME.....	HESTER NO. 1			SEC 2, T13N, R42W				TROELSTRUP NO. C-1			
LOCATION.....	SEC 2, T13N, R42W			SEC 2, T13N, R43W				SEC 2, T12N, R43W			
OWNER.....	KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS				KANSAS-NEBRASKA NATURAL GAS			
COMPLETED.....	10/01/54			10/10/54				11/29/54			
SAMPLED.....	04/07/55			04/13/55				04/21/55			
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA				CRET-DAKOTA			
GEOLOGIC PROVINCE CODE.....	540			540				540			
DEPTH, FEET.....	3271			3316				3164			
WELLHEAD PRESSURE, PSIG.....	638			637				628			
OPEN FLOW, MCFD.....	3972			3876				2828			
COMPONENT, MOLE PCT											
METHANE.....	92.0			91.4				91.1			
ETHANE.....	0.3			0.3				0.3			
PROPANE.....	0.0			0.0				0.0			
N-BUTANE.....	0.0			0.0				0.0			
ISOBUTANE.....	0.0			0.0				0.0			
N-PENTANE.....	0.0			0.0				0.0			
ISOPENTANE.....	0.0			0.0				0.0			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	TRACE			0.0				TRACE			
NITROGEN.....	6.8			7.2				7.7			
OXYGEN.....	TRACE			TRACE				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.6			0.8				0.6			
HELIUM.....	0.10			0.11				0.11			
HEATING VALUE.....	937			932				929			
SPECIFIC GRAVITY.....	0.588			0.592				0.592			
		INDEX SAMPLE	3880 6520			INDEX SAMPLE	3881 6987			INDEX SAMPLE	3882 8533
STATE.....	NEBRASKA			NEBRASKA				NEBRASKA			
COUNTY.....	GARDEN			HITCHCOCK				KIMBALL			
FIELD.....	OSHKOSH			BURR OAK				BURR OAK STATE			
WELL NAME.....	OLSON NO. 1			M. H. LEWIS NO. 1				FURST NO. 1			
LOCATION.....	SEC. 11, T16N, R44W			SEC. 26, T1N, R32W				SEC. 12, T12N, R54W			
OWNER.....	J. H. HUBER CORP.			SHELL OIL CO.				CHANDLER & SIMPSON			
COMPLETED.....	05/29/57			12/30/58				02/06/62			
SAMPLED.....	03/13/58			02/25/59				04/19/62			
FORMATION.....	CRET-DAKOTA B			PENN-LANSING				CRET-			
GEOLOGIC PROVINCE CODE.....	540			390				540			
DEPTH, FEET.....	3039			3862				5706			
WELLHEAD PRESSURE, PSIG.....	692			NOT GIVEN				990			
OPEN FLOW, MCFD.....	3300			5				14400			
COMPONENT, MOLE PCT											
METHANE.....	63.7			8.7				77.3			
ETHANE.....	0.3			0.3				5.3			
PROPANE.....	0.7			0.3				7.5			
N-BUTANE.....	0.2			0.6				2.0			
ISOBUTANE.....	0.5			0.6				0.4			
N-PENTANE.....	0.1			0.3				0.3			
ISOPENTANE.....	0.3			0.2				0.2			
CYCLOPENTANE.....	0.1			0.6				TRACE			
HEXANES PLUS.....	0.1			0.6				TRACE			
NITROGEN.....	32.6			75.5				5.2			
OXYGEN.....	TRACE			0.1				0.3			
ARGON.....	0.1			0.5				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.3			9.8				1.5			
HELIUM.....	0.30			2.50				0.08			
HEATING VALUE.....	718			201				1175			
SPECIFIC GRAVITY.....	0.728			1.007				0.740			
		INDEX SAMPLE	3883 5457			INDEX SAMPLE	3884 5462			INDEX SAMPLE	3885 16072
STATE.....	NEBRASKA			NEBRASKA				NEBRASKA			
COUNTY.....	KIMBALL			KIMBALL				LINCOLN			
FIELD.....	POTTER SW			POTTER SW				WILDCAT			
WELL NAME.....	SEC. 10, T13N, R53W			KENNEDY JR. NO. 6				BROWN NO. 2			
LOCATION.....	SHELL OIL CO.			SEC. 3, T13N, R53W				SEC. 14, T16N, R33W			
OWNER.....	SHELL OIL CO.			SHELL OIL CO.				MARSHALL R. YOUNG OIL CO.			
COMPLETED.....	04/20/53			04/20/53				10/10/79			
SAMPLED.....	04/20/53			04/20/53				09/11/80			
FORMATION.....	CRET-MUDDY			CRET-DAKOTA				CRET-DAKOTA			
GEOLOGIC PROVINCE CODE.....	540			540				390			
DEPTH, FEET.....	5560			5651				1938			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				300			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				3000			
COMPONENT, MOLE PCT											
METHANE.....	52.2			72.8				63.6			
ETHANE.....	4.1			5.1				0.3			
PROPANE.....	15.9			8.8				TRACE			
N-BUTANE.....	8.3			2.2				TRACE			
ISOBUTANE.....	4.8			0.9				TRACE			
N-PENTANE.....	5.0			0.8				TRACE			
ISOPENTANE.....	0.9			0.5				0.0			
CYCLOPENTANE.....	0.7			0.9				TRACE			
HEXANES PLUS.....	5.8			3.7				0.1			
NITROGEN.....	3.2			TRACE				35.4			
OXYGEN.....	TRACE			TRACE				0.0			
ARGON.....	0.0			0.0				0.1			
HYDROGEN.....	0.5			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.5			1.6				0.0			
HELIUM.....	0.03			0.03				0.31			
HEATING VALUE.....	1982			0.837				655			
SPECIFIC GRAVITY.....	1.196							0.704			
		INDEX SAMPLE	3886 16073			INDEX SAMPLE	3887 7948			INDEX SAMPLE	3888 4192
STATE.....	NEBRASKA			NEBRASKA				NEVADA			
COUNTY.....	LINCOLN			RED WILLOW				CHURCHILL			
FIELD.....	WILDCAT			SLEEPY HOLLOW				NOT GIVEN			
WELL NAME.....	BROWN NO. 2			HAYES LEASE				NOT GIVEN			
LOCATION.....	SEC. 14, T16N, R33W			SEC. 24, T2N, R27W				SEC. 1, T19N, R30E			
OWNER.....	MARSHALL R. YOUNG OIL CO.			PUBCO PETROLEUM CORP.				ELMER WEISHAUP			
COMPLETED.....	10/10/79			05/11/61				11/27/46			
SAMPLED.....	05/11/80			CAMP-REAGAN				QUAT-LAKE LAHONTAN			
FORMATION.....	CRET-NIOBRARA			390				625			
GEOLOGIC PROVINCE CODE.....	390			3500				200			
DEPTH, FEET.....	1272			18				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	400			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	174										
COMPONENT, MOLE PCT											
METHANE.....	63.8			2.6				61.8			
ETHANE.....	0.6			1.4				1.4			
PROPANE.....	0.1			3.0				---			
N-BUTANE.....	TRACE			2.3				---			
ISOBUTANE.....	TRACE			1.7				---			
N-PENTANE.....	TRACE			1.0				---			
ISOPENTANE.....	TRACE			0.6				---			
CYCLOPENTANE.....	TRACE			0.2				---			
HEXANES PLUS.....	TRACE			0.7				---			
NITROGEN.....	35.1			85.7				35.4			
OXYGEN.....	0.0			0.7				0.6			
ARGON.....	0.1			0.0				---			
HYDROGEN.....	0.0			0.0				---			
HYDROGEN SULFIDE.....	0.0			0.4				---			
CARBON DIOXIDE.....	TRACE			0.4				0.8			
HELIUM.....	0.15			1.20				0.03			
HEATING VALUE.....	660			76				651			
SPECIFIC GRAVITY.....	0.703			1.053				0.719			

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3889 1056	INDEX SAMPLE	3890 15375	INDEX SAMPLE	3891 15761
STATE.....	NEVADA			NEVADA		NEVADA	
COUNTY.....	ESMERALDA			WASHOE		WASHOE	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	NOT GIVEN			SPRING		GAS SEEP	
LOCATION.....	NOT GIVEN			SEC. 16, T23N, R23E		MARBLE BLUFF DAN	
OWNER.....	COALSDALE MERGER OIL CO.			PYRAMID LAKE INDIAN RES.		INDIAN RESERVATION	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	09/07/78			09/07/78		09/19/79	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	625			620		620	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		2	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	98.7			84.0		0.5	
ETHANE.....	---			TRACE		0.0	
PROPANE.....	---			TRACE		0.0	
N-BUTANE.....	---			0.0		0.0	
ISOBUTANE.....	---			0.0		0.0	
N-PENTANE.....	---			0.0		0.0	
ISOPENTANE.....	---			0.0		0.0	
CYCLOPENTANE.....	---			0.0		0.0	
HEXANES PLUS.....	---			0.0		0.0	
NITROGEN.....	0.7			5.8		97.3	
ARGON.....	---			TRACE		0.0	
HYDROGEN.....	---			0.1		1.0	
HYDROGEN SULFIDE.....	---			TRACE		0.0	
CARBON DIOXIDE.....	0.5			0.3		0.0	
HELIUM.....	0.00			9.7		1.2	
HEATING VALUE.....	1000			853		TRACE	
SPECIFIC GRAVITY.....	0.563			0.675		0.976	

		INDEX SAMPLE	3892 15121	INDEX SAMPLE	3893 15127	INDEX SAMPLE	3894 12168
STATE.....	NEVADA			NEVADA		NEVADA	
COUNTY.....	WASHOE			WASHOE		WHITE PINE	
FIELD.....	PYRAMID LAKE			PYRAMID LAKE		MONTE CRISTO	
WELL NAME.....	GAS SEEP			AUGER HOLE		ODH NO. 27	
LOCATION.....	NW OF TRUKEE R DELTA			SEC. 22, T23N, R23E		NOT GIVEN	
OWNER.....	U.S. BUREAU OF RECLAMATION			U.S. BUREAU OF RECLAMATION		W. R. GRACE & CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/17/77			10/19/77		--/--/00	
FORMATION.....	NOT GIVEN			QUAT-		CAMB-ELDORADO	
GEOLOGIC PROVINCE CODE.....	620			620		625	
DEPTH, FEET.....	NOT GIVEN			45		1476	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		20	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	96.8			95.6		0.3	
ETHANE.....	0.0			0.0		0.1	
PROPANE.....	TRACE			TRACE		TRACE	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	2.2			3.2		95.1	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	0.1			0.1		1.4	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			1.0		1.8	
HELIUM.....	TRACE			TRACE		0.05	
HEATING VALUE.....	981			968		5	
SPECIFIC GRAVITY.....	0.573			0.579		0.982	

		INDEX SAMPLE	3895 15967	INDEX SAMPLE	3896 9410	INDEX SAMPLE	3897 1209
STATE.....	NEW JERSEY			NEW MEXICO		NEW MEXICO	
COUNTY.....	OFFSHORE			CHAUSS		CHAUSS	
FIELD.....	MID ATLANTIC			NOT GIVEN		ARTESIA	
WELL NAME.....	FED. WATERS N.J. 18-3			WATER WELL		NO. 1	
LOCATION.....	BLK. 598, OCS-A-0028			SEC. 36, T11N, R6E		SEC. 15, T15S, R29E	
OWNER.....	TEXACO INC.			JIM CROSBY & U.S.G.S.		SOUTHERN PET. EXPL., INC.	
COMPLETED.....	05/14/80			--/--/64		--/--/00	
SAMPLED.....	05/14/80			06/19/64		01/10/26	
FORMATION.....	NOT GIVEN			PERMIAN-WADERA		--SALT & ANHYDRITE	
GEOLOGIC PROVINCE CODE.....	120			460		430	
DEPTH, FEET.....	12974			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	0.0			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	94.1			0.1		0.0	
ETHANE.....	2.0			TRACE		14.2	
PROPANE.....	0.8			0.0		---	
N-BUTANE.....	0.1			0.0		---	
ISOBUTANE.....	0.1			0.0		---	
N-PENTANE.....	0.0			0.0		---	
ISOPENTANE.....	0.1			0.0		---	
CYCLOPENTANE.....	TRACE			0.0		---	
HEXANES PLUS.....	TRACE			0.0		---	
NITROGEN.....	1.1			2.1		83.7	
OXYGEN.....	0.0			0.0		1.3	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.2			18.9		---	
HYDROGEN SULFIDE.....	0.0			70.7		---	
CARBON DIOXIDE.....	0.02			0.13		0.3	
HELIUM.....	1018			60		0.49	
HEATING VALUE.....	1018			1.237		254	
SPECIFIC GRAVITY.....	0.596					0.978	

		INDEX SAMPLE	3898 17706	INDEX SAMPLE	3899 9125	INDEX SAMPLE	3900 4580
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	BITTER LAKES			CHAUSS		CAPROCK	
FIELD.....	NOT GIVEN			BUFFALO VALLEY		OHIO STATE NO. 1	
WELL NAME.....	RUNYON STATE NO. 2			BAETZ NO. 1		SEC. 11, T13S, R31E	
LOCATION.....	SEC. 24, T9S, R26E			SEC. 35, T14S, R27E		COOPERATIVE PRODUCING ASSOC.	
OWNER.....	ELK OIL CO.			CARPER DRILLING CO., INC.		09/02/45	
COMPLETED.....	01/22/83			12/17/62		03/27/48	
SAMPLED.....	06/13/85			10/25/63		PERM-QUEEN	
FORMATION.....	PERM-WOLFCAMP			PERM-		430	
GEOLOGIC PROVINCE CODE.....	430			430		3022	
DEPTH, FEET.....	5142			8182		400	
WELLHEAD PRESSURE, PSIG.....	1115			1790		NOT GIVEN	
OPEN FLOW, MCFD.....	1000			3600			
COMPONENT, MOLE PCT							
METHANE.....	86.8			89.1		99.4	
ETHANE.....	5.4			2.2		0.0	
PROPANE.....	2.1			0.7		---	
N-BUTANE.....	0.7			0.7		---	
ISOBUTANE.....	0.4			0.1		---	
N-PENTANE.....	0.3			0.2		---	
ISOPENTANE.....	0.2			0.3		---	
CYCLOPENTANE.....	0.1			0.1		---	
HEXANES PLUS.....	0.3			0.4		0.0	
NITROGEN.....	3.4			0.0		0.4	
OXYGEN.....	TRACE			TRACE		---	
ARGON.....	TRACE			0.0		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.1			0.04		0.02	
HELIUM.....	0.18			1135		1007	
HEATING VALUE.....	1108			0.639		0.559	
SPECIFIC GRAVITY.....	0.652						

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3901 4582	INDEX SAMPLE	3902 7671	INDEX SAMPLE	3903 13339
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	CHAVES			CHAVES		CHAVES	
FIELD.....	CAPROCK			CAPROCK		CAPROCK	
WELL NAME.....	MALCO STATE H NO. 1			NEW MEXICO H NO. 1		R. & J. FED. NO. 1	
LOCATION.....	SEC. 36, T12S, R31E			SEC. 19, T15S, R31E		SEC. 28, T12S, R31E	
OWNER.....	COOPERATIVE PRODUCING ASSOC.			SOCONY MOBIL OIL CO., INC.		READING & BATES, INC.	
COMPLETED.....	07/26/44			07/01/55		12/30/70	
SAMPLED.....	03/27/44			08/23/60		07/27/72	
FORMATION.....	PERM-QUEEN			PERM-QUEEN		PERM-QUEEN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	3015			3098		2597	
WELLHEAD PRESSURE, PSIG.....	629			180		860	
OPEN FLOW, MCFD.....	NOT GIVEN			700		3400	
COMPONENT, MOLE PCT							
METHANE.....	43.0			33.3		18.5	
ETHANE.....	0.0			8.0		5.2	
PROPANE.....	---			4.1		2.5	
N-BUTANE.....	---			1.2		0.5	
ISOBUTANE.....	---			0.7		0.3	
N-PENTANE.....	---			0.3		0.1	
ISOPENTANE.....	---			0.3		TRACE	
CYCLOPENTANE.....	---			0.1		TRACE	
HEXANES PLUS.....	---			0.2		0.1	
NITROGEN.....	52.7			51.6		72.2	
OXYGEN.....	4.3			TRACE		TRACE	
ARGON.....	---			0.0		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.02			0.2		0.1	
HELIUM.....	0.436			0.10		0.07	
HEATING VALUE.....	387			691		387	
SPECIFIC GRAVITY.....	0.796			0.897		0.921	
		INDEX SAMPLE	3904 14818	INDEX SAMPLE	3905 5835	INDEX SAMPLE	3906 13300
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	CHAVES			CHAVES		CHAVES	
FIELD.....	DOUBLY L			DRICKLEY S		HAYSTACK	
WELL NAME.....	FED. 17 NO. 1			LION NO. 4		HAYSTACK "A" FED. NO. 1	
LOCATION.....	SEC. 17, T15S, R30E			SEC. 9, T15S, R31E		SEC. 28, T6S, R27E	
OWNER.....	MCCLELLAN OIL CORP.			LION OIL CO.		FOREST OIL CORP.	
COMPLETED.....	03/25/75			03/01/55		07/19/71	
SAMPLED.....	10/27/76			05/11/55		07/14/72	
FORMATION.....	PERM-QUEEN			PERM-QUEEN		PENN-CISCO	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	2018			3000		5832	
WELLHEAD PRESSURE, PSIG.....	350			900		1600	
OPEN FLOW, MCFD.....	3973			5000		29500	
COMPONENT, MOLE PCT							
METHANE.....	25.6			22.4		83.2	
ETHANE.....	6.6			5.2		5.4	
PROPANE.....	3.0			5.3		5.4	
N-BUTANE.....	0.8			2.8		0.8	
ISOBUTANE.....	0.3			1.5		0.5	
N-PENTANE.....	0.2			1.0		0.2	
ISOPENTANE.....	0.2			1.0		0.2	
CYCLOPENTANE.....	TRACE			0.3		TRACE	
HEXANES PLUS.....	0.1			1.0		0.2	
NITROGEN.....	63.1			56.9		5.9	
OXYGEN.....	0.0			TRACE		0.4	
ARGON.....	TRACE			0.0		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.2	
HELIUM.....	0.07			0.08		0.34	
HEATING VALUE.....	515			795		1078	
SPECIFIC GRAVITY.....	0.906			1.015		0.668	
		INDEX SAMPLE	3907 8890	INDEX SAMPLE	3908 17171	INDEX SAMPLE	3909 16668
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	CHAVES			CHAVES		CHAVES	
FIELD.....	LAKE ARTHUR			LESLIE SPRING		LIGHTCAP	
WELL NAME.....	MOUNTS FEE NO. 1			CHAVES "A" FEDERAL NO. 1-T		SANDERS NO. 1	
LOCATION.....	SEC. 31, T15S, R27E			SEC. 21, T7S, R26E		SEC. 8, T8S, R30E	
OWNER.....	RALPH LOWE			SUN EXPLORATION & PRODUCTION		SKRMAN PETROLEUM, INC.	
COMPLETED.....	03/18/63			06/16/82		10/11/82	
SAMPLED.....	03/18/63			02/09/84		09/24/82	
FORMATION.....	NOT GIVEN			PERM-WOLFCAMP		ORDO-MONTOTA	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	NOT GIVEN			4588		7900	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			754		1385	
OPEN FLOW, MCFD.....	NOT GIVEN			436		2001	
COMPONENT, MOLE PCT							
METHANE.....	70.7			86.7		73.0	
ETHANE.....	5.2			4.6		8.5	
PROPANE.....	1.7			1.7		5.2	
N-BUTANE.....	0.6			0.6		1.0	
ISOBUTANE.....	0.2			0.4		1.0	
N-PENTANE.....	0.2			0.3		0.3	
ISOPENTANE.....	TRACE			0.1		0.5	
CYCLOPENTANE.....	0.3			0.1		0.1	
HEXANES PLUS.....	0.5			0.3		0.2	
NITROGEN.....	16.4			4.7		4.3	
OXYGEN.....	3.8			TRACE		0.1	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		5.1	
HELIUM.....	0.10			0.28		0.13	
HEATING VALUE.....	1175			1075		1155	
SPECIFIC GRAVITY.....	0.722			0.645		0.776	
		INDEX SAMPLE	3910 8350	INDEX SAMPLE	3911 1586	INDEX SAMPLE	3912 9203
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	CHAVES			CHAVES		CHAVES	
FIELD.....	LOCO HILLS			NOT GIVEN		NOT GIVEN	
WELL NAME.....	KIMES NO. 1			ARENA		STATE 15-1	
LOCATION.....	SEC. 29, T15S, R29E			SEC. 19, T13S, R31E		SEC. 15, T15S, R29E	
OWNER.....	E. J. MCCURDY, JR., OIL ASSO			MANHATTAN OIL CO.		SHELL OIL CO.	
COMPLETED.....	11/13/63			03/07/28		11/13/63	
SAMPLED.....	12/29/61			NOT GIVEN		12/16/63	
FORMATION.....	PERM-QUEEN			NOT GIVEN		PERM-QUEEN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	1735			2461		1844	
WELLHEAD PRESSURE, PSIG.....	625			500		580	
OPEN FLOW, MCFD.....	NOT GIVEN			500		940	
COMPONENT, MOLE PCT							
METHANE.....	22.1			11.8		25.6	
ETHANE.....	5.6			17.3		6.4	
PROPANE.....	2.5			---		2.4	
N-BUTANE.....	0.6			---		0.7	
ISOBUTANE.....	0.4			---		0.4	
N-PENTANE.....	0.0			---		0.0	
ISOPENTANE.....	0.3			---		0.4	
CYCLOPENTANE.....	0.0			---		0.1	
HEXANES PLUS.....	0.0			---		0.1	
NITROGEN.....	65.1			70.6		63.7	
OXYGEN.....	0.2			0.2		0.0	
ARGON.....	0.0			---		TRACE	
HYDROGEN.....	0.0			---		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.1	
HELIUM.....	0.06			0.06		0.10	
HEATING VALUE.....	436			430		499	
SPECIFIC GRAVITY.....	0.917			0.935		0.902	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3913 SAMPLE 11265			INDEX 3914 SAMPLE 11266			INDEX 3915 SAMPLE 13455		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	CHAVES		CHAVES			CHAVES		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	LISA FED.		PATRICK FED. NO. 1			OCCIDENTAL FED. NO. 1		
LOCATION.....	SEC. 12, T15S, R29E		SEC. 13, T15S, R29E			SEC. 22, T14S, R30E		
OWNER.....	JACK L. MCCLELLAN		JACK L. MCCLELLAN			COCKRELL CORP.		
COMPLETED.....	04/07/66		09/20/67			10/16/72		
SAMPLED.....	01/30/68		01/30/68			10/22/72		
FORMATION.....	PERM-SAN ANDRES		PERM-SAN ANDRES			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2000		2000			10674		
WELLHEAD PRESSURE, PSIG.....	650		650			NOT GIVEN		
OPEN FLOW, MCFD.....	5000		6717			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	26.0		25.8			81.5		
ETHANE.....	6.5		6.4			9.7		
PROPANE.....	2.5		2.5			4.7		
N-BUTANE.....	0.6		0.5			1.4		
ISOBUTANE.....	0.3		0.4			0.6		
N-PENTANE.....	0.1		TRACE			0.3		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	63.5		63.6			1.1		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.4		
HELIUM.....	0.08		0.08			0.03		
HEATING VALUE.....	489		481			1215		
SPECIFIC GRAVITY.....	0.894		0.891			0.700		
INDEX 3916 SAMPLE 15365			INDEX 3917 SAMPLE 16480			INDEX 3918 SAMPLE 16796		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	CHAVES		CHAVES			CHAVES		
FIELD.....	NOT GIVEN		PECOS SLOPE			PECOS SLOPE		
WELL NAME.....	BEALL FED. NO. 1		STANCEL FED. NO. 1			LUKE COM FED. NO. 1		
LOCATION.....	SEC. 17, T11S, R30E		SEC. 25, T5S, R24E			SEC. 24, T10S, R25E		
OWNER.....	DECO, INC.		MESA PETROLEUM CO.			MCCLELLAN OIL CORP.		
COMPLETED.....	06/03/77		--/--/80			06/--/82		
SAMPLED.....	08/28/78		03/01/82			03/08/83		
FORMATION.....	PENN-ATOKA		PERM-ABO			PERM-ABO		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	9096		3786			4600		
WELLHEAD PRESSURE, PSIG.....	1780		1200			1000		
OPEN FLOW, MCFD.....	4741		654			750		
COMPONENT, MOLE PCT.....								
METHANE.....	79.9		83.9			80.2		
ETHANE.....	2.3		4.7			4.3		
PROPANE.....	0.7		2.0			1.7		
N-BUTANE.....	0.7		0.7			0.6		
ISOBUTANE.....	0.2		0.4			0.3		
N-PENTANE.....	0.2		0.3			0.1		
ISOPENTANE.....	0.4		0.1			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	7.9		6.8			10.0		
OXYGEN.....	1.6		0.1			1.3		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	0.0		0.1			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.0			0.1		
HELIUM.....	0.07		0.49			0.44		
HEATING VALUE.....	1048		1060			996		
SPECIFIC GRAVITY.....	0.688		0.657			0.668		
INDEX 3919 SAMPLE 17170			INDEX 3920 SAMPLE 17600			INDEX 3921 SAMPLE 17667		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	CHAVES		CHAVES			CHAVES		
FIELD.....	CHAVES SLOPE		CHAVES SLOPE			RED LAKE RIDGE		
WELL NAME.....	CHAVES #1 FEDERAL NO. 1-C		BRITT NO. 1			LYNX NO. 1		
LOCATION.....	SEC. 21, T7S, R26E		SEC. 3, T11S, R25E			SEC. 19, T8S, R29E		
OWNER.....	SUN EXPLORATION & PRODUCTION		WALLACE OIL & GAS, INC.			STEVENS OPERATING CORP.		
COMPLETED.....	06/--/82		7/--/80			07/16/84		
SAMPLED.....	02/09/84		02/27/85			05/14/85		
FORMATION.....	PERM-ABO		PERM-ABO			PERM-SAN ANDRES		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3932		3878			6852		
WELLHEAD PRESSURE, PSIG.....	831		987			2500		
OPEN FLOW, MCFD.....	10474		1094			7075		
COMPONENT, MOLE PCT.....								
METHANE.....	86.2		81.8			70.2		
ETHANE.....	4.6		4.3			11.9		
PROPANE.....	1.6		1.6			6.2		
N-BUTANE.....	0.6		0.6			2.2		
ISOBUTANE.....	0.4		0.4			0.9		
N-PENTANE.....	0.3		0.2			0.4		
ISOPENTANE.....	0.3		0.1			0.9		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.4		0.3			0.4		
NITROGEN.....	5.0		9.3			4.2		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		TRACE			0.9		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			1.9		
HELIUM.....	0.32		0.61			0.18		
HEATING VALUE.....	1082		1018			1280		
SPECIFIC GRAVITY.....	0.652		0.661			0.798		
INDEX 3922 SAMPLE 7943			INDEX 3923 SAMPLE 16372			INDEX 3924 SAMPLE 9605		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	CHAVES		CHAVES			CHAVES		
FIELD.....	U V		WHITE RANCH			WILDCAT		
WELL NAME.....	MANRY ELLIOT NO. 1		WHITE RANCH NO. 1			FED. NO. 1		
LOCATION.....	SEC. 22, T11S, R31E		SEC. 8, T13S, R30E			SEC. 10, T14S, R28E		
OWNER.....	ROBINSON BROS. OIL PRODUCERS		DEPCO, INC.			MIDWEST OIL CORP.		
COMPLETED.....	03/01/60		03/01/60			08/06/63		
SAMPLED.....	04/28/61		10/28/81			10/19/64		
FORMATION.....	PENN-ATOKA & MORROW		PENN-ATOKA			PERM-PREMIER		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	10870		NOT GIVEN			1683		
WELLHEAD PRESSURE, PSIG.....	3100		2100			707		
OPEN FLOW, MCFD.....	10000		545000			1000		
COMPONENT, MOLE PCT.....								
METHANE.....	83.4		79.2			67.0		
ETHANE.....	8.5		9.6			5.6		
PROPANE.....	3.3		5.5			1.8		
N-BUTANE.....	1.1		1.6			0.4		
ISOBUTANE.....	0.9		0.7			0.3		
N-PENTANE.....	0.5		0.3			TRACE		
ISOPENTANE.....	0.0		0.5			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.5		0.2			0.1		
NITROGEN.....	0.0		1.9			24.4		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.3			0.1		
HELIUM.....	0.05		0.06			0.06		
HEATING VALUE.....	1206		1125			859		
SPECIFIC GRAVITY.....	0.694		0.725			0.716		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3925 SAMPLE 9970			INDEX 3926 SAMPLE 10209			INDEX 3927 SAMPLE 12951		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	CHAVES		CHAVES			CHAVES		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	O'BRIEN No. 2-C		O'BRIEN No. 2			TERRA-FED. No. 1		
LOCATION.....	SEC. 23, T8S, R28E		SEC. 3, T8S, R29E			SEC. 17, T12S, R31E		
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.			READING & BATES, INC.		
COMPLETED.....	07/08/65		10/13/65			08/30/70		
SAMPLED.....	PERM-YATES		PERM-SAN ANDRES			08/13/71		
FORMATION.....	430		430			PERM-QUEEN		
GEOLOGIC PROVINCE CODE.....	875		3056			2675		
DEPTH, FEET.....	500		NOT GIVEN			900		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			11000		
OPEN FLOW, MCFD.....								
COMPONENT, MOLE PCT								
METHANE.....	0.1		69.2			17.9		
ETHANE.....	0.0		7.0			3.9		
PROPANE.....	0.0		5.2			1.4		
N-BUTANE.....	0.0		1.1			0.5		
ISOBUTANE.....	0.0		0.7			0.1		
N-PENTANE.....	0.0		0.3			0.1		
ISOPENTANE.....	0.0		0.3			TRACE		
CYCLOPENTANE.....	0.0		0.1			TRACE		
HEXANES PLUS.....	0.0		0.3			0.1		
NITROGEN.....	99.4		11.9			75.6		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.4		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		3.8			0.3		
HEATING VALUE.....	0.03		0.11			0.07		
SPECIFIC GRAVITY.....	0.964		0.775			0.913		

INDEX 3928 SAMPLE 13870			INDEX 3929 SAMPLE 14440			INDEX 3930 SAMPLE 15049		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	CHAVES		CHAVES			CHAVES		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	PLAINS RADIO No. 36-1		MIDWEST FED. No. 1			UNION FED. No. 1		
LOCATION.....	SEC. 36, T9S, R28E		SEC. 23, T10S, R29E			SEC. 1, T8S, R31E		
OWNER.....	ROY WHITTENBURG		DEPCO, INC.			HOLLY ENERGY, INC.		
COMPLETED.....	01/01/76		09/09/74			11/01/75		
SAMPLED.....	01/19/74		08/18/75			07/06/77		
FORMATION.....	PERM-QUEEN		PENN-MORROW			MISS-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	NOT GIVEN		9277			9542		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2200			2750		
OPEN FLOW, MCFD.....	NOT GIVEN		2290			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	28.9		84.6			68.9		
ETHANE.....	7.2		6.1			13.1		
PROPANE.....	3.4		2.9			8.0		
N-BUTANE.....	0.2		0.8			2.9		
ISOBUTANE.....	0.2		0.8			1.8		
N-PENTANE.....	0.2		0.2			0.6		
ISOPENTANE.....	0.2		0.5			1.6		
CYCLOPENTANE.....	0.1		0.2			0.2		
HEXANES PLUS.....	0.2		0.4			0.6		
NITROGEN.....	56.2		2.2			1.8		
OXYGEN.....	1.6		0.3			0.0		
ARGON.....	0.1		TRACE			0.0		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		1.0			0.5		
HEATING VALUE.....	0.12		0.05			0.05		
SPECIFIC GRAVITY.....	0.903		1.153			1.431		
			0.685			0.844		

INDEX 3931 SAMPLE 15533			INDEX 3932 SAMPLE 16410			INDEX 3933 SAMPLE 16687		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	CHAVES		CHAVES			CHAVES		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	O'BRIEN No. 1		NINE MILE OB			CAMEL STATE No. 1		
LOCATION.....	SEC. 11, T9S, R29E		SEC. 32, T18S, R25E			SEC. 7, T9S, R27E		
OWNER.....	TEXAS OIL & GAS CORP.		YATES PETROLEUM CORP.			PLAINS RADIO BROADCASTING CO		
COMPLETED.....	06/02/77		02/20/81			06/24/81		
SAMPLED.....	12/01/78		01/19/82			10/--/82		
FORMATION.....	PENN-STRAWN		PERM-PREMIER			PENN-NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	8708		1800			6154		
WELLHEAD PRESSURE, PSIG.....	2035		1000			1947		
OPEN FLOW, MCFD.....	4256		250			4186		
COMPONENT, MOLE PCT								
METHANE.....	83.9		65.6			88.6		
ETHANE.....	5.3		2.5			4.0		
PROPANE.....	1.3		0.7			1.3		
N-BUTANE.....	0.4		0.7			0.5		
ISOBUTANE.....	0.4		0.4			0.3		
N-PENTANE.....	0.4		0.1			0.1		
ISOPENTANE.....	0.3		0.1			0.3		
CYCLOPENTANE.....	0.2		0.1			0.2		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	5.6		24.2			4.1		
OXYGEN.....	1.0		0.2			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.3		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.2		
HEATING VALUE.....	1062		0.05			0.15		
SPECIFIC GRAVITY.....	0.658		0.736			1.061		
						0.634		

INDEX 3934 SAMPLE 16808			INDEX 3935 SAMPLE 16883			INDEX 3936 SAMPLE 16447		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	CHAVES		CHAVES			COLFAX		
FIELD.....	WILDCAT		WILDCAT			NOT GIVEN		
WELL NAME.....	BITTERLAKES PX STATE No. 1		HAUL STATE No. 1			ROBERTS No. 1		
LOCATION.....	SEC. 16, T10S, R25E		SEC. 13, T8S, R27E			SEC. 7, T28N, R27E		
OWNER.....	YATES PETROLEUM CORP.		RAULT PETROLEUM CORP.			W. C. ROBERTS		
COMPLETED.....	03/--/82		07/09/82			--/--/80		
SAMPLED.....	03/--/83		04/20/83			03/--/82		
FORMATION.....	PERM-ABO		PENN-SAND			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	430		430			455		
DEPTH, FEET.....	3841		6327			420		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2095			NOT GIVEN		
OPEN FLOW, MCFD.....	1800		2650			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	68.4		89.9			7.7		
ETHANE.....	3.7		3.9			0.0		
PROPANE.....	1.5		0.0			TRACE		
N-BUTANE.....	0.5		0.4			0.0		
ISOBUTANE.....	0.2		0.1			0.0		
N-PENTANE.....	0.2		0.2			0.0		
ISOPENTANE.....	0.2		0.3			0.0		
CYCLOPENTANE.....	0.1		0.1			0.0		
HEXANES PLUS.....	0.2		0.2			0.0		
NITROGEN.....	17.6		3.3			3.0		
OXYGEN.....	3.0		TRACE			0.0		
ARGON.....	0.2		TRACE			0.1		
HYDROGEN.....	0.5		0.2			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.0		0.3			89.1		
HEATING VALUE.....	0.75		0.18			0.01		
SPECIFIC GRAVITY.....	0.959		1.78			1.435		
	0.730		0.623					

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	3937 13509	INDEX SAMPLE	3938 2763	INDEX SAMPLE	3939 13280
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	COLFAX			DONA ANA		EDDY	
FIELD.....	WICAT			NOT GIVEN		AID	
WELL NAME.....	ROBERTS TEST NO. 1			GAS SEEP		AID-STATE COM. NO. 1	
LOCATION.....	SEC. 25, T29N, R24E			NEAR LAS CRUCES		SEC. 24, T17S, R28E	
OWNER.....	W. C. ROBERTS			NOT GIVEN		PENNZOIL CO.	
COMPLETED.....	--/--/00			--/--/00		03/30/71	
SAMPLED.....	--/--/00			08/27/37		06/22/72	
FORMATION.....	CRET-DAKOTA			NOT GIVEN		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	455			465		430	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		10608	
WELLHEAD PRESSURE, PSIG.....	10			NOT GIVEN		1890	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		2500	
COMPONENT, MOLE PCT							
METHANE.....	99.2		79.6		84.2		
ETHANE.....	TRACE		0.0		9.0		
PROPANE.....	TRACE		---		3.8		
N-BUTANE.....	0.0		---		0.8		
ISOBUTANE.....	0.0		---		0.5		
N-PENTANE.....	0.0		---		0.2		
ISOPENTANE.....	0.0		---		0.1		
CYCLOPENTANE.....	0.0		---		TRACE		
HEXANES PLUS.....	0.0		---		0.1		
NITROGEN.....	0.6		6.5		0.8		
OXYGEN.....	0.1		0.9		TRACE		
ARGON.....	TRACE		---		TRACE		
HYDROGEN.....	0.1		---		0.0		
HYDROGEN SULFIDE**.....	0.0		---		0.0		
CARBON DIOXIDE.....	0.1		13.0		0.3		
HELIUM.....	TRACE		0.00		0.03		
HEATING VALUE.....	1005		806		1175		
SPECIFIC GRAVITY.....	0.558		0.713		0.670		
		INDEX SAMPLE	3940 14809	INDEX SAMPLE	3941 17160	INDEX SAMPLE	3942 989
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	ANGELL RANCH			ANTELOPE SINK		ARTESIA	
WELL NAME.....	WRIGHT-FED. NO. 1			NEW MEXICO STATE "DE" NO. 1		NO. 2	
LOCATION.....	SEC. 6, T20S, R28E			SEC. 19, T19S, R23E		SEC. 25, T18S, R28E	
OWNER.....	PENNZOIL OIL CORP.			EXXON CO., U.S.A.		ILLINOIS OIL CO.	
COMPLETED.....	08/22/75			03/30/83		06/01/24	
SAMPLED.....	10/15/76			01/26/84		02/24/25	
FORMATION.....	PENN-MORROW			PENN-CISCO CANYON		PERM-QUEEN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	10828		6240		1824		
WELLHEAD PRESSURE, PSIG.....	3385		1630		NOT GIVEN		
OPEN FLOW, MCFD.....	3439		1900		500		
COMPONENT, MOLE PCT							
METHANE.....	91.4		87.4		65.7		
ETHANE.....	4.9		5.9		22.1		
PROPANE.....	1.4		2.4		---		
N-BUTANE.....	0.4		0.8		---		
ISOBUTANE.....	0.2		0.6		---		
N-PENTANE.....	0.1		0.3		---		
ISOPENTANE.....	0.2		0.1		---		
CYCLOPENTANE.....	0.1		0.2		---		
HEXANES PLUS.....	0.2		0.4		---		
NITROGEN.....	0.4		1.2		11.2		
OXYGEN.....	0.0		TRACE		0.7		
ARGON.....	TRACE		TRACE		---		
HYDROGEN.....	0.0		0.0		---		
HYDROGEN SULFIDE.....	0.0		0.0		---		
CARBON DIOXIDE.....	0.6		0.2		0.4		
HELIUM.....	0.02		0.03		0.10		
HEATING VALUE.....	1102		1154		1062		
SPECIFIC GRAVITY.....	0.624		0.659		0.718		
		INDEX SAMPLE	3943 1060	INDEX SAMPLE	3944 1793	INDEX SAMPLE	3945 1937
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	ARTESIA			ARTESIA		ARTESIA	
WELL NAME.....	MURCH NO. 2			STATE NO. 2		STATE NO. 1	
LOCATION.....	SEC. 19, T20S, R30E			SEC. 19, T17S, R30E		SEC. 21, T17S, R29E	
OWNER.....	MR. WELLS			GRAYBURG OIL CO.		FORREST LEVERS	
COMPLETED.....	--/--/00			--/--/00		01/23/30	
SAMPLED.....	05/23/25			06/11/29		02/17/30	
FORMATION.....	NOT GIVEN			NOT GIVEN		PERM-ARTESIA PAY	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	730		2465		2280		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		
OPEN FLOW, MCFD.....	100		NOT GIVEN		3600		
COMPONENT, MOLE PCT							
METHANE.....	---		39.4		53.2		
ETHANE.....	4.4		17.1		15.1		
PROPANE.....	---		---		---		
N-BUTANE.....	---		---		---		
ISOBUTANE.....	---		---		---		
N-PENTANE.....	---		---		---		
ISOPENTANE.....	---		---		---		
CYCLOPENTANE.....	---		---		---		
HEXANES PLUS.....	---		---		---		
NITROGEN.....	94.7		41.4		26.8		
OXYGEN.....	0.4		2.1		4.8		
ARGON.....	---		---		---		
HYDROGEN.....	---		---		---		
HYDROGEN SULFIDE.....	---		---		---		
CARBON DIOXIDE.....	0.5		0.2		0.2		
HELIUM.....	0.00		0.07		0.09		
HEATING VALUE.....	1092		706		810		
SPECIFIC GRAVITY.....	0.974		0.825		0.769		
		INDEX SAMPLE	3946 2543	INDEX SAMPLE	3947 2644	INDEX SAMPLE	3948 2653
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	ARTESIA			ARTESIA		ARTESIA	
WELL NAME.....	MAHN NO. 4			STATE NO. 2		NO. 56	
LOCATION.....	SEC. 25, T18S, R27E			SEC. 25, T18S, R27E		SEC. 6, T19S, R28E	
OWNER.....	R. D. COMPTON			FLYNN, WELCH & YATES, INC.		FLYNN, WELCH & YATES, INC.	
COMPLETED.....	--/--/00			--/--/00		03/10/29	
SAMPLED.....	08/21/33			09/01/33		11/02/33	
FORMATION.....	UPPER GAS			PERM-QUEEN		CRET-SENAVERDE	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	1850		1824		690		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		210		203		
OPEN FLOW, MCFD.....	2000		2000		90		
COMPONENT, MOLE PCT							
METHANE.....	54.5		51.4		42.1		
ETHANE.....	24.5		36.5		18.3		
PROPANE.....	---		---		---		
N-BUTANE.....	---		---		---		
ISOBUTANE.....	---		---		---		
N-PENTANE.....	---		---		---		
ISOPENTANE.....	---		---		---		
CYCLOPENTANE.....	---		---		---		
HEXANES PLUS.....	---		---		---		
NITROGEN.....	9.0		11.7		39.3		
OXYGEN.....	1.2		0.3		0.0		
ARGON.....	---		---		---		
HYDROGEN.....	---		---		---		
HYDROGEN SULFIDE.....	---		---		---		
CARBON DIOXIDE.....	0.8		0.0		0.1		
HELIUM.....	0.01		0.11		0.22		
HEATING VALUE.....	1092		1175		754		
SPECIFIC GRAVITY.....	0.727		0.785		0.807		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3949			INDEX 3950			INDEX 3951		
SAMPLE 2697			SAMPLE 2734			SAMPLE 2735		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	ARTESIA		ARTESIA			ARTESIA		
WELL NAME.....	VANDAGRIFF NO. 10		STATE NO. 1			ANDREWS-STATE NO. 1		
LOCATION.....	SEC. 8, T17S, R28E		SEC. 15, T17S, R28E			SEC. 2, T17S, R28E		
OWNER.....	PECOS VALLEY GAS CO.		HAMMOND, ET AL.			PECOS VALLEY GAS CO.		
COMPLETED.....	12/29/34		--/--/00			--/--/00		
SAMPLED.....	01/08/35		10/20/36			10/20/36		
FORMATION.....	PERM-		NOT -STRAY			-STRAY		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	1337		1457			1660		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	1450		1000			175		
COMPONENT, MOLE PCT								
METHANE.....	47.6		48.7			48.2		
ETHANE.....	19.4		18.0			15.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	32.8		32.7			35.2		
OXYGEN.....	0.1		0.3			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.0		0.2			0.3		
HELIUM.....	0.09		0.09			0.07		
HEATING VALUE.....	830		816			773		
SPECIFIC GRAVITY.....	0.786		0.782			0.783		
INDEX 3952			INDEX 3953			INDEX 3954		
SAMPLE 2777			SAMPLE 1377			SAMPLE 8184		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			ATOKA		
FIELD.....	ARTESIA		ARTESIA E			FLINT NO. 1		
WELL NAME.....	NO. 2-B		RAMAGE NO. 2			SEC. 22, T18S, R26E		
LOCATION.....	SEC. 10, T17S, R28E		SEC. 31, T17S, R29E			PAN AMERICAN PETROLEUM CORP.		
OWNER.....	TIGNER, ETZ & KEYES		WESTERN DRILLING CO.					
COMPLETED.....	09/13/37		10/13/25			01/20/59		
SAMPLED.....	01/08/38		04/07/27			08/24/61		
FORMATION.....	NOT GIVEN		NOT GIVEN			PENN-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	1362		2715			9094		
WELLHEAD PRESSURE, PSIG.....	300		NOT GIVEN			2707		
OPEN FLOW, MCFD.....	2080		NOT GIVEN			42000		
COMPONENT, MOLE PCT								
METHANE.....	47.6		31.8			89.9		
ETHANE.....	18.8		59.5			5.5		
PROPANE.....	---		---			0.7		
N-BUTANE.....	---		---			0.5		
ISOBUTANE.....	---		---			0.5		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.1		
CYCLOPENTANE.....	---		---			0.2		
HEXANES PLUS.....	---		---			0.4		
NITROGEN.....	33.1		8.0			0.5		
OXYGEN.....	0.2		0.6			TRACE		
ARGON.....	---		---			0.0		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.5		
HELIUM.....	0.07		1.04			0.03		
HEATING VALUE.....	819		1398			1124		
SPECIFIC GRAVITY.....	0.787		0.888			0.638		
INDEX 3955			INDEX 3956			INDEX 3957		
SAMPLE 14437			SAMPLE 14431			SAMPLE 14531		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	ATOKA		AVALON			AVALON		
WELL NAME.....	POKER LAKE UNIT NO. 42		OCOTILLO HILLS NO. 1			FASHEN-FED. NO. 2		
LOCATION.....	SEC. 10, T25S, R30E		SEC. 31, T21S, R26E			SEC. 5, T21S, R26E		
OWNER.....	PERRY R. BASS, INC.		HANAGAN PETROLEUM CORP.			MONSANTO CO.		
COMPLETED.....	09/16/74		12/--/74			08/13/74		
SAMPLED.....	08/13/75		08/13/75			11/14/75		
FORMATION.....	PENN-ATOKA		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	13732		10978			10734		
WELLHEAD PRESSURE, PSIG.....	6800		3105			3567		
OPEN FLOW, MCFD.....	NOT GIVEN		5000			17100		
COMPONENT, MOLE PCT								
METHANE.....	91.9		96.1			96.0		
ETHANE.....	4.6		2.0			2.2		
PROPANE.....	1.1		0.4			0.4		
N-BUTANE.....	0.2		TRACE			0.1		
ISOBUTANE.....	0.3		0.1			0.1		
N-PENTANE.....	0.1		TRACE			TRACE		
ISOPENTANE.....	0.2		TRACE			TRACE		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	0.3		TRACE			TRACE		
NITROGEN.....	0.9		0.4			0.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.7			0.7		
HELIUM.....	0.01		0.03			0.02		
HEATING VALUE.....	1091		1023			1029		
SPECIFIC GRAVITY.....	0.617		0.578			0.579		
INDEX 3958			INDEX 3959			INDEX 3960		
SAMPLE 2544			SAMPLE 2642			SAMPLE 16749		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	BESSON		BESSON AREA			BESSON		
WELL NAME.....	MCINTYRE NO. 1		ROOT NO. 1-A			BENSON DEEP UNIT NO. 2		
LOCATION.....	SEC. 21, T17S, R30E		SEC. 7, T17S, R30E			SEC. 34, T18S, R30E		
OWNER.....	LOCKHART & CO.		C. H. LOCKHART, ET AL.			YATES PETROLEUM CORP.		
COMPLETED.....	--/--/00		--/--/00			06/29/82		
SAMPLED.....	08/29/32		08/28/33			01/10/83		
FORMATION.....	NOT GIVEN		PERM-NOT GIVEN			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	1812		1244			11797		
WELLHEAD PRESSURE, PSIG.....	785		NOT GIVEN			3260		
OPEN FLOW, MCFD.....	1000		150			1090		
COMPONENT, MOLE PCT								
METHANE.....	19.8		37.2			82.4		
ETHANE.....	14.7		34.9			3.4		
PROPANE.....	---		---			3.5		
N-BUTANE.....	---		---			1.0		
ISOBUTANE.....	---		---			0.4		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.4		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	65.5		24.7			2.2		
OXYGEN.....	0.0		2.8			0.4		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.2		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.0		0.3			0.7		
HELIUM.....	0.05		0.07			0.03		
HEATING VALUE.....	464		1002			1158		
SPECIFIC GRAVITY.....	0.898		0.847			0.685		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3961 SAMPLE 13670		INDEX 3962 SAMPLE 14044		INDEX 3963 SAMPLE 14451	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY	EDDY		EDDY	
FIELD.....	BURTON FLAT	BURTON FLAT		CABIN LAKE	
WELL NAME.....	BURTON FLAT DEEP UNIT NO. 1	FED. 00 NO. 1		JAMES E NO. 1	
LOCATION.....	SEC. 3, T21S, R27E	SEC. 8, T21S, R27E		SEC. 11, T22S, R30E	
OWNER.....	MONSANTO CO.	MOBIL OIL CORP.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	11/04/72	09/15/73		05/01/74	
SAMPLED.....	08/09/73	07/13/74		05/12/75	
FORMATION.....	PENN-MORROW	PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430	430		430	
DEPTH, FEET.....	11308	11234		13323	
WELLHEAD PRESSURE, PSIG.....	3683	3611		4679	
OPEN FLOW, MCFD.....	30000	7337		3275	
COMPONENT, MOLE PCT					
METHANE.....	94.6	92.8		96.0	
ETHANE.....	3.1	3.4		2.1	
PROPANE.....	0.7	0.9		0.4	
N-BUTANE.....	TRACE	TRACE		0.1	
ISOBUTANE.....	0.2	0.3		0.1	
N-PENTANE.....	TRACE	0.0		0.0	
ISOPENTANE.....	TRACE	0.2		TRACE	
CYCLOPENTANE.....	TRACE	0.2		TRACE	
HEXANES PLUS.....	0.1	0.5		TRACE	
NITROGEN.....	0.4	0.6		0.4	
OXYGEN.....	0.0	0.1		0.0	
ARGON.....	0.0	0.0		TRACE	
HYDROGEN.....	TRACE	TRACE		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.9	0.9		0.9	
HELIUM.....	0.02	0.02		0.02	
HEATING VALUE.....	1044	1080		1027	
SPECIFIC GRAVITY.....	0.593	0.618		0.582	

INDEX 3964 SAMPLE 14205		INDEX 3965 SAMPLE 12483		INDEX 3966 SAMPLE 12484	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY	EDDY		EDDY	
FIELD.....	CARLSBAD AREA E	CARLSBAD S		CARLSBAD S	
WELL NAME.....	NIX-YATES NO. 1	MOBIL FED. NO. 1-12		MOBIL FED. NO. 1-12	
LOCATION.....	SEC. 2, T23S, R27E	SEC. 12, T23S, R26E		SEC. 12, T23S, R26E	
OWNER.....	CHAMPLIN PETROLEUM CO.	PENNZOIL UNITED, INC.		PENNZOIL UNITED, INC.	
COMPLETED.....	12/26/74	12/07/68		12/06/68	
SAMPLED.....	10/-/74	10/26/70		10/26/70	
FORMATION.....	PERM-WOLF CAMP	PENN-MORROW		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	430	430		430	
DEPTH, FEET.....	9714	11453		10842	
WELLHEAD PRESSURE, PSIG.....	2400	3909		4038	
OPEN FLOW, MCFD.....	NOT GIVEN	3310		5900	
COMPONENT, MOLE PCT					
METHANE.....	95.1	96.7		87.4	
ETHANE.....	2.2	1.7		1.6	
PROPANE.....	0.6	0.3		0.2	
N-BUTANE.....	0.2	0.1		0.0	
ISOBUTANE.....	0.2	0.0		0.0	
N-PENTANE.....	0.1	0.0		0.0	
ISOPENTANE.....	0.1	0.0		0.0	
CYCLOPENTANE.....	TRACE	0.0		0.0	
HEXANES PLUS.....	0.1	0.0		0.0	
NITROGEN.....	0.3	0.4		8.4	
OXYGEN.....	0.7	0.0		1.8	
ARGON.....	0.0	0.0		0.1	
HYDROGEN.....	TRACE	0.1		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	1.0	0.9		0.4	
HELIUM.....	0.02	0.02		0.02	
HEATING VALUE.....	1045	1018		920	
SPECIFIC GRAVITY.....	0.594	0.576		0.613	

INDEX 3967 SAMPLE 13681		INDEX 3968 SAMPLE 13682		INDEX 3969 SAMPLE 14007	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY	EDDY		EDDY	
FIELD.....	CARLSBAD S	CARLSBAD S		CARLSBAD S	
WELL NAME.....	DRAG "B" NO. 1	DRAG "B" NO. 1		SUN STATE NO. 1	
LOCATION.....	SEC. 18, T23S, R27E	SEC. 18, T23S, R27E		SEC. 22, T21S, R27E	
OWNER.....	PHILLIPS PETROLEUM CO.	PHILLIPS PETROLEUM CO.		TPCO	
COMPLETED.....	08/07/72	08/07/72		07/30/73	
SAMPLED.....	08/17/73	08/17/73		05/13/74	
FORMATION.....	PENN-MORROW	PENN-CANYON		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430	430		430	
DEPTH, FEET.....	11468	10280		11350	
WELLHEAD PRESSURE, PSIG.....	4251	4874		3450	
OPEN FLOW, MCFD.....	21325	8911		2210	
COMPONENT, MOLE PCT					
METHANE.....	96.7	84.1		94.5	
ETHANE.....	3.1	3.1		0.7	
PROPANE.....	0.3	0.2		0.1	
N-BUTANE.....	TRACE	0.8		0.1	
ISOBUTANE.....	0.1	0.7		0.1	
N-PENTANE.....	TRACE	0.3		TRACE	
ISOPENTANE.....	TRACE	0.3		TRACE	
CYCLOPENTANE.....	0.1	0.1		TRACE	
HEXANES PLUS.....	0.1	0.3		0.1	
NITROGEN.....	0.7	0.9		0.4	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.0	0.0		0.0	
HYDROGEN.....	TRACE	TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.7	0.9		0.9	
HELIUM.....	0.02	0.01		0.02	
HEATING VALUE.....	1021	1192		1043	
SPECIFIC GRAVITY.....	0.578	0.679		0.592	

INDEX 3970 SAMPLE 16981		INDEX 3971 SAMPLE 14252		INDEX 3972 SAMPLE 7822	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY	EDDY		EDDY	
FIELD.....	CARLSBAD S	CORRAL DRAW		CRAWFORD	
WELL NAME.....	NICHOLS NO. 1	CORRAL DRAW UNIT NO. 1		CRAWFORD NO. 2-27	
LOCATION.....	SEC. 21, T22S, R27E	SEC. 14, T25S, R29E		SEC. 27, T24S, R26E	
OWNER.....	PETROLEUM CORP.	MOBIL OIL CORP.		UNION OIL CO. OF CALIF.	
COMPLETED.....	06/02/82	07/15/74		08/07/60	
SAMPLED.....	06/21/83	01/07/75		12/28/60	
FORMATION.....	PENN-STRAWN	PENN-MORROW		PENN-	
GEOLOGIC PROVINCE CODE.....	430	430		430	
DEPTH, FEET.....	10319	13621		11188	
WELLHEAD PRESSURE, PSIG.....	4500	5135		3751	
OPEN FLOW, MCFD.....	6483	13694		7200	
COMPONENT, MOLE PCT					
METHANE.....	85.2	97.6		93.8	
ETHANE.....	2.5	0.6		0.4	
PROPANE.....	0.8	0.1		0.1	
N-BUTANE.....	0.8	0.0		TRACE	
ISOBUTANE.....	0.8	0.0		TRACE	
N-PENTANE.....	0.2	0.0		0.0	
ISOPENTANE.....	0.8	0.0		TRACE	
CYCLOPENTANE.....	0.3	0.0		TRACE	
HEXANES PLUS.....	0.7	0.0		TRACE	
NITROGEN.....	1.0	0.8		4.1	
OXYGEN.....	TRACE	0.1		0.4	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.3	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.8		1.1	
HELIUM.....	0.02	0.02		0.02	
HEATING VALUE.....	1200	1002		960	
SPECIFIC GRAVITY.....	0.685	0.570		0.587	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	1973 14711	INDEX SAMPLE	1974 16329	INDEX SAMPLE	1975 15254
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	CROW FLATS			CULEBRA BLUFF		DAGGER DRAW	
WELL NAME.....	AMOCO FED. NO. 1			FEDERAL NEL COM NO.1		C. C. TANK UNIT NO. 1	
LOCATION.....	SEC. 19, T16S, R28E			SEC. 9, T23S, R28E		SEC. 28, T19S, R24E	
OWNER.....	SAMEDAN OIL CORP.			POGO PRODUCING CO.		YATES PETROLEUM CORP.	
COMPLETED.....	--/--/74			03/21/81		06/18/76	
SAMPLED.....	06/27/76			09/05/81		04/06/78	
FORMATION.....	PENN-MORROW			PENN-ATOKA		PENN-STRAUN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	NOT GIVEN			6530		8107	
WELLHEAD PRESSURE, PSIG.....	1255			6600		706	
OPEN FLOW, MCFD.....	500			8195		1464	
COMPONENT, MOLE PCT.....							
METHANE.....	87.4			96.9		83.6	
ETHANE.....	6.9			0.7		8.7	
PROPANE.....	3.1			0.2		3.6	
N-BUTANE.....	0.8			0.1		1.0	
ISOBUTANE.....	0.3			TRACE		0.5	
N-PENTANE.....	0.2			TRACE		0.2	
ISOPENTANE.....	0.3			TRACE		0.4	
CYCLOPENTANE.....	TRACE			TRACE		0.2	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	0.5			0.6		1.4	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.4		0.3	
HELIUM.....	0.02			0.02		0.89	
HEATING VALUE.....	1153			1026		1186	
SPECIFIC GRAVITY.....	0.653			0.575		0.683	
		INDEX SAMPLE	1976 1210	INDEX SAMPLE	1977 13793	INDEX SAMPLE	1978 15255
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	DIAMOND DOME			EAGLE CREEK		EAGLE CREEK	
WELL NAME.....	ERWIN NO. 1			ARTESIA AIRPORT CF NO. 1		CASKEY "EV" NO. 1	
LOCATION.....	SEC. 8, T16S, R2E			SEC. 11, T17S, R25E		SEC. 30, T17S, R26E	
OWNER.....	COLORADO DRILLING CO.			YATES PETROLEUM CORP.		YATES PETROLEUM CORP.	
COMPLETED.....	12/--/75			12/27/71		01/14/76	
SAMPLED.....	02/01/76			11/02/73		04/06/78	
FORMATION.....	PERM-			PENN-ATOKA		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	825			7860		8166	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			800		1340	
OPEN FLOW, MCFD.....	2000			200		4400	
COMPONENT, MOLE PCT.....							
METHANE.....	0.0			89.9		89.9	
ETHANE.....	2.3			5.9		5.4	
PROPANE.....	---			2.6		1.8	
N-BUTANE.....	---			0.1		0.6	
ISOBUTANE.....	---			0.8		0.3	
N-PENTANE.....	---			0.2		0.1	
ISOPENTANE.....	---			0.0		0.3	
CYCLOPENTANE.....	---			TRACE		0.1	
HEXANES PLUS.....	---			0.2		0.2	
NITROGEN.....	97.1			0.6		1.2	
OXYGEN.....	0.4			TRACE		0.0	
ARGON.....	---			0.0		TRACE	
HYDROGEN.....	---			TRACE		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.1	
HELIUM.....	0.07			0.03		0.06	
HEATING VALUE.....	91			1127		1116	
SPECIFIC GRAVITY.....	0.971			0.636		0.633	
		INDEX SAMPLE	1979 16411	INDEX SAMPLE	1980 11761	INDEX SAMPLE	1981 15334
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	EAGLE CREEK			EMPIRE		EMPIRE S	
WELL NAME.....	PATTERSON EL. NO. 1			TRIGG FED. NO. 1		TRAVIS DEEP UNIT NO. 1	
LOCATION.....	SEC. 31, T17S, R26E			SEC. 34, T17S, R27E		SEC. 18, T18S, R29E	
OWNER.....	YATES PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		MEYCO	
COMPLETED.....	01/11/77			07/31/68		03/22/77	
SAMPLED.....	01/20/82			02/10/69		08/03/78	
FORMATION.....	PENN-STRAUN			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	7900			9626		10844	
WELLHEAD PRESSURE, PSIG.....	1289			2950		1107	
OPEN FLOW, MCFD.....	400			7000		1246	
COMPONENT, MOLE PCT.....							
METHANE.....	90.4			73.4		87.5	
ETHANE.....	4.8			5.9		6.3	
PROPANE.....	1.6			4.1		2.9	
N-BUTANE.....	0.4			0.0		0.7	
ISOBUTANE.....	0.3			1.1		0.4	
N-PENTANE.....	0.1			0.8		0.2	
ISOPENTANE.....	0.1			0.9		0.3	
CYCLOPENTANE.....	0.1			0.3		0.1	
HEXANES PLUS.....	0.2			1.0		0.2	
NITROGEN.....	1.5			8.3		0.9	
OXYGEN.....	0.3			1.7		0.0	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	TRACE			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.4		0.3	
HELIUM.....	0.03			TRACE		0.02	
HEATING VALUE.....	1089			1195		1147	
SPECIFIC GRAVITY.....	0.625			0.783		0.653	
		INDEX SAMPLE	1982 14441	INDEX SAMPLE	1983 1411	INDEX SAMPLE	1984 11034
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	FORTY NINER RIDGE			GETTY		GOLDEN EAGLE	
WELL NAME.....	FORTY NINER RIDGE NO. 2			GETTY OIL CO. NO.1		PURE FED. NO. 1	
LOCATION.....	SEC. 21, T23S, R30E			SEC. 14, T23S, R29E		SEC. 11, T21S, R25E	
OWNER.....	SKELLY OIL CO.			GETTY OIL CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	12/04/74			04/--/77		12/27/65	
SAMPLED.....	08/19/75			07/12/77		07/20/67	
FORMATION.....	PENN-MORROW			PERM-		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	13805			1040		9995	
WELLHEAD PRESSURE, PSIG.....	200			200		1003	
OPEN FLOW, MCFD.....	2492			10		3708	
COMPONENT, MOLE PCT.....							
METHANE.....	96.5			56.9		95.2	
ETHANE.....	4.4			5.5		4.4	
PROPANE.....	0.3			---		0.5	
N-BUTANE.....	TRACE			---		0.2	
ISOBUTANE.....	0.1			---		TRACE	
N-PENTANE.....	TRACE			---		0.1	
ISOPENTANE.....	0.0			---		0.0	
CYCLOPENTANE.....	0.1			---		TRACE	
HEXANES PLUS.....	0.1			---		0.2	
NITROGEN.....	0.9			37.8		0.6	
OXYGEN.....	0.0			0.6		0.1	
ARGON.....	TRACE			---		0.0	
HYDROGEN.....	0.0			---		TRACE	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.6			0.2		0.7	
HELIUM.....	0.02			0.20		0.02	
HEATING VALUE.....	1023			657		1042	
SPECIFIC GRAVITY.....	0.580			0.738		0.591	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3985			INDEX 3986			INDEX 3987		
SAMPLE 14675			SAMPLE 2004			SAMPLE 2465		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	GOLDEN LANE		GRAYBURG JACKSON			GRAYBURG JACKSON		
WELL NAME.....	HARRIS #6 NO. 1		STATE NO. 2			GREEN WELL NO. 1		
LOCATION.....	SEC. 6, T21S, R29E		SEC. 21, T17S, R29E			SEC. 29, T17S, R29E		
OWNER.....	HEADCO PROPERTIES		LEONARD & LEVERS			WESTERN DRILLING CO.		
COMPLETED.....	02/19/75		04/03/30			-/-/00		
SAMPLED.....	05/-/76		06/05/30			01/15/32		
FORMATION.....	PENN-ATOKA		PERM-QUEEN			PERM-GRAYBURG		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	11438		2284			2176		
WELLHEAD PRESSURE, PSIG.....	3707		710			700		
OPEN FLOW, MCFD.....	5094		600			3500		
COMPONENT, MOLE PCT.....								
METHANE.....	81.8		71.4			68.5		
ETHANE.....	10.2		13.9			19.2		
PROPANE.....	3.8		---			---		
N-BUTANE.....	1.1		---			---		
ISOBUTANE.....	0.6		---			---		
N-PENTANE.....	0.3		---			---		
ISOPENTANE.....	0.3		---			---		
CYCLOPENTANE.....	0.1		---			---		
HEXANES PLUS.....	0.2		---			---		
NITROGEN.....	1.5		14.2			11.7		
OXYGEN.....	TRACE		0.2			0.3		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.02		0.14			0.16		
HEATING VALUE.....	1207		972			1038		
SPECIFIC GRAVITY.....	0.696		0.685			0.699		
INDEX 3988			INDEX 3989			INDEX 3990		
SAMPLE 2607			SAMPLE 3985			SAMPLE 5166		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	GRAYBURG JACKSON		GRAYBURG JACKSON			GRAYBURG JACKSON		
WELL NAME.....	MARY DODD NO. 1		1-BESSON-B			NO. 1-13-95		
LOCATION.....	SEC. 2, T17S, R29E		SEC. 29, T17S, R30E			SEC. 21, T17S, R29E		
OWNER.....	BARNSDALL OIL CO.		FRANKLIN ASTON & FAIR, INC.			LEONARD OIL CO.		
COMPLETED.....	05/05/33		10/26/44			10/10/51		
SAMPLED.....	02/07/43		02/07/43			02/26/52		
FORMATION.....	PERM-QUEEN		PERM-SEVEN RIVERS			PERM-QUEEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2280		1685			2310		
WELLHEAD PRESSURE, PSIG.....	750		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	6742		500			500		
COMPONENT, MOLE PCT.....								
METHANE.....	70.2		20.5			75.0		
ETHANE.....	18.1		22.1			8.8		
PROPANE.....	---		---			3.1		
N-BUTANE.....	---		---			0.4		
ISOBUTANE.....	---		---			0.2		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.1		
CYCLOPENTANE.....	---		---			0.0		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	11.0		56.6			12.0		
OXYGEN.....	0.3		0.0			0.1		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.1		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.7			0.2		
HELIUM.....	0.11		0.07			0.10		
HEATING VALUE.....	1035		604			1027		
SPECIFIC GRAVITY.....	0.694		0.904			0.694		
INDEX 3991			INDEX 3992			INDEX 3993		
SAMPLE 9638			SAMPLE 9274			SAMPLE 15256		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	HOPE S		INDIAN BASIN			INDIAN BASIN W		
WELL NAME.....	NEW MEXICO STATE A.H. NO. 1		NO. 1			HILLARD "BF" NO. 1		
LOCATION.....	SEC. 30, T18S, R23E		SEC. 10, T21S, R23E			SEC. 14, T21S, R22E		
OWNER.....	SUNRAY OX OIL CO.		MARATHON OIL CO.			YATES PETROLEUM CORP.		
COMPLETED.....	01/17/63		08/10/63			11/19/76		
SAMPLED.....	11/16/64		04/02/64			04/06/78		
FORMATION.....	PENN-STRAWN		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	7326		9118			8790		
WELLHEAD PRESSURE, PSIG.....	2120		2728			2495		
OPEN FLOW, MCFD.....	20116		6880			7812		
COMPONENT, MOLE PCT.....								
METHANE.....	92.0		90.3			92.1		
ETHANE.....	4.9		4.8			4.2		
PROPANE.....	1.2		1.7			1.5		
N-BUTANE.....	0.3		0.7			0.4		
ISOBUTANE.....	0.3		0.2			0.2		
N-PENTANE.....	0.1		0.3			0.1		
ISOPENTANE.....	0.1		0.4			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.6			0.2		
NITROGEN.....	0.4		0.0			0.4		
OXYGEN.....	---		0.0			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.0			0.5		
HELIUM.....	0.06		0.02			0.03		
HEATING VALUE.....	1085		1143			1094		
SPECIFIC GRAVITY.....	0.611		0.649			0.618		
INDEX 3994			INDEX 3995			INDEX 3996		
SAMPLE 13953			SAMPLE 14449			SAMPLE 14450		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	JAMES RANCH		LA HUERTA			LA HUERTA		
WELL NAME.....	JAMES RANCH NO. 3		TRACY A NO. 1			TRACY A NO. 1		
LOCATION.....	SEC. 1, T23S, R30E		SEC. 35, T21S, R27E			SEC. 35, T21S, R27E		
OWNER.....	CITICORP PETROLEUM CORP.		CITICORP SERVICE OIL CO.			CITICORP SERVICE OIL CO.		
COMPLETED.....	12/08/72		04/15/74			04/15/74		
SAMPLED.....	03/15/74		09/09/75			09/09/75		
FORMATION.....	PENN-STRAWN		PENN-STRAWN			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	12731		9950			10947		
WELLHEAD PRESSURE, PSIG.....	16877		11252			1760		
OPEN FLOW, MCFD.....	18000		---			10085		
COMPONENT, MOLE PCT.....								
METHANE.....	86.6		94.9			94.8		
ETHANE.....	6.0		2.8			2.9		
PROPANE.....	2.2		0.6			0.6		
N-BUTANE.....	1.0		0.1			0.1		
ISOBUTANE.....	0.7		0.1			0.1		
N-PENTANE.....	0.7		TRACE			TRACE		
ISOPENTANE.....	0.5		0.1			TRACE		
CYCLOPENTANE.....	0.5		0.1			TRACE		
HEXANES PLUS.....	0.5		0.1			0.1		
NITROGEN.....	0.7		0.5			0.5		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.0			0.9		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1204		1043			1040		
SPECIFIC GRAVITY.....	0.688		0.592			0.591		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 3997 SAMPLE 14719			INDEX 3998 SAMPLE 2657			INDEX 3999 SAMPLE 14469		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	LA HUERTA		LEONARD & LEVERS			LOGAN DRAW		
WELL NAME.....	IRS #4 NO. 1		STATE NO. 9			ARCO S. FED. GAS NO. 1		
LOCATION.....	SEC. 22, T21S, R27E		SEC. 22, T17S, R29E			SEC. 25, T17S, R27E		
OWNER.....	CITIES SERVICE OIL CO.		HARRY LEONARD			AROCO PRODUCTION CO.		
COMPLETED.....	10/24/75		--/7/00			03/03/74		
SAMPLED.....	07/15/76		11/19/73			08/29/75		
FORMATION.....	PENN-MORROW		-STRAY			PERM-WOLFCAMP		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	1186		2851			6756		
WELLHEAD PRESSURE, PSIG.....	1550		NOT GIVEN			1253		
OPEN FLOW, MCFD.....	36207		200			34950		
COMPONENT, MOLE PCT								
METHANE.....	93.7		64.8			75.8		
ETHANE.....	3.5		27.2			11.8		
PROPANE.....	0.9		---			5.6		
N-BUTANE.....	0.2		---			1.4		
ISOBUTANE.....	0.2		---			0.7		
N-PENTANE.....	0.0		---			0.3		
ISOPENTANE.....	0.1		---			0.4		
CYCLOPENTANE.....	TRACE		---			0.1		
HEXANES PLUS.....	0.1		---			0.2		
NITROGEN.....	0.4		5.4			3.7		
OXYGEN.....	0.0		0.5			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.9		2.0			0.1		
HELIUM.....	0.02		0.07			0.08		
HEATING VALUE.....	1058		1144			1239		
SPECIFIC GRAVITY.....	0.602		0.733			0.738		
INDEX 4000 SAMPLE 8640			INDEX 4001 SAMPLE 9806			INDEX 4002 SAMPLE 2007		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	MALAGA		MALCO AREA			MALJAHAR		
WELL NAME.....	U.S.G.S. - 8		FED. CASS RANCH UNIT NO. 1			RUSSELL NO. 5		
LOCATION.....	SEC. 16, T24S, R29E		SEC. 3, T20S, R24E			SEC. 18, T17S, R31E		
OWNER.....	U.S. GEOLOGICAL SURVEY		STANDARD OIL CO. OF TEXAS			PUEBLO OIL CO.		
COMPLETED.....	05/--/39		05/24/63			--/7/00		
SAMPLED.....	08/01/62		03/15/65			06/05/30		
FORMATION.....	PERM-RUSTLER		PENN-			PERM-MALJAHAR		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	199		7648			2885		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		1000			---		
COMPONENT, MOLE PCT								
METHANE.....	0.1		92.7			68.5		
ETHANE.....	TRACE		4.2			16.0		
PROPANE.....	0.0		1.1			---		
N-BUTANE.....	TRACE		0.3			---		
ISOBUTANE.....	0.0		0.1			---		
N-PENTANE.....	0.0		0.1			---		
ISOPENTANE.....	0.0		0.1			---		
CYCLOPENTANE.....	0.0		0.1			---		
HEXANES PLUS.....	0.0		0.3			---		
NITROGEN.....	97.8		0.8			14.9		
OXYGEN.....	TRACE		TRACE			0.3		
ARGON.....	1.2		TRACE			---		
HYDROGEN.....	0.2		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.7		0.0			0.3		
HELIUM.....	TRACE		0.04			0.07		
HEATING VALUE.....	2		1084			981		
SPECIFIC GRAVITY.....	0.974		0.611			0.700		
INDEX 4003 SAMPLE 2008			INDEX 4004 SAMPLE 2009			INDEX 4005 SAMPLE 13284		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	MALJAHAR		MALJAHAR			HAROLD CLIFFS		
WELL NAME.....	LYNCH NO. 1		ROBINSON NO. 1			BIG EDDY UNIT NO. 7		
LOCATION.....	SEC. 22, T17S, R31E		SEC. 25, T16S, R31E			SEC. 19, T20S, R31E		
OWNER.....	SKELLY OIL CO.		TEXAS PRODUCTION CO.			PERRY R. BASS, INC.		
COMPLETED.....	07/15/27		07/16/27			05/03/71		
SAMPLED.....	06/03/30		06/04/30			06/28/72		
FORMATION.....	PERM-		NOT GIVEN			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3750		3884			12656		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		900			2050		
OPEN FLOW, MCFD.....	200		11700			3800		
COMPONENT, MOLE PCT								
METHANE.....	52.1		69.9			89.1		
ETHANE.....	39.6		17.4			6.0		
PROPANE.....	---		---			2.0		
N-BUTANE.....	---		---			0.5		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			0.0		
ISOPENTANE.....	---		---			0.4		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	0.7		12.1			0.8		
OXYGEN.....	0.3		0.3			TRACE		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	1.3		0.1			0.0		
HELIUM.....	0.07		0.17			0.02		
HEATING VALUE.....	1237		1020			1111		
SPECIFIC GRAVITY.....	0.792		0.692			0.636		
INDEX 4006 SAMPLE 14042			INDEX 4007 SAMPLE 1231			INDEX 4008 SAMPLE 1360		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	MORROW		NOT GIVEN			NOT GIVEN		
WELL NAME.....	FORTY NINER RIDGE NO. 1		ROSE PRINT			VANDEGRIFF		
LOCATION.....	SEC. 16, T23S, R30E		SEC. 31, T24S, R27E			SEC. 9, T17S, R28E		
OWNER.....	SKELLY OIL CO.		EMPIRE GAS & FUEL CO.			DECEN DEVELOPMENT CO.		
COMPLETED.....	12/06/73		02/--/26			--/7/00		
SAMPLED.....	07/10/74		03/01/26			03/08/27		
FORMATION.....	PENN-MORROW		PERM-			PERM-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	13914		2300			1350		
WELLHEAD PRESSURE, PSIG.....	5112		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	3703		70			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	95.8		84.5			45.6		
ETHANE.....	2.0		10.1			19.1		
PROPANE.....	0.3		---			---		
N-BUTANE.....	0.1		---			---		
ISOBUTANE.....	0.1		---			---		
N-PENTANE.....	TRACE		---			---		
ISOPENTANE.....	TRACE		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	0.3		3.8			34.2		
OXYGEN.....	TRACE		1.0			0.9		
ARGON.....	---		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	1.2		0.6			0.2		
HELIUM.....	0.02		0.07			0.04		
HEATING VALUE.....	1026		1037			804		
SPECIFIC GRAVITY.....	0.585		0.632			0.797		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

843

		INDEX SAMPLE	4009 1368	INDEX SAMPLE	4010 1505	INDEX SAMPLE	4011 1548
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	WELL NO. 18			GOVT POTASH TEST NO. 3		U.S. GOVT. POTASH TEST	
LOCATION.....	SEC. 24, T17S, R27E			SEC. 34, T22S, R30E		SEC. 34, T22S, R30E	
OWNER.....	NOT GIVEN			GOVERNMENT PERMIT		NOT GIVEN	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	03/18/27			09/16/27		11/25/27	
FORMATION.....	NOT GIVEN			PERM-SALT		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	940			782		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1000		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	0.0			0.0		0.0	
ETHANE.....	2.5			2.8		2.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	96.3			96.7		97.5	
OXYGEN.....	0.3			0.1		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.3			0.4		0.2	
HELIUM.....	0.09			0.02		0.02	
HEATING VALUE.....	0.45			0.50		0.36	
SPECIFIC GRAVITY.....	0.972			0.972		0.970	
		INDEX SAMPLE	4012 1633	INDEX SAMPLE	4013 1915	INDEX SAMPLE	4014 2812
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	GYPSY NO. 4			U.S. GOVT. POTASH TEST NO. 6		SAMPLE OF MINE GAS	
LOCATION.....	SEC. 8, T22S, R30E			SEC. 8, T21S, R28E		NOT GIVEN	
OWNER.....	ROGERS-GYPSY OIL CO.			NOT GIVEN		UNION POTASH CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	04/13/28			12/23/28		01/25/39	
FORMATION.....	NOT GIVEN			PERM-SALT		PERM	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	429			606		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	500			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	0.0			0.0		2.8	
ETHANE.....	1.4			0.0		2.3	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	98.0			99.2		94.6	
OXYGEN.....	0.3			0.0		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.6		0.0	
HELIUM.....	TRACE			0.05		0.03	
HEATING VALUE.....	0.25			0.0		0.70	
SPECIFIC GRAVITY.....	0.971			0.969		0.958	
		INDEX SAMPLE	4015 5266	INDEX SAMPLE	4016 5563	INDEX SAMPLE	4017 6859
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	GERTRUDE W. DUFFIELD NO. 1			STATE AB NO. 1		FED. D NO. 2	
LOCATION.....	SEC. 21, T16S, R27E			SEC. 29, T17S, R28E		SEC. 12, T24S, R26E	
OWNER.....	CONTINENTAL OIL CO.			STANOLIND OIL & GAS CO.		JOSEPH L. O'NEILL, JR.	
COMPLETED.....	04/27/52			08/14/53		09/17/58	
SAMPLED.....	07/07/52			11/04/53		11/05/58	
FORMATION.....	PENN-N			PENN-N		PENN-NORROW	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	8700			10102		11566	
WELLHEAD PRESSURE, PSIG.....	4943			4943		3700	
OPEN FLOW, MCFD.....	3800			30000		3600	
COMPONENT, MOLE PCT							
METHANE.....	89.7			90.0		97.0	
ETHANE.....	5.5			0.0		0.1	
PROPANE.....	2.0			2.0		0.1	
N-BUTANE.....	0.5			0.3		TRACE	
ISOBUTANE.....	0.1			0.1		TRACE	
N-PENTANE.....	TRACE			0.1		0.0	
ISOPENTANE.....	0.2			0.0		TRACE	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	1.3			0.2		0.8	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	---			0.0		0.9	
HYDROGEN.....	0.0			0.1		TRACE	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.3		0.8	
HELIUM.....	0.05			0.3		0.01	
HEATING VALUE.....	1100			1109		1010	
SPECIFIC GRAVITY.....	0.629			0.622		0.574	
		INDEX SAMPLE	4018 7173	INDEX SAMPLE	4019 7901	INDEX SAMPLE	4020 8870
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	JAMES RANCH NO. 1			MCKITTRICK CANYON NO. 1		BIG EDDY UNIT NO. 1	
LOCATION.....	SEC. 36, T22S, R30E			SEC. 25, T22S, R25E		SEC. 3, T20S, R31E	
OWNER.....	MOHAWK GAS CO.			MOHAWK GAS CO. LTD.		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	03/01/58			--/--/00		06/05/62	
SAMPLED.....	08/03/59			03/16/61		02/22/63	
FORMATION.....	PENN-N			PENN-NORROW		PERM-WOLFCAMP	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	12920			11245		10690	
WELLHEAD PRESSURE, PSIG.....	6600			3541		2205	
OPEN FLOW, MCFD.....	9000			753		10400	
COMPONENT, MOLE PCT							
METHANE.....	70.9			94.4		84.2	
ETHANE.....	3.3			3.3		3.8	
PROPANE.....	1.4			0.0		3.1	
N-BUTANE.....	0.2			0.1		1.0	
ISOBUTANE.....	0.1			0.1		0.4	
N-PENTANE.....	---			TRACE		0.2	
ISOPENTANE.....	0.1			TRACE		0.3	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	18.9			0.4		0.8	
OXYGEN.....	4.4			TRACE		0.0	
ARGON.....	0.2			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.7		0.2	
HELIUM.....	0.01			0.03		0.02	
HEATING VALUE.....	833			1052		1183	
SPECIFIC GRAVITY.....	0.700			0.594		0.673	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4021 SAMPLE 10823			INDEX 4022 SAMPLE 13815			INDEX 4023 SAMPLE 13816		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	HACKBERRY HILLS UNIT NO. 1		MCMINN-STATE NO. 1			MCMINN-STATE NO. 1		
LOCATION.....	SEC. 22, T22S, R26E		SEC. 18, T21S, R26E			SEC. 18, T21S, R26E		
OWNER.....	SINCLAIR OIL & GAS CO.		INEXCO OIL CO.			INEXCO OIL CO.		
COMPLETED.....	07/15/66		08/01/72			08/01/72		
SAMPLED.....	12/17/66		11/--/73			11/--/73		
FORMATION.....	PENN-CANYON		PENN-MORROW			PENN-STRAWN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	10061		10536			9868		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	13574		7300			11700		
COMPONENT, MOLE PCT								
METHANE.....	79.7	-----	95.7	-----		92.0	-----	
ETHANE.....	10.9	-----	2.3	-----		4.5	-----	
PROPANE.....	3.9	-----	0.5	-----		1.2	-----	
N-BUTANE.....	1.2	-----	0.1	-----		0.2	-----	
ISOBUTANE.....	0.5	-----	0.1	-----		0.3	-----	
N-PENTANE.....	0.2	-----	TRACE	-----		TRACE	-----	
ISOPENTANE.....	0.4	-----	TRACE	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.2	-----	
NITROGEN.....	2.7	-----	0.3	-----		1.1	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.8	-----		0.3	-----	
HELIUM.....	0.02	-----	0.02	-----		0.03	-----	
HEATING VALUE.....	12.01	-----	1039	-----		1083	-----	
SPECIFIC GRAVITY.....	0.709	-----	0.587	-----		0.615	-----	
INDEX 4024 SAMPLE 14038			INDEX 4025 SAMPLE 14122			INDEX 4026 SAMPLE 14124		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	MALAGA #A NO. 1		PARKWAY WEST UNIT NO. 1			PARKWAY WEST UNIT NO. 1		
LOCATION.....	SEC. 2, T24S, R28E		SEC. 28, T19S, R29E			SEC. 28, T19S, R29E		
OWNER.....	PHILLIPS PETROLEUM CO.		PETROLEUM CORP.			PETROLEUM CORP.		
COMPLETED.....	03/18/74		03/26/73			03/26/74		
SAMPLED.....	--/100		08/05/74			08/05/74		
FORMATION.....	PENN-MORROW		PENN-STRAWN			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	12310		10246			10578		
WELLHEAD PRESSURE, PSIG.....	1500		2740			3860		
OPEN FLOW, MCFD.....	350		2014			2770		
COMPONENT, MOLE PCT								
METHANE.....	96.5	-----	78.6	-----		85.3	-----	
ETHANE.....	1.2	-----	12.9	-----		7.4	-----	
PROPANE.....	0.1	-----	4.8	-----		3.1	-----	
N-BUTANE.....	TRACE	-----	1.9	-----		0.8	-----	
ISOBUTANE.....	0.0	-----	0.5	-----		0.6	-----	
N-PENTANE.....	0.1	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		0.3	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	TRACE	-----	0.1	-----		0.2	-----	
NITROGEN.....	1.0	-----	1.5	-----		1.8	-----	
OXYGEN.....	0.1	-----	TRACE	-----		TRACE	-----	
ARGON.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.9	-----	0.2	-----		0.2	-----	
HELIUM.....	0.03	-----	0.02	-----		0.02	-----	
HEATING VALUE.....	1010	-----	1225	-----		1160	-----	
SPECIFIC GRAVITY.....	0.579	-----	0.707	-----		0.669	-----	
INDEX 4027 SAMPLE 14311			INDEX 4028 SAMPLE 14321			INDEX 4029 SAMPLE 14528		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	FANNING NO. 1		G. CONLEY FED. NO. 1			FLINT NO. 1		
LOCATION.....	SEC. 4, T19S, R26E		SEC. 33, T20S, R27E			SEC. 25, T17S, R25E		
OWNER.....	SAMEDAN OIL CORP.		ATLANTIC RICHFIELD CO.			WESTERN OIL PRODUCERS, INC.		
COMPLETED.....	11/09/73		05/23/74			04/18/74		
SAMPLED.....	03/31/75		04/--/75			11/12/75		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-CISCO		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	9207		10672			6300		
WELLHEAD PRESSURE, PSIG.....	2800		3647			1375		
OPEN FLOW, MCFD.....	2900		3948			4000		
COMPONENT, MOLE PCT								
METHANE.....	91.4	-----	93.7	-----		86.5	-----	
ETHANE.....	1.3	-----	0.3	-----		7.3	-----	
PROPANE.....	1.4	-----	0.9	-----		3.2	-----	
N-BUTANE.....	0.3	-----	0.1	-----		0.8	-----	
ISOBUTANE.....	0.3	-----	0.2	-----		0.5	-----	
N-PENTANE.....	0.1	-----	TRACE	-----		0.2	-----	
ISOPENTANE.....	0.2	-----	0.1	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	1.2	-----	0.5	-----		0.1	-----	
NITROGEN.....	1.3	-----	0.5	-----		1.0	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.5	-----	0.8	-----		0.1	-----	
HELIUM.....	0.03	-----	0.02	-----		0.05	-----	
HEATING VALUE.....	1086	-----	1057	-----		1160	-----	
SPECIFIC GRAVITY.....	0.622	-----	0.600	-----		0.659	-----	
INDEX 4030 SAMPLE 14608			INDEX 4031 SAMPLE 14720			INDEX 4032 SAMPLE 14788		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	EDDY		EDDY			EDDY		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	ALLIED B NO. 1		LITTLE BOX CANYON NO. 1			GULF FED. NO. 1		
LOCATION.....	SEC. 27, T20S, R27E		SEC. 7, T21S, R22E			SEC. 35, T19S, R25E		
OWNER.....	PENROC OIL CORP.		CITIES SERVICE OIL CO.			HILLIARD OIL & GAS, INC.		
COMPLETED.....	--/100		09/05/70			04/11/74		
SAMPLED.....	03/10/76		07/15/76			09/28/76		
FORMATION.....	PERM-BONE SPRING		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	NOT GIVEN		7986			9325		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1500			3020		
OPEN FLOW, MCFD.....	128		2426			2639		
COMPONENT, MOLE PCT								
METHANE.....	84.8	-----	93.1	-----		95.5	-----	
ETHANE.....	6.5	-----	3.8	-----		2.5	-----	
PROPANE.....	2.6	-----	1.9	-----		0.4	-----	
N-BUTANE.....	0.2	-----	0.2	-----		0.1	-----	
ISOBUTANE.....	0.6	-----	0.2	-----		0.1	-----	
N-PENTANE.....	0.4	-----	TRACE	-----		0.0	-----	
ISOPENTANE.....	0.2	-----	TRACE	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.5	-----	0.1	-----		TRACE	-----	
NITROGEN.....	1.1	-----	1.2	-----		0.3	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	1.0	-----	0.3	-----		0.8	-----	
HELIUM.....	0.02	-----	0.03	-----		0.03	-----	
HEATING VALUE.....	12.01	-----	0.597	-----		1034	-----	
SPECIFIC GRAVITY.....	0.699	-----	0.597	-----		0.584	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 4033	INDEX 4034	INDEX 4035
		SAMPLE 16251	SAMPLE 11573	SAMPLE 11574
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	EDDY		EDDY	EDDY
FIELD.....	NOT GIVEN		PAIDUCA	PAIDUCA
WELL NAME.....	LAKE WILLAN FED. NO. 1		COTTON DRAW UNIT NO. 65	COTTON DRAW UNIT NO. 65
LOCATION.....	SEC. 30, T19S, R27E		SEC. 2, T25S, R31E	SEC. 2, T25S, R31E
OWNER.....	GULF OIL CORP.		TEXACO INC.	TEXACO INC.
COMPLETED.....	10/18/80		06/03/67	06/03/67
SAMPLED.....	04/24/81		07/12/68	07/12/68
FORMATION.....	PERM-WOLFCAMP		PERM-WOLFCAMP	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	7870		12851	14867
WELLHEAD PRESSURE, PSIG.....	1660		2418	5474
OPEN FLOW, MCFD.....	5971		9592	21230
COMPONENT, MOLE PCT				
METHANE.....	77.9	87.7	97.4	
ETHANE.....	13.1	7.4	0.7	
PROPANE.....	4.6	2.2	0.1	
N-BUTANE.....	3.0	0.6	0.0	
ISOBUTANE.....	0.4	0.3	0.0	
N-PENTANE.....	0.2	0.3	0.0	
ISOPENTANE.....	0.2	0.1	0.0	
CYCLOPENTANE.....	TRACE	0.1	0.0	
HEXANES PLUS.....	0.1	0.3	0.0	
NITROGEN.....	2.3	0.7	0.8	
OXYGEN.....	0.1	0.1	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.2	1.0	
HELIUM.....	0.03	0.01	0.01	
HEATING VALUE.....	12133	1145	1002	
SPECIFIC GRAVITY.....	0.708	0.649	0.576	

		INDEX 4036	INDEX 4037	INDEX 4038
		SAMPLE 2606	SAMPLE 14683	SAMPLE 14435
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	EDDY		EDDY	QUAHADA
FIELD.....	PECOS VALLEY		PHANTOM DRAW	BIG EDDY UNIT NO. 38
WELL NAME.....	VANDAGRIFF NO. 7		PHANTOM DRAW FED. UNIT NO. 1	SEC. 34, T21S, R29E
LOCATION.....	SEC. 9, T17S, R28E		SEC. 20, T26S, R31E	PERRY R. BASS, INC.
OWNER.....	PECOS VALLEY GAS CO.		TEXAS PACIFIC OIL CO., ET AL	03/06/74
COMPLETED.....	--/7-00		05/28/76	08/13/75
SAMPLED.....	02/06/33		PERM-WOLFCAMP	PENN-MORROW
FORMATION.....	--STRAY PAY		430	430
GEOLOGIC PROVINCE CODE.....	430		12670	13068
DEPTH, FEET.....	1340		7000	950
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		19789	8337
OPEN FLOW, MCFD.....	1450			
COMPONENT, MOLE PCT				
METHANE.....	47.5	88.8	95.5	
ETHANE.....	18.5	6.7	2.3	
PROPANE.....	---	1.9	0.5	
N-BUTANE.....	---	0.6	0.1	
ISOBUTANE.....	---	0.4	0.1	
N-PENTANE.....	---	0.2	TRACE	
ISOPENTANE.....	---	0.2	0.0	
CYCLOPENTANE.....	---	0.2	TRACE	
HEXANES PLUS.....	---	0.2	TRACE	
NITROGEN.....	33.1	0.7	0.4	
OXYGEN.....	0.6	0.0	0.0	
ARGON.....	---	TRACE	TRACE	
HYDROGEN.....	---	0.0	0.0	
HYDROGEN SULFIDE.....	---	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.3	1.0	
HELIUM.....	0.07	0.01	0.02	
HEATING VALUE.....	813	1134	1028	
SPECIFIC GRAVITY.....	0.787	0.643	0.585	

		INDEX 4039	INDEX 4040	INDEX 4041
		SAMPLE 17558	SAMPLE 9935	SAMPLE 11835
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	EDDY		EDDY	EDDY
FIELD.....	RED TANK-ATOKA		RIVERSIDE	ROCK TANK
WELL NAME.....	SCL FED. NO. 2		JEAN M. NO. 1	ROCK TANK UNIT NO. 1
LOCATION.....	SEC. 12, T22S, R31E		SEC. 31, T16S, R27E	SEC. 7, T23S, R25E
OWNER.....	POGO PRODUCING CO.		JOHN A. YATES, ET AL.	MONSANTO CO.
COMPLETED.....	12/21/82		12/19/63	01/21/68
SAMPLED.....	12/27/84		06/22/65	04/24/69
FORMATION.....	PENN-ATOKA		PENN-MORROW	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	13646		8357	9965
WELLHEAD PRESSURE, PSIG.....	8203		NOT GIVEN	3117
OPEN FLOW, MCFD.....	1336		2100	6698
COMPONENT, MOLE PCT				
METHANE.....	92.8	91.0	95.1	
ETHANE.....	9.9	0.1	2.7	
PROPANE.....	0.8	1.5	0.4	
N-BUTANE.....	0.3	0.4	0.2	
ISOBUTANE.....	0.0	0.3	0.0	
N-PENTANE.....	0.1	TRACE	0.1	
ISOPENTANE.....	0.3	0.2	0.1	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.4	0.1	0.1	
NITROGEN.....	0.7	0.8	0.4	
OXYGEN.....	0.0	0.1	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.4	0.1	
HELIUM.....	0.02	0.03	0.03	
HEATING VALUE.....	1075	1089	1043	
SPECIFIC GRAVITY.....	0.618	0.619	0.589	

		INDEX 4042	INDEX 4043	INDEX 4044
		SAMPLE 11836	SAMPLE 11837	SAMPLE 13603
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	EDDY		EDDY	EDDY
FIELD.....	ROCK TANK		ROCK TANK	ROCKY ARROYO
WELL NAME.....	ROCK TANK UNIT NO. 1		ROCK TANK UNIT NO. 2	REESE CLEVELAND NO. 1-Y
LOCATION.....	SEC. 7, T23S, R25E		SEC. 6, T23S, R25E	SEC. 33, T21S, R22E
OWNER.....	MONSANTO CO.		MONSANTO CO.	GREAT WESTERN DRILLING CO.
COMPLETED.....	01/21/68		07/17/68	12/27/72
SAMPLED.....	04/24/69		04/24/69	06/01/73
FORMATION.....	PENN-MORROW L		PENN-MORROW L	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	10290		10405	9126
WELLHEAD PRESSURE, PSIG.....	3385		5381	2700
OPEN FLOW, MCFD.....	52351		24566	5195
COMPONENT, MOLE PCT				
METHANE.....	95.7	93.9	93.4	
ETHANE.....	2.3	2.3	3.6	
PROPANE.....	0.3	0.2	1.1	
N-BUTANE.....	0.1	0.2	0.2	
ISOBUTANE.....	0.0	0.0	0.3	
N-PENTANE.....	0.2	0.1	0.1	
ISOPENTANE.....	0.0	0.1	0.0	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.2	0.2	0.2	
NITROGEN.....	0.3	1.8	0.3	
OXYGEN.....	0.1	0.4	0.0	
ARGON.....	0.0	TRACE	0.0	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	0.7	0.6	
HELIUM.....	0.02	0.02	0.03	
HEATING VALUE.....	1045	1025	1074	
SPECIFIC GRAVITY.....	0.590	0.596	0.606	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4045 1349	INDEX SAMPLE	4046 12293	INDEX SAMPLE	4047 17583
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	RUSSELL			SAND DUNES		SAND DUNES	
WELL NAME.....	RUSSELL NO. 1A			TODD-FED. 26 NO. 1		TODD FED. 23 NO. 3	
LOCATION.....	SEC. 35, T17S, R27E			SEC. 26, T23S, R31E		SEC. 23, T23S, R31E	
OWNER.....	EMPIRE GAS & FUEL CO.			TEXAS AMERICAN OIL CORP.		TEXAS AMERICAN OIL CORP.	
COMPLETED.....	1/1/70			12/12/69		01/29/83	
SAMPLED.....	02/23/77			06/10/70		02/06/85	
FORMATION.....	PERM			PENN-ATOKA		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	1592			13679		14416	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			7871		2200	
OPEN FLOW, MCFD.....	NOT GIVEN			75000		513	
COMPONENT, MOLE PCT							
METHANE.....	29.4	-----		94.1	-----	96.4	-----
ETHANE.....	61.3	-----		3.2	-----	1.2	-----
PROPANE.....	---	-----		0.6	-----	0.1	-----
N-BUTANE.....	---	-----		0.1	-----	0.1	-----
ISOBUTANE.....	---	-----		0.0	-----	0.0	-----
N-PENTANE.....	---	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	---	-----		0.0	-----	TRACE	-----
CYCLOPENTANE.....	---	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	---	-----		TRACE	-----	0.1	-----
NITROGEN.....	8.1	-----		1.4	-----	1.2	-----
OXYGEN.....	1.0	-----		0.1	-----	0.1	-----
ARGON.....	---	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	---	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.5	-----	0.7	-----
HELIUM.....	0.02	-----		0.02	-----	0.02	-----
HEATING VALUE.....	1396	-----		1034	-----	1009	-----
SPECIFIC GRAVITY.....	0.899	-----		0.591	-----	0.577	-----
		INDEX SAMPLE	4048 16370	INDEX SAMPLE	4049 16371	INDEX SAMPLE	4050 15364
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	SAND POINT			SAND POINT		SHUGART N	
WELL NAME.....	BIG EDDY UNIT NO. 72			BIG EDDY UNIT NO. 72		LITTLEFIELD EM FED. NO. 1	
LOCATION.....	SEC. 3, T21S, R28E			SEC. 3, T21S, R28E		SEC. 20, T18S, R31E	
OWNER.....	PERRY R. BASS			PERRY R. BASS		GULF OIL EXPL. & PROD. CO.	
COMPLETED.....	05/30/80			05/30/80		04/04/77	
SAMPLED.....	11/04/81			01/10/80		09/06/78	
FORMATION.....	PENN-MORROW			PENN-ATOKA		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	11674			11265		11102	
WELLHEAD PRESSURE, PSIG.....	1800			11350		12630	
OPEN FLOW, MCFD.....	6068			3416		3310	
COMPONENT, MOLE PCT							
METHANE.....	92.5	-----		92.9	-----	81.7	-----
ETHANE.....	4.2	-----		3.8	-----	9.1	-----
PROPANE.....	1.0	-----		0.9	-----	4.1	-----
N-BUTANE.....	0.3	-----		0.2	-----	1.0	-----
ISOBUTANE.....	---	-----		0.1	-----	0.5	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.1	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.2	-----
NITROGEN.....	0.5	-----		1.1	-----	2.5	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.0	-----		0.4	-----	0.2	-----
HELIUM.....	0.02	-----		0.02	-----	0.04	-----
HEATING VALUE.....	1065	-----		1065	-----	1183	-----
SPECIFIC GRAVITY.....	0.609	-----		0.605	-----	0.691	-----
		INDEX SAMPLE	4051 15366	INDEX SAMPLE	4052 10981	INDEX SAMPLE	4053 11883
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	SHUGART N			SPRING		SPRING	
WELL NAME.....	LITTLEFIELD EM FED. NO. 1			SPRINGS UNIT NO. 1		LEVERS-FED. NO. 1	
LOCATION.....	SEC. 20, T18S, R31E			SEC. 34, T20S, R26E		SEC. 2, T21S, R25E	
OWNER.....	GULF OIL EXPL. & PROD. CO.			GULF OIL CORP.		CONTINENTAL OIL CO.	
COMPLETED.....	03/28/77			12/13/66		12/19/68	
SAMPLED.....	09/06/78			05/31/67		05/15/69	
FORMATION.....	PENN-MORROW			PENN-		PENN-CISCO	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	11567			8004		8088	
WELLHEAD PRESSURE, PSIG.....	2329			2580		2500	
OPEN FLOW, MCFD.....	14900			12292		20455	
COMPONENT, MOLE PCT							
METHANE.....	86.2	-----		86.4	-----	88.0	-----
ETHANE.....	7.6	-----		5.3	-----	5.2	-----
PROPANE.....	1.0	-----		5.8	-----	5.6	-----
N-BUTANE.....	0.7	-----		1.0	-----	0.9	-----
ISOBUTANE.....	0.4	-----		0.7	-----	0.5	-----
N-PENTANE.....	0.2	-----		0.3	-----	0.2	-----
ISOPENTANE.....	0.3	-----		0.5	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.5	-----	0.2	-----
NITROGEN.....	0.7	-----		0.8	-----	0.7	-----
OXYGEN.....	0.1	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.3	-----	0.4	-----
HELIUM.....	0.03	-----		0.02	-----	0.03	-----
HEATING VALUE.....	1160	-----		1185	-----	1148	-----
SPECIFIC GRAVITY.....	0.662	-----		0.676	-----	0.654	-----
		INDEX SAMPLE	4054 13712	INDEX SAMPLE	4055 2003	INDEX SAMPLE	4056 2784
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	SQUARE LAKE			STYDROIS		STYDROIS	
WELL NAME.....	ANDERSON-FEDERAL NO. 1			BURKETT NO. 5		SAPPHIREFIELD NO. 1	
LOCATION.....	SEC. 7, T17S, R30E			SEC. 5, T17S, R28E		SEC. 4, T16S, R28E	
OWNER.....	DORCHESTER EXPLORATION, INC.			PECOS VALLEY GAS CO.		PECOS VALLEY GAS CO.	
COMPLETED.....	07/22/72			04/27/67		1/1/70	
SAMPLED.....	09/11/73			06/05/30		03/22/38	
FORMATION.....	PENN-MORROW			PERM---		PERM-ARTESIA PAY	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	10844			1330		1770	
WELLHEAD PRESSURE, PSIG.....	2350			NOT GIVEN		500	
OPEN FLOW, MCFD.....	2111			1200		333	
COMPONENT, MOLE PCT							
METHANE.....	86.2	-----		52.7	-----	5.7	-----
ETHANE.....	7.7	-----		14.3	-----	2.9	-----
PROPANE.....	1.0	-----		---	-----	---	-----
N-BUTANE.....	0.6	-----		---	-----	---	-----
ISOBUTANE.....	0.5	-----		---	-----	---	-----
N-PENTANE.....	0.1	-----		---	-----	---	-----
ISOPENTANE.....	0.2	-----		---	-----	---	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	---	-----
HEXANES PLUS.....	0.1	-----		---	-----	---	-----
NITROGEN.....	1.1	-----		32.5	-----	90.7	-----
OXYGEN.....	0.0	-----		0.3	-----	0.5	-----
ARGON.....	0.0	-----		---	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.4	-----		0.2	-----	0.2	-----
HELIUM.....	0.04	-----		0.09	-----	0.10	-----
HEATING VALUE.....	1144	-----		---	-----	110	-----
SPECIFIC GRAVITY.....	0.655	-----		0.763	-----	0.948	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4057 15797	INDEX SAMPLE	4058 16064	INDEX SAMPLE	4059 17518
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	EDDY			EDDY		EDDY	
FIELD	TELEDYNE AREA			TURKEY TRACK		UNDESIGNATED	
WELL NAME	PARQUE FARMS NO. 1			STATE HL11 NO. 1		EASTERN SHORE "TL" FED. NO.1	
LOCATION	SEC. 26, T23S, R28E			SEC. 11, T19S, R29E		SEC. 8, T19S, R27E	
OWNER	AMOCO PRODUCTION CO.			TENNECO OIL CO.		YATES PETROLEUM CORP.	
COMPLETED	06/28/78			11/09/79		05/13/83	
SAMPLED	09/29/79			08/28/80		11/08/84	
FORMATION	PENN-STRAWN			PENN-ATOKA		PENN-MORROW	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	11484			10000		7708	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			3500		2910	
OPEN FLOW, MCFD	3250			4836		3694	
COMPONENT, MOLE PCT							
METHANE	63.3			88.1		68.4	
ETHANE	15.8			6.5		7.5	
PROPANE	9.2			2.3		3.9	
N-BUTANE	3.1			0.5		1.1	
ISOBUTANE	3.3			0.4		0.5	
N-PENTANE	1.1			0.1		0.2	
ISOPENTANE	1.4			0.3		0.5	
CYCLOPENTANE	0.2			0.1		0.1	
HEXANES PLUS	1.6			0.2		0.2	
NITROGEN	0.5			1.2		14.4	
OXYGEN	0.1			TRACE		2.7	
ARGON	0.0			0.0		0.1	
HYDROGEN	0.0			0.0		TRACE	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.3			0.2		0.2	
HELIUM	TRACE			0.03		0.23	
HEATING VALUE	1575			1130		1026	
SPECIFIC GRAVITY	0.918			0.646		0.751	
		INDEX SAMPLE	4060 1208	INDEX SAMPLE	4061 2752	INDEX SAMPLE	4062 12482
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	EDDY			EDDY		EDDY	
FIELD	VANDERGRIF KEYES			VANDERGRIF KEYES		WHITE CITY AREA	
WELL NAME	NO. 1			NO. 1		ALLIED FEDERAL NO. 1-21	
LOCATION	SEC. 27, T16S, R28E			SEC. 9, T17S, R28E		SEC. 21, T24S, R36E	
OWNER	LANE & HOLLAND			GRANT KEYES		PENNZOIL UNITED, INC.	
COMPLETED	08/23/25			06/19/37		03/04/69	
SAMPLED	01/10/26			06/22/37		10/26/70	
FORMATION	PERM-QUEEN			PERM-QUEEN		PENN-MORROW	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	2210			1697		11085	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			740		2946	
OPEN FLOW, MCFD	NOT GIVEN			2500		2700	
COMPONENT, MOLE PCT							
METHANE	75.0			70.2		97.2	
ETHANE	1.0			1.7		2.3	
PROPANE	---			---		0.2	
N-BUTANE	---			---		0.0	
ISOBUTANE	---			---		0.0	
N-PENTANE	---			---		0.0	
ISOPENTANE	---			---		0.0	
CYCLOPENTANE	---			---		0.0	
HEXANES PLUS	---			---		0.0	
NITROGEN	22.4			13.4		0.4	
OXYGEN	1.3			0.6		0.0	
ARGON	---			---		0.0	
HYDROGEN	---			---		0.1	
HYDROGEN SULFIDE	---			---		0.0	
CARBON DIOXIDE	1.3			0.0		0.8	
HELIUM	0.10			0.10		0.02	
HEATING VALUE	760			992		1013	
SPECIFIC GRAVITY	0.667			0.690		0.572	
		INDEX SAMPLE	4063 2006	INDEX SAMPLE	4064 6186	INDEX SAMPLE	4065 8863
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	EDDY			EDDY		EDDY	
FIELD	WILDCAT			WILDCAT		WILDCAT	
WELL NAME	WOOLLEY NO. 1			WELCH UNIT NO. 1-X		NO. 1	
LOCATION	SEC. 1, T17S, R30E			SEC. 21, T26S, R27E		SEC. 14, T21S, R23E	
OWNER	LOCKHART & CO.			EL PASO NATURAL GAS CO.		RALPH LOWE	
COMPLETED	05/21/27			10/15/56		7/7/60	
SAMPLED	06/03/30			11/20/56		02/15/63	
FORMATION	NOT GIVEN			PENN-ATOKA		PENN-	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	1812			12502		8926	
WELLHEAD PRESSURE, PSIG	775			3313		NOT GIVEN	
OPEN FLOW, MCFD	1000			27000		750	
COMPONENT, MOLE PCT							
METHANE	24.4			97.7		87.5	
ETHANE	13.1			0.5		4.0	
PROPANE	---			0.0		0.7	
N-BUTANE	---			0.0		0.6	
ISOBUTANE	---			0.0		0.1	
N-PENTANE	---			0.0		0.1	
ISOPENTANE	---			0.1		0.2	
CYCLOPENTANE	---			0.0		0.1	
HEXANES PLUS	---			0.0		0.4	
NITROGEN	62.4			0.0		3.8	
OXYGEN	0.1			0.0		0.0	
ARGON	---			0.0		TRACE	
HYDROGEN	---			0.0		0.0	
HYDROGEN SULFIDE	---			0.0		0.0	
CARBON DIOXIDE	0.1			1.2		0.4	
HELIUM	0.12			0.03		0.03	
HEATING VALUE	482			104		1089	
SPECIFIC GRAVITY	0.879			0.571		0.648	
		INDEX SAMPLE	4066 9022	INDEX SAMPLE	4067 9252	INDEX SAMPLE	4068 13201
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	EDDY			EDDY		EDDY	
FIELD	WILDCAT			WILDCAT		WILDCAT	
WELL NAME	HUAPACHE NO. 10			DOOLEY NO. 1		ROCK ARROYA NO. 1	
LOCATION	SEC. 10, T23S, R22E			SEC. 24, T20S, R29E		SEC. 8, T22S, R22E	
OWNER	HUMBLE OIL & REFINING CO.			ODESSA NATURAL GASOLINE CO.		EL PASO NATURAL GAS CO.	
COMPLETED	05/21/63			03/09/64		11/10/71	
SAMPLED	06/25/63			03/09/64		05/07/72	
FORMATION	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	9572			12102		8956	
WELLHEAD PRESSURE, PSIG	3000			3779		2723	
OPEN FLOW, MCFD	6			16700		2008	
COMPONENT, MOLE PCT							
METHANE	96.3			93.6		95.0	
ETHANE	2.1			3.5		3.1	
PROPANE	0.3			0.7		0.7	
N-BUTANE	0.2			0.3		0.1	
ISOBUTANE	TRACE			0.1		0.2	
N-PENTANE	0.1			TRACE		TRACE	
ISOPENTANE	0.1			TRACE		TRACE	
CYCLOPENTANE	0.1			0.1		TRACE	
HEXANES PLUS	0.2			0.3		0.1	
NITROGEN	0.1			0.0		0.3	
OXYGEN	0.0			TRACE		0.0	
ARGON	TRACE			0.0		0.0	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.5			0.7		0.5	
HELIUM	0.02			0.02		0.03	
HEATING VALUE	1044			1044		1051	
SPECIFIC GRAVITY	0.584			0.607		0.590	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4069 13491	INDEX SAMPLE	4070 13645	INDEX SAMPLE	4071 13963
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	CEGAR CANYON NO. 1			ROCKY ARROYO NO. 1		LOVE STATE NO. 1	
LOCATION.....	SEC. 9, T24S, R29E			SEC. 8, T22S, R22E		SEC. 16, T24S, R24E	
OWNER.....	SKELLY OIL CO.			EL PASO NATURAL GAS CO.		C & K PETROLEUM, INC.	
COMPLETED.....	08/09/72			11/07/73		10/03/73	
SAMPLED.....	12/26/72			07/12/73		03/13/74	
FORMATION.....	PENN-MORROW			PERM-WOLFCAMP		PERM-WOLFCAMP	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	13026			6563		8361	
WELLHEAD PRESSURE, PSIG.....	4717			1873		2687	
OPEN FLOW, MCFD.....	32800			20508		46824	
COMPONENT, MOLE PCT.....							
METHANE.....	96.8			82.4		91.3	
ETHANE.....	1.4			10.7		6.0	
PROPANE.....	TRACE			3.4		1.2	
N-BUTANE.....	TRACE			0.6		0.2	
ISOBUTANE.....	TRACE			0.5		0.2	
N-PENTANE.....	TRACE			0.1		0.1	
ISOPENTANE.....	0.0			0.3		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	TRACE			0.1		0.1	
NITROGEN.....	0.3			1.4		0.7	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.2			0.4		0.1	
HELIUM.....	0.02			0.05		0.02	
HEATING VALUE.....	1006			1174		1086	
SPECIFIC GRAVITY.....	0.574			0.678		0.610	
		INDEX SAMPLE	4072 14043	INDEX SAMPLE	4073 14053	INDEX SAMPLE	4074 14174
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	STATE CK NO. 1			HINKLE-FED. NO. 1		SHELBY FED. NO. 2	
LOCATION.....	SEC. 4, T17S, R26E			SEC. 9, T16S, R29E		SEC. 12, T22S, R34E	
OWNER.....	YATES PETROLEUM CORP.			MCCLELLAN OIL CORP.		SOUTHERN UNION PRODUCTION CO.	
COMPLETED.....	07/11/73			03/12/73		05/11/74	
SAMPLED.....	07/12/74			07/18/74		10/14/74	
FORMATION.....	PENN-MORROW			PERM-PREMIER		PENN-CISCO	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	7963			2362		7970	
WELLHEAD PRESSURE, PSIG.....	4577			2510		1010	
OPEN FLOW, MCFD.....	22856			2207		10430	
COMPONENT, MOLE PCT.....							
METHANE.....	89.7			50.7		91.6	
ETHANE.....	5.8			4.8		4.5	
PROPANE.....	2.1			1.6		1.3	
N-BUTANE.....	0.5			0.3		0.4	
ISOBUTANE.....	0.4			0.2		0.4	
N-PENTANE.....	0.1			TRACE		0.1	
ISOPENTANE.....	0.3			0.1		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			TRACE		0.2	
NITROGEN.....	0.5			42.1		1.0	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	TRACE			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			TRACE		0.2	
HELIUM.....	0.03			0.14		0.02	
HEATING VALUE.....	1128			662		1096	
SPECIFIC GRAVITY.....	0.637			0.777		0.621	
		INDEX SAMPLE	4075 14290	INDEX SAMPLE	4076 14428	INDEX SAMPLE	4077 14436
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	SANDY UNIT NO. 1			HAY HOLLOW NO. 1		BIG EDDY UNIT NO. 39	
LOCATION.....	SEC. 24, T23S, R30E			SEC. 11, T26S, R27E		SEC. 29, T21S, R28E	
OWNER.....	PHILLIPS PETROLEUM CO.			GREAT WESTERN DRILLING CO.		PERRY R. BASS, INC.	
COMPLETED.....	07/19/74			04/01/75		01/15/74	
SAMPLED.....	03/12/75			07/07/75		08/13/75	
FORMATION.....	PENN-MORROW			PENN-STRAWN		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	14494			11611		11762	
WELLHEAD PRESSURE, PSIG.....	4700			5650		4025	
OPEN FLOW, MCFD.....	4000			10866		3715	
COMPONENT, MOLE PCT.....							
METHANE.....	96.8			94.2		94.0	
ETHANE.....	1.3			3.4		3.4	
PROPANE.....	0.2			0.6		0.7	
N-BUTANE.....	TRACE			0.1		0.1	
ISOBUTANE.....	TRACE			0.1		0.1	
N-PENTANE.....	0.1			TRACE		TRACE	
ISOPENTANE.....	TRACE			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	TRACE			0.8		0.1	
NITROGEN.....	0.0			0.0		0.6	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.2			0.4		0.0	
HELIUM.....	0.02			0.01		0.02	
HEATING VALUE.....	1009			1047		1047	
SPECIFIC GRAVITY.....	0.576			0.591		0.597	
		INDEX SAMPLE	4078 14448	INDEX SAMPLE	4079 14508	INDEX SAMPLE	4080 14509
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			EDDY		EDDY	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	ALLIED-COMM. NO. 1			ALLIED-COMM. NO. 1		ALLIED-COMM. NO. 1	
LOCATION.....	SEC. 14, T20S, R28E			SEC. 27, T20S, R27E		SEC. 27, T20S, R27E	
OWNER.....	CITIES SERVICE OIL CO.			PENROC OIL CORP.		PENROC OIL CORP.	
COMPLETED.....	09/11/73			05/28/74		05/08/74	
SAMPLED.....	09/09/75			10/24/75		10/24/75	
FORMATION.....	PENN-MORROW			PERM-WOLFCAMP		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	11331			8540		10622	
WELLHEAD PRESSURE, PSIG.....	3630			2167		3203	
OPEN FLOW, MCFD.....	11217			3368		2538	
COMPONENT, MOLE PCT.....							
METHANE.....	94.5			77.8		90.8	
ETHANE.....	3.3			12.5		4.6	
PROPANE.....	0.7			3.1		1.2	
N-BUTANE.....	0.1			0.2		0.3	
ISOBUTANE.....	0.1			0.6		0.3	
N-PENTANE.....	TRACE			0.2		TRACE	
ISOPENTANE.....	TRACE			0.4		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	TRACE			0.1		0.1	
NITROGEN.....	0.4			2.0		1.6	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.8			0.1		0.9	
HELIUM.....	0.02			0.02		0.02	
HEATING VALUE.....	1046			0.718		1067	
SPECIFIC GRAVITY.....	0.592					0.620	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4081 SAMPLE 14510		INDEX 4082 SAMPLE 14802		INDEX 4083 SAMPLE 15282	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY	EDDY		EDDY	
FIELD.....	WILDCAT	WILDCAT		WILDCAT	
WELL NAME.....	ALLIED-COMM. NO. 1-B	ROSS FED. "EG" NO. 1		PENN-FED. NO. 1	
LOCATION.....	SEC. 27, T20S, R27E	SEC. 20, T19S, R25E		SEC. 31, T20S, R30E	
OWNER.....	PENROC OIL CORP.	VALE PETROLEUM CORP.		PENNZOIL CO.	
COMPLETED.....	--/--/00	06/07/75		06/02/76	
SAMPLED.....	10/24/75	10/12/76		11/18/77	
FORMATION.....	PENN-BONE SPRING	PENN-MORROW		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	430	430		430	
DEPTH, FEET.....	NOT GIVEN	9128		11738	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	325		4357	
OPEN FLOW, MCFD.....	NOT GIVEN	2025		2046	
COMPONENT, MOLE PCT					
METHANE.....	95.4	93.3		91.8	
ETHANE.....	2.5	3.1		4.4	
PROPANE.....	0.5	0.7		1.3	
N-BUTANE.....	0.1	0.2		0.3	
ISOBUTANE.....	0.1	0.1		0.2	
N-PENTANE.....	TRACE	0.1		0.1	
ISOPENTANE.....	TRACE	0.1		0.1	
CYCLOPENTANE.....	TRACE	0.1		TRACE	
HEXANES PLUS.....	TRACE	0.2		0.1	
NITROGEN.....	0.5	0.5		1.4	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.0	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.7	1.7		0.2	
HELIUM.....	0.03	0.03		0.02	
HEATING VALUE.....	1031	1052		1073	
SPECIFIC GRAVITY.....	0.583	0.611		0.610	
INDEX 4084 SAMPLE 15557		INDEX 4085 SAMPLE 15558		INDEX 4086 SAMPLE 15716	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY	EDDY		EDDY	
FIELD.....	WILDCAT	WILDCAT		WILDCAT	
WELL NAME.....	POLK "A" NO. 1	POLK "A" NO. 1		LITTLE SQUAW NO. 1	
LOCATION.....	SEC. 17, T23S, R28E	SEC. 17, T23S, R28E		SEC. 27, T22S, R28E	
OWNER.....	CITIES SERVICE CO.	CITIES SERVICE CO.		J. C. BARNES OIL CO.	
COMPLETED.....	08/25/78	08/25/78		07/30/79	
SAMPLED.....	01/26/79	01/26/79		07/30/79	
FORMATION.....	PENN-STRAWN	PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430	430		430	
DEPTH, FEET.....	11152	12076		12198	
WELLHEAD PRESSURE, PSIG.....	5630	4135		NOT GIVEN	
OPEN FLOW, MCFD.....	2221	7498		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	93.7	95.3		96.9	
ETHANE.....	3.3	2.4		1.3	
PROPANE.....	0.7	0.4		0.1	
N-BUTANE.....	0.2	0.1		0.1	
ISOBUTANE.....	0.1	TRACE		0.0	
N-PENTANE.....	0.1	TRACE		TRACE	
ISOPENTANE.....	0.1	TRACE		TRACE	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.1	0.1		0.1	
NITROGEN.....	0.6	0.4		0.3	
OXYGEN.....	0.1	0.1		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.1	0.1		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.8	1.1		1.2	
HELIUM.....	0.02	0.02		0.02	
HEATING VALUE.....	1051	1028		1016	
SPECIFIC GRAVITY.....	0.598	0.587		0.579	
INDEX 4087 SAMPLE 15787		INDEX 4088 SAMPLE 15796		INDEX 4089 SAMPLE 16158	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY	EDDY		EDDY	
FIELD.....	WILDCAT	WILDCAT		WILDCAT	
WELL NAME.....	PARQUE FARMS 1-B	TELETYPE 17 NO. 1		PARQUE FARMS "26" NO. 1	
LOCATION.....	SEC. 17, T17S, R24E	SEC. 17, T23S, R29E		SEC. 26, T23S, R28E	
OWNER.....	BEARD OIL CO.	AMOCO PRODUCTION CO.		MADDOX ENERGY CORP.	
COMPLETED.....	10/--/78	09/12/78		--/--/00	
SAMPLED.....	09/26/79	09/29/78		11/12/80	
FORMATION.....	PENN-ATOKA	PENN-ATOKA		PENN-STRAWN U	
GEOLOGIC PROVINCE CODE.....	430	430		430	
DEPTH, FEET.....	7032	12028		11468	
WELLHEAD PRESSURE, PSIG.....	800	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	3733	3670		9600	
COMPONENT, MOLE PCT					
METHANE.....	91.1	92.9		96.8	
ETHANE.....	4.4	2.1		1.6	
PROPANE.....	1.6	0.4		0.2	
N-BUTANE.....	0.4	0.1		TRACE	
ISOBUTANE.....	0.4	0.1		TRACE	
N-PENTANE.....	0.1	0.1		TRACE	
ISOPENTANE.....	0.1	TRACE		TRACE	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.2	0.2		TRACE	
NITROGEN.....	1.1	3.0		0.8	
OXYGEN.....	0.0	0.5		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.4	0.0		0.4	
HELIUM.....	0.07	0.02		0.01	
HEATING VALUE.....	1093	1014		1014	
SPECIFIC GRAVITY.....	0.623	0.602		0.570	
INDEX 4090 SAMPLE 16159		INDEX 4091 SAMPLE 16241		INDEX 4092 SAMPLE 16470	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY	EDDY		EDDY	
FIELD.....	WILDCAT	WILDCAT		WILDCAT	
WELL NAME.....	PARQUE FARMS 26 NO. 1	LAGUNA GRANDE UNIT NO. 3		MAW STATE NO. 1	
LOCATION.....	SEC. 29, T23S, R28E	SEC. 29, T23S, R29E		SEC. 14, T24S, R27E	
OWNER.....	MADDOX ENERGY CORP.	EXXON CO., U.S.A.		POGO PRODUCING CO.	
COMPLETED.....	--/--/00	03/03/81		03/23/81	
SAMPLED.....	--/--/00	04/26/81		03/23/82	
FORMATION.....	PENN-STRAWN L	PENN-ATOKA		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	430	430		430	
DEPTH, FEET.....	11758	12104		11220	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	6785		6000	
OPEN FLOW, MCFD.....	10250	1995		2319	
COMPONENT, MOLE PCT					
METHANE.....	89.9	96.4		95.5	
ETHANE.....	5.8	1.8		2.4	
PROPANE.....	1.6	0.3		0.3	
N-BUTANE.....	0.4	0.1		0.1	
ISOBUTANE.....	0.3	TRACE		0.1	
N-PENTANE.....	0.2	TRACE		TRACE	
ISOPENTANE.....	0.1	TRACE		TRACE	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.2	0.1		0.1	
NITROGEN.....	1.0	0.9		1.0	
OXYGEN.....	TRACE	0.0		0.1	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.3	0.4		0.3	
HELIUM.....	0.01	0.02		0.01	
HEATING VALUE.....	1103	1025		1030	
SPECIFIC GRAVITY.....	0.626	0.578		0.582	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4093 15047	INDEX SAMPLE	4094 2326	INDEX SAMPLE	4095 2717
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	EDDY			HARDING		HARDING	
FIELD.....	WILLOW LAKE			BACA		BACA	
WELL NAME.....	WILLOW LAKE UNIT NO. 1			KERLIN NO. 1		BACA NO. 1	
LOCATION.....	SEC. 22, T24N, R28E			SEC. 34, T21N, R30E		SEC. 19, T20N, R31E	
OWNER.....	AMTROL U.S.A., INC.			KUMBARA OIL & GAS CO.		WADDELL & MCFANN, ET AL.	
COMPLETED.....	01/16/76			---/---/00		08/01/36	
SAMPLED.....	07/07/77			05/20/31		08/02/36	
FORMATION.....	PENN-ATOKA			NOT GIVEN		-LAVENDAR LIMES	
GEOLOGIC PROVINCE CODE.....	430			445		445	
DEPTH, FEET.....	11680			940		1706	
WELLHEAD PRESSURE, PSIG.....	4200			NOT GIVEN		400	
OPEN FLOW, MCFD.....	34997			2654		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	95.2	-----	0.0	-----	0.0	-----	0.0
ETHANE.....	2.8	-----	0.0	-----	0.0	-----	0.0
PROPANE.....	0.5	-----	---	-----	---	-----	---
N-BUTANE.....	0.2	-----	---	-----	---	-----	---
ISOBUTANE.....	TRACE	-----	---	-----	---	-----	---
N-PENTANE.....	0.1	-----	---	-----	---	-----	---
ISOPENTANE.....	0.1	-----	---	-----	---	-----	---
CYCLOPENTANE.....	TRACE	-----	---	-----	---	-----	---
HEXANES PLUS.....	0.1	-----	---	-----	---	-----	---
NITROGEN.....	0.7	-----	1.4	-----	0.6	-----	0.6
OXYGEN.....	0.0	-----	0.4	-----	0.0	-----	0.0
ARGON.....	TRACE	-----	---	-----	---	-----	---
HYDROGEN.....	0.0	-----	---	-----	---	-----	---
HYDROGEN SULFIDE.....	0.0	-----	---	-----	---	-----	---
CARBON DIOXIDE.....	0.9	-----	98.2	-----	99.4	-----	99.4
HELIUM.....	0.01	-----	0.00	-----	0.00	-----	0.00
HEATING VALUE.....	0.48	-----	0	-----	0	-----	0
SPECIFIC GRAVITY.....	0.590	-----	1.519	-----	1.526	-----	1.526
		INDEX SAMPLE	4096 16910	INDEX SAMPLE	4097 5807	INDEX SAMPLE	4098 7212
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	HARDING			HARDING		HARDING	
FIELD.....	BRAVO DOME			BUEYEROS		NOT GIVEN	
WELL NAME.....	HEIMANN NO. 1 (1933-031M)			POWERS-MARSHALL NO. 1		NOT GIVEN	
LOCATION.....	SEC. 3, T19N, R33E			SEC. 34, T21N, R30E		SEC. 24, T20N, R26E	
OWNER.....	AMOCO PRODUCTION CO. (USA)			POWERS-MARSHALL CO.		LULA GAMBREL	
COMPLETED.....	04/21/83			06/03/54		---/---/00	
SAMPLED.....	04/19/83			04/02/55		09/15/59	
FORMATION.....	PERM-TUBB			-LIMESTONE		TRIA-CHINLE	
GEOLOGIC PROVINCE CODE.....	445			445		445	
DEPTH, FEET.....	2370			1900		1137	
WELLHEAD PRESSURE, PSIG.....	450			520		NOT GIVEN	
OPEN FLOW, MCFD.....	1163			1000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	TRACE	-----	0.0	-----	0.1	-----	0.1
ETHANE.....	TRACE	-----	0.0	-----	0.1	-----	0.1
PROPANE.....	0.0	-----	0.0	-----	0.0	-----	0.0
N-BUTANE.....	0.0	-----	0.0	-----	0.0	-----	0.0
ISOBUTANE.....	0.0	-----	0.0	-----	0.0	-----	0.0
N-PENTANE.....	0.0	-----	0.0	-----	0.0	-----	0.0
ISOPENTANE.....	0.0	-----	0.0	-----	0.0	-----	0.0
CYCLOPENTANE.....	0.0	-----	0.0	-----	0.0	-----	0.0
HEXANES PLUS.....	0.0	-----	0.0	-----	0.0	-----	0.0
NITROGEN.....	1.0	-----	0.2	-----	77.7	-----	77.7
OXYGEN.....	0.1	-----	TRACE	-----	0.1	-----	0.1
ARGON.....	TRACE	-----	TRACE	-----	1.2	-----	1.2
HYDROGEN.....	0.0	-----	TRACE	-----	0.1	-----	0.1
HYDROGEN SULFIDE.....	0.0	-----	---	-----	0.0	-----	0.0
CARBON DIOXIDE.....	98.8	-----	99.7	-----	18.8	-----	18.8
HELIUM.....	0.01	-----	0.01	-----	1.80	-----	1.80
HEATING VALUE.....	0	-----	0	-----	3	-----	3
SPECIFIC GRAVITY.....	1.521	-----	1.526	-----	1.061	-----	1.061
		INDEX SAMPLE	4099 9584	INDEX SAMPLE	4100 13655	INDEX SAMPLE	4101 12242
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA			LEA		LEA	
FIELD.....	ANTELOPE RIDGE			ANTELOPE RIDGE		ARENA ROJA	
WELL NAME.....	HARRIS FED. NO. 1			STATE 1 NO.1		MEXICO-FED. NO. 1-P	
LOCATION.....	SEC. 27, T23S, R34E			SEC. 24, T24S, R34E		SEC. 21, T26S, R35E	
OWNER.....	SHELL OIL CO.			TEXAS WEST OIL & GAS CORP.		SKELLY OIL CO.	
COMPLETED.....	08/09/62			03/12/73		01/10/69	
SAMPLED.....	10/06/64			07/21/73		---/---/00	
FORMATION.....	DEVO-			PENN-ATOKA		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	14655			12288		15565	
WELLHEAD PRESSURE, PSIG.....	4500			6600		1905	
OPEN FLOW, MCFD.....	41000			21500		2823	
COMPONENT, MOLE PCT							
METHANE.....	85.4	-----	75.0	-----	93.2	-----	93.2
ETHANE.....	7.6	-----	7.3	-----	5.3	-----	5.3
PROPANE.....	2.5	-----	2.9	-----	1.0	-----	1.0
N-BUTANE.....	0.8	-----	0.7	-----	0.1	-----	0.1
ISOBUTANE.....	0.3	-----	0.5	-----	0.4	-----	0.4
N-PENTANE.....	0.2	-----	0.1	-----	0.0	-----	0.0
ISOPENTANE.....	0.2	-----	0.4	-----	0.1	-----	0.1
CYCLOPENTANE.....	0.1	-----	0.1	-----	TRACE	-----	TRACE
HEXANES PLUS.....	0.2	-----	0.2	-----	0.2	-----	0.2
NITROGEN.....	1.2	-----	10.2	-----	1.0	-----	1.0
OXYGEN.....	TRACE	-----	2.2	-----	TRACE	-----	TRACE
ARGON.....	TRACE	-----	0.1	-----	0.0	-----	0.0
HYDROGEN.....	0.0	-----	TRACE	-----	0.1	-----	0.1
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0
CARBON DIOXIDE.....	1.4	-----	0.2	-----	0.6	-----	0.6
HELIUM.....	0.06	-----	0.01	-----	0.01	-----	0.01
HEATING VALUE.....	1134	-----	1042	-----	1061	-----	1061
SPECIFIC GRAVITY.....	0.666	-----	0.711	-----	0.605	-----	0.605
		INDEX SAMPLE	4102 4658	INDEX SAMPLE	4103 4718	INDEX SAMPLE	4104 4818
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA			LEA		LEA	
FIELD.....	MEYERHEAD			BAGLEY		BAGLEY	
WELL NAME.....	MEYER NO. 1			STATE BTA NO. 1		STATE BTC NO. 1	
LOCATION.....	SEC. 23, T22S, R36E			SEC. 2, T12S, R33E		SEC. 35, T11S, R33E	
OWNER.....	CONTINENTAL OIL CO.			AREHADA PETROLEUM CORP.		AREHADA PETROLEUM CORP.	
COMPLETED.....	11/05/48			07/05/49		10/30/49	
SAMPLED.....	02/06/49			08/07/49		02/13/50	
FORMATION.....	PERM-			DEVO-		SILU-DEVO	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	3175			10950		10770	
WELLHEAD PRESSURE, PSIG.....	1311			4260		600	
OPEN FLOW, MCFD.....	16500			28		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	84.9	-----	70.0	-----	72.1	-----	72.1
ETHANE.....	7.3	-----	3.3	-----	2.9	-----	2.9
PROPANE.....	2.8	-----	2.7	-----	1.3	-----	1.3
N-BUTANE.....	0.8	-----	0.7	-----	0.5	-----	0.5
ISOBUTANE.....	0.3	-----	0.4	-----	0.2	-----	0.2
N-PENTANE.....	0.3	-----	0.2	-----	0.2	-----	0.2
ISOPENTANE.....	0.0	-----	0.0	-----	0.1	-----	0.1
CYCLOPENTANE.....	0.1	-----	0.1	-----	TRACE	-----	TRACE
HEXANES PLUS.....	0.3	-----	0.5	-----	0.5	-----	0.5
NITROGEN.....	2.9	-----	6.9	-----	7.4	-----	7.4
OXYGEN.....	0.1	-----	0.1	-----	0.1	-----	0.1
ARGON.....	0.0	-----	0.1	-----	0.1	-----	0.1
HYDROGEN.....	0.1	-----	0.1	-----	0.1	-----	0.1
HYDROGEN SULFIDE.....	---	-----	---	-----	---	-----	---
CARBON DIOXIDE.....	0.0	-----	15.3	-----	14.6	-----	14.6
HELIUM.....	0.04	-----	0.00	-----	0.29	-----	0.29
HEATING VALUE.....	1134	-----	0.803	-----	865	-----	865
SPECIFIC GRAVITY.....	0.662	-----	0.803	-----	0.779	-----	0.779

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4105 4942	INDEX SAMPLE	4106 5725	INDEX SAMPLE	4107 14129
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA			LEA		LEA	
FIELD.....	BAGLEY			BELL LAKE		BELL LAKE	
WELL NAME.....	N. M. STATE NO. 1-B			BELL LAKE UNIT NO. 2		BELL LAKE UNIT 1 WELL 4	
LOCATION.....	SEC. 2, T23S, R33E			SEC. 30, T23S, R34E		SEC. 6, T24S, R34E	
OWNER.....	TEXAS PACIFIC COAL & OIL CO.			CONTINENTAL OIL CO., ET AL.		CONTINENTAL OIL CO., ET AL.	
COMPLETED.....	10/28/50			10/28/54		07/06/73	
SAMPLED.....	03/31/50			10/28/54		08/13/74	
FORMATION.....	DEV-O			PENN-		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	10720			12635		12430	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			4455		6906	
OPEN FLOW, MCFD.....	NOT GIVEN			13100		69000	
COMPONENT, MOLE PCT							
METHANE.....	69.0	-----		83.6	-----	96.3	-----
ETHANE.....	3.8	-----		9.6	-----	1.9	-----
PROpane.....	2.1	-----		3.2	-----	0.4	-----
N-BUTANE.....	0.9	-----		0.5	-----	0.1	-----
ISOBUTANE.....	0.4	-----		0.5	-----	0.1	-----
N-PENTANE.....	0.4	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.6	-----		0.2	-----	0.1	-----
NITROGEN.....	6.2	-----		1.1	-----	0.5	-----
OXYGEN.....	0.1	-----		0.2	-----	0.0	-----
ARGON.....	0.1	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.2	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	16.0	-----		0.2	-----	0.4	-----
HELIUM.....	0.23	-----		0.01	-----	0.02	-----
HEATING VALUE.....	920	-----		1159	-----	1032	-----
SPECIFIC GRAVITY.....	0.820	-----		0.668	-----	0.578	-----
		INDEX SAMPLE	4108 14498	INDEX SAMPLE	4109 16145	INDEX SAMPLE	4110 7588
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA			LEA		LEA	
FIELD.....	BELL LAKE			BELL LAKE N		BELL LAKE N	
WELL NAME.....	BELL LAKE UNIT 4 NO. 15			BELL LAKE NO. 1		BELL LAKE UNIT NO. 6	
LOCATION.....	SEC. 8, T23S, R34E			SEC. 18, T23S, R34E		SEC. 6, T23S, R34E	
OWNER.....	CONTINENTAL OIL CO.			BYA OIL PRODUCERS		CONTINENTAL OIL CO.	
COMPLETED.....	03/06/75			05/20/80		06/23/80	
SAMPLED.....	10/21/75			12/08/80		06/23/80	
FORMATION.....	PENN-MORROW			DEV-O		DEV-O	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	13278			14660		14568	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		5015	
OPEN FLOW, MCFD.....	4700			4819		30500	
COMPONENT, MOLE PCT							
METHANE.....	88.6	-----		92.7	-----	91.9	-----
ETHANE.....	5.2	-----		2.8	-----	2.9	-----
PROpane.....	1.8	-----		0.6	-----	0.8	-----
N-BUTANE.....	0.3	-----		TRACE	-----	0.2	-----
ISOBUTANE.....	0.4	-----		0.1	-----	TRACE	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	1.5	-----		1.9	-----	1.5	-----
OXYGEN.....	0.0	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.1	-----	0.0	-----
CARBON DIOXIDE.....	1.9	-----		1.4	-----	2.2	-----
HELIUM.....	0.02	-----		0.07	-----	0.10	-----
HEATING VALUE.....	1075	-----		1022	-----	1024	-----
SPECIFIC GRAVITY.....	0.640	-----		0.604	-----	0.613	-----
		INDEX SAMPLE	4111 4722	INDEX SAMPLE	4112 7511	INDEX SAMPLE	4113 15918
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA			LEA		LEA	
FIELD.....	BLINEBRY			BLINEBRY		BLINEBRY	
WELL NAME.....	J. L. SARKEYS NO. 1			J. L. MUNCY NO. 3		OLLIE J. BOYD NO. 2	
LOCATION.....	SEC. 2, T21S, R37E			SEC. 24, T22S, R37E		SEC. 23, T22S, R37E	
OWNER.....	SINCLAIR OIL & GAS CO.			OHIO CO.		ARCO OIL & GAS CO.	
COMPLETED.....	04/12/49			01/03/49		07/26/77	
SAMPLED.....	07/21/49			04/22/60		03/14/80	
FORMATION.....	PERM-BLINEBRY			PERM-BLINEBRY		PERM-BLINEBRY	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	5760			5419		5368	
WELLHEAD PRESSURE, PSIG.....	1930			1560		571	
OPEN FLOW, MCFD.....	7400			6000		2609	
COMPONENT, MOLE PCT							
METHANE.....	81.7	-----		81.8	-----	81.0	-----
ETHANE.....	8.7	-----		9.4	-----	9.8	-----
PROpane.....	4.1	-----		3.9	-----	4.6	-----
N-BUTANE.....	1.3	-----		SEC. 3	-----	1.3	-----
ISOBUTANE.....	0.5	-----		0.6	-----	0.6	-----
N-PENTANE.....	0.3	-----		0.3	-----	0.4	-----
ISOPENTANE.....	0.0	-----		0.3	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.4	-----		0.3	-----	0.2	-----
NITROGEN.....	2.9	-----		1.7	-----	1.8	-----
OXYGEN.....	0.1	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----	0.0	-----
HELIUM.....	0.11	-----		0.03	-----	0.03	-----
HEATING VALUE.....	1174	-----		1207	-----	1215	-----
SPECIFIC GRAVITY.....	0.695	-----		0.698	-----	0.701	-----
		INDEX SAMPLE	4114 15923	INDEX SAMPLE	4115 9929	INDEX SAMPLE	4116 2694
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA			BOUGH		LEA	
FIELD.....	BLINEBRY			FED. A. NO. 1		COOPER	
WELL NAME.....	S. J. SARKEY NO. 1			SEC. 13, T16S, R35E		BIVINS STA.	
LOCATION.....	SEC. 2, T21S, R37E			PAN AMERICAN PETROLEUM CORP.		HUMBLE OIL & REFINING CO.	
OWNER.....	ARCO OIL & GAS CO.			01/18/64		11/07/34	
COMPLETED.....	04/12/49			06/18/65		---/---/00	
SAMPLED.....	03/14/80			PERM-SAN ANDRES		PERM-YATES	
FORMATION.....	PERM-BLINEBRY			430		430	
GEOLOGIC PROVINCE CODE.....	430			4746		NOT GIVEN	
DEPTH, FEET.....	5746			12135		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	325			2247		7500	
OPEN FLOW, MCFD.....	60						
COMPONENT, MOLE PCT							
METHANE.....	79.9	-----		68.3	-----	82.6	-----
ETHANE.....	9.9	-----		6.2	-----	14.1	-----
PROpane.....	4.6	-----		4.2	-----	---	-----
N-BUTANE.....	1.2	-----		0.8	-----	---	-----
ISOBUTANE.....	0.7	-----		TRACE	-----	---	-----
N-PENTANE.....	0.1	-----		0.2	-----	---	-----
ISOPENTANE.....	0.1	-----		0.1	-----	---	-----
CYCLOPENTANE.....	0.4	-----		TRACE	-----	---	-----
HEXANES PLUS.....	0.7	-----		0.1	-----	---	-----
NITROGEN.....	1.7	-----		9.3	-----	1.0	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.2	-----
ARGON.....	0.0	-----		0.0	-----	---	-----
HYDROGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.1	-----	---	-----
CARBON DIOXIDE.....	0.0	-----		10.0	-----	2.1	-----
HELIUM.....	0.02	-----		0.11	-----	TRACE	-----
HEATING VALUE.....	1255	-----		957	-----	1089	-----
SPECIFIC GRAVITY.....	0.725	-----		0.789	-----	0.650	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4117 SAMPLE 4435			INDEX 4118 SAMPLE 4546			INDEX 4119 SAMPLE 4714		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	COOPER		COOPER			COOPER		
WELL NAME.....	STEVENS B-12 NO. 1		COOPER NO. 1			VAN ZANDT NO. 1		
LOCATION.....	SEC. 12, T23S, R36E		SEC. 11, T24S, R36E			SEC. 25, T24S, R36E		
OWNER.....	CONTINENTAL OIL CO., ET AL.		R. OLSEN OIL CO.			R. OLSEN OIL CO.		
COMPLETED.....	10/27/47		03/25/48			01/11/49		
SAMPLED.....	01/28/48		07/16/48			04/01/49		
FORMATION.....	PERM-YATES		PERM-YATES			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3140		3127			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1373		1250			1300		
OPEN FLOW, MCFD.....	27900		7120			10000		
COMPONENT, MOLE PCT								
METHANE.....	80.9	-----	82.7	-----		86.8	-----	
ETHANE.....	16.3	-----	14.0	-----		5.5	-----	
PROPANE.....	---	-----	---	-----		2.4	-----	
N-BUTANE.....	---	-----	---	-----		0.7	-----	
ISOBUTANE.....	---	-----	---	-----		0.1	-----	
N-PENTANE.....	---	-----	---	-----		0.1	-----	
ISOPENTANE.....	---	-----	---	-----		0.2	-----	
CYCLOPENTANE.....	---	-----	---	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	---	-----		0.2	-----	
NITROGEN.....	2.4	-----	1.2	-----		3.3	-----	
OXYGEN.....	0.2	-----	0.1	-----		0.1	-----	
ARGON.....	---	-----	---	-----		TRACE	-----	
HYDROGEN.....	---	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.2	-----	2.0	-----		0.6	-----	
HELIUM.....	0.03	-----	0.03	-----		0.03	-----	
HEATING VALUE.....	1112	-----	1089	-----		1091	-----	
SPECIFIC GRAVITY.....	0.648	-----	0.649	-----		0.649	-----	
INDEX 4120 SAMPLE 4725			INDEX 4121 SAMPLE 13467			INDEX 4122 SAMPLE 4798		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	COOPER		CROSBY			DENTON		
WELL NAME.....	NEW MEXICO STATE A NO. 27		CROSBY DEEP NO. 1			J. M. DENTON A-1		
LOCATION.....	SEC. 23, T23S, R36E		SEC. 28, T25S, R37E			SEC. 11, T15S, R37E		
OWNER.....	TEXAS PACIFIC COAL & OIL CO.		UNION TEXAS PETROLEUM CORP.			MCLESTER FUEL CO.		
COMPLETED.....	03/18/49		03/10/72			09/25/49		
SAMPLED.....	06/01/49		11/08/72			10/30/49		
FORMATION.....	PERM-YATES		SILVERUSSELHAN			DEVIO-LINE		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2965		8652			11250		
WELLHEAD PRESSURE, PSIG.....	1195		2400			4800		
OPEN FLOW, MCFD.....	58500		6000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.4	-----	73.7	-----		66.6	-----	
ETHANE.....	14.2	-----	14.3	-----		10.7	-----	
PROPANE.....	2.6	-----	5.9	-----		10.0	-----	
N-BUTANE.....	0.7	-----	1.8	-----		3.6	-----	
ISOBUTANE.....	0.4	-----	0.8	-----		1.2	-----	
N-PENTANE.....	0.2	-----	0.5	-----		0.6	-----	
ISOPENTANE.....	0.0	-----	0.2	-----		0.6	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.5	-----	0.3	-----		0.3	-----	
NITROGEN.....	3.0	-----	0.0	-----		3.6	-----	
OXYGEN.....	0.1	-----	0.0	-----		0.1	-----	
ARGON.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	---	-----	0.8	-----		---	-----	
CARBON DIOXIDE.....	0.1	-----	1.5	-----		2.6	-----	
HELIUM.....	0.05	-----	TRACE	-----		0.06	-----	
HEATING VALUE.....	1116	-----	1298	-----		1357	-----	
SPECIFIC GRAVITY.....	0.655	-----	0.766	-----		0.851	-----	
INDEX 4123 SAMPLE 4054			INDEX 4124 SAMPLE 4547			INDEX 4125 SAMPLE 4012		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	DRINKARD		DRINKARD			EUNICE		
WELL NAME.....	H. BLINEBRY		BOYD NO. 2			STATE NO. 1		
LOCATION.....	SEC. 19, T22S, R38E		SEC. 23, T22S, R37E			SEC. 34, T21S, R36E		
OWNER.....	TEXAS CO.		R. OLSEN OIL CO.			GPSPY OIL CO.		
COMPLETED.....	7/1/50		12/19/47			01/11/49		
SAMPLED.....	08/18/45		07/16/48			06/06/30		
FORMATION.....	NOT GIVEN		PERM-BLINEBRY			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	NOT GIVEN		5410			3542		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1930			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		6150			15000		
COMPONENT, MOLE PCT								
METHANE.....	47.2	-----	72.5	-----		83.0	-----	
ETHANE.....	52.4	-----	24.1	-----		14.6	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	0.2	-----	2.9	-----		2.0	-----	
OXYGEN.....	0.1	-----	0.1	-----		0.1	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.1	-----	0.4	-----		0.4	-----	
HELIUM.....	0.02	-----	0.03	-----		0.05	-----	
HEATING VALUE.....	1417	-----	1169	-----		1102	-----	
SPECIFIC GRAVITY.....	0.816	-----	0.690	-----		0.640	-----	
INDEX 4126 SAMPLE 2013			INDEX 4127 SAMPLE 2797			INDEX 4128 SAMPLE 7177		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	EUNICE		EUNICE			EUNICE		
WELL NAME.....	WYERS NO. 1		WYERS B-4 NO. 11 "OIL WELL"			TURNER NO. 13		
LOCATION.....	SEC. 28, T22S, R36E		SEC. 4, T21S, R36E			SEC. 22, T21S, R37E		
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.			SHELL OIL CO.		
COMPLETED.....	7/1/50		08/14/36			10/03/52		
SAMPLED.....	06/05/30		06/14/38			08/12/59		
FORMATION.....	NOT GIVEN		NOT GIVEN			PERM-BLINEBRY		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3227		3823			5510		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1092			1725		
OPEN FLOW, MCFD.....	10000		NOT GIVEN			4000		
COMPONENT, MOLE PCT								
METHANE.....	82.6	-----	85.6	-----		70.1	-----	
ETHANE.....	12.1	-----	9.4	-----		7.8	-----	
PROPANE.....	---	-----	---	-----		3.2	-----	
N-BUTANE.....	---	-----	---	-----		0.9	-----	
ISOBUTANE.....	---	-----	---	-----		0.3	-----	
N-PENTANE.....	---	-----	---	-----		0.1	-----	
ISOPENTANE.....	---	-----	---	-----		0.3	-----	
CYCLOPENTANE.....	---	-----	---	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	---	-----		0.1	-----	
NITROGEN.....	2.2	-----	0.0	-----		14.1	-----	
OXYGEN.....	0.6	-----	0.5	-----		2.9	-----	
ARGON.....	---	-----	---	-----		0.0	-----	
HYDROGEN.....	---	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	2.5	-----	4.5	-----		0.1	-----	
HELIUM.....	0.05	-----	0.00	-----		0.03	-----	
HEATING VALUE.....	1054	-----	1036	-----		996	-----	
SPECIFIC GRAVITY.....	0.653	-----	0.648	-----		0.728	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4129 SAMPLE 7178			INDEX 4130 SAMPLE 2618			INDEX 4131 SAMPLE 13678		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	EUNICE		EUNICE N			EUNICE N		
WELL NAME.....	TAYLOR GLENN NO. 2		LOCKHART NO. 1-A			ALVES A NO. 2		
LOCATION.....	SEC. 8, T21S, R37E		SEC. 18, T21S, R36E			SEC. 8, T21S, R37E		
OWNER.....	SHELL OIL CO.		CONTINENTAL OIL CO.			SOHIO PETROLEUM CO.		
COMPLETED.....	09/12/58		04/09/73			04/27/73		
SAMPLED.....	08/12/59		05/26/73			04/14/73		
FORMATION.....	PERM-TUBB		NOT GIVEN			PERM-SAN ANDRES		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	6324		2985			4043		
WELLHEAD PRESSURE, PSIG.....	1925		NOT GIVEN			1050		
OPEN FLOW, MCFD.....	2200		NOT GIVEN			600		
COMPONENT, MOLE PCT								
METHANE.....	83.3	-----	71.7	-----		86.5	-----	
ETHANE.....	8.1	-----	21.6	-----		3.1	-----	
PROPANE.....	3.5	-----	---	-----		2.3	-----	
N-BUTANE.....	1.0	-----	---	-----		0.7	-----	
ISOBUTANE.....	0.5	-----	---	-----		0.6	-----	
N-PENTANE.....	0.1	-----	---	-----		0.1	-----	
ISOPENTANE.....	0.5	-----	---	-----		0.4	-----	
CYCLOPENTANE.....	0.1	-----	---	-----		0.2	-----	
HEXANES PLUS.....	0.2	-----	---	-----		0.4	-----	
NITROGEN.....	2.6	-----	3.6	-----		0.5	-----	
OXYGEN.....	0.0	-----	0.7	-----		0.0	-----	
ARGON.....	0.0	-----	---	-----		0.0	-----	
HYDROGEN.....	0.0	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		0.4	-----	
CARBON DIOXIDE.....	0.1	-----	2.4	-----		5.0	-----	
HELIUM.....	0.04	-----	0.03	-----		TRACE	-----	
HEATING VALUE.....	1170	-----	1113	-----		1085	-----	
SPECIFIC GRAVITY.....	0.682	-----	0.703	-----		0.669	-----	
INDEX 4132 SAMPLE 4451			INDEX 4133 SAMPLE 4628			INDEX 4134 SAMPLE 14549		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	EUNICE S		EUNICE S			FOUR LAKES N		
WELL NAME.....	HARRINGTON NO. 1		H. S. RECORD UNIT NO. 1			SUN STATE NO. 1		
LOCATION.....	SEC. 10, T22S, R36E		SEC. 22, T22S, R36E			SEC. 23, T11S, R34E		
OWNER.....	WESTERN NATURAL GAS CO.		SUN OIL CO.			APCO OIL CORP.		
COMPLETED.....	08/17/47		08/22/48			04/17/75		
SAMPLED.....	03/13/48		11/16/48			12/16/75		
FORMATION.....	NOT GIVEN		PERM-VALTES			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3135		3335			11518		
WELLHEAD PRESSURE, PSIG.....	1205		NOT GIVEN			3400		
OPEN FLOW, MCFD.....	24000		1475			2281		
COMPONENT, MOLE PCT								
METHANE.....	78.7	-----	76.3	-----		81.0	-----	
ETHANE.....	19.1	-----	20.6	-----		8.4	-----	
PROPANE.....	---	-----	---	-----		5.1	-----	
N-BUTANE.....	---	-----	---	-----		1.1	-----	
ISOBUTANE.....	---	-----	---	-----		0.9	-----	
N-PENTANE.....	---	-----	---	-----		0.1	-----	
ISOPENTANE.....	---	-----	---	-----		0.2	-----	
CYCLOPENTANE.....	---	-----	---	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	---	-----		0.1	-----	
NITROGEN.....	1.6	-----	2.8	-----		1.6	-----	
OXYGEN.....	0.2	-----	0.2	-----		0.0	-----	
ARGON.....	---	-----	---	-----		0.0	-----	
HYDROGEN.....	---	-----	---	-----		TRACE	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.3	-----	0.1	-----		0.4	-----	
HELIUM.....	0.05	-----	0.05	-----		0.02	-----	
HEATING VALUE.....	1140	-----	1142	-----		1207	-----	
SPECIFIC GRAVITY.....	0.659	-----	0.670	-----		0.701	-----	
INDEX 4135 SAMPLE 4550			INDEX 4136 SAMPLE 4800			INDEX 4137 SAMPLE 4756		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	HARDY		HARDY			HIGHTOWER		
WELL NAME.....	TAYLOR-GLENN I		W. M. TURNER NO. 3			STATE BTB NO. 1		
LOCATION.....	NOT GIVEN		SEC. 29, T21S, R37E			SEC. 26, T12S, R33E		
OWNER.....	OHIO OIL CO.		OHIO OIL CO.			AMERADA PETROLEUM CORP.		
COMPLETED.....	03/01/49		10/01/49			08/30/49		
SAMPLED.....	06/07/48		11/08/49			10/30/49		
FORMATION.....	NOT GIVEN		---LOW			DEVON		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	6720		7825			10155		
WELLHEAD PRESSURE, PSIG.....	2100		NOT GIVEN			850		
OPEN FLOW, MCFD.....	12000		NOT GIVEN			76000		
COMPONENT, MOLE PCT								
METHANE.....	61.6	-----	74.5	-----		39.7	-----	
ETHANE.....	34.7	-----	8.7	-----		12.7	-----	
PROPANE.....	---	-----	4.5	-----		24.2	-----	
N-BUTANE.....	---	-----	0.9	-----		8.3	-----	
ISOBUTANE.....	---	-----	0.7	-----		5.7	-----	
N-PENTANE.....	---	-----	0.3	-----		1.2	-----	
ISOPENTANE.....	---	-----	0.3	-----		2.0	-----	
CYCLOPENTANE.....	---	-----	---	-----		0.1	-----	
HEXANES PLUS.....	---	-----	---	-----		0.1	-----	
NITROGEN.....	3.3	-----	9.3	-----		1.7	-----	
OXYGEN.....	0.1	-----	0.4	-----		0.1	-----	
ARGON.....	---	-----	0.1	-----		TRACE	-----	
HYDROGEN.....	---	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.3	-----	0.1	-----		3.6	-----	
HELIUM.....	0.04	-----	0.09	-----		0.06	-----	
HEATING VALUE.....	1246	-----	1108	-----		1901	-----	
SPECIFIC GRAVITY.....	0.743	-----	0.720	-----		1.193	-----	
INDEX 4138 SAMPLE 4854			INDEX 4139 SAMPLE 4870			INDEX 4140 SAMPLE 2010		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	HIGHTOWER		HIGHTOWER			HOBBS		
WELL NAME.....	NMI STATE NO. 1		B. C. ROACH NO. 1			NORTHROP NO. 1		
LOCATION.....	SEC. 22, T12S, R33E		SEC. 26, T12S, R33E			SEC. 32, T18S, R38E		
OWNER.....	OHIO OIL CO.		AMERADA PETROLEUM CORP.			OHIO OIL CO.		
COMPLETED.....	01/11/50		12/31/49			---/---		
SAMPLED.....	04/05/50		04/19/50			06/06/30		
FORMATION.....	PENN---		PENN-LIME			PERM---		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	8470		8660			2830		
WELLHEAD PRESSURE, PSIG.....	2120		3146			NOT GIVEN		
OPEN FLOW, MCFD.....	6000		8300			2000		
COMPONENT, MOLE PCT								
METHANE.....	82.3	-----	81.9	-----		59.4	-----	
ETHANE.....	7.5	-----	7.8	-----		21.5	-----	
PROPANE.....	0.9	-----	3.9	-----		---	-----	
N-BUTANE.....	1.1	-----	1.2	-----		---	-----	
ISOBUTANE.....	0.5	-----	0.5	-----		---	-----	
N-PENTANE.....	0.4	-----	0.4	-----		---	-----	
ISOPENTANE.....	TRACE	-----	0.1	-----		---	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		---	-----	
HEXANES PLUS.....	0.4	-----	0.2	-----		---	-----	
NITROGEN.....	3.6	-----	0.1	-----		18.6	-----	
OXYGEN.....	0.1	-----	0.1	-----		0.2	-----	
ARGON.....	TRACE	-----	TRACE	-----		---	-----	
HYDROGEN.....	0.1	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.5	-----	0.4	-----		0.2	-----	
HELIUM.....	0.11	-----	0.10	-----		0.11	-----	
HEATING VALUE.....	1150	-----	1165	-----		987	-----	
SPECIFIC GRAVITY.....	0.689	-----	0.692	-----		0.740	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4141 SAMPLE 2099			INDEX 4142 SAMPLE 2134			INDEX 4143 SAMPLE 2435		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	HOBBBS		HOBBBS			HOBBBS		
WELL NAME.....	POWERS A-2A		STATE A-1			MIDWEST BYERS NO. 8		
LOCATION.....	SEC. 30, T18S, R38E		SEC. 29, T18S, R38E			SEC. 4, T19S, R38E		
OWNER.....	HUMBLE OIL & REFINING CO.		CALIFORNIA CO.			MIDWEST REFINING CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	08/30/30		09/17/30			11/20/31		
FORMATION.....	-GAS PAY		NOT GIVEN			PERM-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3610		2340			2505		
WELLHEAD PRESSURE, PSIG.....	1200		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	58.5					1.0		
ETHANE.....	21.0		3.4			3.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	20.4		94.6			94.4		
OXYGEN.....	0.1		0.1			0.7		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.0			0.0		
HELIUM.....	0.04		0.08			TRACE		
HEATING VALUE.....	969		61			80		
SPECIFIC GRAVITY.....	0.745		0.952			0.967		

INDEX 4144 SAMPLE 2438			INDEX 4145 SAMPLE 2466			INDEX 4146 SAMPLE 2467		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	HOBBBS		HOBBBS			HOBBBS		
WELL NAME.....	EAST GRIMES NO. 1		STATE A-33 NO. 4			STATE A-33 NO. 5		
LOCATION.....	SEC. 33, T18S, R38E		SEC. 33, T18S, R38E			SEC. 33, T18S, R38E		
OWNER.....	GPDSY OIL CO.		CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	11/01/31		01/27/32			01/27/32		
FORMATION.....	PERM-		PERM-			PERM-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2300		2393			2395		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	0.0		72.8			72.4		
ETHANE.....	6.4		18.8			20.5		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	92.3		4.9			3.2		
OXYGEN.....	0.9		0.3			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.4		3.2			3.8		
HELIUM.....	TRACE		0.02			0.02		
HEATING VALUE.....	115		1074			1101		
SPECIFIC GRAVITY.....	0.976		0.701			0.707		

INDEX 4147 SAMPLE 2557			INDEX 4148 SAMPLE 2579			INDEX 4149 SAMPLE 2795		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	HOBBBS		HOBBBS			HOBBBS		
WELL NAME.....	STATE WELL NO. 2		STATE NO. 7			BYERS 33 NE4		
LOCATION.....	SEC. 30, T18S, R38E		SEC. 33, T18S, R38E			SEC. 4, T19S, R38E		
OWNER.....	OHIO OIL CO.		CONTINENTAL OIL CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	--/--/00		--/--/00			08/07/30		
SAMPLED.....	--/--/00		12/23/32			06/20/38		
FORMATION.....	PERM-HOBBBS		PERM-BOWERS			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	4022		3160			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			998		
OPEN FLOW, MCFD.....	4000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	55.0		46.1			78.4		
ETHANE.....	22.8		28.4			15.3		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	20.4		25.2			0.8		
OXYGEN.....	1.7		0.1			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.0		0.1			5.1		
HELIUM.....	0.05		0.05			0.02		
HEATING VALUE.....	165		977			1068		
SPECIFIC GRAVITY.....	0.760		0.800			0.685		

INDEX 4150 SAMPLE 2796			INDEX 4151 SAMPLE 4568			INDEX 4152 SAMPLE 1752		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	HOBBBS		HOBBBS			JAL		
WELL NAME.....	GRIMES NO. 3		WEST GRIMES NO. 4			C. FARNSWORTH NO. 13		
LOCATION.....	SEC. 20, T18S, R38E		SEC. 32, T18S, R38E			SEC. 13, T26E, R36S		
OWNER.....	CONTINENTAL OIL CO.		GULF OIL CORP.			MIDWEST REFINING CO.		
COMPLETED.....	05/17/35		08/20/40			--/--/00		
SAMPLED.....	06/14/38		10/04/48			04/22/29		
FORMATION.....	NOT GIVEN		PERM-BYERS			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	4114		3604			2710		
WELLHEAD PRESSURE, PSIG.....	1083		580			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		880			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.2		69.2			82.6		
ETHANE.....	17.1		23.8			14.5		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	1.4		6.4			2.0		
OXYGEN.....	0.4		0.3			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	4.9		0.2			0.6		
HELIUM.....	0.03		0.05			0.04		
HEATING VALUE.....	1078		1177			1097		
SPECIFIC GRAVITY.....	0.692		0.702			0.642		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4153 SAMPLE 2014			INDEX 4154 SAMPLE 2015			INDEX 4155 SAMPLE 2016		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	JAL		JAL			JAL		
WELL NAME.....	LYNN NO. 1		CUSHING NO. 1			CABLE NO. 1		
LOCATION.....	SEC. 24, T23S, R36E		SEC. 23, T24S, R36E			SEC. 9, T26S, R37E		
OWNER.....	CONTINENTAL OIL CO.		CRANFILL & REYNOLDS			TEXAS PRODUCTION CO.		
COMPLETED.....	01/31/29		--/--/00			01/08/29		
SAMPLED.....	06/06/30		06/06/30			06/04/30		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3219		3200			3145		
WELLHEAD PRESSURE, PSIG.....	800		1400			1400		
OPEN FLOW, MCFD.....	30000		40000			55000		
COMPONENT, MOLE PCT								
METHANE.....	82.7		77.1			85.5		
ETHANE.....	14.4		17.0			13.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	2.2		1.5			0.5		
OXYGEN.....	0.1		0.3			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.6		4.1			0.3		
HELIUM.....	0.02		0.00			TRACE		
HEATING VALUE.....	1096		1086			1106		
SPECIFIC GRAVITY.....	0.641		0.686			0.627		

INDEX 4156 SAMPLE 2017			INDEX 4157 SAMPLE 2018			INDEX 4158 SAMPLE 13639		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	JAL		JAL			JAL W		
WELL NAME.....	RHODES NO. 1		EAVES NO. 1			WESTERN JAL UNIT NO. 1		
LOCATION.....	SEC. 22, T26S, R37E		SEC. 19, T26S, R37E			SEC. 20, T27S, R36E		
OWNER.....	TEXAS PRODUCTION CO.		CONTINENTAL OIL CO.			SMELLY OIL CO.		
COMPLETED.....	11/10/27		07/06/28			12/22/72		
SAMPLED.....	06/04/30		06/04/30			07/11/73		
FORMATION.....	NOT GIVEN		PERM-YATES			SILU-FUSSELMAN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3180		2895			16449		
WELLHEAD PRESSURE, PSIG.....	840		1740			4815		
OPEN FLOW, MCFD.....	23000		42000			16500		
COMPONENT, MOLE PCT								
METHANE.....	98.0		83.2			94.8		
ETHANE.....	10.1		11.5			2.5		
PROPANE.....	---		---			0.4		
N-BUTANE.....	---		---			0.1		
ISOBUTANE.....	---		---			0.1		
N-PENTANE.....	---		---			TRACE		
ISOPENTANE.....	---		---			TRACE		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			TRACE		
NITROGEN.....	1.0		4.1			0.8		
OXYGEN.....	0.3		0.8			TRACE		
ARGON.....	---		---			0.0		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.3		
CARBON DIOXIDE.....	0.6		0.5			1.2		
HELIUM.....	TRACE		TRACE			0.03		
HEATING VALUE.....	1072		1049			1019		
SPECIFIC GRAVITY.....	0.616		0.638			0.589		

INDEX 4159 SAMPLE 9572			INDEX 4160 SAMPLE 16803			INDEX 4161 SAMPLE 14677		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	JENKINS		JOHNSON RANCH			KERNITZ		
WELL NAME.....	S. E. ANDERSON A NO. 1		JACKSON UNIT NO. 1			STATE NO. 13-1		
LOCATION.....	SEC. 19, T9S, R35E		SEC. 22, T24S, R33E			SEC. 13, T16S, R33E		
OWNER.....	AMERADA PETROLEUM CORP.		WESA PETROLEUM CO.			GREAT WESTERN DRILLING CO.		
COMPLETED.....	08/21/63		02/17/62			11/12/75		
SAMPLED.....	10/02/64		03/15/83			05/24/76		
FORMATION.....	PENN-ATOKA		PENN-MORROW			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	11477		15430			12660		
WELLHEAD PRESSURE, PSIG.....	1940		5770			4200		
OPEN FLOW, MCFD.....	4600		3704			2436		
COMPONENT, MOLE PCT								
METHANE.....	81.7		94.5			83.3		
ETHANE.....	7.5		2.3			7.9		
PROPANE.....	2.7		0.6			1.7		
N-BUTANE.....	0.8		0.2			0.7		
ISOBUTANE.....	0.4		0.2			0.4		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	5.8		0.5			0.8		
OXYGEN.....	TRACE		TRACE			0.5		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		1.1			0.5		
HELIUM.....	0.09		0.02			0.05		
HEATING VALUE.....	1104		1051			1115		
SPECIFIC GRAVITY.....	0.678		0.601			0.669		

INDEX 4162 SAMPLE 4740			INDEX 4163 SAMPLE 13133			INDEX 4164 SAMPLE 15730		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	KNOWLES		LA RICA			LAGUNA		
WELL NAME.....	W. HAMILTON NO. 1		PIPELINE FED. NO. 1			LAGUNA DEEP FED. NO. 1		
LOCATION.....	SEC. 35, T16S, R38E		SEC. 4, T19S, R34E			SEC. 35, T19S, R33E		
OWNER.....	AMERADA PETROLEUM CORP.		UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.		
COMPLETED.....	05/07/49		02/07/79			02/03/79		
SAMPLED.....	05/20/49		01/05/72			08/24/79		
FORMATION.....	DEVON		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	12518		13431			13365		
WELLHEAD PRESSURE, PSIG.....	5159		4200			4250		
OPEN FLOW, MCFD.....	51		26400			2088		
COMPONENT, MOLE PCT								
METHANE.....	61.3		85.1			84.8		
ETHANE.....	9.4		8.7			7.8		
PROPANE.....	1.4		3.4			5.3		
N-BUTANE.....	5.7		0.8			0.8		
ISOBUTANE.....	3.0		0.5			0.7		
N-PENTANE.....	1.2		0.1			0.2		
ISOPENTANE.....	1.3		0.1			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.2		
HEXANES PLUS.....	0.6		0.2			0.6		
NITROGEN.....	2.7		0.9			0.9		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.2		0.5			0.4		
HELIUM.....	0.10		0.02			0.02		
HEATING VALUE.....	1155		1195			1195		
SPECIFIC GRAVITY.....	0.955		0.666			0.687		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂O DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4165 15707	INDEX SAMPLE	4166 3882	INDEX SAMPLE	4167 4440
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	LEA			LEA		LEA	
FIELD	LANGLEY			LANGLEY		LANGLEY-MATTIX	
WELL NAME	LANGLEY DEEP NO. 1			STUART NO. 2		MARTIN NO. B-1	
LOCATION	SEC. 28, T2S, R36E			SEC. 11, T2S, R37E		SEC. 31, T2S, R37E	
OWNER	ARCO OIL & GAS CO.			ANDERSON-PRICHARD OIL CORP.		CULBERTSON & IRWIN, INC.	
COMPLETED	04/07/78			09/13/38		10/06/47	
SAMPLED	07/25/79			07/14/44		01/16/48	
FORMATION	ORDO-ELLENBURGER			PERM		PERM-YATES	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	15320			3410		2880	
WELLHEAD PRESSURE, PSIG	1550			NOT GIVEN		1200	
OPEN FLOW, MCFD	1700			NOT GIVEN		9000	
COMPONENT, MOLE PCT							
METHANE	83.4			81.5		83.3	
ETHANE	8.8			17.4		14.9	
PROPANE	3.6			---		---	
N-BUTANE	1.1			---		---	
ISOBUTANE	0.5			---		---	
N-PENTANE	0.4			---		---	
ISOPENTANE	0.2			---		---	
CYCLOPENTANE	TRACE			---		---	
HEXANES PLUS	0.2			---		---	
NITROGEN	1.5			0.3		1.3	
OXYGEN	TRACE			0.1		0.2	
ARGON	TRACE			---		---	
HYDROGEN	TRACE			---		---	
HYDROGEN SULFIDE	0.0			---		---	
CARBON DIOXIDE	0.1			---		0.3	
HELIUM	0.07			0.03		0.03	
HEATING VALUE	1186			1137		1111	
SPECIFIC GRAVITY	0.681			0.649		0.638	
		INDEX SAMPLE	4168 4548	INDEX SAMPLE	4169 4717	INDEX SAMPLE	4170 4724
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	LEA			LEA		LEA	
FIELD	LANGLEY-MATTIX			LANGLEY-MATTIX		LANGLEY-MATTIX	
WELL NAME	WIMBERLEY			LYNN NO. 3		E. JACK B-15 NO. 1	
LOCATION	SEC. 23, T2S, R37E			SEC. 26, T2S, R36E		SEC. 15, T2S, R37E	
OWNER	R. OLSEN OIL CO.			CONTINENTAL OIL CO.		W. G. CO.	
COMPLETED	10/25/47			04/03/49		02/07/49	
SAMPLED	07/16/48			07/29/49		08/01/49	
FORMATION	PERM-GLORIETA U			PERM-YATES & SEVEN RIVERS		PERM-SEVEN RIVERS	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	4740			2957		3389	
WELLHEAD PRESSURE, PSIG	2170			1235		514	
OPEN FLOW, MCFD	2820			11400		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	76.9			86.2		82.3	
ETHANE	19.2			6.4		8.5	
PROPANE	---			0.8		4.0	
N-BUTANE	---			0.3		1.2	
ISOBUTANE	---			0.4		0.3	
N-PENTANE	---			0.5		0.5	
ISOPENTANE	---			TRACE		0.2	
CYCLOPENTANE	---			0.1		0.1	
HEXANES PLUS	2.3			0.5		0.6	
NITROGEN	0.1			2.6		1.9	
OXYGEN	0.1			0.2		0.2	
ARGON	---			TRACE		TRACE	
HYDROGEN	---			0.0		0.0	
HYDROGEN SULFIDE	---			---		---	
CARBON DIOXIDE	1.5			0.0		0.3	
HELIUM	0.03			0.03		0.02	
HEATING VALUE	1123			1138		1204	
SPECIFIC GRAVITY	0.674			0.665		0.702	
		INDEX SAMPLE	4171 2817	INDEX SAMPLE	4172 8708	INDEX SAMPLE	4173 8811
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	LEA			LEA		LEA	
FIELD	LOVINGTON S			LUSK		LUSK	
WELL NAME	STATE 182-WELL NO. 2-A			SO. CALIF. FED. NO. 1		SO. CALIF. FED. NO. 1	
LOCATION	SEC. 31, T16S, R37E			SEC. 29, T19S, R32E		SEC. 29, T19S, R32E	
OWNER	REPOLLO OIL CO.			EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
COMPLETED	7/7-7/00			07/14/62		07/14/62	
SAMPLED	07/28/39			12/15/62		12/15/62	
FORMATION	PERM			PENN-STRAWN		PENN-MORROW	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	NOT GIVEN			11410		12448	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			28740		4200	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		18250	
COMPONENT, MOLE PCT							
METHANE	0.0			73.4		86.1	
ETHANE	1.4			16.4		5.8	
PROPANE	---			5.7		2.4	
N-BUTANE	---			1.2		0.7	
ISOBUTANE	---			0.5		0.4	
N-PENTANE	---			0.1		0.1	
ISOPENTANE	---			0.3		0.3	
CYCLOPENTANE	---			0.1		TRACE	
HEXANES PLUS	---			0.1		0.1	
NITROGEN	97.9			1.6		3.0	
OXYGEN	0.6			TRACE		0.6	
ARGON	---			TRACE		TRACE	
HYDROGEN	---			0.3		TRACE	
HYDROGEN SULFIDE	---			0.0		0.0	
CARBON DIOXIDE	0.1			0.2		0.4	
HELIUM	0.06			0.03		0.03	
HEATING VALUE	25			1270		1098	
SPECIFIC GRAVITY	0.970			0.737		0.653	
		INDEX SAMPLE	4174 1271	INDEX SAMPLE	4175 1327	INDEX SAMPLE	4176 1887
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	LEA			LEA		LEA	
FIELD	HALJAMAR			HALJAMAR		HALJAMAR	
WELL NAME	NO. 1			OHIO OIL NO. 1		BAISH NO. 2	
LOCATION	SEC. 21, T17S, R32E			SEC. 18, T17S, R32E		SEC. 21, T17S, R32E	
OWNER	HALJAMAR OIL CORP.			HALJAMAR OIL CO.		HALJAMAR OIL CORP.	
COMPLETED	04/04/26			7/7-7/00		7/7-7/00	
SAMPLED	04/14/26			11/30/26		10/28/29	
FORMATION	PERM-SAN ANDRES			PERM---		PERM-HALJAMAR	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	3115			3210		3104	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	7000			250		8000	
COMPONENT, MOLE PCT							
METHANE	33.2			0.0		20.6	
ETHANE	18.3			11.8		5.6	
PROPANE	---			---		---	
N-BUTANE	---			---		---	
ISOBUTANE	---			---		---	
N-PENTANE	---			---		---	
ISOPENTANE	---			---		---	
CYCLOPENTANE	---			---		---	
HEXANES PLUS	---			---		---	
NITROGEN	47.4			87.5		73.4	
OXYGEN	0.3			0.4		0.1	
ARGON	---			---		---	
HYDROGEN	---			---		---	
HYDROGEN SULFIDE	---			---		---	
CARBON DIOXIDE	0.8			0.3		0.2	
HELIUM	0.09			0.14		0.09	
HEATING VALUE	664			311		309	
SPECIFIC GRAVITY	0.850			0.979		0.887	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4177			INDEX 4178			INDEX 4179		
SAMPLE 2005			SAMPLE 2011			SAMPLE 2798		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	WALJAMAR		MONUMENT			MONUMENT		
WELL NAME.....	MCA UNIT NO.29		SOPHIA MEYERS NO. 1			STATE F NO. 1		
LOCATION.....	SEC. 21, T17S, R32E		SEC. 26, T20S, R37E			SEC. 17, T20S, R37E		
OWNER.....	WALJAMAR OIL CORP.		CONTINENTAL OIL CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	07/16/26		02/21/29			02/26/37		
SAMPLED.....	06/05/30		06/04/30			06/20/38		
FORMATION.....	PERM-GRAYBURG		PERM-QUEEN			PERM-QUEEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3115		3570			3773		
WELLHEAD PRESSURE, PSIG.....	900		1340			1170		
OPEN FLOW, MCFD.....	10000		1500			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	61.0		84.2			82.1		
ETHANE.....	0.3		14.9			12.3		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	38.4		0.5			1.4		
OXYGEN.....	0.1		0.2			0.8		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			3.4		
HELIUM.....	0.12		TRACE			0.02		
HEATING VALUE.....	623		1120			1052		
SPECIFIC GRAVITY.....	0.717		0.633			0.659		
INDEX 4180			INDEX 4181			INDEX 4182		
SAMPLE 4741			SAMPLE 4742			SAMPLE 4910		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	MONUMENT		MONUMENT			NAADINE		
WELL NAME.....	J. R. PHILLIPS NO. 7		STATE D NO. 6			A. L. FOSTER C NO. 1		
LOCATION.....	SEC. 1, T20S, R36E		SEC. 1, T20S, R36E			SEC. 23, T19S, R38E		
OWNER.....	AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.			STANOLIND OIL & GAS CO.		
COMPLETED.....	04/08/49		04/29/49			04/29/50		
SAMPLED.....	05/20/49		05/20/49			08/29/50		
FORMATION.....	PERM-WICHITA L		PERM-WICHITA U			PERM-DRINKARD BASAL		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	7490		7140			7300		
WELLHEAD PRESSURE, PSIG.....	2928		2800			2445		
OPEN FLOW, MCFD.....	125		125			53		
COMPONENT, MOLE PCT.....								
METHANE.....	77.2		60.9			68.1		
ETHANE.....	10.5		16.0			11.4		
PROPANE.....	1.2		10.4			9.9		
N-BUTANE.....	1.5		3.9			3.7		
ISOBUTANE.....	1.0		1.9			1.2		
N-PENTANE.....	0.6		0.8			0.8		
ISOPENTANE.....	0.2		1.8			0.8		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.6		0.5			0.5		
NITROGEN.....	2.8		0.8			2.7		
OXYGEN.....	0.1		0.1			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.3		3.3			0.5		
HELIUM.....	0.04		0.01			0.08		
HEATING VALUE.....	1226		1493			1413		
SPECIFIC GRAVITY.....	0.744		0.919			0.846		
INDEX 4183			INDEX 4184			INDEX 4185		
SAMPLE 1779			SAMPLE 1881			SAMPLE 4538		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	NEW MEXICO		NOT GIVEN			NOT GIVEN		
WELL NAME.....	MEYER NO. 1		EMPIRE-CLOSSON			LEONARD NICHOLS ILES NO. 5		
LOCATION.....	SEC. 26, T23S, R37E		SEC. 5, T22S, R36E			SEC. 3, T17S, R32E		
OWNER.....	MARLAND PRODUCTION CO.		EMPIRE GAS & FUEL CO.			A. W. GOLDEN		
COMPLETED.....	03/07/29		07/700			07/700		
SAMPLED.....	05/18/29		09/27/29			08/748		
FORMATION.....	NOT GIVEN		PERM-			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3840		3575			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1400		1400			NOT GIVEN		
OPEN FLOW, MCFD.....	1500		125000			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	79.9		81.8			51.0		
ETHANE.....	15.6		14.0			41.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	1.8		1.1			6.6		
OXYGEN.....	0.1		0.1			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	2.7		2.8			0.3		
HELIUM.....	0.03		0.03			0.05		
HEATING VALUE.....	1089		1080			1266		
SPECIFIC GRAVITY.....	0.667		0.657			0.792		
INDEX 4186			INDEX 4187			INDEX 4188		
SAMPLE 4567			SAMPLE 4715			SAMPLE 4855		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	JANDA G NO. 1		Z. A. MCHILLAN			HAUD SAUNDERS NO. 1		
LOCATION.....	SEC. 24, T23S, R36E		SEC. 34, T14S, R37E			SEC. 34, T14S, R37E		
OWNER.....	GULF OIL CORP.		TEXAS CO.			GULF OIL CORP.		
COMPLETED.....	06/03/48		08/16/49			01/11/50		
SAMPLED.....	10/04/48		08/17/49			04/05/50		
FORMATION.....	PERM-YATES		PERM-YATES			PERM-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2870		2980			9865		
WELLHEAD PRESSURE, PSIG.....	1245		1600			3523		
OPEN FLOW, MCFD.....	15000		719			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	82.3		38.3			64.7		
ETHANE.....	16.4		6.5			13.6		
PROPANE.....	---		3.0			9.8		
N-BUTANE.....	---		0.8			3.6		
ISOBUTANE.....	---		0.1			1.4		
N-PENTANE.....	---		0.2			0.9		
ISOPENTANE.....	---		---			0.7		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		0.1			0.5		
NITROGEN.....	0.9		50.3			1.4		
OXYGEN.....	0.2		0.1			0.1		
ARGON.....	---		TRACE			0.0		
HYDROGEN.....	---		TRACE			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.3			3.2		
HELIUM.....	0.03		0.07			0.03		
HEATING VALUE.....	1128		635			1420		
SPECIFIC GRAVITY.....	0.642		0.849			0.878		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4189 SAMPLE 5015			INDEX 4190 SAMPLE 5379			INDEX 4191 SAMPLE 5904		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	CHARLOTTE NO. 2		MARSHALL NO. 1-D			BELL LAKE UNIT NO. 1-AD		
LOCATION.....	SEC. 32, T20S, R36E		SEC. 13, T21S, R36E			SEC. 31, T23S, R34E		
OWNER.....	WILSON OIL CO.		TIDEWATER ASSOC. OIL CO.			CONTINENTAL OIL CO.		
COMPLETED.....	03/01/51		10/17/52			04/13/55		
SAMPLED.....	03/01/51		01/23/53			09/03/55		
FORMATION.....	PERM-YATES L		PERM-QUEEN			DEVO-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	3847		3552			15025		
WELLHEAD PRESSURE, PSIG.....	1270		NOT GIVEN			5100		
OPEN FLOW, MCFD.....	NOT GIVEN		1100			15500		
COMPONENT, MOLE PCT								
METHANE.....	78.6		83.8			95.6		
ETHANE.....	9.8		6.7			1.3		
PROPANE.....	4.6		3.4			0.2		
N-BUTANE.....	1.4		1.3			0.1		
ISOBUTANE.....	0.7		0.4			0.0		
N-PENTANE.....	0.3		0.3			0.1		
ISOPENTANE.....	0.2		0.2			0.0		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			TRACE		
NITROGEN.....	3.9		1.2			1.3		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		2.7			1.3		
HELIUM.....	0.08		0.01			0.07		
HEATING VALUE.....	1196		1141			1005		
SPECIFIC GRAVITY.....	0.715		0.691			0.584		

INDEX 4192 SAMPLE 5927			INDEX 4193 SAMPLE 6404			INDEX 4194 SAMPLE 7532		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	U.S. GEO. NPU-64-A		AUSTIN NO. 1			NO. 1		
LOCATION.....	SEC. 1, T21S, R31E		SEC. 1, T14S, R36E			SEC. 6, T19S, R35E		
OWNER.....	FARM CHEMICAL RES. DEV. CORP		PHILLIPS PETROLEUM CO.			OHIO OIL CO.		
COMPLETED.....	--/--/00		04/07/57			01/22/60		
SAMPLED.....	09/01/55		09/24/57			05/02/60		
FORMATION.....	PERM-SALADO		MISS-			PENN-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	NOT GIVEN		13194			13033		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		4050			3392		
OPEN FLOW, MCFD.....	NOT GIVEN		4925			3750		
COMPONENT, MOLE PCT								
METHANE.....	1.4		86.0			78.3		
ETHANE.....	0.1		6.4			9.6		
PROPANE.....	0.0		2.4			5.4		
N-BUTANE.....	TRACE		0.4			2.0		
ISOBUTANE.....	0.0		0.6			0.9		
N-PENTANE.....	0.1		0.2			0.3		
ISOPENTANE.....	0.0		0.1			1.3		
CYCLOPENTANE.....	TRACE		0.3			0.3		
HEXANES PLUS.....	TRACE		1.3			0.7		
NITROGEN.....	97.1		0.8			0.7		
OXYGEN.....	0.8		0.0			TRACE		
ARGON.....	0.2		0.0			0.0		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		1.3			0.4		
HELIUM.....	0.00		0.03			0.03		
HEATING VALUE.....	20		1180			1319		
SPECIFIC GRAVITY.....	0.967		0.688			0.760		

INDEX 4195 SAMPLE 8465			INDEX 4196 SAMPLE 8959			INDEX 4197 SAMPLE 13656		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	U.S.-A. MARY NELLIS NO. 1		BUFFALO OPER. AREA NO. 5			SHEARN FED. NO. 1		
LOCATION.....	SEC. 9, T19S, R33E		SEC. 2, T19S, R33E			SEC. 15, T19S, R37E		
OWNER.....	PAN-AMERICAN PETROLEUM CORP.		PAN-AMERICAN PETROLEUM CORP.			SUN OIL CO.		
COMPLETED.....	11/08/63		12/07/62			05/08/72		
SAMPLED.....	03/16/62		05/15/63			07/24/73		
FORMATION.....	PENN-		PENN-			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	13234		13110			12231		
WELLHEAD PRESSURE, PSIG.....	4353		4025			3229		
OPEN FLOW, MCFD.....	1800		24500			2331		
COMPONENT, MOLE PCT								
METHANE.....	90.9		83.4			77.2		
ETHANE.....	4.6		8.2			10.9		
PROPANE.....	1.9		3.1			6.0		
N-BUTANE.....	0.5		1.1			1.4		
ISOBUTANE.....	0.3		0.7			1.0		
N-PENTANE.....	0.1		0.5			0.2		
ISOPENTANE.....	0.2		0.4			0.5		
CYCLOPENTANE.....	TRACE		0.3			TRACE		
HEXANES PLUS.....	0.1		0.8			0.1		
NITROGEN.....	0.8		0.0			2.4		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.6			0.3		
HELIUM.....	0.03		0.02			0.03		
HEATING VALUE.....	1087		1249			1249		
SPECIFIC GRAVITY.....	0.624		0.704			0.734		

INDEX 4198 SAMPLE 16092			INDEX 4199 SAMPLE 13197			INDEX 4200 SAMPLE 11290		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	LEA		LEA			LEA		
FIELD.....	NOT GIVEN		OSUDD N			OSUDD N		
WELL NAME.....	STATE NO. 1		STATE NO. 1			ALVES NO. 1		
LOCATION.....	SEC. 2, T19S, R34E		SEC. 32, T20S, R36E			SEC. 6, T20S, R36E		
OWNER.....	KNOX INDUSTRIES, INC.		WESTERN OIL PRODUCERS, INC.			MALLARD PETROLEUM, INC.		
COMPLETED.....	05/21/80		12/22/71			10/15/67		
SAMPLED.....	10/14/80		01/04/72			02/17/68		
FORMATION.....	PENN-MORROW		DEVO-			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	13571		12600			12150		
WELLHEAD PRESSURE, PSIG.....	4216		3747			6000		
OPEN FLOW, MCFD.....	8090		14500			2800		
COMPONENT, MOLE PCT								
METHANE.....	55.3		85.6			85.3		
ETHANE.....	21.6		4.6			7.3		
PROPANE.....	12.6		1.7			3.7		
N-BUTANE.....	1.7		0.4			0.6		
ISOBUTANE.....	0.4		0.2			0.2		
N-PENTANE.....	0.6		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.3			0.2		
NITROGEN.....	3.1		0.9			0.9		
OXYGEN.....	0.9		0.2			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		1.4			0.3		
HELIUM.....	TRACE		0.07			0.02		
HEATING VALUE.....	1048		1180			1180		
SPECIFIC GRAVITY.....	0.908		0.661			0.674		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4201 7513	INDEX SAMPLE	4202 15156	INDEX SAMPLE	4203 17888
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA			LEA		LEA	
FIELD.....	PADDOCK			PEARL		PITCHFORK	
WELL NAME.....	LOU WORTHAN NO. 8			HENRY RECORD NO. 1		DIAMOND 6 FED. NO. 1	
LOCATION.....	SEC. 11, T22S, R37E			SEC. 26, T19S, R35E		SEC. 5, T25S, R34E	
OWNER.....	OHIO CO.			DORCHESTER EXPLORATION, INC.		HNG OIL CO.	
COMPLETED.....	10/27/46			11/13/74		11/08/82	
SAMPLED.....	04/22/50			11/---/77		11/05/85	
FORMATION.....	-PADDOCK			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	5092			12529		15234	
WELLHEAD PRESSURE, PSIG.....	925			3955		3000	
OPEN FLOW, MCFD.....	NOT GIVEN			3846		1600	
COMPONENT, MOLE PCT							
METHANE.....	82.5	-----		82.6	-----	95.5	-----
ETHANE.....	9.0	-----		8.3	-----	2.5	-----
PROPANE.....	3.4	-----		4.3	-----	0.5	-----
N-BUTANE.....	0.8	-----		1.4	-----	0.1	-----
ISOBUTANE.....	0.4	-----		0.7	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.3	-----	0.1	-----
ISOPENTANE.....	0.2	-----		0.7	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		0.2	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.4	-----	0.1	-----
NITROGEN.....	2.2	-----		0.8	-----	0.2	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	0.2	-----
HYDROGEN.....	0.1	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.1	-----		0.3	-----	0.7	-----
HELIUM.....	0.02	-----		0.03	-----	0.02	-----
HEATING VALUE.....	1144	-----		1239	-----	1042	-----
SPECIFIC GRAVITY.....	0.678	-----		0.709	-----	0.589	-----
		INDEX SAMPLE	4204 17889	INDEX SAMPLE	4205 11675	INDEX SAMPLE	4206 12217
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA			LEA		LEA	
FIELD.....	PITCHFORK			QUAIL RIDGE		QUAIL RIDGE	
WELL NAME.....	VACA 13 FED. NO. 1			MESCALERO RIDGE UNIT NO. 31		MESCALERO RIDGE UNIT NO. 1	
LOCATION.....	SEC. 13, T25S, R33E			SEC. 21, T19S, R34E		SEC. 20, T19S, R34E	
OWNER.....	HNG OIL CO.			SINCLAIR OIL CORP.		PENN OIL UNITED, INC.	
COMPLETED.....	02/22/84			06/28/68		09/26/69	
SAMPLED.....	11/05/85			10/25/68		03/12/70	
FORMATION.....	PENN-ATOKA			PENN-ATOKA		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	14495			3958		13460	
WELLHEAD PRESSURE, PSIG.....	11100			3939		4500	
OPEN FLOW, MCFD.....	730					8955	
COMPONENT, MOLE PCT							
METHANE.....	93.8	-----		53.1	-----	83.2	-----
ETHANE.....	3.2	-----		5.8	-----	9.3	-----
PROPANE.....	0.6	-----		2.9	-----	4.0	-----
N-BUTANE.....	0.2	-----		0.8	-----	0.7	-----
ISOBUTANE.....	0.1	-----		0.4	-----	0.4	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.0	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	0.3	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.1	-----
NITROGEN.....	1.0	-----		26.2	-----	1.3	-----
OXYGEN.....	0.1	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		TRACE	-----	0.4	-----
HELIUM.....	0.01	-----		0.26	-----	0.02	-----
HEATING VALUE.....	1061	-----		882	-----	1169	-----
SPECIFIC GRAVITY.....	0.602	-----		0.748	-----	0.673	-----
		INDEX SAMPLE	4207 15537	INDEX SAMPLE	4208 11163	INDEX SAMPLE	4209 9714
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	QUERECHE PLAINS			LEA		LEA	
FIELD.....	FED. "E" NO. 1			RANGER LAKE W		RED HILLS	
WELL NAME.....	SEC. 27, T18S, R32E			WEST RANGER UNIT NO. 2		NO. 1	
LOCATION.....	NEUBOURNE OIL CO.			SEC. 23, T25S, R34E		SEC. 32, T25S, R33E	
OWNER.....				TEXAS PACIFIC OIL CO.		PURE OIL CO.	
COMPLETED.....	03/22/77			08/13/66		12/26/64	
SAMPLED.....	12/10/78			10/11/67		01/22/65	
FORMATION.....	PENN-MORROW			DEVON		PERM-WOLFCAMP	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	12620			12907		11643	
WELLHEAD PRESSURE, PSIG.....	4004			3450		8022	
OPEN FLOW, MCFD.....	2446			2270		15750	
COMPONENT, MOLE PCT							
METHANE.....	86.7	-----		68.0	-----	88.5	-----
ETHANE.....	7.3	-----		7.3	-----	7.1	-----
PROPANE.....	3.1	-----		3.8	-----	2.1	-----
N-BUTANE.....	0.7	-----		1.8	-----	TRACE	-----
ISOBUTANE.....	0.3	-----		1.0	-----	0.7	-----
N-PENTANE.....	0.1	-----		0.6	-----	0.1	-----
ISOPENTANE.....	0.2	-----		1.4	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.3	-----	0.1	-----
NITROGEN.....	0.7	-----		11.3	-----	1.0	-----
OXYGEN.....	0.0	-----		1.9	-----	0.0	-----
ARGON.....	TRACE	-----		0.1	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.6	-----		1.8	-----	0.2	-----
HELIUM.....	0.03	-----		0.07	-----	0.01	-----
HEATING VALUE.....	1145	-----		1139	-----	1115	-----
SPECIFIC GRAVITY.....	0.655	-----		0.804	-----	0.633	-----
		INDEX SAMPLE	4210 15335	INDEX SAMPLE	4211 13649	INDEX SAMPLE	4212 4569
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA			LEA		LEA	
FIELD.....	REEVES N			SAND DUNES S		SAUYER	
WELL NAME.....	HANLON-STATE NO. 1			SUNDANCE FEDERAL NO. 1		LANDRETH NO. 1	
LOCATION.....	SEC. 2, T18S, R35E			SEC. 14, T24S, R31E		SEC. 18, T9S, R38E	
OWNER.....	HECO			PASO NATURAL GAS CO.		DEVONIAN CO.	
COMPLETED.....	09/16/77			06/22/72		05/31/48	
SAMPLED.....	08/03/78			07/19/73		10/06/48	
FORMATION.....	PERM-QUEEN			PENN-ATOKA & MORROW		PERM-SAN ANDRES	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	4212			13691		4938	
WELLHEAD PRESSURE, PSIG.....	1303			6553		1300	
OPEN FLOW, MCFD.....	2415			3376		2750	
COMPONENT, MOLE PCT							
METHANE.....	34.2	-----		94.7	-----	64.9	-----
ETHANE.....	4.1	-----		3.0	-----	20.7	-----
PROPANE.....	2.0	-----		0.6	-----	---	-----
N-BUTANE.....	0.7	-----		0.0	-----	---	-----
ISOBUTANE.....	0.3	-----		0.0	-----	---	-----
N-PENTANE.....	0.2	-----		0.0	-----	---	-----
ISOPENTANE.....	0.2	-----		0.0	-----	---	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	---	-----
HEXANES PLUS.....	0.2	-----		0.0	-----	---	-----
NITROGEN.....	57.9	-----		1.1	-----	7.1	-----
OXYGEN.....	0.0	-----		0.1	-----	0.3	-----
ARGON.....	0.0	-----		TRACE	-----	---	-----
HYDROGEN.....	TRACE	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	TRACE	-----		0.6	-----	6.9	-----
HELIUM.....	0.18	-----		0.02	-----	0.09	-----
HEATING VALUE.....	537	-----		1029	-----	1028	-----
SPECIFIC GRAVITY.....	0.863	-----		0.586	-----	0.755	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4213 4960	INDEX SAMPLE	4214 15848	INDEX SAMPLE	4215 16407
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	LEA			LEA		LEA	
FIELD	SAWYER			SHOEBAR		TALCO	
WELL NAME	UNION FED. NO. 3			NEW MEXICO STATE 28 NO. 1		TALCO UNIT NO. 1	
LOCATION	SEC. 21, T18S, R38E			SEC. 28, T16S, R35E		SEC. 11, T26S, R35E	
OWNER	GEORGE P. LIVERMORE, INC.			HNG OIL CO.		ATAPCO	
COMPLETED	08/08/50			07/25/79		07/-/81	
SAMPLED	11/08/50			11/20/79		12/10/81	
FORMATION	PERM-SAN ANDRES			PENN-ATOKA		PENN-STRAWN	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	4910			12453		14900	
WELLHEAD PRESSURE, PSIG	1300			4325		6500	
OPEN FLOW, MCFD	385			8173		7107	
COMPONENT, MOLE PCT							
METHANE	69.8			88.2		93.1	
ETHANE	6.1			6.6		1.8	
PROPANE	2.6			2.1		0.3	
N-BUTANE	0.6			0.4		0.1	
ISOBUTANE	0.2			0.1		TRACE	
N-PENTANE	0.2			0.1		0.1	
ISOPENTANE	0.1			0.3		TRACE	
CYCLOPENTANE	TRACE			0.1		0.2	
HEXANES PLUS	0.1			0.2		0.5	
NITROGEN	11.3			1.3		2.7	
OXYGEN	0.1			0.0		1.0	
ARGON	TRACE			0.0		TRACE	
HYDROGEN	0.1			0.0		0.0	
HYDROGEN SULFIDE	0.1			0.0		0.0	
CARBON DIOXIDE	8.8			0.4		0.3	
HELIUM	0.14			0.03		0.02	
HEATING VALUE	925			1121		1014	
SPECIFIC GRAVITY	0.764			0.642		0.600	

		INDEX SAMPLE	4216 8214	INDEX SAMPLE	4217 15261	INDEX SAMPLE	4218 4850
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	LEA			LEA		LEA	
FIELD	VACUUM			VACUUM N		WARREN MCKEE	
WELL NAME	STATE F NO. 1			STATE SEC. 7 NO. 1		WARREN UNIT B-28 NO. 2	
LOCATION	SEC. 36, T17S, R33E			SEC. 7, T17S, R35E		SEC. 28, T20S, R38E	
OWNER	TEXAS SULF. PRODUCING CO.			MARATHON OIL CO.		CONTINENTAL OIL CO.	
COMPLETED	02/15/55			-/-/00		-/-/00	
SAMPLED	09/27/61			04/17/78		04/03/50	
FORMATION	PERM-QUEEN			PENN-ATOKA		NOT GIVEN	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	3843			12000		NOT GIVEN	
WELLHEAD PRESSURE, PSIG	1025			3577		NOT GIVEN	
OPEN FLOW, MCFD	91000			13738		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	46.2			88.9		84.2	
ETHANE	4.6			6.0		7.5	
PROPANE	1.0			0.9		2.5	
N-BUTANE	1.0			0.4		1.0	
ISOBUTANE	0.6			0.2		0.3	
N-PENTANE	0.1			0.1		0.2	
ISOPENTANE	0.2			0.3		0.2	
CYCLOPENTANE	0.1			0.1		0.0	
HEXANES PLUS	0.1			0.2		0.1	
NITROGEN	44.4			1.4		2.4	
OXYGEN	TRACE			0.1		0.1	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.0			0.0		---	
HYDROGEN SULFIDE	0.0			0.0		---	
CARBON DIOXIDE	0.5			0.3		0.3	
HELIUM	0.7			0.03		0.05	
HEATING VALUE	678			1109		1148	
SPECIFIC GRAVITY	0.819			0.635		0.669	

		INDEX SAMPLE	4219 1369	INDEX SAMPLE	4220 5786	INDEX SAMPLE	4221 6100
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	LEA			LEA		LEA	
FIELD	WILDCAT			WILDCAT		WILDCAT	
WELL NAME	INGLEFIELD-BRIDGES			AMERICAN REP. FED. NO. 1		NEW MEXICO STATE G-4	
LOCATION	SEC. 4, T17, R34			SEC. 28, T25S, R37E		SEC. 7, T18S, R34E	
OWNER	INGLEFIELD-BRIDGES			ANDERSON-PRICHARD OIL CORP.		SUNRAY MID-CONTINENT OIL CO.	
COMPLETED	-/-/00			01/8/55		06/05/56	
SAMPLED	03/24/27			03/03/55		07/05/56	
FORMATION	NOT GIVEN			DEV0		PERM-QUEEN	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	4707			8270		4354	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			3253		1100	
OPEN FLOW, MCFD	NOT GIVEN			67500		7000	
COMPONENT, MOLE PCT							
METHANE	11.1			88.7		52.4	
ETHANE	46.6			5.0		5.5	
PROPANE	---			1.8		2.7	
N-BUTANE	---			0.6		0.6	
ISOBUTANE	---			0.4		0.3	
N-PENTANE	---			0.3		0.2	
CYCLOPENTANE	---			0.0		0.2	
HEXANES PLUS	---			0.2		0.1	
NITROGEN	38.6			0.6		0.2	
OXYGEN	2.5			1.3		37.5	
ARGON	---			0.1		0.0	
HYDROGEN	---			0.0		TRACE	
HYDROGEN SULFIDE	---			0.1		0.0	
CARBON DIOXIDE	1.3			TRACE		0.3	
HELIUM	0.02			0.04		0.15	
HEATING VALUE	948			1117		761	
SPECIFIC GRAVITY	0.971			0.649		0.792	

		INDEX SAMPLE	4222 10118	INDEX SAMPLE	4223 11017	INDEX SAMPLE	4224 13297
STATE	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY	LEA			LEA		LEA	
FIELD	WILDCAT			WILDCAT		WILDCAT	
WELL NAME	CUSTER MOUNTAIN UNIT NO. 1			COTTON DRAW NO. 64		SHELL-STATE COM. NO. 1	
LOCATION	SEC. 9, T24S, R35E			SEC. 18, T25S, R32E		SEC. 18, T13S, R35E	
OWNER	MIDWEST OIL CORP.			TEXACO INC.		UNION TEXAS PETROLEUM CORP.	
COMPLETED	04/28/64			05/19/66		06/11/71	
SAMPLED	09/14/65			06/23/67		07/1/72	
FORMATION	PENN-MORROW			DEV0		DEV0	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	14000			16490		13096	
WELLHEAD PRESSURE, PSIG	8000			5470		2914	
OPEN FLOW, MCFD	---			NOT GIVEN		3571	
COMPONENT, MOLE PCT							
METHANE	92.9			96.0		83.4	
ETHANE	4.3			0.5		5.8	
PROPANE	1.1			0.1		3.0	
N-BUTANE	0.1			0.0		1.0	
ISOBUTANE	0.2			0.0		1.3	
N-PENTANE	0.1			0.0		0.5	
ISOPENTANE	TRACE			0.0		0.0	
CYCLOPENTANE	TRACE			0.0		TRACE	
HEXANES PLUS	0.2			0.0		0.3	
NITROGEN	0.5			1.5		2.9	
OXYGEN	0.1			0.1		TRACE	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.0			TRACE		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.4			0.0		1.7	
HELIUM	0.02			0.05		0.10	
HEATING VALUE	1071			984		1141	
SPECIFIC GRAVITY	0.604			0.579		0.693	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4225 SAMPLE 16306		INDEX 4226 SAMPLE 16307		INDEX 4227 SAMPLE 9927	
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	
COUNTY.....	LEA	LEA	LEA	WILSON S	
FIELD.....	WILDCAT	WILDCAT	WILDCAT	NO. 1	
WELL NAME.....	GETTY FEDERAL "24" NO. 1	GETTY "32" NO. 1	GETTY "32" NO. 1	SEC. 23, T21S, R34E	
LOCATION.....	SEC. 24, T23S, R31E	SEC. 32, T21S, R32E	SEC. 32, T21S, R32E	SINCLAIR OIL & GAS CO.	
OWNER.....	GETTY OIL CO.	GETTY OIL CO.	GETTY OIL CO.		
COMPLETED.....	12/28/80	12/20/80	12/20/80	03/10/64	
SAMPLED.....	07/30/81	07/30/81	07/30/81	06/17/65	
FORMATION.....	PENN-ATOKA	PENN-NORROW	PENN-NORROW	PENN-	
GEOLOGIC PROVINCE CODE.....	430	430	430	430	
DEPTH, FEET.....	13528	14394	14394	12624	
WELLHEAD PRESSURE, PSIG.....	7000	4950	4950	4567	
OPEN FLOW, MCFD.....	5039	3703	3703	2050	
COMPONENT, MOLE PCT					
METHANE.....	94.1	91.2	91.2	89.8	
ETHANE.....	3.3	4.8	4.8	5.4	
PROPANE.....	0.6	1.3	1.3	2.3	
N-BUTANE.....	0.1	0.2	0.2	0.8	
ISOBUTANE.....	TRACE	0.2	0.2	0.3	
N-PENTANE.....	0.1	TRACE	TRACE	0.1	
ISOPENTANE.....	0.1	0.1	0.1	0.3	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	0.1	
NITROGEN.....	0.9	1.0	1.0	0.5	
OXYGEN.....	0.0	0.1	0.1	0.0	
ARGON.....	TRACE	TRACE	TRACE	0.0	
HYDROGEN.....	TRACE	TRACE	TRACE	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.5	0.0	0.0	0.4	
HELIUM.....	0.02	0.02	0.02	0.02	
HEATING VALUE*.....	1045	1066	1066	1125	
SPECIFIC GRAVITY.....	0.592	0.614	0.614	0.637	
INDEX 4228 SAMPLE 16229		INDEX 4229 SAMPLE 12722		INDEX 4230 SAMPLE 11401	
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	
COUNTY.....	YOUNG	HICKLEY	HICKLEY	MCKINLEY	
FIELD.....	YOUNG	HOSPAL LONE PINE	HOSPAL LONE PINE	NOT GIVEN	
WELL NAME.....	YOUNG DEEP UNIT NO. 1	SANTA FE PACIFIC RR NO. 2	SANTA FE PACIFIC RR NO. 2	HOSPAL NO. 10	
LOCATION.....	SEC. 10, T18S, R32E	SEC. 13, T17N, R9W	SEC. 13, T17N, R9W	SEC. 12, T17N, R19W	
OWNER.....	HARVEY E. YATES CO.	TEANCO OIL CO.	TEANCO OIL CO.	TEANCO OIL CO.	
COMPLETED.....	04/18/80	09/10/70	09/10/70	05/10/67	
SAMPLED.....	04/10/81	03/17/71	03/17/71	03/25/68	
FORMATION.....	PENN-NORROW	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	430	580	580	580	
DEPTH, FEET.....	12845	2547	2547	2498	
WELLHEAD PRESSURE, PSIG.....	200	300	300	895	
OPEN FLOW, MCFD.....	245	4350	4350	34	
COMPONENT, MOLE PCT					
METHANE.....	78.5	71.3	71.3	74.0	
ETHANE.....	1.2	1.3	1.3	1.2	
PROPANE.....	5.8	6.3	6.3	5.2	
N-BUTANE.....	1.7	0.9	0.9	0.9	
ISOBUTANE.....	0.7	1.0	1.0	0.9	
N-PENTANE.....	0.4	0.0	0.0	0.2	
ISOPENTANE.....	0.4	0.4	0.4	0.2	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	TRACE	0.1	0.1	0.2	
NITROGEN.....	0.8	5.4	5.4	3.9	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.1	0.1	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	TRACE	TRACE	0.1	
HELIUM.....	0.02	0.03	0.03	0.02	
HEATING VALUE*.....	1272	1228	1228	1227	
SPECIFIC GRAVITY.....	0.733	0.748	0.748	0.733	
INDEX 4231 SAMPLE 17790		INDEX 4232 SAMPLE 1078		INDEX 4233 SAMPLE 1099	
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	
COUNTY.....	MCKINLEY	MORA	MORA	MORA	
FIELD.....	UNDESIGNATED	WAGON MOUND	WAGON MOUND	WAGON MOUND	
WELL NAME.....	LUDWICK NO. 1	C. F. CRUSE NO. 1	C. F. CRUSE NO. 1	C. F. CRUSE NO. 1	
LOCATION.....	SEC. 7, T19N, R5W	SEC. 11, T19N, R21E	SEC. 11, T19N, R21E	SEC. 11, T19N, R21E	
OWNER.....	JAMES L. LUDWICK	ARKANSAS FUEL OIL CO.	ARKANSAS FUEL OIL CO.	ARKANSAS FUEL OIL CO.	
COMPLETED.....	05/08/84	7/7/66	7/7/66	02/05/26	
SAMPLED.....	07/31/85	06/15/25	06/15/25	08/05/25	
FORMATION.....	CRET-MESAVERDE	TRI-4	TRI-4	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	580	455	455	455	
DEPTH, FEET.....	1844	1425	1425	1425	
WELLHEAD PRESSURE, PSIG.....	600	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	450	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	86.4	---	---	---	
ETHANE.....	6.3	---	---	---	
PROPANE.....	1.2	---	---	---	
N-BUTANE.....	0.1	---	---	---	
ISOBUTANE.....	0.4	---	---	---	
N-PENTANE.....	0.1	---	---	---	
ISOPENTANE.....	TRACE	---	---	---	
CYCLOPENTANE.....	TRACE	---	---	---	
HEXANES PLUS.....	0.1	---	---	---	
NITROGEN.....	5.2	6.7	6.7	7.8	
OXYGEN.....	0.0	1.1	1.1	2.2	
ARGON.....	TRACE	---	---	---	
HYDROGEN.....	TRACE	---	---	---	
HYDROGEN SULFIDE**.....	0.0	---	---	---	
CARBON DIOXIDE.....	0.1	92.2	92.2	90.0	
HELIUM.....	0.11	0.02	0.02	0.15	
HEATING VALUE*.....	1045	0	0	0	
SPECIFIC GRAVITY.....	0.632	1.487	1.487	1.476	
INDEX 4234 SAMPLE 9115		INDEX 4235 SAMPLE 17549		INDEX 4236 SAMPLE 17000	
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	
COUNTY.....	MORA	QUAY	QUAY	QUAY	
FIELD.....	WILDCAT	NOT GIVEN	NOT GIVEN	WILDCAT	
WELL NAME.....	NO. 1	T-4 CATTLE CO. NO. 1	T-4 CATTLE CO. NO. 1	WILCHITA STATE NO. 1	
LOCATION.....	SEC. 28, T21N, R21E	SEC. 5, T10N, R27E	SEC. 5, T10N, R27E	SEC. 36, T5N, R30E	
OWNER.....	STATE OF NEW MEXICO	YATES PETROLEUM CO.	YATES PETROLEUM CO.	DESANA CORP.	
COMPLETED.....	12/20/63	12/12/84	12/12/84	03/25/83	
SAMPLED.....	10/20/63	PENN-NOT GIVEN	PENN-NOT GIVEN	08/09/83	
FORMATION.....	CRET-DAKOTA	435	435	PERM-SAN ANDRES	
GEOLOGIC PROVINCE CODE.....	455	435	435	435	
DEPTH, FEET.....	321	7005	7005	2070	
WELLHEAD PRESSURE, PSIG.....	10	1450	1450	680	
OPEN FLOW, MCFD.....	NOT GIVEN	1100	1100	519	
COMPONENT, MOLE PCT					
METHANE.....	48.5	68.3	68.3	25.4	
ETHANE.....	0.0	11.2	11.2	2.1	
PROPANE.....	0.0	5.3	5.3	1.4	
N-BUTANE.....	0.0	1.3	1.3	0.3	
ISOBUTANE.....	0.0	0.7	0.7	0.3	
N-PENTANE.....	0.0	0.3	0.3	0.1	
ISOPENTANE.....	0.0	0.1	0.1	0.2	
CYCLOPENTANE.....	0.0	0.2	0.2	TRACE	
HEXANES PLUS.....	0.0	0.2	0.2	0.1	
NITROGEN.....	50.6	11.6	11.6	69.5	
OXYGEN.....	0.0	0.0	0.0	TRACE	
ARGON.....	0.6	TRACE	TRACE	0.1	
HYDROGEN.....	0.0	0.1	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.5	0.5	0.1	
HELIUM.....	0.03	0.19	0.19	0.21	
HEATING VALUE*.....	1045	1131	1131	1770	
SPECIFIC GRAVITY.....	0.770	0.761	0.761	0.883	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4237 5173	INDEX SAMPLE	4238 10262	INDEX SAMPLE	4239 6869
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	RIO ARRIBA			RIO ARRIBA		RIO ARRIBA	
FIELD.....	ABIGADON			GALLUP		BASIN DAKOTA	
WELL NAME.....	MORTEN NO. 1			AXI APACHE A-9		FARMING E	
LOCATION.....	SEC. 24, T24N, R5E			SEC. 10, T23N, R5W		SEC. 2, T24N, R6W	
OWNER.....	LOWRY, ET AL.			CONTINENTAL OIL CO.		SKELLY OIL CO.	
COMPLETED.....	02/10/52			08/29/65		10/17/58	
SAMPLED.....	02/10/52			11/03/65		11/10/58	
FORMATION.....	PENN-NOT			CRET-PICTURED CLIFFS		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	1732			2254		6994	
WELLHEAD PRESSURE, PSIG.....	690			715		2050	
OPEN FLOW, MCFD.....	25			3700		10	
COMPONENT, MOLE PCT.....							
METHANE.....	0.0			87.6		84.1	
ETHANE.....	0.1			5.4		8.8	
PROANE.....	0.1			2.8		2.7	
N-BUTANE.....	0.0			0.7		0.6	
ISOBUTANE.....	0.0			0.6		0.2	
N-PENTANE.....	0.0			0.4		0.2	
ISOPENTANE.....	0.0			0.4		0.3	
CYCLOPENTANE.....	0.0			TRACE		0.1	
HEXANES PLUS.....	0.0			0.2		0.3	
NITROGEN.....	1.7			0.0		1.3	
OXYGEN.....	0.1			0.0		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	1.0			0.04		TRACE	
HYDROGEN SULFIDE**.....	--			0.0		0.0	
CARBON DIOXIDE.....	96.5			TRACE		0.6	
HELIUM.....	0.41			1132		0.10	
HEATING VALUE.....	8			0.652		1171	
SPECIFIC GRAVITY.....	1.497					0.677	
		INDEX SAMPLE	4240 7314	INDEX SAMPLE	4241 7604	INDEX SAMPLE	4242 8070
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	RIO ARRIBA			RIO ARRIBA		RIO ARRIBA	
FIELD.....	BASIN DAKOTA			BASIN DAKOTA		BASIN DAKOTA	
WELL NAME.....	SAN JUAN NO. 33-17			MCKENZIE-FED. NO. 1		APACHE FED. NO. 12	
LOCATION.....	SEC. 17, T28N, R5W			SEC. 25, T25N, R6W		SEC. 17, T24N, R5W	
OWNER.....	EL PASO NATURAL GAS CO.			KERN COUNTY LAND CO.		GULF OIL CORP.	
COMPLETED.....	06/09/59			10/07/59		05/15/61	
SAMPLED.....	12/17/59			07/12/60		07/14/61	
FORMATION.....	CRET-MESAVERDE			CRET-DAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	5361			6907		6673	
WELLHEAD PRESSURE, PSIG.....	1090			2310		2216	
OPEN FLOW, MCFD.....	4761			2066		8821	
COMPONENT, MOLE PCT.....							
METHANE.....	84.4			87.9		79.2	
ETHANE.....	9.0			8.3		13.4	
PROANE.....	3.5			1.8		4.2	
N-BUTANE.....	0.8			0.4		0.8	
ISOBUTANE.....	0.4			0.2		1.0	
N-PENTANE.....	TRACE			0.1		0.3	
ISOPENTANE.....	0.5			0.2		0.2	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.2		0.3	
NITROGEN.....	0.4			0.0		TRACE	
ARGON.....	0.1			TRACE		0.0	
HYDROGEN.....	0.3			0.2		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.6		0.5	
HELIUM.....	0.03			0.10		0.10	
HEATING VALUE.....	1175			1143		1249	
SPECIFIC GRAVITY.....	0.670			0.642		0.711	
		INDEX SAMPLE	4243 8697	INDEX SAMPLE	4244 17508	INDEX SAMPLE	4245 6451
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	RIO ARRIBA			RIO ARRIBA		RIO ARRIBA	
FIELD.....	BASIN DAKOTA			BASIN DAKOTA-UNDES. GALLUP		BLANCO	
WELL NAME.....	SAN JUAN NO. 20-6-100			ROSA UNIT NO. 87		LINDRITH UNIT NO. 19	
LOCATION.....	SEC. 13, T28N, R6W			SEC. 12, T31N, R4W		SEC. 12, T24N, R3W	
OWNER.....	EL PASO NATURAL GAS CO.			AMOCO PRODUCTION CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	12/09/61			12/09/82		04/12/57	
SAMPLED.....	10/05/62			10/30/84		12/02/57	
FORMATION.....	CRET-DAKOTA			CRET-GALLUP		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7550			7036		3280	
WELLHEAD PRESSURE, PSIG.....	8226			2670		939	
OPEN FLOW, MCFD.....	7554			2469		8273	
COMPONENT, MOLE PCT.....							
METHANE.....	94.5			96.0		84.2	
ETHANE.....	2.1			0.1		5.9	
PROANE.....	0.8			TRACE		2.7	
N-BUTANE.....	0.1			0.0		0.6	
ISOBUTANE.....	0.1			0.0		0.6	
N-PENTANE.....	TRACE			0.0		0.1	
ISOPENTANE.....	0.1			0.0		0.2	
CYCLOPENTANE.....	TRACE			0.0		0.1	
HEXANES PLUS.....	TRACE			0.0		0.2	
NITROGEN.....	0.4			1.2		4.3	
OXYGEN.....	TRACE			0.3		1.1	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.0			2.1		0.61	
HELIUM.....	0.04			TRACE		0.01	
HEATING VALUE.....	1039			974		1096	
SPECIFIC GRAVITY.....	0.592			0.583		0.668	
		INDEX SAMPLE	4246 8192	INDEX SAMPLE	4247 14882	INDEX SAMPLE	4248 15321
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	RIO ARRIBA			RIO ARRIBA		RIO ARRIBA	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	SAN JUAN 30-5 UNIT NO. 35			SAN JUAN 29-6 UNIT NO. 4A		HOYT NO. 2-A	
LOCATION.....	SEC. 7, T30N, R5W			SEC. 17, T29N, R6W		SEC. 5, T26N, R4W	
OWNER.....	EL PASO NATURAL GAS CO.			NORTHWEST PIPELINE CORP.		CONSOLIDATED OIL & GAS, INC.	
COMPLETED.....	05/26/61			10/05/76		12/27/77	
SAMPLED.....	09/12/61			12/28/76		07/20/78	
FORMATION.....	CRET-MESAVERDE			CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	5310			5068		6126	
WELLHEAD PRESSURE, PSIG.....	1196			724		1070	
OPEN FLOW, MCFD.....	3193			12911		3129	
COMPONENT, MOLE PCT.....							
METHANE.....	96.0			84.7		82.9	
ETHANE.....	1.8			8.7		9.6	
PROANE.....	0.5			3.6		3.8	
N-BUTANE.....	0.1			0.8		0.9	
ISOBUTANE.....	0.1			0.6		0.7	
N-PENTANE.....	TRACE			0.2		0.2	
ISOPENTANE.....	TRACE			0.2		0.3	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.5	
NITROGEN.....	0.2			0.0		0.0	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.5	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.1			0.7		0.4	
HELIUM.....	0.01			0.01		0.02	
HEATING VALUE.....	1030			1174		1197	
SPECIFIC GRAVITY.....	0.585			0.672		0.682	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4249 SAMPLE 17570			INDEX 4250 SAMPLE 11094			INDEX 4251 SAMPLE 11095		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	RIO ARRIBA		RIO ARRIBA			RIO ARRIBA		
FIELD.....	BLANCO MESAVERDE		CHOZA MESA			CHOZA MESA		
WELL NAME.....	JICARILLA CONTRACT NO.155-33		GASBUGGY NO. 1			GASBUGGY NO. 1		
LOCATION.....	SEC. 29, T26N, R5W		SEC. 36, T29N, R4W			SEC. 36, T29N, R4W		
OWNER.....	AMOCO PRODUCTION CO.		EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		
COMPLETED.....	08/29/84		03/19/67			03/19/67		
SAMPLED.....	08/29/84		06/08/67			05/19/67		
FORMATION.....	CRET-MESAVERDE		CRET-PICTURED CLIFFS			CRET-PICTURED CLIFFS		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	5377		3915			3915		
WELLHEAD PRESSURE, PSIG.....	740		845			845		
OPEN FLOW, MCFD.....	993		100			100		
COMPONENT, MOLE PCT								
METHANE.....	78.8		85.2			85.1		
ETHANE.....	10.3		7.3			7.2		
PROPANE.....	6.6		3.7			3.9		
N-BUTANE.....	0.0		0.9			0.9		
ISOBUTANE.....	2.6		0.6			0.8		
N-PENTANE.....	0.3		0.1			0.1		
ISOPENTANE.....	0.0		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	0.9		0.9			1.0		
OXYGEN.....	0.1		0.1			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.2			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.3		
HELIUM.....	0.03		0.00			0.02		
HEATING VALUE.....	1268		1175			1181		
SPECIFIC GRAVITY.....	0.727		0.672			0.677		
INDEX 4252 SAMPLE 17297			INDEX 4253 SAMPLE 5113			INDEX 4254 SAMPLE 11937		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	RIO ARRIBA		RIO ARRIBA			RIO ARRIBA		
FIELD.....	DEVILS FORK		DOSWELL-PETTIGREW			GAVILAN		
WELL NAME.....	CANYON LARGO UNIT NO. 325		FED. NO. D-1			JICARILLA D NO. 13		
LOCATION.....	SEC. 33, T25N, R6W		SEC. 15, T26N, R6W			SEC. 14, T26N, R3W		
OWNER.....	MARRION & SABLESS		MURRY, ET AL.			MOBIL OIL CORP.		
COMPLETED.....	02/22/84		05/25/51			04/27/69		
SAMPLED.....	05/22/84		10/05/51			06/17/69		
FORMATION.....	CRET-GALLUP		CRET-U			CRET-PICTURED CLIFFS		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	4679		2857			3748		
WELLHEAD PRESSURE, PSIG.....	1075		NOT GIVEN			778		
OPEN FLOW, MCFD.....	744		NOT GIVEN			1946		
COMPONENT, MOLE PCT								
METHANE.....	74.7		85.2			83.2		
ETHANE.....	14.9		5.9			8.1		
PROPANE.....	6.8		0.8			4.6		
N-BUTANE.....	2.3		0.2			1.0		
ISOBUTANE.....	0.9		0.2			0.5		
N-PENTANE.....	0.7		0.1			0.2		
ISOPENTANE.....	0.6		0.1			0.4		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	1.7		1.1			1.5		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.5		0.2			TRACE		
HELIUM.....	0.06		0.02			0.03		
HEATING VALUE.....	1319		1159			1198		
SPECIFIC GRAVITY.....	0.774		0.668			0.687		
INDEX 4255 SAMPLE 14881			INDEX 4256 SAMPLE 16108			INDEX 4257 SAMPLE 6095		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	RIO ARRIBA		RIO ARRIBA			RIO ARRIBA		
FIELD.....	GAVILAN		GOBERNADOR			HAYSTACK DOME		
WELL NAME.....	JICARILLA 93 NO. 5		SAN JUAN 29-5 UNIT NO. 97			NAVAJO C NO. 1		
LOCATION.....	SEC. 34, T27N, R3W		SEC. 15, T29N, R5W			SEC. 8, T23N, R5W		
OWNER.....	NORTHWEST PIPELINE CORP.		NORTHWEST PIPELINE CORP.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	11/19/75		06/18/80			7-700		
SAMPLED.....	12/28/76		10/22/80			07/10/56		
FORMATION.....	CRET-PICTURED CLIFFS		CRET-PICTURED CLIFFS			MISS-MADISON		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	3922		3782			8070		
WELLHEAD PRESSURE, PSIG.....	949		953			15		
OPEN FLOW, MCFD.....	2088		3047			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	83.7		89.2			1.5		
ETHANE.....	8.6		5.3			0.2		
PROPANE.....	3.9		0.7			0.0		
N-BUTANE.....	0.9		0.7			0.1		
ISOBUTANE.....	0.7		0.4			0.0		
N-PENTANE.....	0.2		0.1			0.0		
ISOPENTANE.....	0.3		0.1			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	1.1		0.9			8.2		
OXYGEN.....	TRACE		0.2			0.2		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			88.1		
HELIUM.....	0.04		TRACE			1.16		
HEATING VALUE.....	1192		1121			41		
SPECIFIC GRAVITY.....	0.681		0.639			1.455		
INDEX 4258 SAMPLE 6472			INDEX 4259 SAMPLE 6473			INDEX 4260 SAMPLE 11740		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	RIO ARRIBA		RIO ARRIBA			RIO ARRIBA		
FIELD.....	JICARILLA		JICARILLA			JICARILLA		
WELL NAME.....	NS-5		NS-5			JICARILLA APACHE NO. 14		
LOCATION.....	SEC. 5, T26N, R4W		SEC. 8, T26N, R4W			SEC. 34, T26N, R5W		
OWNER.....	NORTHWEST PRODUCTION CORP.		NORTHWEST PRODUCTION CORP.			MARATHON OIL CO.		
COMPLETED.....	05/05/57		05/05/57			11/06/68		
SAMPLED.....	01/08/58		01/08/58			01/17/69		
FORMATION.....	CRET-PICTURED CLIFFS		CRET-MESAVERDE			CRET-PICTURED CLIFFS		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	4030		5156			2865		
WELLHEAD PRESSURE, PSIG.....	1000		1070			597		
OPEN FLOW, MCFD.....	37388		2275			2076		
COMPONENT, MOLE PCT								
METHANE.....	87.1		82.8			82.5		
ETHANE.....	6.9		10.1			7.5		
PROPANE.....	3.1		3.9			4.9		
N-BUTANE.....	0.8		1.0			1.1		
ISOBUTANE.....	0.7		0.7			1.0		
N-PENTANE.....	0.1		0.3			0.4		
ISOPENTANE.....	0.2		0.3			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.2		
HEXANES PLUS.....	0.1		0.2			0.4		
NITROGEN.....	0.7		0.0			1.9		
OXYGEN.....	0.1		TRACE			0.2		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.6			0.1		
HELIUM.....	0.02		0.04			TRACE		
HEATING VALUE.....	1155		1110			1213		
SPECIFIC GRAVITY.....	0.654		0.689			0.704		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 4261 11741	INDEX SAMPLE 4262 6077	INDEX SAMPLE 4263 6078
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	RIO ARRIBA		RIO ARRIBA	RIO ARRIBA
FIELD.....	JICARILLA		JICARILLA APACHE AREA	JICARILLA APACHE AREA
WELL NAME.....	JICARILLA APACHE NO. 14		JICARILLA APACHE A NO. 3	JICARILLA APACHE A NO. 3
LOCATION.....	SEC. 34, T26N, R5W		SEC. 23, T25N, R5W	SEC. 23, T25N, R5W
OWNER.....	WARATHON OIL CO.		AMERADA PETROLEUM CORP.	AMERADA PETROLEUM CORP.
COMPLETED.....	11/06/58		11/10/55	11/10/55
SAMPLED.....	01/17/69		05/26/56	05/26/56
FORMATION.....	CRET-DAKOTA		CRET-LA VENTANA	CRET-GRANEROS
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	7042		3784	7132
WELLHEAD PRESSURE, PSIG.....	2340		1475	1350
OPEN FLOW, MCFD.....	5661		NOT GIVEN	1723
COMPONENT, MOLE PCT				
METHANE.....	82.0		85.4	78.2
ETHANE.....	8.6		6.5	10.7
PROPANE.....	3.0		3.9	6.2
N-BUTANE.....	0.9		1.0	1.6
ISOBUTANE.....	0.4		0.7	0.9
N-PENTANE.....	0.2		0.3	0.3
ISOPENTANE.....	0.4		0.4	0.4
CYCLOPENTANE.....	TRACE		0.1	0.1
HEXANES PLUS.....	0.2		0.2	0.2
NITROGEN.....	2.9		1.1	0.6
OXYGEN.....	0.7		TRACE	TRACE
ARGON.....	TRACE		0.0	TRACE
HYDROGEN.....	0.1		0.2	0.2
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.6		0.2	0.5
HELIUM.....	0.07		0.05	0.06
HEATING VALUE.....	1143		1185	1274
SPECIFIC GRAVITY.....	0.685		0.677	0.734
		INDEX SAMPLE 4264 5013	INDEX SAMPLE 4265 5101	INDEX SAMPLE 4266 5076
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	RIO ARRIBA		RIO ARRIBA	RIO ARRIBA
FIELD.....	LARGO CANYON		LINDRETH	NOT GIVEN
WELL NAME.....	M. NICKSON NO. 1		WHITE NO. 1	JICARILLA APACHE
LOCATION.....	SEC. 33, T28N, R7W		SEC. 38, T25N, R2W	SEC. 28, T24N, R5W
OWNER.....	BYRD-FROST, INC.		A. G. HILL OIL PRODUCER	AMERADA PETROLEUM CORP.
COMPLETED.....	11/30/50		1/1/80	1/1/80
SAMPLED.....	03/05/51		11/23/51	09/07/51
FORMATION.....	CRET-U		CRET-PICTURED CLIFFS	CRET-PICTURED CLIFFS
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	4878		3454	2228
WELLHEAD PRESSURE, PSIG.....	820		975	30
OPEN FLOW, MCFD.....	487		600	110
COMPONENT, MOLE PCT				
METHANE.....	81.7		84.7	85.9
ETHANE.....	11.0		6.3	6.2
PROPANE.....	4.5		3.7	3.4
N-BUTANE.....	1.1		0.2	0.6
ISOBUTANE.....	0.6		0.6	1.0
N-PENTANE.....	0.2		0.3	0.1
ISOPENTANE.....	0.1		0.1	0.4
CYCLOPENTANE.....	TRACE		0.1	TRACE
HEXANES PLUS.....	0.2		0.2	0.0
NITROGEN.....	0.0		1.2	2.2
OXYGEN.....	0.1		0.1	0.2
ARGON.....	TRACE		TRACE	TRACE
HYDROGEN.....	0.0		0.0	TRACE
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.4		0.1	0.1
HELIUM.....	0.02		0.03	0.03
HEATING VALUE.....	1223		1172	1145
SPECIFIC GRAVITY.....	0.694		0.676	0.665
		INDEX SAMPLE 4267 5155	INDEX SAMPLE 4268 6223	INDEX SAMPLE 4269 7235
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	RIO ARRIBA		RIO ARRIBA	RIO ARRIBA
FIELD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
WELL NAME.....	S. DULCE NO. 1		CORE DRILL HOLE	EVANS FED. NO. 1
LOCATION.....	SEC. 34, T28N, R2W		SEC. 34, T26N, R3E	SEC. 18, T23N, R1W
OWNER.....	CONTINENTAL OIL CO.		J. SIMON	SOCOMY MOBIL OIL CO., INC.
COMPLETED.....	--/7/00		08/28/56	06/08/59
SAMPLED.....	09/20/51		01/05/57	10/05/59
FORMATION.....	CRET-MESAVERDE		NOT GIVEN	CRET-PICTURED CLIFFS
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	NOT GIVEN		235	2997
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		340	940
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	1093
COMPONENT, MOLE PCT				
METHANE.....	86.2		0.1	75.7
ETHANE.....	1.5		0.1	6.0
PROPANE.....	2.0		0.0	3.0
N-BUTANE.....	0.4		0.0	0.6
ISOBUTANE.....	0.5		0.0	0.8
N-PENTANE.....	0.2		0.0	0.1
ISOPENTANE.....	0.0		0.0	0.5
CYCLOPENTANE.....	0.1		0.0	0.2
HEXANES PLUS.....	1.3		0.2	0.2
NITROGEN.....	1.0		90.4	10.5
OXYGEN.....	0.2		4.9	2.4
ARGON.....	TRACE		1.0	0.1
HYDROGEN.....	0.0		0.0	0.0
HYDROGEN SULFIDE.....	--		0.0	0.0
CARBON DIOXIDE.....	1.5		3.1	0.1
HELIUM.....	0.01		0.0	0.02
HEATING VALUE.....	1121		3	1039
SPECIFIC GRAVITY.....	0.658		0.997	0.713
		INDEX SAMPLE 4270 11950	INDEX SAMPLE 4271 12256	INDEX SAMPLE 4272 16617
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	RIO ARRIBA		RIO ARRIBA	RIO ARRIBA
FIELD.....	NOT GIVEN		NOT GIVEN	QUITO GALLUP
WELL NAME.....	SOUTHERN PETROLEUM COM NO. 4		COM FIELDS NO. 1	FLORANCE NO. 11
LOCATION.....	SEC. 32, T26N, R6W		SEC. 31, T26N, R6W	SEC. 5, T25N, R3W
OWNER.....	U.S. BUREAU OF MINES		R. L. WYLESS	PETRO-LEWIS CORP.
COMPLETED.....	--/7/00		--/7/00	01/1/82
SAMPLED.....	01/07/69		05/03/70	08/10/82
FORMATION.....	CRET-CHACRA		CRET-CHACRA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	NOT GIVEN		3700	8139
WELLHEAD PRESSURE, PSIG.....	439		775	650
OPEN FLOW, MCFD.....	NOT GIVEN		500	500
COMPONENT, MOLE PCT				
METHANE.....	85.7		86.9	73.5
ETHANE.....	7.4		6.7	14.9
PROPANE.....	3.6		3.2	6.0
N-BUTANE.....	0.7		0.7	1.5
ISOBUTANE.....	0.6		0.6	0.9
N-PENTANE.....	0.2		0.1	0.4
ISOPENTANE.....	0.3		0.2	0.4
CYCLOPENTANE.....	0.1		TRACE	0.1
HEXANES PLUS.....	1.2		0.3	0.3
NITROGEN.....	1.1		0.3	0.6
OXYGEN.....	0.0		0.0	TRACE
ARGON.....	0.0		0.0	TRACE
HYDROGEN.....	0.1		TRACE	0.0
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	TRACE		0.1	0.7
HELIUM.....	0.02		0.05	0.05
HEATING VALUE.....	1174		1150	1312
SPECIFIC GRAVITY.....	0.667		0.656	0.761

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 4273 6782	INDEX SAMPLE 4274 6785	INDEX SAMPLE 4275 8762
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	RIO ARriba		RIO ARriba	RIO ARriba
FIELD.....	OTERO		OTERO	OTERO
WELL NAME.....	JICARILLA CONTRACT 148 NO. 9		JICARILLA CONTRACT 146 NO. 9	JICARILLA CONTRACT 146 NO. 14
LOCATION.....	SEC. 13, T25N, R5W		SEC. 10, T25N, R5W	SEC. 9, T25N, R5W
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	03/11/57		08/19/57	09/05/51
SAMPLED.....	07/22/58		07/22/58	11/09/62
FORMATION.....	CRET-GRANEROS		CRET-GRANEROS	CRET-CHACRA
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	7220		7354	3831
WELLHEAD PRESSURE, PSIG.....	2260		2304	926
OPEN FLOW, MCFD.....	1350		251	1309
COMPONENT, MOLE PCT				
METHANE.....	84.3	76.9	85.3	
ETHANE.....	10.3	9.5	7.9	
PROPANE.....	3.1	4.6	3.5	
N-BUTANE.....	0.5	1.4	0.9	
ISOBUTANE.....	0.0	1.4	0.7	
N-PENTANE.....	0.0	0.7	0.4	
ISOPENTANE.....	0.7	1.4	0.4	
CYCLOPENTANE.....	0.0	0.7	0.1	
HEXANES PLUS.....	0.2	2.0	0.2	
NITROGEN.....	0.2	0.0	0.7	
OXYGEN.....	0.1	TRACE	TRACE	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	0.6	0.2	
HELIUM.....	TRACE	0.10	0.02	
HEATING VALUE.....	1176	1381	1185	
SPECIFIC GRAVITY.....	0.671	0.800	0.674	
		INDEX SAMPLE 4276 11939	INDEX SAMPLE 4277 5348	INDEX SAMPLE 4278 7220
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	RIO ARriba		RIO ARriba	RIO ARriba
FIELD.....	OTERO		ROSA UNIT	TAPACITOS
WELL NAME.....	CANYON LARGO UNIT NO. 142		ROSA UNIT NO. 4	W. F. HURT NO. 3
LOCATION.....	SEC. 23, T25N, R6W		SEC. 27, T31N, R4W	SEC. 14, T25N, R3W
OWNER.....	EL PASO NATURAL GAS CO.		COLORADO OIL & GAS CORP.	SKELLY OIL CO.
COMPLETED.....	-7-/00		-7-/00	06/25/59
SAMPLED.....	01/07/69		12/09/69	09/25/59
FORMATION.....	CRET-CHACRA		NOT GIVEN	CRET-PICTURED CLIFFS
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	3372		NOT GIVEN	3904
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	997
OPEN FLOW, MCFD.....	1714		NOT GIVEN	36052
COMPONENT, MOLE PCT				
METHANE.....	85.4	94.8	80.7	
ETHANE.....	6.9	2.8	6.6	
PROPANE.....	3.6	0.7	2.8	
N-BUTANE.....	0.8	0.1	0.6	
ISOBUTANE.....	0.6	0.2	0.5	
N-PENTANE.....	0.3	0.0	TRACE	
ISOPENTANE.....	0.1	0.0	0.5	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.3	TRACE	0.1	
NITROGEN.....	1.5	0.1	6.6	
OXYGEN.....	0.3	TRACE	1.4	
ARGON.....	0.0	TRACE	0.1	
HYDROGEN.....	0.1	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	1.2	0.1	
HELIUM.....	0.27	TRACE	0.01	
HEATING VALUE.....	1166	1039	1076	
SPECIFIC GRAVITY.....	0.667	0.591	0.683	
		INDEX SAMPLE 4279 17120	INDEX SAMPLE 4280 16757	INDEX SAMPLE 4281 4723
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	RIO ARriba		RIO ARriba	RIO ARriba
FIELD.....	UNDESIGNATED		UNDESIGNATED GALLUP	WILDCAT
WELL NAME.....	DIVIDE NO. 1		CHICOSA CANYON NO. 1	ROSA UNIT NO. 1
LOCATION.....	SEC. 35, T26N, R2W		SEC. 35, T31N, R4W	SEC. 11, T31N, R6W
OWNER.....	DUGAN PRODUCTION CORP.		SOUTHLAND ROYALTY CO.	STANOLIND OIL & GAS CO.
COMPLETED.....	05/13/83		09/13/81	06/13/49
SAMPLED.....	10/22/83		01/26/83	06/28/49
FORMATION.....	CRET-MESAVERDE & MANCOS		CRET-GALLUP	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	6234		7532	7865
WELLHEAD PRESSURE, PSIG.....	1465		3140	2900
OPEN FLOW, MCFD.....	825		1321	170
COMPONENT, MOLE PCT				
METHANE.....	80.1	96.1	96.4	
ETHANE.....	10.6	0.2	0.4	
PROPANE.....	5.0	TRACE	0.1	
N-BUTANE.....	1.3	0.0	TRACE	
ISOBUTANE.....	0.9	0.0	0.0	
N-PENTANE.....	0.4	0.0	0.0	
ISOPENTANE.....	0.6	0.0	0.2	
CYCLOPENTANE.....	0.1	0.0	TRACE	
HEXANES PLUS.....	0.2	0.0	0.0	
NITROGEN.....	0.5	0.2	0.5	
OXYGEN.....	TRACE	0.1	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	0.3	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	TRACE	
CARBON DIOXIDE.....	0.3	0.0	2.4	
HELIUM.....	0.02	0.01	0.02	
HEATING VALUE.....	1262	978	994	
SPECIFIC GRAVITY.....	0.721	0.586	0.588	
		INDEX SAMPLE 4282 5246	INDEX SAMPLE 4283 5247	INDEX SAMPLE 4284 5342
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	RIO ARriba		RIO ARriba	RIO ARriba
FIELD.....	WILDCAT		WILDCAT	WILDCAT
WELL NAME.....	HOWELL NO. 2-8		REAMS NO. 1	ABRAHAM NO. 1
LOCATION.....	SEC. 3, T30N, R7W		SEC. 24, T26N, R6W	SEC. 13, T30N, R6W
OWNER.....	EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.
COMPLETED.....	02/04/52		04/15/51	06/30/52
SAMPLED.....	06/23/53		06/23/52	12/04/52
FORMATION.....	CRET-U		CRET-U	CRET-FRUITLAND
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	4969		2325	2955
WELLHEAD PRESSURE, PSIG.....	12170		12170	1468
OPEN FLOW, MCFD.....	800		264	2530
COMPONENT, MOLE PCT				
METHANE.....	90.3	88.0	87.9	
ETHANE.....	6.1	3.1	6.8	
PROPANE.....	1.8	0.6	2.6	
N-BUTANE.....	0.3	0.6	0.7	
ISOBUTANE.....	0.4	0.1	0.7	
N-PENTANE.....	TRACE	0.1	0.3	
ISOPENTANE.....	0.1	0.4	0.1	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.1	TRACE	0.3	
NITROGEN.....	0.0	0.8	TRACE	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	0.0	TRACE	0.0	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.2	0.0	
CARBON DIOXIDE.....	0.8	0.2	0.7	
HELIUM.....	0.01	0.02	0.01	
HEATING VALUE.....	1107	1145	1156	
SPECIFIC GRAVITY.....	0.627	0.650	0.656	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4285 SAMPLE 5400			INDEX 4286 SAMPLE 6323			INDEX 4287 SAMPLE 16168		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	RIO ARRIBA		RIO ARRIBA			RIO ARRIBA		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	HARRINGTON NO. 1		JICARILLA NO. 6-E			FEDERAL NO. 31-12		
LOCATION.....	SEC. 4, T27N, R5W		SEC. 21, T26N, R4W			SEC. 12, T24N, R2W		
OWNER.....	EL PASO NATURAL GAS CO.		SOUTHERN UNION GAS CO.			KENAI OIL & GAS, INC.		
COMPLETED.....	05/21/52		01/06/57			--/--/80		
SAMPLED.....	02/23/53		05/07/57			01/13/81		
FORMATION.....	CRET-DAKOTA		CRET-TOCITO			TERT-NACIMIENTO		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	7708		7140			2380		
WELLHEAD PRESSURE, PSIG.....	2852		1732			520		
OPEN FLOW, MCFD.....	4380		9750			3569		
COMPONENT, MOLE PCT.....								
METHANE.....	93.4	-----	79.1	-----		96.2	-----	
ETHANE.....	3.2	-----	11.9	-----		1.4	-----	
PROPANE.....	0.7	-----	4.0	-----		0.1	-----	
N-BUTANE.....	0.3	-----	1.0	-----		0.1	-----	
ISOBUTANE.....	0.2	-----	0.8	-----		0.1	-----	
N-PENTANE.....	0.2	-----	0.3	-----		0.1	-----	
ISOPENTANE.....	TRACE	-----	0.2	-----		TRACE	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.2	-----	
NITROGEN.....	0.4	-----	1.6	-----		1.7	-----	
OXYGEN.....	TRACE	-----	0.5	-----		0.0	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	1.4	-----	0.5	-----		TRACE	-----	
HELIUM.....	0.02	-----	0.05	-----		0.01	-----	
HEATING VALUE.....	1058	-----	1211	-----		1021	-----	
SPECIFIC GRAVITY.....	0.609	-----	0.710	-----		0.581	-----	

INDEX 4288 SAMPLE 13290			INDEX 4289 SAMPLE 16667			INDEX 4290 SAMPLE 9924		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	ROOSEVELT		ROOSEVELT			ROOSEVELT		
FIELD.....	BLUITT		PETERSON			PRAIRIE S		
WELL NAME.....	LIGHT NO. 1		E-R-8, CRUME NO. 1			FED. N-M, 8 NO. 1		
LOCATION.....	SEC. 15, T8S, R37E		NOT GIVEN			SEC. 21, T8S, R36E		
OWNER.....	TOM L. INGRAM		ENERGY RESERVES GROUP, INC.			ONE STAR PRODUCING CO.		
COMPLETED.....	03/27/71		08/--/81			02/18/64		
SAMPLED.....	07/01/72		09/22/82			06/17/65		
FORMATION.....	PENN-SAN ANDRES		PENN-CISCO			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	4630		7542			12053		
WELLHEAD PRESSURE, PSIG.....	1100		1300			2353		
OPEN FLOW, MCFD.....	500		1600			1420		
COMPONENT, MOLE PCT.....								
METHANE.....	74.9	-----	68.2	-----		75.9	-----	
ETHANE.....	7.3	-----	9.8	-----		12.3	-----	
PROPANE.....	3.3	-----	6.7	-----		5.2	-----	
N-BUTANE.....	0.8	-----	2.4	-----		1.2	-----	
ISOBUTANE.....	0.5	-----	1.1	-----		0.9	-----	
N-PENTANE.....	0.3	-----	0.8	-----		0.1	-----	
ISOPENTANE.....	0.1	-----	0.4	-----		0.3	-----	
CYCLOPENTANE.....	TRACE	-----	0.3	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.8	-----		0.1	-----	
NITROGEN.....	7.2	-----	8.7	-----		3.1	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.1	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.3	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	5.3	-----	0.6	-----		0.7	-----	
HELIUM.....	0.05	-----	0.32	-----		0.07	-----	
HEATING VALUE.....	1046	-----	1263	-----		1217	-----	
SPECIFIC GRAVITY.....	0.737	-----	0.805	-----		0.729	-----	

INDEX 4291 SAMPLE 6407			INDEX 4292 SAMPLE 7568			INDEX 4293 SAMPLE 17088		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	ROOSEVELT		SAN JUAN			SAN JUAN		
FIELD.....	WILDCAT		ANGUS PEAK			ARMENTA		
WELL NAME.....	STATE AE NO. 1		PHILLIPS NO. 2			STATE GAS COM. BZ NO. 1		
LOCATION.....	SEC. 36, T8S, R36E		SEC. 22, T28N, R11W			SEC. 32, T29N, R10W		
OWNER.....	ATLANTIC REFINING CO.		REDFERN & HERD			AMOCO PRODUCTION CO. (USA)		
COMPLETED.....	09/14/57		06/29/59			05/05/83		
SAMPLED.....	10/03/57		06/02/60			10/12/83		
FORMATION.....	PENN-		CRET-DAKOTA			CRET-GALLUP		
GEOLOGIC PROVINCE CODE.....	430		580			580		
DEPTH, FEET.....	9650		6203			5412		
WELLHEAD PRESSURE, PSIG.....	1260		2094			988		
OPEN FLOW, MCFD.....	NOT GIVEN		13950			130		
COMPONENT, MOLE PCT.....								
METHANE.....	61.6	-----	84.7	-----		85.9	-----	
ETHANE.....	14.7	-----	9.4	-----		6.5	-----	
PROPANE.....	10.9	-----	4.3	-----		1.3	-----	
N-BUTANE.....	4.9	-----	0.4	-----		0.7	-----	
ISOBUTANE.....	2.4	-----	1.1	-----		0.0	-----	
N-PENTANE.....	1.2	-----	TRACE	-----		0.0	-----	
ISOPENTANE.....	0.2	-----	0.4	-----		0.3	-----	
CYCLOPENTANE.....	0.2	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.9	-----	0.1	-----		TRACE	-----	
NITROGEN.....	1.5	-----	1.0	-----		2.6	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		2.3	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.4	-----	1.3	-----		0.1	-----	
HELIUM.....	0.02	-----	0.05	-----		0.08	-----	
HEATING VALUE.....	1073	-----	1137	-----		1064	-----	
SPECIFIC GRAVITY.....	0.929	-----	0.664	-----		0.615	-----	

INDEX 4294 SAMPLE 2357			INDEX 4295 SAMPLE 5794			INDEX 4296 SAMPLE 6117		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	AZTEC		AZTEC			AZTEC		
WELL NAME.....	SEC. 2		CALIN NO. 4			MCCLANAHAN NO. 5		
LOCATION.....	SEC. 34, T30N, R11W		SEC. 31, T29N, R9W			SEC. 13, T28N, R10W		
OWNER.....	R. C. OSWELL		AZTEC OIL & GAS CO.			AZTEC OIL & GAS CO.		
COMPLETED.....	--/--/60		11/28/54			03/31/56		
SAMPLED.....	06/07/31		03/18/55			08/01/56		
FORMATION.....	-STRAY SAND		CRET-PICTURED CLIFFS			CRET-PICTURED CLIFFS		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	373		2098			1930		
WELLHEAD PRESSURE, PSIG.....	35		681			646		
OPEN FLOW, MCFD.....	NOT GIVEN		2			4514		
COMPONENT, MOLE PCT.....								
METHANE.....	87.2	-----	90.7	-----		88.1	-----	
ETHANE.....	10.0	-----	5.3	-----		6.5	-----	
PROPANE.....	---	-----	2.0	-----		2.7	-----	
N-BUTANE.....	---	-----	1.4	-----		0.7	-----	
ISOBUTANE.....	---	-----	0.3	-----		0.5	-----	
N-PENTANE.....	---	-----	0.1	-----		0.2	-----	
ISOPENTANE.....	---	-----	0.1	-----		0.3	-----	
CYCLOPENTANE.....	---	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	0.1	-----		0.2	-----	
NITROGEN.....	1.4	-----	0.7	-----		0.1	-----	
OXYGEN.....	0.9	-----	TRACE	-----		TRACE	-----	
ARGON.....	---	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	---	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	---	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.5	-----	0.3	-----		0.7	-----	
HELIUM.....	TRACE	-----	0.01	-----		0.01	-----	
HEATING VALUE.....	1063	-----	1151	-----		1151	-----	
SPECIFIC GRAVITY.....	0.620	-----	0.623	-----		0.654	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 4297 11972	INDEX SAMPLE 4298 12119	INDEX SAMPLE 4299 12182
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN		SAN JUAN	SAN JUAN
FIELD.....	AZTEC		AZTEC	AZTEC
WELL NAME.....	MCCULEY NO. 6		PIERCE NO. 3	EAST NO. 16
LOCATION.....	SEC. 15, T28N, R9W		SEC. 30, T31N, R10W	SEC. 26, T31N, R12W
OWNER.....	EL PASO NATURAL GAS CO.		AZTEC OIL & GAS CO.	AZTEC OIL & GAS CO.
COMPLETED.....	05/08/69		--/--/00	06/21/69
SAMPLED.....	07/09/69		--/--/00	01/30/70
FORMATION.....	CRET-PICTURED CLIFFS		NOT GIVEN	CRET-PICTURED CLIFFS
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	2241		NOT GIVEN	2439
WELLHEAD PRESSURE, PSIG.....	713		NOT GIVEN	619
OPEN FLOW, MCFD.....	3483		NOT GIVEN	5272
COMPONENT, MOLE PCT				
METHANE.....	88.9	89.2	86.3	
ETHANE.....	5.6	5.8	7.6	
PROPANE.....	2.5	2.5	3.4	
N-BUTANE.....	0.6	0.6	0.7	
ISOBUTANE.....	0.4	0.1	0.5	
N-PENTANE.....	0.1	0.3	0.3	
ISOPENTANE.....	0.2	0.3	0.3	
CYCLOPENTANE.....	0.1	0.1	TRACE	
HEXANES PLUS.....	0.2	0.1	0.1	
NITROGEN.....	0.9	0.7	0.7	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	0.0	0.0	
HYDROGEN.....	0.1	0.1	0.2	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.2	TRACE	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1127	1128	1162	
SPECIFIC GRAVITY.....	0.640	0.637	0.656	
		INDEX SAMPLE 4300 17627	INDEX SAMPLE 4301 16452	INDEX SAMPLE 4302 3083
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN		SAN JUAN	SAN JUAN
FIELD.....	AZTEC		AZTEC FRUITLAND	BARKER CREEK
WELL NAME.....	STATE CO. NO. C-6		HANLEY NO. 3	NO. 1
LOCATION.....	SEC. 32, T29N, R9W		SEC. 18, T29N, R10W	SEC. 21, T32N, R14W
OWNER.....	TENNECO OIL EXPL. & PROD. CO.		PETROLEUM CORP. OF TEXAS	SOUTHERN UNION PRODUCTION CO.
COMPLETED.....	03/16/85		10/08/81	01/30/42
SAMPLED.....	--/--/00		03/16/82	02/12/42
FORMATION.....	CRET-CHACRA		CRET-FRUITLAND	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	NOT GIVEN	1654	500	2398
WELLHEAD PRESSURE, PSIG.....	350	4166	675	675
OPEN FLOW, MCFD.....	50		15000	
COMPONENT, MOLE PCT				
METHANE.....	87.0	85.2	85.9	
ETHANE.....	7.1	7.7	12.9	
PROPANE.....	3.1	3.4		
N-BUTANE.....	0.8	0.9		
ISOBUTANE.....	0.6	0.7		
N-PENTANE.....	0.2	0.2		
ISOPENTANE.....	0.2	0.4		
CYCLOPENTANE.....	0.1	0.3		
HEXANES PLUS.....	0.3	1.1	0.5	
NITROGEN.....	0.3	0.0	0.5	
OXYGEN.....	TRACE	0.0		
ARGON.....	0.0	0.0		
HYDROGEN.....	0.0	0.0		
HYDROGEN SULFIDE.....	0.0	0.0		
CARBON DIOXIDE.....	0.3	0.0	0.1	
HELIUM.....	0.01	0.01	0.07	
HEATING VALUE.....	1172	1188	1101	
SPECIFIC GRAVITY.....	0.663	0.676	0.624	
		INDEX SAMPLE 4303 3679	INDEX SAMPLE 4304 3936	INDEX SAMPLE 4305 3956
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN		SAN JUAN	SAN JUAN
FIELD.....	BARKER CREEK		BARKER CREEK	BARKER CREEK
WELL NAME.....	CREVICE NEAR FAULT		BARKER NO. 9	BARKER NO. 9
LOCATION.....	SEC. 16, T32N, R14W		SEC. 21, T32N, R14W	SEC. 21, T32N, R14W
OWNER.....	SOUTHERN UNION GAS CO.		SOUTHERN UNION GAS CO.	SOUTHERN UNION GAS CO.
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	--/--/00		01/21/45	02/01/45
FORMATION.....	NOT GIVEN		PENN-DOLomite	PENN-DOLomite
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	NOT GIVEN	8443	8630	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	50	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT				
METHANE.....	0.2	86.7	86.1	
ETHANE.....	0.6	2.4		
PROPANE.....				
N-BUTANE.....				
ISOBUTANE.....				
N-PENTANE.....				
ISOPENTANE.....				
CYCLOPENTANE.....				
HEXANES PLUS.....				
NITROGEN.....	83.5	0.1	2.5	
OXYGEN.....	0.0	0.2		
ARGON.....				
HYDROGEN.....				
HYDROGEN SULFIDE.....				
CARBON DIOXIDE.....	15.5	10.4	8.6	
HELIUM.....	TRACE	0.23	0.27	
HEATING VALUE.....	16	921	917	
SPECIFIC GRAVITY.....	1.054	0.668	0.660	
		INDEX SAMPLE 4306 4064	INDEX SAMPLE 4307 4292	INDEX SAMPLE 4308 4685
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN		SAN JUAN	SAN JUAN
FIELD.....	BARKER CREEK		BARKER CREEK	BARKER CREEK
WELL NAME.....	BARKER CREEK NO. 11		BARKER NO. 18	SOUTHERN UNION NO. 19
LOCATION.....	SEC. 16, T32N, R14W		SEC. 11, T32N, R14W	SEC. 21, T32N, R14W
OWNER.....	SOUTHERN UNION GAS CO.		DELTA OIL CORP.	SOUTHERN UNION GAS CO.
COMPLETED.....	09/06/45		04/05/47	03/17/49
SAMPLED.....	08/24/45		04/21/47	04/05/49
FORMATION.....	PENN-PARADOX		PENN-	PENN-
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	8660	8925	8885	
WELLHEAD PRESSURE, PSIG.....	2940	3000	2770	
OPEN FLOW, MCFD.....	27000	74800	63000	
COMPONENT, MOLE PCT				
METHANE.....	78.7	85.3	80.2	
ETHANE.....	6.8	4.0	1.2	
PROPANE.....			1.5	
N-BUTANE.....			0.2	
ISOBUTANE.....			0.0	
N-PENTANE.....			0.1	
ISOPENTANE.....			0.2	
CYCLOPENTANE.....			TRACE	
HEXANES PLUS.....			0.0	
NITROGEN.....	2.1	1.5	1.7	
OXYGEN.....	0.0	0.5	0.1	
ARGON.....			TRACE	
HYDROGEN.....			0.2	
HYDROGEN SULFIDE.....				
CARBON DIOXIDE.....	12.1	8.5	15.5	
HELIUM.....	0.25	0.20	0.20	
HEATING VALUE.....	919	936	865	
SPECIFIC GRAVITY.....	0.713	0.665	0.732	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4309 9017	INDEX SAMPLE	4310 6572	INDEX SAMPLE	4311 6702
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BARKER CREEK			BASIN DAKOTA		BASIN DAKOTA	
WELL NAME.....	NATION NO. 1			P. L. DAVIS NO. 1		VIERSON NO. 1	
LOCATION.....	SEC. 7, T31N, R19W			SEC. 26, T26N, R11W		SEC. 19, T30N, R13W	
OWNER.....	MONSANTO CHEMICAL CO.			SKELLY OIL CO.		MONSANTO CHEMICAL CO.	
COMPLETED.....	06/05/63			12/27/57		12/03/57	
SAMPLED.....	06/06/63			04/19/58		7/1/60	
FORMATION.....	PENN-PARADOX			CRET-DAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6504			6176		5974	
WELLHEAD PRESSURE, PSIG.....	15			1729		1962	
OPEN FLOW, MCFD.....	1622			1900		5620	
COMPONENT, MOLE PCT.....							
METHANE.....	91.7	-----		80.4	-----	81.6	-----
ETHANE.....	3.0	-----		10.9	-----	10.3	-----
PROPANE.....	1.1	-----		4.1	-----	4.2	-----
N-BUTANE.....	0.7	-----		0.9	-----	1.2	-----
ISOBUTANE.....	0.2	-----		0.8	-----	0.9	-----
N-PENTANE.....	0.4	-----		0.1	-----	0.2	-----
ISOPENTANE.....	TRACE	-----		0.3	-----	0.5	-----
CYCLOPENTANE.....	0.2	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.6	-----		0.1	-----	0.3	-----
NITROGEN.....	1.5	-----		1.9	-----	0.4	-----
OXYGEN.....	0.1	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.4	-----	0.0	-----
HELIUM.....	0.20	-----		0.10	-----	0.20	-----
HEATING VALUE.....	1097	-----		1196	-----	1240	-----
SPECIFIC GRAVITY.....	0.629	-----		0.697	-----	0.702	-----
		INDEX SAMPLE	4312 6780	INDEX SAMPLE	4313 6781	INDEX SAMPLE	4314 6783
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BASIN DAKOTA			BASIN DAKOTA		BASIN DAKOTA	
WELL NAME.....	O. H. RANDEL A NO. 1			J. C. GORDON D NO. 1		MARTIN GU NO. 1	
LOCATION.....	SEC. 9, T26N, R11W			SEC. 9, T27N, R10W		SEC. 19, T27N, R10W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	04/29/58			10/18/52		03/17/52	
SAMPLED.....	08/12/58			07/18/58		07/18/58	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6186			6492		6648	
WELLHEAD PRESSURE, PSIG.....	1029			1029		1339	
OPEN FLOW, MCFD.....	5864			1120		2863	
COMPONENT, MOLE PCT.....							
METHANE.....	78.1	-----		79.8	-----	81.3	-----
ETHANE.....	3.7	-----		11.3	-----	11.3	-----
PROPANE.....	3.1	-----		4.3	-----	3.9	-----
N-BUTANE.....	1.5	-----		1.1	-----	0.6	-----
ISOBUTANE.....	1.3	-----		0.3	-----	1.0	-----
N-PENTANE.....	1.3	-----		0.0	-----	0.0	-----
ISOPENTANE.....	1.7	-----		0.5	-----	0.7	-----
CYCLOPENTANE.....	0.4	-----		0.1	-----	0.0	-----
HEXANES PLUS.....	1.5	-----		0.4	-----	0.2	-----
NITROGEN.....	0.6	-----		0.3	-----	0.1	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		0.7	-----	0.9	-----
HELIUM.....	0.10	-----		0.4	-----	0.10	-----
HEATING VALUE.....	1356	-----		1249	-----	1221	-----
SPECIFIC GRAVITY.....	0.785	-----		0.718	-----	0.701	-----
		INDEX SAMPLE	4315 6784	INDEX SAMPLE	4316 7012	INDEX SAMPLE	4317 8049
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BASIN DAKOTA			BASIN DAKOTA		BASIN DAKOTA	
WELL NAME.....	G. L. DAVIES NO. 1			HUEFANO 103 D		PUBLICO STATE NO. 29	
LOCATION.....	SEC. 27, T28N, R13W			SEC. 3, T26N, R10W		SEC. 36, T29N, R10W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			EL PASO NATURAL GAS CO.		PUBLICO PETROLEUM CORP.	
COMPLETED.....	12/08/56			07/08/58		06/04/61	
SAMPLED.....	07/08/58			03/24/59		07/03/61	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6195			6880		6462	
WELLHEAD PRESSURE, PSIG.....	1674			1714		1971	
OPEN FLOW, MCFD.....	1141			5303		10313	
COMPONENT, MOLE PCT.....							
METHANE.....	85.7	-----		81.1	-----	78.6	-----
ETHANE.....	7.7	-----		11.1	-----	12.8	-----
PROPANE.....	2.6	-----		0.0	-----	4.7	-----
N-BUTANE.....	0.7	-----		0.7	-----	1.0	-----
ISOBUTANE.....	0.6	-----		0.4	-----	1.0	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.4	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	0.2	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.5	-----		0.3	-----	0.2	-----
NITROGEN.....	0.5	-----		1.1	-----	0.1	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		0.8	-----	1.1	-----
HELIUM.....	0.10	-----		0.10	-----	0.04	-----
HEATING VALUE.....	1174	-----		1110	-----	1242	-----
SPECIFIC GRAVITY.....	0.674	-----		0.690	-----	0.718	-----
		INDEX SAMPLE	4318 8111	INDEX SAMPLE	4319 8185	INDEX SAMPLE	4320 8416
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BASIN DAKOTA			BASIN DAKOTA		BASIN DAKOTA	
WELL NAME.....	GALLEGO CANYON UNIT NO. 89			HEMNER NO. 6-A		NAVAJO NO. 2	
LOCATION.....	SEC. 6, T27N, R12W			SEC. 31, T27N, R9W		SEC. 28, T26N, R11W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			EL PASO NATURAL GAS CO.		DELHI-TAYLOR OIL CORP.	
COMPLETED.....	05/31/61			06/28/61		10/26/59	
SAMPLED.....	08/24/61			08/24/61		02/24/62	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		CRET-	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	5957			6472		5958	
WELLHEAD PRESSURE, PSIG.....	2113			2054		1376	
OPEN FLOW, MCFD.....	11381			8778		4050	
COMPONENT, MOLE PCT.....							
METHANE.....	87.0	-----		59.8	-----	80.0	-----
ETHANE.....	8.2	-----		13.8	-----	11.8	-----
PROPANE.....	2.5	-----		9.8	-----	4.2	-----
N-BUTANE.....	0.5	-----		5.3	-----	0.8	-----
ISOBUTANE.....	0.4	-----		3.6	-----	0.6	-----
N-PENTANE.....	0.1	-----		2.1	-----	0.1	-----
ISOPENTANE.....	0.1	-----		1.9	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.4	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		1.9	-----	0.1	-----
NITROGEN.....	0.4	-----		0.4	-----	1.5	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.2	-----	0.4	-----
HELIUM.....	0.10	-----		0.04	-----	0.06	-----
HEATING VALUE.....	1146	-----		1681	-----	1200	-----
SPECIFIC GRAVITY.....	0.651	-----		0.995	-----	0.695	-----

** CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4321 SAMPLE 11394		INDEX 4322 SAMPLE 11684		INDEX 4323 SAMPLE 14928	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN	SAN JUAN		SAN JUAN	
FIELD.....	BASIN DAKOTA	BASIN DAKOTA		BASIN DAKOTA	
WELL NAME.....	PRICE NO. 2	FED. GAS CON L NO. 1		STATE 16 NO. 1	
LOCATION.....	SEC. 17, T28N, R8W	SEC. 14, T30N, R11W		SEC. 16, T26N, R 8W	
OWNER.....	JEROME P. MCNUGH	PAN AMERICAN PETROLEUM CORP.		PALMER OIL & GAS CO.	
COMPLETED.....	11/14/67	10/07/68		09/17/76	
SAMPLED.....	03/19/68	11/19/68		03/02/77	
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580	580		580	
DEPTH, FEET.....	7450	6759		6664	
WELLHEAD PRESSURE, PSIG.....	2155	2077		1872	
OPEN FLOW, MCFD.....	1567	6898		2825	
COMPONENT, MOLE PCT					
METHANE.....	74.7	89.7		76.8	
ETHANE.....	10.2	0.7		13.2	
PROPANE.....	3.5	1.4		5.7	
N-BUTANE.....	0.8	0.4		1.2	
ISOBUTANE.....	0.2	0.4		0.6	
N-PENTANE.....	0.3	0.3		0.2	
ISOPENTANE.....	0.1	0.1		0.3	
CYCLOPENTANE.....	TRACE	0.2		0.1	
HEXANES PLUS.....	0.2	0.6		0.2	
NITROGEN.....	7.0	0.5		0.9	
OXYGEN.....	1.5	0.1		0.0	
ARGON.....	0.1	TRACE		TRACE	
HYDROGEN.....	0.0	TRACE		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.9	0.6		0.7	
HELIUM.....	0.02	0.04		0.07	
HEATING VALUE.....	1105	1112		1258	
SPECIFIC GRAVITY.....	0.720	0.648		0.731	
INDEX 4324 SAMPLE 17741		INDEX 4325 SAMPLE 6566		INDEX 4326 SAMPLE 13011	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN	SAN JUAN		SAN JUAN	
FIELD.....	BASIN DAKOTA	BASIN DAKOTA		BASIN PICTURED CLIFFS	
WELL NAME.....	GALLEGOS CANYON NO. 89-E	P. L. DAVIS NO. 1		SUNRAY-B NO. 4	
LOCATION.....	SEC. 6, T27N, R12W	SEC. 26, T26N, R11W		SEC. 1, T30N, R10W	
OWNER.....	ARCO PRODUCTION CO.	SHELL OIL CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	03/09/85	12/27/57		05/13/71	
SAMPLED.....	07/05/85	04/19/58		09/17/71	
FORMATION.....	CRET-DAKOTA	CRET-GALLUP		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580	580		580	
DEPTH, FEET.....	5900	5332		3338	
WELLHEAD PRESSURE, PSIG.....	510	1257		925	
OPEN FLOW, MCFD.....	1373	1400		7282	
COMPONENT, MOLE PCT					
METHANE.....	80.5	80.3		82.8	
ETHANE.....	9.6	11.1		3.4	
PROPANE.....	2.3	0.7		2.2	
N-BUTANE.....	1.3	0.9		0.5	
ISOBUTANE.....	0.9	0.7		0.5	
N-PENTANE.....	0.3	0.2		0.2	
ISOPENTANE.....	0.4	0.2		0.1	
CYCLOPENTANE.....	0.1	0.1		TRACE	
HEXANES PLUS.....	0.2	0.2		0.1	
NITROGEN.....	1.1	1.6		6.2	
OXYGEN.....	0.1	TRACE		1.4	
ARGON.....	TRACE	TRACE		0.1	
HYDROGEN.....	TRACE	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.3	0.5		0.6	
HELIUM.....	0.02	0.10		0.0	
HEATING VALUE.....	1243	1204		1037	
SPECIFIC GRAVITY.....	0.717	0.700		0.663	
INDEX 4327 SAMPLE 13012		INDEX 4328 SAMPLE 13375		INDEX 4329 SAMPLE 13468	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN	SAN JUAN		SAN JUAN	
FIELD.....	BASIN PICTURED CLIFFS	BASIN PICTURED CLIFFS		BASIN PICTURED CLIFFS	
WELL NAME.....	SUNRAY-B	DAY NO. 6		HORTON NO. 3	
LOCATION.....	SEC. 1, T30N, R10W	SEC. 17, T29N, R8W		SEC. 35, T32N, R11W	
OWNER.....	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	08/05/71	08/02/71		07/25/72	
SAMPLED.....	09/17/71	09/01/72		11/06/72	
FORMATION.....	CRET-PICTURED CLIFFS	CRET-PICTURED CLIFFS		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580	580		580	
DEPTH, FEET.....	3223	2996		2861	
WELLHEAD PRESSURE, PSIG.....	925	993		964	
OPEN FLOW, MCFD.....	5397	3695		2613	
COMPONENT, MOLE PCT					
METHANE.....	89.3	91.0		87.1	
ETHANE.....	5.8	4.9		7.2	
PROPANE.....	2.4	0.5		0.0	
N-BUTANE.....	0.5	0.5		0.7	
ISOBUTANE.....	0.5	0.5		0.6	
N-PENTANE.....	0.1	0.2		0.3	
ISOPENTANE.....	0.1	0.2		TRACE	
CYCLOPENTANE.....	TRACE	0.1		0.1	
HEXANES PLUS.....	0.1	0.2		0.2	
NITROGEN.....	0.6	0.1		0.1	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.0	0.0		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.6	0.3		0.7	
HELIUM.....	0.01	TRACE		0.01	
HEATING VALUE.....	1111	1127		1160	
SPECIFIC GRAVITY.....	0.637	0.632		0.660	
INDEX 4330 SAMPLE 9829		INDEX 4331 SAMPLE 9828		INDEX 4332 SAMPLE 9830	
STATE.....	NEW MEXICO	NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN	SAN JUAN		SAN JUAN	
FIELD.....	BEAUTIFUL MOUNTAIN	BEAUTIFUL MOUNTAIN AREA		BEAUTIFUL MOUNTAIN AREA	
WELL NAME.....	NAVAJO TRACT NO. 381 NO. 1	NAVAJO TRACT NO. 381 NO. 1		NAVAJO TRACT NO. 381 NO. 1	
LOCATION.....	SEC. 5, T26N, R19W	SEC. 5, T26N, R19W		SEC. 5, T26N, R19W	
OWNER.....	AMERADA PETROLEUM CORP.	AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.	
COMPLETED.....	04/09/65	04/09/65		04/09/65	
SAMPLED.....	04/09/65	04/23/65		03/30/65	
FORMATION.....	MISS--	PENN-HERMOSA		PENN-HERMOSA	
GEOLOGIC PROVINCE CODE.....	580	580		580	
DEPTH, FEET.....	5812	4864		5560	
WELLHEAD PRESSURE, PSIG.....	3274	2692		3233	
OPEN FLOW, MCFD.....	243	105		16	
COMPONENT, MOLE PCT					
METHANE.....	1.7	26.4		8.0	
ETHANE.....	0.1	2.4		0.8	
PROPANE.....	0.5	1.2		0.5	
N-BUTANE.....	0.0	0.6		0.2	
ISOBUTANE.....	0.0	0.2		0.1	
N-PENTANE.....	0.0	0.3		0.1	
ISOPENTANE.....	0.0	0.1		0.1	
CYCLOPENTANE.....	0.0	0.1		TRACE	
HEXANES PLUS.....	0.0	0.5		0.2	
NITROGEN.....	92.2	63.7		83.8	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.9	0.6		0.8	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.5	TRACE		0.0	
HELIUM.....	4.10	3.83		5.42	
HEATING VALUE.....	1119	1127		137	
SPECIFIC GRAVITY.....	0.936	0.866		0.907	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4333 9847	INDEX SAMPLE	4334 9848	INDEX SAMPLE	4335 17089
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BEAUTIFUL MOUNTAIN AREA			BEAUTIFUL MOUNTAIN AREA		BEAUTIFUL MOUNTAIN N	
WELL NAME.....	NAVAJO TRACT NO. 381 NO. 1			NAVAJO TRACT NO. 381 NO. 1		NAVAJO NO. 2-32	
LOCATION.....	SEC. 5, T26N, R19W			SEC. 5, T26N, R19W		SEC. 32, T27N, R19W	
OWNER.....	AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.		PETROLEUM ENERGY, INC.	
COMPLETED.....	04/08/65			04/08/65		--/--/00	
SAMPLED.....	04/06/65			04/08/65		10/13/83	
FORMATION.....	DEVON-NCRACKEN			DEVON-ANCHETH		WYSS	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6100			6230		6022	
WELLHEAD PRESSURE, PSIG.....	3368			308		2200	
OPEN FLOW, MCFD.....	87			NOT GIVEN		1500	
COMPONENT, MOLE PCT							
METHANE.....	1-3	-----		1-4	-----	41-2	-----
ETHANE.....	0-1	-----		0-3	-----	4-3	-----
PROpane.....	0-1	-----		0-4	-----	1-9	-----
N-BUTANE.....	0-1	-----		0-4	-----	0-7	-----
ISOBUTANE.....	0-1	-----		0-2	-----	0-4	-----
N-PENTANE.....	TRACE	-----		0-3	-----	0-2	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	0-2	-----
CYCLOPENTANE.....	TRACE	-----		0-1	-----	TRACE	-----
HEXANES PLUS.....	0-1	-----		0-5	-----	0-1	-----
NITROGEN.....	93-2	-----		91-1	-----	45-6	-----
OXYGEN.....	0-0	-----		TRACE	-----	0-0	-----
ARGON.....	0-0	-----		0-9	-----	0-9	-----
HYDROGEN.....	0-0	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0-0	-----		0-0	-----	0-0	-----
CARBON DIOXIDE.....	0-0	-----		TRACE	-----	0-9	-----
HELIUM.....	4-05	-----		4-16	-----	4-05	-----
HEATING VALUE.....	29	-----		98	-----	603	-----
SPECIFIC GRAVITY.....	0.936	-----		0.957	-----	0.805	-----
		INDEX SAMPLE	4336 6076	INDEX SAMPLE	4337 6169	INDEX SAMPLE	4338 6170
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BISTI			BISTI		BISTI	
WELL NAME.....	KELLY STATE NO. 1			NEW MEXICO FED. B NO. 3		NEW MEXICO FED. C NO. 15	
LOCATION.....	SEC. 16, T25N, R12W			SEC. 16, T25N, R12W		SEC. 8, T25N, R12W	
OWNER.....	EL PASO NATURAL GAS CO.			SUNRAY MID-CONTINENT OIL CO.		SUNRAY MID-CONTINENT OIL CO.	
COMPLETED.....	09/22/55			07/15/56		07/21/56	
SAMPLED.....	05/29/56			10/21/56		10/21/56	
FORMATION.....	CRET-GALLUP			CRET-GALLUP L		CRET-GALLUP L	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	4725			4795		4790	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	79-2	-----		63-7	-----	44-2	-----
ETHANE.....	11-1	-----		12-6	-----	15-8	-----
PROpane.....	5-7	-----		0-7	-----	0-9	-----
N-BUTANE.....	0-9	-----		3-3	-----	6-9	-----
ISOBUTANE.....	0-3	-----		3-3	-----	6-8	-----
N-PENTANE.....	0-2	-----		0-2	-----	0-0	-----
ISOPENTANE.....	0-2	-----		2-7	-----	4-7	-----
CYCLOPENTANE.....	0-1	-----		0-2	-----	0-4	-----
HEXANES PLUS.....	0-2	-----		0-3	-----	0-3	-----
NITROGEN.....	1-6	-----		0-9	-----	0-5	-----
OXYGEN.....	TRACE	-----		0-0	-----	0-0	-----
ARGON.....	TRACE	-----		0-1	-----	0-2	-----
HYDROGEN.....	0-3	-----		0-3	-----	0-3	-----
HYDROGEN SULFIDE.....	0-0	-----		0-0	-----	0-0	-----
CARBON DIOXIDE.....	0-3	-----		1-8	-----	3-0	-----
HELIUM.....	0-03	-----		0-05	-----	0-02	-----
HEATING VALUE.....	1221	-----		1-89	-----	1-62	-----
SPECIFIC GRAVITY.....	0.708	-----		0.883	-----	1-106	-----
		INDEX SAMPLE	4339 6410	INDEX SAMPLE	4340 6479	INDEX SAMPLE	4341 6940
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BISTI			BISTI		BISTI	
WELL NAME.....	ES-KA-WEL-E-WOOD NO. 2			BLACKROCK FED. NO. 1		CARSON 113-17	
LOCATION.....	SEC. 22, T25N, R11W			SEC. 20, T26N, R11W		SEC. 17, T25N, R11W	
OWNER.....	SUNRAY MID-CONTINENT OIL CO.			GULF OIL CORP.		SHELL OIL CO.	
COMPLETED.....	05/10/57			02/17/57		--/--/00	
SAMPLED.....	09/10/57			01/14/58		03/03/59	
FORMATION.....	CRET-GALLUP L			CRET-GALLUP		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	4906			4036		5980	
WELLHEAD PRESSURE, PSIG.....	1340			1232		NOT GIVEN	
OPEN FLOW, MCFD.....	9000			970		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	72-0	-----		81-8	-----	76-5	-----
ETHANE.....	8-0	-----		8-6	-----	13-1	-----
PROpane.....	5-2	-----		4-3	-----	4-8	-----
N-BUTANE.....	1-1	-----		0-5	-----	0-1	-----
ISOBUTANE.....	1-7	-----		0-6	-----	0-8	-----
N-PENTANE.....	2-0	-----		0-2	-----	0-3	-----
ISOPENTANE.....	0-9	-----		0-2	-----	0-4	-----
CYCLOPENTANE.....	0-9	-----		0-2	-----	0-1	-----
HEXANES PLUS.....	2-3	-----		0-9	-----	0-5	-----
NITROGEN.....	1-2	-----		1-2	-----	1-2	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0-0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0-0	-----		0-0	-----	1-1	-----
HYDROGEN SULFIDE.....	0-0	-----		0-0	-----	0-0	-----
CARBON DIOXIDE.....	0-9	-----		0-0	-----	0-0	-----
HELIUM.....	0-10	-----		0-10	-----	0-10	-----
HEATING VALUE.....	1512	-----		1226	-----	1261	-----
SPECIFIC GRAVITY.....	0.889	-----		0.710	-----	0.723	-----
		INDEX SAMPLE	4342 2000	INDEX SAMPLE	4343 2257	INDEX SAMPLE	4344 4618
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	NO. 1			NO. 1		ANNIE L. ELLIOT NO. B-1	
LOCATION.....	SEC. 29, T30N, R9W			SEC. 29, T30N, R9W		SEC. 14, T29N, R9W	
OWNER.....	DOROTHY OIL CO.			DOROTHY OIL CO.		STANDILIND OIL & GAS CO.	
COMPLETED.....	--/--/28			10/01/25		08/24/48	
SAMPLED.....	06/02/30			01/17/31		11/11/48	
FORMATION.....	CRET-FARMINGTON			NOT GIVEN		CRET-	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	2515			4152		4900	
WELLHEAD PRESSURE, PSIG.....	1200			1200		1212	
OPEN FLOW, MCFD.....	230			600		3300	
COMPONENT, MOLE PCT							
METHANE.....	73-3	-----		66-2	-----	11-3	-----
ETHANE.....	25-7	-----		32-9	-----	86-7	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	0-2	-----		0-4	-----	1-5	-----
OXYGEN.....	0-3	-----		0-0	-----	0-3	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0-6	-----		0-6	-----	0-5	-----
HELIUM.....	TRACE	-----		0-02	-----	TRACE	-----
HEATING VALUE.....	1203	-----		1260	-----	1663	-----
SPECIFIC GRAVITY.....	0.690	-----		0.724	-----	0.995	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4345 4654	INDEX SAMPLE	4346 4784	INDEX SAMPLE	4347 4789
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	DELHI-RIDDLE-FED. NO. 1			RIDDLE-FED. NO. 2		CAIN NO. 3	
LOCATION.....	SEC. 21, T30N, R9W			SEC. 17, T30N, R9W		SEC. 30, T29N, R9W	
OWNER.....	DELHI OIL CORP., ET AL.			DELHI OIL CORP.		SOUTHERN UNION PRODUCTION CO	
COMPLETED.....	02/02/49			07/06/49		-/-/00	
SAMPLED.....	03/06/49			09/18/49		06/13/49	
FORMATION.....	NOT GIVEN			CRET-POINT LOOKOUT		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	4905			4895		4700	
WELLHEAD PRESSURE, PSIG.....	1090			1092		1008	
OPEN FLOW, MCFD.....	9000			15560		500	
COMPONENT, MOLE PCT.....							
METHANE.....	84.9	-----		82.6	-----	79.1	-----
ETHANE.....	8.8	-----		9.8	-----	11.9	-----
PROPANE.....	0.2	-----		3.9	-----	5.2	-----
N-BUTANE.....	0.8	-----		1.0	-----	1.5	-----
ISOBUTANE.....	0.3	-----		0.5	-----	0.7	-----
N-PENTANE.....	0.0	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.3	-----		0.2	-----	0.4	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.0	-----		0.2	-----	0.0	-----
NITROGEN.....	0.8	-----		0.7	-----	0.8	-----
OXYGEN.....	0.2	-----		0.1	-----	0.1	-----
ARGON.....	0.0	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.6	-----		0.5	-----	0.4	-----
HELIUM.....	0.04	-----		0.03	-----	0.03	-----
HEATING VALUE.....	1154	-----		1156	-----	1241	-----
SPECIFIC GRAVITY.....	0.662	-----		0.685	-----	0.718	-----
		INDEX SAMPLE	4348 5027	INDEX SAMPLE	4349 5224	INDEX SAMPLE	4350 5299
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	ATLANTIC-FED. NO. 1			CATHERINE F. MOORE NO. 1		JERNIGAN NO. 1	
LOCATION.....	SEC. 25, T31N, R10W			SEC. 8, T30S, R8W		SEC. 24, T27N, R9W	
OWNER.....	DELHI OIL CORP.			DELHI OIL CORP.		AZTEC OIL & GAS CO.	
COMPLETED.....	10/13/50			02/16/51		06/18/52	
SAMPLED.....	03/27/51			03/24/52		10/27/52	
FORMATION.....	NOT GIVEN			CRET-POINT LOOKOUT		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	4945			5435		2029	
WELLHEAD PRESSURE, PSIG.....	1040			NOT GIVEN		599	
OPEN FLOW, MCFD.....	1000			555		627	
COMPONENT, MOLE PCT.....							
METHANE.....	89.6	-----		85.0	-----	88.2	-----
ETHANE.....	6.1	-----		8.3	-----	5.7	-----
PROPANE.....	1.9	-----		3.4	-----	2.6	-----
N-BUTANE.....	0.9	-----		0.5	-----	0.7	-----
ISOBUTANE.....	0.3	-----		0.7	-----	0.7	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.3	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		TRACE	-----	0.1	-----
NITROGEN.....	0.0	-----		0.8	-----	1.5	-----
OXYGEN.....	0.3	-----		0.1	-----	0.2	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	1.1	-----		0.6	-----	0.1	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1110	-----		1159	-----	1124	-----
SPECIFIC GRAVITY.....	0.633	-----		0.666	-----	0.644	-----
		INDEX SAMPLE	4351 5300	INDEX SAMPLE	4352 5303	INDEX SAMPLE	4353 5305
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	WHITLEY NO. 1-A			MANSFIELD NO. 1		SCHWERTFEGER NO. 2	
LOCATION.....	SEC. 17, T32N, R11W			SEC. 29, T30N, R9W		SEC. 27, T31N, R9W	
OWNER.....	AZTEC OIL & GAS CO.			EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	06/01/52			07/14/52		07/11/52	
SAMPLED.....	10/27/52			10/17/52		10/17/52	
FORMATION.....	CRET-PICTURED CLIFFS			CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	1860			4178		4847	
WELLHEAD PRESSURE, PSIG.....	1162			1012		1095	
OPEN FLOW, MCFD.....	116			303		1006	
COMPONENT, MOLE PCT.....							
METHANE.....	89.6	-----		85.0	-----	84.9	-----
ETHANE.....	5.7	-----		7.1	-----	7.5	-----
PROPANE.....	2.4	-----		2.8	-----	2.8	-----
N-BUTANE.....	0.6	-----		0.8	-----	0.8	-----
ISOBUTANE.....	0.4	-----		0.9	-----	0.6	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.3	-----
ISOPENTANE.....	TRACE	-----		0.5	-----	0.4	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	0.2	-----
HEXANES PLUS.....	0.6	-----		0.2	-----	0.5	-----
NITROGEN.....	0.0	-----		2.0	-----	1.0	-----
OXYGEN.....	0.0	-----		0.0	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.4	-----	0.9	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1115	-----		1149	-----	1178	-----
SPECIFIC GRAVITY.....	0.630	-----		0.671	-----	0.684	-----
		INDEX SAMPLE	4354 5319	INDEX SAMPLE	4355 5320	INDEX SAMPLE	4356 5333
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	UTE NO. 1-B			LAWSON NO. 1		SHANE G.U. NO. 1	
LOCATION.....	SEC. 11, T32N, R11W			SEC. 12, T31N, R11W		SEC. 14, T29N, R9W	
OWNER.....	SOUTHERN UNION GAS CO.			AZTEC OIL & GAS CO.		STANOLIND OIL & GAS CO.	
COMPLETED.....	07/26/52			04/18/52		07/05/52	
SAMPLED.....	11/15/52			11/15/52		11/22/52	
FORMATION.....	CRET-POINT LOOKOUT			CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	5175			4256		4625	
WELLHEAD PRESSURE, PSIG.....	1930			1700		1998	
OPEN FLOW, MCFD.....	1930			6800		2610	
COMPONENT, MOLE PCT.....							
METHANE.....	89.9	-----		83.6	-----	87.5	-----
ETHANE.....	8.9	-----		7.7	-----	6.7	-----
PROPANE.....	1.7	-----		2.8	-----	2.7	-----
N-BUTANE.....	0.3	-----		0.8	-----	0.7	-----
ISOBUTANE.....	0.3	-----		0.4	-----	0.6	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.3	-----
ISOPENTANE.....	0.0	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.3	-----
NITROGEN.....	0.3	-----		2.6	-----	0.5	-----
OXYGEN.....	0.1	-----		0.2	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.0	-----	0.5	-----
HELIUM.....	TRACE	-----		0.01	-----	0.16	-----
HEATING VALUE.....	1090	-----		1129	-----	1156	-----
SPECIFIC GRAVITY.....	0.627	-----		0.679	-----	0.658	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4357 5334	INDEX SAMPLE	4358 6708	INDEX SAMPLE	4359 8171
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	E. E. ELLIOTT B NO. 1			BLANCO NO. 3		VALENTINE G.U. NO. 1	
LOCATION.....	SEC. 27, T30N, R9W			SEC. 35, T31N, R8W		SEC. 32, T32N, R10W	
OWNER.....	STANOLIND OIL & GAS CO.			PACIFIC NORTHWEST PIPELINE		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	07/10/52			02/24/58		10/--/53	
SAMPLED.....	11/22/52			07/14/58		08/09/61	
FORMATION.....	CRET-MESAVERDE			CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	4144			5092		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1071			1048		227	
OPEN FLOW, MCFD.....	5020			6362		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	55.4			91.9		87.0	
ETHANE.....	21.0			4.5		7.4	
PROPANE.....	15.0			1.5		2.5	
N-BUTANE.....	3.6			0.3		0.7	
ISOBUTANE.....	2.4			0.2		0.6	
N-PENTANE.....	0.8			0.1		0.1	
ISOPENTANE.....	0.4			0.1		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.5			0.2		0.2	
NITROGEN.....	0.0			0.0		0.4	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.9		0.7	
HELIUM.....	TRACE			0.01		0.10	
HEATING VALUE.....	1609			1089		1149	
SPECIFIC GRAVITY.....	0.941			0.617		0.656	
		INDEX SAMPLE	4360 12082	INDEX SAMPLE	4361 12763	INDEX SAMPLE	4362 13218
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	DAY NO. 5			GRAMBLING C NO. 7		CANEPLIE GAS COM B NO. 1	
LOCATION.....	SEC. 18, T29N, R8W			SEC. 12, T30N, R10W		SEC. 13, T31N, R11W	
OWNER.....	EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	07/09/69			09/08/70		01/--/72	
SAMPLED.....	10/10/69			04/14/71		05/26/72	
FORMATION.....	CRET-PICTURED CLIFFS			CRET-PICTURED CLIFFS		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	3079			3072		2450	
WELLHEAD PRESSURE, PSIG.....	767			NOT GIVEN		1100	
OPEN FLOW, MCFD.....	3641			NOT GIVEN		2519	
COMPONENT, MOLE PCT							
METHANE.....	91.3			87.9		90.0	
ETHANE.....	4.3			6.5		5.7	
PROPANE.....	2.1			2.6		2.5	
N-BUTANE.....	0.5			0.6		0.5	
ISOBUTANE.....	0.4			0.5		0.3	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.1			0.2		0.1	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	0.4			0.8		0.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.6		0.3	
HELIUM.....	TRACE			0.01		0.01	
HEATING VALUE.....	1114			1142		1119	
SPECIFIC GRAVITY.....	0.625			0.654		0.629	
		INDEX SAMPLE	4363 13450	INDEX SAMPLE	4364 14883	INDEX SAMPLE	4365 15142
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	VASILY FED. NO. 1-Y			COX CANYON UNIT NO. 1A		YAGER NO. 2	
LOCATION.....	SEC. 31, T32N, R11W			SEC. 16, T32N, R11W		SEC. 20, T32N, R6W	
OWNER.....	AZTEC OIL & GAS CO.			NORTHWEST PIPELINE CORP.		PALMER OIL & GAS CO.	
COMPLETED.....	04/24/72			09/07/76		11/01/77	
SAMPLED.....	10/17/72			01/05/77		11/09/77	
FORMATION.....	CRET-POINT LOOKOUT			CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	5380			5160		6000	
WELLHEAD PRESSURE, PSIG.....	766			831		1000	
OPEN FLOW, MCFD.....	10075			10392		3500	
COMPONENT, MOLE PCT							
METHANE.....	82.4			86.4		96.4	
ETHANE.....	10.0			8.3		1.3	
PROPANE.....	3.7			2.2		0.2	
N-BUTANE.....	0.9			0.5		0.0	
ISOBUTANE.....	0.6			0.4		0.0	
N-PENTANE.....	0.3			0.1		0.0	
ISOPENTANE.....	0.1			0.2		0.0	
CYCLOPENTANE.....	TRACE			TRACE		0.0	
HEXANES PLUS.....	0.1			0.1		0.0	
NITROGEN.....	0.8			0.2		0.5	
OXYGEN.....	0.2			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			1.6		0.0	
HELIUM.....	0.02			0.01		0.01	
HEATING VALUE.....	1183			1129		1005	
SPECIFIC GRAVITY.....	0.687			0.656		0.580	
		INDEX SAMPLE	4366 15447	INDEX SAMPLE	4367 15448	INDEX SAMPLE	4368 17740
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO			BLANCO		BLANCO	
WELL NAME.....	YAGER NO. 4			YAGER NO. 2		ABRAMS "K" NO. 1	
LOCATION.....	SEC. 10, T31N, R7W			SEC. 20, T32N, R6W		SEC. 26, T29N, R10W	
OWNER.....	PALMER OIL & GAS CO.			PALMER OIL & GAS CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	02/23/78			07/06/77		03/26/85	
SAMPLED.....	10/22/78			10/22/78		07/05/85	
FORMATION.....	CRET-PICTURED CLIFFS			CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	3602			5823		4000	
WELLHEAD PRESSURE, PSIG.....	1475			1008		1987	
OPEN FLOW, MCFD.....	2653			5254		5363	
COMPONENT, MOLE PCT							
METHANE.....	89.9			96.0		67.5	
ETHANE.....	3.9			1.5		6.2	
PROPANE.....	1.6			0.2		2.6	
N-BUTANE.....	0.4			0.0		0.8	
ISOBUTANE.....	0.3			0.0		0.3	
N-PENTANE.....	0.1			0.0		0.3	
ISOPENTANE.....	0.2			0.0		0.3	
CYCLOPENTANE.....	0.1			0.0		0.1	
HEXANES PLUS.....	0.1			0.0		0.3	
NITROGEN.....	0.5			0.5		18.5	
OXYGEN.....	0.0			0.0		2.4	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.1			0.1		0.4	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.8			1.8		0.2	
HELIUM.....	TRACE			TRACE		0.04	
HEATING VALUE.....	1068			1005		945	
SPECIFIC GRAVITY.....	0.639			0.583		0.739	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4369 11754	INDEX SAMPLE	4370 1179	INDEX SAMPLE	4371 16013
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BLANCO S			BLOOMFIELD		BLOOMFIELD	
WELL NAME.....	NOT GIVEN			NOT GIVEN		DAVIS GAS COM-G NO. 1	
LOCATION.....	SEC. 26, T28N, R8W			T29N, R11W		SEC. 27, T29N, R11W	
OWNER.....	EL PASO NATURAL GAS CO.			NOT GIVEN		AROCO PRODUCTION CO.	
COMPLETED.....	10/09/68			11/05/69		05/17/80	
SAMPLED.....	02/04/69			NOT GIVEN		07/17/80	
FORMATION.....	CRET-PICTURED CLIFFS			NOT GIVEN		CRET-CHACRA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	2364			NOT GIVEN		2827	
WELLHEAD PRESSURE, PSIG.....	1049			NOT GIVEN		1120	
OPEN FLOW, MCFD.....	2170			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	91.2			69.9		85.4	
ETHANE.....	4.4			28.2		6.3	
PROPANE.....	2.3			---		2.8	
N-BUTANE.....	0.6			---		0.7	
ISOBUTANE.....	0.4			---		0.5	
N-PENTANE.....	0.2			---		0.2	
ISOPENTANE.....	0.2			---		0.2	
CYCLOPENTANE.....	0.1			---		0.1	
HEXANES PLUS.....	0.2			---		0.1	
NITROGEN.....	0.3			0.9		5.7	
OXYGEN.....	TRACE			0.4		0.1	
ARGON.....	TRACE			---		TRACE	
HYDROGEN.....	TRACE			---		TRACE	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.1			0.6		TRACE	
HELIUM.....	TRACE			0.02		0.02	
HEATING VALUE.....	1127			1213		1117	
SPECIFIC GRAVITY.....	0.631			0.706		0.660	
		INDEX SAMPLE	4372 17026	INDEX SAMPLE	4373 3121	INDEX SAMPLE	4374 3123
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	FLORA VISTA			FULCHER BASIN		FULCHER BASIN	
WELL NAME.....	THOMPSON NO. 1			NO. 2		NO. 1	
LOCATION.....	SEC. 28, T31N, R12W			SEC. 13, T29N, R12W		SEC. 11, T29N, R12W	
OWNER.....	SOUTHLAND ROYALTY CO.			SOUTHERN UNION PRODUCTION CO		CARROLL & CORNELL	
COMPLETED.....	01/08/83			08/10/41		09/05/40	
SAMPLED.....	08/22/83			03/03/42		03/03/42	
FORMATION.....	CRET-FRUITLAND			CRET-PICTURED CLIFFS		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	2270			1730		1855	
WELLHEAD PRESSURE, PSIG.....	763			583		576	
OPEN FLOW, MCFD.....	655			4190		1100	
COMPONENT, MOLE PCT							
METHANE.....	86.3			81.8		84.5	
ETHANE.....	4.4			17.9		14.4	
PROPANE.....	3.1			---		---	
N-BUTANE.....	0.8			---		---	
ISOBUTANE.....	1.9			---		---	
N-PENTANE.....	0.1			---		---	
ISOPENTANE.....	0.7			---		---	
CYCLOPENTANE.....	0.1			---		---	
HEXANES PLUS.....	0.2			---		---	
NITROGEN.....	2.5			0.1		0.5	
OXYGEN.....	0.1			0.1		0.5	
ARGON.....	TRACE			---		---	
HYDROGEN.....	0.3			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.1			---		---	
HELIUM.....	0.04			0.1		0.1	
HEATING VALUE.....	1153			TRACE		0.00	
SPECIFIC GRAVITY.....	0.672			1149		1114	
				0.645		0.631	
		INDEX SAMPLE	4375 4460	INDEX SAMPLE	4376 4570	INDEX SAMPLE	4377 12181
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	FULCHER BASIN			FULCHER BASIN		FULCHER-KUTZ	
WELL NAME.....	COZZENS NO. 4			S. U. P. BECK NO. 1		COOPER NO. 6	
LOCATION.....	SEC. 20, T29N, R11W			SEC. 2, T29N, R12W		SEC. 2, T29N, R11W	
OWNER.....	SOUTHERN UNION PRODUCTION CO			SOUTHERN UNION PRODUCTION CO		ATZEC OIL & GAS CO.	
COMPLETED.....	01/20/48			05/14/48		06/26/69	
SAMPLED.....	04/05/48			10/04/48		01/30/70	
FORMATION.....	CRET-PICTURED CLIFFS			NOT GIVEN		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	1711			2125		2074	
WELLHEAD PRESSURE, PSIG.....	446			189		352	
OPEN FLOW, MCFD.....	700			---		3327	
COMPONENT, MOLE PCT							
METHANE.....	80.9			75.8		88.1	
ETHANE.....	17.1			23.7		6.1	
PROPANE.....	---			---		2.8	
N-BUTANE.....	---			---		0.6	
ISOBUTANE.....	---			---		0.6	
N-PENTANE.....	---			---		0.2	
ISOPENTANE.....	---			---		0.1	
CYCLOPENTANE.....	---			---		TRACE	
HEXANES PLUS.....	---			---		0.2	
NITROGEN.....	0.8			0.0		0.9	
OXYGEN.....	0.8			0.2		TRACE	
ARGON.....	---			---		0.0	
HYDROGEN.....	---			---		0.1	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	0.4			0.3		0.2	
HELIUM.....	0.01			0.02		0.01	
HEATING VALUE.....	1126			1193		1138	
SPECIFIC GRAVITY.....	0.651			0.676		0.646	
		INDEX SAMPLE	4378 17777	INDEX SAMPLE	4379 6043	INDEX SAMPLE	4380 5260
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	FULCHER-KUTZ			FULCHER-KUTZ		HOBACK	
WELL NAME.....	COUNTRY CLUB NO. 1			NELSON NO. 1		U.S.G. NO. 13	
LOCATION.....	SEC. 30, T30N, R12W			SEC. 8, T26N, R12W		SEC. 19, T29N, R16W	
OWNER.....	SUBS. JOEL B., JR.			EL PASO NATURAL GAS CO.		STANOLIND OIL & GAS CO.	
COMPLETED.....	11/23/82			07/06/55		11/23/82	
SAMPLED.....	07/16/85			03/26/56		09/24/52	
FORMATION.....	CRET-FRUITLAND			CRET-GALLUP		MISS-	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	1352			4850		7000	
WELLHEAD PRESSURE, PSIG.....	450			1317		NOT GIVEN	
OPEN FLOW, MCFD.....	400			4385		15000	
COMPONENT, MOLE PCT							
METHANE.....	87.8			81.4		---	
ETHANE.....	5.4			7.5		0.9	
PROPANE.....	2.3			5.0		1.7	
N-BUTANE.....	0.6			1.1		1.1	
ISOBUTANE.....	0.5			0.5		1.2	
N-PENTANE.....	0.2			0.1		1.0	
ISOPENTANE.....	0.3			0.3		0.3	
CYCLOPENTANE.....	0.1			0.1		0.3	
HEXANES PLUS.....	0.3			0.1		1.3	
NITROGEN.....	2.4			2.3		60.5	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.5	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.1			0.4		20.3	
HELIUM.....	0.11			AL-13		5.10	
HEATING VALUE.....	1187			1187		330	
SPECIFIC GRAVITY.....	0.649			0.695		1.104	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4381 5261			INDEX SAMPLE	4382 5340			INDEX SAMPLE	4383 5607
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	HOGBACK			HOGBACK				HOGBACK			
WELL NAME.....	U.S.G. NO. 13			U.S.G. NO. 13				U.S.G. NO. 13			
LOCATION.....	SEC. 19, T29N, R16W			SEC. 19, T29N, R16W				SEC. 19, T29N, R16W			
OWNER.....	STANOLIND OIL & GAS CO.			STANOLIND OIL & GAS CO.				STANOLIND OIL & GAS CO.			
COMPLETED.....	--/--/00			10/06/52				--/--/00			
SAMPLED.....	10/03/52			12/02/52				04/13/54			
FORMATION.....	MISS--			MISS--				PENN--			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	6930			6930				6166			
WELLHEAD PRESSURE, PSIG.....	306			2900				970			
OPEN FLOW, MCFD.....	15000			15				7000			
COMPONENT, MOLE PCT.....											
METHANE.....	6.1			5.8				24.7			
ETHANE.....	0.9			5.9				2.5			
PROPANE.....	1.5			2.7				1.8			
N-BUTANE.....	0.9			0.4				0.6			
ISOBUTANE.....	0.0			0.4				1.0			
N-PENTANE.....	0.1			0.4				0.1			
ISOPENTANE.....	0.9			TRACE				0.0			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.4			0.2				0.2			
NITROGEN.....	63.5			58.4				59.4			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	0.5			1.1				0.7			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	--			0.0				0.0			
CARBON DIOXIDE.....	2.0			19.0				1.6			
HELIUM.....	5.40			5.05				74.1			
HEATING VALUE.....	214			306				414			
SPECIFIC GRAVITY.....	1.059			1.061				0.854			
		INDEX SAMPLE	4384 5716			INDEX SAMPLE	4385 6093			INDEX SAMPLE	4386 6094
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	HOGBACK			HOGBACK				HOGBACK			
WELL NAME.....	U.S.G. NO. 13			HOGBACK FIELD NO. 1				M. M. GARRETT			
LOCATION.....	SEC. 19, T29N, R16W			SEC. 25, T29N, R17W				SEC. 25, T29N, R17W			
OWNER.....	STANOLIND OIL & GAS CO.			M. M. GARRETT				M. M. GARRETT			
COMPLETED.....	04/13/52			--/--/00				--/--/00			
SAMPLED.....	03/11/54			07/04/56				07/06/56			
FORMATION.....	PENN--			PENN-HERMOSA L				PENN-HERMOSA L			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	6166			6828				6931			
WELLHEAD PRESSURE, PSIG.....	3068			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	7500			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	29.1			62.9				42.5			
ETHANE.....	2.8			3.3				4.9			
PROPANE.....	1.8			1.2				3.3			
N-BUTANE.....	0.7			0.6				1.8			
ISOBUTANE.....	0.5			0.1				1.3			
N-PENTANE.....	0.2			0.3				0.7			
ISOPENTANE.....	0.2			0.3				0.8			
CYCLOPENTANE.....	TRACE			0.2				0.5			
HEXANES PLUS.....	0.1			0.3				1.3			
NITROGEN.....	54.6			16.5				37.6			
OXYGEN.....	0.0			0.1				0.0			
ARGON.....	0.6			0.4				0.5			
HYDROGEN.....	TRACE			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	2.0			8.1				0.1			
HELIUM.....	7.20			5.67				4.60			
HEATING VALUE.....	154			79.1				0.858			
SPECIFIC GRAVITY.....	0.833			0.738				0.869			
		INDEX SAMPLE	4387 6112			INDEX SAMPLE	4388 6450			INDEX SAMPLE	4389 6454
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	HOGBACK			HOGBACK				HOGBACK			
WELL NAME.....	NAVAJO NO. 1			U.S.G. SEC. 19, NO. 17				USE SEC. 19, NO. 17			
LOCATION.....	SEC. 25, T29N, R17W			SEC. 19, T29N, R16W				SEC. 19, T29N, R16W			
OWNER.....	M. M. GARRETT			PAN AMERICAN PETROLEUM CORP.				PAN AMERICAN PETROLEUM CORP.			
COMPLETED.....	07/15/56			--/--/00				--/--/00			
SAMPLED.....	07/15/56			12/26/57				12/11/57			
FORMATION.....	MISS--			PENN-PARADOX				PENN-PARADOX			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	7376			6170				6335			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			52				2416			
COMPONENT, MOLE PCT.....											
METHANE.....	12.0			30.6				32.5			
ETHANE.....	2.5			3.2				3.2			
PROPANE.....	3.6			2.4				2.6			
N-BUTANE.....	2.0			0.9				1.1			
ISOBUTANE.....	1.4			0.9				0.9			
N-PENTANE.....	0.9			0.4				0.7			
ISOPENTANE.....	0.7			0.2				0.1			
CYCLOPENTANE.....	0.4			0.1				0.5			
HEXANES PLUS.....	1.2			0.4				1.5			
NITROGEN.....	68.4			53.7				48.0			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	0.6			0.6				0.6			
HYDROGEN.....	0.1			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.1			0.0				1.5			
HELIUM.....	5.04			6.40				6.80			
HEATING VALUE.....	520			540				651			
SPECIFIC GRAVITY.....	0.998			0.844				0.877			
		INDEX SAMPLE	4390 6458			INDEX SAMPLE	4391 6463			INDEX SAMPLE	4392 6481
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	HOGBACK			HOGBACK				HOGBACK			
WELL NAME.....	USE SEC. 19, NO. 17			USE SEC. 19, NO. 17				USE SEC. 19, NO. 17			
LOCATION.....	SEC. 19, T29N, R16W			SEC. 19, T29N, R16W				SEC. 19, T29N, R16W			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.				PAN AMERICAN PETROLEUM CORP.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	12/16/57			12/26/57				01/15/58			
FORMATION.....	PENN--			MISS--				PENN-PARADOX			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	6520			6936				6396			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				1600			
OPEN FLOW, MCFD.....	5015			5015				8050			
COMPONENT, MOLE PCT.....											
METHANE.....	6.6			6.3				32.7			
ETHANE.....	1.9			2.1				2.1			
PROPANE.....	4.8			2.5				0.9			
N-BUTANE.....	5.5			0.8				0.5			
ISOBUTANE.....	4.3			0.3				0.3			
N-PENTANE.....	2.3			0.4				0.3			
ISOPENTANE.....	2.5			0.1				0.2			
CYCLOPENTANE.....	0.3			0.1				0.1			
HEXANES PLUS.....	0.4			0.5				0.5			
NITROGEN.....	61.9			62.7				52.7			
OXYGEN.....	TRACE			0.1				TRACE			
ARGON.....	0.5			0.5				0.6			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.4			19.6				7.3			
HELIUM.....	6.00			4.40				7.70			
HEATING VALUE.....	865			228				470			
SPECIFIC GRAVITY.....	1.152			1.054				0.812			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4393 6533	INDEX SAMPLE	4394 6798	INDEX SAMPLE	4395 6800
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	HOGBACK			HOGBACK		HOGBACK	
WELL NAME.....	USG SEC. 19, NO. 13			USG SEC. 19, NO. 17		USG SEC. 19, NO. 17	
LOCATION.....	SEC. 19, T29N, R16W			SEC. 19, T29N, R16W		SEC. 19, T29N, R16W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	03/08/58			01/30/58		09/02/58	
SAMPLED.....	03/23/58			08/23/58		09/08/58	
FORMATION.....	PENN-L			PENN-PARADOX		PENN---	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6514			6045		6643	
WELLHEAD PRESSURE, PSIG.....	325			NOT GIVEN		2650	
OPEN FLOW, MCFD.....	425			NOT GIVEN		613	
COMPONENT, MOLE PCT							
METHANE.....	12.8			29.1		3.7	
ETHANE.....	1.9			3.5		0.6	
PROPANE.....	2.0			1.8		1.2	
N-BUTANE.....	1.1			1.2		0.9	
ISOBUTANE.....	1.0			1.1		0.9	
N-PENTANE.....	0.4			0.4		0.0	
ISOPENTANE.....	0.3			0.5		0.6	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.6			0.6		0.2	
NITROGEN.....	70.1			94.8		79.9	
OXYGEN.....	0.1			TRACE		2.6	
ARGON.....	0.7			0.6		0.8	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			0.5		1.2	
HELIUM.....	8.00			5.70		7.30	
HEATING VALUE.....	351			180		180	
SPECIFIC GRAVITY.....	0.917			0.873		0.947	
		INDEX SAMPLE	4396 6801	INDEX SAMPLE	4397 7735	INDEX SAMPLE	4398 7739
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	HOGBACK			HOGBACK		HOGBACK N	
WELL NAME.....	USG SEC. 19, NO. 13			NAVAJO TRIBE K NO. 2		NAVAJO K NO. 2	
LOCATION.....	SEC. 19, T29N, R16W			SEC. 31, T30N, R16W		SEC. 31, T30N, R16W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	09/01/58			--/--/00		--/--/00	
SAMPLED.....	09/08/58			10/06/60		10/15/60	
FORMATION.....	PENN---			PENN-HERMOSA		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6620			6100		6554	
WELLHEAD PRESSURE, PSIG.....	1550			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	55			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	6.8			67.7		35.2	
ETHANE.....	1.1			5.6		4.2	
PROPANE.....	2.4			3.1		2.5	
N-BUTANE.....	1.5			1.5		1.1	
ISOBUTANE.....	1.6			0.4		0.9	
N-PENTANE.....	0.7			0.6		0.4	
ISOPENTANE.....	0.2			0.4		0.3	
CYCLOPENTANE.....	0.1			0.2		0.2	
HEXANES PLUS.....	0.6			0.7		0.6	
NITROGEN.....	76.1			17.4		44.1	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.9			0.1		0.5	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.9			0.1		4.0	
HELIUM.....	5.10			1.40		6.00	
HEATING VALUE.....	328			1044		632	
SPECIFIC GRAVITY.....	0.993			0.762		0.863	
		INDEX SAMPLE	4399 7745	INDEX SAMPLE	4400 6453	INDEX SAMPLE	4401 6478
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	HOGBACK N			HORSESHOE		HUERFANO S	
WELL NAME.....	NAVAJO K-2			CHIMNEY ROCK NO. 1		SOUTH HUERFANO NO. 1-X	
LOCATION.....	SEC. 31, T30N, R16W			SEC. 23, T31N, R17W		SEC. 19, T24N, R9W	
OWNER.....	HUMBLE OIL & REFINING CO.			EL PASO NATURAL GAS CO.		GULF OIL CORP.	
COMPLETED.....	11/19/60			12/06/57		09/30/57	
SAMPLED.....	10/24/60			12/10/57		01/14/58	
FORMATION.....	MISS-HADISON			CRET-GALLUP		CRET-GALLUP	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7340			963		5266	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1258		1258	
OPEN FLOW, MCFD.....	NOT GIVEN			1160		3	
COMPONENT, MOLE PCT							
METHANE.....	0.1			77.6		80.5	
ETHANE.....	0.0			1.5		6.1	
PROPANE.....	3.6			6.8		4.5	
N-BUTANE.....	TRACE			1.5		1.4	
ISOBUTANE.....	0.0			0.8		0.9	
N-PENTANE.....	0.0			0.2		0.6	
ISOPENTANE.....	0.0			0.2		0.0	
CYCLOPENTANE.....	TRACE			TRACE		0.2	
HEXANES PLUS.....	0.1			0.1		0.6	
NITROGEN.....	6.2			1.0		2.7	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	88.5			0.1		0.3	
HELIUM.....	1.40			0.10		0.20	
HEATING VALUE.....	99			1268		1219	
SPECIFIC GRAVITY.....	1.476			0.729		0.718	
		INDEX SAMPLE	4402 16339	INDEX SAMPLE	4403 17862	INDEX SAMPLE	4404 1997
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	IGUERO DISTRICT			KUTZ CANYON		KUTZ CANYON	
WELL NAME.....	SAN JUAN 32.7 NO. 72			GALLEGOS CANYON UNIT NO. 361		GARLAND S NO. 3	
LOCATION.....	SEC. 33, T32N, R7W			SEC. 15, T28N, R12W		SEC. 11, T28N, R11W	
OWNER.....	HORNET PIPELINE CORP.			AMERICAN PETROLEUM AMERICAS, INC.		ANGELS PEAK OIL CO.	
COMPLETED.....	04/02/81			07/29/85		03/19/30	
SAMPLED.....	09/17/81			10/11/85		05/31/30	
FORMATION.....	CRET-PICTURED CLIFFS			CRET-FRUITLAND		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	NOT GIVEN			1200		1827	
WELLHEAD PRESSURE, PSIG.....	1491			480		600	
OPEN FLOW, MCFD.....	12568			2639		1470	
COMPONENT, MOLE PCT							
METHANE.....	85.6			86.4		86.5	
ETHANE.....	8.6			7.0		13.1	
PROPANE.....	3.1			2.9		---	
N-BUTANE.....	0.7			0.8		---	
ISOBUTANE.....	0.6			0.5		---	
N-PENTANE.....	0.3			0.4		---	
ISOPENTANE.....	0.3			0.3		---	
CYCLOPENTANE.....	0.1			0.2		---	
HEXANES PLUS.....	0.2			0.4		---	
NITROGEN.....	0.2			1.0		0.2	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	TRACE			0.0		---	
HYDROGEN.....	0.0			TRACE		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.4			0.2		0.2	
HELIUM.....	TRACE			11.73		TRACE	
HEATING VALUE.....	1181			0.669		1111	
SPECIFIC GRAVITY.....	0.668					0.623	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	4405 4293		INDEX SAMPLE	4406 4296		INDEX SAMPLE	4407 4447
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	KUTZ CANYON		KUTZ CANYON			KUTZ CANYON		
WELL NAME.....	HARTMAN NO. 1		SUMMITT NO. 5 B			FEASEL NO. 1		
LOCATION.....	SEC. 28, T29N, R11W		SEC. 33, T29N, R11W			SEC. 32, T28N, R10W		
OWNER.....	SOUTHERN UNION PRODUCTION CO		SUMMITT OIL CO.			KUTZ CANYON OIL & GAS CO.		
COMPLETED.....	02/28/47		04/01/47			11/27/47		
SAMPLED.....	04/21/47		05/09/47			03/27/48		
FORMATION.....	CRET-PICTURED CLIFFS		CRET-PICTURED CLIFFS			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	1533		1626			1950		
WELLHEAD PRESSURE, PSIG.....	487		448			560		
OPEN FLOW, MCFD.....	887		1620			2240		
COMPONENT, MOLE PCT								
METHANE.....	82.8		81.9			80.9		
ETHANE.....	15.6		14.8			16.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	1.1		2.7			1.2		
OXYGEN.....	0.2		0.2			0.9		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.4			0.6		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1118		1895			1113		
SPECIFIC GRAVITY.....	0.640		0.644			0.651		
	INDEX	4408		INDEX	4409		INDEX	4410
	SAMPLE	4462		SAMPLE	4515		SAMPLE	4686
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	KUTZ CANYON		KUTZ CANYON			KUTZ CANYON		
WELL NAME.....	NEUMAN NO. 8		S. U. P. MANGUM NO. 1			NEUMAN NO. 5-B		
LOCATION.....	SEC. 19, T28N, R10W		SEC. 29, T29N, R11W			SEC. 30, T28N, R10W		
OWNER.....	SOUTHERN UNION PRODUCTION CO		SOUTHERN UNION PRODUCTION CO			SOUTHERN UNION PRODUCTION CO		
COMPLETED.....	12/09/47		06/04/47			10/12/48		
SAMPLED.....	04/05/48		05/04/48			01/13/49		
FORMATION.....	NOT GIVEN		CRET-PICTURED CLIFFS			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	1975		1597			1945		
WELLHEAD PRESSURE, PSIG.....	4934		4334			451		
OPEN FLOW, MCFD.....	1160		2750			1930		
COMPONENT, MOLE PCT								
METHANE.....	83.6		84.0			88.1		
ETHANE.....	14.9		15.3			6.8		
PROPANE.....	---		---			2.7		
N-BUTANE.....	---		---			0.7		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.3		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.0		
NITROGEN.....	0.4		0.2			0.4		
OXYGEN.....	0.5		0.1			0.1		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			TRACE		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.6		0.4			0.3		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1114		1125			1140		
SPECIFIC GRAVITY.....	0.638		0.635			0.645		
	INDEX	4411		INDEX	4412		INDEX	4413
	SAMPLE	4687		SAMPLE	4750		SAMPLE	4751
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	KUTZ CANYON		KUTZ CANYON			KUTZ CANYON		
WELL NAME.....	NEUMAN NO. 6-A		VILES NO. 6-B			HUBBELL NO. 1		
LOCATION.....	SEC. 19, T28N, R10W		SEC. 29, T29N, R11W			SEC. 29, T28N, R10W		
OWNER.....	SOUTHERN UNION PRODUCTION CO		SOUTHERN UNION PRODUCTION CO			SOUTHERN UNION PRODUCTION CO		
COMPLETED.....	01/02/49		03/7/49			03/31/49		
SAMPLED.....	03/12/49		05/20/49			05/20/49		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	2062		1626			2095		
WELLHEAD PRESSURE, PSIG.....	468		380			535		
OPEN FLOW, MCFD.....	686		150			1930		
COMPONENT, MOLE PCT								
METHANE.....	88.1		88.5			87.7		
ETHANE.....	6.3		5.9			6.8		
PROPANE.....	2.5		2.7			2.7		
N-BUTANE.....	0.6		0.9			0.7		
ISOBUTANE.....	0.6		0.5			0.2		
N-PENTANE.....	0.2		0.4			0.1		
ISOPENTANE.....	0.0		0.4			0.5		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.4		0.3			0.2		
NITROGEN.....	0.4		0.6			0.6		
OXYGEN.....	0.1		0.1			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.9		0.1			0.3		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1138		1147			1147		
SPECIFIC GRAVITY.....	0.656		0.654			0.653		
	INDEX	4414		INDEX	4415		INDEX	4416
	SAMPLE	4788		SAMPLE	4805		SAMPLE	4853
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	KUTZ CANYON		KUTZ CANYON			KUTZ CANYON		
WELL NAME.....	HANKS NO. 2		HANKS NO. 3			DAVIDSON NO. 1-B		
LOCATION.....	SEC. 6, T27N, R9W		SEC. 12, T27N, R10W			SEC. 28, T28N, R10W		
OWNER.....	SOUTHERN UNION PRODUCTION CO		SOUTHERN UNION PRODUCTION CO			BYRD-FROST, INC.		
COMPLETED.....	08/01/49		09/19/49			12/07/49		
SAMPLED.....	09/22/49		10/28/49			03/06/50		
FORMATION.....	CRET-PICTURED CLIFFS		CRET-PICTURED CLIFFS			CRET-PICTURED CLIFFS		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	2001		1936			2118		
WELLHEAD PRESSURE, PSIG.....	619		589			529		
OPEN FLOW, MCFD.....	450		822			857		
COMPONENT, MOLE PCT								
METHANE.....	89.4		88.6			88.3		
ETHANE.....	6.2		6.3			7.0		
PROPANE.....	2.4		2.6			2.7		
N-BUTANE.....	0.9		0.7			0.7		
ISOBUTANE.....	TRACE		0.4			0.4		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.3		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.0		0.2			0.2		
NITROGEN.....	0.2		0.3			0.0		
OXYGEN.....	0.1		TRACE			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.5			0.3		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1131		1139			1150		
SPECIFIC GRAVITY.....	0.637		0.645			0.647		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	4417 4864	INDEX SAMPLE	4418 4866	INDEX SAMPLE	4419 4890
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN		SAN JUAN		SAN JUAN	
FIELD.....	KUTZ CANYON		KUTZ CANYON		KUTZ CANYON	
WELL NAME.....	JOHNSON NO. 1		DAVIDSON NO. 1-F		GALT NO. 1-A	
LOCATION.....	SEC. 21, T27N, R10W		SEC. 27, T28N, R10W		SEC. 6, T27N, R10W	
OWNER.....	BYRD-FROST, INC.		BYRD-FROST, INC.		BYRD-FROST, INC.	
COMPLETED.....	10/25/48		12/19/49		03/14/50	
SAMPLED.....	03/20/50		03/20/50		05/22/50	
FORMATION.....	CRET-PICTURED CLIFFS		CRET-PICTURED CLIFFS		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580		580		580	
DEPTH, FEET.....	1858		1905		1714	
WELLHEAD PRESSURE, PSIG.....	480		610		571	
OPEN FLOW, MCFD.....	500		1471		228	
COMPONENT, MOLE PCT						
METHANE.....	93.0		88.4		89.0	
ETHANE.....	3.4		2.8		2.6	
PROPANE.....	1.3		0.8		0.8	
N-BUTANE.....	0.3		0.5		0.7	
ISOBUTANE.....	0.2		0.3		0.0	
N-PENTANE.....	0.1		0.3		0.0	
ISOPENTANE.....	0.0		0.0		0.0	
CYCLOPENTANE.....	TRACE		0.1		0.1	
HEXANES PLUS.....	0.2		0.2		0.1	
NITROGEN.....	0.8		0.2		0.0	
OXYGEN.....	0.1		0.2		0.1	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	TRACE		---		---	
HYDROGEN SULFIDE.....	---		---		---	
CARBON DIOXIDE.....	0.4		0.2		0.5	
HELIUM.....	0.01		0.02		0.01	
HEATING VALUE.....	1071		1143		1126	
SPECIFIC GRAVITY.....	0.605		0.646		0.635	
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN		SAN JUAN		SAN JUAN	
FIELD.....	KUTZ CANYON		KUTZ CANYON		KUTZ CANYON	
WELL NAME.....	GALT NO. 1-B		DAUM NO. 1		GLENN H. CALLOW NO. 8	
LOCATION.....	SEC. 6, T27N, R10W		SEC. 32, T28N, R9W		SEC. 27, T29N, R13W	
OWNER.....	BYRD-FROST, INC.		DELHI OIL CORP.		TENNESSEE GAS TRANSMISSION C	
COMPLETED.....	02/07/50		11/09/50		09/05/59	
SAMPLED.....	05/22/50		03/27/51		03/10/60	
FORMATION.....	CRET-PICTURED CLIFFS		NOT GIVEN		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580		580		580	
DEPTH, FEET.....	1832		2142		5762	
WELLHEAD PRESSURE, PSIG.....	544		570		6030	
OPEN FLOW, MCFD.....	155		200		2210	
COMPONENT, MOLE PCT						
METHANE.....	88.5		90.6		86.4	
ETHANE.....	6.0		5.8		8.0	
PROPANE.....	2.8		2.3		2.6	
N-BUTANE.....	0.7		0.4		0.7	
ISOBUTANE.....	0.5		0.4		0.5	
N-PENTANE.....	0.3		0.2		0.1	
ISOPENTANE.....	0.1		0.0		0.3	
CYCLOPENTANE.....	TRACE		TRACE		0.1	
HEXANES PLUS.....	0.2		0.1		0.2	
NITROGEN.....	0.4		0.0		0.3	
OXYGEN.....	0.1		0.1		TRACE	
ARGON.....	0.0		0.0		TRACE	
HYDROGEN.....	0.1		0.0		0.0	
HYDROGEN SULFIDE.....	---		---		0.0	
CARBON DIOXIDE.....	0.4		0.1		0.7	
HELIUM.....	0.01		0.01		0.05	
HEATING VALUE.....	1143		1123		1158	
SPECIFIC GRAVITY.....	0.649		0.626		0.660	
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN		SAN JUAN		SAN JUAN	
FIELD.....	LA PLATA		LA PLATA		LA PLATA	
WELL NAME.....	CULPEPPER MARTIN NO. 1		DAVIS NO. 1		Q. B. DAVIS NO. 1	
LOCATION.....	SEC. 10, T31N, R12W		SEC. 14, T31N, R12W		SEC. 11, T31N, R12W	
OWNER.....	SOUTHERN UNION PRODUCTION CO		SOUTHERN UNION GAS CO.		SOUTHERN UNION GAS CO.	
COMPLETED.....	09/13/49		-/-/50		12/07/49	
SAMPLED.....	01/28/49		03/03/50		03/03/50	
FORMATION.....	CRET-MESAVERDE		CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	580		580		580	
DEPTH, FEET.....	320		5430		5404	
WELLHEAD PRESSURE, PSIG.....	1090		1083		1065	
OPEN FLOW, MCFD.....	5000		400		396	
COMPONENT, MOLE PCT						
METHANE.....	81.7		84.0		82.7	
ETHANE.....	10.5		9.9		9.6	
PROPANE.....	4.0		3.6		3.8	
N-BUTANE.....	1.1		1.0		0.8	
ISOBUTANE.....	0.4		0.3		0.7	
N-PENTANE.....	0.3		0.2		0.3	
ISOPENTANE.....	0.2		0.1		0.0	
CYCLOPENTANE.....	TRACE		TRACE		0.1	
HEXANES PLUS.....	0.2		0.2		0.3	
NITROGEN.....	0.8		0.0		0.8	
OXYGEN.....	0.1		0.1		0.3	
ARGON.....	TRACE		0.0		TRACE	
HYDROGEN.....	TRACE		TRACE		---	
HYDROGEN SULFIDE.....	---		---		---	
CARBON DIOXIDE.....	0.7		0.4		0.7	
HELIUM.....	0.02		0.02		0.09	
HEATING VALUE.....	1181		1181		1186	
SPECIFIC GRAVITY.....	0.694		0.678		0.690	
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN		SAN JUAN		SAN JUAN	
FIELD.....	LA PLATA		LA PLATA		LA PLATA	
WELL NAME.....	CULPEPPER MARTIN NO. 1		DAVIS NO. 3		VANDERSLICE NO. 1	
LOCATION.....	SEC. 10, T32N, R12W		SEC. 21, T32N, R12W		SEC. 19, T32N, R10W	
OWNER.....	SOUTHERN UNION GAS CO.		SOUTHERN UNION GAS CO.		SOUTHERN UNION GAS CO.	
COMPLETED.....	04/14/50		-/-/50		09/04/51	
SAMPLED.....	05/20/50		04/23/51		01/24/51	
FORMATION.....	CRET-U		CRET		CRET-POINT LOOKOUT	
GEOLOGIC PROVINCE CODE.....	580		580		580	
DEPTH, FEET.....	4645		NOT GIVEN		5210	
WELLHEAD PRESSURE, PSIG.....	932		896		965	
OPEN FLOW, MCFD.....	1000		2785		2190	
COMPONENT, MOLE PCT						
METHANE.....	82.3		83.9		86.9	
ETHANE.....	10.3		9.5		6.2	
PROPANE.....	4.1		3.6		1.8	
N-BUTANE.....	1.1		0.8		0.2	
ISOBUTANE.....	0.6		0.4		0.0	
N-PENTANE.....	0.4		0.3		0.0	
ISOPENTANE.....	0.1		0.1		0.0	
CYCLOPENTANE.....	0.1		TRACE		1.0	
HEXANES PLUS.....	0.4		0.2		TRACE	
NITROGEN.....	0.0		TRACE		0.1	
OXYGEN.....	0.1		0.0		2.7	
ARGON.....	0.0		0.0		0.6	
HYDROGEN.....	TRACE		0.0		TRACE	
HYDROGEN SULFIDE.....	---		---		---	
CARBON DIOXIDE.....	0.6		1.0		0.4	
HELIUM.....	0.02		0.02		0.01	
HEATING VALUE.....	1221		1181		1095	
SPECIFIC GRAVITY.....	0.700		0.678		0.646	
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN		SAN JUAN		SAN JUAN	
FIELD.....	LA PLATA		LA PLATA		LA PLATA	
WELL NAME.....	CULPEPPER MARTIN NO. 1		DAVIS NO. 3		VANDERSLICE NO. 1	
LOCATION.....	SEC. 10, T32N, R12W		SEC. 21, T32N, R12W		SEC. 19, T32N, R10W	
OWNER.....	SOUTHERN UNION GAS CO.		SOUTHERN UNION GAS CO.		SOUTHERN UNION GAS CO.	
COMPLETED.....	04/14/50		-/-/50		09/04/51	
SAMPLED.....	05/20/50		04/23/51		01/24/51	
FORMATION.....	CRET-U		CRET		CRET-POINT LOOKOUT	
GEOLOGIC PROVINCE CODE.....	580		580		580	
DEPTH, FEET.....	4645		NOT GIVEN		5210	
WELLHEAD PRESSURE, PSIG.....	932		896		965	
OPEN FLOW, MCFD.....	1000		2785		2190	
COMPONENT, MOLE PCT						
METHANE.....	82.3		83.9		86.9	
ETHANE.....	10.3		9.5		6.2	
PROPANE.....	4.1		3.6		1.8	
N-BUTANE.....	1.1		0.8		0.2	
ISOBUTANE.....	0.6		0.4		0.0	
N-PENTANE.....	0.4		0.3		0.0	
ISOPENTANE.....	0.1		0.1		0.0	
CYCLOPENTANE.....	0.1		TRACE		1.0	
HEXANES PLUS.....	0.4		0.2		TRACE	
NITROGEN.....	0.0		TRACE		0.1	
OXYGEN.....	0.1		0.0		2.7	
ARGON.....	0.0		0.0		0.6	
HYDROGEN.....	TRACE		0.0		TRACE	
HYDROGEN SULFIDE.....	---		---		---	
CARBON DIOXIDE.....	0.6		1.0		0.4	
HELIUM.....	0.02		0.02		0.01	
HEATING VALUE.....	1221		1181		1095	
SPECIFIC GRAVITY.....	0.700		0.678		0.646	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4429 5034	INDEX SAMPLE	4430 5012	INDEX SAMPLE	4431 16350
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LARGO			LARGO CANYON		LOS PINOS S	
WELL NAME.....	NO. 1, H. E. ROELOFS			8. D. DAY NO. 1		NORTHEAST BLANCO UNIT 208	
LOCATION.....	SEC. 22, T29N, R8W			SEC. 17, T29N, R8W		SEC. 12, T31N, R7W	
OWNER.....	BYRD-FROST, INC.			BYRD-FROST, INC.		BLACKWOOD & NICHOLS CO.	
COMPLETED.....	01/09/51			11/20/50		06/05/81	
SAMPLED.....	04/06/51			03/09/51		10/07/81	
FORMATION.....	NOT GIVEN			CRET-U		CRET-PICTURED CLIFFS	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	5610			5204		3477	
WELLHEAD PRESSURE, PSIG.....	1060			1075		1440	
OPEN FLOW, MCFD.....	5800			1086		4955	
COMPONENT, MOLE PCT							
METHANE.....	82.3	-----		83.3	-----	79.0	-----
ETHANE.....	10.8	-----		9.7	-----	11.7	-----
PROPANE.....	4.2	-----		4.3	-----	5.8	-----
N-BUTANE.....	1.0	-----		1.0	-----	1.3	-----
ISOBUTANE.....	0.3	-----		0.5	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.0	-----	0.1	-----
NITROGEN.....	0.0	-----		0.0	-----	0.3	-----
OXYGEN.....	0.1	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.8	-----		0.6	-----	0.4	-----
HELIUM.....	0.02	-----		0.02	-----	TRACE	-----
HEATING VALUE.....	1203	-----		1202	-----	1261	-----
SPECIFIC GRAVITY.....	0.691	-----		0.685	-----	0.721	-----

		INDEX SAMPLE	4432 17638	INDEX SAMPLE	4433 17786	INDEX SAMPLE	4434 8193
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	MOUNT NEBO			MOUNT NEBO		NAVAJO	
WELL NAME.....	PAINE NO. 6			LEPER GAS COM-D NO. 1-R		NAVAJO TRACT 27 NO. 1	
LOCATION.....	SEC. 20, T32N, R10W			AWX. 4, T32N, R10W		SEC. 32, T26N, R15W	
OWNER.....	UNION TEXAS PETROLEUM CORP.			AMOCO PRODUCTION CO.		PURE OIL CO.	
COMPLETED.....	08/11/84			10/12/84		09/23/61	
SAMPLED.....	03/29/85			07/25/85		09/12/61	
FORMATION.....	CRET-CEDAR HILL			CRET-FRUITLAND		MISS---	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	3120			2608		10120	
WELLHEAD PRESSURE, PSIG.....	134			1020		NOT GIVEN	
OPEN FLOW, MCFD.....	140			479		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	94.2	-----		92.4	-----	1.1	-----
ETHANE.....	0.2	-----		0.2	-----	0.1	-----
PROPANE.....	TRACE	-----		TRACE	-----	0.0	-----
N-BUTANE.....	0.0	-----		TRACE	-----	TRACE	-----
ISOBUTANE.....	0.0	-----		0.0	-----	TRACE	-----
N-PENTANE.....	0.0	-----		0.1	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	TRACE	-----
CYCLOPENTANE.....	0.0	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	TRACE	-----
NITROGEN.....	0.1	-----		TRACE	-----	2.0	-----
OXYGEN.....	0.4	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	3.1	-----		6.9	-----	96.2	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.43	-----
HEATING VALUE.....	958	-----		958	-----	13	-----
SPECIFIC GRAVITY.....	0.596	-----		0.631	-----	1.498	-----

		INDEX SAMPLE	4435 15914	INDEX SAMPLE	4436 15915	INDEX SAMPLE	4437 8190
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	NAVAJO CITY			NAVAJO CITY		NAVAJO TRACT 27	
WELL NAME.....	LIVELY NO. 7Y			LIVELY NO. 7Y		NO. 1	
LOCATION.....	SEC. 35, T30N, R8W			SEC. 35, T30N, R8W		SEC. 32, T26N, R15W	
OWNER.....	LIVELY EXPLORATION CO.			LIVELY EXPLORATION CO.		PURE OIL CO.	
COMPLETED.....	04/19/74			04/19/74		---/---/00	
SAMPLED.....	03/06/80			03/06/80		09/12/61	
FORMATION.....	CRET-DAKOTA			CRET-CHACRA		MISS---	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7249			3700		10079	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			7418		NOT GIVEN	
OPEN FLOW, MCFD.....	1817			4545		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	87.9	-----		88.9	-----	1.2	-----
ETHANE.....	6.1	-----		6.2	-----	0.1	-----
PROPANE.....	2.4	-----		2.3	-----	0.1	-----
N-BUTANE.....	0.6	-----		0.6	-----	TRACE	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.1	-----
N-PENTANE.....	0.1	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	0.5	-----		0.2	-----	TRACE	-----
CYCLOPENTANE.....	NOT GIVEN	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.4	-----		0.2	-----	0.2	-----
NITROGEN.....	0.2	-----		0.0	-----	2.2	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.9	-----		0.0	-----	95.3	-----
HELIUM.....	0.01	-----		0.01	-----	0.45	-----
HEATING VALUE.....	1153	-----		1132	-----	34	-----
SPECIFIC GRAVITY.....	0.659	-----		0.646	-----	1.499	-----

		INDEX SAMPLE	4438 890	INDEX SAMPLE	4439 913	INDEX SAMPLE	4440 914
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	UTE NO. 1			AZTEC NO. 2		UTE NO. 1	
LOCATION.....	SEC. 35, T32N, R14W			SEC. 16, T30N, R11W		SEC. 35, T32N, R14W	
OWNER.....	WIDEST REFINING CO.			NOT GIVEN		WIDEST REFINING CO.	
COMPLETED.....	---/---/00			---/---/00		---/---/00	
SAMPLED.....	---/---/00			08/06/24		08/04/24	
FORMATION.....	NOT GIVEN			CRET-OJO ALAMO		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	NOT GIVEN			1006		2325	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			50		400	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		1188	
COMPONENT, MOLE PCT							
METHANE.....	72.6	-----		63.5	-----	76.4	-----
ETHANE.....	25.7	-----		20.4	-----	19.6	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	1.1	-----		12.1	-----	3.1	-----
OXYGEN.....	0.2	-----		3.3	-----	0.3	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		0.5	-----	0.3	-----
HELIUM.....	0.04	-----		TRACE	-----	0.05	-----
HEATING VALUE.....	1196	-----		1009	-----	1125	-----
SPECIFIC GRAVITY.....	0.688	-----		0.727	-----	0.667	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4441 SAMPLE 3658		INDEX 4442 SAMPLE 3659		INDEX 4443 SAMPLE 4620	
STATE.....	NEW MEXICO	NEW MEXICO	SAN JUAN	NEW MEXICO	SAN JUAN
COUNTY.....	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN
FIELD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELL NAME.....	BITLABITO NO. 1	BITLABITO NO. 1	UTE NO. 3	SEC. 36, T32N, R14W	STANFORD OIL & GAS CO.
LOCATION.....	SEC. 13, T30N, R21W	SEC. 13, T30N, R21W	SEC. 36, T32N, R14W	11/13/47	11/11/48
OWNER.....	CONTINENTAL OIL CO.	CONTINENTAL OIL CO.	STANFORD OIL & GAS CO.	11/11/48	11/11/48
COMPLETED.....	--/--/00	--/--/00	11/13/47	11/11/48	11/11/48
SAMPLED.....	08/08/43	08/11/43	11/11/48	11/11/48	11/11/48
FORMATION.....	TRIA-CHINLE	TRIA-CHINLE	CRET-	CRET-	CRET-
GEOLOGIC PROVINCE CODE.....	580	580	580	580	580
DEPTH, FEET.....	975	975	2370	192	2840
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	192	192	2840
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	2840	2840	2840
COMPONENT, MOLE PCT					
METHANE.....	13.6	14.4	80.0	19.0	19.0
ETHANE.....	2.9	6.4	---	---	---
PROpane.....	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---
NITROGEN.....	73.9	70.0	0.4	0.2	0.2
OXYGEN.....	0.3	0.0	0.2	0.2	0.2
ARGON.....	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---
CARBON DIOXIDE.....	0.2	0.3	0.4	0.06	0.06
HELIUM.....	9.10	8.92	1151	1151	1151
HEATING VALUE.....	190	261	0.655	0.655	0.655
SPECIFIC GRAVITY.....	0.840	0.841	0.655	0.655	0.655
INDEX 4444 SAMPLE 7445		INDEX 4445 SAMPLE 8641		INDEX 4446 SAMPLE 9635	
STATE.....	NEW MEXICO	NEW MEXICO	SAN JUAN	NEW MEXICO	SAN JUAN
COUNTY.....	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN
FIELD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELL NAME.....	W. O. BERGER NO. 2	NAVAJO N NO. 1	NAVAJO TRACT 4 NO. 1	SEC. 20, T27N, R17W	AMERADA PETROLEUM CORP.
LOCATION.....	SEC. 23, T26N, R11W	SEC. 23, T28N, R15W	SEC. 20, T27N, R17W	11/18/64	11/14/64
OWNER.....	TEAMS SEC GAS TRANSMISSION C	SKELLY OIL CO.	AMERADA PETROLEUM CORP.	11/18/64	11/14/64
COMPLETED.....	01/15/59	06/27/62	DEV0---	DEV0---	DEV0---
SAMPLED.....	03/10/60	08/19/62	DEV0---	DEV0---	DEV0---
FORMATION.....	CRET-DAKOTA	CRET-GALLUP	DEV0---	DEV0---	DEV0---
GEOLOGIC PROVINCE CODE.....	580	580	580	580	580
DEPTH, FEET.....	6196	4560	7850	7850	7850
WELLHEAD PRESSURE, PSIG.....	1630	1250	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	2459	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT					
METHANE.....	52.9	80.2	1.4	1.4	1.4
ETHANE.....	15.7	7.4	1.2	1.2	1.2
PROpane.....	13.8	4.7	1.2	1.2	1.2
N-BUTANE.....	6.2	1.3	1.9	1.9	1.9
ISOBUTANE.....	1.7	0.2	1.6	1.6	1.6
N-PENTANE.....	1.8	0.2	1.2	1.2	1.2
ISOPENTANE.....	2.9	0.3	0.3	0.3	0.3
CYCLOPENTANE.....	0.4	0.1	0.3	0.3	0.3
HEXANES PLUS.....	1.4	0.2	1.5	1.5	1.5
NITROGEN.....	0.5	4.8	85.0	85.0	85.0
OXYGEN.....	TRACE	TRACE	0.0	0.0	0.0
ARGON.....	0.0	TRACE	0.7	0.7	0.7
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.0	0.1	0.1	0.1
HELIUM.....	0.04	0.15	9.40	9.40	9.40
HEATING VALUE.....	1797	1158	323	323	323
SPECIFIC GRAVITY.....	1.059	0.702	1.032	1.032	1.032
INDEX 4447 SAMPLE 11697		INDEX 4448 SAMPLE 12203		INDEX 4449 SAMPLE 17787	
STATE.....	NEW MEXICO	NEW MEXICO	SAN JUAN	NEW MEXICO	SAN JUAN
COUNTY.....	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN
FIELD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELL NAME.....	W. W. GODDARD NO. 3	ATLANTIC B NO. 10	CHAVEZ GAS COM-F NO. 1	SEC. 23, T29N, R10W	AMOCO PRODUCTION CO.
LOCATION.....	SEC. 11, T26N, R12W	SEC. 3, T30N, R10W	SEC. 23, T29N, R10W	05/21/85	07/25/85
OWNER.....	SKELLY OIL CO.	EL PASO NATURAL GAS CO.	AMOCO PRODUCTION CO.	05/21/85	07/25/85
COMPLETED.....	09/27/68	01/06/70	05/21/85	05/21/85	07/25/85
SAMPLED.....	12/06/68	02/18/70	07/25/85	07/25/85	07/25/85
FORMATION.....	CRET-FRUITLAND	CRET-PICTURED CLIFFS	CRET-CHACRA	CRET-CHACRA	CRET-CHACRA
GEOLOGIC PROVINCE CODE.....	580	580	580	580	580
DEPTH, FEET.....	1184	3102	2956	2956	2956
WELLHEAD PRESSURE, PSIG.....	374	954	1040	1040	1040
OPEN FLOW, MCFD.....	1814	2595	2813	2813	2813
COMPONENT, MOLE PCT					
METHANE.....	96.0	88.8	83.8	83.8	83.8
ETHANE.....	0.4	5.9	6.2	6.2	6.2
PROpane.....	0.1	0.6	5.0	5.0	5.0
N-BUTANE.....	0.0	0.6	0.9	0.9	0.9
ISOBUTANE.....	0.0	0.4	0.4	0.4	0.4
N-PENTANE.....	0.0	0.2	0.3	0.3	0.3
ISOPENTANE.....	0.0	0.2	0.3	0.3	0.3
CYCLOPENTANE.....	0.0	0.1	0.3	0.3	0.3
HEXANES PLUS.....	0.0	0.2	0.6	0.6	0.6
NITROGEN.....	3.2	0.9	0.0	0.0	0.0
OXYGEN.....	0.1	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.1	0.1	0.1	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.3	0.1	0.1	0.1
HELIUM.....	0.03	0.01	1149	1149	1149
HEATING VALUE.....	983	1135	0.684	0.684	0.684
SPECIFIC GRAVITY.....	0.570	0.646	0.684	0.684	0.684
INDEX 4450 SAMPLE 17541		INDEX 4451 SAMPLE 17563		INDEX 4452 SAMPLE 9067	
STATE.....	NEW MEXICO	NEW MEXICO	SAN JUAN	NEW MEXICO	SAN JUAN
COUNTY.....	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN
FIELD.....	OTERO	OTERO	OTERO	PAJARITO	PAJARITO
WELL NAME.....	BROWN-STEWARD NO. 4	STATE GAS COM CA NO. 1	STATE GAS COM CA NO. 1	NAVAJO TRACT 20 NO. 1	SEC. 31, T29N, R17W
LOCATION.....	SEC. 11, T28N, R11W	SEC. 16, T29N, R11W	SEC. 16, T29N, R11W	SEC. 31, T29N, R17W	AMERADA PETROLEUM CORP.
OWNER.....	SOUTHLAND ROYALTY CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	AMERADA PETROLEUM CORP.	08/19/83
COMPLETED.....	12/12/84	06/19/84	06/19/84	08/19/83	08/19/83
SAMPLED.....	12/12/84	01/10/85	01/10/85	08/19/83	08/19/83
FORMATION.....	CRET-CHACRA	CRET-CHACRA	CRET-CHACRA	PENN-PARADOX C	PENN-PARADOX C
GEOLOGIC PROVINCE CODE.....	580	580	580	580	580
DEPTH, FEET.....	2950	2950	7198	7198	7198
WELLHEAD PRESSURE, PSIG.....	1230	767	1850	1850	1850
OPEN FLOW, MCFD.....	1295	1556	169	169	169
COMPONENT, MOLE PCT					
METHANE.....	87.1	81.4	40.7	40.7	40.7
ETHANE.....	6.2	6.2	9.9	9.9	9.9
PROpane.....	2.8	2.8	7.3	7.3	7.3
N-BUTANE.....	0.7	0.7	2.4	2.4	2.4
ISOBUTANE.....	0.5	0.4	1.6	1.6	1.6
N-PENTANE.....	0.2	0.1	0.3	0.3	0.3
ISOPENTANE.....	0.3	0.3	0.8	0.8	0.8
CYCLOPENTANE.....	0.1	TRACE	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.1	0.3	0.3	0.3
NITROGEN.....	1.7	7.7	22.2	22.2	22.2
OXYGEN.....	0.1	TRACE	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	0.3	0.3	0.3
HYDROGEN.....	TRACE	TRACE	0.0	0.0	0.0
HYDROGEN SULFIDE.....	TRACE	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.2	12.9	12.9	12.9
HELIUM.....	0.03	0.01	1.20	1.20	1.20
HEATING VALUE.....	1142	1062	0.983	0.983	0.983
SPECIFIC GRAVITY.....	0.658	0.673	0.983	0.983	0.983

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4453 9102	INDEX SAMPLE	4454 6044	INDEX SAMPLE	4455 6045
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	PARADOX BASIN			PARADOX BASIN		PARADOX BASIN	
WELL NAME.....	NAVAJO TRACT 20 NO. 2			NAVAJO INDIANS B-1		NAVAJO INDIANS B-1	
LOCATION.....	SEC. 30, T29N, R17W			SEC. 29, T32N, R20W		SEC. 29, T32N, R20W	
OWNER.....	AMERADA PETROLEUM CORP.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	10/04/63			--/--/00		--/--/00	
SAMPLED.....	10/04/63			03/10/56		03/01/56	
FORMATION.....	PENN-PARADOX B			PENN-PARADOX L		PENN-PARADOX U	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6850			5968		5539	
WELLHEAD PRESSURE, PSIG.....	25			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	6			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	56.1			66.8		79.4	
ETHANE.....	11.4			10.2		9.2	
PROPANE.....	11.3			8.5		4.2	
N-BUTANE.....	5.0			2.8		1.3	
ISOBUTANE.....	1.3			1.0		0.7	
N-PENTANE.....	1.7			0.6		0.4	
ISOPENTANE.....	1.2			0.9		0.6	
CYCLOPENTANE.....	0.4			0.2		0.3	
HEXANES PLUS.....	1.7			0.4		0.6	
NITROGEN.....	1.2			1.5		3.0	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			TRACE		0.0	
HYDROGEN.....	0.0			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	8.1			6.8		0.0	
HELIUM.....	0.10			0.19		0.19	
HEATING VALUE.....	1515			1301		1231	
SPECIFIC GRAVITY.....	1.013			0.861		0.723	
		INDEX SAMPLE	4456 15874	INDEX SAMPLE	4457 10917	INDEX SAMPLE	4458 2092
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	PICTURED CLIFFS			PINON		RATTLESNAKE	
WELL NAME.....	NORTHEAST BLANCO NO. 204			GALLEGOS CANYON UNIT NO. 220		NO. 17, T29N, R19W	
LOCATION.....	SEC. 1, T31N, R7W			SEC. 13, T28N, R12W		SEC. 2, T29N, R19W	
OWNER.....	BLACKWOOD & NICHOLS CO.			PAN AMERICAN PETROLEUM CORP.		SANTA FE CO.	
COMPLETED.....	08/21/79			06/14/66		04/28/59	
SAMPLED.....	01/04/80			04/02/67		08/16/30	
FORMATION.....	CRET-FRUITLAND			CRET-FRUITLAND		PENN-HERMOSA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	3404			1228		6769	
WELLHEAD PRESSURE, PSIG.....	1420			549		NOT GIVEN	
OPEN FLOW, MCFD.....	5914			4551		1471	
COMPONENT, MOLE PCT							
METHANE.....	87.2			88.3		46.9	
ETHANE.....	6.7			6.7		48.6	
PROPANE.....	2.8			2.6		---	
N-BUTANE.....	1.5			1.0		---	
ISOBUTANE.....	0.4			0.2		---	
N-PENTANE.....	0.1			0.1		---	
ISOPENTANE.....	0.2			0.4		---	
CYCLOPENTANE.....	TRACE			0.1		---	
HEXANES PLUS.....	0.1			0.2		3.7	
NITROGEN.....	0.4			TRACE		0.1	
OXYGEN.....	TRACE			TRACE		---	
ARGON.....	0.0			0.0		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.1		0.5	
CARBON DIOXIDE.....	1.4			0.01		0.23	
HELIUM.....	TRACE			1158		1346	
HEATING VALUE.....	1124			0.650		0.815	
SPECIFIC GRAVITY.....	0.652						
		INDEX SAMPLE	4459 2227	INDEX SAMPLE	4460 2229	INDEX SAMPLE	4461 3712
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	RATTLESNAKE			RATTLESNAKE		RATTLESNAKE	
WELL NAME.....	SANTA FE NO. 17			NOT GIVEN		NO. 111	
LOCATION.....	SEC. 2, T29, R19W			CONTINENTAL OIL CO.		SEC. 2, T29N, R19W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	04/01/29			--/--/00		12/29/43	
SAMPLED.....	10/30/30			10/30/30		--/--/00	
FORMATION.....	PENN-			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6769			NOT GIVEN		725	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	3000			NOT GIVEN		150	
COMPONENT, MOLE PCT							
METHANE.....	44.8			0.0		96.6	
ETHANE.....	53.6			36.8		0.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	1.2			0.4		2.9	
OXYGEN.....	0.1			0.2		0.2	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.4			0.2		0.3	
HELIUM.....	0.79			0.0		0.00	
HEATING VALUE.....	1414			659		979	
SPECIFIC GRAVITY.....	0.830			0.395		0.570	
		INDEX SAMPLE	4462 5404	INDEX SAMPLE	4463 5586	INDEX SAMPLE	4464 5587
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	RATTLESNAKE			RATTLESNAKE		RATTLESNAKE	
WELL NAME.....	RATTLESNAKE NO. 1-G			RATTLESNAKE NO. 1-G		RATTLESNAKE NO. 1-G	
LOCATION.....	SEC. 13, T29N, R19W			SEC. 13, T29N, R19W		SEC. 13, T29N, R19W	
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	
COMPLETED.....	08/6/43			01/7/54		01/7/54	
SAMPLED.....	03/02/53			01/08/54		01/11/54	
FORMATION.....	DEVO-OURAY			DEVO-OURAY		DEVO-OURAY	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7004			6980		6980	
WELLHEAD PRESSURE, PSIG.....	700			3000		3000	
OPEN FLOW, MCFD.....	NOT GIVEN			7000		7000	
COMPONENT, MOLE PCT							
METHANE.....	10.4			10.1		10.1	
ETHANE.....	1.1			1.2		1.1	
PROPANE.....	0.7			0.6		0.9	
N-BUTANE.....	0.3			0.2		0.2	
ISOBUTANE.....	0.1			0.2		0.1	
N-PENTANE.....	0.3			0.1		0.2	
ISOPENTANE.....	0.0			TRACE		0.0	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	75.9			76.9		76.6	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	0.8			0.9		0.9	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.9			0.2		1.9	
HELIUM.....	7.99			7.55		7.81	
HEATING VALUE.....	1180			162		169	
SPECIFIC GRAVITY.....	0.888			0.861		0.889	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4465 5596	INDEX SAMPLE	4466 5795	INDEX SAMPLE	4467 6886
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	RATTLESNAKE			RATTLESNAKE		RATTLESNAKE	
WELL NAME.....	NAVAJO NO. 1			RATTLESNAKE 1-G		RATTLESNAKE NO. 135	
LOCATION.....	SEC. 13, T29N, R19W			SEC. 3, T29N, R19W		SEC. 1, T29N, R19W	
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		CONTINENTAL OIL CO.	
COMPLETED.....	08/-/42			08/26/43		--/--/00	
SAMPLED.....	02/04/54			03/22/55		12/10/58	
FORMATION.....	DEVO-OURAY			DEVO-OURAY		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6950			7004		6602	
WELLHEAD PRESSURE, PSIG.....	2956			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	11700			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	13.7			19.8		71.0	
ETHANE.....	1.4			5.7		5.9	
PROPANE.....	0.7			5.9		4.3	
N-BUTANE.....	0.2			2.5		1.3	
ISOBUTANE.....	0.2			2.3		0.7	
N-PENTANE.....	0.1			1.3		0.4	
ISOPENTANE.....	0.0			0.6		0.3	
CYCLOPENTANE.....	TRACE			0.2		0.2	
HEXANES PLUS.....	0.2			0.5		0.4	
NITROGEN.....	71.3			48.2		1.1	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.0			0.8		TRACE	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	7.8			7.8		14.4	
HELIUM.....	0.49			2.45		0.10	
HEATING VALUE.....	210			801		1061	
SPECIFIC GRAVITY.....	0.890			1.068		0.829	
		INDEX SAMPLE	4468 8219	INDEX SAMPLE	4469 8484	INDEX SAMPLE	4470 8485
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	RATTLESNAKE			RATTLESNAKE		RATTLESNAKE	
WELL NAME.....	NO. 136			NO. 140		NO. 141	
LOCATION.....	SEC. 2, T29N, R19W			SEC. 11, T29N, R19W		SEC. 12, T29N, R19W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	07/-/00			02/17/62		03/27/62	
SAMPLED.....	09/25/61			03/29/62		03/29/62	
FORMATION.....	PENN-HERMOSA			PENN-PARADOX		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	NOT GIVEN			6658		6627	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1125		NOT GIVEN	
OPEN FLOW, MCFD.....	435			3000		700	
COMPONENT, MOLE PCT							
METHANE.....	72.9			80.1		61.3	
ETHANE.....	11.0			8.5		15.8	
PROPANE.....	5.9			10.9		10.9	
N-BUTANE.....	2.4			0.8		3.9	
ISOBUTANE.....	1.6			0.9		3.0	
N-PENTANE.....	0.6			0.1		0.9	
ISOPENTANE.....	1.0			0.2		1.2	
CYCLOPENTANE.....	0.1			0.1		0.2	
HEXANES PLUS.....	0.2			0.1		0.9	
NITROGEN.....	3.0			5.4		2.3	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	TRACE			1.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.4	
HELIUM.....	0.8			0.30		0.07	
HEATING VALUE.....	1321			1126		1542	
SPECIFIC GRAVITY.....	0.789			0.687		0.918	
		INDEX SAMPLE	4471 8486	INDEX SAMPLE	4472 8487	INDEX SAMPLE	4473 9280
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	RATTLESNAKE			RATTLESNAKE		RATTLESNAKE	
WELL NAME.....	NO. 139			NO. 139		NO. 136	
LOCATION.....	SEC. 2, T29N, R19W			SEC. 2, T29N, R19W		SEC. 2611, T29N, R19W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	03/29/62			12/28/60		--/--/62	
SAMPLED.....	03/29/62			03/29/60		04/10/64	
FORMATION.....	PENN-PARADOX			PENN-PARADOX		PENN-B	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6573			6726		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	600			NOT GIVEN		1880	
OPEN FLOW, MCFD.....	700			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	76.9			70.3		87.3	
ETHANE.....	10.3			13.4		5.7	
PROPANE.....	1.0			7.1		2.2	
N-BUTANE.....	1.0			2.1		1.0	
ISOBUTANE.....	1.1			2.0		0.5	
N-PENTANE.....	0.3			0.5		0.4	
ISOPENTANE.....	0.3			0.4		0.3	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.4		0.2	
NITROGEN.....	5.1			3.1		1.8	
OXYGEN.....	0.2			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.4		0.0	
CARBON DIOXIDE.....	0.3			0.3		0.2	
HELIUM.....	0.20			0.11		0.15	
HEATING VALUE.....	1122			1132		1138	
SPECIFIC GRAVITY.....	0.722			0.800		0.656	
		INDEX SAMPLE	4474 13139	INDEX SAMPLE	4475 4969	INDEX SAMPLE	4476 4970
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	SLAKE EYES			TABLE MESA		TABLE MESA	
WELL NAME.....	SLAKE EYES NO. 1			TRIAL NO. 17		TABLE MESA NO. 17	
LOCATION.....	SEC. 20, T21N, R8W			SEC. 3, T27N, R17W		SEC. 3, T27N, R17W	
OWNER.....	DAVIS OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	08/11/71			--/--/00		--/--/00	
SAMPLED.....	01/-/72			01/07/71		01/05/51	
FORMATION.....	CRET-OKOTA			MISS-MADISON & DEVO-OURAY		MISS-MADISON & DEVO-OURAY	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	4597			7450		7450	
WELLHEAD PRESSURE, PSIG.....	1750			1060		1060	
OPEN FLOW, MCFD.....	2553			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	87.0			5.9		5.8	
ETHANE.....	8.2			0.8		0.8	
PROPANE.....	1.8			0.9		0.9	
N-BUTANE.....	0.3			0.4		0.6	
ISOBUTANE.....	0.3			0.3		0.3	
N-PENTANE.....	0.2			0.3		0.3	
ISOPENTANE.....	0.1			0.1		0.1	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			0.1		0.3	
NITROGEN.....	0.3			83.2		83.0	
OXYGEN.....	0.1			0.1		0.1	
ARGON.....	TRACE			0.7		0.7	
HYDROGEN.....	0.0			TRACE		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.3			1.4		1.4	
HELIUM.....	0.08			5.73		5.64	
HEATING VALUE.....	1122			160		160	
SPECIFIC GRAVITY.....	0.643			0.925		0.937	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4477 4971	INDEX SAMPLE	4478 5030	INDEX SAMPLE	4479 5031
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	TABLE MESA NO. 17			TABLE MESA		TABLE MESA NO. 17	
LOCATION.....	SEC. 3, T27N, R17W			SEC. 3, T27N, R17W		SEC. 3, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	01/05/51			03/17/51		03/19/51	
FORMATION.....	MISS-MADISON & DEVO-OURAY			MISS-MADISON		MISS-MADISON	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7434			7500		7500	
WELLHEAD PRESSURE, PSIG.....	1060			3900		3900	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	6.5			6.2		5.9	
ETHANE.....	1.0			0.8		0.8	
PROPANE.....	1.2			0.8		0.8	
N-BUTANE.....	0.8			0.0		---	
ISOBUTANE.....	0.5			---		---	
N-PENTANE.....	0.5			---		---	
ISOPENTANE.....	0.0			---		---	
CYCLOPENTANE.....	0.1			---		---	
HEXANES PLUS.....	0.4			0.8		0.8	
NITROGEN.....	81.6			83.3		83.8	
OXYGEN.....	0.2			0.3		0.1	
ARGON.....	0.7			0.7		0.7	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	1.3			1.6		1.4	
HELIUM.....	5.52			5.60		5.70	
HEATING VALUE.....	1400			34		131	
SPECIFIC GRAVITY.....	0.945			0.929		0.928	
		INDEX SAMPLE	4480 5032	INDEX SAMPLE	4481 5558	INDEX SAMPLE	4482 5728
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	TABLE MESA NO. 17			TABLE MESA		TABLE MESA	
LOCATION.....	SEC. 3, T27N, R17W			NO. 17		NO. 1	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	03/21/51			10/12/53		11/03/54	
FORMATION.....	MISS-MADISON			PENNS-HERMOSA		PENNS-HERMOSA U	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	NOT GIVEN			7010		6840	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			3025		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	5.7			15.3		25.1	
ETHANE.....	0.8			2.7		8.5	
PROPANE.....	0.9			1.9		2.4	
N-BUTANE.....	---			0.9		0.9	
ISOBUTANE.....	---			0.6		0.6	
N-PENTANE.....	---			0.4		0.3	
ISOPENTANE.....	---			0.1		0.3	
CYCLOPENTANE.....	---			TRACE		0.5	
HEXANES PLUS.....	1.0			---		0.5	
NITROGEN.....	83.9			71.0		58.9	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	0.7			0.7		0.5	
HYDROGEN.....	0.0			0.1		TRACE	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	1.2			0.3		1.0	
HELIUM.....	5.70			5.60		4.73	
HEATING VALUE.....	140			337		507	
SPECIFIC GRAVITY.....	0.932			0.902		0.888	
		INDEX SAMPLE	4483 8025	INDEX SAMPLE	4484 8039	INDEX SAMPLE	4485 8048
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	NO. 3-18			NO. 3-18		NO. 3-18	
LOCATION.....	SEC. 3, T27N, R17W			SEC. 3, T27N, R15W		SEC. 3, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	05/25/51			--/--/00		--/--/00	
SAMPLED.....	06/16/61			06/24/61		07/--/61	
FORMATION.....	PENN-PARADOX			NOT GIVEN		PENN-PARADOX L	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7096			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	3037			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	21500			21500		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	15.6			17.5		17.3	
ETHANE.....	3.1			3.0		3.1	
PROPANE.....	2.6			2.7		1.7	
N-BUTANE.....	2.6			0.6		0.6	
ISOBUTANE.....	2.3			0.5		0.5	
N-PENTANE.....	2.2			0.2		0.1	
ISOPENTANE.....	2.2			TRACE		0.1	
CYCLOPENTANE.....	0.3			TRACE		TRACE	
HEXANES PLUS.....	2.2			0.1		0.1	
NITROGEN.....	69.1			69.8		69.8	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.5			0.7		0.7	
HYDROGEN.....	0.0			0.2		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.3		0.3	
HELIUM.....	4.70			5.50		5.50	
HEATING VALUE.....	720			720		350	
SPECIFIC GRAVITY.....	1.040			0.883		0.885	
		INDEX SAMPLE	4486 8218	INDEX SAMPLE	4487 8371	INDEX SAMPLE	4488 8382
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	NO. 3-18			NO. 24		NO. 24	
LOCATION.....	SEC. 3, T27N, R17W			SEC. 4, T27N, R17W		SEC. 4, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	09/26/61			01/12/62		01/25/62	
FORMATION.....	NOT GIVEN			PENN--		MISS--	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	NOT GIVEN			7187		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	3050			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	17.5			19.9		17.9	
ETHANE.....	2.9			4.5		2.1	
PROPANE.....	1.6			2.1		2.2	
N-BUTANE.....	0.7			0.6		0.5	
ISOBUTANE.....	0.5			1.1		1.3	
N-PENTANE.....	0.2			TRACE		0.7	
ISOPENTANE.....	0.2			TRACE		0.5	
CYCLOPENTANE.....	0.1			TRACE		0.2	
HEXANES PLUS.....	0.2			TRACE		0.8	
NITROGEN.....	71.7			68.9		68.7	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.7			0.6		0.6	
HYDROGEN.....	TRACE			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		TRACE	
CARBON DIOXIDE.....	0.3			0.4		TRACE	
HELIUM.....	3.54			4.92		3.61	
HEATING VALUE.....	432			432		470	
SPECIFIC GRAVITY.....	0.908			0.899		0.950	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4489 8462	INDEX SAMPLE	4490 8585	INDEX SAMPLE	4491 8586
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	NO. 24			NO. 3-18		NO. 3-18	
LOCATION.....	SEC. 4, T27N, R17W			SEC. 3, T27N, R17W		SEC. 3, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	03/-/62			05/31/61		05/31/61	
SAMPLED.....	03/14/62			06/20/62		06/20/62	
FORMATION.....	WISS-			PENN--		PENN--	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7676			7100		7100	
WELLHEAD PRESSURE, PSIG.....	3000			3150		3150	
OPEN FLOW, MCFD.....	300			22000		22000	
COMPONENT, MOLE PCT							
METHANE.....	20.8	-----		17.5	-----	17.6	-----
ETHANE.....	2.1	-----		2.9	-----	2.9	-----
PROPANE.....	2.0	-----		1.7	-----	1.7	-----
N-BUTANE.....	0.9	-----		0.7	-----	0.7	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.5	-----
N-PENTANE.....	0.3	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.1	-----
NITROGEN.....	69.1	-----		69.6	-----	69.6	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.1	-----
ARGON.....	0.6	-----		0.7	-----	0.7	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		0.3	-----	0.3	-----
HELIUM.....	3.69	-----		5.46	-----	5.46	-----
HEATING VALUE.....	370	-----		341	-----	337	-----
SPECIFIC GRAVITY.....	0.893	-----		0.891	-----	0.888	-----
		INDEX SAMPLE	4492 8587	INDEX SAMPLE	4493 8588	INDEX SAMPLE	4494 8589
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	NO. 3-18			NO. 3-18		NO. 3-18	
LOCATION.....	SEC. 3, T27N, R17W			SEC. 3, T27N, R17W		SEC. 3, T17W, R27N	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	05/31/61			05/31/61		05/31/61	
SAMPLED.....	06/20/62			06/20/62		06/20/62	
FORMATION.....	PENN--			PENN--		PENN--	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7100			7100		7100	
WELLHEAD PRESSURE, PSIG.....	3150			3150		3150	
OPEN FLOW, MCFD.....	22000			22000		22000	
COMPONENT, MOLE PCT							
METHANE.....	17.5	-----		17.5	-----	17.4	-----
ETHANE.....	2.9	-----		2.9	-----	2.9	-----
PROPANE.....	1.7	-----		1.7	-----	1.8	-----
N-BUTANE.....	0.7	-----		0.7	-----	0.8	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.5	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	69.6	-----		69.6	-----	69.6	-----
OXYGEN.....	TRACE	-----		0.1	-----	TRACE	-----
ARGON.....	0.7	-----		0.7	-----	0.7	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.3	-----
HELIUM.....	5.49	-----		5.47	-----	5.50	-----
HEATING VALUE.....	341	-----		341	-----	346	-----
SPECIFIC GRAVITY.....	0.890	-----		0.891	-----	0.893	-----
		INDEX SAMPLE	4495 8590	INDEX SAMPLE	4496 8591	INDEX SAMPLE	4497 8592
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	NO. 3-18			NO. 3-18		NO. 3-18	
LOCATION.....	SEC. 3, T27N, R17W			SEC. 3, T27N, R17W		SEC. 3, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	05/31/61			05/31/61		05/31/62	
SAMPLED.....	06/20/62			06/20/62		06/20/62	
FORMATION.....	PENN--			PENN--		PENN--	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7100			7100		7100	
WELLHEAD PRESSURE, PSIG.....	3150			3150		3150	
OPEN FLOW, MCFD.....	22000			22000		22000	
COMPONENT, MOLE PCT							
METHANE.....	17.3	-----		17.3	-----	17.4	-----
ETHANE.....	2.9	-----		2.9	-----	2.9	-----
PROPANE.....	1.7	-----		1.7	-----	1.8	-----
N-BUTANE.....	0.8	-----		0.9	-----	0.8	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.5	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	69.7	-----		69.6	-----	69.6	-----
OXYGEN.....	0.1	-----		0.1	-----	TRACE	-----
ARGON.....	0.7	-----		0.6	-----	0.7	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.3	-----
HELIUM.....	5.43	-----		5.48	-----	5.48	-----
HEATING VALUE.....	343	-----		349	-----	346	-----
SPECIFIC GRAVITY.....	0.893	-----		0.894	-----	0.893	-----
		INDEX SAMPLE	4498 8593	INDEX SAMPLE	4499 8594	INDEX SAMPLE	4500 8748
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	NO. 3-18			NO. 3-18		NO. 24	
LOCATION.....	SEC. 3, T27N, R17W			SEC. 3, T27N, R17W		SEC. 4, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	05/31/61			05/31/61		7/-/60	
SAMPLED.....	06/20/62			06/20/62		10/29/62	
FORMATION.....	PENN--			PENN--		PENN--	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7100			7100		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	3150			3150		1480	
OPEN FLOW, MCFD.....	22000			22000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	17.4	-----		17.5	-----	20.0	-----
ETHANE.....	2.9	-----		2.9	-----	3.4	-----
PROPANE.....	1.7	-----		1.7	-----	2.0	-----
N-BUTANE.....	0.6	-----		0.7	-----	0.7	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.5	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	69.9	-----		69.7	-----	66.5	-----
OXYGEN.....	TRACE	-----		0.1	-----	TRACE	-----
ARGON.....	0.7	-----		0.7	-----	0.7	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.4	-----
HELIUM.....	5.50	-----		5.46	-----	5.25	-----
HEATING VALUE.....	347	-----		346	-----	382	-----
SPECIFIC GRAVITY.....	0.885	-----		0.889	-----	0.884	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	4501 8749	INDEX SAMPLE	4502 8790	INDEX SAMPLE	4503 8791
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN		SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA		TABLE MESA		TABLE MESA	
WELL NAME.....	NO. 24		NO. 3-18		NO. 24	
LOCATION.....	SEC. 4, T27N, R17W		SEC. 3, T27N, R17W		SEC. 4, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	--/--/00		05/31/61		11/01/62	
SAMPLED.....	10/29/62		11/29/62		11/29/62	
FORMATION.....	PENN---		PENN-TABLE MESA		PENN-TABLE MESA	
GEOLOGIC PROVINCE CODE.....	580		580		580	
DEPTH, FEET.....	NOT GIVEN		7097		7208	
WELLHEAD PRESSURE, PSIG.....	1480		3000		1500	
OPEN FLOW, MCFD.....	NOT GIVEN		3100		800	
COMPONENT, MOLE PCT						
METHANE.....	20.2		17.3		19.8	
ETHANE.....	3.5		2.9		3.6	
PROpane.....	2.1		1.7		2.1	
N-BUTANE.....	0.7		0.7		0.7	
ISOBUTANE.....	0.5		0.5		0.6	
N-PENTANE.....	0.2		0.2		0.2	
ISOPENTANE.....	0.1		0.2		0.1	
CYCLOPENTANE.....	TRACE		TRACE		TRACE	
HEXANES PLUS.....	0.1		0.1		0.1	
NITROGEN.....	66.3		69.7		66.4	
OXYGEN.....	TRACE		TRACE		TRACE	
ARGON.....	0.7		0.7		0.1	
HYDROGEN.....	TRACE		TRACE		TRACE	
HYDROGEN SULFIDE**.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.4		0.5		0.4	
HELIUM.....	5.21		5.72		5.28	
HEATING VALUE*.....	380		334		381	
SPECIFIC GRAVITY.....	0.881		0.887		0.875	

	INDEX SAMPLE	4504 8792	INDEX SAMPLE	4505 9165	INDEX SAMPLE	4506 10230
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN		SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA		TABLE MESA		TABLE MESA	
WELL NAME.....	NO. 24		TABLE MESA 28		TABLE MESA	
LOCATION.....	SEC. 4, T27N, R17W		SEC. 33, T28N, R17W		SEC. 3, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	11/01/62		11/13/63		05/31/61	
SAMPLED.....	11/29/62		NOT GIVEN		10/21/65	
FORMATION.....	PENN-TABLE MESA		580		PENN-TABLE MESA	
GEOLOGIC PROVINCE CODE.....	580		580		580	
DEPTH, FEET.....	7208		NOT GIVEN		7100	
WELLHEAD PRESSURE, PSIG.....	1500		NOT GIVEN		3363	
OPEN FLOW, MCFD.....	800		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	19.8		22.3		14.9	
ETHANE.....	3.4		3.9		2.5	
PROpane.....	1.9		2.0		1.6	
N-BUTANE.....	0.7		0.8		0.9	
ISOBUTANE.....	0.4		0.3		0.1	
N-PENTANE.....	0.1		0.1		0.2	
ISOPENTANE.....	0.2		0.3		0.3	
CYCLOPENTANE.....	TRACE		TRACE		TRACE	
HEXANES PLUS.....	0.1		0.1		0.2	
NITROGEN.....	66.9		63.7		72.6	
OXYGEN.....	TRACE		0.0		0.0	
ARGON.....	0.7		0.6		0.7	
HYDROGEN.....	TRACE		0.0		TRACE	
HYDROGEN SULFIDE**.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.4		0.7		0.3	
HELIUM.....	5.33		5.20		5.65	
HEATING VALUE*.....	393		0.874		393	
SPECIFIC GRAVITY.....	0.879				0.897	

	INDEX SAMPLE	4507 10231	INDEX SAMPLE	4508 10232	INDEX SAMPLE	4509 10233
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN		SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA		TABLE MESA		TABLE MESA	
WELL NAME.....	3-18		3-18		3-18	
LOCATION.....	SEC. 3, T27N, R17W		SEC. 3, T27N, R17W		SEC. 3, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	05/31/61		05/31/61		05/31/61	
SAMPLED.....	10/21/65		10/21/65		10/21/65	
FORMATION.....	PENN-TABLE MESA		PENN-TABLE MESA		PENN-TABLE MESA	
GEOLOGIC PROVINCE CODE.....	580		580		580	
DEPTH, FEET.....	7100		7100		7100	
WELLHEAD PRESSURE, PSIG.....	3363		3363		3363	
OPEN FLOW, MCFD.....	NOT GIVEN		5000		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	10.4		14.7		14.6	
ETHANE.....	2.0		2.5		2.4	
PROpane.....	1.9		1.5		1.4	
N-BUTANE.....	1.3		0.6		0.6	
ISOBUTANE.....	0.9		0.3		0.3	
N-PENTANE.....	1.1		0.1		0.2	
ISOPENTANE.....	0.8		0.2		0.2	
CYCLOPENTANE.....	0.7		0.7		0.1	
HEXANES PLUS.....	2.4		0.2		0.3	
NITROGEN.....	72.8		73.1		73.2	
OXYGEN.....	0.0		0.0		0.0	
ARGON.....	0.7		0.7		0.7	
HYDROGEN.....	TRACE		0.0		0.0	
HYDROGEN SULFIDE**.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	1.2		0.4		0.4	
HELIUM.....	3.80		5.69		5.64	
HEATING VALUE*.....	495		287		293	
SPECIFIC GRAVITY.....	1.027		0.894		0.899	

	INDEX SAMPLE	4510 10234	INDEX SAMPLE	4511 10235	INDEX SAMPLE	4512 10236
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN		SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA		TABLE MESA		TABLE MESA	
WELL NAME.....	3-18		3-18, COMPRESSOR OUTLET		3-18	
LOCATION.....	SEC. 3, T27N, R17W		SEC. 3, T27N, R17W		SEC. 3, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	05/31/61		05/31/61		05/31/61	
SAMPLED.....	10/21/65		10/21/65		10/21/65	
FORMATION.....	PENN-TABLE MESA		PENN-TABLE MESA		PENN-TABLE MESA	
GEOLOGIC PROVINCE CODE.....	580		580		580	
DEPTH, FEET.....	7100		7100		7100	
WELLHEAD PRESSURE, PSIG.....	3363		3363		3363	
OPEN FLOW, MCFD.....	NOT GIVEN		5000		5000	
COMPONENT, MOLE PCT						
METHANE.....	14.7		14.8		14.6	
ETHANE.....	2.5		2.6		2.5	
PROpane.....	1.9		1.5		1.5	
N-BUTANE.....	0.6		0.5		0.5	
ISOBUTANE.....	0.4		0.1		0.4	
N-PENTANE.....	0.2		0.1		0.1	
ISOPENTANE.....	0.2		0.3		0.1	
CYCLOPENTANE.....	0.1		0.1		0.2	
HEXANES PLUS.....	0.2		0.1		0.1	
NITROGEN.....	73.1		73.2		73.5	
OXYGEN.....	0.0		0.0		0.0	
ARGON.....	0.7		0.7		0.7	
HYDROGEN.....	TRACE		0.0		0.0	
HYDROGEN SULFIDE**.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.2		0.4		0.4	
HELIUM.....	5.71		5.83		5.88	
HEATING VALUE*.....	295		276		273	
SPECIFIC GRAVITY.....	0.896		0.889		0.891	

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4513 10237	INDEX SAMPLE	4514 10238	INDEX SAMPLE	4515 10239
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	3-18,			3-18,		3-18,	
LOCATION.....	SEC. 3, T27N, R17W			SEC. 3, T27N, R17W		SEC. 3, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	05/31/61			05/31/61		05/31/61	
SAMPLED.....	10/21/65			10/21/65		10/21/65	
FORMATION.....	PENN-TABLE MESA			PENN-TABLE MESA		PENN-TABLE MESA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7100			7100		7100	
WELLHEAD PRESSURE, PSIG.....	3363			3363		3363	
OPEN FLOW, MCFD.....	NOT GIVEN			5000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	14.8	-----		15.0	-----	15.2	-----
ETHANE.....	2.5	-----		2.4	-----	2.4	-----
PROPANE.....	1.4	-----		1.3	-----	1.1	-----
N-BUTANE.....	0.6	-----		0.5	-----	0.5	-----
ISOBUTANE.....	0.3	-----		0.2	-----	0.4	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	73.1	-----		73.2	-----	72.7	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.7	-----		0.7	-----	0.7	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.4	-----	0.4	-----
HELIUM.....	5.60	-----		5.77	-----	5.99	-----
HEATING VALUE.....	289	-----		275	-----	283	-----
SPECIFIC GRAVITY.....	0.896	-----		0.888	-----	0.888	-----
		INDEX SAMPLE	4516 10240	INDEX SAMPLE	4517 10413	INDEX SAMPLE	4518 10414
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	3-18,			TABLE MESA NO. 29		TABLE MESA NO. 29	
LOCATION.....	SEC. 3, T27N, R17W			SEC. 9, T27N, R17W		SEC. 9, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	05/31/61			--/--/03		--/--/03	
SAMPLED.....	10/21/65			02/21/66		02/21/66	
FORMATION.....	PENN-TABLE MESA			MISS--		MISS--	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7100			7455		7455	
WELLHEAD PRESSURE, PSIG.....	3363			3100		3100	
OPEN FLOW, MCFD.....	NOT GIVEN			5000		5000	
COMPONENT, MOLE PCT							
METHANE.....	14.6	-----		4.7	-----	5.1	-----
ETHANE.....	2.2	-----		0.8	-----	0.8	-----
PROPANE.....	1.1	-----		1.3	-----	1.1	-----
N-BUTANE.....	0.3	-----		0.0	-----	0.9	-----
ISOBUTANE.....	0.3	-----		0.3	-----	0.5	-----
N-PENTANE.....	TRACE	-----		0.6	-----	0.6	-----
ISOPENTANE.....	0.1	-----		0.3	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		PEN--		0.1	-----
HEXANES PLUS.....	0.1	-----		1.0	-----	0.8	-----
NITROGEN.....	74.0	-----		81.8	-----	81.9	-----
OXYGEN.....	0.0	-----		0.0	-----	0.1	-----
ARGON.....	0.7	-----		0.7	-----	0.7	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		1.3	-----	1.3	-----
HELIUM.....	6.05	-----		5.93	-----	6.04	-----
HEATING VALUE.....	245	-----		241	-----	216	-----
SPECIFIC GRAVITY.....	0.879	-----		0.970	-----	0.958	-----
		INDEX SAMPLE	4519 10419	INDEX SAMPLE	4520 11911	INDEX SAMPLE	4521 11912
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA		TABLE MESA	
WELL NAME.....	TABLE MESA NO. 29			TABLE MESA NO. 29		TABLE MESA NO. 29	
LOCATION.....	SEC. 9, T27N, R17W			SEC. 9, T27N, R17W		SEC. 9, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	--/--/01			03/07/67		02/25/66	
SAMPLED.....	02/07/66			05/07/69		05/07/69	
FORMATION.....	PENN-TABLE MESA			PENN--		MISS--	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6979			7037		7461	
WELLHEAD PRESSURE, PSIG.....	2805			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	430			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	12.2	-----		13.5	-----	5.2	-----
ETHANE.....	2.5	-----		2.5	-----	0.9	-----
PROPANE.....	1.4	-----		2.0	-----	1.1	-----
N-BUTANE.....	0.9	-----		0.8	-----	0.6	-----
ISOBUTANE.....	0.2	-----		0.8	-----	0.6	-----
N-PENTANE.....	0.4	-----		0.4	-----	0.4	-----
ISOPENTANE.....	0.2	-----		TRACE	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	0.1	-----
HEXANES PLUS.....	0.5	-----		0.7	-----	0.3	-----
NITROGEN.....	74.9	-----		72.7	-----	82.4	-----
OXYGEN.....	0.0	-----		0.1	-----	1.4	-----
ARGON.....	0.7	-----		0.7	-----	0.8	-----
HYDROGEN.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.3	-----	1.4	-----
HELIUM.....	5.85	-----		5.88	-----	4.67	-----
HEATING VALUE.....	293	-----		338	-----	178	-----
SPECIFIC GRAVITY.....	0.917	-----		0.921	-----	0.955	-----
		INDEX SAMPLE	4522 11913	INDEX SAMPLE	4523 9634	INDEX SAMPLE	4524 9636
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	TABLE MESA			TABLE MESA S		TABLE MESA S	
WELL NAME.....	TABLE MESA NO. 18			NAVAJO TRACT 4 NO. 1		NAVAJO TRACT 4 NO. 1	
LOCATION.....	SEC. 3, T27N, R17W			SEC. 20, T27N, R17W		SEC. 20, T27N, R17W	
OWNER.....	CONTINENTAL OIL CO.			AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.	
COMPLETED.....	05/25/61			--/--/00		--/--/00	
SAMPLED.....	05/07/69			11/07/64		11/06/64	
FORMATION.....	PENN--			MISS--		MISS--	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	7097			7520		7420	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		45	
COMPONENT, MOLE PCT							
METHANE.....	16.0	-----		0.9	-----	1.4	-----
ETHANE.....	3.2	-----		0.2	-----	0.2	-----
PROPANE.....	2.4	-----		0.9	-----	0.5	-----
N-BUTANE.....	0.9	-----		2.5	-----	0.4	-----
ISOBUTANE.....	0.8	-----		1.6	-----	0.2	-----
N-PENTANE.....	0.5	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.4	-----		0.9	-----	TRACE	-----
CYCLOPENTANE.....	0.3	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.8	-----		0.9	-----	0.4	-----
NITROGEN.....	68.4	-----		85.3	-----	90.1	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.0	-----
ARGON.....	0.7	-----		0.7	-----	0.7	-----
HYDROGEN.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		TRACE	-----	TRACE	-----
HELIUM.....	5.31	-----		3.06	-----	5.81	-----
HEATING VALUE.....	430	-----		1.024	-----	84	-----
SPECIFIC GRAVITY.....	0.931	-----				0.939	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 4525 11425	INDEX SAMPLE 4526 11438	INDEX SAMPLE 4527 9291
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN		SAN JUAN	SAN JUAN
FIELD.....	TABLE MESA S		TABLE MESA S	TOCITO
WELL NAME.....	NAVAJO TRACT 4 NO. 1		NAVAJO TRACT 4 NO. 1	NAVAJO "AL" NO. 1
LOCATION.....	SEC. 20, T27N, R17W		SEC. 20, T27N, R17W	SEC. 28, T26N, R18W
OWNER.....	AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.	TEXACO INC.
COMPLETED.....	03/19/68		03/19/68	--/--/00
SAMPLED.....	03/30/68		04/05/68	04/12/64
FORMATION.....	MISS--		PENN-PARADOX	PENN-PARADOX
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	7454		7080	6215
WELLHEAD PRESSURE, PSIG.....	3209		2175	3325
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	1800
COMPONENT, MOLE PCT				
METHANE.....	1.7		9.3	67.1
ETHANE.....	0.3		1.7	10.8
PROPANE.....	0.2		1.5	6.6
N-BUTANE.....	0.4		0.8	4.5
ISOBUTANE.....	0.1		0.5	1.8
N-PENTANE.....	0.2		0.5	2.2
ISOPENTANE.....	TRACE		0.1	TRACE
CYCLOPENTANE.....	TRACE		0.2	0.5
HEXANES PLUS.....	0.2		0.6	2.2
NITROGEN.....	89.3		77.8	3.3
OXYGEN.....	0.0		0.3	0.1
ARGON.....	0.7		0.7	0.1
HYDROGEN.....	0.1		TRACE	0.0
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.5		0.2	0.2
HELIUM.....	6.14		5.70	0.23
HEATING VALUE.....	64		271	1483
SPECIFIC GRAVITY.....	0.927		0.934	0.895
		INDEX SAMPLE 4528 9393	INDEX SAMPLE 4529 3641	INDEX SAMPLE 4530 3687
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN		SAN JUAN	SAN JUAN
FIELD.....	TOCITO		TOCITO DOME	TOCITO DOME
WELL NAME.....	NAVAJO "AL" TRIBAL NO. 2		TOCITO NO. 1	TOCITO NO. 1
LOCATION.....	SEC. 28, T26N, R18W		SEC. 17, T26N, R18W	SEC. 17, T26N, R18W
OWNER.....	TEXACO INC.		CONTINENTAL OIL CO.	CONTINENTAL OIL CO.
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	06/12/64		05/25/43	10/30/43
FORMATION.....	NOT GIVEN		NOT GIVEN	DEVIO-OURAY
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	6640
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	2505
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	1500
COMPONENT, MOLE PCT				
METHANE.....	69.8		2.6	2.0
ETHANE.....	1.7		0.8	0.3
PROPANE.....	6.3		---	---
N-BUTANE.....	2.9		---	---
ISOBUTANE.....	1.5		---	---
N-PENTANE.....	0.8		---	---
ISOPENTANE.....	1.1		---	---
CYCLOPENTANE.....	0.4		---	---
HEXANES PLUS.....	1.3		---	---
NITROGEN.....	3.1		89.0	90.2
OXYGEN.....	TRACE		0.0	0.2
ARGON.....	TRACE		---	---
HYDROGEN.....	0.0		---	---
HYDROGEN SULFIDE.....	0.0		---	---
CARBON DIOXIDE.....	0.9		0.3	0.2
HELIUM.....	0.15		7.27	7.06
HEATING VALUE.....	1391		41	26
SPECIFIC GRAVITY.....	0.839		0.898	0.902
		INDEX SAMPLE 4531 8907	INDEX SAMPLE 4532 9321	INDEX SAMPLE 4533 9669
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN		SAN JUAN	SAN JUAN
FIELD.....	TOCITO DOME		TOCITO DOME	TOCITO DOME
WELL NAME.....	NAVAJO TRIBAL N NO. 1		NAVAJO AL NO. 1	NAVAJO TRIBAL 3-N
LOCATION.....	SEC. 17, T26N, R18W		SEC. 28, T26N, R18W	SEC. 17, T26N, R18W
OWNER.....	PAN AMERICAN PETROLEUM CORP.		TEXACO INC.	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	--/--/00		--/--/00	10/12/64
SAMPLED.....	03/21/63		04/29/64	12/17/64
FORMATION.....	MISS--		NOT GIVEN	PENN-D
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	6634		NOT GIVEN	6253
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	2602
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	5120
COMPONENT, MOLE PCT				
METHANE.....	0.8		0.9	79.9
ETHANE.....	0.1		0.0	7.4
PROPANE.....	0.2		0.0	2.3
N-BUTANE.....	TRACE		0.0	0.4
ISOBUTANE.....	TRACE		0.0	0.3
N-PENTANE.....	TRACE		0.0	TRACE
ISOPENTANE.....	TRACE		0.0	TRACE
CYCLOPENTANE.....	TRACE		0.0	TRACE
HEXANES PLUS.....	0.1		0.0	0.1
NITROGEN.....	90.0		90.0	7.9
OXYGEN.....	0.0		0.0	0.3
ARGON.....	0.9		1.0	0.1
HYDROGEN.....	0.1		0.1	0.0
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	1.3		TRACE	0.8
HELIUM.....	6.56		7.81	0.51
HEATING VALUE.....	1030		---	1030
SPECIFIC GRAVITY.....	0.924		0.903	0.668
		INDEX SAMPLE 4534 15122	INDEX SAMPLE 4535 10968	INDEX SAMPLE 4536 14443
STATE.....	NEW MEXICO		NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN		SAN JUAN	SAN JUAN
FIELD.....	TOCITO DOME		TOCITO N	TOCITO N
WELL NAME.....	NAVAJO-TOCITO NO. 3		NAVAJO TRIBAL 141 NO. 1	STAVAR-NAVAJO NO. 1
LOCATION.....	SEC. 9, T26N, R18W		SEC. 34, T27N, R18W	SEC. 34, T27N, R18W
OWNER.....	MOBIL OIL CORP.		SINCLAIR OIL & GAS CO.	CONSOLIDATED OIL & GAS, INC.
COMPLETED.....	--/--/00		01/09/63	06/21/75
SAMPLED.....	10/06/77		05/25/67	08/15/75
FORMATION.....	PENN-D		PENN-PARADOX	MISS--
GEOLOGIC PROVINCE CODE.....	580		580	580
DEPTH, FEET.....	6414		6812	6796
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		3537	2842
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	3349
COMPONENT, MOLE PCT				
METHANE.....	60.0		1.3	1.5
ETHANE.....	5.8		0.1	0.2
PROPANE.....	1.9		TRACE	TRACE
N-BUTANE.....	0.5		0.0	0.1
ISOBUTANE.....	0.2		0.0	0.1
N-PENTANE.....	0.2		0.1	TRACE
ISOPENTANE.....	0.1		0.1	TRACE
CYCLOPENTANE.....	0.1		TRACE	TRACE
HEXANES PLUS.....	0.2		0.1	0.1
NITROGEN.....	25.9		90.1	89.9
OXYGEN.....	0.0		0.0	0.0
ARGON.....	0.3		1.0	0.9
HYDROGEN.....	0.0		0.0	0.0
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.0		0.1	0.1
HELIUM.....	1.47		7.07	7.16
HEATING VALUE.....	811		32	30
SPECIFIC GRAVITY.....	0.912		0.915	0.910

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4537 SAMPLE 12189			INDEX 4538 SAMPLE 10901			INDEX 4539 SAMPLE 11830		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	UNDESIGNATED FRUITLAND		UNDESIGNATED GALLUP			UNDESIGNATED GALLUP		
WELL NAME.....	ALLEN NO. 1		SHIPROCK NO. 5			L. C. KELLY NO. 3		
LOCATION.....	SEC. 12, T26N, R12W		SEC. 14, T32N, R18W			SEC. 3, T30N, R12W		
OWNER.....	THOMAS A. DUGAN		THOMAS A. DUGAN			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	12/12/69		03/02/67			02/07/69		
SAMPLED.....	02/10/70		03/10/67			04/18/69		
FORMATION.....	CRET-FRUITLAND		CRET-GALLUP			CRET-GALLUP		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	1156		380			5996		
WELLHEAD PRESSURE, PSIG.....	299		166			113		
OPEN FLOW, MCFD.....	2135		1200			7027		
COMPONENT, MOLE PCT								
METHANE.....	98.5	92.6				80.9		
ETHANE.....	0.2	1.1				11.2		
PROPANE.....	0.1	TRACE				4.3		
N-BUTANE.....	0.0	0.0				1.2		
ISOBUTANE.....	0.0	0.0				0.6		
N-PENTANE.....	0.0	0.0				0.1		
ISOPENTANE.....	0.0	0.0				0.3		
CYCLOPENTANE.....	0.0	0.0				0.1		
HEXANES PLUS.....	0.0	0.0				0.1		
NITROGEN.....	0.8	1.4				0.6		
OXYGEN.....	0.0	0.2				TRACE		
ARGON.....	TRACE	TRACE				TRACE		
HYDROGEN.....	0.1	0.0				0.1		
HYDROGEN SULFIDE.....	0.0	0.0				0.0		
CARBON DIOXIDE.....	TRACE	0.7				0.5		
HELIUM.....	0.01	0.01				0.04		
HEATING VALUE.....	1010	958				1215		
SPECIFIC GRAVITY.....	0.561	0.613				0.697		
INDEX 4540 SAMPLE 1998			INDEX 4541 SAMPLE 1999			INDEX 4542 SAMPLE 4619		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	UTE DOME		UTE DOME			UTE DOME		
WELL NAME.....	MIDWEST NO. 1		MIDWEST NO. 2			UTE NO. 2		
LOCATION.....	SEC. 36, T32N, R14W		SEC. 36, T32N, R14W			SEC. 36, T32N, R14W		
OWNER.....	MIDWEST REFINING CO.		MIDWEST REFINING CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	10/22/21		06/30/22			04/23/23		
SAMPLED.....	06/02/30		06/02/30			11/11/48		
FORMATION.....	CRET-DAKOTA		CRET-DAKOTA			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	2190	2365				2340		
WELLHEAD PRESSURE, PSIG.....	730	730				170		
OPEN FLOW, MCFD.....	7000	14000				1525		
COMPONENT, MOLE PCT								
METHANE.....	84.1	90.8				78.8		
ETHANE.....	15.0	8.2				19.9		
PROPANE.....	---	---				---		
N-BUTANE.....	---	---				---		
ISOBUTANE.....	---	---				---		
N-PENTANE.....	---	---				---		
ISOPENTANE.....	---	---				---		
CYCLOPENTANE.....	---	---				---		
HEXANES PLUS.....	---	---				---		
NITROGEN.....	0.4	0.2				0.5		
OXYGEN.....	0.2	0.4				0.3		
ARGON.....	---	---				---		
HYDROGEN.....	---	---				---		
HYDROGEN SULFIDE.....	---	---				---		
CARBON DIOXIDE.....	0.3	0.4				0.4		
HELIUM.....	0.04	0.08				0.08		
HEATING VALUE.....	1121	1067				1155		
SPECIFIC GRAVITY.....	0.634	0.602				0.660		
INDEX 4543 SAMPLE 4621			INDEX 4544 SAMPLE 4622			INDEX 4545 SAMPLE 6577		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	UTE DOME		UTE DOME			UTE DOME		
WELL NAME.....	UTE NO. 5		P & R NO. 6			UTE MOUNTAIN TRIBAL D NO. 1		
LOCATION.....	SEC. 35, T32N, R14W		SEC. 1, T31N, R14W			SEC. 10, T31N, R14W		
OWNER.....	STANOLIND OIL & GAS CO.		STANOLIND OIL & GAS CO.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	11/11/48		07/23/23			05/10/58		
SAMPLED.....	11/11/48		11/11/48			MISS---		
FORMATION.....	CRET-DAKOTA		CRET-DAKOTA			MISS---		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	2232	2160				9322		
WELLHEAD PRESSURE, PSIG.....	112	NOT GIVEN				NOT GIVEN		
OPEN FLOW, MCFD.....	2355	NOT GIVEN				1141		
COMPONENT, MOLE PCT								
METHANE.....	75.9	79.8				8.7		
ETHANE.....	23.0	17.7				0.7		
PROPANE.....	---	---				0.0		
N-BUTANE.....	---	---				0.1		
ISOBUTANE.....	---	---				TRACE		
N-PENTANE.....	---	---				TRACE		
ISOPENTANE.....	---	---				TRACE		
CYCLOPENTANE.....	---	---				TRACE		
HEXANES PLUS.....	---	---				TRACE		
NITROGEN.....	0.4	1.7				2.4		
OXYGEN.....	0.3	0.2				TRACE		
ARGON.....	---	---				0.1		
HYDROGEN.....	---	---				0.0		
HYDROGEN SULFIDE.....	---	---				0.0		
CARBON DIOXIDE.....	0.4	0.5				88.0		
HELIUM.....	0.05	0.08				0.60		
HEATING VALUE.....	1181	1126				93		
SPECIFIC GRAVITY.....	0.676	0.655				1.422		
INDEX 4546 SAMPLE 6583			INDEX 4547 SAMPLE 6606			INDEX 4548 SAMPLE 6607		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	UTE DOME		UTE DOME			UTE DOME		
WELL NAME.....	UTE MOUNTAIN TRIBAL D NO. 1		UTE MOUNTAIN TRIBAL D NO. 1			UTE MOUNTAIN TRIBAL D NO. 1		
LOCATION.....	SEC. 10, T31N, R14W		SEC. 10, T31N, R14W			SEC. 10, T31N, R14W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	05/15/58		05/31/58			05/31/58		
SAMPLED.....	MISS---		PENN-PARADOX			PENN-PARADOX		
FORMATION.....	MISS---		580			580		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	9466	6248				9600		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN				NOT GIVEN		
OPEN FLOW, MCFD.....	7025	10400				9600		
COMPONENT, MOLE PCT								
METHANE.....	8.7	65.0				67.3		
ETHANE.....	0.1	0.5				0.5		
PROPANE.....	0.2	0.0				0.0		
N-BUTANE.....	0.0	0.1				0.1		
ISOBUTANE.....	0.0	0.1				0.1		
N-PENTANE.....	0.0	TRACE				TRACE		
ISOPENTANE.....	0.0	TRACE				TRACE		
CYCLOPENTANE.....	0.0	TRACE				TRACE		
HEXANES PLUS.....	0.0	0.1				0.1		
NITROGEN.....	2.4	1.7				1.7		
OXYGEN.....	0.0	TRACE				TRACE		
ARGON.....	0.1	TRACE				TRACE		
HYDROGEN.....	0.0	0.0				0.1		
HYDROGEN SULFIDE.....	0.0	1.3				1.5		
CARBON DIOXIDE.....	88.0	30.9				28.5		
HELIUM.....	0.50	0.30				0.20		
HEATING VALUE.....	95	98				713		
SPECIFIC GRAVITY.....	1.423	0.878				0.856		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4549 6608	INDEX SAMPLE	4550 10526	INDEX SAMPLE	4551 13504
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	UTE DOME			UTE DOME		UTE DOME	
WELL NAME.....	UTE MOUNTAIN TRIBAL D NO. 1			UTE MOUNTAIN TRIBAL-K NO. 1		MOUNTAIN UTE G.U.*E*NO. 1	
LOCATION.....	SEC. 10, T31N, R14W			SEC. 33, T32N, R14W		SEC. 10, T31N, R14W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		AMOCO PRODUCTION CO.	
COMPLETED.....	--/--/00			--/--/06		10/27/72	
SAMPLED.....	05/30/58			04/14/66		01/10/73	
FORMATION.....	PENN-PARADOX			PENN-PARADOX		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	8762			9141		2920	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			3372		715	
OPEN FLOW, MCFD.....	8150			4200		3739	
COMPONENT, MOLE PCT							
METHANE.....	64.7	-----		62.0	-----	84.0	-----
ETHANE.....	0.5	-----		0.5	-----	9.5	-----
PROPANE.....	0.0	-----		0.1	-----	3.2	-----
N-BUTANE.....	0.1	-----		0.1	-----	0.8	-----
ISOBUTANE.....	0.1	-----		0.1	-----	0.6	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	0.2	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.1	-----
NITROGEN.....	1.7	-----		2.5	-----	0.5	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	1.3	-----		0.1	-----	0.0	-----
CARBON DIOXIDE.....	31.2	-----		33.7	-----	0.4	-----
HELIUM.....	0.30	-----		0.41	-----	0.04	-----
HEATING VALUE.....	685	-----		665	-----	1180	-----
SPECIFIC GRAVITY.....	0.880	-----		0.908	-----	0.672	-----
		INDEX SAMPLE	4552 1147	INDEX SAMPLE	4553 9292	INDEX SAMPLE	4554 4919
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	UTE RESERVATION			WHITE HILLS W		WILDCAT	
WELL NAME.....	SEC. 16, T32N, R14W			NAVAJO TRIBAL NO. 1-21		ALLISON UNIT NO. 1	
LOCATION.....	GYPSY OIL CO.			STANDARD OIL CO. OF TEXAS		SEC. 17, T32N, R6W	
OWNER.....						AMERADA PETROLEUM CORP.	
COMPLETED.....	09/22/25			--/--/00		10/--/50	
SAMPLED.....	09/22/25			04/14/64		09/18/50	
FORMATION.....	NOT GIVEN			PENN-PARADOX		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	3171			6672		8070	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1000		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		57	
COMPONENT, MOLE PCT							
METHANE.....	11.1	-----		79.1	-----	94.8	-----
ETHANE.....	6.8	-----		7.6	-----	0.3	-----
PROPANE.....	---	-----		4.0	-----	0.1	-----
N-BUTANE.....	---	-----		1.8	-----	0.1	-----
ISOBUTANE.....	---	-----		1.2	-----	0.0	-----
N-PENTANE.....	---	-----		0.9	-----	0.1	-----
ISOPENTANE.....	---	-----		0.6	-----	0.0	-----
CYCLOPENTANE.....	---	-----		0.3	-----	TRACE	-----
HEXANES PLUS.....	---	-----		0.9	-----	0.1	-----
NITROGEN.....	80.5	-----		2.6	-----	0.4	-----
OXYGEN.....	---	-----		0.1	-----	0.1	-----
ARGON.....	---	-----		0.0	-----	TRACE	-----
HYDROGEN.....	---	-----		0.0	-----	---	-----
HYDROGEN SULFIDE**.....	---	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.8	-----	4.1	-----
HELIUM.....	0.00	-----		0.11	-----	0.01	-----
HEATING VALUE.....	2.34	-----		1264	-----	977	-----
SPECIFIC GRAVITY.....	0.930	-----		0.753	-----	0.606	-----
		INDEX SAMPLE	4555 4947	INDEX SAMPLE	4556 4953	INDEX SAMPLE	4557 5058
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	LACKEY FED. NO. 1			ALLISON UNIT NO. 1		CRANDELL NO. 1	
LOCATION.....	SEC. 26, T28N, R9W			SEC. 17, T32N, R6W		SEC. 19, T31N, R10W	
OWNER.....	JAMES O. HANCOCK & CO., LTD.			AMERADA PETROLEUM CORP.		SOUTHERN UNION GAS CO.	
COMPLETED.....	04/03/50			10/--/50		04/29/51	
SAMPLED.....	07/27/50			09/16/50		06/15/51	
FORMATION.....	CRET-POINT LOOKOUT			CRET-DAKOTA		CRET-U	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	4739			8001		4950	
WELLHEAD PRESSURE, PSIG.....	1075			NOT GIVEN		1075	
OPEN FLOW, MCFD.....	NOT GIVEN			6		4	
COMPONENT, MOLE PCT							
METHANE.....	80.9	-----		93.4	-----	85.6	-----
ETHANE.....	11.1	-----		9.6	-----	3.6	-----
PROPANE.....	4.9	-----		0.3	-----	3.0	-----
N-BUTANE.....	1.0	-----		0.1	-----	0.7	-----
ISOBUTANE.....	0.6	-----		0.0	-----	0.6	-----
N-PENTANE.....	0.2	-----		0.0	-----	0.3	-----
ISOPENTANE.....	0.1	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.3	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.3	-----
NITROGEN.....	0.4	-----		3.3	-----	0.4	-----
OXYGEN.....	0.3	-----		0.0	-----	0.1	-----
ARGON.....	TRACE	-----		---	-----	TRACE	-----
HYDROGEN.....	0.1	-----		---	-----	0.0	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		---	-----	---	-----
HELIUM.....	0.03	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	1224	-----		968	-----	1171	-----
SPECIFIC GRAVITY.....	0.698	-----		0.601	-----	0.661	-----
		INDEX SAMPLE	4558 5062	INDEX SAMPLE	4559 5092	INDEX SAMPLE	4560 5180
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	ROBINSON NO. 1			HUERFANO UNIT NO. 2		NAVAJO NO. 1	
LOCATION.....	SEC. 22, T28N, R13W			SEC. 25, T26N, R10W		SEC. 34, T31N, R17W	
OWNER.....	SOUTHERN UNION GAS CO.			STANOLINO OIL & GAS CO.		TEXAS CO.	
COMPLETED.....	03/25/55			--/--/00		--/--/00	
SAMPLED.....	06/14/51			06/23/51		04/25/52	
FORMATION.....	CRET-U			CRET-PICTURED CLIFFS		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	1620			2033		6874	
WELLHEAD PRESSURE, PSIG.....	294			645		NOT GIVEN	
OPEN FLOW, MCFD.....	108			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	89.8	-----		94.5	-----	82.9	-----
ETHANE.....	5.6	-----		2.3	-----	7.3	-----
PROPANE.....	0.2	-----		0.2	-----	1.7	-----
N-BUTANE.....	0.5	-----		0.1	-----	1.1	-----
ISOBUTANE.....	0.3	-----		0.0	-----	0.9	-----
N-PENTANE.....	0.2	-----		0.0	-----	0.4	-----
ISOPENTANE.....	0.2	-----		0.0	-----	0.6	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.0	-----		0.2	-----	0.1	-----
NITROGEN.....	0.7	-----		0.2	-----	0.1	-----
OXYGEN.....	0.2	-----		0.2	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		---	-----	TRACE	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.3	-----		0.4	-----	0.2	-----
HELIUM.....	0.01	-----		WIL02	-----	0.35	-----
HEATING VALUE.....	1112	-----		1014	-----	1191	-----
SPECIFIC GRAVITY.....	0.631	-----		0.589	-----	0.693	-----

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4561 5182			INDEX SAMPLE	4562 5183			INDEX SAMPLE	4563 5218
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	WILDCAT			WILDCAT				WILDCAT			
WELL NAME.....	NAVAJO NO. 1			NAVAJO NO. 1				NAVAJO NO. 1			
LOCATION.....	SEC. 34, T31N, R17W			SEC. 34, T31N, R17W				SEC. 34, T31N, R17W			
OWNER.....	TEXAS CO.			TEXAS CO.				TEXAS CO.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	05/02/52			05/02/52				04/18/52			
FORMATION.....	PENN-PARADOX			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	7068			7061				6788			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	83.0	---	---	86.5	---	---	---	87.2	---	---	---
ETHANE.....	6.8	---	---	6.2	---	---	---	4.6	---	---	---
PROPANE.....	2.7	---	---	2.1	---	---	---	2.3	---	---	---
N-BUTANE.....	0.6	---	---	0.5	---	---	---	0.9	---	---	---
ISOBUTANE.....	0.7	---	---	0.2	---	---	---	0.8	---	---	---
N-PENTANE.....	0.4	---	---	TRACE	---	---	---	0.3	---	---	---
ISOPENTANE.....	0.3	---	---	0.1	---	---	---	0.3	---	---	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	---	---	TRACE	---	---	---
HEXANES PLUS.....	0.2	---	---	0.1	---	---	---	0.3	---	---	---
NITROGEN.....	1.9	---	---	3.1	---	---	---	2.7	---	---	---
OXYGEN.....	0.1	---	---	TRACE	---	---	---	0.1	---	---	---
ARGON.....	0.1	---	---	0.1	---	---	---	TRACE	---	---	---
HYDROGEN.....	0.0	---	---	0.0	---	---	---	0.0	---	---	---
HYDROGEN SULFIDE.....	2.5	---	---	0.3	---	---	---	0.2	---	---	---
CARBON DIOXIDE.....	0.73	---	---	0.76	---	---	---	0.26	---	---	---
HEATING VALUE.....	1117	---	---	1075	---	---	---	1124	---	---	---
SPECIFIC GRAVITY.....	0.684	---	---	0.634	---	---	---	0.657	---	---	---
		INDEX SAMPLE	4564 5304			INDEX SAMPLE	4565 5321			INDEX SAMPLE	4566 5322
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	WILDCAT			WILDCAT				WILDCAT			
WELL NAME.....	SCHWERTFERGER			NAVAJO NO. 1				NAVAJO NO. 1			
LOCATION.....	SEC. 27, T31N, R9W			SEC. 5, T30N, R17W				SEC. 5, T30N, R17W			
OWNER.....	EL PASO NATURAL GAS CO.			PHILLIPS PETROLEUM CO.				PHILLIPS PETROLEUM CO.			
COMPLETED.....	07/08/52			--/--/00				--/--/00			
SAMPLED.....	10/17/52			11/13/52				11/13/52			
FORMATION.....	CRET-MESAVERDE			PENN-HERMOSA				PENN-HERMOSA			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	4644			6779				6779			
WELLHEAD PRESSURE, PSIG.....	1067			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	2013			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	84.2	---	---	47.2	---	---	---	49.8	---	---	---
ETHANE.....	7.0	---	---	0.0	---	---	---	4.9	---	---	---
PROPANE.....	2.9	---	---	2.2	---	---	---	2.3	---	---	---
N-BUTANE.....	0.8	---	---	0.9	---	---	---	0.8	---	---	---
ISOBUTANE.....	0.4	---	---	0.5	---	---	---	0.3	---	---	---
N-PENTANE.....	0.2	---	---	0.3	---	---	---	0.4	---	---	---
ISOPENTANE.....	0.3	---	---	0.3	---	---	---	0.2	---	---	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	---	---	0.1	---	---	---
HEXANES PLUS.....	0.1	---	---	0.3	---	---	---	0.3	---	---	---
NITROGEN.....	2.1	---	---	22.7	---	---	---	19.5	---	---	---
OXYGEN.....	0.4	---	---	0.3	---	---	---	0.1	---	---	---
ARGON.....	TRACE	---	---	0.3	---	---	---	0.3	---	---	---
HYDROGEN.....	0.1	---	---	0.1	---	---	---	TRACE	---	---	---
HYDROGEN SULFIDE.....	--	---	---	0.0	---	---	---	0.0	---	---	---
CARBON DIOXIDE.....	0.8	---	---	16.7	---	---	---	17.9	---	---	---
HEATING VALUE.....	1135	---	---	3.16	---	---	---	3.09	---	---	---
SPECIFIC GRAVITY.....	0.671	---	---	722	---	---	---	734	---	---	---
				0.894	---	---	---	0.884	---	---	---
		INDEX SAMPLE	4567 5353			INDEX SAMPLE	4568 5354			INDEX SAMPLE	4569 5355
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	WILDCAT			WILDCAT				WILDCAT			
WELL NAME.....	NAVAJO NO. 1, DST, NO. 3			NAVAJO NO. 1, DST, NO. 5				NAVAJO NO. 1, DST, NO. 7			
LOCATION.....	SEC. 27, T31N, R17W			SEC. 27, T31N, R17W				SEC. 27, T31N, R17W			
OWNER.....	THREE STATES NATURAL GAS CO.			THREE STATES NATURAL GAS CO.				THREE STATES NATURAL GAS CO.			
COMPLETED.....	--/--/00			12/31/52				12/31/52			
SAMPLED.....	11/13/52			11/20/52				12/07/52			
FORMATION.....	PENN-DOLOMITE LIME			PENN-HERMOSA				PENN-HERMOSA			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	6912			7035				7278			
WELLHEAD PRESSURE, PSIG.....	1750			3500				820			
OPEN FLOW, MCFD.....	168			280				15			
COMPONENT, MOLE PCT											
METHANE.....	91.4	---	---	74.4	---	---	---	73.1	---	---	---
ETHANE.....	3.1	---	---	2.2	---	---	---	4.7	---	---	---
PROPANE.....	1.6	---	---	1.6	---	---	---	2.6	---	---	---
N-BUTANE.....	0.6	---	---	0.4	---	---	---	1.2	---	---	---
ISOBUTANE.....	0.5	---	---	0.2	---	---	---	0.8	---	---	---
N-PENTANE.....	0.4	---	---	0.3	---	---	---	0.6	---	---	---
ISOPENTANE.....	0.4	---	---	TRACE	---	---	---	0.4	---	---	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	---	---	0.2	---	---	---
HEXANES PLUS.....	0.5	---	---	0.3	---	---	---	0.6	---	---	---
NITROGEN.....	1.7	---	---	9.3	---	---	---	10.8	---	---	---
OXYGEN.....	TRACE	---	---	TRACE	---	---	---	1.2	---	---	---
ARGON.....	0.0	---	---	0.2	---	---	---	0.1	---	---	---
HYDROGEN.....	0.0	---	---	0.0	---	---	---	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	---	---	0.0	---	---	---
CARBON DIOXIDE.....	0.0	---	---	10.8	---	---	---	3.0	---	---	---
HEATING VALUE.....	1108	---	---	0.66	---	---	---	0.52	---	---	---
SPECIFIC GRAVITY.....	0.632	---	---	0.71	---	---	---	10.1	---	---	---
				0.743	---	---	---	0.750	---	---	---
		INDEX SAMPLE	4570 5387			INDEX SAMPLE	4571 5398			INDEX SAMPLE	4572 5399
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	WILDCAT			WILDCAT				WILDCAT			
WELL NAME.....	NAVAJO NO. 1-A			NAVAJO NO. 1-A				NAVAJO NO. 1-A			
LOCATION.....	SEC. 36, T32N, R18W			SEC. 36, T32N, R18W				SEC. 36, T32N, R18W			
OWNER.....	SOUTHERN UNION GAS CO.			SOUTHERN UNION GAS CO.				SOUTHERN UNION GAS CO.			
COMPLETED.....	02/25/53			--/--/00				02/25/53			
SAMPLED.....	02/06/53			02/19/53				02/20/53			
FORMATION.....	PENN-PARADOX			PENN-HERMOSA				PENN-PARADOX			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	7570			7700				7662			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	179			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	86.5	---	---	15.6	---	---	---	53.8	---	---	---
ETHANE.....	2.2	---	---	1.3	---	---	---	1.8	---	---	---
PROPANE.....	0.9	---	---	0.3	---	---	---	0.3	---	---	---
N-BUTANE.....	0.5	---	---	0.1	---	---	---	0.1	---	---	---
ISOBUTANE.....	0.3	---	---	0.0	---	---	---	0.0	---	---	---
N-PENTANE.....	0.3	---	---	0.0	---	---	---	0.0	---	---	---
ISOPENTANE.....	0.2	---	---	0.0	---	---	---	0.0	---	---	---
CYCLOPENTANE.....	TRACE	---	---	0.2	---	---	---	0.3	---	---	---
HEXANES PLUS.....	0.1	---	---	0.0	---	---	---	TRACE	---	---	---
NITROGEN.....	0.4	---	---	0.0	---	---	---	0.1	---	---	---
OXYGEN.....	TRACE	---	---	6.6	---	---	---	36.2	---	---	---
ARGON.....	0.0	---	---	0.3	---	---	---	0.1	---	---	---
HYDROGEN.....	0.0	---	---	11.5	---	---	---	0.1	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	---	---	7.2	---	---	---
CARBON DIOXIDE.....	6.9	---	---	0.0	---	---	---	0.1	---	---	---
HEATING VALUE.....	1014	---	---	0.00	---	---	---	0.10	---	---	---
SPECIFIC GRAVITY.....	0.679	---	---	0.813	---	---	---	0.694	---	---	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4573 SAMPLE 5402			INDEX 4574 SAMPLE 5438			INDEX 4575 SAMPLE 5439		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	AZTEC NAVAJO NO. 1-A		AZTEC NAVAJO NO. 1-A			AZTEC NAVAJO NO. 1-A		
LOCATION.....	SEC. 36, T32N, R18W		SEC. 36, T32N, R18W			SEC. 36, T32N, R18W		
OWNER.....	SOUTHERN UNION GAS CO.		SOUTHERN UNION GAS & TEXAS C			SOUTHERN UNION GAS & TEXAS C		
COMPLETED.....	02/25/53		02/25/53			02/25/53		
SAMPLED.....	02/22/53		03/13/53			03/31/53		
FORMATION.....	PENN-PARADOX		PENN-PARADOX			PENN-PARADOX		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	7623		7604			7604		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		3000			3000		
OPEN FLOW, MCFD.....	4000		13900			13900		
COMPONENT, MOLE PCT.....								
METHANE.....	81.1		90.3			85.0		
ETHANE.....	1.5		1.6			1.4		
PROPANE.....	3.6		0.6			0.9		
N-BUTANE.....	0.7		0.3			0.3		
ISOBUTANE.....	0.0		0.1			0.1		
N-PENTANE.....	0.5		0.1			0.1		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.2		TRACE			TRACE		
HEXANES PLUS.....	0.8		0.2			0.2		
NITROGEN.....	0.4		1.2			0.9		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.7		0.0			0.4		
CARBON DIOXIDE.....	10.3		5.1			10.5		
HELIUM.....	0.16		0.18			0.16		
HEATING VALUE.....	1040		988			970		
SPECIFIC GRAVITY.....	0.747		0.634			0.691		
INDEX 4576 SAMPLE 6031			INDEX 4577 SAMPLE 6032			INDEX 4578 SAMPLE 6306		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	CHACO UNIT NO. 2		CHACO UNIT NO. 1			BLANCO 30-12 NO. 4-10		
LOCATION.....	SEC. 15, T23N, R8W		SEC. 14, T23N, R9W			SEC. 10, T30N, R12W		
OWNER.....	GREAT WESTERN DRILLING CO.		GREAT WESTERN DRILLING CO.			NORTHWEST PRODUCTION CORP.		
COMPLETED.....	05/19/55		05/09/55			02/17/57		
SAMPLED.....	03/06/56		03/06/56			04/17/57		
FORMATION.....	CRET-TOCITO		CRET-TOCITO			CRET-FRUITLAND		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	4910		4630			1816		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			692		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			5946		
COMPONENT, MOLE PCT.....								
METHANE.....	75.9		73.2			88.8		
ETHANE.....	9.3		10.1			5.0		
PROPANE.....	6.5		7.7			2.9		
N-BUTANE.....	2.0		2.6			0.6		
ISOBUTANE.....	0.7		0.9			0.9		
N-PENTANE.....	0.4		0.4			0.1		
ISOPENTANE.....	0.6		0.7			0.2		
CYCLOPENTANE.....	0.2		0.2			TRACE		
HEXANES PLUS.....	0.4		0.4			0.2		
NITROGEN.....	3.3		3.8			1.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	TRACE		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			TRACE		
HELIUM.....	0.16		0.12			0.02		
HEATING VALUE.....	1266		1298			1138		
SPECIFIC GRAVITY.....	0.754		0.779			0.644		
INDEX 4579 SAMPLE 6465			INDEX 4580 SAMPLE 6981			INDEX 4581 SAMPLE 6986		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	USG SEC. 19, NO. 17		NAVAJO C NO. 1			NAVAJO C NO. 1		
LOCATION.....	SEC. 19, T29N, R16W		SEC. 1, T29N, R17W			SEC. 1, T29N, R17W		
OWNER.....	PAN-AMERICAN PETROLEUM CORP.		PAN-AMERICAN PETROLEUM CORP.			PAN-AMERICAN PETROLEUM CORP.		
COMPLETED.....	--/--/00		04/21/59			04/21/59		
SAMPLED.....	01/03/58		02/23/59			03/01/59		
FORMATION.....	PENN-PARADOX		PENN-PARADOX			PENN-PARADOX		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	6530		5937			6110		
WELLHEAD PRESSURE, PSIG.....	1340		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	5500		64			209		
COMPONENT, MOLE PCT.....								
METHANE.....	5.2		65.4			66.4		
ETHANE.....	0.2		3.0			3.0		
PROPANE.....	1.6		2.0			2.7		
N-BUTANE.....	0.8		1.2			1.1		
ISOBUTANE.....	0.8		0.8			0.9		
N-PENTANE.....	0.4		0.4			0.4		
ISOPENTANE.....	0.1		0.4			0.3		
CYCLOPENTANE.....	TRACE		0.2			0.2		
HEXANES PLUS.....	0.2		0.0			0.7		
NITROGEN.....	80.7		18.6			18.8		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.8		0.0			0.0		
HYDROGEN.....	TRACE		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		TRACE			0.1		
HELIUM.....	8.0		2.0			2.70		
HEATING VALUE.....	192		990			977		
SPECIFIC GRAVITY.....	0.923		0.743			0.739		
INDEX 4582 SAMPLE 6990			INDEX 4583 SAMPLE 6994			INDEX 4584 SAMPLE 6995		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	HARRAH NO. 1		HARRAH NO. 1			NAVAJO C NO. 1		
LOCATION.....	SEC. 11, T29N, R17W		SEC. 11, T29N, R17W			SEC. 1, T29N, R17W		
OWNER.....	SAN JUAN DRILLING CO.		SAN JUAN DRILLING CO.			PAN-AMERICAN PETROLEUM CORP.		
COMPLETED.....	--/--/00		04/1/59			04/21/59		
SAMPLED.....	03/04/59		03/09/59			03/08/59		
FORMATION.....	NOT GIVEN		PENN-PARADOX			PENN-PARADOX		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	NOT GIVEN		6827			6287		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		25			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	70.4		16.5			58.9		
ETHANE.....	7.0		10.5			5.2		
PROPANE.....	3.5		4.3			2.7		
N-BUTANE.....	1.4		1.3			1.1		
ISOBUTANE.....	1.0		1.1			0.8		
N-PENTANE.....	0.5		0.4			0.4		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	0.3		0.1			0.2		
HEXANES PLUS.....	0.5		0.5			0.7		
NITROGEN.....	10.8		59.4			24.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.2		0.7			0.4		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.7		0.1			0.1		
HELIUM.....	1.70		4.50			4.70		
HEATING VALUE.....	115		600			898		
SPECIFIC GRAVITY.....	0.765		0.942			0.756		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

891

		INDEX SAMPLE	4585 6997			INDEX SAMPLE	4586 7003			INDEX SAMPLE	4587 7004
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	WILDCAT			WILDCAT				WILDCAT			
WELL NAME.....	NAVAJO C NO. 1			HARRAH NO. 1				HARRAH NO. 1			
LOCATION.....	SEC. 1, T29N, R17W			SEC. 1, T29N, R17W				SEC. 1, T29N, R17W			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.				PAN AMERICAN PETROLEUM CORP.			
COMPLETED.....	04/21/59			07-700				07-700			
SAMPLED.....	03/13/59			03/14/59				03/15/59			
FORMATION.....	PENN-PARADOX			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	6360			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	209			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	37.4			65.4				23.2			
ETHANE.....	4.3			6.0				8.9			
PROPANE.....	2.6			2.6				4.6			
N-BUTANE.....	TRACE			0.2				1.8			
ISOBUTANE.....	0.0			0.6				1.3			
N-PENTANE.....	1.1			0.3				0.5			
ISOPENTANE.....	2.2			0.1				0.6			
CYCLOPENTANE.....	0.2			0.2				0.2			
HEXANES PLUS.....	0.5			0.5				0.7			
NITROGEN.....	42.0			19.2				50.9			
OXYGEN.....	0.1			0.0				TRACE			
ARGON.....	0.5			0.3				0.6			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.2				0.0			
CARBON DIOXIDE.....	3.0			1.2				2.9			
HELIUM.....	5.70			2.70				4.50			
HEATING VALUE.....	705			935				709			
SPECIFIC GRAVITY.....	0.867			0.737				0.951			

		INDEX SAMPLE	4588 7005			INDEX SAMPLE	4589 7010			INDEX SAMPLE	4590 7013
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	WILDCAT			WILDCAT				WILDCAT			
WELL NAME.....	NAVAJO C NO. 1			NAVAJO C NO. 1				NAVAJO C NO. 1			
LOCATION.....	SEC. 1, T29N, R17W			SEC. 1, T29N, R17W				SEC. 1, T29N, R17W			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.				PAN AMERICAN PETROLEUM CORP.			
COMPLETED.....	04/21/59			04/21/59				04/21/59			
SAMPLED.....	03/18/59			03/18/59				03/23/59			
FORMATION.....	PENN-PARADOX			PENN-PARADOX				MISS-			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	6435			6585				6950			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	59.1			1.6				11.8			
ETHANE.....	6.5			TRACE				0.8			
PROPANE.....	3.5			0.7				4.3			
N-BUTANE.....	1.4			1.2				0.4			
ISOBUTANE.....	0.0			0.8				0.0			
N-PENTANE.....	0.5			0.4				0.3			
ISOPENTANE.....	0.4			0.4				0.0			
CYCLOPENTANE.....	0.3			0.3				0.7			
HEXANES PLUS.....	0.9			0.6				0.1			
NITROGEN.....	21.5			84.6				40.8			
OXYGEN.....	0.0			TRACE				0.1			
ARGON.....	0.3			0.7				0.5			
HYDROGEN.....	TRACE			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			1.7				38.2			
HELIUM.....	4.30			6.90				2.10			
HEATING VALUE.....	983			174				311			
SPECIFIC GRAVITY.....	0.776			0.967				1.169			

		INDEX SAMPLE	4591 7020			INDEX SAMPLE	4592 7025			INDEX SAMPLE	4593 7026
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	WILDCAT			WILDCAT				WILDCAT			
WELL NAME.....	BICLABITO NO. 1			NAVAJO C NO. 1				NAVAJO C NO. 1			
LOCATION.....	SEC. 13, T30N, R21W			SEC. 1, T29N, R17W				SEC. 1, T29N, R17W			
OWNER.....	CONTINENTAL OIL CO.			PAN AMERICAN PETROLEUM CORP.				PAN AMERICAN PETROLEUM CORP.			
COMPLETED.....	08/03/43			04/21/59				04/21/59			
SAMPLED.....	04/07/59			04/18/59				04/19/59			
FORMATION.....	MISS-DEVO-OURAY			PENN-PARADOX				PENN-PARADOX			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	990			6366				6366			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2925				3000			
OPEN FLOW, MCFD.....	NOT GIVEN			9900				8949			
COMPONENT, MOLE PCT											
METHANE.....	22.9			37.0				36.8			
ETHANE.....	0.7			2.4				4.2			
PROPANE.....	0.5			2.7				2.8			
N-BUTANE.....	0.2			1.4				1.2			
ISOBUTANE.....	0.1			0.9				0.9			
N-PENTANE.....	0.1			0.3				0.4			
ISOPENTANE.....	0.0			0.3				0.4			
CYCLOPENTANE.....	TRACE			0.1				0.2			
HEXANES PLUS.....	0.2			0.3				0.6			
NITROGEN.....	66.4			42.3				41.8			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.7			0.0				0.5			
HYDROGEN.....	TRACE			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			4.3				4.3			
HELIUM.....	7.50			5.79				5.77			
HEATING VALUE.....	295			643				664			
SPECIFIC GRAVITY.....	0.828			0.855				0.863			

		INDEX SAMPLE	4594 7038			INDEX SAMPLE	4595 7079			INDEX SAMPLE	4596 8071
STATE.....	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	WILDCAT			WILDCAT				WILDCAT			
WELL NAME.....	NAVAJO C NO. 1			BECLABITO NO. 1				NAVAJO E NO. 1			
LOCATION.....	SEC. 1, T29N, R17W			SEC. 23, T30N, R20W				SEC. 15, T31N, R20W			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PURE OIL CO.				BRITISH AMERICAN OIL PROD. C			
COMPLETED.....	04/21/59			7-700				7-700			
SAMPLED.....	04/20/59			05/20/59				07/13/61			
FORMATION.....	PENN-PARADOX			MISS-				PENN-BLUFF			
GEOLOGIC PROVINCE CODE.....	580			580				580			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				5690			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	37.0			0.4				86.9			
ETHANE.....	4.2			0.0				5.2			
PROPANE.....	0.9			0.0				2.7			
N-BUTANE.....	1.1			0.0				1.0			
ISOBUTANE.....	0.8			0.0				0.9			
N-PENTANE.....	0.4			0.0				0.5			
ISOPENTANE.....	0.3			0.0				0.2			
CYCLOPENTANE.....	0.1			0.0				0.1			
HEXANES PLUS.....	0.4			0.0				0.3			
NITROGEN.....	42.7			96.7				1.5			
OXYGEN.....	TRACE			0.0				TRACE			
ARGON.....	0.5			1.2				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	4.0			1.3				0.4			
HELIUM.....	5.60			0.10				0.20			
HEATING VALUE.....	641			5				1167			
SPECIFIC GRAVITY.....	0.853			0.974				0.673			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4597 8102			INDEX SAMPLE	4598 8910			INDEX SAMPLE	4599 9045
STATE	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD	WILDCAT			WILDCAT				WILDCAT			
WELL NAME	BRITISH AMERICAN NO. 1			NAVAJO TRIBAL N NO. 1				NAVAJO TRIBAL 141 NO. 1			
LOCATION	SEC. 15, T31N, R20W			SEC. 17, T26N, R18W				SEC. 34, T27N, R18W			
OWNER	BRITISH AMERICAN OIL PROD. C			PAN AMERICAN PETROLEUM CORP.				SINCLAIR OIL & GAS CO.			
COMPLETED	--/--/00			--/--/00				08/23/63			
SAMPLED	07/26/61			04/03/63				07/16/63			
FORMATION	MISS			PENN-PARADOX L				MISS			
GEOLOGIC PROVINCE CODE	580			580				580			
DEPTH, FEET	6810			6392				6812			
WELLHEAD PRESSURE, PSIG	1615			NOT GIVEN				3170			
OPEN FLOW, MCFD	NOT GIVEN			5190				1006			
COMPONENT, MOLE PCT											
METHANE	14.4			77.6				1.1			
ETHANE	0.7			8.0				0.3			
PROPANE	0.9			3.4				TRACE			
N-BUTANE	0.2			1.3				0.1			
ISOBUTANE	0.1			0.6				TRACE			
N-PENTANE	0.1			0.4				TRACE			
ISOPENTANE	TRACE			0.4				TRACE			
CYCLOPENTANE	TRACE			TRACE				TRACE			
HEXANES PLUS	0.1			0.3				0.1			
NITROGEN	56.5			6.8				90.3			
OXYGEN	TRACE			0.0				TRACE			
ARGON	0.7			TRACE				1.0			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	19.2			0.8				0.0			
HELIUM	6.0			0.48				7.00			
HEATING VALUE*	210			1131				.21			
SPECIFIC GRAVITY	0.977			0.714				0.911			
		INDEX SAMPLE	4600 9050			INDEX SAMPLE	4601 9055			INDEX SAMPLE	4602 9063
STATE	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD	WILDCAT			WILDCAT				WILDCAT			
WELL NAME	NAVAJO TRACT 24 NO. 1			NAVAJO 24 NO. 1				NAVAJO 24 NO. 1			
LOCATION	SEC. 15, T31N, R18W			SEC. 15, T31N, R18W				SEC. 15, T31N, R18W			
OWNER	HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.				HUMBLE OIL & REFINING CO.			
COMPLETED	12/16/63			12/16/63				12/16/63			
SAMPLED	07/29/63			08/04/63				08/08/63			
FORMATION	PENN-DESERT CREEK			CRET-BARKER CREEK				PENN---			
GEOLOGIC PROVINCE CODE	580			580				580			
DEPTH, FEET	NOT GIVEN			7324				7585			
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE	90.5			88.5				90.9			
ETHANE	4.1			4.7				3.4			
PROPANE	1.2			1.2				1.1			
N-BUTANE	0.8			1.2				0.4			
ISOBUTANE	0.1			0.3				0.3			
N-PENTANE	0.3			0.2				TRACE			
ISOPENTANE	0.4			0.3				0.3			
CYCLOPENTANE	0.2			0.1				TRACE			
HEXANES PLUS	0.7			0.3				0.1			
NITROGEN	1.0			1.6				3.0			
OXYGEN	TRACE			TRACE				0.0			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	0.3			0.1				0.1			
HELIUM	0.10			0.10				0.30			
HEATING VALUE*	1133			1143				1052			
SPECIFIC GRAVITY	0.644			0.654				0.613			
		INDEX SAMPLE	4603 9571			INDEX SAMPLE	4604 9841			INDEX SAMPLE	4605 9881
STATE	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD	WILDCAT			WILDCAT				WILDCAT			
WELL NAME	NAVAJO NO. 49			NAVAJO TRIBE AP-IX				NAVAJO AP 1-X			
LOCATION	SEC. 23, T26N, R18W			SEC. 8, T30N, R18W				SEC. 8, T30N, R18W			
OWNER	SINCLAIR OIL & GAS CO.			TEXACO INC.				TEXACO INC.			
COMPLETED	10/02/64			05/11/65				--/--/00			
SAMPLED	04/30/64			04/07/65				04/10/65			
FORMATION	MISS			PENN-ISLAY				PENN---			
GEOLOGIC PROVINCE CODE	580			580				580			
DEPTH, FEET	8757			6390				6650			
WELLHEAD PRESSURE, PSIG	NOT GIVEN			3005				NOT GIVEN			
OPEN FLOW, MCFD	NOT GIVEN			13				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE	2.3			88.0				83.2			
ETHANE	0.1			4.3				6.3			
PROPANE	0.1			2.1				3.0			
N-BUTANE	0.1			0.6				0.7			
ISOBUTANE	TRACE			0.6				0.6			
N-PENTANE	TRACE			0.2				0.2			
ISOPENTANE	TRACE			0.4				0.2			
CYCLOPENTANE	TRACE			0.0				TRACE			
HEXANES PLUS	0.1			0.4				0.1			
NITROGEN	93.6			3.0				5.2			
OXYGEN	TRACE			0.0				0.0			
ARGON	0.1			TRACE				TRACE			
HYDROGEN	0.2			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	0.1			0.0				0.0			
HELIUM	2.54			0.25				0.03			
HEATING VALUE*	37			1113				1100			
SPECIFIC GRAVITY	0.941			0.649				0.670			
		INDEX SAMPLE	4606 9893			INDEX SAMPLE	4607 10093			INDEX SAMPLE	4608 10242
STATE	NEW MEXICO			NEW MEXICO				NEW MEXICO			
COUNTY	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD	WILDCAT			WILDCAT				WILDCAT			
WELL NAME	NAVAJO AP NO. 1-X			TABLE MESA NO. 1				TABLE MESA NO. 2			
LOCATION	SEC. 8, T30N, R18W			SEC. 27, T28N, R17N				SEC. 27, T28N, R17W			
OWNER	TEXACO INC.			SUNRAY OX OIL CO.				SUNRAY OX OIL CO.			
COMPLETED	05/11/65			--/--/00				--/--/00			
SAMPLED	05/11/65			08/29/65				10/22/65			
FORMATION	PENN---			PENN-TABLE MESA				PENN-TABLE MESA			
GEOLOGIC PROVINCE CODE	580			580				580			
DEPTH, FEET	6680			7399				7291			
WELLHEAD PRESSURE, PSIG	NOT GIVEN			1100				NOT GIVEN			
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE	87.6			28.9				21.6			
ETHANE	4.8			7.2				3.3			
PROPANE	2.0			5.6				1.7			
N-BUTANE	0.8			2.4				0.5			
ISOBUTANE	0.7			0.4				0.3			
N-PENTANE	0.4			0.4				0.1			
ISOPENTANE	0.2			1.1				0.2			
CYCLOPENTANE	0.3			0.1				0.2			
HEXANES PLUS	0.1			0.1				0.1			
NITROGEN	1.2			47.3				65.5			
OXYGEN	0.1			0.0				0.2			
ARGON	0.1			0.7				0.7			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	1.0			1.5				0.8			
HELIUM	0.12			0.00				4.3			
HEATING VALUE*	1154			807				376			
SPECIFIC GRAVITY	0.672			0.960				0.878			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4609 10253	INDEX SAMPLE	4610 10274	INDEX SAMPLE	4611 10275
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	NO. 1 NAVAJO-HUMBLE			TABLE MESA NO. 2		TABLE MESA NO. 1	
LOCATION.....	SEC. 16, T25N, R19W			SEC. 27, T28N, R17W		SEC. 27, T28N, R17W	
OWNER.....	CHAMPLIN PETROLEUM CO.			SUNRAY OX OIL CO.		SUNRAY OX OIL CO.	
COMPLETED.....	--/--/00			11/07/65		09/18/65	
SAMPLED.....	10/30/65			11/08/65		11/08/65	
FORMATION.....	DEVO-ANETH			PENN-PARADOX		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	6220			7295		7411	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1200		1100	
OPEN FLOW, MCFD.....	111			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	2.5	-----		22.9	-----	25.6	-----
ETHANE.....	0.5	-----		6.1	-----	8.7	-----
PROPANE.....	0.8	-----		4.8	-----	7.7	-----
N-BUTANE.....	0.5	-----		2.4	-----	4.1	-----
ISOBUTANE.....	0.2	-----		1.3	-----	2.3	-----
N-PENTANE.....	0.4	-----		1.6	-----	1.1	-----
ISOPENTANE.....	0.2	-----		1.0	-----	1.6	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	0.2	-----
HEXANES PLUS.....	0.6	-----		0.6	-----	0.8	-----
NITROGEN.....	90.7	-----		54.3	-----	43.1	-----
OXYGEN.....	0.1	-----		0.0	-----	0.2	-----
ARGON.....	0.7	-----		0.6	-----	0.6	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		1.3	-----	2.0	-----
HELIUM.....	2.87	-----		3.89	-----	2.39	-----
HEATING VALUE.....	134	-----		697	-----	538	-----
SPECIFIC GRAVITY.....	0.970	-----		0.964	-----	1.033	-----
		INDEX SAMPLE	4612 10292	INDEX SAMPLE	4613 10320	INDEX SAMPLE	4614 10321
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	RAVEN NO. 1			TABLE MESA NO. 1		TABLE MESA NO. 2	
LOCATION.....	SEC. 6, T27N, R14W			SEC. 27, T28N, R17W		SEC. 27, T28N, R17W	
OWNER.....	THOMAS A. DUGAN			SUNRAY OX OIL CO.		SUNRAY OX OIL CO.	
COMPLETED.....	10/23/65			10/18/65		11/07/65	
SAMPLED.....	11/26/65			12/03/65		12/03/65	
FORMATION.....	CRET-DAKOTA			PENN-PARADOX		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	5470			7411		7295	
WELLHEAD PRESSURE, PSIG.....	1446			1100		1200	
OPEN FLOW, MCFD.....	1398			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	79.7	-----		24.2	-----	23.8	-----
ETHANE.....	8.4	-----		7.7	-----	6.3	-----
PROPANE.....	5.3	-----		7.5	-----	5.0	-----
N-BUTANE.....	1.7	-----		4.7	-----	2.3	-----
ISOBUTANE.....	0.7	-----		2.2	-----	1.1	-----
N-PENTANE.....	0.4	-----		1.5	-----	0.6	-----
ISOPENTANE.....	0.8	-----		1.0	-----	0.9	-----
CYCLOPENTANE.....	0.3	-----		0.3	-----	0.2	-----
HEXANES PLUS.....	0.5	-----		1.3	-----	0.6	-----
NITROGEN.....	1.4	-----		42.4	-----	53.2	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.1	-----
ARGON.....	TRACE	-----		0.6	-----	0.6	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		3.0	-----	1.6	-----
HELIUM.....	0.07	-----		3.08	-----	3.72	-----
HEATING VALUE.....	1264	-----		1012	-----	700	-----
SPECIFIC GRAVITY.....	0.739	-----		1.063	-----	0.960	-----
		INDEX SAMPLE	4615 10431	INDEX SAMPLE	4616 10469	INDEX SAMPLE	4617 10746
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	NAVAJO AW NO. 1			NAVAJO AW NO. 1		SHIPROCK NO. 3	
LOCATION.....	SEC. 7, T27N, R20W			SEC. 7, T27N, R20W		SEC. 14, T30N, R18W	
OWNER.....	TEXACO INC.			TEXACO INC.		THOMAS A. DUGAN	
COMPLETED.....	--/--/00			03/17/66		--/--/00	
SAMPLED.....	03/04/66			03/17/66		10/14/66	
FORMATION.....	PENN--			DEVO--		CRET-TOCITO	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	5160			6020		370	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	17.1	-----		0.6	-----	92.4	-----
ETHANE.....	2.1	-----		0.0	-----	1.1	-----
PROPANE.....	1.3	-----		0.0	-----	TRACE	-----
N-BUTANE.....	0.5	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.4	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.1	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.2	-----		0.0	-----	0.0	-----
NITROGEN.....	72.0	-----		90.5	-----	1.1	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.7	-----		1.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	5.4	-----
HELIUM.....	5.20	-----		7.80	-----	TRACE	-----
HEATING VALUE.....	297	-----		6	-----	956	-----
SPECIFIC GRAVITY.....	0.885	-----		0.905	-----	0.617	-----
		INDEX SAMPLE	4618 11152	INDEX SAMPLE	4619 11291	INDEX SAMPLE	4620 11910
STATE.....	NEW MEXICO			NEW MEXICO		NEW MEXICO	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	NAVAJO I NO. 1			NAVAJO TRIGAL AD NO. 1		NAVAJO 8B NO. 1	
LOCATION.....	SEC. 34, T24N, R20W			SEC. 13, T30N, R21W		SEC. 25, T26N, R20W	
OWNER.....	KERR-MCCOY CORP.			PAN AMERICAN PETROLEUM CORP.		SULF OIL CO.	
COMPLETED.....	--/--/00			12/05/67		--/--/00	
SAMPLED.....	10/05/67			02/16/68		06/05/69	
FORMATION.....	CAMB-			PERM-CUTLER		MISS-LIMESTONE	
GEOLOGIC PROVINCE CODE.....	580			580		580	
DEPTH, FEET.....	3902			1868		6600	
WELLHEAD PRESSURE, PSIG.....	7148			710		2635	
OPEN FLOW, MCFD.....	NOT GIVEN			3520		64	
COMPONENT, MOLE PCT							
METHANE.....	0.6	-----		82.8	-----	5.3	-----
ETHANE.....	0.0	-----		4.3	-----	0.6	-----
PROPANE.....	TRACE	-----		1.8	-----	0.6	-----
N-BUTANE.....	0.0	-----		0.5	-----	0.4	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.2	-----
N-PENTANE.....	0.0	-----		0.1	-----	0.3	-----
ISOPENTANE.....	0.0	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.3	-----
NITROGEN.....	92.9	-----		9.0	-----	87.4	-----
OXYGEN.....	0.0	-----		0.1	-----	1.0	-----
ARGON.....	0.7	-----		0.7	-----	0.8	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.2	-----
HELIUM.....	5.50	-----		0.52	-----	2.55	-----
HEATING VALUE.....	5	-----		1003	-----	132	-----
SPECIFIC GRAVITY.....	0.924	-----		0.648	-----	0.950	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4621 SAMPLE 13125			INDEX 4622 SAMPLE 9254			INDEX 4623 SAMPLE 17062		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SANDOVAL			SANDOVAL		
FIELD.....	WILDCAT		NACIMIENTO			RUSTY		
WELL NAME.....	ASHCROFT NO. 1		OIL TEST			DOVE FED. 1-21-7 NO. 1		
LOCATION.....	SEC. 26, T23N, R12W		SEC. 1, T16N, R1W			SEC. 1, T21N, R7W		
OWNER.....	APACHE CORP.		ZIA PUEBLOS			DOVE PETROLEUM CORP.		
COMPLETED.....	--/--/00		10/--/26			09/01/82		
SAMPLED.....	12/22/71		03/14/64			09/13/83		
FORMATION.....	CRET-DAKOTA		NOT GIVEN			CRET-CHACRA		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	4547		NOT GIVEN			2000		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		225			480		
OPEN FLOW, MCFD.....	NOT GIVEN		790			750		
COMPONENT, MOLE PCT								
METHANE.....	46.7	0.0	87.9					
ETHANE.....	23.0	0.1	5.9					
PROPANE.....	19.4	0.0	2.2					
N-BUTANE.....	3.9	0.0	0.5					
ISOBUTANE.....	3.3	0.0	0.3					
N-PENTANE.....	0.2	0.0	0.1					
ISOPENTANE.....	2.1	0.0	0.2					
CYCLOPENTANE.....	0.3	0.0	TRACE					
HEXANES PLUS.....	0.8	0.0	0.1					
NITROGEN.....	0.0	11.8	2.2					
OXYGEN.....	TRACE	0.4	TRACE					
ARGON.....	TRACE	0.2	TRACE					
HYDROGEN.....	0.0	0.0	0.3					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	0.3	86.4	0.2					
HELIUM.....	TRACE	1.09	0.02					
HEATING VALUE.....	1781	2	1099					
SPECIFIC GRAVITY.....	1.044	1.445	0.635					
INDEX 4624 SAMPLE 1414			INDEX 4625 SAMPLE 1547			INDEX 4626 SAMPLE 2247		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	TORRANCE		TORRANCE			TORRANCE		
FIELD.....	ESTANCIA VALLEY		ESTANCIA VALLEY			J. B. WITT TEXT		
WELL NAME.....	PACE NO. 1		PACE NO. 1			SEC. 12, T1N, R7E		
LOCATION.....	NOT GIVEN		SEC. 12, T6N, R7E			SINOCO OIL CO.		
OWNER.....	E. PACE HEIRS		NOT GIVEN			--/--/00		
COMPLETED.....	--/--/00		--/--/00			12/01/30		
SAMPLED.....	07/29/27		11/25/27			PENN-MAGDALENA		
FORMATION.....	PENN-		CAMB-			460		
GEOLOGIC PROVINCE CODE.....	460		460			1293		
DEPTH, FEET.....	1640		1640			400		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			250		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			250		
COMPONENT, MOLE PCT								
METHANE.....	0.0	0.0	0.0					
ETHANE.....	0.0	0.0	0.0					
PROPANE.....	---	---	---					
N-BUTANE.....	---	---	---					
ISOBUTANE.....	---	---	---					
N-PENTANE.....	---	---	---					
ISOPENTANE.....	---	---	---					
CYCLOPENTANE.....	---	---	---					
HEXANES PLUS.....	---	---	---					
NITROGEN.....	1.6	1.0	2.1					
OXYGEN.....	0.0	0.0	0.0					
ARGON.....	---	---	---					
HYDROGEN.....	---	---	---					
HYDROGEN SULFIDE.....	---	---	---					
CARBON DIOXIDE.....	98.4	99.0	97.4					
HELIUM.....	0.04	0.03	0.08					
HEATING VALUE.....	0	---	0					
SPECIFIC GRAVITY.....	1.520	1.523	1.510					
INDEX 4627 SAMPLE 16909			INDEX 4628 SAMPLE 2246			INDEX 4629 SAMPLE 2641		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	UNION		UNION			UNION		
FIELD.....	BRavo DOME		NOT GIVEN			NOT GIVEN		
WELL NAME.....	CAIN NO. E-1 (1935-2216)		GAS SEEP			GAS SEEP		
LOCATION.....	SEC. 22, T22N, R16W		SEC. 19, T23N, R32E			SEC. 17, T23N, R34E		
OWNER.....	AMOCO PRODUCTION CO. (USA)		NOT GIVEN			H. C. GILLILAND		
COMPLETED.....	04/--/83		--/--/00			--/--/00		
SAMPLED.....	04/19/83		12/04/30			09/04/33		
FORMATION.....	PERM-TUBB		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	445		445			445		
DEPTH, FEET.....	2060		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	350		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	1770		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	TRACE	88.0	51.2					
ETHANE.....	TRACE	0.0	9.9					
PROPANE.....	0.0	---	---					
N-BUTANE.....	0.0	---	---					
ISOBUTANE.....	0.0	---	---					
N-PENTANE.....	0.0	---	---					
ISOPENTANE.....	0.0	---	---					
CYCLOPENTANE.....	0.0	---	---					
HEXANES PLUS.....	0.0	---	---					
NITROGEN.....	0.8	9.0	30.8					
OXYGEN.....	TRACE	1.3	0.7					
ARGON.....	TRACE	---	---					
HYDROGEN.....	0.0	---	---					
HYDROGEN SULFIDE.....	0.0	---	---					
CARBON DIOXIDE.....	99.0	1.7	7.4					
HELIUM.....	0.02	0.00	0.00					
HEATING VALUE.....	0	0.615	0.807					
SPECIFIC GRAVITY.....	1.521	---	---					
INDEX 4630 SAMPLE 2661			INDEX 4631 SAMPLE 2670			INDEX 4632 SAMPLE 2698		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	UNION		UNION			UNION		
FIELD.....	NOT GIVEN		NOT GIVEN			SIERRA GRANDE		
WELL NAME.....	GAS SEEP		GAS SEEP			ROGERS NO. 1		
LOCATION.....	SEC. 6, T22N, R34E		SEC. 6, T22N, R34E			SEC. 4, T29N, R29E		
OWNER.....	W. E. FRENCH		W. E. FRENCH			SIERRA GRANDE OIL CORP.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	12/13/33		04/24/35			04/24/35		
FORMATION.....	NOT GIVEN		NOT GIVEN			TRIA-SANTA ROSA		
GEOLOGIC PROVINCE CODE.....	445		445			445		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			1188		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.7	72.1	0.0					
ETHANE.....	4.1	4.0	0.0					
PROPANE.....	---	---	---					
N-BUTANE.....	---	---	---					
ISOBUTANE.....	---	---	---					
N-PENTANE.....	---	---	---					
ISOPENTANE.....	---	---	---					
CYCLOPENTANE.....	---	---	---					
HEXANES PLUS.....	---	---	---					
NITROGEN.....	11.1	12.9	1.2					
OXYGEN.....	2.6	2.5	0.4					
ARGON.....	---	---	---					
HYDROGEN.....	---	---	---					
HYDROGEN SULFIDE.....	---	---	---					
CARBON DIOXIDE.....	6.5	8.5	98.4					
HELIUM.....	0.00	0.02	0.00					
HEATING VALUE.....	840	802	0					
SPECIFIC GRAVITY.....	0.698	0.724	1.521					

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4633 SAMPLE 9186			INDEX 4634 SAMPLE 9185			INDEX 4635 SAMPLE 9101		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	VALENCIA		VALENCIA			VALENCIA		
FIELD.....	COMANCHE DRAW		SPRING N OF MESA LUCERO			WATER WELL		
WELL NAME.....	SPRING		SPRING			NOT GIVEN		
LOCATION.....	SEC. 35, T6N, R3W		SEC. 15, T8N, R3W			SEC. 12, T9N, R5W		
OWNER.....	USGS, QUALITY OF WATER BRANCH		USGS, QUALITY OF WATER BRANCH			U.S. BUREAU OF INDIAN AFFAIR		
COMPLETED.....	11/30/63		11/29/63			10/04/63		
SAMPLED.....	11/30/63		11/29/63			10/04/63		
FORMATION.....	PENN-MADERA		PERM-SAN ANDRES			PERM-SAN ANDRES		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	NOT GIVEN		1300			1650		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	0.0		0.0			TRACE		
ETHANE.....	0.0		0.0			0.0		
PROPANE.....	0.0		0.0			0.0		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.1		0.1			44.0		
OXYGEN.....	0.1		0.1			TRACE		
ARGON.....	0.0		0.1			0.6		
HYDROGEN.....	0.0		0.0			31.8		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	98.4		92.1			21.4		
HELIUM.....	0.01		0.0			2.00		
HEATING VALUE.....	0		0			103		
SPECIFIC GRAVITY.....	1.519		1.280			0.787		
INDEX 4636 SAMPLE 9106			INDEX 4637 SAMPLE 9624			INDEX 4638 SAMPLE 12220		
STATE.....	NEW MEXICO		NEW MEXICO			NEW YORK		
COUNTY.....	VALENCIA		VALENCIA			ALLEGANY		
FIELD.....	WATER WELL		WATER WELL			HILL E		
WELL NAME.....	ARABIAN WATER WELL IN SEC12		INLAND WATER WELL OF MESITA			ALLEN RAMSEY NO. 1		
LOCATION.....	SEC. 12, T5N, R5W		SEC. 12, T9N, R5W			SCOT TWP		
OWNER.....	U.S. BUREAU OF INDIAN AFFAIR		U.S. BUREAU OF INDIAN AFFAIR			PROFESSIONAL PETROLEUM EXPL.		
COMPLETED.....	09/27/63		11/13/64			10/27/70		
SAMPLED.....	10/07/63		11/13/64			10/27/70		
FORMATION.....	PERM-SAN ANDRES		PERM-SAN ANDRES			DEVON-CANADEA		
GEOLOGIC PROVINCE CODE.....	580		580			160		
DEPTH, FEET.....	1665		1725			902		
WELLHEAD PRESSURE, PSIG.....	170		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			8		
COMPONENT, MOLE PCT								
METHANE.....	0.0		0.5			82.2		
ETHANE.....	0.0		0.1			10.4		
PROPANE.....	0.0		0.0			3.7		
N-BUTANE.....	0.0		0.0			0.3		
ISOBUTANE.....	0.0		0.0			0.3		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			0.2		
NITROGEN.....	48.0		48.5			1.5		
OXYGEN.....	1.4		TRACE			0.1		
ARGON.....	0.7		0.7			0.0		
HYDROGEN.....	4.7		0.0			0.5		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	42.7		52.1			0.0		
HELIUM.....	2.30		2.00			0.11		
HEATING VALUE.....	15		7			1169		
SPECIFIC GRAVITY.....	1.151		1.244			0.670		
INDEX 4639 SAMPLE 12304			INDEX 4640 SAMPLE 12305			INDEX 4641 SAMPLE 9611		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	ALLEGANY		ALLEGANY			ALLEGANY		
FIELD.....	HILL E		HILL E			INDEPENDENCE LOT 106		
WELL NAME.....	ALLEN RAMSEY NO. 1		ALLEN RAMSEY NO. 1			C. A. WILSON NO. 2304		
LOCATION.....	SCOT TWP		SCOT TWP			INDEPENDENCE TWP		
OWNER.....	PROFESSIONAL PETROLEUM EXPL.		PROFESSIONAL PETROLEUM EXPL.			IROQUOIS GAS CORP.		
COMPLETED.....	03/30/70		03/30/70			05/31/40		
SAMPLED.....	06/17/70		06/17/70			10/14/64		
FORMATION.....	NOT GIVEN		DEVON-ORISKANY			DEVON-ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		3849			4612		
WELLHEAD PRESSURE, PSIG.....	415		1300			1824		
OPEN FLOW, MCFD.....	46		7100			16000		
COMPONENT, MOLE PCT								
METHANE.....	82.4		84.1			93.5		
ETHANE.....	11.1		11.2			5.6		
PROPANE.....	2.7		2.9			0.4		
N-BUTANE.....	0.5		0.5			TRACE		
ISOBUTANE.....	0.3		0.3			0.1		
N-PENTANE.....	0.1		0.2			TRACE		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.1		0.2			TRACE		
NITROGEN.....	2.1		0.3			0.1		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.04		0.04			0.02		
HELIUM.....	1140		1181			1061		
HEATING VALUE.....	0.663		0.664			0.589		
SPECIFIC GRAVITY.....	0.663		0.664			0.589		
INDEX 4642 SAMPLE 9615			INDEX 4643 SAMPLE 14725			INDEX 4644 SAMPLE 15896		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	ALLEGANY		ALLEGANY			ALLEGANY		
FIELD.....	INDEPENDENCE LOT 67		NEW ORISKANY			NOT GIVEN		
WELL NAME.....	MOSES NO. 2171		BEERS NO. 1			BENTLEY 20614-C		
LOCATION.....	INDEPENDENCE TWP.		LOT 30, BOLIVAR TWP.			TOWN OF GRANGER		
OWNER.....	THOMAS E. HUNGERFORD		THOMAS E. HUNGERFORD			COLUMBIA GAS TRANS. CORP.		
COMPLETED.....	04/28/77		07/01/76			01/24/79		
SAMPLED.....	10/14/64		07/22/76			01/28/80		
FORMATION.....	DEVON-U		DEVON-TULLY			DEVON-		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	788		4200			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	130		130			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		7000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.9		81.2			79.3		
ETHANE.....	12.1		12.1			13.3		
PROPANE.....	3.2		4.0			4.4		
N-BUTANE.....	1.0		1.0			1.3		
ISOBUTANE.....	0.5		0.4			0.6		
N-PENTANE.....	0.3		0.2			0.4		
ISOPENTANE.....	0.3		0.2			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	0.4		0.7			0.4		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.10		0.03			0.02		
HELIUM.....	1193		1213			1249		
HEATING VALUE.....	0.674		0.688			0.710		
SPECIFIC GRAVITY.....	0.674		0.688			0.710		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. -- SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4645 SAMPLE 15897		INDEX 4646 SAMPLE 10243		INDEX 4647 SAMPLE 16499	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	ALLEGANY	ALLEGANY	ALLEGANY	ALLEGANY	
FIELD.....	NOT GIVEN	STATE LINE	VANDERMARK-HARDING	VANDERMARK-HARDING	
WELL NAME.....	BENTLEY 20614-T	LEE HARDER NO. 1	BLACK NO. 1	BLACK NO. 1	
LOCATION.....	TOWN OF GRANGER	TOWN OF ALMA	WELLSVILLE N. QUAD. WARD TWP	WELLSVILLE N. QUAD. WARD TWP	
OWNER.....	COLUMBIA GAS TRANS. CORP.	CONSOLIDATED GAS SUPPLY CORP	VANDERMARK ASSOC.	VANDERMARK ASSOC.	
COMPLETED.....	01/24/79	--/--/00	09/13/81	09/13/81	
SAMPLED.....	01/28/80	10/21/85	04/20/82	04/20/82	
FORMATION.....	DEVO-ORISKANY	DEVO-ORISKANY	DEVO-ORISKANY	DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	3050	4840	4199	4199	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	530	1390	1390	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	2100	2100	
COMPONENT, MOLE PCT					
METHANE.....	74.7	93.1	88.5	88.5	
ETHANE.....	15.8	4.4	9.0	9.0	
PROpane.....	7.0	1.7	1.9	1.9	
N-BUTANE.....	1.3	0.2	0.2	0.2	
ISOBUTANE.....	0.7	0.1	0.1	0.1	
N-PENTANE.....	0.3	0.1	0.1	0.1	
ISOPENTANE.....	0.0	0.1	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	0.1	
NITROGEN.....	0.0	0.0	0.0	0.0	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.3	TRACE	TRACE	
HELIUM.....	TRACE	0.22	0.04	0.04	
HEATING VALUE.....	1307	0.64	1.08	1.08	
SPECIFIC GRAVITY.....	0.741	0.601	0.622	0.622	
INDEX 4648 SAMPLE 14312		INDEX 4649 SAMPLE 10773		INDEX 4650 SAMPLE 11577	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	ALLEGANY	ALLEGANY	ALLEGANY	ALLEGANY	
FIELD.....	WATER WELL	WILDCAT	WILDCAT	WILDCAT	
WELL NAME.....	NOT GIVEN	LYTLE NO. 1	CLAIR NO. 1	CLAIR NO. 1	
LOCATION.....	BELMONT	CANASERAGA QUAD.	ALMA TWP.	ALMA TWP.	
OWNER.....	N. Y. DEPT. OF TRANSPORTATION	GREAT LAKES GAS CORP.	QUAKER STATE OIL REF. CORP.	QUAKER STATE OIL REF. CORP.	
COMPLETED.....	--/--/00	11/05/66	07/11/68	07/11/68	
SAMPLED.....	04/02/75	11/05/66	07/08/68	07/08/68	
FORMATION.....	NOT GIVEN	DEVO-ORISKANY	DEVO-ORISKANY	DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	400	3466	4652	4652	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	1160	1160	
OPEN FLOW, MCFD.....	NOT GIVEN	2	1700	1700	
COMPONENT, MOLE PCT					
METHANE.....	76.2	84.0	87.5	87.5	
ETHANE.....	TRACE	10.8	9.6	9.6	
PROpane.....	TRACE	2.6	1.8	1.8	
N-BUTANE.....	0.0	0.0	0.5	0.5	
ISOBUTANE.....	0.0	0.2	0.0	0.0	
N-PENTANE.....	0.0	0.2	0.0	0.0	
ISOPENTANE.....	0.0	TRACE	0.0	0.0	
CYCLOPENTANE.....	0.0	TRACE	0.0	0.0	
HEXANES PLUS.....	0.0	0.1	0.0	0.0	
NITROGEN.....	21.7	1.4	0.3	0.3	
OXYGEN.....	1.4	0.0	0.0	0.0	
ARGON.....	0.4	TRACE	0.1	0.1	
HYDROGEN.....	0.0	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	TRACE	TRACE	TRACE	
HELIUM.....	TRACE	0.03	0.14	0.14	
HEATING VALUE.....	772	1153	1122	1122	
SPECIFIC GRAVITY.....	0.658	0.658	0.629	0.629	
INDEX 4651 SAMPLE 10252		INDEX 4652 SAMPLE 14407		INDEX 4653 SAMPLE 15207	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CATTARAUGUS	CATTARAUGUS	CATTARAUGUS	CATTARAUGUS	
FIELD.....	ALLEGANY STATE PARK	BRADFORD	BRADFORD	BRADFORD	
WELL NAME.....	LENA LOCKWOOD NO. 5	COMBO	W-15	W-15	
LOCATION.....	NOT GIVEN	OLEAN	NOT GIVEN	NOT GIVEN	
OWNER.....	FELMONT OIL CORP.	THROPP OIL & GAS CO.	QUAKER STATE OIL REF. CORP.	QUAKER STATE OIL REF. CORP.	
COMPLETED.....	12/18/65	06/16/75	08/10/77	08/10/77	
SAMPLED.....	10/26/65	06/16/75	02/02/78	02/02/78	
FORMATION.....	DEVO-ORISKANY	NOT GIVEN	DEVO-ORISKANY	DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	4279	NOT GIVEN	NOT GIVEN	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1100	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	8000	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	84.1	40.7	44.0	44.0	
ETHANE.....	10.2	14.8	25.9	25.9	
PROpane.....	2.9	6.4	17.6	17.6	
N-BUTANE.....	0.7	4.1	5.8	5.8	
ISOBUTANE.....	0.5	0.0	2.9	2.9	
N-PENTANE.....	0.2	0.0	1.3	1.3	
ISOPENTANE.....	0.1	20.8	1.6	1.6	
CYCLOPENTANE.....	TRACE	0.8	0.2	0.2	
HEXANES PLUS.....	0.2	0.0	0.8	0.8	
NITROGEN.....	1.0	10.1	TRACE	TRACE	
OXYGEN.....	0.0	0.9	0.0	0.0	
ARGON.....	TRACE	0.0	0.0	0.0	
HYDROGEN.....	0.0	TRACE	0.3	0.3	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.7	TRACE	TRACE	
HELIUM.....	0.04	0.03	0.02	0.02	
HEATING VALUE.....	1173	1879	1824	1824	
SPECIFIC GRAVITY.....	0.668	1.229	1.066	1.066	
INDEX 4654 SAMPLE 15906		INDEX 4655 SAMPLE 15945		INDEX 4656 SAMPLE 9960	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CATTARAUGUS	CATTARAUGUS	CATTARAUGUS	CATTARAUGUS	
FIELD.....	BRADFORD	BRADFORD	BRADFORD	BRADFORD	
WELL NAME.....	Q. S. NO. 3	QUINLAN E. NO. 2	FRED SMITH NO. 1	FRED SMITH NO. 1	
LOCATION.....	TOWN OF OLEAN	TOWN OF OLEAN	ALLEGANY TWP.	ALLEGANY TWP.	
OWNER.....	BARNUM 100 DEVELOPMENT	THROPP OIL AND GAS CORP.	THROPP OIL AND GAS CORP.	THROPP OIL AND GAS CORP.	
COMPLETED.....	--/--/00	01/20/80	05/01/65	05/01/65	
SAMPLED.....	02/23/80	04/24/80	07/03/65	07/03/65	
FORMATION.....	DEVO-BRADFORD	DEVO-	DEVO-ORISKANY	DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	3927	3927	
WELLHEAD PRESSURE, PSIG.....	40	NOT GIVEN	1815	1815	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	2100	2100	
COMPONENT, MOLE PCT					
METHANE.....	71.2	79.8	82.9	82.9	
ETHANE.....	17.1	12.7	10.6	10.6	
PROpane.....	7.0	4.3	7.7	7.7	
N-BUTANE.....	1.7	1.0	0.9	0.9	
ISOBUTANE.....	0.9	0.5	0.5	0.5	
N-PENTANE.....	0.3	0.2	0.2	0.2	
ISOPENTANE.....	0.4	0.2	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.2	0.2	
NITROGEN.....	0.4	1.2	0.8	0.8	
OXYGEN.....	TRACE	0.1	0.0	0.0	
ARGON.....	TRACE	0.0	0.0	0.0	
HYDROGEN.....	0.4	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	TRACE	0.1	0.1	
HELIUM.....	0.03	0.02	0.05	0.05	
HEATING VALUE.....	1341	1220	1196	1196	
SPECIFIC GRAVITY.....	0.766	0.698	0.680	0.680	

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

897

		INDEX SAMPLE	4657 6280	INDEX SAMPLE	4658 15168	INDEX SAMPLE	4659 15844
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	CATTARAUGUS			CATTARAUGUS		CATTARAUGUS	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	SEEP NO. 1			GAS SEEP IN LAKE		SEEP	
LOCATION.....	COLD SPRING TWP.			ELLICOTTVILLE QUAD.		TOWN OF OTTO	
OWNER.....	DEVONIAN GAS & OIL CO.			BOB WESTFALL		WESLEY FARNER	
COMPLETED.....	03/05/57			12/03/77		11/15/79	
SAMPLED.....	03/15/57			NOT GIVEN		NOT GIVEN	
FORMATION.....	DEVO-CHEMUNG			160		160	
GEOLOGIC PROVINCE CODE.....	160			NOT GIVEN		NOT GIVEN	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	150			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	500			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	88.2			76.4		71.2	
ETHANE.....	6.6			0.0		0.3	
PROPANE.....	2.1			TRACE		TRACE	
N-BUTANE.....	0.4			0.0		TRACE	
ISOBUTANE.....	0.4			0.0		0.0	
N-PENTANE.....	0.1			0.0		TRACE	
ISOPENTANE.....	0.1			0.0		TRACE	
CYCLOPENTANE.....	0.0			0.0		TRACE	
HEXANES PLUS.....	0.1			0.0		TRACE	
NITROGEN.....	1.3			2.0		27.8	
OXYGEN.....	TRACE			1.0		TRACE	
ARGON.....	0.0			0.1		0.5	
HYDROGEN.....	0.5			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			20.6		0.2	
HELIUM.....	0.19			TRACE		0.02	
HEATING VALUE.....	1.07			774		727	
SPECIFIC GRAVITY.....	0.629			0.770		0.677	
		INDEX SAMPLE	4660 10826	INDEX SAMPLE	4661 17279	INDEX SAMPLE	4662 17280
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	CATTARAUGUS			CATTARAUGUS		CATTARAUGUS	
FIELD.....	OLEAN N POOL			RANDOLPH		RANDOLPH	
WELL NAME.....	FELMONT OIL NO. 1 FEE			MEADE NO. 1		SENN NO. 2	
LOCATION.....	OLEAN QUAD.			SEC. 4 IVORY QUAD, RANDOLPH TW		SEC. 4, RANDOLPH QUAD, RANDOLPH	
OWNER.....	FELMONT OIL CORP.			PAUL & MARJORIE MEADE		DALE S. & WILDA SENN	
COMPLETED.....	11/21/66			06/01/82		06/03/82	
SAMPLED.....	12/14/66			05/08/84		05/08/84	
FORMATION.....	DEVO-			SILU-MEDINA		SILU-MEDINA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	998			4570		4210	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1250		1200	
OPEN FLOW, MCFD.....	10			1237		2768	
COMPONENT, MOLE PCT							
METHANE.....	48.1			93.9		93.8	
ETHANE.....	22.8			2.2		2.2	
PROPANE.....	18.2			0.2		0.2	
N-BUTANE.....	3.9			0.1		0.1	
ISOBUTANE.....	3.9			0.0		0.0	
N-PENTANE.....	1.6			0.1		TRACE	
ISOPENTANE.....	0.6			TRACE		TRACE	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.9			0.1		0.1	
NITROGEN.....	0.7			3.1		3.4	
OXYGEN.....	0.3			TRACE		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.3			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			TRACE		TRACE	
HELIUM.....	0.02			0.10		0.11	
HEATING VALUE.....	1.751			1012		1003	
SPECIFIC GRAVITY.....	1.028			0.587		0.585	
		INDEX SAMPLE	4663 15842	INDEX SAMPLE	4664 15843	INDEX SAMPLE	4665 11457
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	CATTARAUGUS			CATTARAUGUS		CATTARAUGUS	
FIELD.....	UTLEY BROOK			UTLEY BROOK		WILDCAT	
WELL NAME.....	ZOAR VALLEY NO. 1163A			ZOAR VALLEY NO. 1163A		COUNTRY SIDE S&G NO. 1	
LOCATION.....	UTLEY BROOK			TOWN OF OTTO		NEW ALBION TWP.	
OWNER.....	FLINT OIL & GAS, INC.			FLINT OIL & GAS, INC.		IAN GERNOTT	
COMPLETED.....	06/06/77			06/06/77		02/01/68	
SAMPLED.....	11/15/79			11/15/79		04/16/68	
FORMATION.....	DEVO-SHALE			SILU-MEDINA		SILU-MEDINA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	300			2700		3172	
WELLHEAD PRESSURE, PSIG.....	120			1000		802	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		95	
COMPONENT, MOLE PCT							
METHANE.....	83.6			91.5		89.0	
ETHANE.....	10.1			2.3		3.8	
PROPANE.....	3.1			0.2		0.3	
N-BUTANE.....	0.7			0.1		0.3	
ISOBUTANE.....	0.2			0.0		0.0	
N-PENTANE.....	0.2			0.0		0.0	
ISOPENTANE.....	0.1			0.1		0.0	
CYCLOPENTANE.....	TRACE			TRACE		0.0	
HEXANES PLUS.....	0.1			TRACE		0.0	
NITROGEN.....	1.5			5.5		6.1	
OXYGEN.....	0.0			TRACE		0.2	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			TRACE		0.1	
HELIUM.....	0.06			0.18		0.16	
HEATING VALUE.....	1157			986		988	
SPECIFIC GRAVITY.....	0.666			0.596		0.607	
		INDEX SAMPLE	4666 9042	INDEX SAMPLE	4667 15682	INDEX SAMPLE	4668 14459
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	CATUGA			CATUGA		CATUGA	
FIELD.....	O'HARA NO. 2			AUBURN W		WATER WELL	
WELL NAME.....	NOT GIVEN			FEE NO. 1		SAM OSARO NO. 1	
LOCATION.....	WILCOX OIL CORP.			UNION SPRINGS TWP.		NOT GIVEN	
OWNER.....	WILCOX OIL CORP.			W. Y. CONFERENCE OF 7TH DAY		SAM OSARO	
COMPLETED.....	09/03/62			04/18/78		08/--/75	
SAMPLED.....	07/10/63			06/29/79		--/--/00	
FORMATION.....	SILU-MEDINA & ORDO-QUEENSTON			ORDO-QUEENSTON		SILU-LOCKPORT	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1510			1950		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	615			610		NOT GIVEN	
OPEN FLOW, MCFD.....	1500			441		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	97.2			96.3		73.1	
ETHANE.....	0.1			1.5		0.1	
PROPANE.....	0.1			0.1		0.1	
N-BUTANE.....	0.0			TRACE		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			TRACE		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			TRACE		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	1.4			1.5		24.9	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	TRACE			0.4		0.2	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.1		0.0	
CARBON DIOXIDE.....	0.0			0.1		0.3	
HELIUM.....	0.10			1011		1.37	
HEATING VALUE.....	1007			0.571		742	
SPECIFIC GRAVITY.....	0.566					0.657	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4669 SAMPLE 13505		INDEX 4670 SAMPLE 10880		INDEX 4671 SAMPLE 15559	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	
FIELD.....	BUSTI	BUSTI	BUSTI	BUSTI	
WELL NAME.....	CLARENCE NELSON NO. 1	ANDERSON-COONS UNIT NO. 1	HOLLIDAY NO. 1	HOLLIDAY NO. 1	
LOCATION.....	JAMESTOWN USGS QUAD.	JAMESTOWN QUAD.	TOWN OF BUSTI	TOWN OF BUSTI	
OWNER.....	KIN TEX DRILLING	GEORGE L. COONS	BOUNTY OIL & GAS, INC.	BOUNTY OIL & GAS, INC.	
COMPLETED.....	10/02/68	01/18/67	07/16/78	07/16/78	
SAMPLED.....	01/15/73	03/01/67	01/30/79	01/30/79	
FORMATION.....	DEVO-GLADE	DEVO-	SILU-MEDINA	SILU-MEDINA	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	390	661	4446	4446	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	215	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	10	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	78.6	86.4	89.8	89.8	
ETHANE.....	3.0	7.9	3.5	3.5	
PROPANE.....	0.5	0.8	0.8	0.8	
N-BUTANE.....	TRACE	0.5	0.3	0.3	
ISOBUTANE.....	TRACE	0.0	0.1	0.1	
N-PENTANE.....	TRACE	0.0	0.2	0.2	
ISOPENTANE.....	0.0	0.0	0.1	0.1	
CYCLOPENTANE.....	TRACE	0.0	TRACE	TRACE	
HEXANES PLUS.....	TRACE	0.0	0.2	0.2	
NITROGEN.....	0.2	2.3	4.7	4.7	
OXYGEN.....	0.0	0.0	TRACE	TRACE	
ARGON.....	TRACE	0.1	TRACE	TRACE	
HYDROGEN.....	0.0	0.1	0.1	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	17.6	0.2	TRACE	TRACE	
HELIUM.....	0.94	0.17	0.13	0.13	
HEATING VALUE.....	863	1083	1030	1030	
SPECIFIC GRAVITY.....	0.746	0.632	0.614	0.614	
INDEX 4672 SAMPLE 17481		INDEX 4673 SAMPLE 9792		INDEX 4674 SAMPLE 17464	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	
FIELD.....	CHERRY CREEK	DEVITTVILLE	ELLINGTON	ELLINGTON	
WELL NAME.....	LANGLESS NO. 1	BOSMELL NO. 1	WEHREMBERG NO. 1	WEHREMBERG NO. 1	
LOCATION.....	SEC. D CHERRY CRK. QD-4TWP.	ELLERY TWP.	SEC. E, KENNEDY QUAD, ELLINGTON	SEC. E, KENNEDY QUAD, ELLINGTON	
OWNER.....	SEIS-EX, GEOPHYSICAL, LTD.	MINARD RUN OIL CO.	TRAHAN PETROLEUM, INC.	TRAHAN PETROLEUM, INC.	
COMPLETED.....	02/28/82	02/24/85	10/26/82	10/26/82	
SAMPLED.....	10/10/84	03/10/85	10/01/84	10/01/84	
FORMATION.....	SILU-MEDINA	SILU-MEDINA	SILU-MEDINA	SILU-MEDINA	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	3850	3515	4118	4118	
WELLHEAD PRESSURE, PSIG.....	1075	970	1230	1230	
OPEN FLOW, MCFD.....	2320	580	1250	1250	
COMPONENT, MOLE PCT					
METHANE.....	92.3	93.0	92.7	92.7	
ETHANE.....	2.4	2.8	2.7	2.7	
PROPANE.....	0.2	0.3	0.2	0.2	
N-BUTANE.....	0.1	TRACE	0.1	0.1	
ISOBUTANE.....	TRACE	0.1	0.0	0.0	
N-PENTANE.....	0.0	TRACE	0.1	0.1	
ISOPENTANE.....	0.1	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	TRACE	0.1	0.1	
NITROGEN.....	4.6	3.6	3.8	3.8	
OXYGEN.....	TRACE	0.0	0.1	0.1	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	TRACE	0.1	0.1	
HELIUM.....	0.14	0.13	0.11	0.11	
HEATING VALUE.....	996	1003	0.592	0.592	
SPECIFIC GRAVITY.....	0.594	0.587			
INDEX 4675 SAMPLE 17498		INDEX 4676 SAMPLE 17701		INDEX 4677 SAMPLE 17799	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	
FIELD.....	FRENCH CREEK-MEDINA	GERRY	GERRY	GERRY	
WELL NAME.....	C. VOLK NO. 1	TOMPSETT NO. 4	FORBES NO. 6	FORBES NO. 6	
LOCATION.....	N. NICH CREEK TOWNSHIP	GERRY TOWNSHIP	GERRY TOWNSHIP	GERRY TOWNSHIP	
OWNER.....	ENVIROGAS, INC.	BEREA OIL & GAS CORP.	BEREA OIL & GAS CORP.	BEREA OIL & GAS CORP.	
COMPLETED.....	06/23/82	12/11/84	04/04/85	04/04/85	
SAMPLED.....	10/15/84	06/07/85	08/06/85	08/06/85	
FORMATION.....	SILU-MEDINA	DEVO-BASS ISLAND	DEVO-BASS ISLAND	DEVO-BASS ISLAND	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	4080	2846	2310	2310	
WELLHEAD PRESSURE, PSIG.....	1235	450	480	480	
OPEN FLOW, MCFD.....	900	25	1500	1500	
COMPONENT, MOLE PCT					
METHANE.....	88.2	59.3	79.8	79.8	
ETHANE.....	4.5	19.7	11.4	11.4	
PROPANE.....	1.0	10.4	4.2	4.2	
N-BUTANE.....	0.3	3.3	1.0	1.0	
ISOBUTANE.....	0.2	1.1	0.3	0.3	
N-PENTANE.....	0.1	1.0	0.2	0.2	
ISOPENTANE.....	0.1	0.7	0.2	0.2	
CYCLOPENTANE.....	TRACE	0.2	0.1	0.1	
HEXANES PLUS.....	0.1	0.2	0.2	0.2	
NITROGEN.....	4.9	3.2	2.2	2.2	
OXYGEN.....	TRACE	0.1	0.0	0.0	
ARGON.....	TRACE	TRACE	0.1	0.1	
HYDROGEN.....	0.2	TRACE	0.2	0.2	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.0	0.2	0.2	
HELIUM.....	0.20	0.01	0.05	0.05	
HEATING VALUE.....	1031	1484	1197	1197	
SPECIFIC GRAVITY.....	0.619	0.886	0.699	0.699	
INDEX 4678 SAMPLE 17845		INDEX 4679 SAMPLE 17497		INDEX 4680 SAMPLE 15523	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	
FIELD.....	GERRY TOWNSHIP	KIANTONE-MEDINA	LAKE SHORE	LAKE SHORE	
WELL NAME.....	MOREY 6287 NO. 1	T. NORDLAND NO. 1A	SHALLOW GAS SEEP	SHALLOW GAS SEEP	
LOCATION.....	SEC. A, GERRY QUAD	KIANTONE TOWNSHIP	CASSADAGA LAKE	CASSADAGA LAKE	
OWNER.....	EMPIRE EXPLORATION, INC.	ENVIROGAS, INC.	HARVIN LEWIS	HARVIN LEWIS	
COMPLETED.....	02/21/83	01/15/82	11/21/78	11/21/78	
SAMPLED.....	09/25/85	01/15/84	DEVO-	DEVO-	
FORMATION.....	DEVO-ONONDAGA	SILU-MEDINA	DEVO-	DEVO-	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	2636	4200	NOT GIVEN	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	725	1210	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	6000	2000	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	78.3	93.7	60.6	60.6	
ETHANE.....	11.3	2.4	1.4	1.4	
PROPANE.....	1.4	0.2	0.2	0.2	
N-BUTANE.....	1.2	0.1	0.1	0.1	
ISOBUTANE.....	0.3	0.0	0.0	0.0	
N-PENTANE.....	0.3	TRACE	TRACE	TRACE	
ISOPENTANE.....	0.2	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	0.1	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.2	3.2	0.1	0.1	
NITROGEN.....	3.1	0.2	35.2	35.2	
OXYGEN.....	0.1	TRACE	1.7	1.7	
ARGON.....	TRACE	TRACE	0.4	0.4	
HYDROGEN.....	0.2	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.1	0.1	0.1	
HELIUM.....	0.13	0.09	0.06	0.06	
HEATING VALUE.....	1196	1001	653	653	
SPECIFIC GRAVITY.....	0.707	0.583	0.725	0.725	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4681 SAMPLE 15562		INDEX 4682 SAMPLE 15588		INDEX 4683 SAMPLE 15637	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	
FIELD.....	LAKE SHORE	LAKE SHORE	LAKE SHORE	LAKE SHORE	
WELL NAME.....	R. CASH UNIT NO. 1	ASSUMPTION NO. 104	ASSUMPTION NO. 104	ROBERTSON NO. 540	
LOCATION.....	TOWN OF ARKWRIGHT	POMFRET TWP.	POMFRET TWP.	ARKWRIGHT TWP.	
OWNER.....	PARAGON RESOURCES, INC.	PARAGON RESOURCES, INC.	PARAGON RESOURCES, INC.	PARAGON RESOURCES, INC.	
COMPLETED.....	09/05/74	10/22/74	10/22/74	05/03/79	
SAMPLED.....	02/07/79	03/23/79	03/23/79	06/01/79	
FORMATION.....	DEV0-SHALE	DEV0-SHALE	DEV0-SHALE	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	2500	3180	3180	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	779	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	116	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	82.9	83.9	87.0		
ETHANE.....	9.1	8.4	5.7		
PROpane.....	3.7	3.4	1.7		
N-BUTANE.....	1.1	0.7	0.4		
ISOBUTANE.....	0.3	0.2	0.1		
N-PENTANE.....	0.2	0.1	0.1		
ISOPENTANE.....	0.2	0.1	0.1		
CYCLOPENTANE.....	0.1	TRACE	TRACE		
HEXANES PLUS.....	0.1	0.1	0.1		
NITROGEN.....	1.8	2.3	4.0		
OXYGEN.....	0.0	0.1	0.0		
ARGON.....	TRACE	TRACE	0.1		
HYDROGEN.....	0.3	0.4	0.5		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	TRACE	0.1	0.1		
HELIUM.....	0.15	0.15	0.23		
HEATING VALUE.....	1173	1134	1060		
SPECIFIC GRAVITY.....	0.675	0.658	0.629		

INDEX 4684 SAMPLE 15686		INDEX 4685 SAMPLE 15793		INDEX 4686 SAMPLE 15794	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	
FIELD.....	LAKE SHORE	LAKE SHORE	LAKE SHORE	LAKE SHORE	
WELL NAME.....	MANCUSO NO. 1, 31-013-13209	MID MEADOWS UNIT 406	NOTARO UNIT 505	NOTARO UNIT 505	
LOCATION.....	CHARLOTTE TWP.	TOWN OF CHAUTAUQUA	TOWN OF CHAUTAUQUA	TOWN OF CHAUTAUQUA	
OWNER.....	DESERT GAS EXPLORATION	PARAGON RESOURCES, INC.	PARAGON RESOURCES, INC.	PARAGON RESOURCES, INC.	
COMPLETED.....	--/--/00	05/10/77	05/10/77	05/10/77	
SAMPLED.....	07/05/79	09/27/79	09/27/79	09/27/79	
FORMATION.....	DEV0-SHALE	SILU-MEDINA	SILU-MEDINA	DEV0-SHALE	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	1700	3400	3400	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	145	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	85.8	92.3	86.0		
ETHANE.....	2.6	2.6	6.4		
PROpane.....	2.9	0.4	2.7		
N-BUTANE.....	0.7	0.1	0.7		
ISOBUTANE.....	0.2	TRACE	0.3		
N-PENTANE.....	0.1	TRACE	0.2		
ISOPENTANE.....	0.1	TRACE	0.1		
CYCLOPENTANE.....	TRACE	TRACE	TRACE		
HEXANES PLUS.....	0.1	0.1	0.1		
NITROGEN.....	2.3	3.6	2.7		
OXYGEN.....	TRACE	0.0	TRACE		
ARGON.....	TRACE	TRACE	0.6		
HYDROGEN.....	0.2	0.0	0.0		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	TRACE	TRACE	TRACE		
HELIUM.....	0.10	0.15	0.17		
HEATING VALUE.....	1122	1015	1110		
SPECIFIC GRAVITY.....	0.648	0.594	0.644		

INDEX 4687 SAMPLE 15813		INDEX 4688 SAMPLE 17479		INDEX 4689 SAMPLE 17876	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	
FIELD.....	LAKE SHORE	LAKE SHORE	LAKE SHORE	LAKE SHORE	
WELL NAME.....	KNIGHT-KOFEED 31-013-14420	HOWARD GILBERT NO. 1	BOLTBZUCH NO. 1	BOLTBZUCH NO. 1	
LOCATION.....	TOWN OF RIPLEY	SEC. 6-HAMLET QD CHARLOTTE TP	SEC. 8-HAMLET QD CHARLOTTE TP	SEC. 8-HAMLET QD CHARLOTTE TP	
OWNER.....	J. M. RESOURCES	GREAT WESTERN DEV. CO.	GREAT WESTERN DEV. CO.	U.S. ENERGY DEVELOPMENT CORP	
COMPLETED.....	--/--/00	--/--/00	--/--/00	--/--/00	
SAMPLED.....	10/25/79	10/04/84	10/24/85	10/24/85	
FORMATION.....	SILU-MEDINA	SILU-MEDINA	SILU-MEDINA	DEV0-ORISKANY & BASS ISLAND	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	2500	147	2700	2700	
WELLHEAD PRESSURE, PSIG.....	730	880	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	1813	2800	2800	
COMPONENT, MOLE PCT					
METHANE.....	91.0	91.7	76.9		
ETHANE.....	3.4	3.0	10.4		
PROpane.....	0.2	0.4	0.0		
N-BUTANE.....	0.2	0.1	1.1		
ISOBUTANE.....	0.1	0.1	0.3		
N-PENTANE.....	0.1	TRACE	0.2		
ISOPENTANE.....	0.1	TRACE	0.2		
CYCLOPENTANE.....	TRACE	TRACE	0.1		
HEXANES PLUS.....	0.1	0.1	0.2		
NITROGEN.....	4.3	5.1	5.1		
OXYGEN.....	0.0	0.0	0.8		
ARGON.....	TRACE	TRACE	TRACE		
HYDROGEN.....	0.0	0.0	0.2		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	TRACE	0.1	0.2		
HELIUM.....	0.18	0.14	0.13		
HEATING VALUE.....	1018	1005	1152		
SPECIFIC GRAVITY.....	0.603	0.602	0.711		

INDEX 4690 SAMPLE 14857		INDEX 4691 SAMPLE 15635		INDEX 4692 SAMPLE 16468	
STATE.....	NEW YORK	NEW YORK	NEW YORK	NEW YORK	
COUNTY.....	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	CHAUTAUQUA	
FIELD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
WELL NAME.....	CHAUTAUQUA 4 NO. 1	S. 2-PAK NO. 1 31-013-12717	S. 2-PAK NO. 1 31-013-12717	N.Y. REF. AREA 1 NO. 8	
LOCATION.....	PANAMA QUAD.	POMFRET TWP.	POMFRET TWP.	HAMLET QUAD, CHERRY CRK TWP.	
OWNER.....	SEIS-EX. GEOPHYSICAL, LTD.	GAILBERT EXPLORATIONS	GAILBERT EXPLORATIONS	BEREA OIL & GAS CORP.	
COMPLETED.....	11/27/77	06/28/77	06/28/77	10/20/81	
SAMPLED.....	11/03/76	06/01/79	06/01/79	03/26/82	
FORMATION.....	SILU-MEDINA	DEV0-ONONDAGA	DEV0-ONONDAGA	SILU-MEDINA	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	4237	1025	1370	1370	
WELLHEAD PRESSURE, PSIG.....	1150	510	1150	1150	
OPEN FLOW, MCFD.....	NOT GIVEN	25000	1500	1500	
COMPONENT, MOLE PCT					
METHANE.....	87.8	81.2	92.3		
ETHANE.....	3.7	11.0	2.3		
PROpane.....	0.9	3.8	0.2		
N-BUTANE.....	0.3	0.7	0.1		
ISOBUTANE.....	0.2	0.2	0.0		
N-PENTANE.....	0.1	0.2	TRACE		
ISOPENTANE.....	0.1	0.1	TRACE		
CYCLOPENTANE.....	TRACE	TRACE	TRACE		
HEXANES PLUS.....	0.2	0.1	0.1		
NITROGEN.....	2.1	2.1	4.5		
OXYGEN.....	0.0	TRACE	0.2		
ARGON.....	TRACE	TRACE	TRACE		
HYDROGEN.....	0.0	0.2	0.1		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	TRACE	0.2	TRACE		
HELIUM.....	0.15	0.17	0.12		
HEATING VALUE.....	1017	1017	990		
SPECIFIC GRAVITY.....	0.623	0.678	0.590		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4693 SAMPLE 17797			INDEX 4694 SAMPLE 17798			INDEX 4695 SAMPLE 17496		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	CHAUTAUQUA		CHAUTAUQUA			CHAUTAUQUA		
FIELD.....	NOT GIVEN		NOT GIVEN			POLAND-MEDINA		
WELL NAME.....	CHAUTAUQUA COUNTY NO. 8		WINTON NO. 5			J. HILL NO. 1		
LOCATION.....	ELLERY TOWNSHIP		ELLERY TOWNSHIP			POLAND TOWNSHIP		
OWNER.....	BEREA OIL & GAS CORP.		BEREA OIL & GAS CORP.			ENVIROGAS, INC.		
COMPLETED.....	01/20/85		02/06/85			07/07/82		
SAMPLED.....	08/06/85		08/06/85			10/15/84		
FORMATION.....	DEVO-BASS ISLAND		DEVO-BASS ISLAND			SILU-MEDINA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2730		2818			3910		
WELLHEAD PRESSURE, PSIG.....	830		590			1345		
OPEN FLOW, MCFD.....	3900		3500			5000		
COMPONENT, MOLE PCT.....								
METHANE.....	94.6		80.8			92.9		
ETHANE.....	1.5		10.4			2.2		
PROPANE.....	TRACE		0.7			0.2		
N-BUTANE.....	0.0		0.8			0.1		
ISOBUTANE.....	0.0		0.3			0.0		
N-PENTANE.....	0.0		0.1			TRACE		
ISOPENTANE.....	0.0		0.1			TRACE		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		0.1			0.1		
NITROGEN.....	3.3		2.9			4.1		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.3		0.2			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.1		
HELIUM.....	0.19		0.16			0.12		
HEATING VALUE.....	986		1152			995		
SPECIFIC GRAVITY.....	0.573		0.676			0.588		

INDEX 4696 SAMPLE 15812			INDEX 4697 SAMPLE 14613			INDEX 4698 SAMPLE 15151		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	CHAUTAUQUA		CHAUTAUQUA			CHAUTAUQUA		
FIELD.....	KNIGHT-KOFORD 31-013-14420		WILDCAT			WILDCAT		
WELL NAME.....	TOWN OF RIPLEY		LEGTERS BROTHERS NO. 1			SIMMENTAL NO. 1		
LOCATION.....	J. M. RESOURCES		NOT GIVEN			PANAMA (1)		
OWNER.....	10/02/79		EDGECLIFF RESOURCES, INC.			BOUNTY OIL & GAS, INC.		
COMPLETED.....	10/25/79		--/--/00			10/26/77		
SAMPLED.....	10/25/79		03/11/76			11/18/77		
FORMATION.....	DEVO-SHALE		SILU-MEDINA			SILU-GRIMSBY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	460		3828			4366		
WELLHEAD PRESSURE, PSIG.....	100		825			NOT GIVEN		
OPEN FLOW, MCFD.....	3		50			73		
COMPONENT, MOLE PCT.....								
METHANE.....	80.0		90.3			90.8		
ETHANE.....	10.4		4.2			3.1		
PROPANE.....	4.7		0.8			0.4		
N-BUTANE.....	1.1		0.2			0.1		
ISOBUTANE.....	0.3		0.2			TRACE		
N-PENTANE.....	0.2		TRACE			TRACE		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	2.4		4.0			5.2		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.4		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			TRACE		
HELIUM.....	0.05		0.14			0.14		
HEATING VALUE.....	1189		1034			998		
SPECIFIC GRAVITY.....	0.692		0.611			0.600		

INDEX 4699 SAMPLE 15566			INDEX 4700 SAMPLE 15567			INDEX 4701 SAMPLE 8532		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	CHAUTAUQUA		CHAUTAUQUA			CHEMUNG		
FIELD.....	WILDCAT		WILDCAT			VAN ETTEN		
WELL NAME.....	MILLER NO. 1		MILLER NO. 1			N-833		
LOCATION.....	TOWN OF KANTONE		TOWN OF KANTONE			NOT GIVEN		
OWNER.....	SEIS-EX GEOPHYSICAL, LTD.		SEIS-EX GEOPHYSICAL, LTD.			NEW YORK STATE NAT. GAS CORP		
COMPLETED.....	01/--/79		01/--/79			01/05/62		
SAMPLED.....	02/14/79		02/14/79			04/24/62		
FORMATION.....	DEVO-GLADE		SILU-MEDINA			DEVO-ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	500		4500			3376		
WELLHEAD PRESSURE, PSIG.....	380		NOT GIVEN			1360		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			3355		
COMPONENT, MOLE PCT.....								
METHANE.....	91.4		92.7			97.9		
ETHANE.....	4.0		2.6			1.7		
PROPANE.....	0.8		0.3			TRACE		
N-BUTANE.....	0.2		TRACE			TRACE		
ISOBUTANE.....	TRACE		TRACE			0.0		
N-PENTANE.....	0.1		TRACE			0.0		
ISOPENTANE.....	0.1		TRACE			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	0.1		0.1			0.0		
NITROGEN.....	5.0		4.1			0.0		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.1		
HELIUM.....	0.11		0.05			0.04		
HEATING VALUE.....	1039		999			1022		
SPECIFIC GRAVITY.....	0.603		0.589			0.562		

INDEX 4702 SAMPLE 10256			INDEX 4703 SAMPLE 13744			INDEX 4704 SAMPLE 15641		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	CHENANGO		DELAWARE			ERIE		
FIELD.....	SMITHFIELD FLATS		WILDCAT			AKRON		
WELL NAME.....	DECKER NO. 2		WILCKERT NO. 1			WEE NO. 1		
LOCATION.....	WILBUR DECKER FARM		HOBERT QUAD. TWP.			NEWMSTEAD TWP.		
OWNER.....	GENEGANTSLET OIL & GAS CO.		ANSCHUTZ CORP.			AKRON CENTRAL SCHOOL		
COMPLETED.....	10/01/64		01/12/70			05/12/79		
SAMPLED.....	10/28/65		10/08/73			06/08/79		
FORMATION.....	SILU-DECKER		SILU-ONEIDA			SILU-MEDINA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2020		5350			800		
WELLHEAD PRESSURE, PSIG.....	565		42			405		
OPEN FLOW, MCFD.....	2500		160			1350		
COMPONENT, MOLE PCT.....								
METHANE.....	97.3		97.9			85.6		
ETHANE.....	1.8		1.5			8.0		
PROPANE.....	0.2		0.1			1.9		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.2		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			0.1		
NITROGEN.....	0.3		0.3			3.4		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.3		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		TRACE			0.1		
HELIUM.....	0.06		0.03			0.23		
HEATING VALUE.....	1024		1024			1090		
SPECIFIC GRAVITY.....	0.565		0.563			0.641		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

401

INDEX 4705 SAMPLE 15841			INDEX 4706 SAMPLE 9534			INDEX 4707 SAMPLE 10228		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	ERIE		ERIE			ERIE		
FIELD.....	BUFFALO		FOUR MILE LEVEL			GLENWOOD E		
WELL NAME.....	FEE NO. 1		CELLS NO. 1671			HANCHER NO. 1790		
LOCATION.....	CHECTOWAGA		COLLINS TWP. R8			GOLDEN TWP.		
OWNER.....	MOTHER OF DIVINE CHURCH		IROQUOIS GAS CORP.			IROQUOIS GAS CORP.		
COMPLETED.....	--/--/00		06/13/27			03/08/62		
SAMPLED.....	11/16/79		08/11/64			10/18/65		
FORMATION.....	SILU-LOCKPORT		SILU-MEDINA, WHITE			SILU-MEDINA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		2341			2748		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		124			818		
OPEN FLOW, MCFD.....	NOT GIVEN		1592			6200		
COMPONENT, MOLE PCT								
METHANE.....	84.2		91.0			93.2		
ETHANE.....	6.2		2.5			2.2		
PROPANE.....	1.1		0.4			0.2		
N-BUTANE.....	0.2		0.1			0.0		
ISOBUTANE.....	0.2		TRACE			0.0		
N-PENTANE.....	0.1		TRACE			0.0		
ISOPENTANE.....	TRACE		TRACE			0.0		
CYCLOPENTANE.....	0.1		0.1			0.0		
HEXANES PLUS.....	6.6		5.6			4.2		
NITROGEN.....	0.7		0.9			0.0		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.1		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.2		0.0			0.0		
CARBON DIOXIDE.....	0.21		0.21			0.17		
HEATING VALUE.....	1020		986			989		
SPECIFIC GRAVITY.....	0.642		0.596			0.584		
INDEX 4708 SAMPLE 372			INDEX 4709 SAMPLE 374			INDEX 4710 SAMPLE 375		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	ERIE		ERIE			ERIE		
FIELD.....	LAWTONS		LAWTONS			LAWTONS		
WELL NAME.....	GORMAN NO. 1 WELL NO. 514		DILLINGTON NO. 1 NO. 517			HEAVY NO. 1 WELL NO. 468		
LOCATION.....	NOT GIVEN		20 MI. SE HAMBURG			24 MI. SE HAMBURG		
OWNER.....	IROQUOIS GAS CORP.		IROQUOIS GAS CORP.			IROQUOIS GAS CORP.		
COMPLETED.....	--/--/16		--/--/17			--/--/16		
SAMPLED.....	06/22/20		06/22/20			06/22/20		
FORMATION.....	SILU-MEDINA		SILU-MEDINA			DEVO-FLINT		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2450		2400			1550		
WELLHEAD PRESSURE, PSIG.....	320		320			500		
OPEN FLOW, MCFD.....	1500		2000			700		
COMPONENT, MOLE PCT								
METHANE.....	94.7		85.7			79.5		
ETHANE.....	1.9		1.9			23.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	1.7		10.0			0.6		
NITROGEN.....	1.3		2.9			0.4		
OXYGEN.....	---		---			---		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	0.1		0.2			0.1		
CARBON DIOXIDE.....	0.24		0.25			0.24		
HEATING VALUE.....	993		886			1179		
SPECIFIC GRAVITY.....	0.578		0.618			0.673		
INDEX 4711 SAMPLE 376			INDEX 4712 SAMPLE 9533			INDEX 4713 SAMPLE 15939		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	ERIE		ERIE			ERIE		
FIELD.....	LAWTONS		MARSHFIELD			NOT GIVEN		
WELL NAME.....	HOUVER NO. 1 WELL NO. 526		DIBLASI NO. 669			NATURAL SEEP		
LOCATION.....	25 MI. SE HAMBURG		COLLINS TWP. R7			TOWN OF EDEN		
OWNER.....	IROQUOIS GAS CORP.		IROQUOIS GAS CORP.			N. Y. BUREAU OF MINERAL RESO		
COMPLETED.....	--/--/16		01/11/23			--/--/00		
SAMPLED.....	06/22/20		08/11/64			04/08/80		
FORMATION.....	DEVO-FLINT		DEVO-ONONDAGA			DEVO-SHALE		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1500		1840			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	500		245			NOT GIVEN		
OPEN FLOW, MCFD.....	750		150			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	71.9		79.0			71.3		
ETHANE.....	18.5		12.3			15.1		
PROPANE.....	---		1.5			7.8		
N-BUTANE.....	---		1.1			1.6		
ISOBUTANE.....	---		0.5			0.6		
N-PENTANE.....	---		0.2			0.2		
ISOPENTANE.....	---		0.2			0.5		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	6.5		0.1			0.1		
NITROGEN.....	2.7		TRACE			2.2		
OXYGEN.....	---		0.0			0.1		
ARGON.....	---		0.0			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	0.2		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.7		
HEATING VALUE.....	1060		1221			0.02		
SPECIFIC GRAVITY.....	0.689		0.704			1296		
INDEX 4714 SAMPLE 17819			INDEX 4715 SAMPLE 425			INDEX 4716 SAMPLE 15895		
STATE.....	NEW YORK		NEW YORK			NEW YORK		
COUNTY.....	ERIE		GENESEE			GENESEE		
FIELD.....	ORCHARD PARK		ALDEN			INDIAN FALLS		
WELL NAME.....	04R NO. 1		WELER NO. 7			KLOITZBACH		
LOCATION.....	SEC. A, GOLDEN QUAD		TOWNSITE			TOWN OF ALABAMA		
OWNER.....	EASTERN MINERALS ASSOC.		REPUBLIC LT., HEAT & PRODUCI			JUD NOBLE & ASSOC.		
COMPLETED.....	07/06/85		--/--/94			10/25/74		
SAMPLED.....	08/24/85		09/07/20			01/30/80		
FORMATION.....	SILU-MEDINA		SILU-MEDINA			SILU-MEDINA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1790		1300			940		
WELLHEAD PRESSURE, PSIG.....	360		170			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		200			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	91.4		87.7			85.3		
ETHANE.....	2.8		9.5			8.4		
PROPANE.....	0.1		---			2.0		
N-BUTANE.....	0.1		---			0.4		
ISOBUTANE.....	0.0		---			0.3		
N-PENTANE.....	0.1		---			0.1		
ISOPENTANE.....	0.0		---			TRACE		
CYCLOPENTANE.....	TRACE		---			TRACE		
HEXANES PLUS.....	0.1		---			0.1		
NITROGEN.....	8.9		---			3.1		
OXYGEN.....	TRACE		0.7			TRACE		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.1		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	TRACE		0.4			TRACE		
HEATING VALUE.....	0.21		0.18			0.28		
SPECIFIC GRAVITY.....	0.594		0.615			1099		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4717 13585	INDEX SAMPLE	4718 367	INDEX SAMPLE	4719 9197
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	GENESEE			LIVINGSTON		LIVINGSTON	
FIELD.....	WILDCAT			CALEDONIA		LEICESTER	
WELL NAME.....	WILDCAT			MC GOVERN NO. 1		PARNELL N-883	
LOCATION.....	NOT GIVEN			1 MI. N CALEDONIA		NOT GIVEN	
OWNER.....	JUD NOBLE & ASSOC.			CALEDONIA NATURAL GAS CO.		NEW YORK STATE NAT. GAS CORP	
COMPLETED.....	09/-/72			-7/-/01		08/05/63	
SAMPLED.....	04/23/73			06/19/20		19/16/63	
FORMATION.....	SILU-MEDINA			SILU-MEDINA		SILU-MEDINA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	720			1090		1964	
WELLHEAD PRESSURE, PSIG.....	360			80		550	
OPEN FLOW, MCFD.....	288			350		582	
COMPONENT, MOLE PCT							
METHANE.....	84.6	-----	-----	75.2	-----	85.6	-----
ETHANE.....	8.5	-----	-----	6.4	-----	6.9	-----
PROPANE.....	2.2	-----	-----	---	-----	1.5	-----
N-BUTANE.....	0.3	-----	-----	---	-----	0.3	-----
ISOBUTANE.....	0.5	-----	-----	---	-----	0.1	-----
N-PENTANE.....	0.1	-----	-----	---	-----	0.1	-----
ISOPENTANE.....	0.1	-----	-----	---	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----	-----	---	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----	-----	---	-----	0.1	-----
NITROGEN.....	3.2	-----	-----	16.0	-----	4.8	-----
OXYGEN.....	0.0	-----	-----	1.9	-----	0.1	-----
ARGON.....	TRACE	-----	-----	---	-----	TRACE	-----
HYDROGEN.....	TRACE	-----	-----	---	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	---	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----	-----	0.1	-----	0.1	-----
HELIUM.....	0.22	-----	-----	0.24	-----	0.20	-----
HEATING VALUE.....	1107	-----	-----	876	-----	1061	-----
SPECIFIC GRAVITY.....	0.648	-----	-----	0.662	-----	0.638	-----
		INDEX SAMPLE	4720 17362	INDEX SAMPLE	4721 15808	INDEX SAMPLE	4722 9811
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	LIVINGSTON			LIVINGSTON		HAMILTON	
FIELD.....	UMLEY CORNERS			WILDCAT		HAMILTON	
WELL NAME.....	ROGERS NO. 1 LRC NO. 93			EVERMAN-FEE NO. 1		V. ALBIE NO. 1 N-939	
LOCATION.....	SEC. H, LEEDY QUAD, YORK TWP			WEST SPARTA, N.Y.		HADISON TWP.	
OWNER.....	LENAPÉ RESOURCES CORP.			H. EVERMAN		NEW YORK STATE NAT. GAS CORP	
COMPLETED.....	06/18/82			-/-/00		12/29/64	
SAMPLED.....	07/24/84			07/15/79		03/16/65	
FORMATION.....	SILU-MEDINA			DEVON-HAMILTON		SILU-HERKIMER SAUQUOT&ONEI.	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1509			600		2133	
WELLHEAD PRESSURE, PSIG.....	200			150		710	
OPEN FLOW, MCFD.....	1043			NOT GIVEN		192	
COMPONENT, MOLE PCT							
METHANE.....	85.4	-----	-----	93.7	-----	98.1	-----
ETHANE.....	4.0	-----	-----	2.2	-----	1.1	-----
PROPANE.....	1.6	-----	-----	TRACE	-----	0.0	-----
N-BUTANE.....	0.3	-----	-----	0.1	-----	0.0	-----
ISOBUTANE.....	0.2	-----	-----	TRACE	-----	0.0	-----
N-PENTANE.....	0.1	-----	-----	TRACE	-----	0.0	-----
ISOPENTANE.....	TRACE	-----	-----	TRACE	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----	-----	TRACE	-----	0.0	-----
HEXANES PLUS.....	0.1	-----	-----	0.1	-----	0.0	-----
NITROGEN.....	4.8	-----	-----	3.4	-----	0.5	-----
OXYGEN.....	TRACE	-----	-----	0.0	-----	0.0	-----
ARGON.....	TRACE	-----	-----	0.1	-----	0.0	-----
HYDROGEN.....	0.0	-----	-----	0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----	-----	2.4	-----	TRACE	-----
HELIUM.....	0.24	-----	-----	0.01	-----	9.03	-----
HEATING VALUE.....	1058	-----	-----	961	-----	1017	-----
SPECIFIC GRAVITY.....	0.637	-----	-----	0.598	-----	0.562	-----
		INDEX SAMPLE	4723 10254	INDEX SAMPLE	4724 9938	INDEX SAMPLE	4725 9246
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	ONEIDA			ONTARIO		ONTARIO	
FIELD.....	DOUGLAS			BLOOMFIELD E		CANANDAIGUA	
WELL NAME.....	ELLIOT NO. 1			C. MURPHY NO. 1		SANDERS NO. 1	
LOCATION.....	EASTERN DIST.			BLOOMFIELD TWP.		BRISTOL	
OWNER.....	CONSOLIDATED GAS SUPPLY CORP			BRADLEY PRODUCING CORP.		D. W. FRANCHOT & CO., INC.	
COMPLETED.....	05/19/59			02/08/59		09/14/60	
SAMPLED.....	10/27/65			06/22/65		02/04/64	
FORMATION.....	SILU-HERKIMER			SILU-MEDINA		SILU-MEDINA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1600			2203		3038	
WELLHEAD PRESSURE, PSIG.....	645			590		410	
OPEN FLOW, MCFD.....	264000			1500		3500	
COMPONENT, MOLE PCT							
METHANE.....	97.2	-----	-----	89.9	-----	93.0	-----
ETHANE.....	1.2	-----	-----	5.6	-----	3.0	-----
PROPANE.....	0.1	-----	-----	0.5	-----	0.5	-----
N-BUTANE.....	0.0	-----	-----	0.2	-----	0.0	-----
ISOBUTANE.....	0.0	-----	-----	0.2	-----	0.0	-----
N-PENTANE.....	0.0	-----	-----	TRACE	-----	0.0	-----
ISOPENTANE.....	0.0	-----	-----	0.1	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----	-----	TRACE	-----	0.0	-----
HEXANES PLUS.....	0.0	-----	-----	0.1	-----	0.0	-----
NITROGEN.....	1.4	-----	-----	3.0	-----	0.0	-----
OXYGEN.....	0.0	-----	-----	0.0	-----	0.0	-----
ARGON.....	TRACE	-----	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----	-----	TRACE	-----	TRACE	-----
HELIUM.....	0.05	-----	-----	0.20	-----	0.30	-----
HEATING VALUE.....	1009	-----	-----	1009	-----	1009	-----
SPECIFIC GRAVITY.....	0.567	-----	-----	0.610	-----	0.585	-----
		INDEX SAMPLE	4726 10923	INDEX SAMPLE	4727 420	INDEX SAMPLE	4728 421
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	ONTARIO			ONTARIO		ONTARIO	
FIELD.....	NOT GIVEN			MORROW NO. 1		HAYES NO. 1	
WELL NAME.....	ONDERDONK NO. 1			BLK. 36 V. BLOOMFIELD TWP.		BRISTOL TWP.	
LOCATION.....	NECA TWP.			REPUBLIC LT., HEAT & PRODUCT		REPUBLIC LT., HEAT & PRODUCT	
OWNER.....	OKLAHOMA FUEL & ENERGY CORP.			-7/-/12		-7/-/08	
COMPLETED.....	02/20/67			09/07/67		09/07/20	
SAMPLED.....	04/10/67			SILU-MEDINA		SILU-MEDINA	
FORMATION.....	SILU-MEDINA			160		160	
GEOLOGIC PROVINCE CODE.....	160			2088		2190	
DEPTH, FEET.....	2210			90		75	
WELLHEAD PRESSURE, PSIG.....	600			35		---	
OPEN FLOW, MCFD.....	1400			---		---	
COMPONENT, MOLE PCT							
METHANE.....	95.7	-----	-----	91.2	-----	93.4	-----
ETHANE.....	1.2	-----	-----	6.3	-----	3.9	-----
PROPANE.....	0.1	-----	-----	---	-----	---	-----
N-BUTANE.....	0.1	-----	-----	---	-----	---	-----
ISOBUTANE.....	0.0	-----	-----	---	-----	---	-----
N-PENTANE.....	0.0	-----	-----	---	-----	---	-----
ISOPENTANE.....	0.0	-----	-----	---	-----	---	-----
CYCLOPENTANE.....	0.0	-----	-----	---	-----	---	-----
HEXANES PLUS.....	0.0	-----	-----	---	-----	---	-----
NITROGEN.....	2.6	-----	-----	2.0	-----	1.8	-----
OXYGEN.....	0.0	-----	-----	0.0	-----	0.8	-----
ARGON.....	TRACE	-----	-----	---	-----	---	-----
HYDROGEN.....	0.0	-----	-----	---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	---	-----	---	-----
CARBON DIOXIDE.....	0.1	-----	-----	0.4	-----	0.0	-----
HELIUM.....	0.16	-----	-----	0.18	-----	0.23	-----
HEATING VALUE.....	997	-----	-----	1037	-----	1016	-----
SPECIFIC GRAVITY.....	0.575	-----	-----	0.597	-----	0.585	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4729 428	INDEX SAMPLE	4730 429	INDEX SAMPLE	4731 434
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	ONTARIO			ONTARIO		OSWEGO	
FIELD.....	ONTARIO			DAVIDSON NO. 1		PULASKI	
WELL NAME.....	HAYES NO. 2			BLK. 76, BLOOMFIELD TWP.		PINE GROVE NO. 1	
LOCATION.....	BLK. 36, BRISTOL TWP.			REPUBLIC LT., HEAT & PRODUCE		RICHLAND TWP. 5 RT NW PULASKI	
OWNER.....	REPUBLIC LT., HEAT & PRODUCE			REPUBLIC LT., HEAT & PRODUCE		PULASKI GAS & OIL CO.	
COMPLETED.....	--/--/10			--/--/16		--/--/14	
SAMPLED.....	09/07/20			09/07/20		09/10/20	
FORMATION.....	DEVO-HAMILTON			DEVO-HAMILTON		ORDO-TRENTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2005			445		600	
WELLHEAD PRESSURE, PSIG.....	25			34		50	
OPEN FLOW, MCFD.....	135			700		500	
COMPONENT, MOLE PCT							
METHANE.....	82.8			69.3		96.9	
ETHANE.....	3.5			27.0		2.1	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	13.0			0.0		0.1	
OXYGEN.....	0.7			0.7		0.5	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.3			3.3		0.2	
HELIUM.....	TRACE			TRACE		0.10	
HEATING VALUE.....	901			1186		1019	
SPECIFIC GRAVITY.....	0.634			0.726		0.569	
		INDEX SAMPLE	4732 436	INDEX SAMPLE	4733 14276	INDEX SAMPLE	4734 2374
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	OSWEGO			RENSSELAER		SCHUYLER	
FIELD.....	SANDY CREEK			NOT GIVEN		DUNDEE-WAYNE	
WELL NAME.....	HOLLIS NO. 4			JOHN BUONO WATER WELL		E. PULVER NO. 1	
LOCATION.....	2 MI. E SANDY CREEK			ROUTE 9, SCHODACK LANDING		NOT GIVEN	
OWNER.....	SANDY CREEK OIL & GAS CO.			JOHN L. BUONO		BELMONT QUADRANGLE DRILLING	
COMPLETED.....	--/--/14			02/17/73		02/26/30	
SAMPLED.....	05/10/20			02/21/75		08/14/31	
FORMATION.....	ORDO-TRENTON			DEVO-BLACK SHALE		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			100		160	
DEPTH, FEET.....	670			383		2075	
WELLHEAD PRESSURE, PSIG.....	5			NOT GIVEN		700	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		5500	
COMPONENT, MOLE PCT							
METHANE.....	97.3			82.8		90.8	
ETHANE.....	1.4			TRACE		6.5	
PROPANE.....	---			TRACE		---	
N-BUTANE.....	---			0.0		---	
ISOBUTANE.....	---			0.0		---	
N-PENTANE.....	---			0.0		---	
ISOPENTANE.....	---			0.0		---	
CYCLOPENTANE.....	---			0.0		---	
HEXANES PLUS.....	---			0.0		---	
NITROGEN.....	1.2			16.7		1.7	
OXYGEN.....	0.0			TRACE		0.6	
ARGON.....	---			0.0		---	
HYDROGEN.....	---			0.0		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.0			TRACE		0.4	
HELIUM.....	0.14			0.05		0.04	
HEATING VALUE.....	1011			839		1036	
SPECIFIC GRAVITY.....	0.566			0.625		0.601	
		INDEX SAMPLE	4735 2375	INDEX SAMPLE	4736 15900	INDEX SAMPLE	4737 2431
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	SCHUYLER			SCHUYLER		SCHUYLER	
FIELD.....	DUNDEE-WAYNE			NOT GIVEN		WAYNE	
WELL NAME.....	G. SPROUL NO. 1			PRATT NO. 20611-T		A. LENT NO. 1	
LOCATION.....	NOT GIVEN			TOWN OF READING		NOT GIVEN	
OWNER.....	BELMONT QUADRANGLE DRILLING			COLUMBIA GAS TRANS. CORP.		BELMONT QUADRANGLE DRILLING	
COMPLETED.....	02/12/31			05/23/79		05/29/31	
SAMPLED.....	08/14/31			02/08/80		10/23/31	
FORMATION.....	DEVO-ORISKANY			DEVO-ORISKANY		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2038			2300		1721	
WELLHEAD PRESSURE, PSIG.....	720			NOT GIVEN		705	
OPEN FLOW, MCFD.....	9500			NOT GIVEN		3500	
COMPONENT, MOLE PCT							
METHANE.....	89.3			97.1		95.0	
ETHANE.....	8.5			0.1		2.1	
PROPANE.....	---			0.0		---	
N-BUTANE.....	---			0.0		---	
ISOBUTANE.....	---			0.0		---	
N-PENTANE.....	---			0.0		---	
ISOPENTANE.....	---			0.0		---	
CYCLOPENTANE.....	---			0.0		---	
HEXANES PLUS.....	---			0.0		---	
NITROGEN.....	1.9			0.8		2.5	
OXYGEN.....	0.3			TRACE		0.3	
ARGON.....	---			TRACE		---	
HYDROGEN.....	---			0.0		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.2			TRACE		0.1	
HELIUM.....	0.04			0.04		0.05	
HEATING VALUE.....	1053			1020		1000	
SPECIFIC GRAVITY.....	0.607			0.568		0.578	
		INDEX SAMPLE	4738 2432	INDEX SAMPLE	4739 10385	INDEX SAMPLE	4740 9763
STATE.....	NEW YORK			NEW YORK		NEW YORK	
COUNTY.....	SCHUYLER			SENECA		SENECA	
FIELD.....	WATERLOO			ROSE HILL		WATERLOO	
WELL NAME.....	A. LENT NO. 2			GARRETT NO. 2		G. CHRISTENSEN NO. 1	
LOCATION.....	NOT GIVEN			TOWN OF FAYETTE		FAYETTE TWP.	
OWNER.....	BELMONT QUADRANGLE DRILLING			CONSOLIDATED GAS SUPPLY CORP		NEW YORK STATE NAT. GAS CORP	
COMPLETED.....	05/29/31			10/29/31		01/1/65	
SAMPLED.....	10/23/31			01/28/66		02/17/65	
FORMATION.....	DEVO-ORISKANY			ORDO-QUEENSTON		ORDO-QUEENSTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1721			1800		1747	
WELLHEAD PRESSURE, PSIG.....	705			640		410	
OPEN FLOW, MCFD.....	3500			668000		219	
COMPONENT, MOLE PCT							
METHANE.....	90.5			96.4		95.5	
ETHANE.....	2.3			1.2		1.3	
PROPANE.....	---			0.0		0.1	
N-BUTANE.....	---			0.0		TRACE	
ISOBUTANE.....	---			0.0		TRACE	
N-PENTANE.....	---			0.0		TRACE	
ISOPENTANE.....	---			0.0		TRACE	
CYCLOPENTANE.....	---			0.0		TRACE	
HEXANES PLUS.....	---			0.0		0.1	
NITROGEN.....	6.8			0.0		2.7	
OXYGEN.....	0.3			0.0		0.0	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.1	
CARBON DIOXIDE.....	0.1			TRACE		0.13	
HELIUM.....	0.03			1003		998	
HEATING VALUE.....	958			0.571		0.575	
SPECIFIC GRAVITY.....	0.597						

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 4741 14380	INDEX SAMPLE 4742 13452	INDEX SAMPLE 4743 15162
STATE.....	NEW YORK		NEW YORK	NEW YORK
COUNTY.....	STEFEN		STEFEN	STEFEN
FIELD.....	STONE HILL		ADRIAN	CORNING N
WELL NAME.....	W. J. FULLER UNIT NO. 1		W. RAISH NO. 1	SARA CASS NO. 1
LOCATION.....	SEC. 6, HASKINVILLE QUAD.		SEC. 6, GREENWOOD QUAD.	CORNING QUAD.
OWNER.....	CONSOLIDATED GAS SUPPLY CORP.		ANDERSON OIL, LTD.	J.V.P. EXPLORATION
COMPLETED.....	08/01/73		06/29/71	11/23/77
SAMPLED.....	06/04/75		10/12/72	11/23/77
FORMATION.....	DEVO-HELDERBURG		DEVO-ONONDAGA	DEVO-ORISKANY
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	3432		4156	3620
WELLHEAD PRESSURE, PSIG.....	1324		1680	1728
OPEN FLOW, MCFD.....	12169		29000	13300
COMPONENT, MOLE PCT.....				
METHANE.....	84.0	83.9	96.7	
ETHANE.....	11.0	10.5	2.4	
PROPANE.....	3.3	3.2	0.1	
N-BUTANE.....	0.7	0.8	0.0	
ISOBUTANE.....	0.3	0.6	0.0	
N-PENTANE.....	0.2	0.3	0.0	
ISOPENTANE.....	0.2	0.1	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	0.1	0.1	0.0	
NITROGEN.....	0.3	0.5	0.6	
OXYGEN.....	0.0	TRACE	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.1	0.1	
HELIUM.....	0.04	0.02	0.03	
HEATING VALUE.....	1185	1190	1025	
SPECIFIC GRAVITY.....	0.667	0.673	0.570	

		INDEX SAMPLE 4744 10286	INDEX SAMPLE 4745 10460	INDEX SAMPLE 4746 17184
STATE.....	NEW YORK		NEW YORK	NEW YORK
COUNTY.....	STEFEN		STEFEN	WYOMING
FIELD.....	HOWARD		UNION W	WILDCAT
WELL NAME.....	HANLEY & BIRD ROOSA NO. 2312		HAMILTON WELL NO. 2063	GEORGE UNIT NO. 1-A
LOCATION.....	HOWARD TWP. LOT 26		LOT 67 WEST UNION TWP.	METHERSFIELD TWP.
OWNER.....	TROQUAIS GAS CORP.		TROQUAIS GAS CORP.	LENAPE RESOURCES CORP.
COMPLETED.....	05/27/41		06/27/41	10/18/79
SAMPLED.....	11/12/65		06/04/66	02/20/84
FORMATION.....	DEVO-ORISKANY		DEVO-ORISKANY	SILU-MEDINA
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	3589		4967	3256
WELLHEAD PRESSURE, PSIG.....	280		1100	700
OPEN FLOW, MCFD.....	880		9300	331
COMPONENT, MOLE PCT.....				
METHANE.....	87.9	97.0	91.2	
ETHANE.....	1.2	0.5	2.3	
PROPANE.....	1.8	0.1	0.2	
N-BUTANE.....	0.3	0.0	0.1	
ISOBUTANE.....	0.1	0.0	0.0	
N-PENTANE.....	0.1	0.0	0.0	
ISOPENTANE.....	TRACE	0.0	TRACE	
CYCLOPENTANE.....	TRACE	0.0	TRACE	
HEXANES PLUS.....	0.1	0.0	TRACE	
NITROGEN.....	0.4	0.3	5.9	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	TRACE	TRACE	
HELIUM.....	0.04	0.03	0.21	
HEATING VALUE.....	1125	1030	974	
SPECIFIC GRAVITY.....	0.630	0.568	0.592	

		INDEX SAMPLE 4747 17246	INDEX SAMPLE 4748 427	INDEX SAMPLE 4749 10734
STATE.....	NEW YORK		NEW YORK	NORTH CAROLINA
COUNTY.....	WYOMING		YATES	BERTIE
FIELD.....	WILDCAT		BRANCHPORT	FARM POND
WELL NAME.....	BARTON NO. 1		EVANS NO. 1	GAS SEEP
LOCATION.....	ATTICA QUAD, BENNINGTON TWP.		1/2 MI. W BRANCHPORT	1/2 MI. W POWELLSVILLE
OWNER.....	GYPSSUM ENERGY MANAGEMENT CO.		E. E. EVANS, SR.	L. E. DAILEY, JR.
COMPLETED.....	12/23/81		04/01/86	--/--/00
SAMPLED.....	04/10/81		09/10/20	09/29/66
FORMATION.....	SILU-MEDINA		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	160		160	120
DEPTH, FEET.....	2350		800	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	610		65	NOT GIVEN
OPEN FLOW, MCFD.....	902		100	NOT GIVEN
COMPONENT, MOLE PCT.....				
METHANE.....	90.6	91.7	81.7	
ETHANE.....	3.0	2.1	0.0	
PROPANE.....	0.4	---	TRACE	
N-BUTANE.....	0.1	---	0.0	
ISOBUTANE.....	0.0	---	0.0	
N-PENTANE.....	0.1	---	0.0	
ISOPENTANE.....	0.0	---	0.0	
CYCLOPENTANE.....	TRACE	---	0.0	
HEXANES PLUS.....	0.1	---	0.0	
NITROGEN.....	0.4	---	1.0	
OXYGEN.....	0.0	5.0	0.1	
ARGON.....	TRACE	---	0.0	
HYDROGEN.....	0.0	---	0.0	
HYDROGEN SULFIDE.....	0.0	---	0.0	
CARBON DIOXIDE.....	0.1	0.0	17.1	
HELIUM.....	0.24	0.10	0.01	
HEATING VALUE.....	995	967	82	
SPECIFIC GRAVITY.....	0.602	0.590	0.750	

		INDEX SAMPLE 4750 11125	INDEX SAMPLE 4751 15936	INDEX SAMPLE 4752 17419
STATE.....	NORTH CAROLINA		NORTH DAKOTA	NORTH DAKOTA
COUNTY.....	BERTIE		BILLINGS	BILLINGS
FIELD.....	FARM POND		BIG STICK W	ROOSEVELT
WELL NAME.....	GAS SEEP		FED. NO. 8-24	CENEX FED. NO. 34-A
LOCATION.....	1/2 MI. W OF POWELLSVILLE		SEC. 4, T142N, R101W	SEC. 4, T142N, R102W
OWNER.....	L. E. DAILEY, JR.		KOCH EXPLORATION CO.	DIAMOND SHAMROCK EXPL. CO.
COMPLETED.....	--/--/00		01/13/80	--/--/81
SAMPLED.....	09/16/76		04/01/80	09/16/84
FORMATION.....	NOT GIVEN		MISS-FRYBURG	DEVO-DUPEROW
GEOLOGIC PROVINCE CODE.....	120		395	395
DEPTH, FEET.....	NOT GIVEN		9600	10790
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1515	1415
OPEN FLOW, MCFD.....	NOT GIVEN		2200	130
COMPONENT, MOLE PCT.....				
METHANE.....	63.8	45.6	56.5	
ETHANE.....	0.0	20.8	17.6	
PROPANE.....	TRACE	14.1	12.0	
N-BUTANE.....	0.0	5.5	5.3	
ISOBUTANE.....	0.0	2.4	2.9	
N-PENTANE.....	0.0	1.1	1.6	
ISOPENTANE.....	0.0	2.1	1.7	
CYCLOPENTANE.....	0.0	0.6	0.4	
HEXANES PLUS.....	0.0	0.7	0.9	
NITROGEN.....	4.1	0.0	0.6	
OXYGEN.....	0.0	TRACE	TRACE	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	2.8	0.0	
CARBON DIOXIDE.....	32.0	---	18.5	
HELIUM.....	0.04	0.01	0.01	
HEATING VALUE.....	646	1660	1678	
SPECIFIC GRAVITY.....	0.884	1.058	0.987	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4753 SAMPLE 16896			INDEX 4754 SAMPLE 9051			INDEX 4755 SAMPLE 16434		
STATE.....	NORTH DAKOTA		STATE.....	NORTH DAKOTA		STATE.....	NORTH DAKOTA	
COUNTY.....	BILLINGS		COUNTY.....	BILLINGS		COUNTY.....	BILLINGS	
FIELD.....	ROUGH RIDER		FIELD.....	SCORIA		FIELD.....	TREE TOP	
WELL NAME.....	FED. NO. 6-2		WELL NAME.....	NO. 8		WELL NAME.....	FED. NO. 1-28	
LOCATION.....	SEC. 6, T144N, R101W		LOCATION.....	SEC. 10, T139N, R101W		LOCATION.....	SEC. 28, T142N, R100W	
OWNER.....	FLORIDA EXPLORATION CO.		OWNER.....	AMERADA PETROLEUM CORP.		OWNER.....	PATRICK PETROLEUM CO.	
COMPLETED.....	03/16/81		COMPLETED.....	--/--/00		COMPLETED.....	01/15/81	
SAMPLED.....	04/27/83		SAMPLED.....	07/24/63		SAMPLED.....	02/23/82	
FORMATION.....	DEVO-DUPEROW		FORMATION.....	ORDO-RED RIVER		FORMATION.....	MISS-MISSION CANYON	
GEOLOGIC PROVINCE CODE.....	395		GEOLOGIC PROVINCE CODE.....	395		GEOLOGIC PROVINCE CODE.....	395	
DEPTH, FEET.....	11044		DEPTH, FEET.....	11901		DEPTH, FEET.....	9600	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	2060		WELLHEAD PRESSURE, PSIG.....	1300	
OPEN FLOW, MCFD.....	1500		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	1500	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	64.3	---	METHANE.....	77.0	---	METHANE.....	46.1	---
ETHANE.....	14.9	---	ETHANE.....	14.0	---	ETHANE.....	21.4	---
PROPANE.....	9.5	---	PROPANE.....	4.7	---	PROPANE.....	13.5	---
N-BUTANE.....	3.7	---	N-BUTANE.....	1.3	---	N-BUTANE.....	5.4	---
ISOBUTANE.....	1.8	---	ISOBUTANE.....	0.7	---	ISOBUTANE.....	3.2	---
N-PENTANE.....	1.2	---	N-PENTANE.....	0.4	---	N-PENTANE.....	1.5	---
ISOPENTANE.....	1.9	---	ISOPENTANE.....	0.2	---	ISOPENTANE.....	1.9	---
CYCLOPENTANE.....	0.2	---	CYCLOPENTANE.....	TRACE	---	CYCLOPENTANE.....	0.4	---
HEXANES PLUS.....	0.6	---	HEXANES PLUS.....	0.2	---	HEXANES PLUS.....	1.0	---
NITROGEN.....	0.9	---	NITROGEN.....	0.5	---	NITROGEN.....	1.0	---
OXYGEN.....	TRACE	---	OXYGEN.....	0.0	---	OXYGEN.....	0.0	---
ARGON.....	TRACE	---	ARGON.....	0.0	---	ARGON.....	0.0	---
HYDROGEN.....	0.2	---	HYDROGEN.....	0.1	---	HYDROGEN.....	0.0	---
HYDROGEN SULFIDE.....	0.0	---	HYDROGEN SULFIDE.....	0.0	---	HYDROGEN SULFIDE.....	2.3	---
CARBON DIOXIDE.....	0.7	---	CARBON DIOXIDE.....	1.0	---	CARBON DIOXIDE.....	2.3	---
HELIUM.....	0.01	---	HELIUM.....	0.10	---	HELIUM.....	TRACE	---
HEATING VALUE.....	1522	---	HEATING VALUE.....	1256	---	HEATING VALUE.....	1717	---
SPECIFIC GRAVITY.....	0.894	---	SPECIFIC GRAVITY.....	0.730	---	SPECIFIC GRAVITY.....	1.065	---
INDEX 4756 SAMPLE 16568			INDEX 4757 SAMPLE 5555			INDEX 4758 SAMPLE 10425		
STATE.....	NORTH DAKOTA		STATE.....	NORTH DAKOTA		STATE.....	NORTH DAKOTA	
COUNTY.....	BILLINGS		COUNTY.....	BILLINGS		COUNTY.....	BOTTINEAU	
FIELD.....	WHITE TAIL		FIELD.....	MAY NO. 1		FIELD.....	NEWBURG	
WELL NAME.....	YOUR NO. 1		WELL NAME.....	MAY NO. 1		WELL NAME.....	ARNOLD NERMYR A- NO. 2	
LOCATION.....	SEC. 9, T143N, R99W		LOCATION.....	SEC. 9, T139N, R100W		LOCATION.....	NOT GIVEN	
OWNER.....	AMOCO PRODUCTION CO.		OWNER.....	AMERADA PETROLEUM CORP.		OWNER.....	AMERADA PETROLEUM CORP.	
COMPLETED.....	06/18/81		COMPLETED.....	09/23/53		COMPLETED.....	06/10/59	
SAMPLED.....	12/15/81		SAMPLED.....	09/23/53		SAMPLED.....	03/01/66	
FORMATION.....	ORDO-RED RIVER		FORMATION.....	MISS-MADISON		FORMATION.....	TRIA-SPEARFISH	
GEOLOGIC PROVINCE CODE.....	395		GEOLOGIC PROVINCE CODE.....	395		GEOLOGIC PROVINCE CODE.....	395	
DEPTH, FEET.....	13650		DEPTH, FEET.....	9403		DEPTH, FEET.....	3222	
WELLHEAD PRESSURE, PSIG.....	2168		WELLHEAD PRESSURE, PSIG.....	200		WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	
OPEN FLOW, MCFD.....	1000		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	84.3	---	METHANE.....	48.4	---	METHANE.....	11.8	---
ETHANE.....	9.2	---	ETHANE.....	21.7	---	ETHANE.....	3.5	---
PROPANE.....	2.4	---	PROPANE.....	14.8	---	PROPANE.....	35.2	---
N-BUTANE.....	0.6	---	N-BUTANE.....	5.3	---	N-BUTANE.....	12.5	---
ISOBUTANE.....	0.5	---	ISOBUTANE.....	2.9	---	ISOBUTANE.....	4.6	---
N-PENTANE.....	0.2	---	N-PENTANE.....	1.6	---	N-PENTANE.....	3.2	---
ISOPENTANE.....	0.2	---	ISOPENTANE.....	1.0	---	ISOPENTANE.....	2.4	---
CYCLOPENTANE.....	TRACE	---	CYCLOPENTANE.....	0.2	---	CYCLOPENTANE.....	0.3	---
HEXANES PLUS.....	0.0	---	HEXANES PLUS.....	0.8	---	HEXANES PLUS.....	2.5	---
NITROGEN.....	0.9	---	NITROGEN.....	1.3	---	NITROGEN.....	26.0	---
OXYGEN.....	TRACE	---	OXYGEN.....	TRACE	---	OXYGEN.....	TRACE	---
ARGON.....	TRACE	---	ARGON.....	0.0	---	ARGON.....	0.0	---
HYDROGEN.....	0.1	---	HYDROGEN.....	0.1	---	HYDROGEN.....	0.0	---
HYDROGEN SULFIDE.....	0.2	---	HYDROGEN SULFIDE.....	0.0	---	HYDROGEN SULFIDE.....	0.0	---
CARBON DIOXIDE.....	1.1	---	CARBON DIOXIDE.....	1.9	---	CARBON DIOXIDE.....	0.0	---
HELIUM.....	0.03	---	HELIUM.....	0.01	---	HELIUM.....	0.04	---
HEATING VALUE.....	1142	---	HEATING VALUE.....	1700	---	HEATING VALUE.....	2015	---
SPECIFIC GRAVITY.....	0.665	---	SPECIFIC GRAVITY.....	1.032	---	SPECIFIC GRAVITY.....	1.457	---
INDEX 4759 SAMPLE 10426			INDEX 4760 SAMPLE 2560			INDEX 4761 SAMPLE 10567		
STATE.....	NORTH DAKOTA		STATE.....	NORTH DAKOTA		STATE.....	NORTH DAKOTA	
COUNTY.....	BOTTINEAU		COUNTY.....	BOWMAN		COUNTY.....	BURKE	
FIELD.....	NEWBURG		FIELD.....	CEDAR CREEK		FIELD.....	BLACK SLOUGH	
WELL NAME.....	ROLLIN STAIRS TR-2 NO. 4		WELL NAME.....	GAS DEVELOPMENT CO. NO. 38		WELL NAME.....	H. HERMANSON NO. 1-B	
LOCATION.....	NOT GIVEN		LOCATION.....	SEC. 3, T130N, R107W		LOCATION.....	SEC. 14, T162N, R92W	
OWNER.....	AMERADA PETROLEUM CORP.		OWNER.....	GAS DEVELOPMENT CO.		OWNER.....	PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	11/09/58		COMPLETED.....	07/08/29		COMPLETED.....	03/30/63	
SAMPLED.....	03/01/66		SAMPLED.....	09/27/32		SAMPLED.....	05/09/66	
FORMATION.....	MISS-CHARLES		FORMATION.....	CRET-EAGLE		FORMATION.....	MISS-RIVAL	
GEOLOGIC PROVINCE CODE.....	395		GEOLOGIC PROVINCE CODE.....	395		GEOLOGIC PROVINCE CODE.....	395	
DEPTH, FEET.....	3311		DEPTH, FEET.....	1180		DEPTH, FEET.....	6300	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	430		WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	540		OPEN FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	27.6	---	METHANE.....	96.3	---	METHANE.....	65.9	---
ETHANE.....	20.8	---	ETHANE.....	0.0	---	ETHANE.....	14.3	---
PROPANE.....	18.8	---	PROPANE.....	---	---	PROPANE.....	7.1	---
N-BUTANE.....	7.6	---	N-BUTANE.....	---	---	N-BUTANE.....	2.8	---
ISOBUTANE.....	2.6	---	ISOBUTANE.....	---	---	ISOBUTANE.....	0.9	---
N-PENTANE.....	1.0	---	N-PENTANE.....	---	---	N-PENTANE.....	0.7	---
ISOPENTANE.....	2.9	---	ISOPENTANE.....	---	---	ISOPENTANE.....	1.1	---
CYCLOPENTANE.....	0.1	---	CYCLOPENTANE.....	---	---	CYCLOPENTANE.....	0.3	---
HEXANES PLUS.....	0.6	---	HEXANES PLUS.....	---	---	HEXANES PLUS.....	0.7	---
NITROGEN.....	17.6	---	NITROGEN.....	3.2	---	NITROGEN.....	3.2	---
OXYGEN.....	0.3	---	OXYGEN.....	0.4	---	OXYGEN.....	TRACE	---
ARGON.....	TRACE	---	ARGON.....	---	---	ARGON.....	TRACE	---
HYDROGEN.....	0.0	---	HYDROGEN.....	---	---	HYDROGEN.....	0.0	---
HYDROGEN SULFIDE.....	0.0	---	HYDROGEN SULFIDE.....	---	---	HYDROGEN SULFIDE.....	0.5	---
CARBON DIOXIDE.....	0.0	---	CARBON DIOXIDE.....	0.0	---	CARBON DIOXIDE.....	2.4	---
HELIUM.....	0.06	---	HELIUM.....	0.05	---	HELIUM.....	0.03	---
HEATING VALUE.....	1585	---	HEATING VALUE.....	976	---	HEATING VALUE.....	1360	---
SPECIFIC GRAVITY.....	1.167	---	SPECIFIC GRAVITY.....	0.569	---	SPECIFIC GRAVITY.....	0.849	---
INDEX 4762 SAMPLE 10565			INDEX 4763 SAMPLE 14036			INDEX 4764 SAMPLE 17146		
STATE.....	NORTH DAKOTA		STATE.....	NORTH DAKOTA		STATE.....	NORTH DAKOTA	
COUNTY.....	BURKE		COUNTY.....	BURKE		COUNTY.....	DIVIDE	
FIELD.....	LIGNITE		FIELD.....	STONEVIEW		FIELD.....	PAULSON	
WELL NAME.....	C. S. STAALESNO NO. 1		WELL NAME.....	HOLTE-BANK OF NO. NO. 1		WELL NAME.....	GIN-HAN PARTNERSHP. NO. 1	
LOCATION.....	SEC. 5, T162N, R91W		LOCATION.....	SEC. 3, T161N, R94W		LOCATION.....	SEC. 11, T163N, R97W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.		OWNER.....	HUNT, H. L. & PHILLIPS PET.		OWNER.....	TEXACO INC.	
COMPLETED.....	01/02/58		COMPLETED.....	07/02/72		COMPLETED.....	12/27/83	
SAMPLED.....	05/09/66		SAMPLED.....	06/18/74		SAMPLED.....	12/27/83	
FORMATION.....	MISS-MIDALE		FORMATION.....	DEVO & ORDO COMMINGLED		FORMATION.....	ORDO-RED RIVER	
GEOLOGIC PROVINCE CODE.....	395		GEOLOGIC PROVINCE CODE.....	395		GEOLOGIC PROVINCE CODE.....	395	
DEPTH, FEET.....	6060		DEPTH, FEET.....	10714		DEPTH, FEET.....	10610	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	13630		WELLHEAD PRESSURE, PSIG.....	2500	
OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	340000		OPEN FLOW, MCFD.....	3300	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	45.6	---	METHANE.....	43.1	---	METHANE.....	70.5	---
ETHANE.....	44.3	---	ETHANE.....	4.7	---	ETHANE.....	15.5	---
PROPANE.....	6.2	---	PROPANE.....	1.8	---	PROPANE.....	5.9	---
N-BUTANE.....	0.9	---	N-BUTANE.....	0.2	---	N-BUTANE.....	1.2	---
ISOBUTANE.....	0.0	---	ISOBUTANE.....	0.5	---	ISOBUTANE.....	0.9	---
N-PENTANE.....	0.0	---	N-PENTANE.....	0.1	---	N-PENTANE.....	0.3	---
ISOPENTANE.....	0.0	---	ISOPENTANE.....	0.3	---	ISOPENTANE.....	0.2	---
CYCLOPENTANE.....	0.0	---	CYCLOPENTANE.....	0.1	---	CYCLOPENTANE.....	TRACE	---
HEXANES PLUS.....	0.0	---	HEXANES PLUS.....	0.3	---	HEXANES PLUS.....	0.1	---
NITROGEN.....	1.3	---	NITROGEN.....	46.8	---	NITROGEN.....	4.8	---
OXYGEN.....	0.0	---	OXYGEN.....	0.4	---	OXYGEN.....	0.1	---
ARGON.....	0.1	---	ARGON.....	0.0	---	ARGON.....	TRACE	---
HYDROGEN.....	0.0	---	HYDROGEN.....	0.0	---	HYDROGEN.....	0.0	---
HYDROGEN SULFIDE.....	0.0	---	HYDROGEN SULFIDE.....	0.0	---	HYDROGEN SULFIDE.....	0.0	---
CARBON DIOXIDE.....	0.0	---	CARBON DIOXIDE.....	0.8	---	CARBON DIOXIDE.....	0.5	---
HELIUM.....	0.01	---	HELIUM.....	0.37	---	HELIUM.....	0.08	---
HEATING VALUE.....	1457	---	HEATING VALUE.....	0.829	---	HEATING VALUE.....	0.760	---
SPECIFIC GRAVITY.....	0.860	---	SPECIFIC GRAVITY.....	0.829	---	SPECIFIC GRAVITY.....	0.760	---

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4765 SAMPLE 16846			INDEX 4766 SAMPLE 16712			INDEX 4767 SAMPLE 16841		
STATE.....	NORTH DAKOTA		NORTH DAKOTA			NORTH DAKOTA		
COUNTY.....	DUNN		DUNN			DUNN		
FIELD.....	BEAR CREEK		JIN CREEK			LITTLE KNIFE		
WELL NAME.....	KNUTSON-MERRE 34 NO. 1		SKUTSKO NO. A-1			FREDERICK SKACHENKO NO. A-1		
LOCATION.....	SEC. 34, T148N, R96W		SEC. 30, T146N, R95W			SEC. 29, T144N, R97W		
OWNER.....	MESA PETROLEUM CO.		AMOCO PRODUCTION CO.			APACHE OIL CORP.		
COMPLETED.....	05/31/82		10/27/81			11/07/82		
SAMPLED.....	03/-/83		11/19/82			03/23/83		
FORMATION.....	ORDO-RED RIVER		DEVO-DUPEROW			MISS-MISSION CANYON		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	13864		11302			9550		
WELLHEAD PRESSURE, PSIG.....	2700		350			1325		
OPEN FLOW, MCFD.....	4969		1357			201		
COMPONENT, MOLE PCT								
METHANE.....	74.4		55.7			27.8		
ETHANE.....	14.5		18.0			21.8		
PROPANE.....	5.4		13.0			15.9		
N-BUTANE.....	1.2		4.6			5.5		
ISOBUTANE.....	0.9		2.7			2.4		
N-PENTANE.....	0.4		1.2			0.8		
ISOPENTANE.....	0.2		0.3			2.3		
CYCLOPENTANE.....	0.3		0.4			0.3		
HEXANES PLUS.....	0.6		0.8			0.6		
NITROGEN.....	0.9		0.8			0.3		
OXYGEN.....	TRACE		TRACE			0.8		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.2		0.1			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			18.5		
CARBON DIOXIDE.....	0.9		0.5			2.9		
HELIUM.....	0.03		0.01			TRACE		
HEATING VALUE.....	1293		1677			1645		
SPECIFIC GRAVITY.....	0.755		0.988			1.173		

INDEX 4768 SAMPLE 17401			INDEX 4769 SAMPLE 16227			INDEX 4770 SAMPLE 14454		
STATE.....	NORTH DAKOTA		NORTH DAKOTA			NORTH DAKOTA		
COUNTY.....	DUNN		DUNN			EMMONS		
FIELD.....	RUSSIAN CREEK		UNNAMED			NOT GIVEN		
WELL NAME.....	BULLINGER NO. 1-30		VOLENSKY NO. 1			HUBER NO. 1		
LOCATION.....	SEC. 30, T142N, R96W		SEC. 34, T141N, R98W			SEC. 6, T133N, R74W		
OWNER.....	VANDERBILT RESOURCES CORP.		MOSBACHER PRODUCTION CO.			KELSCH & DONLIN		
COMPLETED.....	01/12/82		01/05/80			--/--/00		
SAMPLED.....	09/14/84		03/31/81			--/--/00		
FORMATION.....	ORDO-RED RIVER		ORDO-RED RIVER			CRET-MUDDY		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	13042		12792			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	2300		2300			NOT GIVEN		
OPEN FLOW, MCFD.....	900		6239			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.2		76.3			85.2		
ETHANE.....	8.2		7.9			0.1		
PROPANE.....	2.6		3.3			TRACE		
N-BUTANE.....	0.8		2.4			0.0		
ISOBUTANE.....	0.7		1.6			0.0		
N-PENTANE.....	0.3		0.7			0.0		
ISOPENTANE.....	0.2		1.0			0.0		
CYCLOPENTANE.....	TRACE		0.1			0.0		
HEXANES PLUS.....	0.2		0.1			0.0		
NITROGEN.....	0.6		0.9			13.4		
OXYGEN.....	0.0		0.0			0.3		
ARGON.....	TRACE		TRACE			0.2		
HYDROGEN.....	0.0		0.4			0.0		
HYDROGEN SULFIDE.....	1.3		4.2			0.0		
CARBON DIOXIDE.....	0.9		0.9			0.7		
HELIUM.....	0.04		0.04			0.05		
HEATING VALUE.....	1158		1255			865		
SPECIFIC GRAVITY.....	0.676		0.767			0.620		

INDEX 4771 SAMPLE 14458			INDEX 4772 SAMPLE 10465			INDEX 4773 SAMPLE 10466		
STATE.....	NORTH DAKOTA		NORTH DAKOTA			NORTH DAKOTA		
COUNTY.....	EMMONS		MCKENZIE			MCKENZIE		
FIELD.....	NOT GIVEN		ANTELOPE			ANTELOPE		
WELL NAME.....	LOEB NO. 1		ANTELOPE UNIT E NO. 1			WILDRED BANCROFT NO. 1		
LOCATION.....	SEC. 10, T133N, R75W		SEC. 32, T153N, R94W			SEC. 6, T152N, R94W		
OWNER.....	KELSCH & DONLIN		AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.		
COMPLETED.....	01/14/81		03/27/63			07/08/59		
SAMPLED.....	--/--/00		03/15/66			03/15/66		
FORMATION.....	CRET-MUDDY		SILU-			DEVO-SANISH		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	2276		11917			10241		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1135			1045		
OPEN FLOW, MCFD.....	NOT GIVEN		1023			1052		
COMPONENT, MOLE PCT								
METHANE.....	86.4		56.7			70.3		
ETHANE.....	0.1		19.5			18.5		
PROPANE.....	TRACE		9.0			5.8		
N-BUTANE.....	0.0		4.1			1.3		
ISOBUTANE.....	0.0		3.3			0.6		
N-PENTANE.....	0.0		2.7			0.3		
ISOPENTANE.....	0.0		TRACE			0.1		
CYCLOPENTANE.....	0.0		0.3			0.1		
HEXANES PLUS.....	0.0		1.9			0.4		
NITROGEN.....	12.2		1.9			1.9		
OXYGEN.....	0.5		0.0			0.0		
ARGON.....	0.1		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.7			0.7		
HELIUM.....	0.04		0.02			0.02		
HEATING VALUE.....	877		1177			1300		
SPECIFIC GRAVITY.....	0.613		0.972			0.767		

INDEX 4774 SAMPLE 10467			INDEX 4775 SAMPLE 10468			INDEX 4776 SAMPLE 17839		
STATE.....	NORTH DAKOTA		NORTH DAKOTA			NORTH DAKOTA		
COUNTY.....	MCKENZIE		MCKENZIE			MCKENZIE		
FIELD.....	ANTELOPE		ANTELOPE			BICEGAL CREEK		
WELL NAME.....	E-18, E. BRENNAN TR-1 NO. 1		ANTELOPE UNIT C NO. 1			FEDERAL STORM NO. 13-6		
LOCATION.....	SEC. 1, T152N, R95W		SEC. 2, T152N, R95W			SEC. 6, T145N, R99W		
OWNER.....	AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.			ADDOE OIL & GAS CORP.		
COMPLETED.....	10/14/56		12/23/62			04/--/83		
SAMPLED.....	03/15/66		03/15/66			09/--/85		
FORMATION.....	MISS-MADISON		DEVO-			ORDO-RED RIVER		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	8690		10888			13661		
WELLHEAD PRESSURE, PSIG.....	1350		NOT GIVEN			2050		
OPEN FLOW, MCFD.....	1585		776			3000		
COMPONENT, MOLE PCT								
METHANE.....	54.0		69.6			77.7		
ETHANE.....	16.1		14.7			7.5		
PROPANE.....	10.3		8.0			2.7		
N-BUTANE.....	5.6		2.2			1.0		
ISOBUTANE.....	2.3		1.5			0.8		
N-PENTANE.....	1.9		0.7			0.5		
ISOPENTANE.....	1.5		0.5			0.3		
CYCLOPENTANE.....	0.5		0.3			0.1		
HEXANES PLUS.....	1.4		0.6			0.3		
NITROGEN.....	2.2		0.9			1.1		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.3		
HYDROGEN SULFIDE.....	1.7		0.0			6.0		
CARBON DIOXIDE.....	2.5		0.9			1.6		
HELIUM.....	0.01		TRACE			0.04		
HEATING VALUE.....	1616		1398			1145		
SPECIFIC GRAVITY.....	1.011		0.821			0.728		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

407

	INDEX SAMPLE 4777 17499	INDEX SAMPLE 4778 10464	INDEX SAMPLE 4779 16062
STATE.....	NORTH DAKOTA	NORTH DAKOTA	NORTH DAKOTA
COUNTY.....	MCKENZIE	MCKENZIE	MCKENZIE
FIELD.....	BURNING MINE	CHARLSON	CHARLSON
WELL NAME.....	BURNING-MINE BUTTE NO. 4-33	M. L. SLAATEN UNIT NO. 1	SILURIAN UNIT 5 NO. 1
LOCATION.....	SEC. 4, T147N, R102W	SEC. 8, T153N, R95W	SEC. 34, T154N, R95W
OWNER.....	ABRAXAS PETROLEUM CORP.	TEXACO INC.	TEXACO INC.
COMPLETED.....	05/-/82	11/13/65	-/-/00
SAMPLED.....	10/12/84	03/16/66	09/02/80
FORMATION.....	ORDO-RED RIVER B	PENN-MINNELUSA	SILU-INTERLAKE
GEOLOGIC PROVINCE CODE.....	395	395	395
DEPTH, FEET.....	13216	6974	11408
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	2800	2500
OPEN FLOW, MCFD.....	NOT GIVEN	24589	2000
COMPONENT, MOLE PCT			
METHANE.....	69.9	0.4	75.4
ETHANE.....	13.1	0.0	8.3
PROPANE.....	7.7	0.0	4.3
N-BUTANE.....	2.8	0.0	1.7
ISOBUTANE.....	2.1	0.0	1.2
N-PENTANE.....	0.8	0.0	0.6
ISOPENTANE.....	0.8	0.0	0.5
CYCLOPENTANE.....	0.2	0.0	0.1
HEXANES PLUS.....	0.9	0.0	0.4
NITROGEN.....	0.0	98.0	3.0
OXYGEN.....	TRACE	0.0	0.0
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.02	0.0	0.0
HYDROGEN SULFIDE**.....	1.1	0.0	3.8
CARBON DIOXIDE.....	0.6	1.5	0.6
HELIUM.....	0.02	0.06	0.05
HEATING VALUE.....	1437	4	1217
SPECIFIC GRAVITY.....	0.840	0.973	0.757

	INDEX SAMPLE 4780 16786	INDEX SAMPLE 4781 15634	INDEX SAMPLE 4782 17830
STATE.....	NORTH DAKOTA	NORTH DAKOTA	NORTH DAKOTA
COUNTY.....	MCKENZIE	MCKENZIE	MCKENZIE
FIELD.....	CHARLSON	CHERRY CREEK	CHERRY CREEK
WELL NAME.....	DEEP UNIT NO. 2	MORRISON NO. 1	MORRISON NO. 1
LOCATION.....	SEC. 3, T153N, R95W	SEC. 10, T149N, R99W	SEC. 8, T149N, R99W
OWNER.....	TEXACO INC.	ALPAR RESOURCES INC.	APACHE CORP.
COMPLETED.....	03/03/83	09/29/78	-/-/00
SAMPLED.....	03/03/83	05/29/79	09/16/85
FORMATION.....	ORDO-RED RIVER	ORDO-RED RIVER	ORDO-RED RIVER
GEOLOGIC PROVINCE CODE.....	395	395	395
DEPTH, FEET.....	13129	14034	14006
WELLHEAD PRESSURE, PSIG.....	4250	5000	NOT GIVEN
OPEN FLOW, MCFD.....	1500	7200	600
COMPONENT, MOLE PCT			
METHANE.....	73.5	83.0	75.7
ETHANE.....	5.1	7.0	5.9
PROPANE.....	2.7	0.0	1.8
N-BUTANE.....	0.6	0.5	0.8
ISOBUTANE.....	0.6	0.6	0.5
N-PENTANE.....	0.2	0.2	0.4
ISOPENTANE.....	0.2	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.3	0.2	0.3
NITROGEN.....	0.7	0.9	0.2
OXYGEN.....	0.6	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.2	TRACE	0.1
HYDROGEN SULFIDE**.....	12.6	1.5	12.8
CARBON DIOXIDE.....	1.5	1.5	1.4
HELIUM.....	0.07	0.03	0.03
HEATING VALUE.....	1038	1114	1050
SPECIFIC GRAVITY.....	0.740	0.682	0.739

	INDEX SAMPLE 4783 10534	INDEX SAMPLE 4784 10948	INDEX SAMPLE 4785 17800
STATE.....	NORTH DAKOTA	NORTH DAKOTA	NORTH DAKOTA
COUNTY.....	MCKENZIE	MCKENZIE	MCKENZIE
FIELD.....	CLEAR CREEK	CLEAR CREEK	EDGE
WELL NAME.....	UNIT NO. 3	UNIT NO. 3	OSCAR JONSRUD NO. 1
LOCATION.....	SEC. 23, T152N, R96W	SEC. 23, T152N, R96W	SEC. 5, T151N, R96W
OWNER.....	SKELLY OIL CO.	SKELLY OIL CO.	TEXACO INC.
COMPLETED.....	10/15/65	10/15/65	01/30/85
SAMPLED.....	04/19/66	04/24/67	08/06/85
FORMATION.....	PENN-MINNELUSA	PENN-MINNELUSA	SILU-INTERLAKE
GEOLOGIC PROVINCE CODE.....	395	395	395
DEPTH, FEET.....	7184	1184	12291
WELLHEAD PRESSURE, PSIG.....	2650	2100	NOT GIVEN
OPEN FLOW, MCFD.....	45000	2000	200
COMPONENT, MOLE PCT			
METHANE.....	0.5	0.4	71.3
ETHANE.....	0.1	0.0	9.4
PROPANE.....	0.2	TRACE	4.6
N-BUTANE.....	0.0	0.0	2.0
ISOBUTANE.....	0.0	0.0	1.6
N-PENTANE.....	0.0	0.0	1.1
ISOPENTANE.....	0.0	0.0	1.0
CYCLOPENTANE.....	0.0	0.0	0.2
HEXANES PLUS.....	0.0	0.0	1.3
NITROGEN.....	96.0	95.8	5.6
OXYGEN.....	0.8	0.0	0.0
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.1	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.6
CARBON DIOXIDE.....	0.0	0.7	1.5
HELIUM.....	0.06	0.06	0.03
HEATING VALUE.....	12	1299	1299
SPECIFIC GRAVITY.....	0.982	0.986	0.817

	INDEX SAMPLE 4786 17924	INDEX SAMPLE 4787 17467	INDEX SAMPLE 4788 17023
STATE.....	NORTH DAKOTA	NORTH DAKOTA	NORTH DAKOTA
COUNTY.....	MCKENZIE	MCKENZIE	MCKENZIE
FIELD.....	EDGE	ELK	ELLSWORTH
WELL NAME.....	OSCAR JONSRUD NO. 1	ELK	STATE-ROGNESS NO. 1
LOCATION.....	SEC. 5, T151N, R96W	SEC. 22, T149N, R100W	SEC. 22, T149N, R100W
OWNER.....	TEXACO INC.	SUN EXPLORATION & PRODUCTION	CHAMPLIN PETROLEUM CO.
COMPLETED.....	01/30/85	08/-/83	08/-/83
SAMPLED.....	12/04/85	09/19/85	08/29/83
FORMATION.....	DEVO-DUPEROW	MISS-MISSION CANYON	ORDO-RED RIVER
GEOLOGIC PROVINCE CODE.....	395	395	395
DEPTH, FEET.....	11160	9364	13884
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	300	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	62.0	63.6	73.0
ETHANE.....	13.8	16.4	10.2
PROPANE.....	9.3	9.9	3.6
N-BUTANE.....	5.2	3.5	1.5
ISOBUTANE.....	1.2	1.6	1.1
N-PENTANE.....	3.2	0.7	0.6
ISOPENTANE.....	1.7	1.0	0.7
CYCLOPENTANE.....	2.6	0.4	0.3
HEXANES PLUS.....	2.3	0.4	1.1
NITROGEN.....	0.0	1.6	0.5
OXYGEN.....	TRACE	0.0	0.3
ARGON.....	0.0	TRACE	0.0
HYDROGEN.....	TRACE	0.0	0.2
HYDROGEN SULFIDE**.....	0.0	0.0	5.7
CARBON DIOXIDE.....	0.8	1.3	1.3
HELIUM.....	0.01	0.02	0.03
HEATING VALUE.....	1682	1468	1264
SPECIFIC GRAVITY.....	0.983	0.876	0.790

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4789 17274	INDEX SAMPLE	4790 17142	INDEX SAMPLE	4791 6831
STATE.....	NORTH DAKOTA			NORTH DAKOTA		NORTH DAKOTA	
COUNTY.....	MCKENZIE			MCKENZIE		MCKENZIE	
FIELD.....	JUNIPER			MARLEY		NOT GIVEN	
WELL NAME.....	EIDE 35-11 NO. 1			CROWFLY NO. 17-10		SIGNALNESS NO. 1	
LOCATION.....	SEC. 35, T149N, R99W			SEC. 17, T152N, R102W		SEC. 2, T150N, R96W	
OWNER.....	PLAID OIL CO.			GETTY OIL CO.		CALVERT DRILLING CO.	
COMPLETED.....	05/01/84			7/7/80		05/26/58	
SAMPLED.....	05/01/84			11/30/83		10/09/58	
FORMATION.....	ORDO-RED RIVER			SILU-INTERLAKE		MISS-MADISON	
GEOLOGIC PROVINCE CODE.....	395			395		395	
DEPTH, FEET.....	14280			13111		9386	
WELLHEAD PRESSURE, PSIG.....	4500			NOT GIVEN		1100	
OPEN FLOW, MCFD.....	4500			80		36	
COMPONENT, MOLE PCT.....							
METHANE.....	74.1			62.1		65.3	
ETHANE.....	5.4			18.0		14.9	
PROpane.....	1.6			10.6		5.8	
N-BUTANE.....	0.4			3.8		1.6	
ISOBUTANE.....	0.6			1.3		0.9	
N-PENTANE.....	0.2			1.6		0.6	
ISOPENTANE.....	0.1			1.5		0.5	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.3			0.4		0.4	
NITROGEN.....	2.6			0.3		0.9	
OXYGEN.....	0.5			0.1		0.1	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	12.8			0.0		5.9	
CARBON DIOXIDE.....	1.2			0.5		2.9	
HELIUM.....	0.02			0.01		0.02	
HEATING VALUE.....	1037			1547		127	
SPECIFIC GRAVITY.....	0.733			0.902		0.827	
		INDEX SAMPLE	4792 17514	INDEX SAMPLE	4793 17747	INDEX SAMPLE	4794 15619
STATE.....	NORTH DAKOTA			NORTH DAKOTA		NORTH DAKOTA	
COUNTY.....	MCKENZIE			MCKENZIE		RENNVILLE	
FIELD.....	TIMBER CREEK			TOBACCO GARDEN		NEUPORTE	
WELL NAME.....	RAY MOEN NO. 1			FELLMAN NO. 1		ROTT NO. 32-3	
LOCATION.....	SEC. 15, T150N, R100W			SEC. 15, T150N, R99W		NOT GIVEN	
OWNER.....	MOBIL OIL CORP.			TEXACO INC.		SHELL OIL CO.	
COMPLETED.....	7/7/83			01/03/81		09/01/78	
SAMPLED.....	11/01/84			07/12/85		05/09/78	
FORMATION.....	ORDO-RED RIVER			ORDO-RED RIVER		CAMB-DEADWOOD	
GEOLOGIC PROVINCE CODE.....	395			395		395	
DEPTH, FEET.....	14184			14042		9146	
WELLHEAD PRESSURE, PSIG.....	1800			4900		NOT GIVEN	
OPEN FLOW, MCFD.....	862			1800		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	92.6			80.8		28.4	
ETHANE.....	5.2			3.4		11.5	
PROpane.....	0.5			1.0		7.8	
N-BUTANE.....	0.2			0.2		2.9	
ISOBUTANE.....	TRACE			0.4		1.0	
N-PENTANE.....	0.1			0.4		0.9	
ISOPENTANE.....	TRACE			0.0		0.4	
CYCLOPENTANE.....	TRACE			0.2		0.1	
HEXANES PLUS.....	TRACE			0.7		0.5	
NITROGEN.....	0.5			0.5		45.3	
OXYGEN.....	TRACE			0.1		TRACE	
ARGON.....	TRACE			TRACE		0.5	
HYDROGEN.....	0.2			0.1		TRACE	
HYDROGEN SULFIDE.....	0.3			10.9		0.0	
CARBON DIOXIDE.....	0.2			1.0		0.7	
HELIUM.....	0.02			0.02		0.07	
HEATING VALUE.....	1058			1066		913	
SPECIFIC GRAVITY.....	0.594			0.704		0.983	
		INDEX SAMPLE	4795 15623	INDEX SAMPLE	4796 15624	INDEX SAMPLE	4797 16554
STATE.....	NORTH DAKOTA			NORTH DAKOTA		NORTH DAKOTA	
COUNTY.....	RENNVILLE			RENNVILLE		STARK	
FIELD.....	NEUPORTE			NEUPORTE		RICHARDTOWN	
WELL NAME.....	LARSON NO. 23X-9			DUERRE NO. 43-5		OGRE NO. 1-24-1C	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	SHELL OIL CO.			SHELL OIL CO.		GULF OIL EXPL. & PROD. CO.	
COMPLETED.....	06/01/78			09/01/78		01/-/82	
SAMPLED.....	05/09/79			05/09/79		06/19/82	
FORMATION.....	CAMB-DEADWOOD			CAMB-DEADWOOD		ORDO-MINNIPEG	
GEOLOGIC PROVINCE CODE.....	395			395		395	
DEPTH, FEET.....	9574			9516		11700	
WELLHEAD PRESSURE, PSIG.....	600			NOT GIVEN		4100	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		4000	
COMPONENT, MOLE PCT.....							
METHANE.....	20.3			15.7		90.7	
ETHANE.....	2.6			0.2		3.7	
PROpane.....	2.5			2.1		1.0	
N-BUTANE.....	1.3			1.2		0.4	
ISOBUTANE.....	0.4			0.4		0.4	
N-PENTANE.....	0.4			0.2		0.2	
ISOPENTANE.....	0.2			0.2		0.1	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.2			0.3		0.2	
NITROGEN.....	67.0			74.4		2.1	
OXYGEN.....	0.1			0.0		TRACE	
ARGON.....	0.4			0.2		TRACE	
HYDROGEN.....	0.4			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.6		1.1	
HELIUM.....	0.17			0.7		0.09	
HEATING VALUE.....	487			391		1055	
SPECIFIC GRAVITY.....	0.936			0.958		0.620	
		INDEX SAMPLE	4798 5068	INDEX SAMPLE	4799 5089	INDEX SAMPLE	4800 10495
STATE.....	NORTH DAKOTA			NORTH DAKOTA		NORTH DAKOTA	
COUNTY.....	WILLIAMS			WILLIAMS		WILLIAMS	
FIELD.....	BEAVER LODGE			BEAVER LODGE		BEAVER LODGE	
WELL NAME.....	WILSON NO. 1			CLARENCE WILSON NO. 1		BLU NO.	
LOCATION.....	SEC. 6, T155N, R95W			SEC. 6, T155N, R95W		SEC. 2, T155N, R96W	
OWNER.....	AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.	
COMPLETED.....	7/7/80			07/15/51		02/01/63	
SAMPLED.....	04/25/51			08/05/51		03/01/66	
FORMATION.....	DEVO-6 SILU			DEVO-		ORDO-MINNIPEG	
GEOLOGIC PROVINCE CODE.....	395			395		395	
DEPTH, FEET.....	11630			10490		13390	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			4690		4200	
OPEN FLOW, MCFD.....	3800			NOT GIVEN		11000	
COMPONENT, MOLE PCT.....							
METHANE.....	79.4			70.0		78.6	
ETHANE.....	8.5			14.6		3.0	
PROpane.....	3.4			2.7		1.4	
N-BUTANE.....	1.0			0.6		0.5	
ISOBUTANE.....	0.8			1.3		TRACE	
N-PENTANE.....	0.5			0.6		0.2	
ISOPENTANE.....	0.0			0.0		0.1	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.5			0.6		0.2	
NITROGEN.....	5.6			1.3		12.8	
OXYGEN.....	0.1			0.1		0.0	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.6		2.9	
HELIUM.....	0.07			0.01		0.20	
HEATING VALUE.....	1156			1370		926	
SPECIFIC GRAVITY.....	0.705			0.805		0.683	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4801 SAMPLE 10496			INDEX 4802 SAMPLE 10497			INDEX 4803 SAMPLE 10498		
STATE.....	NORTH DAKOTA		NORTH DAKOTA			NORTH DAKOTA		
COUNTY.....	WILLIAMS		WILLIAMS			WILLIAMS		
FIELD.....	BEAVER LODGE		BEAVER LODGE			BEAVER LODGE		
WELL NAME.....	BLU 1-315		BLU 1-408			BLU NO. 1		
LOCATION.....	SEC. 17, T156N, R95W.		SEC. 2, T155N, R96W.			SEC. 2, T155N, R96W.		
OWNER.....	AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.		
COMPLETED.....	02/05/64		09/12/63			02/01/63		
SAMPLED.....	03/01/66		03/01/66			03/01/66		
FORMATION.....	DEVON		SILU-			ORDO-RED RIVER		
GEOLOGIC PROVINCE CODE.....	395		395			395		
DEPTH, FEET.....	10650		11767			12696		
WELLHEAD PRESSURE, PSIG.....	408		3455			4200		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			18000		
COMPONENT, MOLE PCT								
METHANE.....	58.7		80.6			78.7		
ETHANE.....	19.4		7.3			4.8		
PROPANE.....	13.0		2.8			1.9		
N-BUTANE.....	4.1		0.9			0.7		
ISOBUTANE.....	1.8		0.6			0.3		
N-PENTANE.....	0.7		0.3			0.3		
ISOPENTANE.....	1.2		0.3			0.2		
CYCLOPENTANE.....	0.2		TRACE			0.1		
HEXANES PLUS.....	0.4		0.2			0.3		
NITROGEN.....	0.1		5.3			6.4		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.6		
HYDROGEN SULFIDE.....	0.0		0.0			3.7		
CARBON DIOXIDE.....	0.3		0.5			1.9		
HELIUM.....	0.01		0.09			0.13		
HEATING VALUE.....	1588		1113			1032		
SPECIFIC GRAVITY.....	0.924		0.691			0.696		
INDEX 4804 SAMPLE 10499			INDEX 4805 SAMPLE 16713			INDEX 4806 SAMPLE 478		
STATE.....	NORTH DAKOTA		NORTH DAKOTA			OHIO		
COUNTY.....	WILLIAMS		WILLIAMS			ASHLAND		
FIELD.....	BEAVER LODGE		WILLOW CREEK			ASHLAND		
WELL NAME.....	BLU 0-25		SLLETTE-STANGELAND NCT 1 NO-1			SLOAN NO. 1		
LOCATION.....	SEC. 17, T156N, R95W.		SEC. 13, T153N, R100W			SEC. 16, MONTGOMERY TWP.		
OWNER.....	AMERADA PETROLEUM CORP.		TEXACO INC.			LOGAN NATURAL GAS & FUEL CO.		
COMPLETED.....	09/12/63		01/28/82			--/--/11		
SAMPLED.....	03/01/66		11/23/82			09/01/20		
FORMATION.....	MISS-MADISON		ORDO-RED RIVER			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	395		395			160		
DEPTH, FEET.....	8525		14037			2504		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1600			950		
OPEN FLOW, MCFD.....	NOT GIVEN		2800			790		
COMPONENT, MOLE PCT								
METHANE.....	61.7		72.3			78.4		
ETHANE.....	17.7		12.9			18.1		
PROPANE.....	9.5		6.4			---		
N-BUTANE.....	3.4		2.7			---		
ISOBUTANE.....	1.1		1.1			---		
N-PENTANE.....	0.5		1.0			---		
ISOPENTANE.....	0.7		1.4			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.3		0.5			---		
NITROGEN.....	1.2		0.7			2.8		
OXYGEN.....	TRACE		TRACE			0.4		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.1			---		
HYDROGEN SULFIDE.....	1.8		0.1			---		
CARBON DIOXIDE.....	1.6		0.6			0.1		
HELIUM.....	0.02		0.03			0.16		
HEATING VALUE.....	1431		1391			1119		
SPECIFIC GRAVITY.....	0.876		0.809			0.658		
INDEX 4807 SAMPLE 541			INDEX 4808 SAMPLE 4131			INDEX 4809 SAMPLE 9394		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	ASHLAND		ASHLAND			ASHLAND		
FIELD.....	ASHLAND		MOUNT VERNON			NOT GIVEN		
WELL NAME.....	J. L. CRONE NO. 1, S-1575		O. S. VANCE NO. 1-8116			TROXEL NO. 1		
LOCATION.....	SEC. 1, T GREEN		SEC. 29, T19N, R16W			SEC. 3, CLEAR CREEK TWP.		
OWNER.....	LOGAN NATURAL GAS & FUEL CO.		OHIO FUEL GAS CO.			H. A. PLATA ASSOC.		
COMPLETED.....	--/--/16		02/04/46			02/09/64		
SAMPLED.....	11/22/20		09/30/46			04/03/64		
FORMATION.....	NOT GIVEN		SILU-CLINTON			CAMB-COPPER RIDGE		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2855		2746			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	195		110			NOT GIVEN		
OPEN FLOW, MCFD.....	---		700			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	81.1		79.9			89.7		
ETHANE.....	11.3		7.4			4.9		
PROPANE.....	---		---			1.6		
N-BUTANE.....	---		---			0.6		
ISOBUTANE.....	---		---			0.2		
N-PENTANE.....	---		---			0.3		
ISOPENTANE.....	---		---			0.2		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.3		
NITROGEN.....	6.6		10.1			2.1		
OXYGEN.....	0.3		0.1			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.29		0.25			0.06		
HEATING VALUE.....	1024		978			1096		
SPECIFIC GRAVITY.....	0.639		0.644			0.636		
INDEX 4810 SAMPLE 17724			INDEX 4811 SAMPLE 9048			INDEX 4812 SAMPLE 12272		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	ASHTABULA		ASHTABULA			ASHTABULA		
FIELD.....	ASHGULA		BUSHMELL			JEFFERSON		
WELL NAME.....	RHOA NO. 3		EDWARD & JESSIE SIMAK NO. 1			J & E REMELIUS		
LOCATION.....	NEW LYME TOWNSHIP, LOT 8		SEC. 12, MONROE TWP.			LENOX TWP.		
OWNER.....	PARK-ORO ENERGY, INC.		UNION CARBIDE OLEFINS CO.			HANSFIELD DRILLING CO.		
COMPLETED.....	04/01/82		05/04/63			09/25/69		
SAMPLED.....	06/17/85		07/16/63			05/29/70		
FORMATION.....	ORDO-ROSE RUN		SILU-CLINTON RED (MEDINA)			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	6148		3148			3500		
WELLHEAD PRESSURE, PSIG.....	2003		1000			1275		
OPEN FLOW, MCFD.....	2000		620			12288		
COMPONENT, MOLE PCT								
METHANE.....	86.5		85.3			89.4		
ETHANE.....	2.3		3.7			6.6		
PROPANE.....	1.5		1.1			0.9		
N-BUTANE.....	0.7		0.5			0.3		
ISOBUTANE.....	0.6		TRACE			0.5		
N-PENTANE.....	0.6		TRACE			0.0		
ISOPENTANE.....	0.6		0.3			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.4		0.1			0.3		
NITROGEN.....	1.2		8.5			1.5		
OXYGEN.....	TRACE		0.3			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.05		0.20			0.12		
HEATING VALUE.....	1194		994			1102		
SPECIFIC GRAVITY.....	0.682		0.639			0.628		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4813 SAMPLE 12505			INDEX 4814 SAMPLE 12524			INDEX 4815 SAMPLE 7742		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	ASHTABULA		ASHTABULA			ASHTABULA		
FIELD.....	LENEX		WILDCAT			WILDCAT		
WELL NAME.....	HUBERT RHODES NO. 1		KANANEN-SUPPLEE NO. 1			CLARK D. NO. 1		
LOCATION.....	LENEX TWP.		LENEX TWP.			LOT 1, WINDSOR TERR. R9		
OWNER.....	KINGWOOD OIL CO.		UNION OIL CO. OF CALIF.			NORTHERN NATURAL GAS PROD. C		
COMPLETED.....	08/12/70		09/09/70			07/20/60		
SAMPLED.....	11/04/70		11/05/70			10/23/60		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3535		3304			3816		
WELLHEAD PRESSURE, PSIG.....	1225		1220			1230		
OPEN FLOW, MCFD.....	4400		2606			194		
COMPONENT, MOLE PCT								
METHANE.....	89.3		89.5			82.9		
ETHANE.....	4.4		4.4			9.4		
PROPANE.....	1.4		1.4			3.1		
N-BUTANE.....	0.3		0.4			0.8		
ISOBUTANE.....	0.3		0.3			0.5		
N-PENTANE.....	TRACE		0.1			0.3		
ISOPENTANE.....	0.1		TRACE			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.3		
NITROGEN.....	3.8		3.7			2.3		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE*.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.1		
HELIUM.....	0.12		0.12			0.10		
HEATING VALUE.....	1050		1055			1169		
SPECIFIC GRAVITY.....	0.618		0.620			0.680		
INDEX 4816 SAMPLE 15050			INDEX 4817 SAMPLE 12850			INDEX 4818 SAMPLE 14378		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	COLUMBIANA		COLUMBIANA			COLUMBIANA		
FIELD.....	ADAIR		GUILFORD LAKE			HOMEWORTH		
WELL NAME.....	CLYSON NO. 1		F. MURRAY NO. 1A			HOFFMAN NO. 1-2601		
LOCATION.....	SEC. 19, HANOVER TWP.		SEC. 18, CENTER TWP.			SEC. 33, KNOX TWP.		
OWNER.....	POMINEX, INC.		MANAGEMENT CONTROL CORP.			EAST OHIO GAS CO.		
COMPLETED.....	08/17/76		05/-/70			08/25/71		
SAMPLED.....	07/01/77		06/-/71			05/29/75		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			ORDO-BECKMANTOWN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	5708		5750			8083		
WELLHEAD PRESSURE, PSIG.....	1400		1600			2214		
OPEN FLOW, MCFD.....	2400		3000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	92.9		91.3			91.3		
ETHANE.....	2.9		3.4			4.9		
PROPANE.....	0.4		0.4			1.6		
N-BUTANE.....	0.2		TRACE			0.4		
ISOBUTANE.....	0.0		0.2			0.4		
N-PENTANE.....	TRACE		0.1			0.2		
ISOPENTANE.....	0.1		0.0			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	0.0		0.0			0.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE*.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.1		
HELIUM.....	0.00		0.07			0.03		
HEATING VALUE.....	1020		1028			1108		
SPECIFIC GRAVITY.....	0.595		0.500			0.624		
INDEX 4819 SAMPLE 3999			INDEX 4820 SAMPLE 10207			INDEX 4821 SAMPLE 11646		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	COLUMBIANA		COLUMBIANA			COLUMBIANA		
FIELD.....	NOT GIVEN		WELLSVILLE			WILDCAT		
WELL NAME.....	J. F. BARNETT NO. 1		TURK NO. 444			ELDON P. DENNY NO. 1		
LOCATION.....	SEC. 14, KNOX TWP.		ADAMSON TWP.			SEC. 12, KNOX TWP.		
OWNER.....	OHIO OIL CO.		MANUFACTURERS LT. & HEAT CO.			EAST OHIO GAS CO.		
COMPLETED.....	12/20/44		09/29/24			07/11/68		
SAMPLED.....	03/29/45		10/12/65			09/18/68		
FORMATION.....	DEVON		MISS-BEREA			ORDO-BECKMANTOWN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3544		786			8089		
WELLHEAD PRESSURE, PSIG.....	110		30			2894		
OPEN FLOW, MCFD.....	6		72			14500		
COMPONENT, MOLE PCT								
METHANE.....	83.1		74.9			94.4		
ETHANE.....	16.0		12.6			3.2		
PROPANE.....	---		6.4			0.6		
N-BUTANE.....	---		0.8			0.0		
ISOBUTANE.....	---		0.2			0.0		
N-PENTANE.....	---		0.6			0.0		
ISOPENTANE.....	---		0.6			0.0		
CYCLOPENTANE.....	---		0.2			0.0		
HEXANES PLUS.....	---		0.2			0.0		
NITROGEN.....	0.3		2.1			0.8		
OXYGEN.....	0.3		0.0			TRACE		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		0.2			0.0		
HYDROGEN SULFIDE*.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.7			0.9		
HELIUM.....	0.08		0.15			0.01		
HEATING VALUE.....	1129		1280			1029		
SPECIFIC GRAVITY.....	0.640		0.747			0.588		
INDEX 4822 SAMPLE 4825			INDEX 4823 SAMPLE 3885			INDEX 4824 SAMPLE 3926		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	COSHOCTON		COSHOCTON			COSHOCTON		
FIELD.....	COSHOCTON		COUNT VERNON			NOT GIVEN		
WELL NAME.....	LEE NO. 1		STELLA LANDIS NO. 1			LOWERS NO. 1		
LOCATION.....	SEC. 16, TSN, R8W		SEC. 5, JACKSON TWP.			CLARK TWP.		
OWNER.....	BENJAMIN TREES OIL CO.		OHIO FUEL GAS CO.			H. K. PORTER		
COMPLETED.....	11/10/46		07/29/43			08/28/44		
SAMPLED.....	02/08/47		11/11/44			09/14/44		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3392		3562			3608		
WELLHEAD PRESSURE, PSIG.....	840		NOT GIVEN			875		
OPEN FLOW, MCFD.....	350		184			90		
COMPONENT, MOLE PCT								
METHANE.....	81.7		81.7			88.3		
ETHANE.....	3.1		0.4			7.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	13.8		16.9			3.2		
OXYGEN.....	0.2		0.3			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE*.....	---		---			---		
CARBON DIOXIDE.....	0.9		0.3			0.1		
HELIUM.....	0.31		0.8			0.23		
HEATING VALUE.....	883		---			1036		
SPECIFIC GRAVITY.....	0.635		0.629			0.609		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

411

INDEX 4825 SAMPLE 16511			INDEX 4826 SAMPLE 454			INDEX 4827 SAMPLE 10261		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	CRAWFORD		CUYAHOGA			CUYAHOGA		
FIELD.....	NOT GIVEN		BROOKLYN			NEWMOURG HEIGHTS		
WELL NAME.....	WATER WELL		LAMBWIER NO. 1			HARSHAM CHEMICAL CO. NO. 1		
LOCATION.....	NEAR TIRO OHIO		6 MI. S CLEVELAND			CLEVELAND TWP.		
OWNER.....	CRAIG R. KEHRES		EAST OHIO GAS CO.			EAST OHIO GAS CO.		
COMPLETED.....	-/-/00		-/-/15			-/-/00		
SAMPLED.....	05/01/82		09/25/20			11/01/65		
FORMATION.....	NOT GIVEN		SILU-CLINTON			SILU-NEUBURG		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	110		2740			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		80			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		200			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	86.0		78.1			90.3		
ETHANE.....	0.0		28.0			4.5		
PROpane.....	0.0		---			1.6		
N-BUTANE.....	0.0		---			0.4		
ISOBUTANE.....	0.0		---			0.3		
N-PENTANE.....	0.0		---			TRACE		
ISOPENTANE.....	0.0		---			0.2		
CYCLOPENTANE.....	0.0		---			TRACE		
HEXANES PLUS.....	0.0		---			0.1		
NITROGEN.....	13.4		1.3			0.4		
OXYGEN.....	0.1		0.5			0.0		
ARGON.....	0.3		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.3		0.0			0.3		
HELIUM.....	0.01		---			0.09		
HEATING VALUE.....	871		1150			1074		
SPECIFIC GRAVITY.....	0.616		0.661			0.620		
INDEX 4828 SAMPLE 1165			INDEX 4829 SAMPLE 10399			INDEX 4830 SAMPLE 10222		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	CUYAHOGA		CUYAHOGA			CUYAHOGA		
FIELD.....	NOT GIVEN		PARK S			PARK		
WELL NAME.....	NOT GIVEN		HEINTZ NO. 1, E.O.G. NO. 488			GRANDALL NO.2-E.O.G. NO. 377		
LOCATION.....	NOT GIVEN		SEC. 33, INDEPENDENCE TWP.			LAKEWOOD TWP.		
OWNER.....	STADLER PRODUCTS CO.		EAST OHIO GAS CO.			EAST OHIO GAS CO.		
COMPLETED.....	-/-/00		-/-/00			-/-/00		
SAMPLED.....	10/13/25		02/08/66			10/05/65		
FORMATION.....	SILU-NEUBURG		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2450		3036			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	30		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	40		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	84.3		85.6			87.7		
ETHANE.....	13.1		6.5			5.7		
PROpane.....	---		2.3			1.7		
N-BUTANE.....	---		0.7			0.5		
ISOBUTANE.....	---		0.4			0.3		
N-PENTANE.....	---		0.1			0.1		
ISOPENTANE.....	---		0.3			0.2		
CYCLOPENTANE.....	---		0.1			TRACE		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	2.2		3.6			3.4		
OXYGEN.....	0.3		0.0			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.17			0.1		
HELIUM.....	0.09		1106			0.13		
HEATING VALUE.....	1089		---			1082		
SPECIFIC GRAVITY.....	0.631		0.653			0.636		
INDEX 4831 SAMPLE 10220			INDEX 4832 SAMPLE 475			INDEX 4833 SAMPLE 2323		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	CUYAHOGA		FAIRFIELD			FAIRFIELD		
FIELD.....	STRONGSVILLE		BALTIMORE			BEME TOWNSHIP		
WELL NAME.....	L. BEYER NO. 4 - EOG NO. 371		MILLER NO. 1			HARTMAN NO. 2		
LOCATION.....	SEC. 13, MIDDLEBURG TWP.		1 MI. S BALTIMORE			SEC. 23, PLEASANTS TWP.		
OWNER.....	EAST OHIO GAS CO.		OHIO FUEL SUPPLY CO.			CITY NATURAL GAS WORKS		
COMPLETED.....	-/-/00		-/-/08			07/15/30		
SAMPLED.....	10/05/65		10/06/20			05/06/31		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2825		1985			2351		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		80			700		
OPEN FLOW, MCFD.....	NOT GIVEN		200			5000		
COMPONENT, MOLE PCT.....								
METHANE.....	85.0		75.4			68.7		
ETHANE.....	6.9		18.5			24.7		
PROpane.....	2.9		---			---		
N-BUTANE.....	0.9		---			---		
ISOBUTANE.....	0.7		---			---		
N-PENTANE.....	0.2		---			---		
ISOPENTANE.....	0.2		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.3		---			---		
NITROGEN.....	2.7		5.3			6.1		
OXYGEN.....	0.0		0.4			0.4		
ARGON.....	0.0		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		0.0			0.1		
HELIUM.....	0.10		0.28			0.17		
HEATING VALUE.....	1146		1095			1139		
SPECIFIC GRAVITY.....	0.669		0.668			0.705		
INDEX 4834 SAMPLE 4			INDEX 4835 SAMPLE 463			INDEX 4836 SAMPLE 9557		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	FAIRFIELD		FAIRFIELD			FAIRFIELD		
FIELD.....	BUCKEYE LAKE		MILLERSPORT			PICKERINGTON		
WELL NAME.....	NOT GIVEN		BRISON NO. 1			LOUISE CAMDEN NO. 1		
LOCATION.....	NOT GIVEN		1/2 MI. S MILLERSPORT			SEC. 8, T15H, R20W		
OWNER.....	OHIO FUEL GAS CO.		OHIO FUEL SUPPLY CO.			STEWART OIL CO.		
COMPLETED.....	-/-/00		-/-/12			04/18/64		
SAMPLED.....	10/07/19		10/07/19			09/10/64		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			CAMB-TREMPEALEAU		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		2116			3184		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		129			1125		
OPEN FLOW, MCFD.....	NOT GIVEN		300			4800		
COMPONENT, MOLE PCT.....								
METHANE.....	73.4		70.5			82.6		
ETHANE.....	16.9		22.2			4.5		
PROpane.....	---		---			1.3		
N-BUTANE.....	---		---			0.4		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			TRACE		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	7.9		6.8			10.3		
OXYGEN.....	1.3		0.2			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.4		0.0			0.1		
HELIUM.....	0.10		0.25			0.31		
HEATING VALUE.....	1046		1112			981		
SPECIFIC GRAVITY.....	0.681		0.692			0.645		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4837 SAMPLE 466			INDEX 4838 SAMPLE 11271			INDEX 4839 SAMPLE 17516		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	FAIRFIELD		FAIRFIELD			GALLIA		
FIELD.....	SUGAR GROVE		WILCAT			GALLIA PROJECT		
WELL NAME.....	LEWIS KULL NO. 1		H. THOMAS NO. 2A			GRADY WAUGH NO. 1		
LOCATION.....	BERNE TWP.		SEC. 8, RUSH CREEK TWP.			SEC. 11, PERRY TWP.		
OWNER.....	LOGAN NATURAL GAS & FUEL CO.		HUNTING OIL CO.			GALLIA PROJECT ACCOUNT		
COMPLETED.....	10/7/70		06/15/67			01/31/71		
SAMPLED.....	10/07/20		01/24/68			11/01/84		
FORMATION.....	SILU-CLINTON		OROO-BECKMANTOWN			MISS-COW RUN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2179		4470			663		
WELLHEAD PRESSURE, PSIG.....	350		1420			285		
OPEN FLOW, MCFD.....	5000		200			60		
COMPONENT, MOLE PCT								
METHANE.....	78.9	-----	89.0	-----		89.3	-----	
ETHANE.....	15.0	-----	4.1	-----		2.0	-----	
PROpane.....	---	-----	1.4	-----		TRACE	-----	
N-BUTANE.....	---	-----	0.5	-----		0.0	-----	
ISOBUTANE.....	---	-----	0.2	-----		0.0	-----	
N-PENTANE.....	---	-----	0.4	-----		0.0	-----	
ISOPENTANE.....	---	-----	0.2	-----		0.0	-----	
CYCLOPENTANE.....	---	-----	0.1	-----		0.0	-----	
HEXANES PLUS.....	---	-----	0.3	-----		0.0	-----	
NITROGEN.....	5.9	-----	3.1	-----		7.8	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.1	-----	
ARGON.....	---	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	---	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	---	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.3	-----		0.5	-----	
HELIUM.....	0.18	-----	0.11	-----		0.33	-----	
HEATING VALUE.....	1068	-----	1080	-----		94.0	-----	
SPECIFIC GRAVITY.....	0.652	-----	0.635	-----		0.601	-----	
INDEX 4840 SAMPLE 13635			INDEX 4841 SAMPLE 13636			INDEX 4842 SAMPLE 17270		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	GEAUGA		GEAUGA			GEAUGA		
FIELD.....	AUBURN		AUBURN			MONTSVILLE		
WELL NAME.....	TIMMONS NO. 1		ORAVEC NO. 1			CLEHSON NO. 1		
LOCATION.....	LOT 2, SEC. 3, AUBURN TWP.		LOT 3, NEWBURY TWP.			HARDEN QUAD		
OWNER.....	QUAKER STATE OIL REF. CORP.		QUAKER STATE OIL REF. CORP.			COLLINS-MCGREGOR OPER. CO.		
COMPLETED.....	12/30/71		01/26/72			11/18/82		
SAMPLED.....	07/-/73		07/-/73			04/27/84		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3723		3775			3792		
WELLHEAD PRESSURE, PSIG.....	1500		575			870		
OPEN FLOW, MCFD.....	600		3072			2800		
COMPONENT, MOLE PCT								
METHANE.....	86.5	-----	88.9	-----		81.9	-----	
ETHANE.....	5.6	-----	4.9	-----		7.3	-----	
PROpane.....	2.5	-----	1.8	-----		3.5	-----	
N-BUTANE.....	0.7	-----	0.8	-----		1.2	-----	
ISOBUTANE.....	0.5	-----	0.4	-----		0.8	-----	
N-PENTANE.....	0.2	-----	0.1	-----		0.5	-----	
ISOPENTANE.....	0.2	-----	0.1	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.2	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.6	-----	
NITROGEN.....	3.5	-----	3.0	-----		3.8	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	TRACE	-----		0.0	-----	
HELIUM.....	0.13	-----	0.12	-----		0.12	-----	
HEATING VALUE.....	1108	-----	1076	-----		1187	-----	
SPECIFIC GRAVITY.....	0.652	-----	0.626	-----		0.704	-----	
INDEX 4843 SAMPLE 469			INDEX 4844 SAMPLE 464			INDEX 4845 SAMPLE 471		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	GUERNSEY		GUERNSEY			GUERNSEY		
FIELD.....	GUERNSEY-CAMBRIDGE		CAMBRIDGE			CAMBRIDGE		
WELL NAME.....	S. R. NICKELSON NO. 1		WILSON NO. 1			TURNBAUGH NO. 1		
LOCATION.....	LOT 27, JACKSON TWP.		CAMBRIDGE SCHOOL DIST. & TWP			CAMBRIDGE SCHOOL DIST. & TWP		
OWNER.....	NOT GIVEN		OHIO FUEL SUPPLY CO.			OHIO FUEL SUPPLY CO.		
COMPLETED.....	10/7/70		10/7/70			10/7/70		
SAMPLED.....	10/06/20		10/06/20			10/7/70		
FORMATION.....	MISS-BEREA		MISS-BEREA			MISS-BEREA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1100		1100			1100		
WELLHEAD PRESSURE, PSIG.....	580		750			NOT GIVEN		
OPEN FLOW, MCFD.....	25		100			150		
COMPONENT, MOLE PCT								
METHANE.....	76.5	-----	80.5	-----		77.5	-----	
ETHANE.....	18.5	-----	17.0	-----		19.5	-----	
PROpane.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	4.5	-----	0.8	-----		2.5	-----	
OXYGEN.....	0.2	-----	1.2	-----		0.2	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.0	-----	0.0	-----		0.1	-----	
HELIUM.....	0.25	-----	0.24	-----		0.27	-----	
HEATING VALUE.....	1106	-----	1120	-----		1131	-----	
SPECIFIC GRAVITY.....	0.664	-----	0.646	-----		0.660	-----	
INDEX 4846 SAMPLE 12406			INDEX 4847 SAMPLE 12529			INDEX 4848 SAMPLE 12530		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	GUERNSEY		GUERNSEY			GUERNSEY		
FIELD.....	CLAYSVILLE		CLAYSVILLE			CLAYSVILLE		
WELL NAME.....	ED KOWAL COMMUNITY NO. 1		ED KOWAL NO. 1			ED KOWAL NO. 1		
LOCATION.....	SEC. 21, WESTLAND TWP.		SEC. 4, ADAMS TWP.			SEC. 16, JACKSON TWP.		
OWNER.....	WISER OIL CO.		NATIONAL TREASURE MINES CO.			NATIONAL TREASURE MINES CO.		
COMPLETED.....	09/31/39		09/02/70			04/-/69		
SAMPLED.....	09/03/70		11/07/70			11/04/70		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	5134		4962			5020		
WELLHEAD PRESSURE, PSIG.....	1275		1490			1450		
OPEN FLOW, MCFD.....	1000		8630			3600		
COMPONENT, MOLE PCT								
METHANE.....	86.0	-----	87.6	-----		86.2	-----	
ETHANE.....	6.5	-----	5.5	-----		6.1	-----	
PROpane.....	2.0	-----	1.7	-----		1.9	-----	
N-BUTANE.....	0.5	-----	0.4	-----		0.4	-----	
ISOBUTANE.....	0.3	-----	0.5	-----		0.4	-----	
N-PENTANE.....	0.2	-----	TRACE	-----		0.1	-----	
ISOPENTANE.....	TRACE	-----	TRACE	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.2	-----		0.2	-----	
NITROGEN.....	3.9	-----	3.7	-----		4.3	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		0.1	-----	
ARGON.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	TRACE	-----		TRACE	-----	
HELIUM.....	0.13	-----	0.12	-----		0.12	-----	
HEATING VALUE.....	1090	-----	1079	-----		1074	-----	
SPECIFIC GRAVITY.....	0.639	-----	0.635	-----		0.639	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 4849 899	INDEX SAMPLE 4850 12058	INDEX SAMPLE 4851 10353
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	GUERNSEY		GUERNSEY	HARDIN
FIELD.....	NOT GIVEN		WILDCAT	BLANCHARD
WELL NAME.....	NO. 1956		HARRY KAHN NO. 1	BLANCHARD QUARRY NO. 1
LOCATION.....	NO. 16		SEC. 14, MONROE TWP.	SEC. 5, PLEASANT TWP.
OWNER.....	OHIO FUEL GAS CO.		CHIEF DRILLING CO., INC.	SHELDON GAS CO.
COMPLETED.....	--/7-700		06/23/69	01/01/30
SAMPLED.....	07/01/24		09/15/69	01/05/66
FORMATION.....	NOT GIVEN		SILU-CLINTON	ORDO-TRENTON
GEOLOGIC PROVINCE CODE.....	160		160	300
DEPTH, FEET.....	3151		4978	1325
WELLHEAD PRESSURE, PSIG.....	1275		1480	NOT GIVEN
OPEN FLOW, MCFD.....	18000		3800	250
COMPONENT, MOLE PCT				
METHANE.....	75.8	87.9	75.5	
ETHANE.....	22.1	5.8	8.7	
PROPANE.....	---	1.6	4.7	
N-BUTANE.....	---	0.4	1.2	
ISOBUTANE.....	---	0.3	0.7	
N-PENTANE.....	---	0.2	0.3	
ISOPENTANE.....	---	0.0	0.1	
CYCLOPENTANE.....	---	0.1	0.1	
HEXANES PLUS.....	---	0.2	0.3	
NITROGEN.....	1.7	3.5	8.0	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	---	---	TRACE	
HYDROGEN.....	---	0.1	TRACE	
HYDROGEN SULFIDE.....	---	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.1	0.1	
HELIUM.....	0.07	0.11	0.23	
HEATING VALUE.....	1164	1076	1143	
SPECIFIC GRAVITY.....	0.672	0.632	0.723	
		INDEX SAMPLE 4852 10354	INDEX SAMPLE 4853 10352	INDEX SAMPLE 4854 10459
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	HARDIN		PATTERSON	HENRY
FIELD.....	KENTON		LAPENSE NO. 1	HANLEY NO. 1
WELL NAME.....	STEINMAN NO. 1		SEC. 23, JACKSON TWP.	E. LANGE NO. 1
LOCATION.....	CESSNA TWP. SEC. 24		FOREST GAS & OIL CO.	SEC. 2, T3N, R7E
OWNER.....	SHELDON GAS CO.			DR. MAURICE M. WEIKEL
COMPLETED.....	01/01/34		01/01/40	10/15/65
SAMPLED.....	01/05/66		01/05/66	03/11/66
FORMATION.....	ORDO-TRENTON		ORDO-TRENTON	ORDO-TRENTON
GEOLOGIC PROVINCE CODE.....	300		300	305
DEPTH, FEET.....	1365		1320	1546
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	555
OPEN FLOW, MCFD.....	500		750	700
COMPONENT, MOLE PCT				
METHANE.....	77.0	76.6	73.3	
ETHANE.....	7.9	5.9	8.9	
PROPANE.....	4.1	2.9	2.9	
N-BUTANE.....	1.0	0.9	0.6	
ISOBUTANE.....	0.5	0.7	0.2	
N-PENTANE.....	0.3	0.3	0.1	
ISOPENTANE.....	0.1	0.2	0.2	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.2	0.2	
NITROGEN.....	8.3	10.4	13.2	
OXYGEN.....	0.1	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	---	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.6	0.3	
HELIUM.....	0.17	0.24	0.22	
HEATING VALUE.....	1110	1053	1022	
SPECIFIC GRAVITY.....	0.706	0.700	0.704	
		INDEX SAMPLE 4855 10	INDEX SAMPLE 4856 4009	INDEX SAMPLE 4857 9046
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	HOCKING		HOCKING	HOCKING
FIELD.....	HOCKING COUNTY		NOT GIVEN	NOT GIVEN
WELL NAME.....	NOT GIVEN		SUNDAY CREEK COAL CO.	JOHN C. SHARP NO. 10
LOCATION.....	NOT GIVEN		SEC. 2, STARR TWP.	SEC. 2, SALT CREEK TWP.
OWNER.....	OHIO FUEL SUPPLY CO.		OHIO FUEL GAS CO.	OHIO FUEL GAS CO.
COMPLETED.....	05/12/19		02/24/45	05/08/65
SAMPLED.....	04/17/45		04/17/45	07/11/63
FORMATION.....	SILU-CLINTON		MISS-BEREA	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	NOT GIVEN		1157	2238
WELLHEAD PRESSURE, PSIG.....	90		370	640
OPEN FLOW, MCFD.....	NOT GIVEN		1240	3020
COMPONENT, MOLE PCT				
METHANE.....	69.5	82.5	78.2	
ETHANE.....	11.6	15.5	3.5	
PROPANE.....	---	---	1.0	
N-BUTANE.....	---	---	0.3	
ISOBUTANE.....	---	---	TRACE	
N-PENTANE.....	---	---	0.1	
ISOPENTANE.....	---	---	0.1	
CYCLOPENTANE.....	---	---	TRACE	
HEXANES PLUS.....	---	---	0.1	
NITROGEN.....	16.5	---	15.8	
OXYGEN.....	1.9	0.3	0.0	
ARGON.....	---	---	0.1	
HYDROGEN.....	---	---	0.0	
HYDROGEN SULFIDE.....	---	---	0.0	
CARBON DIOXIDE.....	0.2	0.1	0.5	
HELIUM.....	TRACE	0.14	0.40	
HEATING VALUE.....	912	1112	905	
SPECIFIC GRAVITY.....	0.691	0.640	0.662	
		INDEX SAMPLE 4858 543	INDEX SAMPLE 4859 3827	INDEX SAMPLE 4860 9068
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	HOCKING		HOCKING	HOLMES
FIELD.....	SUGAR GROVE		WARD TWP.	FRYBURG
WELL NAME.....	NELSON DELOWS NO. 1		SUNDAY CREEK COAL CO. 231	BOHMAN NO. 1
LOCATION.....	SEC. 8, SALT CREEK TWP.		SEC. 8	LOT 4, SALT CREEK SUR.
OWNER.....	LOGAN NATURAL GAS & FUEL CO.		OHIO FUEL GAS CO.	KIN-ARK OIL CO.
COMPLETED.....	--/7-716		09/12/43	05/10/63
SAMPLED.....	11/13/20		09/04/44	08/01/63
FORMATION.....	SILU-CLINTON		SILU-CLINTON	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	1900		5570	3871
WELLHEAD PRESSURE, PSIG.....	830		1065	1100
OPEN FLOW, MCFD.....	400		789	7500
COMPONENT, MOLE PCT				
METHANE.....	79.7	71.2	84.9	
ETHANE.....	8.3	12.7	6.3	
PROPANE.....	---	---	1.6	
N-BUTANE.....	---	---	0.3	
ISOBUTANE.....	---	---	0.3	
N-PENTANE.....	---	---	TRACE	
ISOPENTANE.....	---	---	0.2	
CYCLOPENTANE.....	---	---	TRACE	
HEXANES PLUS.....	---	---	0.1	
NITROGEN.....	11.1	15.2	6.0	
OXYGEN.....	0.2	0.4	TRACE	
ARGON.....	---	---	0.0	
HYDROGEN.....	---	---	0.0	
HYDROGEN SULFIDE.....	---	---	0.0	
CARBON DIOXIDE.....	0.2	0.2	0.1	
HELIUM.....	0.44	0.27	0.20	
HEATING VALUE.....	956	949	1048	
SPECIFIC GRAVITY.....	0.642	0.683	0.642	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	4861 900	INDEX SAMPLE	4862 3938	INDEX SAMPLE	4863 10308
STATE.....	OHIO			OHIO		OHIO	
COUNTY.....	HOLMES			HOLMES		HOLMES	
FIELD.....	NOT GIVEN			NOT GIVEN		WILDCAT	
WELL NAME.....	NO. 4161			S. C. CRITCHFIELD NO. 1		RUBEN S. ERB NO. 1	
LOCATION.....	SEC. 12-13, T MONROE			SEC. 28, RIPLEY TWP.		SEC. 23, CLARK TWP.	
OWNER.....	OHIO FUEL GAS CO.			OHIO FUEL GAS CO.		XIN-ARK OIL CO.	
COMPLETED.....	04/03/74			09/28/44		11/10/65	
SAMPLED.....	07/03/74			12/07/44		11/30/65	
FORMATION.....	SILU-CLINTON			NOT GIVEN		ORDO-ROSE RUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	NOT GIVEN			3082		6464	
WELLHEAD PRESSURE, PSIG.....	1020			1085		2400	
OPEN FLOW, MCFD.....	3154			1180		2100	
COMPONENT, MOLE PCT							
METHANE.....	70.3	-----		1.2	-----	92.2	-----
ETHANE.....	19.4	-----		64.7	-----	4.5	-----
PROPANE.....	---	-----		---	-----	1.4	-----
N-BUTANE.....	---	-----		---	-----	0.5	-----
ISOBUTANE.....	---	-----		---	-----	0.2	-----
N-PENTANE.....	---	-----		---	-----	0.1	-----
ISOPENTANE.....	---	-----		---	-----	0.2	-----
CYCLOPENTANE.....	---	-----		---	-----	TRACE	-----
HEXANES PLUS.....	---	-----		---	-----	0.1	-----
NITROGEN.....	9.2	-----		33.6	-----	0.7	-----
OXYGEN.....	0.5	-----		0.2	-----	0.0	-----
ARGON.....	---	-----		---	-----	TRACE	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.1	-----	0.1	-----
HELIUM.....	0.18	-----		0.21	-----	0.1	-----
HEATING VALUE.....	1060	-----		1.3	-----	1092	-----
SPECIFIC GRAVITY.....	0.696	-----		1.015	-----	0.613	-----
		INDEX SAMPLE	4864 4384	INDEX SAMPLE	4865 5238	INDEX SAMPLE	4866 10350
STATE.....	OHIO			OHIO		OHIO	
COUNTY.....	HOLMES			HOLMES		MURON	
FIELD.....	WOOSTER			WOOSTER		WILDCAT	
WELL NAME.....	RYALL LAKE			CRITCHFIELD NO. 1		JOPLAND-CHAPMAN UNIT NO. 1	
LOCATION.....	SEC. 32, RIPLEY TWP.			SEC. 28, RIPLEY TWP.		SEC. 1, NEW HAVEN TWP.	
OWNER.....	OHIO FUEL GAS CO.			OHIO FUEL GAS CO.		STOCKER & SITLER, INC.	
COMPLETED.....	05/29/47			09/28/44		01/11/65	
SAMPLED.....	11/13/47			09/13/52		12/30/65	
FORMATION.....	SILU-CLINTON			SILU-CLINTON		CAMB-TREMPEALEAU	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3165			3082		3488	
WELLHEAD PRESSURE, PSIG.....	1000			550		1175	
OPEN FLOW, MCFD.....	1290			1180		1970	
COMPONENT, MOLE PCT							
METHANE.....	83.0	-----		85.2	-----	88.3	-----
ETHANE.....	11.7	-----		5.3	-----	3.6	-----
PROPANE.....	---	-----		1.7	-----	1.4	-----
N-BUTANE.....	---	-----		0.5	-----	0.5	-----
ISOBUTANE.....	---	-----		0.1	-----	0.3	-----
N-PENTANE.....	---	-----		0.1	-----	0.2	-----
ISOPENTANE.....	---	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	---	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	---	-----		TRACE	-----	0.2	-----
NITROGEN.....	4.8	-----		6.4	-----	5.0	-----
OXYGEN.....	0.2	-----		---	-----	0.0	-----
ARGON.....	---	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	---	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.19	-----		0.18	-----	0.20	-----
HEATING VALUE.....	1050	-----		1036	-----	1049	-----
SPECIFIC GRAVITY.....	0.633	-----		0.639	-----	0.632	-----
		INDEX SAMPLE	4867 10129	INDEX SAMPLE	4868 10584	INDEX SAMPLE	4869 10568
STATE.....	OHIO			OHIO		OHIO	
COUNTY.....	KNOX			KNOX		KNOX	
FIELD.....	ESTA			FREDERICKTOWN		FREDERICKTOWN S	
WELL NAME.....	ZORA MCLORNAN			GWENDOLYNE RANDALL NO. 1		ISABELL E. DARLING NO. 1	
LOCATION.....	SEC. 22, BUTLER TOWNSHIP			SEC. 19, MIDDLEBURY TWP.		LOT 15, WAYNE TWP.	
OWNER.....	MAASH DIA CO.			SOMLO PETROLEUM CO.		BRINKERHOFF DRILLING CO.	
COMPLETED.....	04/01/61			01/28/65		09/01/65	
SAMPLED.....	09/08/65			05/25/66		05/10/66	
FORMATION.....	SILU-CLINTON			SILU-CLINTON		SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2999			2093		2054	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		920	
OPEN FLOW, MCFD.....	NOT GIVEN			734		2800	
COMPONENT, MOLE PCT							
METHANE.....	81.3	-----		72.1	-----	72.8	-----
ETHANE.....	10.2	-----		10.1	-----	8.0	-----
PROPANE.....	0.3	-----		0.1	-----	2.6	-----
N-BUTANE.....	0.8	-----		1.0	-----	0.9	-----
ISOBUTANE.....	0.7	-----		0.7	-----	0.5	-----
N-PENTANE.....	TRACE	-----		0.2	-----	0.3	-----
ISOPENTANE.....	0.3	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.3	-----	0.4	-----
NITROGEN.....	3.7	-----		11.9	-----	13.7	-----
OXYGEN.....	0.0	-----		0.0	-----	0.2	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.0	-----	0.0	-----
HELIUM.....	0.10	-----		0.22	-----	0.26	-----
HEATING VALUE.....	1153	-----		1090	-----	1041	-----
SPECIFIC GRAVITY.....	0.684	-----		0.726	-----	0.719	-----
		INDEX SAMPLE	4870 4134	INDEX SAMPLE	4871 10108	INDEX SAMPLE	4872 10109
STATE.....	OHIO			OHIO		OHIO	
COUNTY.....	KNOX			KNOX		KNOX	
FIELD.....	MOUNT VERNON			MOUNT VERNON		MOUNT VERNON	
WELL NAME.....	O-4, CULLER NO. 1-8031			O-16, JAMES M. BERRY		O-49, W. M. MCARA	
LOCATION.....	SEC. 3, T22N, R17W			NEAR HOWARD OHIO		NEAR DANVILLE OHIO	
OWNER.....	OHIO FUEL GAS CO.			OHIO CUMBERLAND GAS CO.		OHIO CUMBERLAND GAS CO.	
COMPLETED.....	09/22/45			10/22/42		12/22/45	
SAMPLED.....	09/30/46			09/08/65		09/08/65	
FORMATION.....	SILU-CLINTON			SILU-CLINTON		SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2628			2626		2772	
WELLHEAD PRESSURE, PSIG.....	1030			1070		NOT GIVEN	
OPEN FLOW, MCFD.....	962			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	76.8	-----		79.5	-----	80.7	-----
ETHANE.....	14.0	-----		8.0	-----	7.9	-----
PROPANE.....	---	-----		0.0	-----	3.1	-----
N-BUTANE.....	---	-----		1.2	-----	1.1	-----
ISOBUTANE.....	---	-----		0.7	-----	0.8	-----
N-PENTANE.....	---	-----		0.3	-----	0.3	-----
ISOPENTANE.....	---	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	---	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	---	-----		0.2	-----	0.5	-----
NITROGEN.....	8.3	-----		5.8	-----	5.2	-----
OXYGEN.....	0.5	-----		0.0	-----	0.0	-----
ARGON.....	---	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	---	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		TRACE	-----	0.1	-----
HELIUM.....	0.22	-----		0.12	-----	0.15	-----
HEATING VALUE.....	1029	-----		1.18	-----	1.15	-----
SPECIFIC GRAVITY.....	0.662	-----		0.701	-----	0.694	-----

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 4873 17493	INDEX SAMPLE 4874 17494	INDEX SAMPLE 4875 3781
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	KNOW		KNOW	LAKE
FIELD.....	MOUNT VERNON N		MOUNT VERNON N	NOT GIVEN
WELL NAME.....	BESST-CAMERON UNIT		RUBY & ARTHUR BURKE NO. 1	NELLIE HAWGOOD NO. 1
LOCATION.....	LOT 24, QTR. 4, T-7, R-14		LOT 2, QTR. 4, T-7, R-2	MENTOR TWP. LOT 10
OWNER.....	JADOTIL, INC.		JADOTIL, INC.	BENEDICT-TREES OIL CO.
COMPLETED.....	09/30/80		10/20/83	01/21/44
SAMPLED.....	10/09/84		10/09/84	04/05/44
FORMATION.....	CAB-TREMPEALEAU		SILU-CLINTON	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	4096		2100	2936
WELLHEAD PRESSURE, PSIG.....	1400		700	690
OPEN FLOW, MCFD.....	150		6000	110
COMPONENT, MOLE PCT				
METHANE.....	80.3	79.3	80.0	
ETHANE.....	6.0	6.8	13.2	
PROPANE.....	3.6	2.5	---	
N-BUTANE.....	1.1	0.8	---	
ISOBUTANE.....	0.5	0.5	---	
N-PENTANE.....	0.3	0.2	---	
ISOPENTANE.....	0.3	0.3	---	
CYCLOPENTANE.....	0.1	TRACE	---	
HEXANES PLUS.....	0.3	0.2	---	
NITROGEN.....	6.5	8.8	6.2	
OXYGEN.....	TRACE	TRACE	0.4	
ARGON.....	TRACE	TRACE	---	
HYDROGEN.....	0.2	0.2	---	
HYDROGEN SULFIDE**.....	0.0	0.1	---	
CARBON DIOXIDE.....	TRACE	0.1	0.1	
HELIUM.....	0.19	0.27	0.08	
HEATING VALUE.....	1124	1069	1047	
SPECIFIC GRAVITY.....	0.693	0.685	0.648	
		INDEX SAMPLE 4876 12814	INDEX SAMPLE 4877 10134	INDEX SAMPLE 4878 8
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	LAWRENCE		LICKING	LICKING
FIELD.....	UNNAMED		FALLSBURY	HOMER
WELL NAME.....	ROSE EVERHART NO. 1		C. E. VAN WINKLE	NOT GIVEN
LOCATION.....	SEC. 17, LAWRENCE TWP.		SEC. 1, FALLSBURY TWP.	NOT GIVEN
OWNER.....	COTTON PETROLEUM CORP.		WAVESLY OIL WORKS CO.	OHIO FUEL GAS CO.
COMPLETED.....	09/7/70		03/01/62	7/7/70
SAMPLED.....	05/01/71		09/08/65	05/05/19
FORMATION.....	MISS-MAXTON		SILU-CLINTON	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	800		2049	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	220	NOT GIVEN	250	200
OPEN FLOW, MCFD.....	3000			NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	88.1	75.7	53.8	
ETHANE.....	2.5	7.8	15.4	
PROPANE.....	TRACE	4.6	---	
N-BUTANE.....	0.0	1.4	---	
ISOBUTANE.....	0.0	0.9	---	
N-PENTANE.....	0.0	0.3	---	
ISOPENTANE.....	0.0	0.4	---	
CYCLOPENTANE.....	0.0	0.1	---	
HEXANES PLUS.....	0.0	0.3	---	
NITROGEN.....	8.7	8.3	27.8	
OXYGEN.....	0.0	TRACE	3.0	
ARGON.....	TRACE	TRACE	---	
HYDROGEN.....	0.0	0.0	---	
HYDROGEN SULFIDE**.....	0.0	0.0	---	
CARBON DIOXIDE.....	0.1	0.1	0.0	
HELIUM.....	0.47	0.12	0.00	
HEATING VALUE.....	937	1153	821	
SPECIFIC GRAVITY.....	0.601	0.732	0.762	
		INDEX SAMPLE 4879 474	INDEX SAMPLE 4880 3841	INDEX SAMPLE 4881 3881
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	LICKING		LORAIN	LORAIN
FIELD.....	JOHNSTOWN		EATON	GRAFTON
WELL NAME.....	JOHNSTOWN NO. 1		PAULINE SCHNEIDER NO. 1-7582	JOHN MOHLER NO. 1
LOCATION.....	6 MI. NE JOHNSTOWN		SEC. L-98	SEC. 24, GRAFTON TWP.
OWNER.....	OHIO FUEL SUPPLY CO.		OHIO FUEL GAS CO.	BELMONT QUADRANGLE DRILLING
COMPLETED.....	10/04/20		11/09/43	06/23/44
SAMPLED.....	NOT GIVEN		7/7/70	09/27/44
FORMATION.....	NOT GIVEN		SILU-CLINTON	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	1865	2421	2386	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	60	935	1335	1335
OPEN FLOW, MCFD.....	85	235		
COMPONENT, MOLE PCT				
METHANE.....	75.4	76.2	77.4	
ETHANE.....	18.5	11.6	13.9	
PROPANE.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	5.4	11.4	7.8	
OXYGEN.....	0.2	0.3	0.1	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.2	0.2	0.5	
HELIUM.....	0.21	0.28	0.25	
HEATING VALUE.....	1035	1065	1033	
SPECIFIC GRAVITY.....	0.670	0.661	0.660	
		INDEX SAMPLE 4882 3806	INDEX SAMPLE 4883 4287	INDEX SAMPLE 4884 4377
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	LORAIN		LORAIN	LORAIN
FIELD.....	LAGRANGE		NORTHERN	NORTHERN
WELL NAME.....	W. J. MILLER NO. 1		WM. GILGENBACH NO. 8310	E. J. MILLER NO. 1
LOCATION.....	SEC. 84		LOT 26, T6N, R16W	LOT 98, PITTSFIELD TWP.
OWNER.....	HANLEY & BIRD		OHIO FUEL GAS CO.	OHIO FUEL GAS CO.
COMPLETED.....	01/11/44		12/30/46	06/25/47
SAMPLED.....	04/12/44		13/17/47	11/07/47
FORMATION.....	SILU-CLINTON		SILU-CLINTON	SILU---
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	2365	2477	2190	
WELLHEAD PRESSURE, PSIG.....	1160	1150	1080	
OPEN FLOW, MCFD.....	2500	1010	1950	
COMPONENT, MOLE PCT				
METHANE.....	89.0	81.8	77.4	
ETHANE.....	4.4	13.2	11.6	
PROPANE.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	5.8	4.3	10.0	
OXYGEN.....	0.4	0.2	0.4	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.1	0.3	0.3	
HELIUM.....	0.29	0.22	0.26	
HEATING VALUE.....	980	1065	992	
SPECIFIC GRAVITY.....	0.602	0.641	0.657	

* CALCULATED GROSS BTU PER CU FT, DRY AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4885 SAMPLE 4378			INDEX 4886 SAMPLE 5125			INDEX 4887 SAMPLE 4133		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	LORAIN		LORAIN			LORAIN		
FIELD.....	NORTHERN		NORTHERN			NOT GIVEN		
WELL NAME.....	NO. 8400		G. KRUECK NO. 1			PHILLIP BOBEL NO. 2-8212		
LOCATION.....	LOT 103, PITTSFIELD TWP.		LOT 18, T17			LOT 48		
OWNER.....	OHIO FUEL GAS CO.		OHIO FUEL GAS CO.			OHIO FUEL GAS CO.		
COMPLETED.....	06/19/47		02/07/51			07/22/46		
SAMPLED.....	11/07/47		11/12/51			10/16/46		
FORMATION.....	SILU---		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2206		2583			2547		
WELLHEAD PRESSURE, PSIG.....	1130		975			1120		
OPEN FLOW, MCFD.....	1780		302			4370		
COMPONENT, MOLE PCT								
METHANE.....	76.9	-----	77.7	-----		73.6	-----	
ETHANE.....	12.8	-----	4.3	-----		12.1	-----	
PROpane.....	---	-----	1.1	-----		---	-----	
N-BUTANE.....	---	-----	0.2	-----		---	-----	
ISOBUTANE.....	---	-----	0.0	-----		---	-----	
N-PENTANE.....	---	-----	0.1	-----		---	-----	
ISOPENTANE.....	---	-----	0.1	-----		---	-----	
CYCLOPENTANE.....	---	-----	TRACE	-----		---	-----	
HEXANES PLUS.....	---	-----	0.1	-----		---	-----	
NITROGEN.....	9.6	-----	16.0	-----		13.1	-----	
OXYGEN.....	0.2	-----	0.1	-----		0.7	-----	
ARGON.....	---	-----	TRACE	-----		---	-----	
HYDROGEN.....	---	-----	0.0	-----		---	-----	
CARBON DIOXIDE.....	0.2	-----	0.1	-----		0.2	-----	
HELIUM.....	0.26	-----	0.36	-----		0.27	-----	
HEATING VALUE.....	1008	-----	912	-----		962	-----	
SPECIFIC GRAVITY.....	0.659	-----	0.663	-----		0.673	-----	
INDEX 4888 SAMPLE 4671			INDEX 4889 SAMPLE 4537			INDEX 4890 SAMPLE 3943		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	LORAIN		LORAIN			LORAIN		
FIELD.....	NOT GIVEN		PENFIELD TOWNSHIP			WELLINGTON		
WELL NAME.....	E. L. PIERCE NO. 8670		NO. 8521			L. W. MCCONNELL NO. 1		
LOCATION.....	LOT 10, PENFIELD TWP.		LOT 1, LOT 25			LOTS 18 & 19, LAGRANGE TWP.		
OWNER.....	OHIO FUEL GAS CO.		OHIO FUEL GAS CO.			HANLEY & BIRD		
COMPLETED.....	12/10/48		01/13/48			10/02/44		
SAMPLED.....	02/15/49		06/03/48			12/08/44		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2438		2458			2269		
WELLHEAD PRESSURE, PSIG.....	1112		1170			1090		
OPEN FLOW, MCFD.....	407		1330			830		
COMPONENT, MOLE PCT								
METHANE.....	76.1	-----	72.4	-----		78.1	-----	
ETHANE.....	6.3	-----	14.2	-----		10.5	-----	
PROpane.....	2.0	-----	---	-----		---	-----	
N-BUTANE.....	0.8	-----	---	-----		---	-----	
ISOBUTANE.....	0.1	-----	---	-----		---	-----	
N-PENTANE.....	0.1	-----	---	-----		---	-----	
ISOPENTANE.....	0.5	-----	---	-----		---	-----	
CYCLOPENTANE.....	TRACE	-----	---	-----		---	-----	
HEXANES PLUS.....	0.2	-----	---	-----		---	-----	
NITROGEN.....	13.4	-----	12.6	-----		10.5	-----	
OXYGEN.....	0.1	-----	0.2	-----		0.1	-----	
ARGON.....	TRACE	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.0	-----	0.3	-----		0.2	-----	
HELIUM.....	0.23	-----	0.25	-----		0.28	-----	
HEATING VALUE.....	1001	-----	988	-----		979	-----	
SPECIFIC GRAVITY.....	0.690	-----	0.679	-----		0.649	-----	
INDEX 4891 SAMPLE 11677			INDEX 4892 SAMPLE 13086			INDEX 4893 SAMPLE 9725		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	MAHONING		MAHONING			MAHONING		
FIELD.....	WILCOX NO. 1		CANFIELD			ELLSWORTH		
WELL NAME.....	SEC. 18, GOSHEN TWP.		J & C CENTOFANTI NO. 1			E & M SAYBE NO. 1 - 409		
LOCATION.....	DOORHAN PRODUCTION CO.		SEC. 15, ELLSWORTH TWP.			SEC. 19, ELLSWORTH TWP.		
OWNER.....	LIBERTY PETROLEUM CORP.		LIBERTY PETROLEUM CORP.			BEIDON & BLAKE OIL PROD. CO.		
COMPLETED.....	06/26/68		06/07/71			11/10/64		
SAMPLED.....	10/22/68		07/25/64			02/05/65		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	5149		5362			5009		
WELLHEAD PRESSURE, PSIG.....	1450		1450			1450		
OPEN FLOW, MCFD.....	1058		1040			426		
COMPONENT, MOLE PCT								
METHANE.....	89.8	-----	87.8	-----		90.0	-----	
ETHANE.....	4.8	-----	5.6	-----		4.7	-----	
PROpane.....	NO. 4	-----	0.9	-----		1.1	-----	
N-BUTANE.....	0.4	-----	0.6	-----		0.4	-----	
ISOBUTANE.....	0.1	-----	0.2	-----		0.2	-----	
N-PENTANE.....	0.2	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.1	-----	
NITROGEN.....	5.7	-----	3.5	-----		3.1	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.2	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.0	-----		0.0	-----	
HELIUM.....	TRACE	-----	TRACE	-----		0.09	-----	
HEATING VALUE.....	1067	-----	1080	-----		1058	-----	
SPECIFIC GRAVITY.....	0.617	-----	0.634	-----		0.617	-----	
INDEX 4894 SAMPLE 9839			INDEX 4895 SAMPLE 10195			INDEX 4896 SAMPLE 14854		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	MAHONING		MAHONING			MAHONING		
FIELD.....	ELLSWORTH		ELLSWORTH N			LINA N		
WELL NAME.....	SEC. 17		STEESEAL NO. 1-EOG NO. 2333			RICHARD CALVIN NO. 1		
LOCATION.....	SEC. 22, ELLSWORTH TWP.		SEC. 22, ELLSWORTH TWP.			SEC. 9, BEAVER TOWNSHIP		
OWNER.....	BEIDON & BLAKE OIL PROD. CO.		EAST OHIO GAS CO.			POMINEX, INC.		
COMPLETED.....	06/12/64		07/25/64			06/12/75		
SAMPLED.....	04/06/65		10/04/65			11/03/76		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	4988		4981			5510		
WELLHEAD PRESSURE, PSIG.....	1450		1400			1375		
OPEN FLOW, MCFD.....	476		711			1400		
COMPONENT, MOLE PCT								
METHANE.....	91.4	-----	91.0	-----		94.2	-----	
ETHANE.....	4.0	-----	4.2	-----		2.4	-----	
PROpane.....	0.9	-----	0.9	-----		0.3	-----	
N-BUTANE.....	0.3	-----	0.3	-----		TRACE	-----	
ISOBUTANE.....	0.1	-----	0.2	-----		0.1	-----	
N-PENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
ISOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		TRACE	-----	
NITROGEN.....	2.8	-----	3.0	-----		2.7	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.1	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.1	-----		0.0	-----	
HELIUM.....	0.08	-----	0.08	-----		0.08	-----	
HEATING VALUE.....	1046	-----	1046	-----		1008	-----	
SPECIFIC GRAVITY.....	0.605	-----	0.609	-----		0.582	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4897 SAMPLE 4055		INDEX 4898 SAMPLE 11962		INDEX 4899 SAMPLE 7027	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	MAHONING	MEDINA		MEDINA	
FIELD.....	W100 BT	BONETAT		HINCKLEY	
WELL NAME.....	D. B. MCCUNE NO. 1	RODENBUCHER A NO. 1		FRANK SMITH NO. 1-A	
LOCATION.....	SEC. 11, GOSHEN TWP.	LOT 102, MONTVILLE TWP.		LOT 69	
OWNER.....	OHIO OIL CO.	KING DRILLING CO.		OHIO FUEL GAS CO.	
COMPLETED.....	07/23/45	04/24/63		01/16/59	
SAMPLED.....	09/04/45	07/10/69		04/10/59	
FORMATION.....	DEVON	SILU-CLINTON		CAMB-TREMPEALEAU	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	3608	3320		5775	
WELLHEAD PRESSURE, PSIG.....	1380	1250		2060	
OPEN FLOW, MCFD.....	3	4070		1210	
COMPONENT, MOLE PCT.....					
METHANE.....	79.3	85.4		86.3	
ETHANE.....	20.7	5.5		5.3	
PROPANE.....	---	2.4		1.9	
N-BUTANE.....	---	0.5		0.8	
ISOBUTANE.....	---	0.4		0.9	
N-PENTANE.....	---	0.2		0.8	
ISOPENTANE.....	---	0.1		0.4	
CYCLOPENTANE.....	---	TRACE		0.2	
HEXANES PLUS.....	---	0.2		1.5	
NITROGEN.....	0.0	5.0		1.7	
OXYGEN.....	0.0	TRACE		0.0	
ARGON.....	---	TRACE		TRACE	
HYDROGEN.....	---	---		0.0	
HYDROGEN SULFIDE.....	---	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.0		0.2	
HELIUM.....	0.03	0.17		0.10	
HEATING VALUE.....	1174	1080		1211	
SPECIFIC GRAVITY.....	0.657	0.649		0.698	

INDEX 4900 SAMPLE 9311		INDEX 4901 SAMPLE 3840		INDEX 4902 SAMPLE 3859	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	MEDINA	MEDINA		MEDINA	
FIELD.....	HINCKLEY-GRANGER	LITCHFIELD TWP.		LADI	
WELL NAME.....	F. L. SMITH ESTATE NO. 1	EDGAR J. YOST NO. 1-7747		W. A. SHAW NO. 1	
LOCATION.....	LOT 69, HINCKLEY TWP.	LOT 22, T3N, R16W		SEC. 13, CHATHAM TWP.	
OWNER.....	WISER OIL CO., ET AL.	OHIO FUEL GAS CO.		E. R. EDSON & SON CO.	
COMPLETED.....	01/03/59	04/06/44		05/23/44	
SAMPLED.....	04/03/64	--/--/00		07/24/44	
FORMATION.....	CAMB-TREMPEALEAU	SILU-CLINTON		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	5764	2717		2696	
WELLHEAD PRESSURE, PSIG.....	2100	1270		NOT GIVEN	
OPEN FLOW, MCFD.....	1200	6580		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	89.3	71.0		85.1	
ETHANE.....	5.4	12.9		4.5	
PROPANE.....	2.0	---		---	
N-BUTANE.....	0.7	---		---	
ISOBUTANE.....	0.3	---		---	
N-PENTANE.....	0.2	---		---	
ISOPENTANE.....	0.2	---		---	
CYCLOPENTANE.....	0.1	---		---	
HEXANES PLUS.....	0.3	---		---	
NITROGEN.....	1.2	15.4		9.6	
OXYGEN.....	0.1	0.4		0.2	
ARGON.....	TRACE	---		---	
HYDROGEN.....	0.0	---		---	
HYDROGEN SULFIDE.....	0.0	---		---	
CARBON DIOXIDE.....	0.1	0.0		0.3	
HELIUM.....	0.05	0.25		0.34	
HEATING VALUE.....	1123	920		943	
SPECIFIC GRAVITY.....	0.639	0.683		0.619	

INDEX 4903 SAMPLE 4601		INDEX 4904 SAMPLE 3884		INDEX 4905 SAMPLE 487	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	MEDINA	MEDINA		MEDINA	
FIELD.....	MEDINA	NOT GIVEN		SALEM W	
WELL NAME.....	AGNES MCMICHAEL	EDGAR J. YOST NO. 2-7778		TOUSLES NO. 1	
LOCATION.....	LOT 6	LOT 22, LITCHFIELD TWP.		LOT 141, HARRISVILLE TWP.	
OWNER.....	OHIO FUEL GAS CO.	OHIO FUEL GAS CO.		OHIO FUEL SUPPLY CO.	
COMPLETED.....	05/18/48	05/18/44		--/--/18	
SAMPLED.....	10/26/48	08/02/48		09/01/20	
FORMATION.....	SILU-CLINTON	SILU-CLINTON		SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	2662	2697		2850	
WELLHEAD PRESSURE, PSIG.....	1200	NOT GIVEN		320	
OPEN FLOW, MCFD.....	504	1870		5000	
COMPONENT, MOLE PCT.....					
METHANE.....	73.5	72.9		78.8	
ETHANE.....	13.3	13.5		15.1	
PROPANE.....	---	---		---	
N-BUTANE.....	---	---		---	
ISOBUTANE.....	---	---		---	
N-PENTANE.....	---	---		---	
ISOPENTANE.....	---	---		---	
CYCLOPENTANE.....	---	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	12.3	12.3		5.5	
OXYGEN.....	0.3	0.8		0.2	
ARGON.....	---	---		---	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE.....	---	---		---	
CARBON DIOXIDE.....	0.4	0.3		TRACE	
HELIUM.....	0.24	0.24		0.24	
HEATING VALUE.....	931	981		1069	
SPECIFIC GRAVITY.....	0.676	0.679		0.651	

INDEX 4906 SAMPLE 4328		INDEX 4907 SAMPLE 11889		INDEX 4908 SAMPLE 1276	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	MEIGS	MEIGS		MEIGS	
FIELD.....	ATHENS DISTRICT	GROUND HOG CREEK		MEIGS COUNTY	
WELL NAME.....	H. W. RITCHIE NO. 8342	WM. MCKELVEY NO. 1-A		DFG NO. 4	
LOCATION.....	SEC. 36, CHESTER TWP.	SEC. 36, LEBANON TWP.		SEC. 30, SUTTON TWP.	
OWNER.....	OHIO FUEL GAS CO.	QUAKER STATE OIL REF. CORP.		OHIO FUEL GAS CO.	
COMPLETED.....	04/22/47	03/20/69		11/--/25	
SAMPLED.....	06/19/47	04/01/69		06/11/26	
FORMATION.....	DEVON	SILU-NEWBURG		PENN-COW RUN	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	2831	4880		512	
WELLHEAD PRESSURE, PSIG.....	730	1855		160	
OPEN FLOW, MCFD.....	79	16000		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	76.1	88.6		91.5	
ETHANE.....	22.4	5.4		0.3	
PROPANE.....	---	2.5		---	
N-BUTANE.....	---	0.6		---	
ISOBUTANE.....	---	0.2		---	
N-PENTANE.....	---	0.1		---	
ISOPENTANE.....	---	0.1		---	
CYCLOPENTANE.....	---	0.2		---	
HEXANES PLUS.....	---	0.2		---	
NITROGEN.....	1.2	1.5		6.4	
OXYGEN.....	---	0.0		---	
ARGON.....	---	0.0		---	
HYDROGEN.....	---	TRACE		---	
HYDROGEN SULFIDE.....	---	---		---	
CARBON DIOXIDE.....	0.1	TRACE		0.4	
HELIUM.....	0.09	0.08		0.98	
HEATING VALUE.....	1172	1129		932	
SPECIFIC GRAVITY.....	0.672	0.644		0.585	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4909 SAMPLE 11245		INDEX 4910 SAMPLE 11536		INDEX 4911 SAMPLE 11535	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	MONROE	MONROE		MONROE	
FIELD.....	BETHELL	GRAYSVILLE		LEWISVILLE	
WELL NAME.....	C. D. HERCHER NO. 1	EMMA MCHUGH NO. 1		FRANCIS REISCHMAN NO. 1	
LOCATION.....	SYCAMORE VALLEY DIST.	SEC. 7, WASHINGTON TWP.		SEC. 27, WALAGA TWP.	
OWNER.....	PETROLEUM SPECIALTIES, INC.	LIBERTY PETROLEUM CORP.		LIBERTY PETROLEUM CORP.	
COMPLETED.....	10/01/67	03/04/68		02/08/68	
SAMPLED.....	12/14/67	06/05/68		06/05/68	
FORMATION.....	DEV0-OHIO	MS-DEV0		DEV0-OHIO	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	1734	1288		2240	
WELLHEAD PRESSURE, PSIG.....	800	440		775	
OPEN FLOW, MCFD.....	1250	460		230	
COMPONENT, MOLE PCT.....					
METHANE.....	82.4	69.3		63.1	
ETHANE.....	9.2	12.1		11.5	
PROPANE.....	3.4	5.3		5.7	
N-BUTANE.....	1.0	1.5		1.7	
ISOBUTANE.....	0.5	0.5		0.6	
N-PENTANE.....	0.2	0.6		0.6	
ISOPENTANE.....	0.2	TRACE		TRACE	
CYCLOPENTANE.....	0.1	0.1		0.1	
HEXANES PLUS.....	0.3	0.4		0.3	
NITROGEN.....	2.6	8.3		13.0	
OXYGEN.....	0.0	1.7		2.9	
ARGON.....	TRACE	TRACE		0.1	
HYDROGEN.....	TRACE	TRACE		0.1	
HYDROGEN SULFIDE**.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	TRACE		0.1	
HELIUM.....	0.17	0.07		0.07	
HEATING VALUE.....	1168	1174		1116	
SPECIFIC GRAVITY.....	0.682	0.764		0.794	

INDEX 4912 SAMPLE 3925		INDEX 4913 SAMPLE 1100		INDEX 4914 SAMPLE 12667	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	MORGAN	MORGAN		MORGAN	
FIELD.....	BLOOM	MORGAN COUNTY		NOT GIVEN	
WELL NAME.....	R. LONGSTRETH NO. 1	J. LONGSTRETH NO. 1		D. L. PARKS NO. 1	
LOCATION.....	BLOOM TWP.	SEC. 29, YORK TWP.		SEC. 9, MANCHESTER TWP.	
OWNER.....	H. K. PORTER	SUN OIL CO.		LIBERTY PETROLEUM CORP.	
COMPLETED.....	01/27/44	05/27/45		05/03/70	
SAMPLED.....	09/14/44	08/03/25		02/12/71	
FORMATION.....	SILU-CLINTON	MISS-BEREA		SILU-CLINTON & MEDINA	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	4325	1255		5230	
WELLHEAD PRESSURE, PSIG.....	1190	450		1400	
OPEN FLOW, MCFD.....	1	1500		3781	
COMPONENT, MOLE PCT.....					
METHANE.....	84.6	85.0		86.5	
ETHANE.....	9.8	13.0		4.9	
PROPANE.....	---	---		1.3	
N-BUTANE.....	---	---		0.4	
ISOBUTANE.....	---	---		0.3	
N-PENTANE.....	---	---		0.1	
ISOPENTANE.....	---	---		TRACE	
CYCLOPENTANE.....	---	---		TRACE	
HEXANES PLUS.....	---	---		0.3	
NITROGEN.....	4.7	0.5		6.0	
OXYGEN.....	0.1	0.5		0.0	
ARGON.....	---	---		TRACE	
HYDROGEN.....	---	---		0.0	
HYDROGEN SULFIDE**.....	---	---		0.0	
CARBON DIOXIDE.....	0.6	0.9		TRACE	
HELIUM.....	0.18	0.21		0.14	
HEATING VALUE.....	1033	1094		1041	
SPECIFIC GRAVITY.....	0.628	0.632		0.635	

INDEX 4915 SAMPLE 10550		INDEX 4916 SAMPLE 3927		INDEX 4917 SAMPLE 4302	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	MORGAN	MORGAN		MORGAN	
FIELD.....	PORTERSVILLE	YORK		YORK TWP.	
WELL NAME.....	GLEN TAYLOR NO. 1	HARRY PLETCHER NO. 1		D. L. JADWIN NO. 2-8307	
LOCATION.....	SEC. 19, DEERFIELD TWP.	YORK TWP.		SEC. 28	
OWNER.....	CARCO OIL, INC.	H. K. PORTER		OHIO FUEL GAS CO.	
COMPLETED.....	03/01/66	08/01/44		04/09/47	
SAMPLED.....	05/05/66	09/14/44		05/01/47	
FORMATION.....	SILU-CLINTON	SILU-CLINTON		SILU-	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	4070	4031		3928	
WELLHEAD PRESSURE, PSIG.....	9520	1130		1130	
OPEN FLOW, MCFD.....	9520	1		713	
COMPONENT, MOLE PCT.....					
METHANE.....	86.0	89.3		85.8	
ETHANE.....	4.8	5.2		10.1	
PROPANE.....	1.1	---		---	
N-BUTANE.....	0.5	---		---	
ISOBUTANE.....	0.2	---		---	
N-PENTANE.....	0.2	---		---	
ISOPENTANE.....	0.1	---		---	
CYCLOPENTANE.....	0.2	---		---	
HEXANES PLUS.....	0.5	---		---	
NITROGEN.....	6.6	3.7		3.5	
OXYGEN.....	0.0	0.2		0.3	
ARGON.....	TRACE	---		---	
HYDROGEN.....	0.0	---		---	
HYDROGEN SULFIDE**.....	0.0	---		---	
CARBON DIOXIDE.....	0.1	0.4		0.1	
HELIUM.....	0.20	0.19		0.20	
HEATING VALUE.....	1032	1016		1050	
SPECIFIC GRAVITY.....	0.638	0.605		0.621	

INDEX 4918 SAMPLE 9395		INDEX 4919 SAMPLE 9884		INDEX 4920 SAMPLE 9396	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	MORROW	MORROW		MORROW	
FIELD.....	CHESTERFIELD W	EDISON W		EDISON W	
WELL NAME.....	MORROW ELEC. CO-OP NO. 2	ATHA-RAND NO. 1		OLDS NO. 1	
LOCATION.....	LOT 19, FRANKLIN TWP.	LOT 27, GILEAD TWP.		CANNON TWP.	
OWNER.....	TRI-STATE PRODUCING CO., INC	ATHA OIL PRODUCER		PERRY FULK OIL PRODUCER	
COMPLETED.....	03/21/64	04/29/65		02/13/64	
SAMPLED.....	04/03/64	05/01/65		06/--/64	
FORMATION.....	CAMB-TREMPEALEAU	CAMB-TREMPEALEAU		CAMB-TREMPEALEAU	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	3652	3126		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1260	1060		NOT GIVEN	
OPEN FLOW, MCFD.....	675	1105		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	85.0	71.6		70.7	
ETHANE.....	5.7	5.9		11.2	
PROPANE.....	3.0	1.1		3.3	
N-BUTANE.....	0.4	0.9		1.5	
ISOBUTANE.....	0.2	0.5		1.0	
N-PENTANE.....	TRACE	TRACE		1.0	
ISOPENTANE.....	0.1	TRACE		0.2	
CYCLOPENTANE.....	TRACE	TRACE		0.8	
HEXANES PLUS.....	TRACE	TRACE		2.4	
NITROGEN.....	6.2	14.0		TRACE	
OXYGEN.....	TRACE	0.1		TRACE	
ARGON.....	TRACE	0.0		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE**.....	0.0	0.1		0.1	
CARBON DIOXIDE.....	0.1	0.35		0.04	
HELIUM.....	0.18	1062		1409	
HEATING VALUE.....	1040	0.737		0.830	
SPECIFIC GRAVITY.....	0.639				

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4921			INDEX 4922			INDEX 4923		
SAMPLE 8869			SAMPLE 9754			SAMPLE 9398		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	MORROW		MORROW			MORROW		
FIELD.....	NOT GIVEN		NOT GIVEN			WOODBURY S		
WELL NAME.....	A. C. WINDBIGLER NO. 1		EASH NO. 1			BARBER UNIT NO. 1		
LOCATION.....	SEC. 18, T20N, R19W		SEC. 18, PERRY TWP.			LOT 14, PERU TWP.		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		SOHIO PETROLEUM CO.			KIN-ARK OIL CO.		
COMPLETED.....	12/03/62		01/06/65			12/15/63		
SAMPLED.....	12/03/62		02/13/65			06/10/64		
FORMATION.....	SILU-NIAGARAN		SILU-NIAGARAN			CAMB-TREMPEALEAU		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1443		1550			3112		
WELLHEAD PRESSURE, PSIG.....	390		450			NOT GIVEN		
OPEN FLOW, MCFD.....	1120		5000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	87.2		76.4			51.4		
ETHANE.....	4.3		4.8			18.1		
PROPANE.....	1.1		1.2			16.0		
N-BUTANE.....	0.4		0.4			5.2		
ISOBUTANE.....	0.0		0.4			2.2		
N-PENTANE.....	TRACE		0.1			0.8		
ISOPENTANE.....	0.2		0.1			1.3		
CYCLOPENTANE.....	TRACE		TRACE			0.2		
HEXANES PLUS.....	0.1		0.1			0.5		
NITROGEN.....	6.0		15.6			4.4		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.0		
HELIUM.....	0.30		0.60			0.04		
HEATING VALUE.....	1020		932			1624		
SPECIFIC GRAVITY.....	0.624		0.672			0.987		
INDEX 4924			INDEX 4925			INDEX 4926		
SAMPLE 12230			SAMPLE 10128			SAMPLE 4132		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	MUSKINGUM		MUSKINGUM			MUSKINGUM		
FIELD.....	ADAMSVILLE		BROOKOVER			BRUSH CREEK		
WELL NAME.....	DALE LANE NO. 1		C. F. & A. CARTER			ESTELLA BUCHANAN NO. 8231		
LOCATION.....	SEC. 20, ADAMS TWP.		SEC. 19, WAYNE TWP.			SEC. 15, BRUSHCREEK TWP.		
OWNER.....	CURTIS MINERALS		OXFORD OIL CO.			OHIO FUEL GAS CO.		
COMPLETED.....	03/19/69		03/01/68			08/16/46		
SAMPLED.....	03/27/70		09/09/65			10/08/46		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	4375		3900			3687		
WELLHEAD PRESSURE, PSIG.....	1300		300			1125		
OPEN FLOW, MCFD.....	3600		20			396		
COMPONENT, MOLE PCT								
METHANE.....	82.7		84.2			83.0		
ETHANE.....	5.5		5.4			9.7		
PROPANE.....	2.7		1.6			---		
N-BUTANE.....	0.7		0.4			---		
ISOBUTANE.....	0.4		0.2			---		
N-PENTANE.....	0.2		0.1			---		
ISOPENTANE.....	0.2		0.1			---		
CYCLOPENTANE.....	TRACE		0.1			---		
HEXANES PLUS.....	0.2		0.3			---		
NITROGEN.....	6.1		6.5			6.3		
OXYGEN.....	0.0		0.0			0.5		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.1		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.0		0.1			0.3		
HELIUM.....	0.17		0.22			0.21		
HEATING VALUE.....	1089		1057			1015		
SPECIFIC GRAVITY.....	0.667		0.653			0.633		
INDEX 4927			INDEX 4928			INDEX 4929		
SAMPLE 10139			SAMPLE 10137			SAMPLE 9629		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	MUSKINGUM		MUSKINGUM			MUSKINGUM		
FIELD.....	COADALE		FULTONHAM			GRATIOT		
WELL NAME.....	V. E. IDEN		ROBERTS			HARKNESS UNIT NO. 2		
LOCATION.....	SEC. 5, HOPEWELL TWP.		SEC. 18, NEWTON TWP.			SEC. 6, T18N, R15W		
OWNER.....	ROYAL OIL & GAS CORP.		OXFORD OIL CO.			OXFORD OIL CO.		
COMPLETED.....	09/01/63		08/01/63			08/31/64		
SAMPLED.....	09/09/65		09/09/65			11/07/64		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3214		3300			3080		
WELLHEAD PRESSURE, PSIG.....	970		250			900		
OPEN FLOW, MCFD.....	500		25			1200		
COMPONENT, MOLE PCT								
METHANE.....	81.9		87.9			84.6		
ETHANE.....	8.6		5.0			4.7		
PROPANE.....	2.8		0.7			0.6		
N-BUTANE.....	0.9		0.8			0.4		
ISOBUTANE.....	0.8		0.3			0.2		
N-PENTANE.....	0.4		0.2			0.2		
ISOPENTANE.....	0.2		0.2			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.4		0.3			0.2		
NITROGEN.....	3.7		5.4			7.9		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.3		
HELIUM.....	0.08		0.26			0.26		
HEATING VALUE.....	1160		1094			1013		
SPECIFIC GRAVITY.....	0.688		0.643			0.643		
INDEX 4930			INDEX 4931			INDEX 4932		
SAMPLE 4144			SAMPLE 4135			SAMPLE 9834		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	MUSKINGUM		MUSKINGUM			MUSKINGUM		
FIELD.....	MUSKINGUM COUNTY		NEWTON			NOT GIVEN		
WELL NAME.....	M. M. VERNON NO. 1		MARY BUTLER NO. 1-7961			R. E. BEATTY NO. 2		
LOCATION.....	SEC. 19, T3N, R6W		SEC. 5			SEC. 36, SALT CREEK TWP.		
OWNER.....	WITTMER OIL & GAS CORP.		OHIO FUEL GAS CO.			PETROC CO.		
COMPLETED.....	12/06/46		05/15/46			01/15/65		
SAMPLED.....	12/06/46		10/15/46			04/01/65		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	4180		3457			4500		
WELLHEAD PRESSURE, PSIG.....	960		740			610		
OPEN FLOW, MCFD.....	230		332			325		
COMPONENT, MOLE PCT								
METHANE.....	70.5		82.7			86.7		
ETHANE.....	14.0		9.8			5.3		
PROPANE.....	---		---			0.6		
N-BUTANE.....	---		---			0.3		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.1		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	14.7		7.1			5.0		
OXYGEN.....	0.3		0.6			0.1		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.26		0.20			0.18		
HEATING VALUE.....	1063		1097			1049		
SPECIFIC GRAVITY.....	0.687		0.637			0.633		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4933 SAMPLE 10140		INDEX 4934 SAMPLE 10138		INDEX 4935 SAMPLE 3924	
STATE.....	OHIO	STATE.....	OHIO	STATE.....	OHIO
COUNTY.....	MUSKINGUM	COUNTY.....	MUSKINGUM	COUNTY.....	MUSKINGUM
FIELD.....	POVERTY RUN	FIELD.....	ROSEVILLE	FIELD.....	ZANESVILLE
WELL NAME.....	ZELLA F. DEWITT	WELL NAME.....	SPRING COMMUNITY NO. 1	WELL NAME.....	ARMCO NO. 1
LOCATION.....	SEC. 3, HOPEWELL TWP.	LOCATION.....	SEC. 26, NEWTON TWP.	LOCATION.....	ZANESVILLE TWP.
OWNER.....	PRESTON OIL CO.	OWNER.....	NATIONAL GAS & OIL CORP.	OWNER.....	H. K. PORTER
COMPLETED.....	08/01/60	COMPLETED.....	09/02/59	COMPLETED.....	06/26/44
SAMPLED.....	09/09/65	SAMPLED.....	09/09/65	SAMPLED.....	09/14/44
FORMATION.....	SILU-CLINTON	FORMATION.....	SILU-CLINTON	FORMATION.....	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	3248	DEPTH, FEET.....	3618	DEPTH, FEET.....	3495
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	920	WELLHEAD PRESSURE, PSIG.....	1150
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	180	OPEN FLOW, MCFD.....	2
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	70.2	METHANE.....	86.1	METHANE.....	87.4
ETHANE.....	15.3	ETHANE.....	5.8	ETHANE.....	9.6
PROPANE.....	7.2	PROPANE.....	1.7	PROPANE.....	---
N-BUTANE.....	2.2	N-BUTANE.....	0.6	N-BUTANE.....	---
ISOBUTANE.....	1.1	ISOBUTANE.....	0.3	ISOBUTANE.....	---
N-PENTANE.....	0.4	N-PENTANE.....	0.2	N-PENTANE.....	---
ISOPENTANE.....	0.7	ISOPENTANE.....	0.1	ISOPENTANE.....	---
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.2	HEXANES PLUS.....	---
NITROGEN.....	2.0	NITROGEN.....	4.6	NITROGEN.....	2.4
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.2
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.03	HELIUM.....	0.15	HELIUM.....	0.21
HEATING VALUE.....	1369	HEATING VALUE.....	1074	HEATING VALUE.....	1057
SPECIFIC GRAVITY.....	0.801	SPECIFIC GRAVITY.....	0.644	SPECIFIC GRAVITY.....	0.614
INDEX 4936 SAMPLE 11753		INDEX 4937 SAMPLE 12281		INDEX 4938 SAMPLE 11940	
STATE.....	OHIO	STATE.....	OHIO	STATE.....	OHIO
COUNTY.....	MUSKINGUM	COUNTY.....	MUSKINGUM	COUNTY.....	NOBLE
FIELD.....	ZANESVILLE	FIELD.....	ZANESVILLE	FIELD.....	AVA
WELL NAME.....	JEWELIN COMMUNITY NO. 1	WELL NAME.....	JEWELIN NO. 1	WELL NAME.....	C. J. & J. A. BRYAN NO. 1
LOCATION.....	SEC. 10, NEWTON TWP.	LOCATION.....	MADISON TWP.	LOCATION.....	SEC. 1, NOBLE TWP.
OWNER.....	OXFORD OIL CO.	OWNER.....	POINTIER OIL CO.	OWNER.....	LIBERTY PETROLEUM CORP.
COMPLETED.....	05/21/58	COMPLETED.....	01/20/70	COMPLETED.....	02/19/69
SAMPLED.....	02/03/69	SAMPLED.....	05/27/70	SAMPLED.....	06/14/69
FORMATION.....	SILU-CLINTON	FORMATION.....	SILU-CLINTON	FORMATION.....	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	3472	DEPTH, FEET.....	4650	DEPTH, FEET.....	5155
WELLHEAD PRESSURE, PSIG.....	1200	WELLHEAD PRESSURE, PSIG.....	1000	WELLHEAD PRESSURE, PSIG.....	1325
OPEN FLOW, MCFD.....	3800	OPEN FLOW, MCFD.....	215000	OPEN FLOW, MCFD.....	1700
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	85.6	METHANE.....	84.6	METHANE.....	87.1
ETHANE.....	5.0	ETHANE.....	5.8	ETHANE.....	4.7
PROPANE.....	1.2	PROPANE.....	1.8	PROPANE.....	1.6
N-BUTANE.....	0.5	N-BUTANE.....	0.4	N-BUTANE.....	0.4
ISOBUTANE.....	0.2	ISOBUTANE.....	0.2	ISOBUTANE.....	0.3
N-PENTANE.....	0.3	N-PENTANE.....	0.0	N-PENTANE.....	0.2
ISOPENTANE.....	0.0	ISOPENTANE.....	0.4	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	6.6	NITROGEN.....	6.2	NITROGEN.....	5.1
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.4	HYDROGEN.....	0.1
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.00	HELIUM.....	0.21	HELIUM.....	0.16
HEATING VALUE.....	1039	HEATING VALUE.....	1051	HEATING VALUE.....	1039
SPECIFIC GRAVITY.....	0.643	SPECIFIC GRAVITY.....	0.644	SPECIFIC GRAVITY.....	0.637
INDEX 4939 SAMPLE 13292		INDEX 4940 SAMPLE 13293		INDEX 4941 SAMPLE 10500	
STATE.....	OHIO	STATE.....	OHIO	STATE.....	OHIO
COUNTY.....	NOBLE	COUNTY.....	NOBLE	COUNTY.....	NOBLE
FIELD.....	GUERNSEY	FIELD.....	GUERNSEY	FIELD.....	HEDDLESON
WELL NAME.....	HOMER GUILER NO. 1	WELL NAME.....	CHARLES SNODE NO. 1	WELL NAME.....	CLAIR HEDDLESON NO. 1
LOCATION.....	SEC. 25, CENTER TWP.	LOCATION.....	SEC. 35, BUFFALO TWP.	LOCATION.....	OLIVE TWP.
OWNER.....	EAST OHIO GAS CO.	OWNER.....	EAST OHIO GAS CO.	OWNER.....	PERMIAN OIL AND GAS CO.
COMPLETED.....	--/--/00	COMPLETED.....	10/02/70	COMPLETED.....	--/--/00
SAMPLED.....	07/05/72	SAMPLED.....	07/06/72	SAMPLED.....	03/28/66
FORMATION.....	ORDO-QUEENSTON	FORMATION.....	ORDO-QUEENSTON	FORMATION.....	WISS-BEREA
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	5899	DEPTH, FEET.....	5732	DEPTH, FEET.....	1370
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1460	WELLHEAD PRESSURE, PSIG.....	200
OPEN FLOW, MCFD.....	3009	OPEN FLOW, MCFD.....	3900	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	83.7	METHANE.....	86.3	METHANE.....	74.6
ETHANE.....	10.2	ETHANE.....	10.5	ETHANE.....	13.8
PROPANE.....	2.0	PROPANE.....	2.0	PROPANE.....	7.2
N-BUTANE.....	0.3	N-BUTANE.....	0.5	N-BUTANE.....	1.5
ISOBUTANE.....	0.6	ISOBUTANE.....	0.5	ISOBUTANE.....	0.7
N-PENTANE.....	0.8	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	7.9	NITROGEN.....	3.6	NITROGEN.....	1.5
OXYGEN.....	1.7	OXYGEN.....	0.0	OXYGEN.....	0.5
ARGON.....	0.9	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.0
HELIUM.....	0.12	HELIUM.....	0.11	HELIUM.....	0.10
HEATING VALUE.....	969	HEATING VALUE.....	1094	HEATING VALUE.....	1292
SPECIFIC GRAVITY.....	0.665	SPECIFIC GRAVITY.....	0.644	SPECIFIC GRAVITY.....	0.747
INDEX 4942 SAMPLE 12668		INDEX 4943 SAMPLE 12669		INDEX 4944 SAMPLE 10133	
STATE.....	OHIO	STATE.....	OHIO	STATE.....	OHIO
COUNTY.....	NOBLE	COUNTY.....	NOBLE	COUNTY.....	PERRY
FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN	FIELD.....	BRISTOL
WELL NAME.....	SAMANTHA GROVES NO. 1	WELL NAME.....	CHARLES STIERS NO. 1	WELL NAME.....	KING/DENNIS
LOCATION.....	SEC. 19, BUFFALO TWP.	LOCATION.....	SEC. 12, NOBLE TWP.	LOCATION.....	SEC. 20, PIKE TWP.
OWNER.....	LIBERTY PETROLEUM CORP.	OWNER.....	LIBERTY PETROLEUM CORP.	OWNER.....	LANDA OIL CO.
COMPLETED.....	12/03/69	COMPLETED.....	12/06/69	COMPLETED.....	09/01/60
SAMPLED.....	02/12/71	SAMPLED.....	02/12/71	SAMPLED.....	09/09/65
FORMATION.....	SILU-CLINTON	FORMATION.....	SILU-CLINTON	FORMATION.....	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	5192	DEPTH, FEET.....	5230	DEPTH, FEET.....	3329
WELLHEAD PRESSURE, PSIG.....	1400	WELLHEAD PRESSURE, PSIG.....	1425	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	2019	OPEN FLOW, MCFD.....	2000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.2	METHANE.....	83.8	METHANE.....	80.2
ETHANE.....	1.3	ETHANE.....	1.9	ETHANE.....	2.4
PROPANE.....	1.2	PROPANE.....	1.5	PROPANE.....	3.6
N-BUTANE.....	0.4	N-BUTANE.....	0.4	N-BUTANE.....	1.4
ISOBUTANE.....	0.3	ISOBUTANE.....	0.4	ISOBUTANE.....	0.9
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.5
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.6
NITROGEN.....	4.8	NITROGEN.....	7.7	NITROGEN.....	3.6
OXYGEN.....	0.2	OXYGEN.....	0.8	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.2
HELIUM.....	0.11	HELIUM.....	0.13	HELIUM.....	0.07
HEATING VALUE.....	1047	HEATING VALUE.....	1021	HEATING VALUE.....	1207
SPECIFIC GRAVITY.....	0.629	SPECIFIC GRAVITY.....	0.650	SPECIFIC GRAVITY.....	0.717

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4945 SAMPLE 10178		INDEX 4946 SAMPLE 10551		INDEX 4947 SAMPLE 10552	
STATE.....	OHIO	OHIO	OHIO	OHIO	
COUNTY.....	PERRY	PERRY	PERRY	PERRY	
FIELD.....	CLAYTON	CORNING	CORNING	CORNING	
WELL NAME.....	CLYDE MYER	KEIFER-MARSHALL UNIT NO. 5	C. & V. WEAVER	C. & V. WEAVER	
LOCATION.....	SEC. 2, CLAYTON TWP.	SEC. 10, MONROE TWP.	SEC. 3, MONROE TWP.	SEC. 3, MONROE TWP.	
OWNER.....	HOGAN & LEONARD OIL CO.	JOHN ALTIER, SR.	ALTON PROSPECTORS	ALTON PROSPECTORS	
COMPLETED.....	08/01/62	02/01/66	08/01/65	08/01/65	
SAMPLED.....	09/28/65	05/05/66	05/05/66	05/05/66	
FORMATION.....	SILU-CLINTON	SILU-CLINTON	SILU-CLINTON	SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	3321	3893	3922	3922	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1100	1050	1050	
OPEN FLOW, MCFD.....	870	3160	3500	3500	
COMPONENT, MOLE PCT					
METHANE.....	86.1	80.4	80.2	80.2	
ETHANE.....	4.6	4.5	4.6	4.6	
PROPANE.....	1.2	2.1	1.9	1.9	
N-BUTANE.....	0.3	0.7	0.7	0.7	
ISOBUTANE.....	0.3	0.2	0.3	0.3	
N-PENTANE.....	0.1	0.2	0.2	0.2	
ISOPENTANE.....	0.1	0.1	0.2	0.2	
CYCLOPENTANE.....	TRACE	TRACE	0.1	0.1	
HEXANES PLUS.....	0.2	0.2	0.1	0.1	
NITROGEN.....	6.8	11.2	11.1	11.1	
OXYGEN.....	0.0	TRACE	0.1	0.1	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.32	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.0	0.1	0.1	
HELIUM.....	0.20	0.32	0.28	0.28	
HEATING VALUE.....	1025	1003	1009	1009	
SPECIFIC GRAVITY.....	0.635	0.667	0.672	0.672	

INDEX 4948 SAMPLE 10132		INDEX 4949 SAMPLE 4099		INDEX 4950 SAMPLE 10131	
STATE.....	OHIO	OHIO	OHIO	OHIO	
COUNTY.....	PERRY	PERRY	PERRY	PERRY	
FIELD.....	MOUNT PERRY	NOT GIVEN	PERMORON	J. SCHOFIELD	
WELL NAME.....	J. HOMPSON	SUNDAY CREEK COAL CO. NO. 259	SEC. 24, HOPEWELL TWP.	SEC. 24, HOPEWELL TWP.	
LOCATION.....	SEC. 4, MADISON TWP.	OHIO FUEL GAS CO.	OXFORD OIL CO.	OXFORD OIL CO.	
OWNER.....	C. E. SMITH & A. W. YENNE	OHIO FUEL GAS CO.	01/01/48	01/01/48	
COMPLETED.....	09/09/65	05/28/45	09/08/65	09/08/65	
SAMPLED.....	09/09/65	05/28/45	09/08/65	09/08/65	
FORMATION.....	SILU-CLINTON	SILU-CLINTON	SILU-CLINTON	SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	3198	3983	3250	3250	
WELLHEAD PRESSURE, PSIG.....	900	1120	225	225	
OPEN FLOW, MCFD.....	2190	757	30	30	
COMPONENT, MOLE PCT					
METHANE.....	86.3	79.1	87.4	87.4	
ETHANE.....	5.6	13.1	5.6	5.6	
PROPANE.....	1.4	---	1.8	1.8	
N-BUTANE.....	0.4	---	0.6	0.6	
ISOBUTANE.....	0.4	---	0.3	0.3	
N-PENTANE.....	0.1	---	0.2	0.2	
ISOPENTANE.....	0.1	---	0.2	0.2	
CYCLOPENTANE.....	TRACE	---	0.1	0.1	
HEXANES PLUS.....	0.2	---	0.1	0.1	
NITROGEN.....	5.2	7.4	3.4	3.4	
OXYGEN.....	0.0	0.1	0.0	0.0	
ARGON.....	TRACE	---	0.0	0.0	
HYDROGEN.....	0.0	---	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	---	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.0	0.2	0.2	
HELIUM.....	0.19	0.28	0.10	0.10	
HEATING VALUE.....	1057	1036	1089	1089	
SPECIFIC GRAVITY.....	0.639	0.649	0.641	0.641	

INDEX 4951 SAMPLE 10130		INDEX 4952 SAMPLE 10135		INDEX 4953 SAMPLE 4370	
STATE.....	OHIO	OHIO	OHIO	OHIO	
COUNTY.....	PERRY	PERRY	PERRY	PERRY	
FIELD.....	SOMERSET	SOMERSET S	SOMERSET S	SOMERSET S	
WELL NAME.....	IVA FISHER	NANCE	NANCE	NANCE	
LOCATION.....	SEC. 32, HOPEWELL TWP.	SEC. 13, READING TWP.	SEC. 13, READING TWP.	SEC. 13, READING TWP.	
OWNER.....	GEORGE HAUB, ET AL.	NATIONAL GAS & OIL CORP.	NATIONAL GAS & OIL CORP.	NATIONAL GAS & OIL CORP.	
COMPLETED.....	05/01/51	06/27/55	06/27/55	06/27/55	
SAMPLED.....	09/09/65	09/08/65	09/08/65	09/08/65	
FORMATION.....	NOT GIVEN	SILU-CLINTON	SILU-CLINTON	SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	3030	2741	3815	3815	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	1190	1190	
OPEN FLOW, MCFD.....	800	1554	798	798	
COMPONENT, MOLE PCT					
METHANE.....	86.7	85.9	75.5	75.5	
ETHANE.....	5.5	5.9	15.0	15.0	
PROPANE.....	1.5	1.7	---	---	
N-BUTANE.....	0.4	0.6	---	---	
ISOBUTANE.....	0.4	0.4	---	---	
N-PENTANE.....	0.1	0.2	---	---	
ISOPENTANE.....	0.2	0.2	---	---	
CYCLOPENTANE.....	TRACE	0.1	---	---	
HEXANES PLUS.....	0.2	0.3	---	---	
NITROGEN.....	4.7	4.4	8.8	8.8	
OXYGEN.....	0.0	TRACE	0.3	0.3	
ARGON.....	TRACE	TRACE	---	---	
HYDROGEN.....	0.0	0.0	---	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	---	
CARBON DIOXIDE.....	0.1	0.2	0.2	0.2	
HELIUM.....	0.15	0.12	0.23	0.23	
HEATING VALUE.....	1066	1090	1034	1034	
SPECIFIC GRAVITY.....	0.639	0.652	0.668	0.668	

INDEX 4954 SAMPLE 5111		INDEX 4955 SAMPLE 6079		INDEX 4956 SAMPLE 467	
STATE.....	OHIO	OHIO	OHIO	OHIO	
COUNTY.....	PERRY	PERRY	PERRY	PERRY	
FIELD.....	SUGAR GROVE	SUGAR GROVE	SUGAR GROVE	THORNSVILLE	
WELL NAME.....	A. W. PASKELL NO. 1-8929	LOLA M. NOYES NO. 1	LOLA M. NOYES NO. 1	FINK NO. 1	
LOCATION.....	SEC. 17, T13N, R14W	SEC. 9, HOPEWELL TWP.	SEC. 9, HOPEWELL TWP.	1 MI. N THORNSVILLE	
OWNER.....	OHIO FUEL GAS CO.	OHIO FUEL GAS CO.	OHIO FUEL GAS CO.	LOGAN NATURAL GAS & FUEL CO.	
COMPLETED.....	06/04/51	01/26/56	01/26/56	--/--/08	
SAMPLED.....	10/08/51	06/04/56	06/04/56	10/07/20	
FORMATION.....	SILU-NIGARAN	SILU-CLINTON	SILU-CLINTON	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	3548	2830	2580	2580	
WELLHEAD PRESSURE, PSIG.....	855	855	50	50	
OPEN FLOW, MCFD.....	203	272	400	400	
COMPONENT, MOLE PCT					
METHANE.....	84.4	85.5	72.2	72.2	
ETHANE.....	4.3	5.2	23.1	23.1	
PROPANE.....	1.3	2.0	---	---	
N-BUTANE.....	0.4	0.8	---	---	
ISOBUTANE.....	0.1	0.5	---	---	
N-PENTANE.....	0.2	0.3	---	---	
ISOPENTANE.....	0.0	0.3	---	---	
CYCLOPENTANE.....	TRACE	0.1	---	---	
HEXANES PLUS.....	0.2	0.4	---	---	
NITROGEN.....	9.2	4.2	3.7	3.7	
OXYGEN.....	0.1	TRACE	0.7	0.7	
ARGON.....	TRACE	TRACE	---	---	
HYDROGEN.....	0.3	0.2	---	---	
HYDROGEN SULFIDE.....	---	0.0	---	---	
CARBON DIOXIDE.....	0.0	0.1	0.0	0.0	
HELIUM.....	0.29	0.08	0.18	0.18	
HEATING VALUE.....	993	1106	1145	1145	
SPECIFIC GRAVITY.....	0.645	0.658	0.686	0.686	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4957 SAMPLE 10193		INDEX 4958 SAMPLE 10194		INDEX 4959 SAMPLE 9779	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	PORTAGE	PORTAGE		PORTAGE	
FIELD.....	BEST DEERFIELD-SMITH	BRINFIELD		RANDOLPH	
WELL NAME.....	CLINE NO. 1 - EOG NO.2225	C. STEWART NO.1-EOG NO.2057		J. R. FREEMAN NO. 1-413	
LOCATION.....	LOT 37, DEERFIELD TWP.	SEC. 14, BRINFIELD TWP.		LOT 71, RANDOLPH TWP.	
OWNER.....	EAST OHIO GAS CO.	EAST OHIO GAS CO.		BELODEN & BLAKE OIL PROD. CO.	
COMPLETED.....	09/10/61	08/21/57		12/15/64	
SAMPLED.....	10/04/65	10/04/65		03/02/65	
FORMATION.....	SILU-CLINTON	SILU-CLINTON		SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	4792	4204		4674	
WELLHEAD PRESSURE, PSIG.....	1440	1265		1400	
OPEN FLOW, MCFD.....	2949	760		2370	
COMPONENT, MOLE PCT					
METHANE.....	88.3	90.7		90.2	
ETHANE.....	5.4	4.3		5.1	
PROPANE.....	1.6	1.2		1.3	
N-BUTANE.....	0.4	0.3		0.3	
ISOBUTANE.....	0.3	0.3		0.2	
N-PENTANE.....	0.1	0.1		0.1	
ISOPENTANE.....	0.2	0.1		TRACE	
CYCLOPENTANE.....	TRACE	TRACE		0.1	
HEXANES PLUS.....	0.2	0.2		0.2	
NITROGEN.....	3.3	2.6		2.4	
OXYGEN.....	0.0	0.0		TRACE	
ARGON.....	TRACE	TRACE		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE**.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		TRACE	
HELIUM.....	0.09	0.10		0.10	
HEATING VALUE.....	1079	1066		1074	
SPECIFIC GRAVITY.....	0.633	0.617		0.618	
INDEX 4960 SAMPLE 9780		INDEX 4961 SAMPLE 8970		INDEX 4962 SAMPLE 9061	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	PORTAGE	PORTAGE		PORTAGE	
FIELD.....	RANDOLPH	RAVENNA		RAVENNA	
WELL NAME.....	JAMES SPELLMAN NO. 1-407	R. H. PARSONS NO. 1-2287		H. MILLER NO. 1	
LOCATION.....	LOT 62, RANDOLPH TWP.	LOT 25, ROOTSTOWN TWP.		LOT 95, RANDOLPH PORTAGE SUR	
OWNER.....	BELODEN & BLAKE OIL PROD. CO.	EAST OHIO GAS CO.		EAST OHIO GAS CO.	
COMPLETED.....	11/2/64	02/02/61		03/29/63	
SAMPLED.....	01/02/65	05/22/63		07/29/63	
FORMATION.....	SILU-CLINTON	SILU-MEDINA		SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	4642	4370		4407	
WELLHEAD PRESSURE, PSIG.....	1415	1370		1380	
OPEN FLOW, MCFD.....	5130	1614		4080	
COMPONENT, MOLE PCT					
METHANE.....	89.7	89.8		90.5	
ETHANE.....	5.2	4.8		4.8	
PROPANE.....	1.6	1.3		1.3	
N-BUTANE.....	0.4	0.4		0.3	
ISOBUTANE.....	0.2	0.1		0.1	
N-PENTANE.....	0.1	0.2		0.1	
ISOPENTANE.....	TRACE	0.1		0.1	
CYCLOPENTANE.....	TRACE	0.1		0.1	
HEXANES PLUS.....	0.1	0.1		0.1	
NITROGEN.....	2.5	2.6		2.4	
OXYGEN.....	TRACE	TRACE		0.0	
ARGON.....	TRACE	0.0		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE**.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	TRACE	0.1		0.1	
HELIUM.....	0.09	0.10		0.10	
HEATING VALUE.....	1073	1080		1074	
SPECIFIC GRAVITY.....	0.619	0.626		0.620	
INDEX 4963 SAMPLE 9613		INDEX 4964 SAMPLE 7859		INDEX 4965 SAMPLE 10513	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	PORTAGE	PORTAGE		RICHLAND	
FIELD.....	ROOTSTOWN	WILDCAT		WILDCAT	
WELL NAME.....	ZICKFROOSE WETZNER NO. 2	MOORE E NO. 1		G. MILLER NO. 1	
LOCATION.....	LOT 14, ROOTSTOWN TWP.	LOT 29, FREEDOM TWP.		SEC. 24, PLYMOUTH TWP.	
OWNER.....	MIDLAND EXPLORATION CO.	NORTHERN NATURAL GAS PROD. C		MCCLURE OIL CO.	
COMPLETED.....	06/--/64	12/03/60		05/26/65	
SAMPLED.....	10/16/64	02/11/61		03/29/66	
FORMATION.....	SILU-CLINTON	SILU-CLINTON		SILU-NEWBURG	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	4555	4354		1324	
WELLHEAD PRESSURE, PSIG.....	1952	1377		495	
OPEN FLOW, MCFD.....	952	300		4300	
COMPONENT, MOLE PCT					
METHANE.....	89.2	86.8		86.1	
ETHANE.....	5.1	5.9		5.3	
PROPANE.....	1.6	1.8		1.4	
N-BUTANE.....	0.4	0.4		0.3	
ISOBUTANE.....	0.2	0.2		0.2	
N-PENTANE.....	0.2	0.2		0.1	
ISOPENTANE.....	TRACE	0.1		0.1	
CYCLOPENTANE.....	0.1	0.3		TRACE	
HEXANES PLUS.....	0.4	0.3		0.1	
NITROGEN.....	2.6	3.6		5.6	
OXYGEN.....	TRACE	0.0		0.4	
ARGON.....	TRACE	0.0		TRACE	
HYDROGEN.....	0.0	TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.2		0.2	
HELIUM.....	0.10	0.10		0.15	
HEATING VALUE.....	1090	1091		1034	
SPECIFIC GRAVITY.....	0.631	0.645		0.635	
INDEX 4966 SAMPLE 11645		INDEX 4967 SAMPLE 10174		INDEX 4968 SAMPLE 10161	
STATE.....	OHIO	OHIO		OHIO	
COUNTY.....	STARK	STARK		STARK	
FIELD.....	BETHLEHEM-STARK	CANTON		CANTON SUBURBAN	
WELL NAME.....	A & M FEUCHT NO. 1	BRINING COMM. NO. 1-EOG NO.		W. MILLER NO. 2-EOG NO. 2099	
LOCATION.....	BETHLEHEM TWP.	SEC. 21, CANTON TWP.		SEC. 28, PERRY TWP.	
OWNER.....	EAST OHIO GAS CO.	EAST OHIO GAS CO.		EAST OHIO GAS CO.	
COMPLETED.....	02/09/68	01/04/47		09/01/58	
SAMPLED.....	09/18/68	09/30/65		09/22/65	
FORMATION.....	SILU-CLINTON	SILU-CLINTON		SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160	160		160	
DEPTH, FEET.....	4394	4640		4334	
WELLHEAD PRESSURE, PSIG.....	1250	1210		1250	
OPEN FLOW, MCFD.....	7310	1101		1637	
COMPONENT, MOLE PCT					
METHANE.....	87.7	88.7		87.3	
ETHANE.....	5.6	5.5		5.8	
PROPANE.....	1.7	1.4		1.7	
N-BUTANE.....	0.5	0.4		0.6	
ISOBUTANE.....	0.3	0.3		0.3	
N-PENTANE.....	0.2	0.2		0.1	
ISOPENTANE.....	0.0	0.2		0.2	
CYCLOPENTANE.....	0.2	TRACE		TRACE	
HEXANES PLUS.....	0.2	0.0		0.2	
NITROGEN.....	3.5	3.0		3.5	
OXYGEN.....	0.0	0.0		0.1	
ARGON.....	0.0	TRACE		TRACE	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE**.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.1		0.1	
HELIUM.....	0.13	0.10		0.11	
HEATING VALUE.....	1086	1086		1086	
SPECIFIC GRAVITY.....	0.638	0.630		0.640	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 4969 10175	INDEX SAMPLE 4970 10245	INDEX SAMPLE 4971 10176
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	STARK		STARK	STARK
FIELD.....	LAKE		MARLBORO S	PILE-STARK
WELL NAME.....	TROYER NO. 1-EOG NO. 2		CHENEVEY NO. 1 - 2300	WEAVER NO. 1-EOG 1780
LOCATION.....	SEC. 21, LAKE TWP.		SEC. 25, MARLBORO TWP.	SEC. 15, PIKE TWP.
OWNER.....	EAST OHIO GAS CO.		EAST OHIO GAS CO.	EAST OHIO GAS CO.
COMPLETED.....	07/29/58		05/24/63	12/30/43
SAMPLED.....	09/30/65		10/20/65	09/30/65
FORMATION.....	SILU-CLINTON		SILU-CLINTON	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	4445		4814	4865
WELLHEAD PRESSURE, PSIG.....	1000		400	340
OPEN FLOW, MCFD.....	459		25	1069
COMPONENT, MOLE PCT				
METHANE.....	88.0	83.4	88.8	88.8
ETHANE.....	5.8	5.6	5.6	5.6
PROPANE.....	1.8	2.9	1.7	1.7
N-BUTANE.....	0.5	1.0	0.3	0.3
ISOBUTANE.....	0.3	0.4	0.3	0.3
N-PENTANE.....	0.1	0.4	0.1	0.1
ISOPENTANE.....	0.2	0.2	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE
HEXANES PLUS.....	0.1	0.4	0.1	0.1
NITROGEN.....	3.0	3.2	2.6	2.6
OXYGEN.....	0.0	0.1	0.0	0.0
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	TRACE
HELIUM.....	0.11	0.11	0.10	0.10
HEATING VALUE.....	1087	1157	1089	1089
SPECIFIC GRAVITY.....	0.633	0.681	0.630	0.630
		INDEX SAMPLE 4972 9080	INDEX SAMPLE 4973 9090	INDEX SAMPLE 4974 3873
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	STARK		STARK	STARK
FIELD.....	RAVENNA		RAVENNA	SANDYVILLE
WELL NAME.....	A&M CHENEVEY COMM. NO. 1		A&M CHENEVEY COMM. NO. 1	REAM NO. 1
LOCATION.....	SEC. 25, MARLBORO STARK SUR.		SEC. 25, MARLBORO SUR.	SEC. 27, CANTON TWP.
OWNER.....	EAST OHIO GAS CO.		EAST OHIO GAS CO.	HANLEY & BIRD
COMPLETED.....	05/24/63		05/24/63	08/-/44
SAMPLED.....	09/13/63		09/13/63	11/13/44
FORMATION.....	SILU-CLINTON		SILU-CLINTON	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	4844		4814	4685
WELLHEAD PRESSURE, PSIG.....	400		400	NOT GIVEN
OPEN FLOW, MCFD.....	25		25	1630
COMPONENT, MOLE PCT				
METHANE.....	78.5	85.4	90.6	90.6
ETHANE.....	2.9	2.7	8.2	8.2
PROPANE.....	2.8	1.0	---	---
N-BUTANE.....	0.7	0.6	---	---
ISOBUTANE.....	0.3	0.5	---	---
N-PENTANE.....	TRACE	0.2	---	---
ISOPENTANE.....	0.4	0.3	---	---
CYCLOPENTANE.....	TRACE	TRACE	---	---
HEXANES PLUS.....	TRACE	---	---	---
NITROGEN.....	8.6	2.2	0.6	0.6
OXYGEN.....	1.2	0.0	0.4	0.4
ARGON.....	0.1	0.0	---	---
HYDROGEN.....	0.0	0.0	---	---
HYDROGEN SULFIDE.....	0.0	0.0	---	---
CARBON DIOXIDE.....	0.2	0.1	0.1	0.1
HELIUM.....	0.20	0.10	0.12	0.12
HEATING VALUE.....	1042	1148	1065	1065
SPECIFIC GRAVITY.....	0.683	0.665	0.600	0.600
		INDEX SAMPLE 4975 10155	INDEX SAMPLE 4976 10156	INDEX SAMPLE 4977 10244
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	STARK		STARK	SUMMIT
FIELD.....	ROHRER-SUMMIT		ROHRER-SUMMIT	GREENSBURG
WELL NAME.....	JENKINS NO.1-EOG 2114		ROHRER NO 1-EOG. NO. 1719	GOODYEAR TIRE & RUBBER NO. 1
LOCATION.....	SEC. 36, LAWRENCE TWP.		SEC. 1, JACKSON TWP.	SEC. 26, GREEN TWP.
OWNER.....	EAST OHIO GAS CO.		EAST OHIO GAS CO.	EAST OHIO GAS CO.
COMPLETED.....	08/06/59		05/18/59	-/-/00
SAMPLED.....	09/22/65		09/22/65	10/20/65
FORMATION.....	SILU-CLINTON		DEVO-ORISKANY	SILU-CLINTON
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	4186		2881	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1250		975	NOT GIVEN
OPEN FLOW, MCFD.....	572		157	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	83.0	85.6	86.3	86.3
ETHANE.....	6.7	8.7	5.8	5.8
PROPANE.....	2.4	1.9	1.6	1.6
N-BUTANE.....	0.9	0.8	0.5	0.5
ISOBUTANE.....	0.4	0.2	0.3	0.3
N-PENTANE.....	0.2	0.2	0.1	0.1
ISOPENTANE.....	0.2	0.2	0.2	0.2
CYCLOPENTANE.....	TRACE	TRACE	0.1	0.1
HEXANES PLUS.....	0.2	0.1	0.5	0.5
NITROGEN.....	8.4	0.0	0.3	0.3
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.1	0.1
HELIUM.....	0.20	0.10	0.12	0.12
HEATING VALUE.....	1094	1146	1073	1073
SPECIFIC GRAVITY.....	0.668	0.655	0.645	0.645
		INDEX SAMPLE 4978 10223	INDEX SAMPLE 4979 10157	INDEX SAMPLE 4980 4471
STATE.....	OHIO		OHIO	OHIO
COUNTY.....	SUMMIT		SUMMIT	SUMMIT
FIELD.....	RICHFIELD W		STARK-SUMMIT	WILDCAT
WELL NAME.....	WILDCAT NO.2 - EOG NO.969		WILDCAT NO.1-EOG NO. 2022	W. G. MCCREARY NO. 1
LOCATION.....	SEC. 19, RICHFIELD TWP.		SEC. 17, FRANKLIN TWP.	LOT 73, NORTHAMPTON TWP.
OWNER.....	EAST OHIO GAS CO.		EAST OHIO GAS CO.	WISER OIL CO.
COMPLETED.....	10/05/60		09/19/56	12/19/47
SAMPLED.....	10/05/65		09/22/65	04/07/48
FORMATION.....	SILU-CLINTON		SILU-CLINTON	SILU-NIAGARAN
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	3509		3900	3645
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1340	825
OPEN FLOW, MCFD.....	NOT GIVEN		2307	213
COMPONENT, MOLE PCT				
METHANE.....	85.5	87.3	84.6	84.6
ETHANE.....	6.8	3.8	13.4	13.4
PROPANE.....	2.7	1.9	---	---
N-BUTANE.....	0.9	0.7	---	---
ISOBUTANE.....	0.4	0.3	---	---
N-PENTANE.....	0.1	0.2	---	---
ISOPENTANE.....	0.4	0.2	---	---
CYCLOPENTANE.....	TRACE	TRACE	---	---
HEXANES PLUS.....	0.2	0.1	---	---
NITROGEN.....	2.8	3.3	1.6	1.6
OXYGEN.....	0.0	0.0	0.1	0.1
ARGON.....	TRACE	TRACE	---	---
HYDROGEN.....	0.0	0.0	---	---
HYDROGEN SULFIDE.....	0.0	0.0	---	---
CARBON DIOXIDE.....	0.1	0.1	0.2	0.2
HELIUM.....	0.17	0.11	0.12	0.12
HEATING VALUE.....	1133	1094	1057	1057
SPECIFIC GRAVITY.....	0.662	0.642	0.629	0.629

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4981 SAMPLE 17257			INDEX 4982 SAMPLE 9741			INDEX 4983 SAMPLE 12707		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	TUSCARAWAS		TUSCARAWAS			TUSCARAWAS		
FIELD.....	BALTIC		NEW CUMBERLAND			STONE CREEK		
WELL NAME.....	DAL ANDREAS NO. 1		HARWIDGE NO. 1			DEIBEL-GINTZ NO. 1		
LOCATION.....	SEC. 18, AUBURN TWP.		SEC. 36, WARREN TWP.			JEFFERSON TWP.		
OWNER.....	CLARENCE SHERMAN		MIDLAND EXPLORATION CO.			WESTERN EXPLORATION, INC.		
COMPLETED.....	09/07/81		07/06/64			09/-/70		
SAMPLED.....	04/16/88		02/16/65			03/01/71		
FORMATION.....	ORDO-ROSE RUN		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	6790		4923			4717		
WELLHEAD PRESSURE, PSIG.....	2200		1400			1400		
OPEN FLOW, MCFD.....	25		3072			3692		
COMPONENT, MOLE PCT								
METHANE.....	89.6		88.4			84.6		
ETHANE.....	5.0		5.6			6.7		
PROPANE.....	1.7		1.6			2.0		
N-BUTANE.....	0.6		0.4			0.6		
ISOBUTANE.....	0.4		0.2			0.4		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.2		TRACE			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	1.9		3.2			4.2		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			TRACE		
HELIUM.....	0.06		0.12			0.14		
HEATING VALUE.....	1106		1076			1089		
SPECIFIC GRAVITY.....	0.633		0.628			0.655		
INDEX 4984 SAMPLE 11845			INDEX 4985 SAMPLE 11724			INDEX 4986 SAMPLE 10177		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	TUSCARAWAS		TUSCARAWAS			TUSCARAWAS		
FIELD.....	WAINWRIGHT		WILDCAT			ZOARVILLE		
WELL NAME.....	P. REICHMAN NO. 1		CROSS CREEK A-2			SPRING NO. 1-E06 NO. 1436		
LOCATION.....	SEC. 13, WARWICK TWP.		GOSHEN TWP.			SEC. 49, SANDY TWP.		
OWNER.....	MUTUAL OIL & GAS CO.		EAST OHIO GAS CO.			EAST OHIO GAS CO.		
COMPLETED.....	10/30/68		06/17/68			10/15/37		
SAMPLED.....	05/02/69		01/09/69			09/30/65		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	4980		4865			4728		
WELLHEAD PRESSURE, PSIG.....	1410		NOT GIVEN			1350		
OPEN FLOW, MCFD.....	1750		2271			1067		
COMPONENT, MOLE PCT								
METHANE.....	88.0		86.4			89.7		
ETHANE.....	1.5		6.4			5.0		
PROPANE.....	1.5		1.8			1.3		
N-BUTANE.....	0.4		0.7			0.4		
ISOBUTANE.....	0.2		0.2			0.3		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.3			0.2		
NITROGEN.....	3.1		3.4			2.6		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.1		
HELIUM.....	0.12		0.13			0.10		
HEATING VALUE.....	1074		1104			1079		
SPECIFIC GRAVITY.....	0.627		0.649			0.625		
INDEX 4987 SAMPLE 542			INDEX 4988 SAMPLE 498			INDEX 4989 SAMPLE 500		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	VINTON		VINTON			VINTON		
FIELD.....	SUGAR GROVE		VINTON			VINTON		
WELL NAME.....	P. M. CLARK 4		WILLIAMS NO. 1, OFS NO. 2863			M. JOHNSON, OFS NO. 1592		
LOCATION.....	SEC. 7, ELK TWP.		SEC. 29, SWAN TWP.			SEC. 34, JACKSON TWP.		
OWNER.....	LOGAN NATURAL GAS & FUEL CO.		OHIO FUEL SUPPLY CO.			OHIO FUEL SUPPLY CO.		
COMPLETED.....	11/-/70		03/11/70			05/21/63		
SAMPLED.....	11/-/70		10/08/20			10/11/20		
FORMATION.....	SILU-CLINTON		SILU-CLINTON			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2745		2639			2400		
WELLHEAD PRESSURE, PSIG.....	820		800			210		
OPEN FLOW, MCFD.....	1410		1500			3500		
COMPONENT, MOLE PCT								
METHANE.....	78.9		80.8			78.2		
ETHANE.....	5.6		9.8			10.5		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	14.3		9.0			10.8		
OXYGEN.....	0.4		0.0			0.0		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.0			0.0		
HELIUM.....	0.51		0.39			0.41		
HEATING VALUE.....	904		904			900		
SPECIFIC GRAVITY.....	0.643		0.638			0.649		
INDEX 4990 SAMPLE 4			INDEX 4991 SAMPLE 1778*			INDEX 4992 SAMPLE 9052		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	VINTON		WASHINGTON			WASHINGTON		
FIELD.....	VINTON COUNTY		BARTLETT			LOWELL		
WELL NAME.....	NOT GIVEN		B. PICKERING NO. 1			HAAS NO. 1		
LOCATION.....	NOT GIVEN		SEC. 16, FAIRFIELD TWP.			LOT 72, BEAR CREEK ALLOTMENT		
OWNER.....	OHIO FUEL GAS CO.		SUN EXPLORATION & PRODUCTION			QUAKER STATE OIL REF. CORP.		
COMPLETED.....	7/-/75		05/25/82			05/21/63		
SAMPLED.....	07/31/79		07/23/81			07/23/63		
FORMATION.....	SILU-CLINTON		SILU-MEDINA			MISS-BEREA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		3370			1819		
WELLHEAD PRESSURE, PSIG.....	155		650			735		
OPEN FLOW, MCFD.....	NOT GIVEN		595			960		
COMPONENT, MOLE PCT								
METHANE.....	74.5		80.1			82.6		
ETHANE.....	7.5		6.8			10.0		
PROPANE.....	---		2.5			4.0		
N-BUTANE.....	---		0.8			1.1		
ISOBUTANE.....	---		0.4			0.1		
N-PENTANE.....	---		0.4			0.2		
ISOPENTANE.....	---		0.1			0.1		
CYCLOPENTANE.....	---		0.2			0.1		
HEXANES PLUS.....	---		0.6			0.1		
NITROGEN.....	16.3		7.7			1.6		
OXYGEN.....	1.1		TRACE			0.0		
ARGON.....	---		TRACE			0.0		
HYDROGEN.....	---		TRACE			0.0		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			TRACE		
HELIUM.....	TRACE		0.14			0.10		
HEATING VALUE.....	889		1098			1182		
SPECIFIC GRAVITY.....	0.665		0.692			0.679		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 4993 SAMPLE 16207		INDEX 4994 SAMPLE 480		INDEX 4995 SAMPLE 10158	
STATE.....	OHIO	OHIO	OHIO	OHIO	
COUNTY.....	WASHINGTON	WAYNE	WAYNE	WAYNE	
FIELD.....	NOT GIVEN	ASHLAND	ASHLAND	CHIPPEWA	
WELL NAME.....	JUSTICE NO. 1	HALEY NO. 1	HALEY NO. 1	BRILLHART NO. 1-EOG NO. 2112	
LOCATION.....	DECATER TOWNSHIP	SEC. 9, CONGRESS TWP.	SEC. 9, CONGRESS TWP.	SEC. 9, BAUGHMAN TWP.	
OWNER.....	TREND EXPLORATION, INC.	LOGAN NATURAL GAS & FUEL CO.	LOGAN NATURAL GAS & FUEL CO.	EAST OHIO GAS CO.	
COMPLETED.....	11/99/78	--/--/15	--/--/15	07/09/59	
SAMPLED.....	03/10/81	09/01/20	09/01/20	09/22/65	
FORMATION.....	DEV-OHIO	SILU-CLINTON	SILU-CLINTON	SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	3880	3021	3760	3760	
WELLHEAD PRESSURE, PSIG.....	300	110	1280	1280	
OPEN FLOW, MCFD.....	4000	313	519	519	
COMPONENT, MOLE PCT					
METHANE.....	81.5	89.1	89.5	89.5	
ETHANE.....	9.6	7.2	5.1	5.1	
PROpane.....	4.2	---	1.3	1.3	
N-BUTANE.....	0.9	---	0.3	0.3	
ISOBUTANE.....	0.3	---	0.3	0.3	
N-PENTANE.....	0.2	---	0.1	0.1	
ISOPENTANE.....	0.2	---	0.1	0.1	
CYCLOPENTANE.....	0.1	---	TRACE	TRACE	
HEXANES PLUS.....	0.2	---	0.1	0.1	
NITROGEN.....	2.7	1.9	3.0	3.0	
OXYGEN.....	TRACE	1.5	0.0	0.0	
ARGON.....	0.0	---	TRACE	TRACE	
HYDROGEN.....	0.1	---	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	---	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.1	0.1	
HELIUM.....	0.11	0.21	0.14	0.14	
HEATING VALUE.....	1178	1032	1066	1066	
SPECIFIC GRAVITY.....	0.687	0.605	0.621	0.621	
INDEX 4996 SAMPLE 6787		INDEX 4997 SAMPLE 10307		INDEX 4998 SAMPLE 553	
STATE.....	OHIO	OHIO	OHIO	OHIO	
COUNTY.....	WAYNE	WAYNE	WAYNE	WAYNE	
FIELD.....	DALTON	HERMANSVILLE	HERMANSVILLE	LOOTI	
WELL NAME.....	LOUIS WITHRICH NO. 1	HARVEY GASSER NO. 1	HARVEY GASSER NO. 1	WM. NAFTZGER NO. 2, S-1667	
LOCATION.....	SEC. 13, SUGAR CREEK	SEC. 30, MILTON TWP.	SEC. 30, MILTON TWP.	SEC. 7	
OWNER.....	WIS-ARK OIL CO.	KIN-ARK OIL CO.	KIN-ARK OIL CO.	LOGAN NATURAL GAS & FUEL CO.	
COMPLETED.....	--/--/00	07/18/65	07/18/65	12/--/17	
SAMPLED.....	--/--/58	11/30/65	11/30/65	12/--/20	
FORMATION.....	SILU-CLINTON, RED	SILU-CLINTON	SILU-CLINTON	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	4118	3360	3098	3098	
WELLHEAD PRESSURE, PSIG.....	1320	965	200	200	
OPEN FLOW, MCFD.....	2494	1300	78	78	
COMPONENT, MOLE PCT					
METHANE.....	87.1	88.4	86.6	86.6	
ETHANE.....	6.0	5.1	10.9	10.9	
PROpane.....	1.7	0.5	---	---	
N-BUTANE.....	0.5	0.7	---	---	
ISOBUTANE.....	0.4	0.2	---	---	
N-PENTANE.....	0.0	0.1	---	---	
ISOPENTANE.....	0.3	0.2	---	---	
CYCLOPENTANE.....	0.0	TRACE	---	---	
HEXANES PLUS.....	0.2	0.1	---	---	
NITROGEN.....	3.5	3.2	2.1	2.1	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	---	---	
HYDROGEN.....	0.0	0.0	---	---	
HYDROGEN SULFIDE**.....	0.0	0.0	---	---	
CARBON DIOXIDE.....	0.1	0.1	0.0	0.0	
HELIUM.....	0.10	0.12	0.21	0.21	
HEATING VALUE.....	1087	1078	1073	1073	
SPECIFIC GRAVITY.....	0.640	0.631	0.615	0.615	
INDEX 4999 SAMPLE 7993		INDEX 5000 SAMPLE 3894		INDEX 5001 SAMPLE 9043	
STATE.....	OHIO	OHIO	OHIO	OHIO	
COUNTY.....	WAYNE	WAYNE	WAYNE	WAYNE	
FIELD.....	NORTHERN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
WELL NAME.....	NO. 10242	MARY MARTIN NO. 1	MARY MARTIN NO. 1	D. & E. WEYGANDT NO. 1	
LOCATION.....	SEC. 5, PLAIN TWP.	SEC. 3, GREEN TWP.	SEC. 3, GREEN TWP.	SEC. 9, BAUGHMAN WAYNE CTY.	
OWNER.....	OHIO FUEL GAS CO.	NORTHERN ORDINANCE, INC.	NORTHERN ORDINANCE, INC.	EAST OHIO GAS CO.	
COMPLETED.....	--/--/00	09/04/44	09/04/44	02/15/63	
SAMPLED.....	05/22/61	09/04/44	09/04/44	07/15/63	
FORMATION.....	SILU-CLINTON	SILU-CLINTON	SILU-CLINTON	SILU-CLINTON	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	3174	3440	3696	3696	
WELLHEAD PRESSURE, PSIG.....	980	1125	1350	1350	
OPEN FLOW, MCFD.....	2460	800	1417	1417	
COMPONENT, MOLE PCT					
METHANE.....	83.3	91.9	81.9	81.9	
ETHANE.....	6.2	7.4	5.4	5.4	
PROpane.....	1.9	0.5	2.0	2.0	
N-BUTANE.....	0.5	---	0.7	0.7	
ISOBUTANE.....	0.5	---	0.1	0.1	
N-PENTANE.....	0.1	---	0.2	0.2	
ISOPENTANE.....	0.1	---	0.1	0.1	
CYCLOPENTANE.....	TRACE	---	TRACE	TRACE	
HEXANES PLUS.....	0.1	---	0.2	0.2	
NITROGEN.....	6.7	0.2	9.1	9.1	
OXYGEN.....	0.1	0.4	TRACE	TRACE	
ARGON.....	TRACE	---	TRACE	TRACE	
HYDROGEN.....	0.0	---	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	---	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.0	TRACE	TRACE	
HELIUM.....	0.20	0.10	0.20	0.20	
HEATING VALUE.....	1052	1084	1028	1028	
SPECIFIC GRAVITY.....	0.654	0.594	0.660	0.660	
INDEX 5002 SAMPLE 7148		INDEX 5003 SAMPLE 10340		INDEX 5004 SAMPLE 10341	
STATE.....	OHIO	OHIO	OHIO	OHIO	
COUNTY.....	WAYNE	WOOD	WOOD	WOOD	
FIELD.....	WILDCAT	FREEPORT	FREEPORT	FREEPORT	
WELL NAME.....	NO. 10042	ROSENDALE	ROSENDALE	DEWITT	
LOCATION.....	SEC. 7, GREEN TWP.	PERRY TWP.	PERRY TWP.	PERRY TWP.	
OWNER.....	WARD J. RAMSEYER	W. H. DENNIS & SON NAT. GAS	W. H. DENNIS & SON NAT. GAS	W. H. DENNIS & SON NAT. GAS	
COMPLETED.....	05/25/59	01/01/09	01/01/09	01/01/42	
SAMPLED.....	07/14/59	12/22/65	12/22/65	09/22/65	
FORMATION.....	SILU-CLINTON	ORDO-TRENTON	ORDO-TRENTON	ORDO-TRENTON	
GEOLOGIC PROVINCE CODE.....	160	300	300	300	
DEPTH, FEET.....	3424	1180	1180	1180	
WELLHEAD PRESSURE, PSIG.....	1340	20	20	20	
OPEN FLOW, MCFD.....	644	10	2	2	
COMPONENT, MOLE PCT					
METHANE.....	87.8	71.6	73.7	73.7	
ETHANE.....	5.0	10.0	8.6	8.6	
PROpane.....	1.3	5.6	4.8	4.8	
N-BUTANE.....	0.0	0.5	2.0	2.0	
ISOBUTANE.....	0.6	0.9	0.9	0.9	
N-PENTANE.....	0.1	0.6	0.6	0.6	
ISOPENTANE.....	0.0	0.9	0.9	0.9	
CYCLOPENTANE.....	TRACE	0.2	0.2	0.2	
HEXANES PLUS.....	0.0	0.6	0.6	0.6	
NITROGEN.....	4.7	6.7	7.2	7.2	
OXYGEN.....	0.2	0.1	0.1	0.1	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	0.1	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.2	0.2	0.2	
HELIUM.....	0.10	0.13	0.14	0.14	
HEATING VALUE.....	1037	1267	1226	1226	
SPECIFIC GRAVITY.....	0.624	0.789	0.768	0.768	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5005			INDEX 5006			INDEX 5007		
SAMPLE 6552			SAMPLE 17901			SAMPLE 6559		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ALFALFA		ALFALFA			ALFALFA		
FIELD.....	AMORITA S		BURLINGTON S			CARMEN N		
WELL NAME.....	STAT-HEATH NO. 1		KASPARK-LEWIS NO. 1-27			MORRISON-JENNINGS NO. 1		
LOCATION.....	SEC. 16, T28N, R10W		SEC. 27, T28N, R12W			SEC. 15, T25N, R12W		
OWNER.....	GULF OIL CORP. & B.M. HEALTH		CHAMPLIN PETROLEUM CO.			AMERADA HESS CORP.		
COMPLETED.....	01/01/58		06/29/65			04/13/58		
SAMPLED.....	04/09/58		--/--/00			04/19/58		
FORMATION.....	PENN-CHEROKEE		DEVO-MISENER			MISS-LIME		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4914		5581			5983		
WELLHEAD PRESSURE, PSIG.....	1867		1851			560		
OPEN FLOW, MCFD.....	3500		5000			115		
COMPONENT, MOLE PCT								
METHANE.....	88.0		78.9			87.7		
ETHANE.....	6.1		8.3			7.3		
PROPANE.....	2.1		5.0			1.8		
N-BUTANE.....	0.8		1.9			0.7		
ISOBUTANE.....	0.4		TRACE			0.2		
N-PENTANE.....	0.2		0.8			0.3		
ISOPENTANE.....	0.3		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.3			0.1		
NITROGEN.....	1.4		4.0			1.3		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.2		
HELIUM.....	0.10		0.07			0.10		
HEATING VALUE.....	1136		1204			1127		
SPECIFIC GRAVITY.....	0.648		0.721			0.643		

INDEX 5008			INDEX 5009			INDEX 5010		
SAMPLE 10765			SAMPLE 11272			SAMPLE 6547		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ALFALFA		ALFALFA			ALFALFA		
FIELD.....	CHEROKEE SW		CHEROKEE W			CHEROKITA TREND		
WELL NAME.....	COLLINS NO. 1		TAYLOR-HEATH NO. 1			O. Z. SMITH A NO. 1		
LOCATION.....	SEC. 21, T26N, R11W		SEC. 2, T26N, R12W			SEC. 21, T27N, R10W		
OWNER.....	J. M. HUBER CORP.		GULF OIL CORP.			CONTINENTAL OIL CO.		
COMPLETED.....	12/18/65		12/06/57			--/--/00		
SAMPLED.....	10/26/66		02/05/68			03/24/58		
FORMATION.....	DEVO-HUNTON		PENN-CHEROKEE			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6082		5455			280		
WELLHEAD PRESSURE, PSIG.....	2269		2269			NOT GIVEN		
OPEN FLOW, MCFD.....	3650		2472			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.7		88.6			1.4		
ETHANE.....	5.4		2.4			0.2		
PROPANE.....	5.8		0.8			0.1		
N-BUTANE.....	2.2		0.3			TRACE		
ISOBUTANE.....	0.8		0.2			0.0		
N-PENTANE.....	1.3		0.4			TRACE		
ISOPENTANE.....	0.0		0.1			0.0		
CYCLOPENTANE.....	0.7		0.1			TRACE		
HEXANES PLUS.....	0.4		1.2			0.1		
NITROGEN.....	4.5		0.0			97.3		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			TRACE		
HELIUM.....	0.11		0.05			0.80		
HEATING VALUE.....	1320		1137			25		
SPECIFIC GRAVITY.....	0.796		0.648			0.957		

INDEX 5011			INDEX 5012			INDEX 5013		
SAMPLE 9820			SAMPLE 10104			SAMPLE 13224		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ALFALFA		ALFALFA			ALFALFA		
FIELD.....	CHEROKITA TREND		CHEROKITA TREND			CHEROKITA TREND		
WELL NAME.....	GOEKAN A-1		U.S.A. NO. 1-18			W. E. LODGE A NO. 1		
LOCATION.....	SEC. 21, T27N, R11W		SEC. 18, T27N, R9W			SEC. 19, T27N, R10W		
OWNER.....	PHILLIPS PETROLEUM CO.		SMITH OIL CO.			CONTINENTAL OIL CO.		
COMPLETED.....	12/25/64		08/12/65			03/13/72		
SAMPLED.....	03/24/65		09/07/65			05/30/72		
FORMATION.....	PENN-CHEROKEE		PENN-CHEROKEE			PENN-TONKAWA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5203		5110			4150		
WELLHEAD PRESSURE, PSIG.....	1915		1555			1600		
OPEN FLOW, MCFD.....	1290		1289			2281		
COMPONENT, MOLE PCT								
METHANE.....	87.3		89.8			85.3		
ETHANE.....	5.9		5.2			5.0		
PROPANE.....	2.0		1.8			2.4		
N-BUTANE.....	0.5		0.5			0.8		
ISOBUTANE.....	0.3		0.3			0.4		
N-PENTANE.....	0.1		0.2			0.3		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	5.0		1.6			0.0		
OXYGEN.....	0.2		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.1		
HELIUM.....	0.08		0.07			0.16		
HEATING VALUE.....	1098		1098			1092		
SPECIFIC GRAVITY.....	0.640		0.629			0.660		

INDEX 5014			INDEX 5015			INDEX 5016		
SAMPLE 9632			SAMPLE 11676			SAMPLE 11362		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ALFALFA		ALFALFA			ALFALFA		
FIELD.....	DACOMA E		DACOMA NE			DACOMA S		
WELL NAME.....	DELEWON NO. 1		SHANE NO. 1-29			NEWLIN NO. 1		
LOCATION.....	SEC. 5, T25N, R12W		SEC. 29, T26N, R12W			SEC. 19, T25N, R12W		
OWNER.....	SUN OIL CO.		CLEARY PETROLEUM CORP.			CONTINENTAL OIL CO.		
COMPLETED.....	05/22/63		08/12/68			--/--/00		
SAMPLED.....	11/10/64		10/09/68			03/04/68		
FORMATION.....	PENN-COTTAGE GROVE		DEVO-HUNTON			PENN-CHEROKEE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		6476			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1950		2200			NOT GIVEN		
OPEN FLOW, MCFD.....	5950		86000			10600		
COMPONENT, MOLE PCT								
METHANE.....	87.5		88.0			90.1		
ETHANE.....	4.6		6.7			4.5		
PROPANE.....	2.0		2.1			2.0		
N-BUTANE.....	0.9		0.5			0.9		
ISOBUTANE.....	0.4		0.2			0.2		
N-PENTANE.....	0.4		0.2			0.4		
ISOPENTANE.....	0.2		TRACE			0.2		
CYCLOPENTANE.....	0.4		0.1			0.1		
HEXANES PLUS.....	0.8		0.1			0.3		
NITROGEN.....	2.3		1.8			1.6		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.09		0.09			0.06		
HEATING VALUE.....	1147		1147			1127		
SPECIFIC GRAVITY.....	0.666		0.635			0.640		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

427

		INDEX SAMPLE	5017 14242	INDEX SAMPLE	5018 14243	INDEX SAMPLE	5019 9845
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ALFALFA			ALFALFA		ALFALFA	
FIELD.....	LAMBERT NW			LAMBERT NW		LAMBERT SE	
WELL NAME.....	WEBB NO. 9-B			WEBB NO. 9-B		MCANIEL NO. 1	
LOCATION.....	SEC. 9, T26N, R12W			SEC. 9, T26N, R12W		SEC. 21, T25N, R11W	
OWNER.....	RAN RICKS, JR.			RAN RICKS, JR.		NATURAL GAS & OIL PROD. CO.	
COMPLETED.....	05--/75			--/70		10/04/64	
SAMPLED.....	12--/74			12--/74		04/15/65	
FORMATION.....	PENN-RED FORK			PENN-RED FORK		MISS-MERAMEC	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		5810	
WELLHEAD PRESSURE, PSIG.....	1820			NOT GIVEN		1942	
OPEN FLOW, MCFD.....	3100			NOT GIVEN		1849	
COMPONENT, MOLE PCT							
METHANE.....	88.8	-----		88.9	-----	90.1	-----
ETHANE.....	5.5	-----		5.5	-----	5.0	-----
PROPANE.....	2.6	-----		2.6	-----	1.7	-----
N-BUTANE.....	0.7	-----		0.8	-----	0.7	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.3	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.3	-----		0.3	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	0.0	-----		0.0	-----	1.3	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.2	-----
HELIUM.....	0.04	-----		0.04	-----	0.12	-----
HEATING VALUE.....	1141	-----		1146	-----	1107	-----
SPECIFIC GRAVITY.....	0.646	-----		0.649	-----	0.631	-----
		INDEX SAMPLE	5020 14704	INDEX SAMPLE	5021 14705	INDEX SAMPLE	5022 9965
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ALFALFA			ALFALFA		ALFALFA	
FIELD.....	LAMBERT SE			LAMBERT SE		RINGWOOD	
WELL NAME.....	RUTH NO. 1			SCHMITZER		MILACEK UNIT NO. 1-C	
LOCATION.....	SEC. 15, T25N, R10W			SEC. 21, T25N, R10W		SEC. 10, T23N, R9W	
OWNER.....	L. R. FRENCH, JR.			L. R. FRENCH, JR.		CHAMPLIN PETROLEUM CO.	
COMPLETED.....	11/02/75			--/70		06/08/65	
SAMPLED.....	06/15/76			06/15/76		07/08/65	
FORMATION.....	PENN-OSWEGO			PENN-OSWEGO		MISS---	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5388			5433		6640	
WELLHEAD PRESSURE, PSIG.....	750			950		2183	
OPEN FLOW, MCFD.....	600			600		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	87.2	-----		86.2	-----	90.0	-----
ETHANE.....	5.3	-----		5.7	-----	4.4	-----
PROPANE.....	2.8	-----		3.2	-----	1.7	-----
N-BUTANE.....	0.8	-----		1.0	-----	0.7	-----
ISOBUTANE.....	0.4	-----		0.4	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.3	-----
ISOPENTANE.....	0.4	-----		0.4	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.2	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.5	-----
NITROGEN.....	2.3	-----		2.4	-----	1.7	-----
OXYGEN.....	0.1	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.08	-----		0.09	-----	0.10	-----
HEATING VALUE.....	1131	-----		1146	-----	1115	-----
SPECIFIC GRAVITY.....	0.656	-----		0.670	-----	0.638	-----
		INDEX SAMPLE	5023 9966	INDEX SAMPLE	5024 11005	INDEX SAMPLE	5025 11006
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ALFALFA			ALFALFA		ALFALFA	
FIELD.....	RINGWOOD			RINGWOOD		RINGWOOD	
WELL NAME.....	MILACEK UNIT NO. 1-T			PECHA NO. 1		PECHA NO. 1	
LOCATION.....	SEC. 10, T23N, R9W			SEC. 9, T23N, R9W		SEC. 9, T23N, R9W	
OWNER.....	CHAMPLIN PETROLEUM CO.			ALADDIN PETROLEUM CORP.		ALADDIN PETROLEUM CORP.	
COMPLETED.....	06/01/65			01/02/67		01/02/67	
SAMPLED.....	07/08/65			06/21/67		06/21/67	
FORMATION.....	DEVON-HUNTON			MISS---		DEVON-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7078			6515		7123	
WELLHEAD PRESSURE, PSIG.....	2524			1350		1350	
OPEN FLOW, MCFD.....	NOT GIVEN			14174		7400	
COMPONENT, MOLE PCT							
METHANE.....	86.7	-----		87.0	-----	87.8	-----
ETHANE.....	6.8	-----		7.4	-----	6.5	-----
PROPANE.....	2.7	-----		2.1	-----	2.0	-----
N-BUTANE.....	0.9	-----		0.7	-----	0.8	-----
ISOBUTANE.....	0.2	-----		0.2	-----	0.2	-----
N-PENTANE.....	0.4	-----		0.3	-----	0.1	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	0.4	-----
CYCLOPENTANE.....	0.2	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.8	-----		0.1	-----	0.2	-----
NITROGEN.....	0.9	-----		1.8	-----	1.5	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.1	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.2	-----
HELIUM.....	0.10	-----		0.17	-----	0.05	-----
HEATING VALUE.....	1183	-----		1125	-----	1127	-----
SPECIFIC GRAVITY.....	0.671	-----		0.648	-----	0.647	-----
		INDEX SAMPLE	5026 11274	INDEX SAMPLE	5027 11275	INDEX SAMPLE	5028 12124
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ALFALFA			ALFALFA		ALFALFA	
FIELD.....	RINGWOOD			RINGWOOD		RINGWOOD	
WELL NAME.....	JOHNSON LARIMORE UNIT NO. 1			JOHNSON LARIMORE UNIT NO. 1		HINNICK NO. 1	
LOCATION.....	SEC. 1, T23N, R10W			SEC. 1, T23N, R10W		SEC. 24, T24N, R10W	
OWNER.....	CHAMPLIN PETROLEUM CO.			CHAMPLIN PETROLEUM CO.		INTERNATIONAL NUCLEAR CORP.	
COMPLETED.....	05/15/65			05/15/65		--/69	
SAMPLED.....	02/10/68			02/10/68		11/20/69	
FORMATION.....	DEVON-HUNTON			MISS---		DEVON-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7184			6504		7120	
WELLHEAD PRESSURE, PSIG.....	1142			1337		950	
OPEN FLOW, MCFD.....	1133			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	83.6	-----		86.9	-----	68.9	-----
ETHANE.....	8.6	-----		7.0	-----	14.2	-----
PROPANE.....	3.0	-----		2.1	-----	7.7	-----
N-BUTANE.....	0.8	-----		0.7	-----	2.2	-----
ISOBUTANE.....	0.4	-----		0.2	-----	0.4	-----
N-PENTANE.....	0.3	-----		0.3	-----	0.8	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	0.2	-----
HEXANES PLUS.....	0.3	-----		0.1	-----	0.3	-----
NITROGEN.....	2.7	-----		1.8	-----	4.8	-----
OXYGEN.....	0.1	-----		TRACE	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.3	-----	0.0	-----
HELIUM.....	0.08	-----		0.05	-----	0.06	-----
HEATING VALUE.....	1155	-----		1127	-----	1310	-----
SPECIFIC GRAVITY.....	0.675	-----		0.650	-----	0.793	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5029 12261	INDEX SAMPLE	5030 12262	INDEX SAMPLE	5031 12263
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ALFALFA			ALFALFA		ALFALFA	
FIELD.....	RINGWOOD			RINGWOOD		RINGWOOD	
WELL NAME.....	UNRUH UNIT NO. 1			JULIUS J. SEVERIN UNIT NO. 1		L. V. MAHAFFEY UNIT NO. 1	
LOCATION.....	SEC. 2, T23N, R9W			SEC. 12, T23N, R9W		SEC. 3, T23N, R9W	
OWNER.....	CHAMPLIN PETROLEUM CO.			CHAMPLIN PETROLEUM CO.		CHAMPLIN PETROLEUM CO.	
COMPLETED.....	06/27/65			08/09/65		06/10/65	
SAMPLED.....	05/19/70			05/19/70		05/19/70	
FORMATION.....	MISS---			MISS---		MISS---	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6408			6430		6398	
WELLHEAD PRESSURE, PSIG.....	2060			1875		2100	
OPEN FLOW, MCFD.....	5207			7255		7119	
COMPONENT, MOLE PCT.....							
METHANE.....	87.6			88.1		77.9	
ETHANE.....	6.0			5.1		5.2	
PROPANE.....	2.5			2.1		2.3	
N-BUTANE.....	0.7			0.7		0.7	
ISOBUTANE.....	0.3			0.3		0.3	
N-PENTANE.....	0.3			0.3		0.3	
ISOPENTANE.....	0.2			TRACE		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.3			0.3		0.2	
NITROGEN.....	1.9			2.5		10.5	
OXYGEN.....	0.0			0.0		2.3	
ARGON.....	0.0			TRACE		0.1	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.04			0.03		0.03	
HEATING VALUE.....	1134			1104		1007	
SPECIFIC GRAVITY.....	0.652			0.644		0.691	
		INDEX SAMPLE	5032 5974	INDEX SAMPLE	5033 16507	INDEX SAMPLE	5034 17653
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ALFALFA			ALFALFA		ALFALFA	
FIELD.....	WAKITA TREND			WAKITA TREND		WAKITA TREND	
WELL NAME.....	J. E. MALTBY NO. 1			FEELY NO. 1-23		PASCHALL NO. 22-1	
LOCATION.....	SEC. 8, T28N, R9W			SEC. 23, T28N, R9W		SEC. 22, T28N, R9W	
OWNER.....	CONTINENTAL OIL CO.			KWB OIL PROPERTY MGMT., INC.		MID-AMERICA PETROLEUM CORP.	
COMPLETED.....	07/29/55			--/--/81		02/28/84	
SAMPLED.....	11/29/55			04/28/82		03/01/85	
FORMATION.....	PENN-BASAL			PENN-RED FORK		PENN-RED FORK	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4892			5175		5140	
WELLHEAD PRESSURE, PSIG.....	1779			1950		1400	
OPEN FLOW, MCFD.....	32800			1400		1379	
COMPONENT, MOLE PCT.....							
METHANE.....	81.1			84.6		84.0	
ETHANE.....	6.7			6.6		6.1	
PROPANE.....	3.0			3.2		3.2	
N-BUTANE.....	1.2			0.8		1.8	
ISOBUTANE.....	0.7			0.3		0.7	
N-PENTANE.....	1.2			0.4		0.8	
ISOPENTANE.....	0.4			0.1		0.5	
CYCLOPENTANE.....	0.3			0.2		0.1	
HEXANES PLUS.....	1.1			0.4		0.3	
NITROGEN.....	4.0			5.0		2.3	
OXYGEN.....	TRACE			0.1		TRACE	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			TRACE		0.2	
HELIUM.....	0.08			0.09		0.08	
HEATING VALUE.....	1219			1104		1202	
SPECIFIC GRAVITY.....	0.728			0.665		0.701	
		INDEX SAMPLE	5035 16736	INDEX SAMPLE	5036 6595	INDEX SAMPLE	5037 11421
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ATOKA			BEAVER		BEAVER	
FIELD.....	BALCO S			BALCO S		BALCO S	
WELL NAME.....	TAYLOR NO. 1			HELEN BARBY NO. 1		MITCHELL NO. 1	
LOCATION.....	SEC. 15, T3S, R11E			SEC. 10, T1N, R22ECM		SEC. 3, T1N, R22ECM	
OWNER.....	SOHIO PETROLEUM CO.			TEXACO INC.		WESTERN OIL FIELDS, INC.	
COMPLETED.....	11/13/81			04/07/88		--/--/00	
SAMPLED.....	12/14/82			05/14/88		--/--/00	
FORMATION.....	PENN-WAPANUCKA			PENN-KANSAS CITY		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	400			360		360	
DEPTH, FEET.....	9824			5998		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	2888			380		869	
OPEN FLOW, MCFD.....	1400			52		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	95.1			47.5		71.8	
ETHANE.....	2.0			14.1		8.1	
PROPANE.....	0.9			10.7		6.7	
N-BUTANE.....	0.2			6.5		1.6	
ISOBUTANE.....	0.1			3.4		1.1	
N-PENTANE.....	TRACE			1.0		0.6	
ISOPENTANE.....	0.1			0.0		0.1	
CYCLOPENTANE.....	0.3			0.4		0.1	
HEXANES PLUS.....	0.3			0.8		0.3	
NITROGEN.....	0.6			5.3		7.4	
OXYGEN.....	0.1			TRACE		1.5	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.2			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.2		0.4	
HELIUM.....	0.03			0.04		0.09	
HEATING VALUE.....	1064			1737		1186	
SPECIFIC GRAVITY.....	0.594			1.070		0.766	
		INDEX SAMPLE	5038 12968	INDEX SAMPLE	5039 12970	INDEX SAMPLE	5040 12971
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	BALCO S			BALCO S		BALCO S	
WELL NAME.....	THURASHER NO. 1			FRY NO. 2-34		THURASHER NO. 1-B	
LOCATION.....	SEC. 31, T1N, R23ECM			SEC. 34, T1N, R24ECM		SEC. 35, T1N, R22ECM	
OWNER.....	HERNDON DRILLING CO.			EXPLORATION VENTURES		PHILCON DEVELOPMENT CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	08/23/71			08/23/71		08/23/71	
FORMATION.....	PENN-MARMATON			NOT GIVEN		PENN-MARMATON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			6950		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	74.7			80.4		44.0	
ETHANE.....	7.5			7.9		15.9	
PROPANE.....	6.7			4.7		22.9	
N-BUTANE.....	3.0			1.4		3.0	
ISOBUTANE.....	1.1			0.8		3.2	
N-PENTANE.....	1.0			0.8		2.4	
ISOPENTANE.....	0.2			0.3		0.3	
CYCLOPENTANE.....	0.4			0.3		0.3	
HEXANES PLUS.....	0.7			0.7		0.8	
NITROGEN.....	4.0			2.4		1.8	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.0	
HELIUM.....	0.19			0.11		0.02	
HEATING VALUE.....	1282			1282		1881	
SPECIFIC GRAVITY.....	0.793			0.727		1.122	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

489

INDEX 5041 SAMPLE 12972			INDEX 5042 SAMPLE 16475			INDEX 5043 SAMPLE 17544		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	BALOK S		BALOK S			BALOK S		
WELL NAME.....	SWA NO. 1		NAYLOR "A" NO. 1-32			MORRIS 22-1 NO. 1		
LOCATION.....	SEC. 36, T1N, R22ECM		SEC. 32, T1N, R22ECM			SEC. 22, T1N, R22 ECM		
OWNER.....	PHILCON DEVELOPMENT CO.		NATURAL GAS ANADARKO, INC.			INTERNORTH, INC.		
COMPLETED.....	08/23/71		09/15/81			02/03/84		
SAMPLED.....	08/23/71		04/01/82			12/20/84		
FORMATION.....	PENN-MARMATON		PENN-MORROW			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		8056			8503		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1774			2197		
OPEN FLOW, MCFD.....	NOT GIVEN		2704			1450		
COMPONENT, MOLE PCT								
METHANE.....	68.9		86.7			91.6		
ETHANE.....	10.5		5.7			2.3		
PROPANE.....	3.9		2.9			0.8		
N-BUTANE.....	3.2		0.9			0.3		
ISOBUTANE.....	1.4		0.4			0.2		
N-PENTANE.....	1.2		0.2			0.1		
ISOPENTANE.....	0.3		0.3			0.1		
CYCLOPENTANE.....	0.3		0.1			0.1		
HEXANES PLUS.....	0.6		0.3			0.2		
NITROGEN.....	3.6		1.8			3.0		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		TRACE			0.1		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.3			0.0		
CARBON DIOXIDE.....	TRACE		0.4			0.3		
HELIUM.....	0.10		0.15			0.32		
HEATING VALUE.....	1404		1140			1029		
SPECIFIC GRAVITY.....	0.839		0.661			0.609		

INDEX 5044 SAMPLE 14865			INDEX 5045 SAMPLE 16929			INDEX 5046 SAMPLE 5703		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	BOYD E		BOYD E			CAMRICK GAS AREA		
WELL NAME.....	DAVIS NO. 2-11		BUXTON NO. 1			F. L. HARRISON NO. 2		
LOCATION.....	SEC. 11, T3N, R21ECM		SEC. 18, T3N, R20ECM			SEC. 30, T2N, R20ECM		
OWNER.....	WECD DEVELOPMENT CO.		FUNK EXPLORATION CO.			UNITED PRODUCING CO., INC.		
COMPLETED.....	08/06/76		05/04/82			09/15/54		
SAMPLED.....	12/03/76		05/10/83			10/12/54		
FORMATION.....	MISS-CHESTER		MISS-CHESTER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6766		6750			6714		
WELLHEAD PRESSURE, PSIG.....	1410		1625			1413		
OPEN FLOW, MCFD.....	3318		4500			42800		
COMPONENT, MOLE PCT								
METHANE.....	90.2		80.9			85.2		
ETHANE.....	4.4		6.3			5.9		
PROPANE.....	2.2		4.5			3.9		
N-BUTANE.....	SEC. 7		0.7			1.4		
ISOBUTANE.....	0.2		0.5			0.5		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.3		0.8			0.3		
CYCLOPENTANE.....	0.1		0.2			TRACE		
HEXANES PLUS.....	0.2		0.4			0.2		
NITROGEN.....	1.1		4.0			2.4		
OXYGEN.....	0.3		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.2			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.4			0.6		
HELIUM.....	0.12		0.14			0.16		
HEATING VALUE.....	1115		1193			1145		
SPECIFIC GRAVITY.....	0.633		0.711			0.673		

INDEX 5047 SAMPLE 6097			INDEX 5048 SAMPLE 6352			INDEX 5049 SAMPLE 7484		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	CAMRICK GAS AREA		CAMRICK GAS AREA			CAMRICK GAS AREA		
WELL NAME.....	O. C. FLOWER GAS UNIT B 1		LEHMANN UNIT NO. 1			ANNIE L. MOUNTS NO. 1		
LOCATION.....	SEC. 11, T1N, R20ECM		SEC. 30, T1N, R20ECM			SEC. 21, T1N, R21ECM		
OWNER.....	RICHFELD CO.		CARTER OIL CO.			SUN OIL CO.		
COMPLETED.....	01/23/36		--/--/00			12/17/59		
SAMPLED.....	06/26/56		07/08/57			03/31/60		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7202		7441			7963		
WELLHEAD PRESSURE, PSIG.....	1961		2100			1641		
OPEN FLOW, MCFD.....	2200		28750			3000		
COMPONENT, MOLE PCT								
METHANE.....	83.9		88.2			83.6		
ETHANE.....	6.3		0.1			6.6		
PROPANE.....	4.3		2.8			4.3		
N-BUTANE.....	1.6		1.0			1.3		
ISOBUTANE.....	0.5		0.5			0.7		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.6		0.2			0.4		
CYCLOPENTANE.....	0.3		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	1.6		0.8			1.9		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	0.10		0.10			0.10		
HEATING VALUE.....	1194		1150			1189		
SPECIFIC GRAVITY.....	0.690		0.654			0.691		

INDEX 5050 SAMPLE 8007			INDEX 5051 SAMPLE 8377			INDEX 5052 SAMPLE 8483		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	CAMRICK GAS AREA		CAMRICK GAS AREA			CAMRICK GAS AREA		
WELL NAME.....	FLOYD A. KERNS NO. 1-36		T. O. WILSON			L. L. LEATHERMAN NO. 1		
LOCATION.....	SEC. 36, T2N, R20ECM		SEC. 26, T2N, R20ECM			SEC. 34, T2N, R20ECM		
OWNER.....	MAY EXPLORATION VENTURES		MAY EXPLORATION VENTURES			CABOT CORP.		
COMPLETED.....	11/18/60		12/19/61			02/06/62		
SAMPLED.....	06/--/61		01/24/62			03/26/62		
FORMATION.....	MISS-CHESTER		MISS-CHESTER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7690		7542			7350		
WELLHEAD PRESSURE, PSIG.....	1547		1708			1679		
OPEN FLOW, MCFD.....	6894		5800			26000		
COMPONENT, MOLE PCT								
METHANE.....	92.5		83.0			83.5		
ETHANE.....	3.1		1.4			8.6		
PROPANE.....	1.6		0.5			4.2		
N-BUTANE.....	0.5		0.2			1.2		
ISOBUTANE.....	0.2		0.1			0.2		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.1		0.1			0.4		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.3		
NITROGEN.....	0.3		8.9			2.3		
OXYGEN.....	TRACE		1.8			TRACE		
ARGON.....	0.0		0.1			0.0		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.4			0.4		
HELIUM.....	0.10		0.08			0.12		
HEATING VALUE.....	1093		988			1179		
SPECIFIC GRAVITY.....	0.615		0.661			0.690		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5053 SAMPLE 12854			INDEX 5054 SAMPLE 12855			INDEX 5055 SAMPLE 12856		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	CAMRICK GAS AREA		CAMRICK GAS AREA			CAMRICK GAS AREA		
WELL NAME.....	SIMS NO. 1-36U		SIMS NO. 1-36L			SIMS NO. 2-36		
LOCATION.....	SEC. 36, T1N, R20ECM		SEC. 36, T1N, R20ECM			SEC. 36, T1N, R20ECM		
OWNER.....	SUNSET INTERNATL. PET. CORP.		SUNSET INTERNATL. PET. CORP.			SUNSET INTERNATL. PET. CORP.		
COMPLETED.....	7/00		7/00			7/00		
SAMPLED.....	06/21/71		06/21/71			06/21/71		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7550		8400			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		540			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	48.5		87.6			82.1		
ETHANE.....	10.8		3.1			3.3		
PROPANE.....	17.1		3.4			3.5		
N-BUTANE.....	8.4		0.9			0.4		
ISOBUTANE.....	3.7		0.4			0.9		
N-PENTANE.....	2.6		0.2			0.3		
ISOPENTANE.....	3.5		0.2			1.1		
CYCLOPENTANE.....	1.1		TRACE			1.2		
HEXANES PLUS.....	2.3		0.1			1.7		
NITROGEN.....	1.9		1.0			2.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.2		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.1			0.4		
HELIUM.....	0.09		0.13			0.13		
HEATING VALUE.....	1957		1133			1253		
SPECIFIC GRAVITY.....	1.165		0.650			0.741		

INDEX 5056 SAMPLE 12864			INDEX 5057 SAMPLE 12872			INDEX 5058 SAMPLE 12876		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	CAMRICK GAS AREA		CAMRICK GAS AREA			CAMRICK GAS AREA		
WELL NAME.....	W.A. GRAY NO. 1		ANDERSON NO. 1			BRANSROVE NO. 2		
LOCATION.....	SEC. 34, T1N, R21ECM		SEC. 34, T1N, R20ECM			SEC. 33, T1N, R20ECM		
OWNER.....	EXXON CO., U.S.A.		HUNT OIL CO.			ATLANTIC RICHFIELD CO.		
COMPLETED.....	7/00		08/27/58			7/00		
SAMPLED.....	06/22/71		06/21/71			06/23/71		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	140		7722			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		300			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	83.0		86.6			88.5		
ETHANE.....	6.6		5.3			4.7		
PROPANE.....	5.2		3.9			3.1		
N-BUTANE.....	1.3		0.6			1.0		
ISOBUTANE.....	0.8		0.6			0.4		
N-PENTANE.....	0.2		0.4			0.2		
ISOPENTANE.....	0.5		0.2			0.3		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.3		0.2			0.2		
NITROGEN.....	1.7		1.4			1.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.1		
HELIUM.....	0.14		0.03			0.10		
HEATING VALUE.....	1218		1174			1144		
SPECIFIC GRAVITY.....	0.702		0.671			0.652		

INDEX 5059 SAMPLE 16619			INDEX 5060 SAMPLE 16620			INDEX 5061 SAMPLE 7471		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	CAMRICK GAS AREA		CAMRICK GAS AREA			COMO SW		
WELL NAME.....	RAGSDALE TRUST NO. 1		RAGSDALE TRUST NO. 1			PERRY JENKINS NO. 1-9		
LOCATION.....	SEC. 9, T2N, R20ECM		SEC. 9, T2N, R20ECM			SEC. 9, T1N, R24ECM		
OWNER.....	KELLOIL, INC.		KELLOIL, INC.			MAY EXPLORATION VENTURES		
COMPLETED.....	11/07/81		11/07/81			11/-/59		
SAMPLED.....	08/17/82		08/17/82			03/30/60		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7060		6638			8037		
WELLHEAD PRESSURE, PSIG.....	1400		450			2331		
OPEN FLOW, MCFD.....	2800		800			21640		
COMPONENT, MOLE PCT								
METHANE.....	75.7		81.0			95.9		
ETHANE.....	7.5		5.9			0.2		
PROPANE.....	7.8		5.0			0.1		
N-BUTANE.....	2.7		1.7			0.1		
ISOBUTANE.....	1.1		0.8			TRACE		
N-PENTANE.....	0.4		0.4			TRACE		
ISOPENTANE.....	1.0		0.7			TRACE		
CYCLOPENTANE.....	0.2		0.5			TRACE		
HEXANES PLUS.....	0.4		0.5			TRACE		
NITROGEN.....	2.5		2.9			3.5		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.4			TRACE		
HELIUM.....	0.10		0.05			0.20		
HEATING VALUE.....	1320		1225			981		
SPECIFIC GRAVITY.....	0.781		0.725			0.572		

INDEX 5062 SAMPLE 7472			INDEX 5063 SAMPLE 9903			INDEX 5064 SAMPLE 11004		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	COMO SW		COMO SW			COMO SW		
WELL NAME.....	PERRY JENKINS NO. 1-9		ELLEXSON A-1			PYLE J NO. 1		
LOCATION.....	SEC. 9, T1N, R24ECM		SEC. 15, T4N, R20ECM			SEC. 26, T4N, R20ECM		
OWNER.....	MAY EXPLORATION VENTURES		ANACARDIO PRODUCTION CO.			JAMES F. SMITH		
COMPLETED.....	11/-/59		12/22/64			06/07/67		
SAMPLED.....	03/30/60		05/26/65			-/-/00		
FORMATION.....	PENN-MORROW		MISS-CHESTER			OKDO-VIOLA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8562		6454			7885		
WELLHEAD PRESSURE, PSIG.....	2165		1625			2021		
OPEN FLOW, MCFD.....	7490		2459			9180		
COMPONENT, MOLE PCT								
METHANE.....	86.0		82.0			73.8		
ETHANE.....	6.5		4.7			3.1		
PROPANE.....	3.2		2.4			3.9		
N-BUTANE.....	1.2		0.9			1.5		
ISOBUTANE.....	0.5		0.6			1.0		
N-PENTANE.....	0.3		0.3			1.1		
ISOPENTANE.....	0.3		0.2			1.0		
CYCLOPENTANE.....	0.1		0.1			0.3		
HEXANES PLUS.....	0.2		0.1			1.1		
NITROGEN.....	1.1		8.0			6.1		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.0		
HELIUM.....	0.10		0.29			0.12		
HEATING VALUE.....	1168		1068			1253		
SPECIFIC GRAVITY.....	0.670		0.677			0.777		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5065 SAMPLE 11422			INDEX 5066 SAMPLE 15807			INDEX 5067 SAMPLE 7825		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	ELWOOD		FORAN S			GRAND VALLEY E		
WELL NAME.....	SLEEPER NO. 1		SIMMONS NO. 1			FRED JUST NO. 1		
LOCATION.....	SEC. 25, T2N, R23ECM		SEC. 25, T6N, R23ECM			SEC. 1, T2N, R21ECM		
OWNER.....	WESTERN OIL FIELDS, INC.		ELDER & VAUGHN			KINGWOOD OIL CO.		
COMPLETED.....	--/--/00		02/13/79			12/01/60		
SAMPLED.....	--/--/00		10/22/79			01/03/61		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		6048			7077		
WELLHEAD PRESSURE, PSIG.....	763		1648			1100		
OPEN FLOW, MCFD.....	NOT GIVEN		3701			1250		
COMPONENT, MOLE PCT								
METHANE.....	83.7		88.7			84.9		
ETHANE.....	8.1		3.1			6.9		
PROpane.....	4.4		3.7			3.7		
N-BUTANE.....	1.2		0.9			1.0		
ISOBUTANE.....	0.5		0.3			0.6		
N-PENTANE.....	0.4		0.2			0.2		
ISOPENTANE.....	0.1		0.4			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	0.9		1.1			1.7		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.3		
HELIUM.....	0.12		0.09			0.20		
HEATING VALUE.....	1195		1140			1161		
SPECIFIC GRAVITY.....	0.686		0.649			0.671		
INDEX 5068 SAMPLE 11410			INDEX 5069 SAMPLE 11856			INDEX 5070 SAMPLE 6924		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	GRAND VALLEY E		GRAND VALLEY E			GRAND VALLEY N		
WELL NAME.....	SARGENT NO. 1		WELERS NO. 1			O. JULLIFFE ESTATE NO. 1		
LOCATION.....	SEC. 13, T2N, R20ECM		SEC. 7, T2N, R22ECM			SEC. 30, T3N, R20ECM		
OWNER.....	SUN OIL CO.		OKLAHOMA NATURAL GAS CO.			REPUBLIC NATURAL GAS CO.		
COMPLETED.....	05/11/59		03/21/69			01/19/59		
SAMPLED.....	03/26/68		05/08/69			01/17/59		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7223		7440			6728		
WELLHEAD PRESSURE, PSIG.....	958		1430			1230		
OPEN FLOW, MCFD.....	NOT GIVEN		1540			2547		
COMPONENT, MOLE PCT								
METHANE.....	86.7		86.5			84.6		
ETHANE.....	5.5		4.8			3.6		
PROpane.....	1.0		0.0			3.0		
N-BUTANE.....	1.3		0.9			0.8		
ISOBUTANE.....	0.2		0.6			0.6		
N-PENTANE.....	0.5		0.3			0.1		
ISOPENTANE.....	0.3		TRACE			0.3		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.3		0.3			0.1		
NITROGEN.....	1.2		2.9			4.7		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.3			1.7		
HELIUM.....	0.09		0.19			0.20		
HEATING VALUE.....	1172		1139			1069		
SPECIFIC GRAVITY.....	0.673		0.658			0.668		
INDEX 5071 SAMPLE 11411			INDEX 5072 SAMPLE 11412			INDEX 5073 SAMPLE 15633		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	IVANHOE		IVANHOE			IVANHOE		
WELL NAME.....	CHE NO. 1		JACKSON NO. 1			BELL NO. 1-4		
LOCATION.....	SEC. 7, T1N, R28ECM		SEC. 7, T1N, R28ECM			SEC. 4, T1N, R27 ECM		
OWNER.....	EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		
COMPLETED.....	10/--/61		06/7/59			--/--/00		
SAMPLED.....	03/27/68		03/27/68			05/16/79		
FORMATION.....	PENN-MORROW		PENN-CHEROKEE			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8394		7442			8119		
WELLHEAD PRESSURE, PSIG.....	1239		1330			1855		
OPEN FLOW, MCFD.....	17986		354			2750		
COMPONENT, MOLE PCT								
METHANE.....	86.9		76.8			83.3		
ETHANE.....	6.1		10.2			6.3		
PROpane.....	2.9		6.8			2.7		
N-BUTANE.....	1.8		0.0			0.8		
ISOBUTANE.....	0.3		0.9			0.4		
N-PENTANE.....	0.3		0.8			0.2		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	0.8		2.1			4.2		
OXYGEN.....	0.0		0.0			0.9		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.9		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.5		
HELIUM.....	0.07		0.10			0.06		
HEATING VALUE.....	1140		1278			1107		
SPECIFIC GRAVITY.....	0.651		0.745			0.677		
INDEX 5074 SAMPLE 17407			INDEX 5075 SAMPLE 5491			INDEX 5076 SAMPLE 15639		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	LEITRE		LIBERAL SE			LIBERAL SE		
WELL NAME.....	DELBERT NO. 1		COBB NO. 1			DICKEY NO. 1		
LOCATION.....	SEC. 17, T3N, R22ECM		SEC. 16, T6N, R20ECM			SEC. 19, T6N, R21ECM		
OWNER.....	FUNK EXPLORATION CO.		ALADDIN PETROLEUM CORP.			MAGUIRE OIL CO.		
COMPLETED.....	09/24/83		04/03/53			--/--/00		
SAMPLED.....	09/20/84		05/20/53			06/05/79		
FORMATION.....	MISS-CHESTER & PENN-MORROW		PENN-MORROW			PENN-LANSING		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7273		6162			4300		
WELLHEAD PRESSURE, PSIG.....	1770		1602			460		
OPEN FLOW, MCFD.....	1942		4440			720		
COMPONENT, MOLE PCT								
METHANE.....	88.3		84.3			79.6		
ETHANE.....	4.7		5.3			7.0		
PROpane.....	2.3		3.2			3.3		
N-BUTANE.....	0.8		1.0			3.0		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.2		0.3			0.4		
ISOPENTANE.....	0.4		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.3		
NITROGEN.....	2.0		4.1			7.3		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.4			0.1		
HELIUM.....	0.12		0.17			0.28		
HEATING VALUE.....	1118		1126			1114		
SPECIFIC GRAVITY.....	0.648		0.676			0.697		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5077 16982	INDEX SAMPLE	5078 11294	INDEX SAMPLE	5079 11311
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	LIBERAL SE			LOGAN S		LOGAN S	
WELL NAME.....	KING NO. E-1			BALDWIN UNIT NO. 1		HOUSE NO. 1	
LOCATION.....	SEC. 31, T6N, R20ECM			SEC. 10, T1N, R26ECM		SEC. 32, T1N, R26ECM	
OWNER.....	ANADARKO PRODUCTION CO.			EXXON CO., U.S.A.		FALCON SEABOARD DRILLING CO.	
COMPLETED.....	10/04/81			06/18/61		01/15/62	
SAMPLED.....	07/06/83			02/19/68		02/26/68	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6064			8279		6073	
WELLHEAD PRESSURE, PSIG.....	880			NOT GIVEN		600	
OPEN FLOW, MCFD.....	157			285		1044	
COMPONENT, MOLE PCT							
METHANE.....	75.6	-----		85.0	-----	84.0	-----
ETHANE.....	3.9	-----		7.3	-----	7.9	-----
PROPANE.....	3.0	-----		3.7	-----	3.2	-----
N-BUTANE.....	0.9	-----		1.2	-----	0.2	-----
ISOBUTANE.....	0.7	-----		0.3	-----	0.4	-----
N-PENTANE.....	0.3	-----		0.3	-----	0.4	-----
ISOPENTANE.....	0.5	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.3	-----
NITROGEN.....	13.8	-----		1.0	-----	1.6	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.3	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.7	-----	0.2	-----
HELIUM.....	0.31	-----		1174	-----	0.10	-----
HEATING VALUE.....	1021	-----		0.679	-----	1186	-----
SPECIFIC GRAVITY.....	0.709	-----			-----	0.683	-----
		INDEX SAMPLE	5080 12875	INDEX SAMPLE	5081 12964	INDEX SAMPLE	5082 12965
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	LOGAN S			LOGAN S		LOGAN S	
WELL NAME.....	HOUSE NO. 1			SCHWAB NO. 2		TERRELL NO. 1 & 2	
LOCATION.....	SEC. 32, T1N, R26ECM			SEC. 33, T1N, R26ECM		SEC. 33, T1N, R26ECM	
OWNER.....	FALCON SEABOARD DRILLING CO.			APACHE CORP.		APACHE CORP.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	06/24/71			08/23/71		08/23/71	
FORMATION.....	PENN-TONKAWA			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6300			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	500			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	500			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.4	-----		78.4	-----	79.0	-----
ETHANE.....	9.0	-----		9.5	-----	9.8	-----
PROPANE.....	4.8	-----		5.8	-----	6.0	-----
N-BUTANE.....	1.4	-----		1.6	-----	1.7	-----
ISOBUTANE.....	0.5	-----		1.0	-----	0.8	-----
N-PENTANE.....	0.4	-----		0.9	-----	0.8	-----
ISOPENTANE.....	0.4	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.2	-----		0.4	-----	0.2	-----
HEXANES PLUS.....	0.4	-----		0.9	-----	0.5	-----
NITROGEN.....	1.4	-----		0.7	-----	0.9	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.3	-----	TRACE	-----
HELIUM.....	0.07	-----		0.08	-----	0.07	-----
HEATING VALUE.....	1237	-----		1311	-----	1292	-----
SPECIFIC GRAVITY.....	0.710	-----		0.754	-----	0.740	-----
		INDEX SAMPLE	5083 12966	INDEX SAMPLE	5084 12974	INDEX SAMPLE	5085 10033
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	LOGAN S			LOGAN S		LORENA	
WELL NAME.....	NICHOLSON UNIT			SCHWAB NO. 1		STEPHENSON B-1	
LOCATION.....	SEC. 33, T1N, R26ECM			SEC. 34, T1N, R26ECM		SEC. 21, T5N, R21ECM	
OWNER.....	APACHE CORP.			SHELL OIL CO.		ANADARKO PRODUCTION CO.	
COMPLETED.....	--/--/00			07/31/58		11/06/64	
SAMPLED.....	08/23/71			08/23/71		08/03/65	
FORMATION.....	PENN-MORROW			PENN-MORROW		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			8431		6675	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1637	
OPEN FLOW, MCFD.....	NOT GIVEN			1675		519	
COMPONENT, MOLE PCT							
METHANE.....	73.7	-----		85.4	-----	84.2	-----
ETHANE.....	11.6	-----		6.9	-----	4.5	-----
PROPANE.....	7.3	-----		6.3	-----	2.1	-----
N-BUTANE.....	2.2	-----		1.0	-----	0.9	-----
ISOBUTANE.....	1.1	-----		1.3	-----	0.8	-----
N-PENTANE.....	0.9	-----		0.0	-----	0.4	-----
ISOPENTANE.....	0.3	-----		0.0	-----	TRACE	-----
CYCLOPENTANE.....	0.3	-----		TRACE	-----	0.3	-----
HEXANES PLUS.....	0.5	-----		0.1	-----	0.8	-----
NITROGEN.....	1.5	-----		0.2	-----	5.1	-----
OXYGEN.....	0.1	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.4	-----	0.4	-----
HELIUM.....	0.06	-----		0.06	-----	0.15	-----
HEATING VALUE.....	1348	-----		1162	-----	1124	-----
SPECIFIC GRAVITY.....	0.786	-----		0.668	-----	0.684	-----
		INDEX SAMPLE	5086 17374	INDEX SAMPLE	5087 16183	INDEX SAMPLE	5088 16184
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	LORENA			LORENA E		LORENA E	
WELL NAME.....	DANIEL STRICKLAND NO. 1			NUMBER NO. 1-14		KODAK TRUST NO. 1-19	
LOCATION.....	SEC. 32, T5N, R20ECM			SEC. 14, T5N, R20 ECM		SEC. 19, T5N, R21ECM	
OWNER.....	KELLOIL, INC.			INTERNORTH, INC.		INTERNORTH, INC.	
COMPLETED.....	11/7/82			04/19/79		04/25/80	
SAMPLED.....	08/10/84			01/22/81		01/22/81	
FORMATION.....	MISS-CHESTER			MISS-CHESTER		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7000			6434		6583	
WELLHEAD PRESSURE, PSIG.....	925			1629		1421	
OPEN FLOW, MCFD.....	605			5200		3800	
COMPONENT, MOLE PCT							
METHANE.....	87.0	-----		87.0	-----	91.3	-----
ETHANE.....	5.0	-----		4.3	-----	3.8	-----
PROPANE.....	1.3	-----		2.5	-----	1.8	-----
N-BUTANE.....	0.7	-----		0.7	-----	0.5	-----
ISOBUTANE.....	0.5	-----		0.4	-----	0.2	-----
N-PENTANE.....	0.4	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.2	-----		0.3	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.1	-----
NITROGEN.....	4.3	-----		0.1	-----	1.4	-----
OXYGEN.....	0.1	-----		TRACE	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.1	-----	0.3	-----
HELIUM.....	0.06	-----		0.16	-----	0.12	-----
HEATING VALUE.....	1117	-----		0.96	-----	1081	-----
SPECIFIC GRAVITY.....	0.656	-----		0.651	-----	0.618	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

488

INDEX 5089 SAMPLE 11286			INDEX 5090 SAMPLE 6843			INDEX 5091 SAMPLE 4306		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	LORENA SE		MOCAINE NW			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	DICK NO. 1-31		R. E. ADAMS NO. 12			LIGHT EST. NO. 1		
LOCATION.....	SEC. 31, T5N, R21ECM		SEC. 31, T6N, R24ECM			SEC. 9, T6N, R21ECM		
OWNER.....	PANHANDLE EASTERN PIPELINE CO.		UNITED PRODUCING CO., INC.			HUNT OIL CO.		
COMPLETED.....	08/18/58		06/16/58			01/15/46		
SAMPLED.....	02/15/58		10/22/58			04/12/47		
FORMATION.....	MISS-CHESTER		PENN-MODGES			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6507		5286			6220		
WELLHEAD PRESSURE, PSIG.....	561		NOT GIVEN			1650		
OPEN FLOW, MCFD.....	430		NOT GIVEN			4000		
COMPONENT, MOLE PCT								
METHANE.....	88.7	-----	77.4	-----		64.6	-----	
ETHANE.....	4.5	-----	1.2	-----		32.7	-----	
PROPANE.....	2.1	-----	0.6	-----		-----	-----	
N-BUTANE.....	0.8	-----	0.2	-----		-----	-----	
ISOBUTANE.....	TRACE	-----	0.3	-----		0.0	-----	
N-PENTANE.....	0.2	-----	0.1	-----		-----	-----	
ISOPENTANE.....	0.4	-----	0.1	-----		-----	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		-----	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		-----	-----	
NITROGEN.....	2.5	-----	19.4	-----		2.0	-----	
OXYGEN.....	0.1	-----	TRACE	-----		0.3	-----	
ARGON.....	TRACE	-----	TRACE	-----		-----	-----	
HYDROGEN.....	0.1	-----	TRACE	-----		-----	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		-----	-----	
CARBON DIOXIDE.....	0.3	-----	0.1	-----		0.3	-----	
HELIUM.....	0.16	-----	0.30	-----		0.11	-----	
HEATING VALUE.....	1101	-----	861	-----		1240	-----	
SPECIFIC GRAVITY.....	0.642	-----	0.664	-----		0.729	-----	
INDEX 5092 SAMPLE 5081			INDEX 5093 SAMPLE 5119			INDEX 5094 SAMPLE 5153		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	WALLACE NO. 1		HUNT-LIGHT NO. 1			HEINTZ NO. 1		
LOCATION.....	SEC. 15, T6N, R21ECM		SEC. 9, T6N, R21ECM			SEC. 15, T6N, R21ECM		
OWNER.....	J. M. HUBER CORP.		J. M. HUBER CORP.			J. M. HUBER CORP.		
COMPLETED.....	04/18/51		03/12/47			11/15/51		
SAMPLED.....	07/03/51		11/14/51			11/30/51		
FORMATION.....	PENN-MORROW		MISS-CHESTER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5974		6226			6009		
WELLHEAD PRESSURE, PSIG.....	1579		1561			1561		
OPEN FLOW, MCFD.....	91287		3948			64795		
COMPONENT, MOLE PCT								
METHANE.....	86.7	-----	88.8	-----		85.2	-----	
ETHANE.....	5.9	-----	4.2	-----		6.3	-----	
PROPANE.....	3.2	-----	2.2	-----		3.9	-----	
N-BUTANE.....	0.7	-----	0.9	-----		1.1	-----	
ISOBUTANE.....	0.2	-----	0.3	-----		0.3	-----	
N-PENTANE.....	TRACE	-----	0.3	-----		0.3	-----	
ISOPENTANE.....	0.0	-----	TRACE	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.2	-----	
NITROGEN.....	2.6	-----	2.7	-----		2.3	-----	
OXYGEN.....	0.2	-----	0.3	-----		0.1	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		-----	-----	
HYDROGEN SULFIDE.....	0.2	-----	0.1	-----		0.2	-----	
CARBON DIOXIDE.....	0.12	-----	0.11	-----		0.13	-----	
HEATING VALUE.....	1109	-----	1094	-----		1149	-----	
SPECIFIC GRAVITY.....	0.648	-----	0.638	-----		0.673	-----	
INDEX 5095 SAMPLE 5176			INDEX 5096 SAMPLE 5308			INDEX 5097 SAMPLE 5497		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	LIGHT 1B		ALBERT NO. 1			TRETBAR NO. 1		
LOCATION.....	SEC. 16, T6N, R21ECM		SEC. 16, T5N, R26ECM			SEC. 7, T5N, R22ECM		
OWNER.....	J. M. HUBER CORP.		UNITED OIL CO. OF CALIF.			CARTER OIL CO.		
COMPLETED.....	12/10/51		05/13/52			02/02/53		
SAMPLED.....	01/31/52		08/11/52			06/18/53		
FORMATION.....	MISS-CHESTER		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6360		6750			6315		
WELLHEAD PRESSURE, PSIG.....	1502		1350			NOT GIVEN		
OPEN FLOW, MCFD.....	1830		2070			10633		
COMPONENT, MOLE PCT								
METHANE.....	91.6	-----	83.0	-----		91.4	-----	
ETHANE.....	3.6	-----	6.5	-----		3.6	-----	
PROPANE.....	1.6	-----	1.0	-----		1.8	-----	
N-BUTANE.....	0.6	-----	1.0	-----		0.6	-----	
ISOBUTANE.....	0.0	-----	1.6	-----		0.2	-----	
N-PENTANE.....	11.3	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.0	-----	1.0	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.4	-----	0.4	-----		0.3	-----	
NITROGEN.....	1.4	-----	5.8	-----		1.3	-----	
OXYGEN.....	0.1	-----	TRACE	-----		TRACE	-----	
ARGON.....	TRACE	-----	0.1	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.3	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.2	-----		0.1	-----	
HELIUM.....	0.09	-----	0.82	-----		0.09	-----	
HEATING VALUE.....	1073	-----	1116	-----		1101	-----	
SPECIFIC GRAVITY.....	0.613	-----	0.685	-----		0.625	-----	
INDEX 5098 SAMPLE 5498			INDEX 5099 SAMPLE 5646			INDEX 5100 SAMPLE 5704		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	DORMAN NO. 1		L. J. BARBY NO. 1			PRED BARBY NO. 1		
LOCATION.....	SEC. 30, T5N, R22ECM		SEC. 2, T4N, R25ECM			SEC. 36, T5N, R25ECM		
OWNER.....	CARTER OIL CO.		TEXACO INC.			UNITED PRODUCING CO., INC.		
COMPLETED.....	06/18/53		05/10/54			08/24/54		
SAMPLED.....	06/18/53		06/24/54			10/12/54		
FORMATION.....	MISS-CHESTER		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6596		6752			6894		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1486			1760		
OPEN FLOW, MCFD.....	12000		6000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	93.4	-----	89.7	-----		88.4	-----	
ETHANE.....	3.1	-----	4.5	-----		4.9	-----	
PROPANE.....	1.3	-----	0.7	-----		2.8	-----	
N-BUTANE.....	0.4	-----	0.3	-----		1.0	-----	
ISOBUTANE.....	TRACE	-----	0.3	-----		0.4	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.3	-----	
ISOPENTANE.....	0.2	-----	0.3	-----		0.4	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.3	-----	
NITROGEN.....	0.6	-----	TRACE	-----		1.0	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.0	-----	
ARGON.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.4	-----	0.3	-----		0.3	-----	
HELIUM.....	0.15	-----	0.11	-----		0.10	-----	
HEATING VALUE.....	1076	-----	1113	-----		1152	-----	
SPECIFIC GRAVITY.....	0.607	-----	0.633	-----		0.657	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5101 5839			INDEX SAMPLE	5102 5857			INDEX SAMPLE	5103 5866
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	BEAVER			BEAVER				BEAVER			
FIELD.....	MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA				MOCAINE-LAVERNE GAS AREA			
WELL NAME.....	JUDY NO. A-1			SARGENT A NO. 1				MAY DIXON NO. 2			
LOCATION.....	SEC. 1, T5N, R24ECM			SEC. 7, T5N, R27ECM				SEC. 29, T5N, R26ECM			
OWNER.....	CABOT CORP.			TEXACO INC.				UNION OIL CO. OF CALIF.			
COMPLETED.....	04/25/55			02/25/55				03/05/55			
SAMPLED.....	05/10/55			06/09/55				06/21/55			
FORMATION.....	PENN-MORROW			PENN-MORROW				PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	6282			6545				6805			
WELLHEAD PRESSURE, PSIG.....	1800			1763				1650			
OPEN FLOW, MCFD.....	4750			734				6500			
COMPONENT, MOLE PCT											
METHANE.....	88.2			87.9				84.8			
ETHANE.....	5.0			5.7				5.5			
PROPANE.....	2.4			2.7				3.8			
N-BUTANE.....	0.8			0.8				1.3			
ISOBUTANE.....	0.4			0.5				0.6			
N-PENTANE.....	0.2			0.2				0.3			
ISOPENTANE.....	0.2			0.2				0.2			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.3			0.2				0.4			
NITROGEN.....	1.8			1.4				2.3			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	TRACE			0.0				0.0			
HYDROGEN.....	TRACE			0.0				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.2				0.5			
HELIUM.....	0.10			0.01				0.15			
HEATING VALUE.....	1122			1138				1166			
SPECIFIC GRAVITY.....	0.646			0.651				0.683			
		INDEX SAMPLE	5104 5883			INDEX SAMPLE	5105 5925			INDEX SAMPLE	5106 5962
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	BEAVER			BEAVER				BEAVER			
FIELD.....	MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA				MOCAINE-LAVERNE GAS AREA			
WELL NAME.....	JUETT BENNETT NO. 1			ARMSTRONG NO. 1-3				LLOYD BARBY NO. A-1			
LOCATION.....	SEC. 3, T3N, R25ECM			SEC. 1, T2N, R27ECM				SEC. 9, T4N, R25ECM			
OWNER.....	WHITE EAGLE & OHIO OIL CO.			COLORADO OIL & GAS CORP.				CABOT CORP.			
COMPLETED.....	07/21/55			08/12/55				10/31/54			
SAMPLED.....	07/22/55			08/29/55				11/06/55			
FORMATION.....	PENN-TONKAWA			PENN-MORROW				PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	5412			7686				6764			
WELLHEAD PRESSURE, PSIG.....	1253			1253				1693			
OPEN FLOW, MCFD.....	1540			1628				11000			
COMPONENT, MOLE PCT											
METHANE.....	82.4			84.3				92.2			
ETHANE.....	5.3			4.8				4.3			
PROPANE.....	2.5			3.9				1.5			
N-BUTANE.....	0.4			1.2				0.2			
ISOBUTANE.....	0.2			0.4				0.1			
N-PENTANE.....	TRACE			0.3				0.1			
ISOPENTANE.....	0.1			0.5				TRACE			
CYCLOPENTANE.....	0.0			0.1				TRACE			
HEXANES PLUS.....	TRACE			0.2				0.1			
NITROGEN.....	7.4			1.5				1.0			
OXYGEN.....	0.0			0.1				TRACE			
ARGON.....	TRACE			0.0				TRACE			
HYDROGEN.....	0.1			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.5				0.1			
HELIUM.....	0.23			0.08				0.10			
HEATING VALUE.....	1037			1179				1070			
SPECIFIC GRAVITY.....	0.652			0.684				0.603			
		INDEX SAMPLE	5107 6011			INDEX SAMPLE	5108 6098			INDEX SAMPLE	5109 6105
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	BEAVER			BEAVER				BEAVER			
FIELD.....	MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA				MOCAINE-LAVERNE GAS AREA			
WELL NAME.....	HODGES NO. 1			BASS NO. 1				GULF COAST WESTERN NO. 1			
LOCATION.....	SEC. 21, T6N, R24ECM			SEC. 14, T3N, R24ECM				SEC. 9, T5N, R24ECM			
OWNER.....	TON OIL CO.			HARPER OIL CO.				TEXACO INC.			
COMPLETED.....	04/10/55			04/25/56				12/21/55			
SAMPLED.....	12/31/56			07/12/56				07/06/56			
FORMATION.....	PERM-COUNCIL GROVE			PENN-TONKAWA				PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	3102			5372				6410			
WELLHEAD PRESSURE, PSIG.....	840			1500				1736			
OPEN FLOW, MCFD.....	4500			12500				7450			
COMPONENT, MOLE PCT											
METHANE.....	76.2			84.0				90.0			
ETHANE.....	6.0			7.3				5.1			
PROPANE.....	2.9			2.7				3.1			
N-BUTANE.....	1.0			1.0				0.7			
ISOBUTANE.....	0.3			0.4				0.2			
N-PENTANE.....	0.2			0.2				0.1			
ISOPENTANE.....	0.3			0.4				0.1			
CYCLOPENTANE.....	0.1			0.3				TRACE			
HEXANES PLUS.....	0.2			0.5				0.2			
NITROGEN.....	12.0			2.6				0.9			
OXYGEN.....	TRACE			0.0				0.0			
ARGON.....	TRACE			0.0				TRACE			
HYDROGEN.....	0.1			0.2				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.2				0.2			
HELIUM.....	0.39			0.15				0.09			
HEATING VALUE.....	1034			1162				1112			
SPECIFIC GRAVITY.....	0.697			0.679				0.630			
		INDEX SAMPLE	5110 6108			INDEX SAMPLE	5111 6109			INDEX SAMPLE	5112 6114
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	BEAVER			BEAVER				BEAVER			
FIELD.....	MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA				MOCAINE-LAVERNE GAS AREA			
WELL NAME.....	STEELE RICHARDS NO. 1			CAMPBELL GAS UNIT NO. 1				L. J. BARBY B-2			
LOCATION.....	SEC. 16, T5N, R25ECM			SEC. 5, T2N, R24ECM				SEC. 27, T4N, R25ECM			
OWNER.....	CARTER OIL CO.			STANOLIND OIL & GAS CO.				CABOT CORP.			
COMPLETED.....	03/02/56			05/21/56				01/31/56			
SAMPLED.....	07/17/56			07/18/56				08/03/56			
FORMATION.....	MISS-CHESTER			PENN-MORROW				MISS-CHESTER			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	6993			7242				6936			
WELLHEAD PRESSURE, PSIG.....	1385			1600				1540			
OPEN FLOW, MCFD.....	4455			11396				4000			
COMPONENT, MOLE PCT											
METHANE.....	87.8			83.1				90.4			
ETHANE.....	5.4			7.3				4.5			
PROPANE.....	2.6			4.5				2.1			
N-BUTANE.....	0.9			0.7				0.7			
ISOBUTANE.....	0.3			0.6				0.3			
N-PENTANE.....	0.2			0.3				0.1			
ISOPENTANE.....	0.4			0.2				0.2			
CYCLOPENTANE.....	0.2			0.1				0.1			
HEXANES PLUS.....	0.3			0.4				0.3			
NITROGEN.....	1.5			1.7				0.6			
OXYGEN.....	0.0			TRACE				0.0			
ARGON.....	0.0			0.0				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.5				0.5			
HELIUM.....	0.10			0.13				0.08			
HEATING VALUE.....	1114			1196				1111			
SPECIFIC GRAVITY.....	0.653			0.696				0.634			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5113 SAMPLE 6115			INDEX 5114 SAMPLE 6179			INDEX 5115 SAMPLE 6180		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		
WELL NAME.....	OTTO BARBY B-A		OTTO BARBY D-1			OTTO BARBY D-1		
LOCATION.....	SEC. 27, T4N, R25ECM		SEC. 25, T4N, R26ECM			SEC. 9, T3N, R28ECM		
OWNER.....	CABOT CORP.		CABOT CORP.			CABOT CORP.		
COMPLETED.....	01/31/56		07/13/56			09/23/56		
SAMPLED.....	08/03/56		11/14/56			11/14/56		
FORMATION.....	MISS-CHESTER		PENN-LOVELL			PENN-HOOVER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7050		4870			4450		
WELLHEAD PRESSURE, PSIG.....	1720		1400			NOT GIVEN		
OPEN FLOW, MCFD.....	8000		4000			14000		
COMPONENT, MOLE PCT.....								
METHANE.....	90.3	-----	81.9	-----		85.9	-----	
ETHANE.....	4.9	-----	6.9	-----		6.7	-----	
PROpane.....	2.2	-----	1.7	-----		1.3	-----	
N-BUTANE.....	0.6	-----	0.5	-----		0.8	-----	
ISOBUTANE.....	0.5	-----	0.6	-----		1.3	-----	
N-PENTANE.....	0.2	-----	0.0	-----		0.0	-----	
ISOPENTANE.....	0.0	-----	0.3	-----		0.9	-----	
CYCLOPENTANE.....	TRACE	-----	0.0	-----		0.0	-----	
HEXANES PLUS.....	0.1	-----	0.0	-----		0.0	-----	
NITROGEN.....	0.5	-----	7.0	-----		3.1	-----	
OXYGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.4	-----	0.5	-----		0.3	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.5	-----	0.5	-----		0.4	-----	
HELIUM.....	0.08	-----	0.25	-----		0.15	-----	
HEATING VALUE.....	11.0	-----	10.48	-----		11.34	-----	
SPECIFIC GRAVITY.....	0.630	-----	0.659	-----		0.669	-----	
INDEX 5116 SAMPLE 6181			INDEX 5117 SAMPLE 6195			INDEX 5118 SAMPLE 6215		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		
WELL NAME.....	RYSER NO. 1		W. A. LONKER UNIT NO. 1			BEARD A NO. 1		
LOCATION.....	SEC. 9, T3N, R28ECM		SEC. 36, T6N, R27ECM			SEC. 8, T5N, R22ECM		
OWNER.....	CABOT CORP.		UNITED PRODUCING CO., INC.			CITIES SERVICE OIL CO.		
COMPLETED.....	09/23/56		10/27/56			11/18/56		
SAMPLED.....	11/14/56		11/25/56			12/11/56		
FORMATION.....	MISS-CHESTER		PENN-MORROW			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7319		6030			6665		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1850			1662		
OPEN FLOW, MCFD.....	2000		6470			8700		
COMPONENT, MOLE PCT.....								
METHANE.....	66.6	-----	87.4	-----		91.2	-----	
ETHANE.....	7.0	-----	5.4	-----		3.8	-----	
PROpane.....	2.3	-----	0.3	-----		0.3	-----	
N-BUTANE.....	0.9	-----	0.4	-----		0.6	-----	
ISOBUTANE.....	0.9	-----	0.3	-----		0.0	-----	
N-PENTANE.....	0.0	-----	0.0	-----		0.7	-----	
ISOPENTANE.....	1.0	-----	0.3	-----		0.5	-----	
CYCLOPENTANE.....	0.0	-----	0.0	-----		0.2	-----	
HEXANES PLUS.....	0.0	-----	0.0	-----		0.3	-----	
NITROGEN.....	20.2	-----	4.1	-----		0.7	-----	
OXYGEN.....	0.0	-----	0.2	-----		0.0	-----	
ARGON.....	0.2	-----	0.1	-----		TRACE	-----	
HYDROGEN.....	0.3	-----	0.1	-----		0.2	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.7	-----	0.4	-----		0.4	-----	
HELIUM.....	TRACE	-----	0.12	-----		0.04	-----	
HEATING VALUE.....	9.48	-----	10.53	-----		11.21	-----	
SPECIFIC GRAVITY.....	0.746	-----	0.633	-----		0.635	-----	
INDEX 5119 SAMPLE 6216			INDEX 5120 SAMPLE 6225			INDEX 5121 SAMPLE 6365		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		
WELL NAME.....	BEARD A NO. 1		E. ATKINS NO. 1			HARRY CARLISLE NO. 4		
LOCATION.....	SEC. 16, T3N, R22ECM		SEC. 25, T3N, R25ECM			SEC. 15, T3N, R28ECM		
OWNER.....	CITIES SERVICE OIL CO.		SHELL OIL CO.			UNITED PRODUCING CO., INC.		
COMPLETED.....	11/18/56		12/06/56			07/16/57		
SAMPLED.....	12/11/56		01/15/57			08/19/57		
FORMATION.....	PENN-MORROW		PENN-TONKAWA			PENN-HOOVER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	1305		5562			4350		
WELLHEAD PRESSURE, PSIG.....	1413		1559			1375		
OPEN FLOW, MCFD.....	110000		3573			10600		
COMPONENT, MOLE PCT.....								
METHANE.....	79.8	-----	85.7	-----		87.1	-----	
ETHANE.....	7.1	-----	6.4	-----		5.9	-----	
PROpane.....	3.1	-----	2.3	-----		2.3	-----	
N-BUTANE.....	2.3	-----	0.7	-----		0.6	-----	
ISOBUTANE.....	1.0	-----	0.7	-----		0.4	-----	
N-PENTANE.....	0.4	-----	0.4	-----		0.2	-----	
ISOPENTANE.....	1.3	-----	0.2	-----		0.1	-----	
CYCLOPENTANE.....	0.3	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.5	-----	0.3	-----		0.2	-----	
NITROGEN.....	2.6	-----	2.6	-----		2.9	-----	
OXYGEN.....	TRACE	-----	0.2	-----		TRACE	-----	
ARGON.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.2	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	1.0	-----	0.2	-----		0.1	-----	
HELIUM.....	0.14	-----	0.11	-----		0.16	-----	
HEATING VALUE.....	12.46	-----	11.34	-----		11.04	-----	
SPECIFIC GRAVITY.....	0.744	-----	0.664	-----		0.645	-----	
INDEX 5122 SAMPLE 6401			INDEX 5123 SAMPLE 6417			INDEX 5124 SAMPLE 6418		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		
WELL NAME.....	E. FICKEL NO. 1		SIZELOVE NO. 1			OTTO BARBY NO. E-1		
LOCATION.....	SEC. 12, T3N, R25ECM		SEC. 12, T3N, R27ECM			SEC. 31, T4N, R28ECM		
OWNER.....	CARTER OIL CO.		CABOT CARBON CO.			CABOT CORP.		
COMPLETED.....	07/27/57		05/02/57			08/18/56		
SAMPLED.....	09/18/57		10/04/57			10/12/56		
FORMATION.....	PENN-TONKAWA		PENN-HOOVER			PENN-HOOVER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5514		4390			4318		
WELLHEAD PRESSURE, PSIG.....	1590		1500			1500		
OPEN FLOW, MCFD.....	21980		20000			32000		
COMPONENT, MOLE PCT.....								
METHANE.....	87.4	-----	88.4	-----		85.7	-----	
ETHANE.....	6.4	-----	5.8	-----		5.9	-----	
PROpane.....	2.4	-----	1.9	-----		2.4	-----	
N-BUTANE.....	0.7	-----	0.5	-----		0.9	-----	
ISOBUTANE.....	0.4	-----	0.4	-----		0.2	-----	
N-PENTANE.....	0.2	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	0.2	-----	TRACE	-----		0.3	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.1	-----	
NITROGEN.....	1.6	-----	2.2	-----		4.0	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		TRACE	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	TRACE	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.1	-----	
HELIUM.....	0.10	-----	0.10	-----		0.20	-----	
HEATING VALUE.....	11.31	-----	10.82	-----		10.95	-----	
SPECIFIC GRAVITY.....	0.649	-----	0.631	-----		0.651	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5125 6740	INDEX SAMPLE	5126 6772	INDEX SAMPLE	5127 6828
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA	
WELL NAME.....	DILLION NO. 1			WHITTHARSH NO. 1		OYLER G.U. 8 NO. 1	
LOCATION.....	SEC. 13, T6N, R26ECM			SEC. 14, T5N, R25ECM		SEC. 22, T5N, R23ECM	
OWNER.....	MONSANTO CO.			T. N. BERRY & CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	01/15/58			--/--/00		05/16/58	
SAMPLED.....	07/17/58			08/02/58		10/04/58	
FORMATION.....	MISS-CHESTER			PENN-MORROW		PENN-COUNCIL GROVE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6175			6705		3171	
WELLHEAD PRESSURE, PSIG.....	1760			NOT GIVEN		821	
OPEN FLOW, MCFD.....	7153			NOT GIVEN		2	
COMPONENT, MOLE PCT							
METHANE.....	91.1			86.0		85.7	
ETHANE.....	4.6			6.1		6.7	
PROPANE.....	1.8			3.3		2.6	
N-BUTANE.....	0.6			1.0		0.8	
ISOBUTANE.....	0.3			0.6		0.4	
N-PENTANE.....	0.1			0.3		0.2	
ISOPENTANE.....	0.2			0.4		0.3	
CYCLOPENTANE.....	0.1			0.0		0.1	
HEXANES PLUS.....	0.2			0.3		0.2	
NITROGEN.....	0.6			1.5		2.8	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.3		TRACE	
HELIUM.....	0.10			0.10		0.20	
HEATING VALUE.....	1109			1165		1131	
SPECIFIC GRAVITY.....	0.625			0.671		0.659	
		INDEX SAMPLE	5128 6972	INDEX SAMPLE	5129 7015	INDEX SAMPLE	5130 7022
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA	
WELL NAME.....	FICKLE BANK UNIT NO. 1			MIKE ALBERT NO. 1		MILLER NO. 1	
LOCATION.....	SEC. 29, T3N, R25ECM			SEC. 10, T5N, R26ECM		SEC. 1, T3N, R23ECM	
OWNER.....	CARTER OIL CO.			CHAMPLIN OIL & REFINING CO.		HARPER OIL CO.	
COMPLETED.....	12/24/58			09/30/58		12/--/58	
SAMPLED.....	02/15/59			03/30/59		04/11/59	
FORMATION.....	PENN-TONKAWA			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5479			6567		7116	
WELLHEAD PRESSURE, PSIG.....	1622			1975		2080	
OPEN FLOW, MCFD.....	5633					7864	
COMPONENT, MOLE PCT							
METHANE.....	88.2			81.0		93.0	
ETHANE.....	0.8			6.2		1.7	
PROPANE.....	2.3			4.8		0.8	
N-BUTANE.....	0.6			1.5		0.3	
ISOBUTANE.....	0.3			0.9		0.0	
N-PENTANE.....	0.1			0.3		1.2	
ISOPENTANE.....	0.1			0.3		0.0	
CYCLOPENTANE.....	TRACE			0.1		0.2	
HEXANES PLUS.....	0.1			0.2		0.6	
NITROGEN.....	1.0			4.0		0.5	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.1			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.4		0.6	
HELIUM.....	0.10			0.20		0.10	
HEATING VALUE.....	1114			1177		1111	
SPECIFIC GRAVITY.....	0.637			0.707		0.629	
		INDEX SAMPLE	5131 7154	INDEX SAMPLE	5132 7164	INDEX SAMPLE	5133 7165
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA	
WELL NAME.....	LEON ALLEN NO. 1			MAHAFFEY NO. 1		HOWARD NO. 1	
LOCATION.....	SEC. 25, T4N, R27ECM			SEC. 18, T1N, R25ECM		SEC. 13, T1N, R24ECM	
OWNER.....	CABOT CORP.			VICKERS PETROLEUM CO.		VICKERS PETROLEUM CO., INC.	
COMPLETED.....	03/11/57			04/26/59		05/11/59	
SAMPLED.....	07/24/59			07/30/59		07/30/59	
FORMATION.....	PENN-COUNCIL GROVE			PENN-MORROW & MISS-CHESTER		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3210			NOT GIVEN		5543	
WELLHEAD PRESSURE, PSIG.....	988			1600		1550	
OPEN FLOW, MCFD.....	1500			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.3			92.7		88.3	
ETHANE.....	5.1			3.4		6.3	
PROPANE.....	1.5			1.2		0.3	
N-BUTANE.....	0.8			0.3		0.6	
ISOBUTANE.....	TRACE			0.3		0.3	
N-PENTANE.....	0.2			0.1		12.4	
ISOPENTANE.....	0.0			0.1		0.1	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.3		0.3	
NITROGEN.....	5.7			1.1		1.8	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.6		0.4	
HELIUM.....	0.31			0.10		0.10	
HEATING VALUE.....	1124			1172		1114	
SPECIFIC GRAVITY.....	0.687			0.614		0.643	
		INDEX SAMPLE	5134 7179	INDEX SAMPLE	5135 7181	INDEX SAMPLE	5136 7322
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA	
WELL NAME.....	WINE NO. 1			WELSON NO. 3		R. EADES NO. 1	
LOCATION.....	SEC. 21, T3N, R27ECM			SEC. 28, T3N, R27ECM		SEC. 29, T3N, R27ECM	
OWNER.....	REPUBLIC NATURAL GAS CO.			REPUBLIC NATURAL GAS CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	04/08/59			09/05/58		10/15/59	
SAMPLED.....	08/25/59			08/25/59		12/31/59	
FORMATION.....	PENN-TONKAWA			PENN-MORROW		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5619			7410		5638	
WELLHEAD PRESSURE, PSIG.....	1568			1679		NOT GIVEN	
OPEN FLOW, MCFD.....	3850			1900		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	86.4			86.5		74.6	
ETHANE.....	6.6			6.0		6.9	
PROPANE.....	2.4			3.1		3.3	
N-BUTANE.....	0.6			1.8		1.9	
ISOBUTANE.....	0.5			0.4		0.0	
N-PENTANE.....	0.1			TRACE		0.3	
ISOPENTANE.....	0.3			0.2		0.4	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.3			0.3		0.3	
NITROGEN.....	1.2			0.7		10.2	
OXYGEN.....	TRACE			TRACE		1.8	
ARGON.....	0.0			0.0		0.1	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.3		0.1	
HELIUM.....	0.10			0.04		0.10	
HEATING VALUE.....	1129			1137		1078	
SPECIFIC GRAVITY.....	0.656			0.667		0.727	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5137			INDEX 5138			INDEX 5139		
SAMPLE 7323			SAMPLE 7328			SAMPLE 7364		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAVE-LAVERNE GAS AREA		MOCAVE-LAVERNE GAS AREA			MOCAVE-LAVERNE GAS AREA		
WELL NAME.....	GEORGE S. LOWERY NO. 1		GOETZINGER TRUST NO. 1			ADAM E. SCHAFFTER		
LOCATION.....	SEC. 9, T5N, R27ECM		SEC. 11, T5N, R24ECM			SEC. 10, T5N, R27ECM		
OWNER.....	ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.			SUN OIL CO.		
COMPLETED.....	11/03/59		11/12/59			11/29/59		
SAMPLED.....	12/31/59		12/31/59			01/30/60		
FORMATION.....	PENN-MORROW		PENN-TONKAWA			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6354		5154			6318		
WELLHEAD PRESSURE, PSIG.....	1587		1646			1700		
OPEN FLOW, MCFD.....	7500		1650			17000		
COMPONENT, MOLE PCT								
METHANE.....	86.6	93.4	88.4					
ETHANE.....	5.8	3.0	5.0					
PROPANE.....	3.1	0.7	2.4					
N-BUTANE.....	0.9	0.2	0.7					
ISOBUTANE.....	0.6	0.2	0.4					
N-PENTANE.....	0.1	0.0	0.1					
ISOPENTANE.....	0.6	0.0	0.4					
CYCLOPENTANE.....	0.2	TRACE	0.3					
HEXANES PLUS.....	0.4	TRACE	0.5					
NITROGEN.....	1.4	1.7	1.2					
OXYGEN.....	TRACE	0.0	TRACE					
ARGON.....	0.0	0.0	0.0					
HYDROGEN.....	0.0	0.0	0.1					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	0.2	0.2	0.2					
HELIUM.....	0.10	0.10	0.11					
HEATING VALUE.....	1170	1032	1143					
SPECIFIC GRAVITY.....	0.671	0.593	0.652					
INDEX 5140			INDEX 5141			INDEX 5142		
SAMPLE 7390			SAMPLE 7391			SAMPLE 7446		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAVE-LAVERNE GAS AREA		MOCAVE-LAVERNE GAS AREA			MOCAVE-LAVERNE GAS AREA		
WELL NAME.....	BORTH NO. 1-11		AMY PATTEN NO. 1-34			MARTIN-DIXON NO. 1		
LOCATION.....	SEC. 11, T5N, R28ECM		SEC. 34, T5N, R28ECM			SEC. 28, T5N, R27ECM		
OWNER.....	STEKOLL PANHANDLE LTD.		STEKOLL PANHANDLE, LTD.			KERR-MCGEE OIL IND., INC.		
COMPLETED.....	12/29/59		12/14/59			03/01/60		
SAMPLED.....	02/13/60		02/13/60			03/12/60		
FORMATION.....	PENN-MORROW		MISS-CHESTER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6267	6641	6702					
WELLHEAD PRESSURE, PSIG.....	1717	1777	1700					
OPEN FLOW, MCFD.....	11600	2400	30000					
COMPONENT, MOLE PCT								
METHANE.....	86.5	89.3	84.8					
ETHANE.....	5.9	3.9	6.7					
PROPANE.....	3.5	2.4	3.7					
N-BUTANE.....	1.0	0.7	1.2					
ISOBUTANE.....	0.6	0.5	0.7					
N-PENTANE.....	0.1	0.1	0.2					
ISOPENTANE.....	0.5	0.3	0.5					
CYCLOPENTANE.....	0.1	TRACE	0.1					
HEXANES PLUS.....	0.3	0.1	0.5					
NITROGEN.....	1.2	1.2	1.5					
OXYGEN.....	0.0	TRACE	0.0					
ARGON.....	0.0	TRACE	TRACE					
HYDROGEN.....	0.0	TRACE	0.0					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	0.2	0.2	0.2					
HELIUM.....	0.09	0.13	0.10					
HEATING VALUE.....	1171	1117	1186					
SPECIFIC GRAVITY.....	0.670	0.638	0.683					
INDEX 5143			INDEX 5144			INDEX 5145		
SAMPLE 7486			SAMPLE 7558			SAMPLE 7579		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAVE-LAVERNE GAS AREA		MOCAVE-LAVERNE GAS AREA			MOCAVE-LAVERNE GAS AREA		
WELL NAME.....	HAMILTON NO. 1		OSCAR B. KENNECK			WOLF NO. 1		
LOCATION.....	SEC. 18, T5N, R27ECM		SEC. 17, T3N, R24ECM			SEC. 20, T4N, R28ECM		
OWNER.....	CABOT CORP.		OKLAHOMA NATURAL GAS CO.			CABOT CARBON CO.		
COMPLETED.....	07/00		02/7/60			07/02/59		
SAMPLED.....	03/22/60		05/17/60			06/08/60		
FORMATION.....	PENN-MORROW		PENN-MORROW			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6636	7033	6853					
WELLHEAD PRESSURE, PSIG.....	1738	1650	1786					
OPEN FLOW, MCFD.....	12750	11150	20000					
COMPONENT, MOLE PCT								
METHANE.....	86.3	81.3	87.0					
ETHANE.....	6.0	5.2	6.7					
PROPANE.....	3.4	2.2	3.1					
N-BUTANE.....	1.0	1.5	0.9					
ISOBUTANE.....	0.6	0.3	0.3					
N-PENTANE.....	0.1	TRACE	0.1					
ISOPENTANE.....	0.3	1.6	0.4					
CYCLOPENTANE.....	TRACE	0.1	0.2					
HEXANES PLUS.....	0.2	0.1	0.2					
NITROGEN.....	1.6	1.8	0.5					
OXYGEN.....	TRACE	0.0	TRACE					
ARGON.....	TRACE	0.0	TRACE					
HYDROGEN.....	0.0	0.0	0.0					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	0.2	0.2	0.4					
HELIUM.....	0.10	0.10	0.10					
HEATING VALUE.....	1151	1240	1161					
SPECIFIC GRAVITY.....	0.662	0.719	0.660					
INDEX 5146			INDEX 5147			INDEX 5148		
SAMPLE 7580			SAMPLE 7625			SAMPLE 7633		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAVE-LAVERNE GAS AREA		MOCAVE-LAVERNE GAS AREA			MOCAVE-LAVERNE GAS AREA		
WELL NAME.....	H. CARLISLE NO. 10		NELSON NO. 1-27			MEIER NO. 1		
LOCATION.....	SEC. 22, T3N, R21ECM		SEC. 27, T1N, R24ECM			SEC. 19, T1N, R25ECM		
OWNER.....	UNITED PRODUCING CO., INC.		UNITED PETROLEUM			PHILLIPS PETROLEUM CO.		
COMPLETED.....	05/07/59		05/27/59			05/27/60		
SAMPLED.....	06/10/60		07/27/60			08/02/60		
FORMATION.....	PENN-MORROW & MISS-CHESTER		PENN-TONKAWA			PENN-TONKAWA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7174	6106	6039					
WELLHEAD PRESSURE, PSIG.....	1364	1625	1637					
OPEN FLOW, MCFD.....	580	2530	3804					
COMPONENT, MOLE PCT								
METHANE.....	85.8	83.6	88.3					
ETHANE.....	7.5	6.6	6.4					
PROPANE.....	3.8	3.0	2.4					
N-BUTANE.....	0.8	1.0	0.8					
ISOBUTANE.....	0.6	0.3	0.3					
N-PENTANE.....	TRACE	0.2	0.2					
ISOPENTANE.....	0.2	0.2	0.2					
CYCLOPENTANE.....	TRACE	0.1	0.1					
HEXANES PLUS.....	0.1	0.3	0.3					
NITROGEN.....	0.7	4.0	0.4					
OXYGEN.....	0.0	0.0	TRACE					
ARGON.....	0.0	0.0	TRACE					
HYDROGEN.....	0.0	0.0	0.3					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	0.3	0.2	0.2					
HELIUM.....	0.10	0.20	0.03					
HEATING VALUE.....	1163	1124	1146					
SPECIFIC GRAVITY.....	0.662	0.668	0.645					

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE		5149 7656	INDEX SAMPLE		5150 7686	INDEX SAMPLE		5151 7687
STATE.....	OKLAHOMA		STATE.....	OKLAHOMA		STATE.....	OKLAHOMA	
COUNTY.....	BEAVER		COUNTY.....	BEAVER		COUNTY.....	BEAVER	
FIELD.....	MOCAINE-LAVERNE GAS AREA		FIELD.....	MOCAINE-LAVERNE GAS AREA		FIELD.....	MOCAINE-LAVERNE GAS AREA	
WELL NAME.....	E. E. MILLER NO. 1		WELL NAME.....	THOMPSON UNIT NO. 1		WELL NAME.....	THOMPSON UNIT NO. 1	
LOCATION.....	SEC. 15, T4N, R24ECM		LOCATION.....	SEC. 36, T4N, R24ECM		LOCATION.....	SEC. 36, T4N, R24ECM	
OWNER.....	SULF OIL CO.- U.S.		OWNER.....	KERR-MCGEE OIL IND., INC.		OWNER.....	KERR-MCGEE CORP.	
COMPLETED.....	11/12/59		COMPLETED.....	--/--/00		COMPLETED.....	--/--/00	
SAMPLED.....	08/25/60		SAMPLED.....	10/04/60		SAMPLED.....	10/04/60	
FORMATION.....	PENN-MORROW & MISS-CHESTER		FORMATION.....	MISS-CHESTER		FORMATION.....	PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	6526		DEPTH, FEET.....	NOT GIVEN		DEPTH, FEET.....	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1765		WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	
OPEN FLOW, MCFD.....	1700		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	91.3		METHANE.....	89.9		METHANE.....	81.8	
ETHANE.....	4.6		ETHANE.....	4.7		ETHANE.....	8.1	
PROPANE.....	1.8		PROPANE.....	2.2		PROPANE.....	5.0	
N-BUTANE.....	0.6		N-BUTANE.....	0.7		N-BUTANE.....	1.4	
ISOBUTANE.....	0.3		ISOBUTANE.....	TRACE		ISOBUTANE.....	0.7	
N-PENTANE.....	0.1		N-PENTANE.....	TRACE		N-PENTANE.....	0.2	
ISOPENTANE.....	0.2		ISOPENTANE.....	0.6		ISOPENTANE.....	0.3	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.2	
NITROGEN.....	0.6		NITROGEN.....	0.9		NITROGEN.....	1.7	
OXYGEN.....	TRACE		OXYGEN.....	0.1		OXYGEN.....	TRACE	
ARGON.....	0.0		ARGON.....	TRACE		ARGON.....	TRACE	
HYDROGEN.....	0.0		HYDROGEN.....	TRACE		HYDROGEN.....	TRACE	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.5		CARBON DIOXIDE.....	0.4	
HELIUM.....	0.10		HELIUM.....	0.10		HELIUM.....	0.10	
HEATING VALUE.....	1102		HEATING VALUE.....	1115		HEATING VALUE.....	1210	
SPECIFIC GRAVITY.....	0.621		SPECIFIC GRAVITY.....	0.637		SPECIFIC GRAVITY.....	0.703	

INDEX SAMPLE		5152 7722	INDEX SAMPLE		5153 7823	INDEX SAMPLE		5154 7824
STATE.....	OKLAHOMA		STATE.....	OKLAHOMA		STATE.....	OKLAHOMA	
COUNTY.....	BEAVER		COUNTY.....	BEAVER		COUNTY.....	BEAVER	
FIELD.....	MOCAINE-LAVERNE GAS AREA		FIELD.....	MOCAINE-LAVERNE GAS AREA		FIELD.....	MOCAINE-LAVERNE GAS AREA	
WELL NAME.....	WILLIAM GRAY NO. 1		WELL NAME.....	MCCUNE NO. 1		WELL NAME.....	MCCUNE NO. 1	
LOCATION.....	SEC. 15, T2N, R24ECM		LOCATION.....	SEC. 23, T4N, R24ECM		LOCATION.....	SEC. 23, T4N, R24ECM	
OWNER.....	MAY EXPLORATION VENTURES		OWNER.....	KINGWOOD OIL CO.		OWNER.....	KINGWOOD OIL CO.	
COMPLETED.....	10/01/60		COMPLETED.....	12/16/60		COMPLETED.....	12/16/60	
SAMPLED.....	10/12/60		SAMPLED.....	01/03/61		SAMPLED.....	01/03/61	
FORMATION.....	PENN-MORROW		FORMATION.....	MISS-CHESTER		FORMATION.....	PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	7420		DEPTH, FEET.....	6910		DEPTH, FEET.....	6804	
WELLHEAD PRESSURE, PSIG.....	1587		WELLHEAD PRESSURE, PSIG.....	1797		WELLHEAD PRESSURE, PSIG.....	1739	
OPEN FLOW, MCFD.....	1500		OPEN FLOW, MCFD.....	20000		OPEN FLOW, MCFD.....	5800	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	80.8		METHANE.....	91.8		METHANE.....	90.9	
ETHANE.....	9.5		ETHANE.....	3.9		ETHANE.....	4.4	
PROPANE.....	5.1		PROPANE.....	1.9		PROPANE.....	1.9	
N-BUTANE.....	1.3		N-BUTANE.....	0.3		N-BUTANE.....	0.6	
ISOBUTANE.....	0.6		ISOBUTANE.....	0.3		ISOBUTANE.....	0.3	
N-PENTANE.....	0.2		N-PENTANE.....	TRACE		N-PENTANE.....	0.1	
ISOPENTANE.....	0.2		ISOPENTANE.....	0.1		ISOPENTANE.....	0.2	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	0.1		HEXANES PLUS.....	TRACE		HEXANES PLUS.....	0.1	
NITROGEN.....	1.6		NITROGEN.....	1.4		NITROGEN.....	0.8	
OXYGEN.....	0.0		OXYGEN.....	0.2		OXYGEN.....	0.0	
ARGON.....	0.0		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	0.0		HYDROGEN.....	TRACE		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.6		CARBON DIOXIDE.....	0.5		CARBON DIOXIDE.....	0.6	
HELIUM.....	0.10		HELIUM.....	0.10		HELIUM.....	0.10	
HEATING VALUE.....	1217		HEATING VALUE.....	1061		HEATING VALUE.....	1097	
SPECIFIC GRAVITY.....	0.704		SPECIFIC GRAVITY.....	0.610		SPECIFIC GRAVITY.....	0.626	

INDEX SAMPLE		5155 7973	INDEX SAMPLE		5156 8006	INDEX SAMPLE		5157 8008
STATE.....	OKLAHOMA		STATE.....	OKLAHOMA		STATE.....	OKLAHOMA	
COUNTY.....	BEAVER		COUNTY.....	BEAVER		COUNTY.....	BEAVER	
FIELD.....	MOCAINE-LAVERNE GAS AREA		FIELD.....	MOCAINE-LAVERNE GAS AREA		FIELD.....	MOCAINE-LAVERNE GAS AREA	
WELL NAME.....	R. FRY 1-3A		WELL NAME.....	FLOYD M. DYER NO. 1		WELL NAME.....	B. R. SHYLIE NO. 1-17	
LOCATION.....	SEC. 34, T1N, R24ECM		LOCATION.....	SEC. 29, T5N, R24ECM		LOCATION.....	SEC. 17, T4N, R24ECM	
OWNER.....	MAY PETROLEUM, INC.		OWNER.....	MAY EXPLORATION VENTURES		OWNER.....	MAY PETROLEUM, INC.	
COMPLETED.....	12/28/60		COMPLETED.....	01/15/61		COMPLETED.....	11/12/60	
SAMPLED.....	05/19/61		SAMPLED.....	05/--/61		SAMPLED.....	05/--/61	
FORMATION.....	PENN-TONKAWA		FORMATION.....	PENN-MORROW		FORMATION.....	PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	6076		DEPTH, FEET.....	6689		DEPTH, FEET.....	6404	
WELLHEAD PRESSURE, PSIG.....	1700		WELLHEAD PRESSURE, PSIG.....	1608		WELLHEAD PRESSURE, PSIG.....	1534	
OPEN FLOW, MCFD.....	2897		OPEN FLOW, MCFD.....	26353		OPEN FLOW, MCFD.....	4737	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	84.6		METHANE.....	85.0		METHANE.....	85.5	
ETHANE.....	6.8		ETHANE.....	6.7		ETHANE.....	6.1	
PROPANE.....	3.0		PROPANE.....	3.7		PROPANE.....	3.7	
N-BUTANE.....	0.8		N-BUTANE.....	1.1		N-BUTANE.....	1.1	
ISOBUTANE.....	0.6		ISOBUTANE.....	0.7		ISOBUTANE.....	0.8	
N-PENTANE.....	0.2		N-PENTANE.....	0.3		N-PENTANE.....	0.2	
ISOPENTANE.....	0.2		ISOPENTANE.....	0.3		ISOPENTANE.....	0.2	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.1	
NITROGEN.....	3.2		NITROGEN.....	1.5		NITROGEN.....	1.8	
OXYGEN.....	TRACE		OXYGEN.....	0.0		OXYGEN.....	0.0	
ARGON.....	0.0		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	0.1		HYDROGEN.....	TRACE		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.0		CARBON DIOXIDE.....	0.0		CARBON DIOXIDE.....	0.0	
HELIUM.....	0.20		HELIUM.....	0.10		HELIUM.....	0.20	
HEATING VALUE.....	1135		HEATING VALUE.....	1177		HEATING VALUE.....	1158	
SPECIFIC GRAVITY.....	0.669		SPECIFIC GRAVITY.....	0.677		SPECIFIC GRAVITY.....	0.670	

INDEX SAMPLE		5158 8009	INDEX SAMPLE		5159 8365	INDEX SAMPLE		5160 9006
STATE.....	OKLAHOMA		STATE.....	OKLAHOMA		STATE.....	OKLAHOMA	
COUNTY.....	BEAVER		COUNTY.....	BEAVER		COUNTY.....	BEAVER	
FIELD.....	MOCAINE-LAVERNE GAS AREA		FIELD.....	MOCAINE-LAVERNE GAS AREA		FIELD.....	MOCAINE-LAVERNE GAS AREA	
WELL NAME.....	A. R. TURNER NO. 1-1		WELL NAME.....	WM. FLANNIGAN		WELL NAME.....	JAMES E. COOK NO. 2	
LOCATION.....	SEC. 1, T2N, R23ECM		LOCATION.....	SEC. 27, T6N, R22ECM		LOCATION.....	SEC. 8, T1N, R25ECM	
OWNER.....	MAY EXPLORATION VENTURES		OWNER.....	MAY EXPLORATION VENTURES		OWNER.....	MAY EXPLORATION VENTURES	
COMPLETED.....	06/01/60		COMPLETED.....	09/24/61		COMPLETED.....	07/06/62	
SAMPLED.....	06/--/61		SAMPLED.....	02/--/62		SAMPLED.....	06/--/63	
FORMATION.....	PENN-MORROW		FORMATION.....	PENN-MORROW		FORMATION.....	PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	7182		DEPTH, FEET.....	6290		DEPTH, FEET.....	7834	
WELLHEAD PRESSURE, PSIG.....	1654		WELLHEAD PRESSURE, PSIG.....	1654		WELLHEAD PRESSURE, PSIG.....	575	
OPEN FLOW, MCFD.....	2100		OPEN FLOW, MCFD.....	6800		OPEN FLOW, MCFD.....	70	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	82.9		METHANE.....	90.7		METHANE.....	83.1	
ETHANE.....	4.5		ETHANE.....	4.2		ETHANE.....	4.2	
PROPANE.....	4.8		PROPANE.....	1.8		PROPANE.....	3.2	
N-BUTANE.....	1.3		N-BUTANE.....	0.5		N-BUTANE.....	0.7	
ISOBUTANE.....	0.6		ISOBUTANE.....	0.3		ISOBUTANE.....	0.2	
N-PENTANE.....	0.3		N-PENTANE.....	0.1		N-PENTANE.....	0.3	
ISOPENTANE.....	0.2		ISOPENTANE.....	0.3		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.5	
HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.1		HEXANES PLUS.....	1.0	
NITROGEN.....	1.6		NITROGEN.....	1.6		NITROGEN.....	1.0	
OXYGEN.....	TRACE		OXYGEN.....	0.1		OXYGEN.....	0.1	
ARGON.....	TRACE		ARGON.....	TRACE		ARGON.....	0.0	
HYDROGEN.....	0.0		HYDROGEN.....	TRACE		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.4		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.7	
HELIUM.....	0.20		HELIUM.....	0.09		HELIUM.....	0.10	
HEATING VALUE.....	1189		HEATING VALUE.....	1090		HEATING VALUE.....	1203	
SPECIFIC GRAVITY.....	0.690		SPECIFIC GRAVITY.....	0.625		SPECIFIC GRAVITY.....	0.697	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5161 SAMPLE 9026			INDEX 5162 SAMPLE 10172			INDEX 5163 SAMPLE 11389		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	JAMES E. COOK NO. 1		ANSHUTZ NO. 1-20			MORRIS NO. 1		
LOCATION.....	SEC. 6, T1N, R25ECM		SEC. 20, T6N, R26ECM			SEC. 1, T3N, R23E		
OWNER.....	MAY EXPLORATION VENTURES		CLEAR PETROLEUM, INC.			READING STATES OFFSHORE DRI		
COMPLETED.....	05/26/62		07/01/65			--/--/00		
SAMPLED.....	06/10/63		09/26/65			03/19/68		
FORMATION.....	PENN-MORROW		PENN-COUNCIL GROVE			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7852		3215			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	600		1000			1260		
OPEN FLOW, MCFD.....	70		4900			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.3		81.2			89.5		
ETHANE.....	8.0		5.3			8.4		
PROpane.....	3.5		2.3			2.5		
N-BUTANE.....	0.8		0.7			0.8		
ISOBUTANE.....	0.2		0.3			0.2		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	TRACE		0.2			0.3		
CYCLOPENTANE.....	0.4		0.1			0.1		
HEXANES PLUS.....	0.7		0.2			0.2		
NITROGEN.....	1.1		8.9			1.3		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.3			0.3		
HELIUM.....	0.10		0.32			0.12		
HEATING VALUE.....	1186		1042			1119		
SPECIFIC GRAVITY.....	0.675		0.672			0.640		
INDEX 5164 SAMPLE 11485			INDEX 5165 SAMPLE 11683			INDEX 5166 SAMPLE 12278		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	ROBERTSON NO. 1		BEN ALLEN UNIT NO. 1			GIRK NO. A-1		
LOCATION.....	SEC. 16, T2N, R28ECM		SEC. 33, T4N, R24ECM			SEC. 33, T6N, R24ECM		
OWNER.....	OKLAHOMA NATURAL GAS CO.		ATLANTIC RICHFIELD CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	09/14/60		--/--/00			02/18/58		
SAMPLED.....	05/10/68		11/15/68			06/05/70		
FORMATION.....	PENN-MORROW		PENN-COUNCIL GROVE			PENN-COUNCIL GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7646		3445			3212		
WELLHEAD PRESSURE, PSIG.....	1320		601			4359		
OPEN FLOW, MCFD.....	7704		1954			2044		
COMPONENT, MOLE PCT								
METHANE.....	81.5		87.0			77.1		
ETHANE.....	6.3		3.4			5.9		
PROpane.....	5.1		2.4			3.2		
N-BUTANE.....	1.3		0.8			0.9		
ISOBUTANE.....	0.9		0.3			0.4		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.4		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.4		0.3			0.3		
NITROGEN.....	1.1		2.1			11.0		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			0.3		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.1			0.0		
HELIUM.....	0.06		0.14			0.38		
HEATING VALUE.....	1231		1127			1051		
SPECIFIC GRAVITY.....	0.711		0.650			0.695		
INDEX 5167 SAMPLE 12291			INDEX 5168 SAMPLE 12398			INDEX 5169 SAMPLE 12399		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	SAGAN NO. 1		MOSSEY ADAMS NO. 1			H. ADAMS LITTAU		
LOCATION.....	SEC. 32, T6N, R24ECM		SEC. 9, T6N, R24ECM			SEC. 12, T6N, R23ECM		
OWNER.....	CALVERT EXPLORATION CO.		UNDERWOOD OIL CO.			UNDERWOOD OIL CO.		
COMPLETED.....	12/01/62		08/24/70			06/30/70		
SAMPLED.....	06/11/70		08/24/70			08/24/70		
FORMATION.....	PENN-COUNCIL GROVE		MISS-CHESTER			MISS-ST. GENEVIEVE&ST. LOUIS		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	3030		6780			16112		
WELLHEAD PRESSURE, PSIG.....	550		1250			1850		
OPEN FLOW, MCFD.....	2055		12200			2663		
COMPONENT, MOLE PCT								
METHANE.....	79.1		84.5			85.2		
ETHANE.....	5.9		4.8			4.4		
PROpane.....	2.9		1.9			1.9		
N-BUTANE.....	0.7		0.7			0.6		
ISOBUTANE.....	0.5		0.5			0.4		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.3			0.2		
NITROGEN.....	9.8		5.9			6.5		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.3			0.2		
HELIUM.....	0.36		0.11			0.21		
HEATING VALUE.....	1086		1087			1052		
SPECIFIC GRAVITY.....	0.685		0.664			0.651		
INDEX 5170 SAMPLE 12569			INDEX 5171 SAMPLE 12851			INDEX 5172 SAMPLE 12861		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	AMAREX NO. 1		HEINER NO. 1			MOSNER-LITTAU		
LOCATION.....	SEC. 34, T6N, R26ECM		SEC. 27, T6N, R27ECM			SEC. 33, T1N, R25ECM		
OWNER.....	AMAREX, INC.		TEXAS OIL & GAS CORP.			EXXON CO., U.S.A.		
COMPLETED.....	09/1/70		01/19/70			--/--/00		
SAMPLED.....	--/--/70		06/15/71			06/22/71		
FORMATION.....	PENN-COUNCIL GROVE		PENN-MORROW			PENN-TONKAWA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	3104		6180			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	240		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	1698		2200			200		
COMPONENT, MOLE PCT						NOT GIVEN		
METHANE.....	85.3		87.6			77.5		
ETHANE.....	5.4		5.4			6.2		
PROpane.....	3.0		3.0			0.0		
N-BUTANE.....	0.7		0.8			7.1		
ISOBUTANE.....	0.2		0.6			0.0		
N-PENTANE.....	0.3		0.1			0.0		
ISOPENTANE.....	0.2		0.2			0.5		
CYCLOPENTANE.....	0.1		TRACE			0.7		
HEXANES PLUS.....	0.2		1.8			1.1		
NITROGEN.....	4.9		0.0			0.0		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			1.3		
HELIUM.....	0.26		0.10			0.05		
HEATING VALUE.....	1086		1086			1420		
SPECIFIC GRAVITY.....	0.653		0.651			0.845		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5173 12863	INDEX SAMPLE	5174 12865	INDEX SAMPLE	5175 12866
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	BEAVER			BEAVER		BEAVER	
FIELD	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME	MERRY NO. 1			BARRY NO. 1-A		BARRY NO. 1	
LOCATION	SEC. 32, T1N, R25ECM			SEC. 28, T4N, R26ECM		SEC. 21, T4N, R26ECM	
OWNER	HUMBLE OIL & REFINING CO.			TEXAS OIL & GAS CORP.		TEXAS OIL & GAS CORP.	
COMPLETED	--/--/00			--/--/00		--/--/00	
SAMPLED	06/22/71			06/23/71		06/23/71	
FORMATION	PENN-TONKAWA			MISS-CHESTER		PENN-MORROW & MISS-CHESTER	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	84.3			90.6		86.5	
ETHANE	6.7			4.5		5.3	
PROpane	3.6			2.0		3.8	
N-BUTANE	1.1			0.5		1.0	
ISOBUTANE	0.8			0.4		0.6	
N-PENTANE	0.5			0.2		0.3	
ISOPENTANE	0.5			0.1		0.1	
CYCLOPENTANE	0.3			TRACE		TRACE	
HEXANES PLUS	0.6			0.2		0.1	
NITROGEN	1.3			1.1		1.9	
OXYGEN	0.0			0.0		0.0	
ARGON	0.0			TRACE		0.0	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.4			0.4		0.2	
HELIUM	0.04			0.08		0.13	
HEATING VALUE	1220			1104		1142	
SPECIFIC GRAVITY	0.704			0.630		0.662	
		INDEX SAMPLE	5176 12874	INDEX SAMPLE	5177 12877	INDEX SAMPLE	5178 12878
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	BEAVER			BEAVER		BEAVER	
FIELD	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME	MILLER NO. 1			ALLEN-STATE NO. 1-27		SIZEMORE NO. 3	
LOCATION	SEC. 1, T3N, R23ECM			SEC. 27, T4N, R27ECM		SEC. 35, T4N, R27ECM	
OWNER	HARPER OIL CO.			SHELL OIL CO.		CABOT CORP.	
COMPLETED	12/--/58			06/05/61		--/--/00	
SAMPLED	06/24/71			06/24/71		06/24/71	
FORMATION	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	7800			6921		600	
WELLHEAD PRESSURE, PSIG	900			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN			4800		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	94.4			83.9		85.2	
ETHANE	2.6			6.1		5.3	
PROpane	1.0			5.1		2.6	
N-BUTANE	0.2			1.3		0.7	
ISOBUTANE	0.2			0.4		0.4	
N-PENTANE	TRACE			0.3		0.3	
ISOPENTANE	0.1			0.3		0.0	
CYCLOPENTANE	TRACE			TRACE		TRACE	
HEXANES PLUS	0.1			0.1		0.1	
NITROGEN	0.7			2.0		5.1	
OXYGEN	0.0			0.0		0.0	
ARGON	0.0			0.0		TRACE	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.5			0.5		TRACE	
HELIUM	0.06			0.15		0.23	
HEATING VALUE	1052			1193		1081	
SPECIFIC GRAVITY	0.594			0.690		0.651	
		INDEX SAMPLE	5179 12879	INDEX SAMPLE	5180 12899	INDEX SAMPLE	5181 12901
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	BEAVER			BEAVER		BEAVER	
FIELD	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME	ALLEN NO. 5			ALBERT NO. 1		BLAKEMORE NO. J-1	
LOCATION	SEC. 23, T4N, R27ECM			SEC. 18, T6N, R27ECM		SEC. 3, T4N, R22ECM	
OWNER	CABOT CORP.			GULF OIL CO.- U.S.		BURK ROYALTY CO.	
COMPLETED	--/--/00			07/05/59		--/--/00	
SAMPLED	06/24/71			07/20/71		07/20/71	
FORMATION	MISS-CHESTER			MISS-CHESTER		PENN-MORROW	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			6402		NOT GIVEN	
WELLHEAD PRESSURE, PSIG	980			1100		400	
OPEN FLOW, MCFD	NOT GIVEN			3210		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	86.8			91.0		83.7	
ETHANE	5.2			4.3		6.8	
PROpane	3.2			2.0		5.0	
N-BUTANE	0.8			0.5		1.0	
ISOBUTANE	0.5			0.4		0.4	
N-PENTANE	0.3			0.4		0.4	
ISOPENTANE	0.3			0.1		0.0	
CYCLOPENTANE	0.1			0.1		TRACE	
HEXANES PLUS	0.2			0.2		0.1	
NITROGEN	1.7			0.0		2.4	
OXYGEN	0.0			0.0		0.0	
ARGON	0.0			0.0		0.0	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.2			0.1		0.0	
HELIUM	TRACE			0.09		0.13	
HEATING VALUE	1154			1104		1169	
SPECIFIC GRAVITY	0.663			0.625		0.678	
		INDEX SAMPLE	5182 12902	INDEX SAMPLE	5183 12973	INDEX SAMPLE	5184 14564
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	BEAVER			BEAVER		BEAVER	
FIELD	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME	BLAKEMORE NO. J-1			LARKIN NO. 3		LARKIN NO. 3	
LOCATION	SEC. 3, T4N, R22ECM			SEC. 35, T1N, R24ECM		SEC. 35, T6N, R24ECM	
OWNER	BURK ROYALTY CO.			SAMEAN OIL CORP.		CITIES SERVICE OIL CO.	
COMPLETED	--/--/00			--/--/00		07/08/75	
SAMPLED	07/20/71			08/23/71		01/21/76	
FORMATION	MISS-CHESTER			PENN-TONKAWA		PERM-COUNCIL GROVE	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		3247	
WELLHEAD PRESSURE, PSIG	400			NOT GIVEN		824	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		2547	
COMPONENT, MOLE PCT							
METHANE	84.4			80.6		78.5	
ETHANE	6.5			9.0		6.0	
PROpane	4.7			5.0		2.7	
N-BUTANE	1.0			0.4		0.7	
ISOBUTANE	0.2			0.6		0.4	
N-PENTANE	0.3			0.5		0.2	
ISOPENTANE	0.3			0.1		0.1	
CYCLOPENTANE	TRACE			0.1		TRACE	
HEXANES PLUS	0.1			0.3		0.1	
NITROGEN	0.3			2.0		10.2	
OXYGEN	0.0			0.0		0.4	
ARGON	0.0			0.0		TRACE	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.0		TRACE	
HELIUM	0.13			0.09		0.41	
HEATING VALUE	1169			1177		1028	
SPECIFIC GRAVITY	0.676			0.716		0.677	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5185 SAMPLE 14716			INDEX 5186 SAMPLE 14722			INDEX 5187 SAMPLE 14940		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	GIRK NO. B-3		GREGG NO. 1			ROCK NO. 1		
LOCATION.....	SEC. 35, T6N, R24ECM		SEC. 26, T4N, R22ECM			SEC. 36, T 4N, R22ECM		
OWNER.....	CITIES SERVICE OIL CO.		ARGONAUT ENERGY CORP.			ARGONAUT ENERGY CORP.		
COMPLETED.....	07/07/75		01/23/77			09/01/76		
SAMPLED.....	06/30/76		07/27/76			03/17/77		
FORMATION.....	MISS-CHESTER		MISS-CHESTER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6240		6884			6900		
WELLHEAD PRESSURE, PSIG.....	733		1710			818		
OPEN FLOW, MCFD.....	450		4546			2132		
COMPONENT, MOLE PCT								
METHANE.....	88.9	-----	93.3	-----		92.7	-----	
ETHANE.....	5.2	-----	3.1	-----		3.4	-----	
PROPANE.....	2.6	-----	1.2	-----		1.4	-----	
N-BUTANE.....	0.8	-----	0.4	-----		0.5	-----	
ISOBUTANE.....	0.3	-----	0.1	-----		0.2	-----	
N-PENTANE.....	0.2	-----	0.1	-----		0.2	-----	
ISOPENTANE.....	0.3	-----	0.2	-----		0.3	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.2	-----	
NITROGEN.....	0.3	-----	0.8	-----		0.7	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.0	-----		0.4	-----	
HELIUM.....	0.09	-----	0.08	-----		0.08	-----	
HEATING VALUE.....	1134	-----	1070	-----		1093	-----	
SPECIFIC GRAVITY.....	0.646	-----	0.605	-----		0.619	-----	
INDEX 5188 SAMPLE 14941			INDEX 5189 SAMPLE 15101			INDEX 5190 SAMPLE 15640		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	DRUM, 1-21		HENNINGH-LOTSPEICH NO. 1			HUNT LIGHT NO. 2		
LOCATION.....	SEC. 21, T 3N, R23ECM		SEC. 15, T6N, R28ECM			SEC. 9, T6N, R21ECM		
OWNER.....	NATURAL GAS ANADARKO, INC.		AMERICAN PETROFINA CO.			J. M. HUBER CORP.		
COMPLETED.....	08/05/76		06/11/77			02/21/79		
SAMPLED.....	03/17/77		09/13/77			06/11/79		
FORMATION.....	MISS-CHESTER		MISS-CHESTER			PENN-MORROW & MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7265		5818			6103		
WELLHEAD PRESSURE, PSIG.....	1046		1779			1420		
OPEN FLOW, MCFD.....	2294		4592			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	89.8	-----	90.4	-----		91.2	-----	
ETHANE.....	4.4	-----	4.8	-----		3.9	-----	
PROPANE.....	2.3	-----	2.2	-----		1.6	-----	
N-BUTANE.....	0.8	-----	0.6	-----		0.6	-----	
ISOBUTANE.....	0.2	-----	0.3	-----		0.2	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.3	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.1	-----	
NITROGEN.....	0.2	-----	0.9	-----		1.2	-----	
OXYGEN.....	0.0	-----	0.0	-----		TRACE	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.4	-----	0.3	-----		0.3	-----	
HELIUM.....	0.12	-----	0.08	-----		0.09	-----	
HEATING VALUE.....	1117	-----	1015	-----		1050	-----	
SPECIFIC GRAVITY.....	0.639	-----	0.633	-----		0.620	-----	
INDEX 5191 SAMPLE 16128			INDEX 5192 SAMPLE 16330			INDEX 5193 SAMPLE 16476		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			MOCAINE-LAVERNE GAS AREA		
WELL NAME.....	L. M. BALDWIN UNIT NO. 1		TRELBAR "A" NO. 1			VENABLE NO. 1-28		
LOCATION.....	SEC. 34, T2N, R28ECM		SEC. 11, T5N, R21ECM			SEC. 28, T3N, R23ECM		
OWNER.....	UNITED PETROLEUM EXPL. INC.		ANADARKO PRODUCTION CO.			NATURAL GAS ANADARKO, INC.		
COMPLETED.....	7/7/80		11/19/80			10/08/80		
SAMPLED.....	10/31/80		09/02/81			04/01/82		
FORMATION.....	PENN-MORROW		MISS-CHESTER			MISS-ST. GENEVIEVE&ST. LOUIS		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		6489			7920		
WELLHEAD PRESSURE, PSIG.....	900		900			2436		
OPEN FLOW, MCFD.....	NOT GIVEN		2800			6971		
COMPONENT, MOLE PCT								
METHANE.....	62.6	-----	90.6	-----		93.2	-----	
ETHANE.....	5.3	-----	4.2	-----		2.1	-----	
PROPANE.....	2.8	-----	2.0	-----		0.7	-----	
N-BUTANE.....	0.6	-----	0.3	-----		0.3	-----	
ISOBUTANE.....	0.4	-----	0.3	-----		0.2	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.1	-----	
ISOPENTANE.....	0.3	-----	0.2	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.2	-----	
NITROGEN.....	21.2	-----	1.3	-----		2.6	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.1	-----	
ARGON.....	0.2	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.5	-----	0.0	-----		TRACE	-----	
HELIUM.....	0.05	-----	0.09	-----		0.17	-----	
HEATING VALUE.....	872	-----	1101	-----		1039	-----	
SPECIFIC GRAVITY.....	0.766	-----	0.629	-----		0.600	-----	
INDEX 5194 SAMPLE 16699			INDEX 5195 SAMPLE 16700			INDEX 5196 SAMPLE 12873		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BEAVER		BEAVER			BEAVER		
FIELD.....	MOCAINE-LAVERNE GAS AREA		MOCAINE-LAVERNE GAS AREA			SIX MILE S		
WELL NAME.....	WALLACE "B" NO. 1		PLETT "B" NO. 1			OVERTON NO. 4 LT		
LOCATION.....	SEC. 22, T6N, R21ECM		SEC. 22, T6N, R21ECM			SEC. 23, T3N, R23ECM		
OWNER.....	J. M. HUBER CORP.		ANADARKO PRODUCTION CO.			HUNT PETROLEUM CORP.		
COMPLETED.....	10/28/81		04/09/81			02/21/61		
SAMPLED.....	11/01/82		11/01/82			06/21/71		
FORMATION.....	PENN-KANSAS CITY		MISS-CHESTER			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4600		6502			7501		
WELLHEAD PRESSURE, PSIG.....	1275		508			290		
OPEN FLOW, MCFD.....	19100		221			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	77.7	-----	88.9	-----		82.6	-----	
ETHANE.....	6.7	-----	4.2	-----		5.8	-----	
PROPANE.....	3.2	-----	2.0	-----		4.6	-----	
N-BUTANE.....	1.0	-----	0.6	-----		1.5	-----	
ISOBUTANE.....	0.4	-----	0.3	-----		0.8	-----	
N-PENTANE.....	0.3	-----	0.2	-----		0.4	-----	
ISOPENTANE.....	0.4	-----	0.5	-----		1.0	-----	
CYCLOPENTANE.....	1.1	-----	0.4	-----		0.6	-----	
HEXANES PLUS.....	0.3	-----	0.2	-----		0.7	-----	
NITROGEN.....	9.5	-----	2.5	-----		2.0	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.1	-----	0.1	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	TRACE	-----	0.4	-----		0.0	-----	
HELIUM.....	0.30	-----	0.11	-----		0.16	-----	
HEATING VALUE.....	1087	-----	1098	-----		1252	-----	
SPECIFIC GRAVITY.....	0.701	-----	0.642	-----		0.726	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5197 13053	INDEX SAMPLE	5198 17255	INDEX SAMPLE	5199 17406
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	SIX MILE S			SIX MILE S		TURPIN SE	
WELL NAME.....	U.S.A. NO. 1			OVERTON NO. 2		ERNESTINE NO. 1	
LOCATION.....	SEC. 23, T3N, R23ECM			SEC. 14, T3N, R23ECM		SEC. 22, T4N, R21ECM	
OWNER.....	HUNT PETROLEUM CORP.			ESSEX EXPLORATION, INC.		FUNK EXPLORATION CO.	
COMPLETED.....	04/15/69			11/14/83		09/20/83	
SAMPLED.....	10/05/71			04/18/84		09/06/84	
FORMATION.....	PENN-MARMATON			PENN-MORROW		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6114			6874		6563	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			950		1391	
OPEN FLOW, MCFD.....	NOT GIVEN			2831		9500	
COMPONENT, MOLE PCT							
METHANE.....	74.7			81.0		87.6	
ETHANE.....	8.7			8.1		4.9	
PROPANE.....	7.6			5.4		2.6	
N-BUTANE.....	2.2			1.4		0.8	
ISOBUTANE.....	1.0			0.5		0.4	
N-PENTANE.....	0.5			0.3		0.1	
ISOPENTANE.....	0.4			0.3		0.5	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.4			0.2		0.3	
NITROGEN.....	4.2			2.2		2.2	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.4		0.3	
HELIUM.....	0.09			0.16		0.13	
HEATING VALUE.....	1284			1209		1128	
SPECIFIC GRAVITY.....	0.770			0.708		0.655	
		INDEX SAMPLE	5200 17515	INDEX SAMPLE	5201 16979	INDEX SAMPLE	5202 1922
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BECKHAM	
FIELD.....	TURPIN SE			UNION STAR W		BERLIN	
WELL NAME.....	OKIE NO. 1			KIMBALL NO. 1-22		COREHOLE F189	
LOCATION.....	SEC. 12, T4N, R21ECM			SEC. 22, T3N, R22ECM		SEC. 3, T10N, R23W	
OWNER.....	FUNK EXPLORATION CO.			NATURAL GAS ANADARKO, INC.		SHELL OIL CO.	
COMPLETED.....	08/02/84			10/21/82		--/--/00	
SAMPLED.....	11/01/84			06/24/83		01/18/30	
FORMATION.....	MISS-CHESTER			MISS-CHESTER		PERM-937 FT	
GEOLOGIC PROVINCE CODE.....	360			360		560	
DEPTH, FEET.....	7300			7292		937	
WELLHEAD PRESSURE, PSIG.....	777			718		NOT GIVEN	
OPEN FLOW, MCFD.....	8008			5573		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	92.6			88.0		0.0	
ETHANE.....	3.2			4.5		0.0	
PROPANE.....	4.5			0.5		---	
N-BUTANE.....	0.4			0.9		---	
ISOBUTANE.....	0.1			0.3		---	
N-PENTANE.....	0.1			0.2		---	
ISOPENTANE.....	0.2			0.6		---	
CYCLOPENTANE.....	0.1			0.1		---	
HEXANES PLUS.....	0.2			0.2		---	
NITROGEN.....	1.1			1.5		99.5	
OXYGEN.....	TRACE			0.2		0.1	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	TRACE			0.3		---	
HYDROGEN SULFIDE**.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.6			0.0		0.4	
HELIUM.....	0.08			0.11		0.14	
HEATING VALUE.....	1073			1127		0	
SPECIFIC GRAVITY.....	0.613			0.655		0.970	
		INDEX SAMPLE	5203 16235	INDEX SAMPLE	5204 16261	INDEX SAMPLE	5205 16761
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BECKHAM			BECKHAM		BECKHAM	
FIELD.....	BERLIN NE			BERLIN NE		BERLIN SE	
WELL NAME.....	C. C. CATIE CO. NO. 1			MERICK NO. 1		THE HALL NO. 1-1	
LOCATION.....	SEC. 34, T12N, R22W			SEC. 28, T12N, R22W		SEC. 1, T10N, R23W	
OWNER.....	GHK GAS CORP.			GHK GAS CORP.		PIONEER PRODUCTION CORP.	
COMPLETED.....	01/06/81			01/06/81		08/25/82	
SAMPLED.....	04/16/81			05/21/81		01/31/83	
FORMATION.....	PENN-ATOKA			PENN-ATOKA		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	15196			15152		11875	
WELLHEAD PRESSURE, PSIG.....	10600			9800		3560	
OPEN FLOW, MCFD.....	12000			14200		5500	
COMPONENT, MOLE PCT							
METHANE.....	95.1			95.5		81.9	
ETHANE.....	2.1			1.8		8.3	
PROPANE.....	0.4			0.3		3.7	
N-BUTANE.....	0.1			0.1		3.2	
ISOBUTANE.....	0.1			0.1		0.9	
N-PENTANE.....	0.1			TRACE		0.3	
ISOPENTANE.....	0.1			0.1		0.8	
CYCLOPENTANE.....	TRACE			0.1		0.3	
HEXANES PLUS.....	0.2			0.2		0.9	
NITROGEN.....	0.4			0.4		0.8	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.2	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.4			1.3		0.6	
HELIUM.....	0.02			0.02		0.04	
HEATING VALUE.....	1017			1032		1250	
SPECIFIC GRAVITY.....	0.596			0.592		0.722	
		INDEX SAMPLE	5206 15584	INDEX SAMPLE	5207 15592	INDEX SAMPLE	5208 5167
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BECKHAM			BECKHAM		BECKHAM	
FIELD.....	CARPENTER			CARPENTER		CARPENTER SW	
WELL NAME.....	WATKINS NO. 1			WATKINS NO. 2-21		F. L. CLARK UNIT	
LOCATION.....	SEC. 21, T12N, R21W			SEC. 21, T12N, R21W		SEC. 32, T12N, R21W	
OWNER.....	GHK GAS CORP.			GHK GAS CORP.		UNITED CARBON CO., INC.	
COMPLETED.....	05/17/78			09/22/78		10/--/51	
SAMPLED.....	03/21/79			03/21/79		02/26/52	
FORMATION.....	PENN-MORROW			PENN-RED FORK		PENN-DEESE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	16997			13989		14660	
WELLHEAD PRESSURE, PSIG.....	11200			7790		4500	
OPEN FLOW, MCFD.....	32600			15000		200	
COMPONENT, MOLE PCT							
METHANE.....	97.2			92.5		90.2	
ETHANE.....	0.6			4.4		5.6	
PROPANE.....	0.1			0.8		1.6	
N-BUTANE.....	0.0			0.2		0.4	
ISOBUTANE.....	0.0			0.1		TRACE	
N-PENTANE.....	0.0			TRACE		0.3	
ISOPENTANE.....	0.0			0.1		0.1	
CYCLOPENTANE.....	0.0			TRACE		TRACE	
HEXANES PLUS.....	0.0			0.1		0.2	
NITROGEN.....	0.3			0.4		0.6	
OXYGEN.....	0.0			TRACE		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			TRACE		---	
HYDROGEN SULFIDE**.....	0.0			0.0		---	
CARBON DIOXIDE.....	1.8			1.3		1.0	
HELIUM.....	0.02			0.02		0.03	
HEATING VALUE.....	998			1056		1096	
SPECIFIC GRAVITY.....	0.577			0.607		0.630	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5209 SAMPLE 15971			INDEX 5210 SAMPLE 15301			INDEX 5211 SAMPLE 15789		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BECKHAM		BECKHAM			BECKHAM		
FIELD.....	CARPENTER SW		CARPENTER W			CARPENTER W		
WELL NAME.....	FARRAR NO. 1-22		THURMOND NO. 1			POTTER STATE NO. 1-20		
LOCATION.....	SEC. 22, T12N, R21W		SEC. 21, T12N, R22W			SEC. 20, T12N, R22W		
OWNER.....	GKM GAS CORP.		NATOMAS NORTH AMERICA, INC.			APACHE CORP.		
COMPLETED.....	09/20/70		12/08/77			--/--/00		
SAMPLED.....	05/31/80		06/07/78			09/25/79		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	14002		16060			14590		
WELLHEAD PRESSURE, PSIG.....	12500		11337			4400		
OPEN FLOW, MCFD.....	4439		13382			4100		
COMPONENT, MOLE PCT								
METHANE.....	97.3		97.0			95.4		
ETHANE.....	0.6		0.4			1.8		
PROPANE.....	0.1		0.1			0.3		
N-BUTANE.....	0.0		0.0			0.1		
ISOBUTANE.....	0.0		0.0			0.1		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			0.1		
NITROGEN.....	0.3		0.5			0.7		
OXYGEN.....	0.0		0.2			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.6		1.8			1.3		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	999		993			1023		
SPECIFIC GRAVITY.....	0.575		0.577			0.590		
INDEX 5212 SAMPLE 16143			INDEX 5213 SAMPLE 16162			INDEX 5214 SAMPLE 6396		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BECKHAM		BECKHAM			BECKHAM		
FIELD.....	CARPENTER W		CARTER E			CARTER N		
WELL NAME.....	THURMOND NO. 1		KENNEBER NO. 1-6			C. BOYD NO. 1		
LOCATION.....	SEC. 27, T12N, R22W		SEC. 6, T8N, R21W			SEC. 15, T9N, R22W		
OWNER.....	GKM GAS CORP.		UNION TEXAS PETROLEUM CORP.			SHELL OIL CO.		
COMPLETED.....	08/21/80		08/12/80			08/19/57		
SAMPLED.....	12/07/80		01/06/81			08/26/57		
FORMATION.....	PENN-ATOKA		MISS-			PENN-SPRINGER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	14806		12394			10212		
WELLHEAD PRESSURE, PSIG.....	3490		3700			4148		
OPEN FLOW, MCFD.....	12277					21000		
COMPONENT, MOLE PCT								
METHANE.....	95.2		88.6			93.6		
ETHANE.....	1.1		1.5			2.2		
PROPANE.....	0.4		1.7			1.0		
N-BUTANE.....	0.1		0.6			0.3		
ISOBUTANE.....	0.1		0.2			0.3		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	TRACE		0.1			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.4		
HEXANES PLUS.....	0.2		0.2			0.7		
NITROGEN.....	0.3		1.4			0.6		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.4		
HELIUM.....	0.02		0.04			0.03		
HEATING VALUE.....	1034		1094			1102		
SPECIFIC GRAVITY.....	0.591		0.641			0.622		
INDEX 5215 SAMPLE 11308			INDEX 5216 SAMPLE 11309			INDEX 5217 SAMPLE 11310		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BECKHAM		BECKHAM			BECKHAM		
FIELD.....	C. BOYD NO. 1-15		CARTER N			CARTER N		
WELL NAME.....	SEC. 5, T9N, R22W		M. PATTON NO. 1-9			COOPER NO. 1-9		
LOCATION.....	SEC. 5, T9N, R22W		SEC. 9, T9N, R22W			SEC. 9, T9N, R22W		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	08/19/57		09/09/58			08/18/59		
SAMPLED.....	02/26/68		02/26/68			02/26/68		
FORMATION.....	PENN-SPRINGER		PENN-DES MOINES			PENN-DES MOINES		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		10841			9093		
WELLHEAD PRESSURE, PSIG.....	1264		1504			1563		
OPEN FLOW, MCFD.....	1552		276			12142		
COMPONENT, MOLE PCT								
METHANE.....	94.7		87.5			84.3		
ETHANE.....	2.1		5.2			8.1		
PROPANE.....	0.6		0.9			5.4		
N-BUTANE.....	0.4		0.9			1.1		
ISOBUTANE.....	0.1		0.4			0.6		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	TRACE		0.3			0.5		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.3			0.3		
NITROGEN.....	0.6		1.1			1.1		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.4			0.4		
HELIUM.....	0.04		0.05			0.05		
HEATING VALUE.....	1065		1154			1185		
SPECIFIC GRAVITY.....	0.601		0.659			0.681		
INDEX 5218 SAMPLE 4650			INDEX 5219 SAMPLE 4677			INDEX 5220 SAMPLE 4678		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BECKHAM		BECKHAM			BECKHAM		
FIELD.....	ELK CITY		ELK CITY			ELK CITY		
WELL NAME.....	MUSIC NO. 1		ELK KELLY NO. 1			LONG NO. 1		
LOCATION.....	SEC. 25, T10N, R21W		SEC. 23, T10N, R21W			SEC. 15, T10N, R21W		
OWNER.....	UNION PRODUCING CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	12/02/48		03/19/49			02/--/49		
SAMPLED.....	12/02/48		03/29/49			03/29/49		
FORMATION.....	PENN-CONGLOMERATE		PENN-CONGLOMERATE			PENN-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9600		10130			9040		
WELLHEAD PRESSURE, PSIG.....	3123		4328			3853		
OPEN FLOW, MCFD.....	8000		4000			6500		
COMPONENT, MOLE PCT								
METHANE.....	77.8		81.0			61.2		
ETHANE.....	21.4		8.6			16.2		
PROPANE.....	---		0.7			13.9		
N-BUTANE.....	---		1.0			3.9		
ISOBUTANE.....	---		0.4			2.0		
N-PENTANE.....	---		0.1			0.6		
ISOPENTANE.....	---		0.3			0.9		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.0			0.4		
NITROGEN.....	0.2		0.2			0.3		
OXYGEN.....	0.3		0.2			0.1		
ARGON.....	---		TRACE			0.0		
HYDROGEN.....	---		0.1			0.1		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.4			0.4		
HELIUM.....	0.04		0.04			TRACE		
HEATING VALUE.....	1172		1164			1553		
SPECIFIC GRAVITY.....	0.666		0.691			0.907		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5221 SAMPLE 4679			INDEX 5222 SAMPLE 4769			INDEX 5223 SAMPLE 14929		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BECKHAM		BECKHAM			BECKHAM		
FIELD.....	ELK CITY		ELK CITY			ELK CITY		
WELL NAME.....	J. G. WALTERS NO. 1		E. B. YELTON			HARRISON ESTATE NO. 1		
LOCATION.....	SEC. 14, T10N, R21W		SEC. 15, T10N, R21W			SEC. 14, T10N, R21W		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			EL PASO NATURAL GAS CO.		
COMPLETED.....	04/14/47		06/14/49			04/18/76		
SAMPLED.....	03/29/49		10/14/49			03/03/77		
FORMATION.....	PENN-CONGLOMERATE		PENN-CONGLOMERATE			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9260		9055			15816		
WELLHEAD PRESSURE, PSIG.....	3900		1850			11328		
OPEN FLOW, MCFD.....	NOT GIVEN		2204			4575		
COMPONENT, MOLE PCT								
METHANE.....	84.6	-----	83.9	-----		95.3	-----	
ETHANE.....	6.3	-----	6.7	-----		2.9	-----	
PROPANE.....	0.1	-----	0.3	-----		0.5	-----	
N-BUTANE.....	1.4	-----	1.4	-----		0.1	-----	
ISOBUTANE.....	0.8	-----	0.6	-----		TRACE	-----	
N-PENTANE.....	0.2	-----	0.4	-----		TRACE	-----	
ISOPENTANE.....	0.7	-----	0.1	-----		0.1	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.0	-----	0.3	-----		TRACE	-----	
NITROGEN.....	1.6	-----	2.0	-----		0.2	-----	
OXYGEN.....	0.1	-----	0.1	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.3	-----	0.3	-----		0.9	-----	
HELIUM.....	0.04	-----	0.05	-----		0.02	-----	
HEATING VALUE.....	1186	-----	1185	-----		1038	-----	
SPECIFIC GRAVITY.....	0.687	-----	0.690	-----		0.587	-----	
INDEX 5224 SAMPLE 16265			INDEX 5225 SAMPLE 17899			INDEX 5226 SAMPLE 11799		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BECKHAM		BECKHAM			BECKHAM		
FIELD.....	ELK CITY		ELK CITY			ELK CITY E		
WELL NAME.....	MIKLES NO. 1		DAVIS NO. 2-29			GREEN NO. 1-1		
LOCATION.....	SEC. 10, T10N, R22W		SEC. 29, T11N, R22W			SEC. 1, T10N, R21W		
OWNER.....	APACHE CORP.		APACHE CORP.			GLOVER HEFNER KENNEDY OIL CO		
COMPLETED.....	7/1/80		03/11/85			03/28/69		
SAMPLED.....	05/23/81		11/08/85			03/25/69		
FORMATION.....	PENN-CHEROKEE & PERM-GRAN WS		PENN-GRANITE WASH			PENN-SPRINGER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	11790		12537			21604		
WELLHEAD PRESSURE, PSIG.....	3800		2221			15130		
OPEN FLOW, MCFD.....	4825		17465			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	87.1	-----	75.4	-----		94.8	-----	
ETHANE.....	6.7	-----	11.9	-----		0.2	-----	
PROPANE.....	3.1	-----	6.3	-----		TRACE	-----	
N-BUTANE.....	0.8	-----	0.0	-----		0.0	-----	
ISOBUTANE.....	0.4	-----	0.5	-----		0.0	-----	
N-PENTANE.....	0.2	-----	0.7	-----		0.0	-----	
ISOPENTANE.....	0.2	-----	0.4	-----		0.0	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.0	-----	
HEXANES PLUS.....	0.2	-----	0.4	-----		0.0	-----	
NITROGEN.....	0.9	-----	1.3	-----		0.3	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		0.0	-----	
ARGON.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.3	-----	0.9	-----		4.6	-----	
HELIUM.....	0.04	-----	0.05	-----		0.02	-----	
HEATING VALUE.....	1154	-----	1296	-----		964	-----	
SPECIFIC GRAVITY.....	0.658	-----	0.761	-----		0.601	-----	
INDEX 5227 SAMPLE 3263			INDEX 5228 SAMPLE 3264			INDEX 5229 SAMPLE 10326		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BECKHAM		BECKHAM			BECKHAM		
FIELD.....	ERICK		ERICK			ERICK		
WELL NAME.....	DAVIDSON NO. 1		BALDWIN			DURAN NO. 1		
LOCATION.....	SEC. 2, T9N, R25W		SEC. 10, T9N, R25W			SEC. 15, T9N, R25W		
OWNER.....	WESTOAK GASOLINE CO.		WESTOAK GASOLINE CO.			T. K. HENDRICK		
COMPLETED.....	08/21/36		05/03/36			05/02/65		
SAMPLED.....	04/15/42		04/15/42			12/15/65		
FORMATION.....	PERM-DOLOMITE		PERM-DOLOMITE			PERM-BRITTON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	3362		3270			6452		
WELLHEAD PRESSURE, PSIG.....	695		745			2192		
OPEN FLOW, MCFD.....	11300		9730			17879		
COMPONENT, MOLE PCT								
METHANE.....	92.4	-----	91.6	-----		93.9	-----	
ETHANE.....	6.6	-----	7.0	-----		2.9	-----	
PROPANE.....	---	-----	---	-----		1.0	-----	
N-BUTANE.....	---	-----	---	-----		0.3	-----	
ISOBUTANE.....	---	-----	---	-----		0.3	-----	
N-PENTANE.....	---	-----	---	-----		0.1	-----	
ISOPENTANE.....	---	-----	---	-----		TRACE	-----	
CYCLOPENTANE.....	---	-----	---	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	---	-----		0.1	-----	
NITROGEN.....	0.3	-----	0.7	-----		1.1	-----	
OXYGEN.....	0.4	-----	0.4	-----		0.0	-----	
ARGON.....	---	-----	---	-----		TRACE	-----	
HYDROGEN.....	---	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.2	-----	
HELIUM.....	0.08	-----	0.07	-----		TRACE	-----	
HEATING VALUE.....	1054	-----	1053	-----		1080	-----	
SPECIFIC GRAVITY.....	0.592	-----	0.596	-----		0.619	-----	
INDEX 5230 SAMPLE 13576			INDEX 5231 SAMPLE 4127			INDEX 5232 SAMPLE 6576		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BECKHAM		BECKHAM			BECKHAM		
FIELD.....	POWELL NO 1-11		BECKHAM GAS AREA S			BECKHAM GAS AREA S		
WELL NAME.....	SEC. 11, T9N, R25W		PENNINGTON NO. 1			SMITH NO. 1-B		
LOCATION.....	SEC. 11, T9N, R25W		SEC. 27, T8N, R25W			SEC. 1, T7N, R26W		
OWNER.....	MCCULLOCH OIL CORP.		STEPHENS PETROLEUM CO.			EL PASO NATURAL GAS CO.		
COMPLETED.....	11/15/72		05/04/46			09/16/57		
SAMPLED.....	04/10/73		10/11/46			05/06/58		
FORMATION.....	PERM-GRANITE WASH		PERM-DOLOMITE			PERM-DOLOMITE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7000		1950			1936		
WELLHEAD PRESSURE, PSIG.....	1925		400			426		
OPEN FLOW, MCFD.....	30		1000			11900		
COMPONENT, MOLE PCT								
METHANE.....	94.0	-----	91.0	-----		93.7	-----	
ETHANE.....	2.7	-----	6.1	-----		2.7	-----	
PROPANE.....	0.1	-----	---	-----		1.2	-----	
N-BUTANE.....	0.3	-----	---	-----		0.3	-----	
ISOBUTANE.....	0.2	-----	---	-----		0.2	-----	
N-PENTANE.....	0.1	-----	---	-----		TRACE	-----	
ISOPENTANE.....	0.1	-----	---	-----		0.1	-----	
CYCLOPENTANE.....	TRACE	-----	---	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	---	-----		0.1	-----	
NITROGEN.....	1.1	-----	1.9	-----		1.6	-----	
OXYGEN.....	0.0	-----	0.7	-----		TRACE	-----	
ARGON.....	TRACE	-----	---	-----		0.0	-----	
HYDROGEN.....	TRACE	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.3	-----	0.2	-----		0.0	-----	
HELIUM.....	0.04	-----	0.05	-----		0.10	-----	
HEATING VALUE.....	1060	-----	1031	-----		1059	-----	
SPECIFIC GRAVITY.....	0.600	-----	0.598	-----		0.598	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5233 11762	INDEX SAMPLE	5234 14411	INDEX SAMPLE	5235 14412
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BECKHAM			BECKHAM		BECKHAM	
FIELD.....	MAYFIELD NE			MAYFIELD NE		MAYFIELD NE	
WELL NAME.....	BROWN UNIT NO. 1			PRICE NO. 1		ANNIE BRUNER NO. 1	
LOCATION.....	SEC. 5, T10N, R25W			SEC. 3, T10N, R25W		SEC. 33, T11N, R25W	
OWNER.....	PETROLEUM INTERNATIONAL, INC			UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.	
COMPLETED.....	11/08/68			06/26/74		04/08/72	
SAMPLED.....	02/13/69			07/07/75		07/07/75	
FORMATION.....	PERM-GRANITE WASH			PENN-MORROW		DEV0-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	12240			19374		24065	
WELLHEAD PRESSURE, PSIG.....	2300			11236		5490	
OPEN FLOW, MCFD.....	4000			3650		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.8	-----		96.9	-----	97.2	-----
ETHANE.....	8.4	-----		0.4	-----	0.4	-----
PROPANE.....	3.9	-----		TRACE	-----	0.1	-----
N-BUTANE.....	1.1	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.7	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.2	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.4	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.2	-----		0.0	-----	0.0	-----
NITROGEN.....	2.2	-----		0.3	-----	0.7	-----
OXYGEN.....	0.2	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		2.3	-----	1.5	-----
HELIUM.....	0.05	-----		0.01	-----	0.02	-----
HEATING VALUE.....	1177	-----		989	-----	995	-----
SPECIFIC GRAVITY.....	0.695	-----		0.579	-----	0.574	-----
		INDEX SAMPLE	5236 15899	INDEX SAMPLE	5237 16746	INDEX SAMPLE	5238 14512
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BECKHAM			BECKHAM		BECKHAM	
FIELD.....	MAYFIELD NE			MAYFIELD NE		MAYFIELD W	
WELL NAME.....	JOHN S BROWN NO. 1			MAYFIELD NO. 1-34		CUPP NO. 1	
LOCATION.....	SEC. 4, T10N, R25W			SEC. 34, T11N, R25W		SEC. 27, T10N, R26W	
OWNER.....	UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.		HELMERICH & PAYNE, INC.	
COMPLETED.....	02/08/80			01/06/83		10/08/75	
SAMPLED.....	02/08/80			01/06/83		10/27/75	
FORMATION.....	PENN-ATOKA			PENN-ATOKA		CAMO-ARBuckle	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	14075			14256		16850	
WELLHEAD PRESSURE, PSIG.....	4624			3400		6635	
OPEN FLOW, MCFD.....	NOT GIVEN			425		42995	
COMPONENT, MOLE PCT							
METHANE.....	90.7	-----		88.5	-----	97.5	-----
ETHANE.....	4.4	-----		4.6	-----	0.5	-----
PROPANE.....	1.8	-----		1.8	-----	0.1	-----
N-BUTANE.....	0.3	-----		0.4	-----	TRACE	-----
ISOBUTANE.....	0.2	-----		0.5	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.3	-----	TRACE	-----
ISOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		0.3	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.8	-----	TRACE	-----
NITROGEN.....	1.4	-----		1.2	-----	0.6	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.2	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.9	-----		1.1	-----	1.2	-----
HELIUM.....	0.03	-----		0.03	-----	0.02	-----
HEATING VALUE.....	1067	-----		126	-----	999	-----
SPECIFIC GRAVITY.....	0.618	-----		0.655	-----	0.571	-----
		INDEX SAMPLE	5239 14513	INDEX SAMPLE	5240 14992	INDEX SAMPLE	5241 15227
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BECKHAM			BECKHAM		BECKHAM	
FIELD.....	MAYFIELD W			MAYFIELD W		MAYFIELD W	
WELL NAME.....	CUPP NO. 1			GREEN STATE NO. 1		WALLACE LEASE NO. 1	
LOCATION.....	SEC. 22, T10N, R26W			SEC. 29, T10N, R26W		SEC. 19, T10N, R26W	
OWNER.....	HELMERICH & PAYNE, INC.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	10/09/75			12/-/76		10/18/77	
SAMPLED.....	10/27/75			03/14/78		03/14/78	
FORMATION.....	CAMO-ARBuckle			DEV0-HUNTON		DEV0-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	17907			18192		18567	
WELLHEAD PRESSURE, PSIG.....	6620			6900		6050	
OPEN FLOW, MCFD.....	60348			34000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	97.6	-----		96.7	-----	95.6	-----
ETHANE.....	0.5	-----		1.1	-----	1.2	-----
PROPANE.....	0.1	-----		0.2	-----	0.2	-----
N-BUTANE.....	TRACE	-----		0.1	-----	0.1	-----
ISOBUTANE.....	TRACE	-----		TRACE	-----	0.0	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----		0.1	-----	0.1	-----
NITROGEN.....	0.6	-----		0.8	-----	1.1	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.9	-----	1.5	-----
HELIUM.....	0.02	-----		0.02	-----	0.02	-----
HEATING VALUE.....	1000	-----		1017	-----	1008	-----
SPECIFIC GRAVITY.....	0.572	-----		0.580	-----	0.587	-----
		INDEX SAMPLE	5242 15979	INDEX SAMPLE	5243 17826	INDEX SAMPLE	5244 1212
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BECKHAM			BECKHAM		BECKHAM	
FIELD.....	MAYFIELD W			MAYFIELD W		MORAVIA DISTRICT NE	
WELL NAME.....	HILLS NO. 2-19			SUTTON NO. 1		MCCEE	
LOCATION.....	SEC. 19, T10N, R26W			SEC. 9, T10N, R26W		SEC. 25, T0N, R22W	
OWNER.....	NATOMAS NORTH AMERICA, INC.			E.T.S. ENTERPRISES, INC.		OKLAHOMA SERVICE CO.	
COMPLETED.....	10/25/80			10/25/84		02/-/24	
SAMPLED.....	10/25/80			10/25/84		02/19/26	
FORMATION.....	DEV0-HUNTON			PENN-DES MOINES		PERM-CONGLOMERATE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	17796			12382		1000	
WELLHEAD PRESSURE, PSIG.....	4423			NOT GIVEN		1000	
OPEN FLOW, MCFD.....	5850			2024		3000	
COMPONENT, MOLE PCT							
METHANE.....	96.4	-----		71.6	-----	88.1	-----
ETHANE.....	1.0	-----		9.7	-----	10.5	-----
PROPANE.....	0.1	-----		6.4	-----	---	-----
N-BUTANE.....	0.1	-----		2.6	-----	---	-----
ISOBUTANE.....	0.0	-----		1.6	-----	---	-----
N-PENTANE.....	TRACE	-----		1.0	-----	---	-----
ISOPENTANE.....	0.1	-----		1.2	-----	---	-----
CYCLOPENTANE.....	TRACE	-----		0.9	-----	---	-----
HEXANES PLUS.....	0.1	-----		2.2	-----	---	-----
NITROGEN.....	0.9	-----		2.3	-----	0.4	-----
OXYGEN.....	0.0	-----		0.0	-----	0.7	-----
ARGON.....	TRACE	-----		0.1	-----	---	-----
HYDROGEN.....	0.0	-----		0.1	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	1.2	-----		0.4	-----	0.3	-----
HELIUM.....	0.02	-----		0.04	-----	0.07	-----
HEATING VALUE.....	1010	-----		1448	-----	1081	-----
SPECIFIC GRAVITY.....	0.581	-----		0.857	-----	0.615	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5245 15970	INDEX SAMPLE	5246 16527	INDEX SAMPLE	5247 1768
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BECKHAM			BECKHAM		BECKHAM	
FIELD.....	NEW LIBERTY SW			NEW LIBERTY SW		SAYRE DISTRICT	
WELL NAME.....	D- L. SANDERS UNIT NO. 1			SWEET NO. 1-21		E- L. GRAY NO. 2	
LOCATION.....	SEC. 24, T10N, R25W			SEC. 21, T10N, R24W		SEC. 14, T9N, R23W	
OWNER.....	MISS. RIVER TRANS. EXPL. CO.			TENNECO OIL EXPL. & PROD. CO		MOBIL OIL CORP.	
COMPLETED.....	02/20/79			12/12/81		03/10/29	
SAMPLED.....	05/30/80			05/26/82		05/03/29	
FORMATION.....	DEVON-HUNTON			PENN-MORROW		PENN-2600 FT	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	23920			18364		2609	
WELLHEAD PRESSURE, PSIG.....	3122			5400		815	
OPEN FLOW, MCFD.....	7779			3500		12000	
COMPONENT, MOLE PCT.....							
METHANE.....	97.5	-----		97.9	-----	84.0	-----
ETHANE.....	0.1	-----		0.6	-----	13.6	-----
PROPANE.....	TRACE	-----		0.1	-----	---	-----
N-BUTANE.....	0.0	-----		0.0	-----	---	-----
ISOBUTANE.....	0.0	-----		0.0	-----	---	-----
N-PENTANE.....	0.0	-----		0.0	-----	---	-----
ISOPENTANE.....	0.0	-----		0.0	-----	---	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	---	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	---	-----
NITROGEN.....	2.3	-----		0.3	-----	2.2	-----
OXYGEN.....	0.0	-----		0.0	-----	0.1	-----
ARGON.....	0.0	-----		TRACE	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	TRACE	-----		0.0	-----	0.2	-----
HELIUM.....	0.03	-----		0.01	-----	0.08	-----
HEATING VALUE.....	989	-----		1005	-----	1095	-----
SPECIFIC GRAVITY.....	0.564	-----		0.569	-----	0.634	-----
		INDEX SAMPLE	5248 16802	INDEX SAMPLE	5249 9855	INDEX SAMPLE	5250 9917
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BECKHAM			BLAINE		BLAINE	
FIELD.....	SWEETWATER W			CANTON S		CANTON S	
WELL NAME.....	SESS. PURYEAR NO. 20-1			PAULSON NO. 1-A		BENNIE V. TICE NO. 1	
LOCATION.....	SEC. 20, T11N, R26W			SEC. 28, T18N, R13W		SEC. 29, T18N, R13W	
OWNER.....	GETTY OIL CO.			GOFF OIL CO.		EXXON CO., U.S.A.	
COMPLETED.....	09/08/82			01/09/80		04/26/65	
SAMPLED.....	03/13/83			04/26/65		06/05/65	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	17092			8899		8884	
WELLHEAD PRESSURE, PSIG.....	10300			2650		3200	
OPEN FLOW, MCFD.....	340			14800		3570	
COMPONENT, MOLE PCT.....							
METHANE.....	97.3	-----		84.1	-----	82.9	-----
ETHANE.....	0.7	-----		6.9	-----	7.0	-----
PROPANE.....	0.1	-----		4.1	-----	4.3	-----
N-BUTANE.....	0.1	-----		1.0	-----	1.5	-----
ISOBUTANE.....	0.1	-----		0.7	-----	0.8	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.4	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.6	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.3	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.7	-----
NITROGEN.....	0.2	-----		1.8	-----	1.0	-----
OXYGEN.....	0.0	-----		0.3	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.2	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.0	-----		0.4	-----	0.5	-----
HELIUM.....	0.01	-----		TRACE	-----	0.04	-----
HEATING VALUE.....	1026	-----		1170	-----	1244	-----
SPECIFIC GRAVITY.....	0.581	-----		0.683	-----	0.718	-----
		INDEX SAMPLE	5251 11009	INDEX SAMPLE	5252 11010	INDEX SAMPLE	5253 13167
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE			BLAINE		BLAINE	
FIELD.....	CARLETON NE			CARLETON NE		CARLETON NE	
WELL NAME.....	HAGLER UNIT D NO. 1			WILEY UNIT NO. 1		SHORT UNIT NO. 1	
LOCATION.....	SEC. 32, T18N, R12W			SEC. 33, T18N, R12W		SEC. 36, T18N, R12W	
OWNER.....	AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		PETROLEUM, INC.	
COMPLETED.....	12/19/66			09/06/66		04/--/71	
SAMPLED.....	06/21/67			06/21/67		03/14/72	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8264			8590		8147	
WELLHEAD PRESSURE, PSIG.....	5239			5423		5339	
OPEN FLOW, MCFD.....	33612			43087		7834	
COMPONENT, MOLE PCT.....							
METHANE.....	83.8	-----		79.5	-----	89.7	-----
ETHANE.....	7.2	-----		6.8	-----	3.8	-----
PROPANE.....	4.2	-----		3.5	-----	1.3	-----
N-BUTANE.....	1.2	-----		1.1	-----	0.3	-----
ISOBUTANE.....	0.9	-----		0.4	-----	0.3	-----
N-PENTANE.....	0.3	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.6	-----		0.8	-----	0.1	-----
CYCLOPENTANE.....	0.3	-----		0.2	-----	0.2	-----
HEXANES PLUS.....	0.5	-----		0.5	-----	0.3	-----
NITROGEN.....	0.7	-----		5.5	-----	3.4	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.1	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.7	-----
HELIUM.....	0.04	-----		0.03	-----	0.03	-----
HEATING VALUE.....	1230	-----		1147	-----	1059	-----
SPECIFIC GRAVITY.....	0.703	-----		0.715	-----	0.635	-----
		INDEX SAMPLE	5254 14586	INDEX SAMPLE	5255 11650	INDEX SAMPLE	5256 13156
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE			BLAINE		BLAINE	
FIELD.....	EAGLE CITY			EAGLE CITY S		ELM GROVE	
WELL NAME.....	HEAT GOVY. NO. 15-1			MARTIN NO. 1		ANDY PAYNE NO. 1-21	
LOCATION.....	SEC. 15, T17N, R13W			SEC. 8, T16N, R13W		SEC. 21, T13N, R12W	
OWNER.....	WOOD PETROLEUM CORP.			AMOCO PRODUCTION CO.		UNION OIL CO. OF CALIF.	
COMPLETED.....	05/28/75			01/04/68		08/21/71	
SAMPLED.....	02/23/76			09/16/68		03/02/72	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	9063			9738		11895	
WELLHEAD PRESSURE, PSIG.....	4700			1989		7865	
OPEN FLOW, MCFD.....	2564			2875		8800	
COMPONENT, MOLE PCT.....							
METHANE.....	84.1	-----		85.7	-----	96.4	-----
ETHANE.....	7.6	-----		3.9	-----	1.4	-----
PROPANE.....	4.3	-----		1.0	-----	0.2	-----
N-BUTANE.....	1.2	-----		0.4	-----	0.0	-----
ISOBUTANE.....	0.5	-----		0.4	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.0	-----
ISOPENTANE.....	0.4	-----		0.2	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.0	-----
HEXANES PLUS.....	1.2	-----		0.2	-----	0.0	-----
NITROGEN.....	1.2	-----		0.6	-----	0.8	-----
OXYGEN.....	0.0	-----		0.0	-----	0.2	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.4	-----	0.0	-----
HELIUM.....	0.03	-----		0.08	-----	0.03	-----
HEATING VALUE.....	1183	-----		1178	-----	1007	-----
SPECIFIC GRAVITY.....	0.681	-----		0.672	-----	0.577	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

447

INDEX 5257 SAMPLE 9790			INDEX 5258 SAMPLE 10022			INDEX 5259 SAMPLE 11533		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	FAY E		FAY E			FAY E		
WELL NAME.....	L. M. GODWIN NO. 1		H. W. FORNEY ESTATE NO. 1			WOODRUFF NO. 1		
LOCATION.....	SEC. 27, T15N, R13W		SEC. 21, T15N, R13W			SEC. 4, T15N, R13W		
OWNER.....	SUN OIL CO.		SUN OIL CO.			TEXACO INC.		
COMPLETED.....	10/05/64		04/10/65			12/29/60		
SAMPLED.....	03/05/65		07/30/65			06/10/68		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10705		10634			10220		
WELLHEAD PRESSURE, PSIG.....	6200		6800			150		
OPEN FLOW, MCFD.....	8000		13300			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	87.1		91.8			86.7		
ETHANE.....	6.5		4.3			6.8		
PROPANE.....	2.7		1.2			3.3		
N-BUTANE.....	0.7		0.3			0.7		
ISOBUTANE.....	0.3		0.1			0.4		
N-PENTANE.....	0.2		0.1			0.3		
ISOPENTANE.....	0.2		TRACE			0.3		
CYCLOPENTANE.....	0.2		TRACE			0.1		
HEXANES PLUS.....	0.6		0.3			0.3		
NITROGEN.....	0.9		0.9			0.6		
OXYGEN.....	0.1		0.3			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.6			0.5		
HELIUM.....	0.04		0.04			0.05		
HEATING VALUE.....	1153		1069			1168		
SPECIFIC GRAVITY.....	0.663		0.613			0.666		
INDEX 5260 SAMPLE 13407			INDEX 5261 SAMPLE 15628			INDEX 5262 SAMPLE 15629		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	FAY E		FAY E			FAY E		
WELL NAME.....	STATE NO. 1-36		LLOYD SCOT NO. 1			PERKINS NO. 1		
LOCATION.....	SEC. 36, T16N, R13W		SEC. 6, T14N, R13W			SEC. 7, T14N, R13W		
OWNER.....	CLARY PETROLEUM CORP.		READING & BATES PETROLEUM CO			READING & BATES PETROLEUM CO		
COMPLETED.....	03/16/72		--/--/00			--/--/00		
SAMPLED.....	09/30/72		05/18/79			05/22/79		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-RED FORK		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10200		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	5557		3500			3500		
OPEN FLOW, MCFD.....	4600		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.8		88.1			83.8		
ETHANE.....	4.8		2.3			8.1		
PROPANE.....	4.2		0.3			4.2		
N-BUTANE.....	1.0		0.5			1.0		
ISOBUTANE.....	0.6		0.3			0.6		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.1		0.2			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.4		0.2			0.2		
NITROGEN.....	0.4		1.3			1.0		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.3		
HELIUM.....	0.03		0.03			0.04		
HEATING VALUE.....	1189		1115			1193		
SPECIFIC GRAVITY.....	0.678		0.633			0.683		
INDEX 5263 SAMPLE 9817			INDEX 5264 SAMPLE 12822			INDEX 5265 SAMPLE 13596		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	GEARY SW		GEARY SW			GEARY SW		
WELL NAME.....	LOFT FOSTER NO. 1		LOSSEN NO. 1			GILBERT PECK UNIT NO. 1		
LOCATION.....	SEC. 33, T15N, R10W		SEC. 31, T16N, R10W			SEC. 30, T13N, R11W		
OWNER.....	SKELLY OIL CO.		WOODS PETROLEUM CORP.			SUN OIL CO.		
COMPLETED.....	12/16/64		01/21/70			11/16/72		
SAMPLED.....	03/16/65		05/19/71			05/04/73		
FORMATION.....	MISS-CHESTER		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			11760		
WELLHEAD PRESSURE, PSIG.....	6400		NOT GIVEN			6470		
OPEN FLOW, MCFD.....	4353		NOT GIVEN			790		
COMPONENT, MOLE PCT								
METHANE.....	95.0		88.1			89.4		
ETHANE.....	2.7		5.4			6.3		
PROPANE.....	0.2		0.2			2.3		
N-BUTANE.....	0.2		0.4			0.3		
ISOBUTANE.....	0.1		0.3			0.3		
N-PENTANE.....	TRACE		TRACE			TRACE		
ISOPENTANE.....	TRACE		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.5		2.6			0.5		
OXYGEN.....	TRACE		0.4			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.4			0.7		
HELIUM.....	0.02		0.03			0.02		
HEATING VALUE.....	1047		1144			1108		
SPECIFIC GRAVITY.....	0.589		0.637			0.631		
INDEX 5266 SAMPLE 16257			INDEX 5267 SAMPLE 14953			INDEX 5268 SAMPLE 15713		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	GEARY SW		GEARY W			GEARY W		
WELL NAME.....	STATE NO. 1-16		ROCKWYKE HALL NO. 1			TULSA ROYALTIES NO. 1		
LOCATION.....	SEC. 16, T13N, R11W		SEC. 10, T13N, R12W			SEC. 4, T14N, R12W		
OWNER.....	SEARCH DRILLING CO.		WOODS PETROLEUM CORP.			COTTON PETROLEUM CORP.		
COMPLETED.....	09/10/60		08/23/76			11/18/78		
SAMPLED.....	05/19/81		03/24/77			07/26/79		
FORMATION.....	PENN-RED FORK		PENN-MORROW			PENN-SPRINGER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10880		11677			10883		
WELLHEAD PRESSURE, PSIG.....	1405		4740			5670		
OPEN FLOW, MCFD.....	2031		4295			9500		
COMPONENT, MOLE PCT								
METHANE.....	83.5		88.7			91.0		
ETHANE.....	9.4		6.3			5.0		
PROPANE.....	0.8		1.9			1.9		
N-BUTANE.....	0.8		0.4			0.4		
ISOBUTANE.....	0.5		0.4			0.2		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	0.7		0.4			0.4		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.8			0.6		
HELIUM.....	0.03		0.03			0.03		
HEATING VALUE.....	1184		1127			1108		
SPECIFIC GRAVITY.....	0.679		0.644			0.628		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5269 15326	INDEX SAMPLE	5270 17384	INDEX SAMPLE	5271 16416
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE			BLAINE		BLAINE	
FIELD.....	GREEN NW			GREENFIELD NW		HYDRO NE	
WELL NAME.....	BRADFORD NO. 1			-C- FARMS INC. NO. 1		FRIEDA NO. 1-25	
LOCATION.....	SEC. 18, T15N, R11W			SEC. 8, T14N, R11W		SEC. 25, T13N, R13W	
OWNER.....	MUSTANG PRODUCTION CO.			TXO PRODUCTION CORP.		AN-SON CORP.	
COMPLETED.....	05/19/78			10/27/82		11/16/81	
SAMPLED.....	07/27/78			08/-/84		01/24/82	
FORMATION.....	PENN-ATOKA & MORROW			PENN-MORROW		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	10234			9882		12578	
WELLHEAD PRESSURE, PSIG.....	5000			1300		8700	
OPEN FLOW, MCFD.....	3500			1800		4700	
COMPONENT, MOLE PCT							
METHANE.....	82.8	-----		88.6	-----	94.8	-----
ETHANE.....	7.7	-----		5.0	-----	2.7	-----
PROPANE.....	0.9	-----		2.9	-----	0.6	-----
N-BUTANE.....	1.1	-----		0.6	-----	0.1	-----
ISOBUTANE.....	0.7	-----		0.4	-----	0.1	-----
N-PENTANE.....	0.3	-----		TRACE	-----	0.1	-----
ISOPENTANE.....	0.4	-----		0.5	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.3	-----	0.2	-----
NITROGEN.....	0.5	-----		0.4	-----	0.3	-----
OXYGEN.....	0.0	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.1	-----		0.6	-----	0.9	-----
HELIUM.....	0.02	-----		0.03	-----	0.02	-----
HEATING VALUE.....	1211	-----		1145	-----	1049	-----
SPECIFIC GRAVITY.....	0.702	-----		0.651	-----	0.595	-----

		INDEX SAMPLE	5272 16686	INDEX SAMPLE	5273 14384	INDEX SAMPLE	5274 16596
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE			BLAINE		BLAINE	
FIELD.....	HYDRO NE			LONGDALE		LONGDALE	
WELL NAME.....	LUBINUS NO. 1-15			SMITH NO. 1		BAKER NO. 1-11	
LOCATION.....	SEC. 15, T13N, R13W			SEC. 7, T19N, R12W		SEC. 11, T19N, R13W	
OWNER.....	AN-SON CORP.			TENNOCO OIL CO.		SENECA OIL CO.	
COMPLETED.....	05/26/82			11/12/74		09/23/80	
SAMPLED.....	09/24/82			06/13/75		07/28/82	
FORMATION.....	PENN-SPRINGER			MISS-		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	12516			8819		9555	
WELLHEAD PRESSURE, PSIG.....	7300			2202		3150	
OPEN FLOW, MCFD.....	3350			864		1200	
COMPONENT, MOLE PCT							
METHANE.....	93.1	-----		88.5	-----	93.3	-----
ETHANE.....	3.6	-----		6.0	-----	2.6	-----
PROPANE.....	1.0	-----		2.5	-----	0.9	-----
N-BUTANE.....	0.2	-----		0.8	-----	0.3	-----
ISOBUTANE.....	0.2	-----		0.4	-----	0.3	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.2	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.4	-----
NITROGEN.....	0.3	-----		0.8	-----	0.8	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.0	-----		0.6	-----	0.7	-----
HELIUM.....	0.02	-----		0.03	-----	0.03	-----
HEATING VALUE.....	1061	-----		1127	-----	1068	-----
SPECIFIC GRAVITY.....	0.604	-----		0.645	-----	0.609	-----

		INDEX SAMPLE	5275 14008	INDEX SAMPLE	5276 14359	INDEX SAMPLE	5277 8423
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE			BLAINE		BLAINE	
FIELD.....	LONGDALE SE			LOYAL W		OKEENE NE	
WELL NAME.....	BOSTON NO. 1-20			LORENZ NO. 3		FLESHMAN UNIT	
LOCATION.....	SEC. 20, T19N, R12W			SEC. 12, T17N, R10W		SEC. 32, T20N, R10W	
OWNER.....	UNIVERSAL RESOURCES CORP.			UNIVERSAL RESOURCES CORP.		AMOCO PRODUCTION CO.	
COMPLETED.....	03/14/74			--/--/00		10/30/61	
SAMPLED.....	05/13/74			06/25/75		03/03/62	
FORMATION.....	MISS-CHESTER			MISS-CHESTER		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8032			9000		7301	
WELLHEAD PRESSURE, PSIG.....	1950			2700		2570	
OPEN FLOW, MCFD.....	4768			NOT GIVEN		2400	
COMPONENT, MOLE PCT							
METHANE.....	86.3	-----		83.9	-----	88.7	-----
ETHANE.....	0.9	-----		0.0	-----	0.7	-----
PROPANE.....	3.1	-----		4.3	-----	2.5	-----
N-BUTANE.....	1.3	-----		1.3	-----	0.7	-----
ISOBUTANE.....	0.7	-----		0.6	-----	0.4	-----
N-PENTANE.....	0.4	-----		0.3	-----	0.1	-----
ISOPENTANE.....	0.5	-----		0.3	-----	0.3	-----
CYCLOPENTANE.....	0.2	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	0.6	-----		0.8	-----	0.8	-----
OXYGEN.....	0.0	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.4	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.3	-----	0.1	-----
HELIUM.....	0.03	-----		0.03	-----	0.03	-----
HEATING VALUE.....	1199	-----		1207	-----	1135	-----
SPECIFIC GRAVITY.....	0.686	-----		0.690	-----	0.641	-----

		INDEX SAMPLE	5278 6182	INDEX SAMPLE	5279 7249	INDEX SAMPLE	5280 11462
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE			BLAINE		BLAINE	
FIELD.....	OKEENE NW			OKEENE NW		OKEENE NW	
WELL NAME.....	DOUGHTERTY NO. 1			OUTHIER NO. 1		WALTON-EWING NO. 1	
LOCATION.....	SEC. 10, T19N, R11W			SEC. 8, T19N, R11W		SEC. 34, T20N, R11W	
OWNER.....	PERKINS PRODUCTION CO.			AMOCO PRODUCTION CO.		EASON OIL CO.	
COMPLETED.....	--/--/00			12/13/57		10/-/63	
SAMPLED.....	12/11/56			10/15/59		04/24/68	
FORMATION.....	MISS-CHESTER			MISS-CHESTER		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			7476		2342	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			3330		950	
OPEN FLOW, MCFD.....	NOT GIVEN			2740		250	
COMPONENT, MOLE PCT							
METHANE.....	87.9	-----		91.9	-----	91.7	-----
ETHANE.....	4.4	-----		4.8	-----	4.0	-----
PROPANE.....	1.1	-----		1.1	-----	1.8	-----
N-BUTANE.....	0.6	-----		0.3	-----	0.4	-----
ISOBUTANE.....	0.8	-----		0.1	-----	0.4	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.2	-----
ISOPENTANE.....	1.8	-----		0.3	-----	TRACE	-----
CYCLOPENTANE.....	0.3	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.6	-----		0.2	-----	0.4	-----
NITROGEN.....	1.5	-----		0.4	-----	0.7	-----
OXYGEN.....	0.2	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.3	-----	0.3	-----
HELIUM.....	0.03	-----		0.04	-----	0.03	-----
HEATING VALUE.....	1164	-----		1099	-----	1107	-----
SPECIFIC GRAVITY.....	0.674	-----		0.617	-----	0.626	-----

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5281 SAMPLE 17413		INDEX 5282 SAMPLE 17852		INDEX 5283 SAMPLE 7709	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE	BLAINE		BLAINE	
FIELD.....	OKEENE NW	OKEENE NW		SOONER TREND	
WELL NAME.....	BLANKENSHIP NO. 1	LEO NO. 1		S. D. HAMWORTH NO. 1	
LOCATION.....	SEC. 4, T19N, R11W	SEC. 12, T18N, R11W		SEC. 9, T18N, R10W	
OWNER.....	RED EAGLE OIL CO.	TXO PRODUCTION CORP.		EXXON CO., U.S.A.	
COMPLETED.....	11/17/83	10/27/85		07/20/60	
SAMPLED.....	09/13/84	10/02/85		10/04/60	
FORMATION.....	MISS-	PENN-OSWEGO		-POPE DOUGHERTY	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	8012	7280		7720	
WELLHEAD PRESSURE, PSIG.....	100	1760		380	
OPEN FLOW, MCFD.....	1200	1350		1450	
COMPONENT, MOLE PCT					
METHANE.....	84.0	86.9		92.3	
ETHANE.....	7.4	6.1		4.3	
PROpane.....	3.5	3.0		1.6	
N-BUTANE.....	1.6	0.9		0.4	
ISOBUTANE.....	0.7	0.2		0.3	
N-PENTANE.....	0.5	0.2		0.1	
ISOPENTANE.....	0.4	0.5		0.1	
CYCLOPENTANE.....	0.2	0.4		0.1	
HEXANES PLUS.....	0.4	0.4		0.3	
NITROGEN.....	0.9	0.9		0.2	
OXYGEN.....	TRACE	0.0		0.0	
ARGON.....	0.0	0.0		0.0	
HYDROGEN.....	0.0	TRACE		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.4	0.4		0.4	
HELIUM.....	0.04	0.06		0.03	
HEATING VALUE.....	1218	1170		1105	
SPECIFIC GRAVITY.....	0.700	0.669		0.621	
INDEX 5284 SAMPLE 13654		INDEX 5285 SAMPLE 13889		INDEX 5286 SAMPLE 14138	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE	BLAINE		BLAINE	
FIELD.....	SOUTHARD SE	SOUTHARD SE		SOUTHARD SE	
WELL NAME.....	WEBER NO. 1-17	OBLANDER NO. 1-18		BOECKMAN NO. 1	
LOCATION.....	SEC. 17, T18N, R11W	SEC. 18, T18N, R11W		SEC. 20, T18N, R11W	
OWNER.....	ARKLA EXPLORATION CO.	ARKLA EXPLORATION CO.		TEXAS OIL & GAS CORP.	
COMPLETED.....	04/25/73	09/16/73		05/04/74	
SAMPLED.....	07/20/73	12/18/73		08/29/74	
FORMATION.....	PENN-MORROW	PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	7872	7921		7877	
WELLHEAD PRESSURE, PSIG.....	5525	5200		4458	
OPEN FLOW, MCFD.....	7809	4250		3036	
COMPONENT, MOLE PCT					
METHANE.....	93.2	93.1		92.3	
ETHANE.....	4.6	4.6		4.4	
PROpane.....	1.3	1.2		1.7	
N-BUTANE.....	0.2	0.2		0.3	
ISOBUTANE.....	0.3	0.3		0.3	
N-PENTANE.....	TRACE	0.0		TRACE	
ISOPENTANE.....	0.2	0.1		0.2	
CYCLOPENTANE.....	0.1	0.1		0.1	
HEXANES PLUS.....	0.2	0.1		0.1	
NITROGEN.....	0.5	0.5		0.4	
OXYGEN.....	0.0	TRACE		0.0	
ARGON.....	0.0	0.0		0.0	
HYDROGEN.....	TRACE	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.5		0.2	
HELIUM.....	0.03	0.03		0.03	
HEATING VALUE.....	1085	1082		1096	
SPECIFIC GRAVITY.....	0.608	0.608		0.614	
INDEX 5287 SAMPLE 8351		INDEX 5288 SAMPLE 15004		INDEX 5289 SAMPLE 15327	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE	BLAINE		BLAINE	
FIELD.....	SQUAW CREEK	SQUAW CREEK		SQUAW CREEK	
WELL NAME.....	A. O. BAKER NO. 1	TURTLE SITTING DOWN NO. 1		BARRINGER NO. 1	
LOCATION.....	SEC. 36, T14N, R13W	SEC. 27, T14N, R13W		SEC. 12, T14N, R13W	
OWNER.....	SUN OIL CO.	HARPER OIL CO.		MUSTANG PRODUCTION CO.	
COMPLETED.....	09/16/59	11/06/76		--/--/00	
SAMPLED.....	12/27/61	05/17/77		07/27/78	
FORMATION.....	PENN-CHEROKEE	PENN-SPRINGER		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	10777	11796		11137	
WELLHEAD PRESSURE, PSIG.....	5400	4400		7000	
OPEN FLOW, MCFD.....	19784	1550		6000	
COMPONENT, MOLE PCT					
METHANE.....	80.7	87.6		93.8	
ETHANE.....	7.9	6.3		3.3	
PROpane.....	2.9	2.9		0.9	
N-BUTANE.....	0.4	0.8		0.2	
ISOBUTANE.....	0.4	0.6		0.1	
N-PENTANE.....	0.7	0.1		0.1	
ISOPENTANE.....	0.3	0.2		0.1	
CYCLOPENTANE.....	0.0	TRACE		0.1	
HEXANES PLUS.....	0.2	0.2		0.2	
NITROGEN.....	5.5	0.2		0.4	
OXYGEN.....	1.2	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.6	0.7		0.8	
HELIUM.....	0.05	0.02		0.02	
HEATING VALUE.....	1077	1150		1066	
SPECIFIC GRAVITY.....	0.677	0.655		0.604	
INDEX 5290 SAMPLE 15792		INDEX 5291 SAMPLE 17603		INDEX 5292 SAMPLE 10731	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	BLAINE	BLAINE		BLAINE	
FIELD.....	SQUAW CREEK	SQUAW CREEK		STAR	
WELL NAME.....	COAN NO. 1-2	HOWLING WOMAN NO. 1-12		PHILLIPS NO. 1-13	
LOCATION.....	SEC. 2, T14N, R13W	SEC. 12, T13N, R12W		SEC. 13, T19N, R10W	
OWNER.....	MUSTANG PRODUCTION CO.	SOUTHPORT EXPLORATION, INC.		CLEARLY PETROLEUM, INC.	
COMPLETED.....	09/17/79	11/01/83		09/13/65	
SAMPLED.....	09/27/79	--/--/00		09/27/66	
FORMATION.....	PENN-MORROW	PENN-SPRINGER		DEVON-HUNTON	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	10323	11600		8437	
WELLHEAD PRESSURE, PSIG.....	2000	300		1884	
OPEN FLOW, MCFD.....	2995	1200		14658	
COMPONENT, MOLE PCT					
METHANE.....	93.9	93.7		81.8	
ETHANE.....	3.3	3.9		10.3	
PROpane.....	0.8	0.2		5.3	
N-BUTANE.....	0.2	0.3		0.8	
ISOBUTANE.....	0.1	0.2		0.2	
N-PENTANE.....	0.1	0.1		0.2	
ISOPENTANE.....	0.1	0.1		0.2	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.1	0.2		0.1	
NITROGEN.....	0.6	1.8		2.4	
OXYGEN.....	0.1	0.0		0.4	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.7	0.7		0.3	
HELIUM.....	0.0	0.02		0.02	
HEATING VALUE.....	1055	1095		1155	
SPECIFIC GRAVITY.....	0.599	0.649		0.680	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5293			INDEX 5294			INDEX 5295		
SAMPLE 15100			SAMPLE 7663			SAMPLE 8262		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	THOMAS E		WATONGA S			WATONGA-CHICKASHA TREND		
WELL NAME.....	TWIN WOMAN NO. 1		E. A. SALLSTROM			C. W. SWANEGAN NO. 1		
LOCATION.....	SEC. 29, T19N, R13W		SEC. 2, T15N, R12W			SEC. 9, T16N, R11W		
OWNER.....	ST. JOE PETROLEUM CORP.		TEXACO INC.			TEXACO INC.		
COMPLETED.....	--7--/00		06/21/60			08/30/61		
SAMPLED.....	09/12/77		08/31/60			11/01/61		
FORMATION.....	PENN-RED FORK		PENN-MORROW			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		9752			9022		
WELLHEAD PRESSURE, PSIG.....	5614		5788			6500		
OPEN FLOW, MCFD.....	NOT GIVEN		5500			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	89.6		85.4			93.3		
ETHANE.....	5.8		5.7			5.6		
PROPANE.....	2.0		3.7			1.2		
N-BUTANE.....	0.4		1.1			0.2		
ISOBUTANE.....	0.1		0.3			0.1		
N-PENTANE.....	0.2		0.2			TRACE		
ISOPENTANE.....	0.1		0.5			0.1		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.2		0.4			0.1		
NITROGEN.....	0.5		0.5			0.9		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.4			0.3		
HELIUM.....	0.03		0.03			0.03		
HEATING VALUE.....	1114		1203			1064		
SPECIFIC GRAVITY.....	0.632		0.686			0.602		
INDEX 5296			INDEX 5297			INDEX 5298		
SAMPLE 10411			SAMPLE 10432			SAMPLE 10631		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		
WELL NAME.....	RED CLOUD UNIT NO. 1		PATTERSON UNIT D NO. 1			KLOPPPEL 1-14		
LOCATION.....	SEC. 15, T17N, R11W		SEC. 16, T17N, R11W			SEC. 14, T17N, R11W		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			UNION OIL CO. OF CALIF.		
COMPLETED.....	10/10/65		--7--/00			05/14/65		
SAMPLED.....	02/22/66		03/05/66			06/28/66		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8345		8325			8273		
WELLHEAD PRESSURE, PSIG.....	5300		5490			5800		
OPEN FLOW, MCFD.....	15025		12000			31510		
COMPONENT, MOLE PCT.....								
METHANE.....	93.4		92.6			92.7		
ETHANE.....	4.3		4.2			3.9		
PROPANE.....	0.3		0.3			0.4		
N-BUTANE.....	0.3		0.3			0.5		
ISOBUTANE.....	TRACE		0.2			0.0		
N-PENTANE.....	TRACE		0.3			0.0		
ISOPENTANE.....	0.1		0.1			0.0		
CYCLOPENTANE.....	0.1		0.1			0.0		
HEXANES PLUS.....	0.1		0.2			0.0		
NITROGEN.....	0.0		0.5			0.8		
OXYGEN.....	0.0		0.0			0.2		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.4		
HELIUM.....	0.03		0.04			0.04		
HEATING VALUE.....	1080		1091			1062		
SPECIFIC GRAVITY.....	0.602		0.613			0.605		
INDEX 5299			INDEX 5300			INDEX 5301		
SAMPLE 10632			SAMPLE 10959			SAMPLE 11011		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		
WELL NAME.....	SPACT 1-23		WATONGA-CHICKASHA TREND			R. A. HADDUX NO. 1		
LOCATION.....	SEC. 23, T17N, R11W		SEC. 14, T15N, R11W			SEC. 2, T16N, R12W		
OWNER.....	UNION OIL CO. OF CALIF.		WOODS PETROLEUM CORP.			AMOCO PRODUCTION CO.		
COMPLETED.....	08/10/65		01/7/67			08/22/66		
SAMPLED.....	06/28/66		05/18/67			06/21/67		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8360		9793			9046		
WELLHEAD PRESSURE, PSIG.....	5750		6250			5569		
OPEN FLOW, MCFD.....	67568		19131			25171		
COMPONENT, MOLE PCT.....								
METHANE.....	93.8		84.6			82.6		
ETHANE.....	4.0		3.0			7.2		
PROPANE.....	1.4		0.7			4.5		
N-BUTANE.....	0.5		0.2			0.8		
ISOBUTANE.....	0.0		TRACE			0.8		
N-PENTANE.....	0.0		0.1			0.2		
ISOPENTANE.....	0.0		0.0			0.6		
CYCLOPENTANE.....	0.0		TRACE			0.3		
HEXANES PLUS.....	0.0		0.1			0.5		
NITROGEN.....	0.0		8.2			0.9		
OXYGEN.....	0.0		2.2			TRACE		
ARGON.....	TRACE		0.1			0.0		
HYDROGEN.....	0.0		0.1			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.8			0.4		
HELIUM.....	0.03		0.03			0.02		
HEATING VALUE.....	1075		945			1240		
SPECIFIC GRAVITY.....	0.599		0.638			0.713		
INDEX 5302			INDEX 5303			INDEX 5304		
SAMPLE 11369			SAMPLE 12315			SAMPLE 14327		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BLAINE		BLAINE			BLAINE		
FIELD.....	WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		
WELL NAME.....	MEADOWS NO. 1		CHAMBERS NO. 3			WHEELER UNIT NO. 1		
LOCATION.....	SEC. 1, T15N, R11W		SEC. 13, T16N, R11W			SEC. 31, T17N, R10W		
OWNER.....	SUN OIL CO.		CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		
COMPLETED.....	03/16/62		11/20/69			03/19/75		
SAMPLED.....	03/11/68		06/08/70			05/08/75		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9548		9116			8714		
WELLHEAD PRESSURE, PSIG.....	1951		1942			1620		
OPEN FLOW, MCFD.....	1876		29300			12150		
COMPONENT, MOLE PCT.....								
METHANE.....	93.3		88.0			92.5		
ETHANE.....	3.2		3.3			4.0		
PROPANE.....	0.9		3.1			1.6		
N-BUTANE.....	0.5		0.8			0.4		
ISOBUTANE.....	0.0		0.0			0.3		
N-PENTANE.....	0.1		0.3			TRACE		
ISOPENTANE.....	0.2		0.5			0.2		
CYCLOPENTANE.....	0.2		0.2			TRACE		
HEXANES PLUS.....	0.2		0.4			0.1		
NITROGEN.....	0.9		0.5			0.5		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.3			0.3		
HELIUM.....	0.02		0.00			0.03		
HEATING VALUE.....	1070		1176			1087		
SPECIFIC GRAVITY.....	0.607		0.667			0.612		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5305 SAMPLE 16837			INDEX 5306 SAMPLE 6574			INDEX 5307 SAMPLE 14157		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BLAINE		BRYAN			BRYAN		
FIELD.....	WATONGA-CHICKASHA TRENO		AYLESWORTH SE			AYLESWORTH SE		
WELL NAME.....	KARNS GAS UNIT NO. 1		MARY HAYNIE NO. 1			NEFF GODFREY NO. 2		
LOCATION.....	SEC. 10, T15N, R11W		SEC. 22, T6S, R7E			SEC. 22, T6S, R7E		
OWNER.....	TOKIAN OIL & GAS CORP.		ANDERSON-PRICHARD OIL CORP.			JAKE L. HAMON		
COMPLETED.....	03/24/83		05/01/58			05/03/74		
SAMPLED.....	03/24/83		05/02/58			09/26/74		
FORMATION.....	PENUN-HORROW		DEVO-HUNTON			MISS-WOODFORD		
GEOLOGIC PROVINCE CODE.....	360		400			400		
DEPTH, FEET.....	9642		4192			3575		
WELLHEAD PRESSURE, PSIG.....	6500		1515			798		
OPEN FLOW, MCFD.....	3850		10			6759		
COMPONENT, MOLE PCT.....								
METHANE.....	92.7		61.2			84.0		
ETHANE.....	3.3		6.6			7.7		
PROPANE.....	0.9		6.3			3.6		
N-BUTANE.....	0.2		7.3			0.7		
ISOBUTANE.....	0.1		4.4			0.3		
N-PENTANE.....	0.0		5.3			0.1		
ISOPENTANE.....	0.8		3.9			0.1		
CYCLOPENTANE.....	0.4		0.8			TRACE		
HEXANES PLUS.....	0.4		0.2			0.1		
NITROGEN.....	0.4		2.7			2.9		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.2		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.2			0.3		
HELIUM.....	0.02		0.10			0.05		
HEATING VALUE.....	1102		1811			1130		
SPECIFIC GRAVITY.....	0.623		1.079			0.664		
INDEX 5308 SAMPLE 14529			INDEX 5309 SAMPLE 6765			INDEX 5310 SAMPLE 7765		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BRYAN		BRYAN			BRYAN		
FIELD.....	AYLESWORTH SE		DURANT E			DURANT E		
WELL NAME.....	GODFREY NO. 1		N. C. ANDERSON NO. 1			ANDERSON-MAYHUE UNIT NO. 1		
LOCATION.....	SEC. 21, T6S, R7E		SEC. 2, T7S, R9E			SEC. 34, T6S, R9E		
OWNER.....	CLEAR PETROLEUM CORP.		ATLANTIC RICHFIELD CO.			ATLANTIC RICHFIELD CO.		
COMPLETED.....	07/22/75		05/22/58			08/31/60		
SAMPLED.....	11/10/75		07/22/58			11/11/60		
FORMATION.....	ORDO-OIL CREEK		ORDO-MCLISH			ORDO-BRONIDE		
GEOLOGIC PROVINCE CODE.....	400		400			400		
DEPTH, FEET.....	4171		7824			7072		
WELLHEAD PRESSURE, PSIG.....	1720		2038			1971		
OPEN FLOW, MCFD.....	6955		3237			6600		
COMPONENT, MOLE PCT.....								
METHANE.....	86.5		95.3			94.3		
ETHANE.....	4.8		1.7			2.6		
PROPANE.....	3.1		0.8			1.0		
N-BUTANE.....	1.0		0.3			0.4		
ISOBUTANE.....	0.3		0.1			0.2		
N-PENTANE.....	0.3		TRACE			0.1		
ISOPENTANE.....	0.3		0.3			TRACE		
CYCLOPENTANE.....	0.1		0.0			0.1		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	3.0		0.9			0.9		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.3			0.3		
HELIUM.....	0.07		0.03			0.03		
HEATING VALUE.....	1126		1053			1062		
SPECIFIC GRAVITY.....	0.665		0.594			0.599		
INDEX 5311 SAMPLE 12306			INDEX 5312 SAMPLE 12328			INDEX 5313 SAMPLE 10102		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	BRYAN		BRYAN			BRYAN		
FIELD.....	DURANT E		DURANT E			DURANT N		
WELL NAME.....	SMITH-EVITT NO. 1		SMITH-EVITT NO. 1			PARK-COLLEGE UNIT NO. 1		
LOCATION.....	SEC. 1, T7S, R9E		SEC. 1, T7S, R9E			SEC. 18, T6S, R9E		
OWNER.....	EARLSBORO OIL & GAS CO., INC		EARLSBORO OIL & GAS CO., INC			AMOCO PRODUCTION CO.		
COMPLETED.....	06/22/70		12/05/69			07/26/65		
SAMPLED.....	06/22/70		06/22/70			09/02/65		
FORMATION.....	ORDO-MCLISH		ORDO-BRONIDE			ORDO-MCLISH		
GEOLOGIC PROVINCE CODE.....	400		400			400		
DEPTH, FEET.....	8080		7480			9126		
WELLHEAD PRESSURE, PSIG.....	1815		2039			2700		
OPEN FLOW, MCFD.....	1709		5727			2181		
COMPONENT, MOLE PCT.....								
METHANE.....	96.1		92.1			83.3		
ETHANE.....	1.1		3.9			4.5		
PROPANE.....	0.4		0.5			2.2		
N-BUTANE.....	0.1		0.4			0.9		
ISOBUTANE.....	0.1		0.2			0.3		
N-PENTANE.....	0.1		0.1			0.3		
ISOPENTANE.....	0.1		0.1			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	1.2		7.6			7.6		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.1			0.2		
HELIUM.....	0.03		0.04			0.08		
HEATING VALUE.....	1073		1062			1062		
SPECIFIC GRAVITY.....	0.585		0.610			0.668		
INDEX 5314 SAMPLE 7134			INDEX 5315 SAMPLE 13566			INDEX 5316 SAMPLE 2801		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADDO		CADDO			CADDO		
FIELD.....	ALDEN NW		ALDEN NW			APACHE		
WELL NAME.....	NO. 1		BROMIDE UNIT NO. 1			SMITH NO. 1		
LOCATION.....	SEC. 2, T6N, R13W		SEC. 35, T7N, R13W			SEC. 1, T5N, R12W		
OWNER.....	ATLANTIC RICHFIELD CO.		JONES & FELLOW OIL CO.			TEXAS CO.		
COMPLETED.....	03/1/59		12/31/72			1/1/70		
SAMPLED.....	06/6/59		03/6/73			10/06/58		
FORMATION.....	ORDO-BROMIDE		ORDO-BROMIDE			ORDO-SYLVAN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8880		9622			2403		
WELLHEAD PRESSURE, PSIG.....	550		3242			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		7108			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	71.2		84.6			86.5		
ETHANE.....	10.4		7.2			10.8		
PROPANE.....	7.8		3.9			---		
N-BUTANE.....	3.9		0.5			---		
ISOBUTANE.....	1.8		0.5			---		
N-PENTANE.....	0.8		0.2			---		
ISOPENTANE.....	0.7		0.2			---		
CYCLOPENTANE.....	0.4		TRACE			---		
HEXANES PLUS.....	0.1		0.1			---		
NITROGEN.....	7.7		1.8			0.8		
ARGON.....	TRACE		0.0			0.8		
HYDROGEN.....	0.0		TRACE			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.4		0.2			1.1		
HELIUM.....	0.03		0.07			0.03		
HEATING VALUE.....	1416		1151			1070		
SPECIFIC GRAVITY.....	0.833		0.668			0.626		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	5317 3265		INDEX SAMPLE	5318 3266		INDEX SAMPLE	5319 14255
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA			
COUNTY.....	CADDO		CADDO		CADDO			
FIELD.....	APACHE		APACHE		APACHE E			
WELL NAME.....	SEC. N. SMITH NO. 3		ACHILTA, B		A. O. BELCHER NO. 1			
LOCATION.....	SEC. 2, T5N, R12W		SEC. 35, T6N, R12W		SEC. 23, T5N, R11W			
OWNER.....	TEXACO INC.		TEXACO INC.		FOREST OIL CORP.			
COMPLETED.....	09/22/41		01/15/42		10/01/73			
SAMPLED.....	04/16/42		04/16/42		01/30/75			
FORMATION.....	ORDO-WILCOX		ORDO-WILCOX		PENN-SPRINGER			
GEOLOGIC PROVINCE CODE.....	360		360		360			
DEPTH, FEET.....	3323		3709		18695			
WELLHEAD PRESSURE, PSIG.....	1615		1656		13473			
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		7275			
COMPONENT, MOLE PCT								
METHANE.....	84.1		61.0		96.7			
ETHANE.....	15.1		37.9		1.7			
PROpane.....	---		---		0.2			
N-BUTANE.....	---		---		0.0			
ISOBUTANE.....	---		---		0.0			
N-PENTANE.....	---		---		0.0			
ISOPENTANE.....	---		---		0.0			
CYCLOPENTANE.....	---		---		0.0			
HEXANES PLUS.....	---		---		0.0			
NITROGEN.....	0.4		0.4		0.3			
OXYGEN.....	0.2		0.4		0.0			
ARGON.....	---		---		TRACE			
HYDROGEN.....	---		---		0.0			
HYDROGEN SULFIDE**.....	---		---		0.0			
CARBON DIOXIDE.....	0.1		0.3		1.1			
HELIUM.....	0.05		TRACE		0.01			
HEATING VALUE.....	1123		1297		1015			
SPECIFIC GRAVITY.....	0.632		0.749		0.577			
	INDEX	5320		INDEX	5321		INDEX	5322
	SAMPLE	16867		SAMPLE	13844		SAMPLE	16312
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA			
COUNTY.....	CADDO		CADDO		CADDO			
FIELD.....	APACHE SE		BINGER		BINGER			
WELL NAME.....	MINDEMANN NO. 1-30		JOSHUA UNIT 29-1		PATTERSON NO. 1			
LOCATION.....	SEC. 30, T5N, R10W		SEC. 29, T10N, R10W		SEC. 17, T10N, R10W			
OWNER.....	KIRBY EXPLORATION CO.		JONES & FELLOW OIL CO.		COTTON PETROLEUM CORP.			
COMPLETED.....	04/-/82		10/31/73		---/---/00			
SAMPLED.....	04/11/83		12/26/73		08/06/81			
FORMATION.....	PENN-BRITT		PENN-CUNNINGHAM		PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360		360		360			
DEPTH, FEET.....	17260		13900		13282			
WELLHEAD PRESSURE, PSIG.....	8600		8000		NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN		6400		2085			
COMPONENT, MOLE PCT								
METHANE.....	95.5		93.6		96.7			
ETHANE.....	1.5		1.0		1.1			
PROpane.....	0.2		0.2		0.2			
N-BUTANE.....	0.0		0.0		0.0			
ISOBUTANE.....	0.0		0.0		0.0			
N-PENTANE.....	0.0		0.0		0.0			
ISOPENTANE.....	0.0		0.0		0.0			
CYCLOPENTANE.....	0.0		0.0		0.0			
HEXANES PLUS.....	0.0		0.0		0.0			
NITROGEN.....	1.3		3.7		0.4			
OXYGEN.....	0.3		0.1		0.0			
ARGON.....	TRACE		TRACE		TRACE			
HYDROGEN.....	0.2		TRACE		0.0			
HYDROGEN SULFIDE**.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	0.9		1.4		1.4			
HELIUM.....	0.02		0.02		0.02			
HEATING VALUE.....	1002		971		1008			
SPECIFIC GRAVITY.....	0.579		0.591		0.578			
	INDEX	5323		INDEX	5324		INDEX	5325
	SAMPLE	14947		SAMPLE	14949		SAMPLE	16088
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA			
COUNTY.....	CADDO		CADDO		CADDO			
FIELD.....	BINGER NE		BINGER NE		BINGER H			
WELL NAME.....	SMOK NO. 1		SAH-HAH-NIN NO. 1		WILLIAMS NO. 1			
LOCATION.....	SEC. 6, T9N, R9W		SEC. 31, T10N, R9W		SEC. 33, T10N, R11W			
OWNER.....	HELMERICH & PAYNE, INC.		HELMERICH & PAYNE, INC.		SANGUINE, LTD.			
COMPLETED.....	10/01/76		08/07/76		08/-/80			
SAMPLED.....	03/24/77		03/24/77		10/09/80			
FORMATION.....	PENN-SPRINGER		PENN-SPRINGER		PENN-RED FORK			
GEOLOGIC PROVINCE CODE.....	360		360		360			
DEPTH, FEET.....	12941		13184		13100			
WELLHEAD PRESSURE, PSIG.....	6587		8600		8100			
OPEN FLOW, MCFD.....	200000		640000		3500			
COMPONENT, MOLE PCT								
METHANE.....	92.3		96.8		81.4			
ETHANE.....	4.6		1.7		10.7			
PROpane.....	1.3		0.3		4.1			
N-BUTANE.....	0.2		0.0		0.9			
ISOBUTANE.....	0.1		0.0		0.8			
N-PENTANE.....	TRACE		0.0		0.2			
ISOPENTANE.....	0.1		0.0		0.3			
CYCLOPENTANE.....	TRACE		0.0		0.1			
HEXANES PLUS.....	0.1		0.0		0.2			
NITROGEN.....	0.3		0.2		0.5			
OXYGEN.....	0.0		0.0		TRACE			
ARGON.....	TRACE		TRACE		0.0			
HYDROGEN.....	0.0		0.0		0.0			
HYDROGEN SULFIDE**.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	0.9		1.0		1.0			
HELIUM.....	0.02		0.02		0.03			
HEATING VALUE.....	1071		1019		1215			
SPECIFIC GRAVITY.....	0.609		0.576		0.704			
	INDEX	5326		INDEX	5327		INDEX	5328
	SAMPLE	17616		SAMPLE	17731		SAMPLE	17900
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA			
COUNTY.....	CADDO		CADDO		CADDO			
FIELD.....	BINGER W		BINGER W		BRIDGE			
WELL NAME.....	HAAS NO. 2		DONALD GRAY NO. 1-28		MC COO NO. 1-25			
LOCATION.....	SEC. 36, T10N, R12W		SEC. 29, T10N, R12W		SEC. 25, T12N, R12W			
OWNER.....	AMOCO PRODUCTION CO.		GRACE PETROLEUM CORP.		BRACKEN EXPLORATION CO.			
COMPLETED.....	11/29/84		02/18/84		07/07/85			
SAMPLED.....	11/07/85		06/25/85		11/07/85			
FORMATION.....	PENN-SPRINGER		PENN-BRITT		PENN-ATOKA			
GEOLOGIC PROVINCE CODE.....	360		360		360			
DEPTH, FEET.....	15682		15647		12522			
WELLHEAD PRESSURE, PSIG.....	10171		8012		8300			
OPEN FLOW, MCFD.....	30000		11059		1300			
COMPONENT, MOLE PCT								
METHANE.....	96.9		96.8		92.8			
ETHANE.....	1.1		1.1		4.5			
PROpane.....	0.1		0.1		0.9			
N-BUTANE.....	0.0		0.0		0.2			
ISOBUTANE.....	0.0		0.0		TRACE			
N-PENTANE.....	0.0		0.0		0.1			
ISOPENTANE.....	0.0		0.0		TRACE			
CYCLOPENTANE.....	0.0		0.0		0.1			
HEXANES PLUS.....	0.0		0.0		0.1			
NITROGEN.....	0.2		0.4		0.4			
OXYGEN.....	0.0		0.0		0.0			
ARGON.....	TRACE		TRACE		TRACE			
HYDROGEN.....	0.0		0.0		0.0			
HYDROGEN SULFIDE**.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	1.6		1.5		0.9			
HELIUM.....	0.02		0.01		0.03			
HEATING VALUE.....	1004		1003		1064			
SPECIFIC GRAVITY.....	0.577		0.577		0.605			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5329 8015	INDEX SAMPLE	5330 14445	INDEX SAMPLE	5331 15112
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CADDO			CADDO		CADDO	
FIELD.....	BRIDGEPORT			BRIDGEPORT W		BRIDGEPORT W	
WELL NAME.....	V. V. WEATHERS NO. 1			MARTIN NO. 1		RANDAL FOSTER NO. 1	
LOCATION.....	SEC. 8, T12N, R11W			SEC. 4, T12N, R12W		SEC. 11, T12N, R12W	
OWNER.....	MOBIL OIL CORP.			MAY PETROLEUM, INC.		DAVIS OIL CO.	
COMPLETED.....	02/09/61			12/02/74		07/---/77	
SAMPLED.....	06/12/61			08/26/75		09/16/77	
FORMATION.....	PENN-CHEROKEE			PENN-RED FORK		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11388			11484		12950	
WELLHEAD PRESSURE, PSIG.....	5500			3760		5600	
OPEN FLOW, MCFD.....	1284			2200		1275	
COMPONENT, MOLE PCT							
METHANE.....	84.3	-----		85.2	-----	97.4	-----
ETHANE.....	8.6	-----		8.6	-----	1.0	-----
PROpane.....	2.8	-----		3.2	-----	0.2	-----
N-BUTANE.....	0.5	-----		0.5	-----	0.0	-----
ISOBUTANE.....	0.8	-----		0.5	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.0	-----
ISOPENTANE.....	0.4	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	0.3	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	1.0	-----		0.1	-----	0.0	-----
NITROGEN.....	0.2	-----		0.8	-----	0.2	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		0.8	-----	1.1	-----
HELIUM.....	0.04	-----		0.04	-----	0.02	-----
HEATING VALUE.....	1213	-----		1147	-----	1010	-----
SPECIFIC GRAVITY.....	0.693	-----		0.661	-----	0.572	-----
		INDEX SAMPLE	5332 17265	INDEX SAMPLE	5333 14632	INDEX SAMPLE	5334 16800
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CADDO			CADDO		CADDO	
FIELD.....	BROXTON N			CANYON CITY SW		CANYON CITY SW	
WELL NAME.....	VERMA NO. 1			ARNOLD NO. 1		WAYNE NO. 1	
LOCATION.....	SEC. 34, T1N, R12W			SEC. 23, T11N, R11W		SEC. 15, T11N, R11W	
OWNER.....	RICKS EXPLORATION CO.			MONSANTO CO.		COTTON PETROLEUM CORP.	
COMPLETED.....	03/12/83			05/27/75		07/15/82	
SAMPLED.....	04/13/84			04/07/76		03/10/83	
FORMATION.....	MISS-GODDARD			PENN-RED FORK		PENN-BRITT	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	20631			12142		13374	
WELLHEAD PRESSURE, PSIG.....	13600			6600		7600	
OPEN FLOW, MCFD.....	60			NOT GIVEN		1439	
COMPONENT, MOLE PCT							
METHANE.....	96.4	-----		85.9	-----	96.4	-----
ETHANE.....	0.6	-----		8.7	-----	1.4	-----
PROpane.....	0.1	-----		2.7	-----	0.2	-----
N-BUTANE.....	0.0	-----		0.5	-----	TRACE	-----
ISOBUTANE.....	0.0	-----		0.4	-----	TRACE	-----
N-PENTANE.....	0.0	-----		TRACE	-----	0.0	-----
ISOPENTANE.....	0.0	-----		TRACE	-----	0.1	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.1	-----	0.0	-----
NITROGEN.....	1.0	-----		0.6	-----	0.2	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.9	-----		0.9	-----	1.4	-----
HELIUM.....	0.02	-----		0.03	-----	0.02	-----
HEATING VALUE.....	990	-----		1140	-----	1012	-----
SPECIFIC GRAVITY.....	0.581	-----		0.656	-----	0.578	-----
		INDEX SAMPLE	5335 2313	INDEX SAMPLE	5336 2464	INDEX SAMPLE	5337 2645
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CADDO			CADDO		CADDO	
FIELD.....	CEMENT			CEMENT		CEMENT	
WELL NAME.....	BERT LACKEY NO. 6			PRESTON CULP NO. 6		GARNER NO. 1	
LOCATION.....	SEC. 11, T5N, R9W			SEC. 6, T5N, R9W		SEC. 35, T6N, R10W	
OWNER.....	MID-KANSAS OIL & GAS CO.			MID-KANSAS OIL & GAS CO.		WILLARD L. MILLER	
COMPLETED.....	---/---/00			01/18/32		06/13/33	
SAMPLED.....	04/01/31			01/23/32		09/---/33	
FORMATION.....	PERM-BASAL			PENN-MEDRANO		PERM-BASAL	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			6040		3382	
WELLHEAD PRESSURE, PSIG.....	15110			15050		11220	
OPEN FLOW, MCFD.....	NOT GIVEN			10000		10000	
COMPONENT, MOLE PCT							
METHANE.....	90.6	-----		90.3	-----	69.0	-----
ETHANE.....	8.9	-----		7.8	-----	22.4	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	0.1	-----		1.4	-----	8.1	-----
OXYGEN.....	0.1	-----		0.3	-----	0.3	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.3	-----		0.1	-----	0.1	-----
HELIUM.....	0.04	-----		0.07	-----	0.05	-----
HEATING VALUE.....	1077	-----		1055	-----	1100	-----
SPECIFIC GRAVITY.....	0.602	-----		0.601	-----	0.701	-----
		INDEX SAMPLE	5338 3314	INDEX SAMPLE	5339 3543	INDEX SAMPLE	5340 3563
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CADDO			CADDO		CADDO	
FIELD.....	CEMENT			CEMENT		CEMENT	
WELL NAME.....	HEDLAND NO. 8			OAKS NO. 1		SAMES NO. 8	
LOCATION.....	SEC. 11, T5N, R9W			SEC. 35, T6N, R10W		SEC. 35, T6N, R10W	
OWNER.....	MOBIL OIL CORP.			PHILLIPS PETROLEUM CO.		MOBIL OIL CORP.	
COMPLETED.....	04/05/38			01/24/40		07/11/40	
SAMPLED.....	04/16/42			05/18/42		05/18/42	
FORMATION.....	PENN-DEESE			PENN-MEDRANO		PENN-MEDRANO	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5754			5085		4278	
WELLHEAD PRESSURE, PSIG.....	3855			6455		1463	
OPEN FLOW, MCFD.....	22500			100		100000	
COMPONENT, MOLE PCT							
METHANE.....	89.8	-----		92.5	-----	91.8	-----
ETHANE.....	9.6	-----		6.7	-----	7.0	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	TRACE	-----		0.1	-----	0.5	-----
OXYGEN.....	0.4	-----		0.4	-----	0.4	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.2	-----	0.2	-----
HELIUM.....	0.05	-----		0.07	-----	0.06	-----
HEATING VALUE.....	1082	-----		1057	-----	1055	-----
SPECIFIC GRAVITY.....	0.605	-----		0.592	-----	0.595	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE AVERAGE OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5341 SAMPLE 10401			INDEX 5342 SAMPLE 16792			INDEX 5343 SAMPLE 16528		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADD0		CADD0			CADD0		
FIELD.....	CEMENT		CEMENT			CEMENT		
WELL NAME.....	ROYCE-OROVICIAN UNIT NO. 1		LEWIS-UEARTH NO. 1-23			C.E. MOODY NO. 1-10		
LOCATION.....	SEC. 12, T5N, R9W		SEC. 23, T6N, R9W			SEC. 10, T6N, R9W		
OWNER.....	MOBIL OIL CORP.		GULF OIL EXPL. & PROD. CO.			GULF OIL EXPL. & PROD. CO.		
COMPLETED.....	12/28/65		04/02/82			10/18/81		
SAMPLED.....	02/18/66		02/10/83			05/25/82		
FORMATION.....	PENN-SPRINGER		PENN-SPRINGER			PENN-CUNNINGHAM		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	12315		16620			16580		
WELLHEAD PRESSURE, PSIG.....	4893		7275			7980		
OPEN FLOW, MCFD.....	1606		3123			1970		
COMPONENT, MOLE PCT.....								
METHANE.....	89.3		75.7			95.5		
ETHANE.....	4.0		11.4			2.5		
PROPANE.....	2.0		4.9			0.3		
N-BUTANE.....	0.0		1.7			0.1		
ISOBUTANE.....	0.3		0.7			0.0		
N-PENTANE.....	TRACE		0.5			TRACE		
ISOPENTANE.....	1.4		0.7			TRACE		
CYCLOPENTANE.....	0.4		0.2			TRACE		
HEXANES PLUS.....	1.0		0.4			0.1		
NITROGEN.....	0.6		2.6			0.2		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.2			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.5			1.0		
HELIUM.....	0.03		0.02			0.02		
HEATING VALUE.....	1184		1259			1029		
SPECIFIC GRAVITY.....	0.673		0.749			0.583		

INDEX 5344 SAMPLE 16616			INDEX 5345 SAMPLE 17281			INDEX 5346 SAMPLE 16756		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADD0		CADD0			CADD0		
FIELD.....	COTTONWOOD SW		CRAIN			CYRIL NW		
WELL NAME.....	MCCOMAS NO. 1-21		CRAIN NO. 1			PATTERSON NO. 1-8		
LOCATION.....	SEC. 21, T7N, R9W		SEC. 2, T10N, R12W			SEC. 8, T5N, R10W		
OWNER.....	SHELL OIL CO.		RICKS EXPLORATION CORP.			CONTINENTAL RESOURCES CORP.		
COMPLETED.....	04/7--/82		06/25/82			09/02/82		
SAMPLED.....	08/10/82		05/01/84			01/7--/83		
FORMATION.....	PENN-SPRINGER		PENN-RED FORK			PENN-SPRINGER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	17534		13100			9557		
WELLHEAD PRESSURE, PSIG.....	6500		NOT GIVEN			14000		
OPEN FLOW, MCFD.....			975			8000		
COMPONENT, MOLE PCT.....								
METHANE.....	96.6		89.2			96.7		
ETHANE.....	0.4		1.9			0.1		
PROPANE.....	0.1		0.3			0.0		
N-BUTANE.....	TRACE		0.2			0.0		
ISOBUTANE.....	0.0		0.1			0.0		
N-PENTANE.....	0.1		0.1			0.0		
ISOPENTANE.....	0.0		0.1			0.0		
CYCLOPENTANE.....	0.0		0.1			0.0		
HEXANES PLUS.....	0.2		0.4			0.2		
NITROGEN.....	TRACE		TRACE			TRACE		
OXYGEN.....	0.1		0.0			0.2		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			1.5		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.01		0.03			0.01		
HELIUM.....	1011		1105			1003		
HEATING VALUE.....	0.578		0.632			0.575		

INDEX 5347 SAMPLE 17140			INDEX 5348 SAMPLE 17183			INDEX 5349 SAMPLE 15933		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADD0		CADD0			CADD0		
FIELD.....	CYRIL W		CYRIL W			EARLY E		
WELL NAME.....	SCHNEBERGER NO. 1-17		LG BOONE NO. 1			ALMA BARBEE NO. 1		
LOCATION.....	SEC. 17, T5N, R10W		SEC. 31, T6N, R10W			SEC. 31, T10N, R12W		
OWNER.....	KIRBY EXPLORATION CO.		PCA CORP.			HELMERICH & PAYNE, INC.		
COMPLETED.....	03/7--/83		03/7--/83			04/25/77		
SAMPLED.....	11/21/83		02/14/84			03/26/80		
FORMATION.....	MISS-GOODARD		PENN-GOODARD			PENN-RED FORK		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	19553		19808			12456		
WELLHEAD PRESSURE, PSIG.....	3000		5200			7625		
OPEN FLOW, MCFD.....	NOT GIVEN		1200			17553		
COMPONENT, MOLE PCT.....								
METHANE.....	95.5		96.8			85.9		
ETHANE.....	1.3		1.0			7.5		
PROPANE.....	0.1		0.1			3.0		
N-BUTANE.....	TRACE		TRACE			0.8		
ISOBUTANE.....	0.0		0.0			0.6		
N-PENTANE.....	TRACE		0.0			0.5		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	TRACE		TRACE			0.2		
NITROGEN.....	0.0		0.2			0.0		
OXYGEN.....	0.3		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		1.7			0.6		
HELIUM.....	0.07		0.02			0.02		
HEATING VALUE.....	991		1001			1175		
SPECIFIC GRAVITY.....	0.582		0.577			0.671		

INDEX 5350 SAMPLE 16655			INDEX 5351 SAMPLE 17693			INDEX 5352 SAMPLE 17063		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADD0		CADD0			CADD0		
FIELD.....	EARLY E		EARLY E			EXEDINE NE		
WELL NAME.....	SEC. 19, T10N, R12W		SEC. 26, T10N, R12W			FRED TUCKER UNIT A NO. 1		
LOCATION.....	DRILLERS EXPLORATION, INC.		AMOCO PRODUCTION CO.			SEC. 30, T11N, R12W		
OWNER.....	09/17/82		72/98/2			AMOCO PRODUCTION CO.		
COMPLETED.....	09/17/82		09/17/85			10/23/82		
SAMPLED.....	PENN-MORROW		PENN-RED FORK			09/13/83		
FORMATION.....	360		360			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....						360		
DEPTH, FEET.....	16000		15825			12468		
WELLHEAD PRESSURE, PSIG.....	12500		3200			6815		
OPEN FLOW, MCFD.....	25000		3481			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	97.0		86.3			94.4		
ETHANE.....	0.7		8.1			3.2		
PROPANE.....	0.1		2.7			0.6		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.3			0.0		
N-PENTANE.....	0.0		0.2			0.0		
ISOPENTANE.....	0.0		0.1			0.0		
CYCLOPENTANE.....	0.0		0.3			0.0		
HEXANES PLUS.....	0.2		0.6			0.3		
NITROGEN.....	0.0		0.0			0.0		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.1		0.0			0.3		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.8			1.1		
CARBON DIOXIDE.....	0.02		0.03			0.02		
HELIUM.....	1197		1197			1030		
HEATING VALUE.....	0.576		0.658			0.586		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5353 SAMPLE 17076		INDEX 5354 SAMPLE 16954		INDEX 5355 SAMPLE 16932	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	CADDO	CADDO		CADDO	
FIELD.....	GRACEMONT S	GRACEMONT U		LAVERITY U	
WELL NAME.....	STEVENS NO. 26-1	JENNINGS NO. 1		DINN NO. 1	
LOCATION.....	SEC. 26, T8N, R10W	SEC. 6, T8N, R10W		SEC. 18, T6N, R9W	
OWNER.....	SANTA FE MINERALS, INC.	RICKS EXPLORATION CO.		PCX CORP.	
COMPLETED.....	04/11/83	05/25/83		06/16/82	
SAMPLED.....	09/29/83	05/25/83		05/13/83	
FORMATION.....	PENN-SPRINGER	PENN-RED FORK		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	17731	13864		18554	
WELLHEAD PRESSURE, PSIG.....	11400	6000		4100	
OPEN FLOW, MCFD.....	1804	4850		3000	
COMPONENT, MOLE PCT					
METHANE.....	96.6	78.5		95.3	
ETHANE.....	0.6	9.1		1.6	
PROpane.....	0.1	3.1		0.1	
N-BUTANE.....	0.0	0.6		0.1	
ISOBUTANE.....	0.0	0.7		0.0	
N-PENTANE.....	0.0	0.1		0.2	
ISOPENTANE.....	0.0	0.8		0.1	
CYCLOPENTANE.....	0.0	0.3		0.1	
HEXANES PLUS.....	0.0	0.6		0.1	
NITROGEN.....	0.3	0.1		0.3	
OXYGEN.....	0.1	0.9		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.3	0.2		0.2	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	2.0	0.8		1.7	
HELIUM.....	0.01	0.03		0.02	
HEATING VALUE.....	993	1163		1022	
SPECIFIC GRAVITY.....	0.578	0.715		0.591	

INDEX 5356 SAMPLE 16287		INDEX 5357 SAMPLE 16295		INDEX 5358 SAMPLE 16344	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	CADDO	CADDO		CADDO	
FIELD.....	LIBBIE	LIBBIE		LIBBIE	
WELL NAME.....	FLANIGAN NO. 1	JEAN R. EPPERLY NO. 1-24		FLANIGAN NO. 1	
LOCATION.....	SEC. 29, T12N, R12W	SEC. 24, T12N, R13W		SEC. 29, T12N, R12W	
OWNER.....	COTTON PETROLEUM CORP.	GULF OIL EXPL. & PROD. CO.		COTTON PETROLEUM CORP.	
COMPLETED.....	08/24/80	06/08/81		08/--/80	
SAMPLED.....	06/24/81	07/17/81		09/28/81	
FORMATION.....	PENN-BRITT	PENN-SPRINGER		PENN-BRITT	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	13897	13804		13907	
WELLHEAD PRESSURE, PSIG.....	8450	6944		6800	
OPEN FLOW, MCFD.....	NOT GIVEN	3040		3389	
COMPONENT, MOLE PCT					
METHANE.....	96.7	96.9		96.4	
ETHANE.....	1.3	1.3		1.4	
PROpane.....	0.2	0.2		0.2	
N-BUTANE.....	0.0	0.0		TRACE	
ISOBUTANE.....	0.0	0.0		TRACE	
N-PENTANE.....	0.0	0.0		TRACE	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.0	0.0		0.0	
HEXANES PLUS.....	0.0	0.0		TRACE	
NITROGEN.....	0.4	0.4		0.3	
OXYGEN.....	TRACE	TRACE		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	1.4	1.2		1.5	
HELIUM.....	0.02	0.02		0.02	
HEATING VALUE.....	1008	1010		1011	
SPECIFIC GRAVITY.....	0.578	0.576		0.580	

INDEX 5359 SAMPLE 17189		INDEX 5360 SAMPLE 17236		INDEX 5361 SAMPLE 17380	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	CADDO	CADDO		CADDO	
FIELD.....	LIBBIE SW	LIBBIE SW		LOOKABA E	
WELL NAME.....	FROST NO. 1-17	MELVIN CHISUM NO. 1		BAKER NO. 1	
LOCATION.....	SEC. 29, T11N, R13W	SEC. 29, T11N, R13W		SEC. 29, T10N, R10W	
OWNER.....	LEAR PETROLEUM EXPL., INC.	SUN EXPLORATION & PRODUCTION		ANR PRODUCTION CO.	
COMPLETED.....	08/--/81	03/10/84		07/16/77	
SAMPLED.....	03/12/84	03/12/84		08/15/84	
FORMATION.....	PENN-SPRINGER	PENN-ATOKA		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	15000	14302		13426	
WELLHEAD PRESSURE, PSIG.....	3200	NOT GIVEN		5100	
OPEN FLOW, MCFD.....	10064	20323		1800	
COMPONENT, MOLE PCT					
METHANE.....	96.7	93.2		95.5	
ETHANE.....	1.0	2.5		2.2	
PROpane.....	0.1	0.4		0.4	
N-BUTANE.....	0.0	0.1		0.1	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.1		TRACE	
ISOPENTANE.....	0.0	0.1		TRACE	
CYCLOPENTANE.....	0.0	0.0		TRACE	
HEXANES PLUS.....	0.0	TRACE		0.1	
NITROGEN.....	0.5	2.2		0.5	
OXYGEN.....	0.1	0.5		0.1	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.6	0.0		1.2	
HELIUM.....	0.02	0.02		0.02	
HEATING VALUE.....	1000	1007		1026	
SPECIFIC GRAVITY.....	0.579	0.594		0.588	

INDEX 5362 SAMPLE 14372		INDEX 5363 SAMPLE 15360		INDEX 5364 SAMPLE 17139	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	CADDO	CADDO		CADDO	
FIELD.....	ONEY NE	ONEY SW		RICHARDS SW	
WELL NAME.....	CAREY NO. 1	OPITZ NO. 1		THOMAS NO. 1-31	
LOCATION.....	SEC. 13, T9N, R11W	SEC. 13, T8N, R12W		SEC. 31, T5N, R10W	
OWNER.....	ARKLA EXPLORATION CO.	J. M. HUBER CORP.		KIRBY EXPLORATION CO.	
COMPLETED.....	04/15/75	12/22/77		--/--/83	
SAMPLED.....	05/15/75	08/--/78		11/22/83	
FORMATION.....	MISS-CHESTER	PENN-MELTON		PENN-BRITT	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	15309	10213		17000	
WELLHEAD PRESSURE, PSIG.....	4400	3600		6000	
OPEN FLOW, MCFD.....		3682		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	92.9	85.3		94.5	
ETHANE.....	0.9	1.8		1.3	
PROpane.....	0.1	3.7		0.2	
N-BUTANE.....	0.0	0.8		TRACE	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.2		TRACE	
ISOPENTANE.....	0.0	0.3		TRACE	
CYCLOPENTANE.....	0.0	TRACE		TRACE	
HEXANES PLUS.....	0.0	0.2		TRACE	
NITROGEN.....	3.7	0.6		2.4	
OXYGEN.....	0.8	TRACE		0.5	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.1		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.5	0.0		0.9	
HELIUM.....	0.02	0.04		0.02	
HEATING VALUE.....	960	1176		989	
SPECIFIC GRAVITY.....	0.594	0.670		0.585	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5365 SAMPLE 13792			INDEX 5366 SAMPLE 17195			INDEX 5367 SAMPLE 17314		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADDO		CADDO			CADDO		
FIELD.....	SICKLES NE		SICKLES NE			SICKLES NE		
WELL NAME.....	PECK NO. 1		PECK NO. 1-10			BEANIE LINDLEY "A" NO. 30-2		
LOCATION.....	SEC. 11, T11N, R12W		SEC. 10, T10N, R12W			SEC. 30, T11N, R11W		
OWNER.....	APEXCO, INC.		LEAR PETROLEUM EXPL., INC.			GETTY OIL CO.		
COMPLETED.....	--/--/00		09/--/82			11/17/83		
SAMPLED.....	02/23/84		02/23/84			06/06/84		
FORMATION.....	PENN-SPRINGER		PENN-ATOKA			PENN-CUNNINGHAM		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	13094		14276			13895		
WELLHEAD PRESSURE, PSIG.....	9755		6400			7500		
OPEN FLOW, MCFD.....	6200		3583			4226		
COMPONENT, MOLE PCT								
METHANE.....	96.6		93.5			92.4		
ETHANE.....	1.3		3.3			4.1		
PROPANE.....	0.2		0.6			0.9		
N-BUTANE.....	TRACE		0.1			0.3		
ISOBUTANE.....	TRACE		0.1			0.2		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	TRACE		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	TRACE		0.1			0.2		
NITROGEN.....	0.3		1.3			0.6		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		1.0			1.0		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1007		1034			1072		
SPECIFIC GRAVITY.....	0.575		0.602			0.615		
INDEX 5368 SAMPLE 16865			INDEX 5369 SAMPLE 13528			INDEX 5370 SAMPLE 13969		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADDO		CADDO			CADDO		
FIELD.....	WASHITA CITY-CADDO		WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		
WELL NAME.....	DIDIER NO. 1-28		W. G. GUSTAFSON NO. 1			STAHLMAN NO. 1		
LOCATION.....	SEC. 28, T8N, R11W		SEC. 10, T10N, R9W			SEC. 9, T10N, R9W		
OWNER.....	SHK GAS CORP.		AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO., INC.		
COMPLETED.....	09/19/82		12/21/72			12/30/73		
SAMPLED.....	04/--/83		02/09/73			05/03/74		
FORMATION.....	PENN-RED FORK		PENN-SKINNER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	14336		11918			12004		
WELLHEAD PRESSURE, PSIG.....	9475		7930			7435		
OPEN FLOW, MCFD.....	1200		20469			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.9		96.2			96.5		
ETHANE.....	0.1		0.1			1.8		
PROPANE.....	3.2		0.4			0.3		
N-BUTANE.....	0.4		0.1			TRACE		
ISOBUTANE.....	0.3		TRACE			TRACE		
N-PENTANE.....	0.1		TRACE			TRACE		
ISOPENTANE.....	0.2		0.1			0.0		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.6		0.2			0.4		
NITROGEN.....	0.0		0.0			0.1		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.7		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.03		0.02			0.02		
HEATING VALUE.....	1150		1035			1023		
SPECIFIC GRAVITY.....	0.659		0.583			0.577		
INDEX 5371 SAMPLE 14468			INDEX 5372 SAMPLE 14579			INDEX 5373 SAMPLE 14706		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADDO		CADDO			CADDO		
FIELD.....	WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		
WELL NAME.....	KUHLMAN UNIT NO. 1		SHADLO NO. 1			BELT UNIT NO. 1		
LOCATION.....	SEC. 26, T10N, R9W		SEC. 16, T9N, R9W			SEC. 21, T10N, R9W		
OWNER.....	AMOCO PRODUCTION CO.		TENNOCO OIL CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	04/16/75		04/--/76			04/15/76		
SAMPLED.....	09/17/75		02/10/76			06/21/76		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-SPRINGER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	12228		13712			12682		
WELLHEAD PRESSURE, PSIG.....	6967		6600			NOT GIVEN		
OPEN FLOW, MCFD.....	27640		11289			4600		
COMPONENT, MOLE PCT								
METHANE.....	96.7		96.3			92.5		
ETHANE.....	1.6		1.8			4.4		
PROPANE.....	0.2		0.0			1.2		
N-BUTANE.....	TRACE		0.0			0.2		
ISOBUTANE.....	TRACE		TRACE			0.1		
N-PENTANE.....	TRACE		TRACE			TRACE		
ISOPENTANE.....	TRACE		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			TRACE		
NITROGEN.....	0.3		0.0			0.5		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		1.3			0.7		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1019		1013			1061		
SPECIFIC GRAVITY.....	0.576		0.578			0.603		
INDEX 5374 SAMPLE 14723			INDEX 5375 SAMPLE 14728			INDEX 5376 SAMPLE 14819		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADDO		CADDO			CADDO		
FIELD.....	WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		
WELL NAME.....	C. HENSLEY NO. 25		HUMPHREY NO. 1			STANDIFER UNIT NO. 1		
LOCATION.....	SEC. 25, T9N, R9W		SEC. 12, T10N, R9W			SEC. 11, T10N, R9W		
OWNER.....	TENNOCO OIL CO.		FERGUSON OIL CO., INC.			DONALD C. SLAWSON		
COMPLETED.....	--/--/00		01/28/76			09/02/76		
SAMPLED.....	07/28/76		08/02/76			10/27/76		
FORMATION.....	PENN-MORROW		PENN-SPRINGER			PENN-SPRINGER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	13356		11812			11643		
WELLHEAD PRESSURE, PSIG.....	7400		7501			7436		
OPEN FLOW, MCFD.....	NOT GIVEN		70325			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	91.8		97.6			95.3		
ETHANE.....	4.3		1.2			2.6		
PROPANE.....	1.1		0.2			0.7		
N-BUTANE.....	0.2		0.0			0.1		
ISOBUTANE.....	0.2		0.0			0.1		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.1		0.0			TRACE		
NITROGEN.....	1.3		0.3			0.4		
OXYGEN.....	0.2		TRACE			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.7			0.7		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1058		1015			1041		
SPECIFIC GRAVITY.....	0.613		0.570			0.588		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

457

INDEX 5377 SAMPLE 15116			INDEX 5378 SAMPLE 15096			INDEX 5379 SAMPLE 15982		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CADDO		CANADIAN			CANADIAN		
FIELD.....	WATONGA-CHICKASHA TREND		CANYON CITY SW			CONCHO N		
WELL NAME.....	TADDER NO. 1		CANYON CAMP UNIT NO. 1			BOWHOFF "C" NO. 1		
LOCATION.....	SEC. 1, T10N, R10W		SEC. 19, T11N, R10W			SEC. 23, T14N, R9W		
OWNER.....	WOODS PETROLEUM CORP.		DONALD C. SLAWSON			PHILLIPS PETROLEUM CO.		
COMPLETED.....	05/15/76		07/15/77			---/---/00		
SAMPLED.....	09/---/77		09/10/77			06/07/80		
FORMATION.....	PENN-MORROW		PENN-RED FORK			PENN-OSWEGO & DEVO HUNTON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	12374		11992			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	7650		6800			2000		
OPEN FLOW, MCFD.....	2480		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.9	---	76.5	---		77.2	---	
ETHANE.....	3.4	---	9.4	---		12.7	---	
PROPANE.....	1.7	---	3.2	---		5.6	---	
N-BUTANE.....	0.7	---	0.2	---		1.7	---	
ISOBUTANE.....	0.4	---	0.6	---		0.6	---	
N-PENTANE.....	0.2	---	0.2	---		0.4	---	
ISOPENTANE.....	0.6	---	0.3	---		0.3	---	
CYCLOPENTANE.....	0.2	---	0.2	---		0.1	---	
HEXANES PLUS.....	0.5	---	0.5	---		0.2	---	
NITROGEN.....	3.9	---	6.2	---		1.0	---	
OXYGEN.....	0.9	---	1.5	---		0.0	---	
ARGON.....	TRACE	---	0.1	---		0.0	---	
HYDROGEN.....	0.0	---	0.0	---		0.0	---	
HYDROGEN SULFIDE.....	0.0	---	0.0	---		0.0	---	
CARBON DIOXIDE.....	0.7	---	0.7	---		0.3	---	
HELIUM.....	0.02	---	0.03	---		0.03	---	
HEATING VALUE.....	1090	---	1276	---		1276	---	
SPECIFIC GRAVITY.....	0.665	---	0.720	---		0.736	---	
INDEX 5380 SAMPLE 16331			INDEX 5381 SAMPLE 5421			INDEX 5382 SAMPLE 16335		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CANADIAN		CANADIAN			CANADIAN		
FIELD.....	EDMOND W		EL RENO			ENID NE		
WELL NAME.....	CAROL DANE NO. 1		E. HUTCHENANN NO. 1			MCKINNEY NO. 1		
LOCATION.....	SEC. 11, T14N, R5W		SEC. 14, T12N, R7W			SEC. 28, T12N, R5W		
OWNER.....	DLB ENERGY CORP.		ATLANTIC RICHFIELD CO.			MORAN EXPLORATION, INC.		
COMPLETED.....	---/---/00		10/---/52			---/---/00		
SAMPLED.....	09/---/81		03/18/53			08/01/81		
FORMATION.....	ORDO-WILCOX		ORDO-WILCOX			DEVO-HUNTON & MISS		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		10304			7300		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		3650			1600		
OPEN FLOW, MCFD.....	NOT GIVEN		14431			800		
COMPONENT, MOLE PCT								
METHANE.....	94.6	---	94.7	---		79.5	---	
ETHANE.....	2.3	---	2.4	---		10.7	---	
PROPANE.....	0.6	---	0.7	---		4.9	---	
N-BUTANE.....	0.2	---	0.1	---		1.5	---	
ISOBUTANE.....	0.1	---	0.1	---		0.5	---	
N-PENTANE.....	0.1	---	TRACE	---		0.4	---	
ISOPENTANE.....	0.1	---	0.1	---		0.3	---	
CYCLOPENTANE.....	0.1	---	TRACE	---		0.1	---	
HEXANES PLUS.....	0.2	---	0.1	---		0.2	---	
NITROGEN.....	1.3	---	0.7	---		1.4	---	
OXYGEN.....	0.0	---	TRACE	---		0.0	---	
ARGON.....	TRACE	---	TRACE	---		0.0	---	
HYDROGEN.....	0.0	---	TRACE	---		0.0	---	
HYDROGEN SULFIDE.....	0.0	---	0.0	---		TRACE	---	
CARBON DIOXIDE.....	0.3	---	0.3	---		0.5	---	
HELIUM.....	0.05	---	0.03	---		0.04	---	
HEATING VALUE.....	1048	---	1040	---		1236	---	
SPECIFIC GRAVITY.....	0.595	---	0.592	---		0.723	---	
INDEX 5383 SAMPLE 16336			INDEX 5384 SAMPLE 12288			INDEX 5385 SAMPLE 17824		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CANADIAN		CANADIAN			CANADIAN		
FIELD.....	ENID NE		MUSTANG N			MUSTANG SW		
WELL NAME.....	MCKINNEY NO. 1		THIEHR NO. 1			GUTIERREZ NO. 1-27		
LOCATION.....	SEC. 28, T14N, R5W		SEC. 21, T11N, R5W			SEC. 27, T11N, R6W		
OWNER.....	MORAN EXPLORATION, INC.		HALL-JONES OIL CORP.			TRINCHA, INC.		
COMPLETED.....	---/---/00		05/12/69			06/19/85		
SAMPLED.....	08/01/81		06/05/70			08/28/85		
FORMATION.....	PENN-OSWEGO		PENN-BARTLESVILLE			PENN-4 MISS		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7200		8258			9032		
WELLHEAD PRESSURE, PSIG.....	1800		2677			2150		
OPEN FLOW, MCFD.....	1500		5634			795		
COMPONENT, MOLE PCT								
METHANE.....	77.8	---	88.2	---		75.1	---	
ETHANE.....	5.9	---	6.0	---		8.2	---	
PROPANE.....	5.6	---	2.5	---		5.2	---	
N-BUTANE.....	0.7	---	0.6	---		3.1	---	
ISOBUTANE.....	0.3	---	0.3	---		1.7	---	
N-PENTANE.....	0.3	---	0.3	---		1.7	---	
ISOPENTANE.....	0.3	---	TRACE	---		1.2	---	
CYCLOPENTANE.....	0.2	---	TRACE	---		0.7	---	
HEXANES PLUS.....	0.2	---	0.1	---		2.1	---	
NITROGEN.....	2.9	---	1.3	---		1.0	---	
OXYGEN.....	0.0	---	TRACE	---		0.0	---	
ARGON.....	0.0	---	0.0	---		0.0	---	
HYDROGEN.....	0.0	---	0.1	---		TRACE	---	
HYDROGEN SULFIDE.....	TRACE	---	0.0	---		0.0	---	
CARBON DIOXIDE.....	0.3	---	0.4	---		0.5	---	
HELIUM.....	0.07	---	0.04	---		0.03	---	
HEATING VALUE.....	1225	---	1114	---		1442	---	
SPECIFIC GRAVITY.....	0.732	---	0.639	---		0.841	---	
INDEX 5386 SAMPLE 9840			INDEX 5387 SAMPLE 12157			INDEX 5388 SAMPLE 12185		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CANADIAN		CANADIAN			CANADIAN		
FIELD.....	OKMCKE N		REEDING S			REEDING S		
WELL NAME.....	GRELLNER		SHORNEY NO. 4			HAMMOND NO. 1		
LOCATION.....	SEC. 5, T14N, R7W		SEC. 4, T14N, R5W			SEC. 5, T14N, R5W		
OWNER.....	OIL & REFINING CO.		RODMAN PETROLEUM CORP.			W. C. PAYNE		
COMPLETED.....	01/07/65		---/---/00			08/08/69		
SAMPLED.....	04/06/65		12/---/65			02/05/70		
FORMATION.....	PENN-RED FORK		PENN-PRUE & BARTLESVILLE			PENN-PRUE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7988		6883			6900		
WELLHEAD PRESSURE, PSIG.....	3550		NOT GIVEN			1800		
OPEN FLOW, MCFD.....	1538		NOT GIVEN			500		
COMPONENT, MOLE PCT								
METHANE.....	87.4	---	78.9	---		76.7	---	
ETHANE.....	5.8	---	7.7	---		7.0	---	
PROPANE.....	2.5	---	5.5	---		6.0	---	
N-BUTANE.....	0.7	---	1.5	---		1.6	---	
ISOBUTANE.....	0.3	---	0.8	---		0.8	---	
N-PENTANE.....	0.3	---	0.3	---		0.4	---	
ISOPENTANE.....	0.2	---	0.7	---		0.9	---	
CYCLOPENTANE.....	0.2	---	0.1	---		0.4	---	
HEXANES PLUS.....	0.2	---	0.3	---		0.7	---	
NITROGEN.....	1.3	---	5.0	---		5.2	---	
OXYGEN.....	0.0	---	0.0	---		TRACE	---	
ARGON.....	0.0	---	0.0	---		0.0	---	
HYDROGEN.....	0.0	---	0.1	---		TRACE	---	
HYDROGEN SULFIDE.....	0.0	---	0.0	---		0.0	---	
CARBON DIOXIDE.....	0.3	---	0.1	---		TRACE	---	
HELIUM.....	0.04	---	0.0	---		0.07	---	
HEATING VALUE.....	1164	---	1202	---		1245	---	
SPECIFIC GRAVITY.....	0.668	---	0.727	---		0.755	---	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 5389 14753	INDEX SAMPLE 5390 15042	INDEX SAMPLE 5391 15082
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CANADIAN		CANADIAN	CANADIAN
FIELD.....	RICHLAND N		RICHLAND N	RICHLAND N
WELL NAME.....	N. J. KRUGER NO. 15-1		SMITH NO. 1	MCLAIN NO. 1
LOCATION.....	SEC. 15, T13N, R6W		SEC. 18, T13N, R6W	SEC. 14, T13N, R 6W
OWNER.....	JONES & PELLOW OIL CO.		MACK OIL CO.	R. P. LAMBERTS OIL CO.
COMPLETED.....	06/23/76		06/10/77	08/13/76
SAMPLED.....	09/13/76		06/29/77	08/26/77
FORMATION.....	DEVCO-BOIS D-ARC		DEVCO-HUNTON & MISS	DEVCO-HUNTON
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	8451		8807	8336
WELLHEAD PRESSURE, PSIG.....	1848		2700	2700
OPEN FLOW, MCFD.....	3905		5283	50000
COMPONENT, MOLE PCT				
METHANE.....	81.4	81.1	41.1	23.2
ETHANE.....	11.0	11.2	18.4	18.4
PROPANE.....	1.2	1.1	8.5	8.5
N-BUTANE.....	1.1	1.2	2.9	2.9
ISOBUTANE.....	0.4	0.4	2.1	2.1
N-PENTANE.....	0.2	0.4	2.2	2.2
ISOPENTANE.....	0.3	0.2	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	0.9	0.9
HEXANES PLUS.....	0.1	0.2	0.0	0.0
NITROGEN.....	1.0	0.6	0.0	0.0
OXYGEN.....	0.0	TRACE	0.0	0.0
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.8	0.4	0.4
HELIUM.....	0.03	0.03	TRACE	TRACE
HEATING VALUE.....	1208	1222	1932	1932
SPECIFIC GRAVITY.....	0.691	0.699	1.139	1.139
		INDEX SAMPLE 5392 15459	INDEX SAMPLE 5393 11550	INDEX SAMPLE 5394 11551
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CANADIAN		CANADIAN	CANADIAN
FIELD.....	RICHLAND N		UNION CITY	UNION CITY
WELL NAME.....	MILKESON NO. 3		PORTER B NO. 1	PORTER B NO. 1
LOCATION.....	SEC. 34, T13N, R6W		SEC. 5, T12N, R8W	SEC. 5, T12N, R8W
OWNER.....	UNIVERSAL RESOURCES CORP.		CITIES SERVICE OIL CO.	CITIES SERVICE OIL CO.
COMPLETED.....	07/27/78		10/30/59	10/30/59
SAMPLED.....	10/26/78		06/20/68	06/20/68
FORMATION.....	DEVCO-HUNTON & MISS-		OROCO-BROMIDE	OROCO-BROMIDE
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	8424		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1200		4200	4200
OPEN FLOW, MCFD.....	342		4900	4900
COMPONENT, MOLE PCT				
METHANE.....	76.5	94.4	93.7	93.7
ETHANE.....	12.0	2.3	2.3	2.3
PROPANE.....	6.1	0.6	0.2	0.2
N-BUTANE.....	1.9	TRACE	0.1	0.1
ISOBUTANE.....	0.7	TRACE	0.2	0.2
N-PENTANE.....	0.5	0.3	0.0	0.0
ISOPENTANE.....	0.5	0.0	TRACE	TRACE
CYCLOPENTANE.....	0.2	0.3	0.2	0.2
HEXANES PLUS.....	0.3	0.7	1.0	1.0
NITROGEN.....	1.0	0.0	0.1	0.1
OXYGEN.....	TRACE	0.0	TRACE	TRACE
ARGON.....	0.0	0.0	0.0	0.0
HYDROGEN.....	0.1	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	1.2	1.4	1.4
HELIUM.....	0.03	0.03	0.03	0.03
HEATING VALUE.....	1502	1648	1032	1032
SPECIFIC GRAVITY.....	0.750	0.602	0.601	0.601
		INDEX SAMPLE 5395 12405	INDEX SAMPLE 5396 13913	INDEX SAMPLE 5397 15027
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CANADIAN		CANADIAN	CANADIAN
FIELD.....	UNION CITY		UNION CITY	UNION CITY
WELL NAME.....	GATZ NO. 1		HILL NO. 1	CRYSTAL BARNHART NO. 27-1
LOCATION.....	SEC. 30, T11N, R7W		SEC. 27, T11N, R7W	SEC. 27, T11N, R7W
OWNER.....	APEX OIL CO.		MACKELLAR, INC.	JONES & PELLOW OIL CO.
COMPLETED.....	10/10/69		01/12/74	10/18/76
SAMPLED.....	09/23/74		02/07/74	06/-/77
FORMATION.....	PENN-OSBORNE		PENN-OSBORNE	PENN-RED FORK
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	10400		9610	9680
WELLHEAD PRESSURE, PSIG.....	4000		1435	2264
OPEN FLOW, MCFD.....	6000		2239	277
COMPONENT, MOLE PCT				
METHANE.....	85.4	86.6	84.3	84.3
ETHANE.....	7.8	10.7	10.4	10.4
PROPANE.....	4.0	3.0	3.4	3.4
N-BUTANE.....	0.7	0.5	0.6	0.6
ISOBUTANE.....	0.4	0.4	0.4	0.4
N-PENTANE.....	0.1	0.1	0.2	0.2
ISOPENTANE.....	0.2	0.2	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	0.1	0.1
HEXANES PLUS.....	0.1	0.1	0.1	0.1
NITROGEN.....	0.6	0.8	0.5	0.5
OXYGEN.....	0.0	TRACE	0.0	0.0
ARGON.....	0.0	0.0	TRACE	TRACE
HYDROGEN.....	0.1	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.0	0.6	0.6
HELIUM.....	0.03	0.03	0.03	0.03
HEATING VALUE.....	1164	1141	1128	1128
SPECIFIC GRAVITY.....	0.664	0.652	0.668	0.668
		INDEX SAMPLE 5398 15273	INDEX SAMPLE 5399 15296	INDEX SAMPLE 5400 15297
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CANADIAN		CANADIAN	CANADIAN
FIELD.....	UNION CITY		UNION CITY	UNION CITY
WELL NAME.....	WHITE FARMS "A" NO. 1		VON TONGLEN NO. 1	RUND NO. 1
LOCATION.....	SEC. 4, T10N, RTW		SEC. 12, T11N, R8W	SEC. 15, T11N, R8W
OWNER.....	PHILIPS PETROLEUM CO.		L. G. WILLIAMS OIL CO.	L. G. WILLIAMS OIL CO.
COMPLETED.....	01/29/78		08/30/77	08/23/77
SAMPLED.....	05/04/78		06/01/78	06/01/78
FORMATION.....	PENN-OSBORNE		DEVCO-HUNTON	DEVCO-HUNTON
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	9880		11010	11799
WELLHEAD PRESSURE, PSIG.....	3515		2000	3850
OPEN FLOW, MCFD.....	NOT GIVEN		5600	2500
COMPONENT, MOLE PCT				
METHANE.....	86.6	80.6	78.4	78.4
ETHANE.....	7.8	10.8	12.9	12.9
PROPANE.....	4.0	4.5	4.6	4.6
N-BUTANE.....	0.7	1.4	1.3	1.3
ISOBUTANE.....	0.3	0.6	0.5	0.5
N-PENTANE.....	0.2	0.4	0.4	0.4
ISOPENTANE.....	0.2	0.4	0.3	0.3
CYCLOPENTANE.....	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.1	0.5	0.3	0.3
NITROGEN.....	0.8	0.0	0.6	0.6
OXYGEN.....	0.1	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	0.0	0.0
HYDROGEN.....	0.0	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.5	0.4	0.4
HELIUM.....	0.03	0.03	0.03	0.03
HEATING VALUE.....	1147	1242	1254	1254
SPECIFIC GRAVITY.....	0.657	0.712	0.720	0.720

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5401 15333	INDEX SAMPLE	5402 8375	INDEX SAMPLE	5403 9039
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CANADIAN			CANADIAN		CANADIAN	
FIELD.....	WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	BOLLINGER NO. 1			PAINT YELLOW NO. 1		BLACK OIL UNIT NO. 1	
LOCATION.....	SEC. 16, T11N, R9W			SEC. 28, T14N, R9W		SEC. 33, T14N, R9W	
OWNER.....	SARKETS, INC.			GETTY OIL CO.		SUN OIL CO.	
COMPLETED.....	12/30/77			11/27/61		04/09/63	
SAMPLED.....	08/02/78			01/19/62		07/12/63	
FORMATION.....	DEVON-BOIS D-ARC			PENN-ATOKA		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11798			9668		9800	
WELLHEAD PRESSURE, PSIG.....	3050			6150		6519	
OPEN FLOW, MCFD.....	NOT GIVEN			4350		13000	
COMPONENT, MOLE PCT							
METHANE.....	78.7			91.0		96.5	
ETHANE.....	11.5			2.9		2.1	
PROpane.....	5.1			1.0		0.5	
N-BUTANE.....	1.2			0.2		0.1	
ISOBUTANE.....	0.9			0.1		TRACE	
N-PENTANE.....	0.4			TRACE		TRACE	
ISOPENTANE.....	0.3			0.2		0.1	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.4			TRACE		TRACE	
NITROGEN.....	0.9			0.5		0.1	
OXYGEN.....	TRACE			0.6		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			TRACE		0.4	
HELIUM.....	0.02			0.02		0.02	
HEATING VALUE.....	1261			1019		1036	
SPECIFIC GRAVITY.....	0.727			0.604		0.577	
		INDEX SAMPLE	5404 10519	INDEX SAMPLE	5405 10615	INDEX SAMPLE	5406 10616
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CANADIAN			CANADIAN		CANADIAN	
FIELD.....	WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	G. STOVER UNIT NO. 1			JACKSON UNIT NO. 1		E. L. EATON NO. 1	
LOCATION.....	SEC. 4, T14N, R10W			SEC. 11, T13N, R10W		SEC. 22, T13N, R9W	
OWNER.....	TIDEWATER OIL CO.			AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	08/02/65			04/18/66		03/28/66	
SAMPLED.....	04/10/66			06/17/66		06/17/66	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	9839			10610		10210	
WELLHEAD PRESSURE, PSIG.....	6395			6700		NOT GIVEN	
OPEN FLOW, MCFD.....	23378			7100		69500	
COMPONENT, MOLE PCT							
METHANE.....	92.4			95.6		91.3	
ETHANE.....	3.2			2.6		4.9	
PROpane.....	1.1			1.0		1.9	
N-BUTANE.....	0.2			0.1		0.5	
ISOBUTANE.....	TRACE			TRACE		TRACE	
N-PENTANE.....	0.2			0.1		0.2	
ISOPENTANE.....	0.1			TRACE		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	1.7			0.0		0.3	
OXYGEN.....	0.2			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.5		0.5	
HELIUM.....	0.02			0.02		0.02	
HEATING VALUE.....	1050			1051		1101	
SPECIFIC GRAVITY.....	0.609			0.587		0.621	
		INDEX SAMPLE	5407 10860	INDEX SAMPLE	5408 11159	INDEX SAMPLE	5409 11160
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CANADIAN			CANADIAN		CANADIAN	
FIELD.....	WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	A. W. STOVER NO. 1-10			LYON UNIT NO. 1		ROYCE UNIT NO. 1	
LOCATION.....	SEC. 10, T14N, R10W			SEC. 13, T14N, R10W		SEC. 23, T12N, R9W	
OWNER.....	UNION OIL CO. OF CALIF.			AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	01/27/67			09/30/66		12/16/66	
SAMPLED.....	02/17/67			10/11/67		10/13/67	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-SKINNER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	10075			10500		10120	
WELLHEAD PRESSURE, PSIG.....	6670			6485		3169	
OPEN FLOW, MCFD.....	15000			9526		1497	
COMPONENT, MOLE PCT							
METHANE.....	95.0			88.6		82.0	
ETHANE.....	2.8			5.8		8.2	
PROpane.....	0.7			2.4		4.7	
N-BUTANE.....	0.2			0.5		0.4	
ISOBUTANE.....	0.1			0.4		0.8	
N-PENTANE.....	0.1			0.1		0.2	
ISOPENTANE.....	0.1			0.3		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.1			0.2		0.2	
NITROGEN.....	0.4			0.8		1.9	
OXYGEN.....	TRACE			0.1		TRACE	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.7		0.6	
HELIUM.....	0.02			0.02		0.03	
HEATING VALUE.....	1051			1121		1207	
SPECIFIC GRAVITY.....	0.590			0.644		0.701	
		INDEX SAMPLE	5410 11680	INDEX SAMPLE	5411 11880	INDEX SAMPLE	5412 11881
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CANADIAN			CANADIAN		CANADIAN	
FIELD.....	WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	FOULKES UNIT NO. 1			VIRGIL REICHERT NO. 1		C. L. EATON NO. 1	
LOCATION.....	SEC. 12, T12N, R10W			SEC. 13, T14N, R10W		SEC. 22, T12N, R9W	
OWNER.....	SAMEDAN OIL CORP.			SUN OIL CO.		SUN OIL CO.	
COMPLETED.....	08/06/68			10/15/68		02/26/69	
SAMPLED.....	11/17/68			05/13/69		05/13/69	
FORMATION.....	PENN-MORROW			PENN-MORROW & MISS-CHESTER		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11098			9910		10661	
WELLHEAD PRESSURE, PSIG.....	6529			6400		1350	
OPEN FLOW, MCFD.....	3700			7200		7500	
COMPONENT, MOLE PCT							
METHANE.....	95.8			95.5		91.0	
ETHANE.....	2.1			2.5		4.2	
PROpane.....	0.4			0.5		2.0	
N-BUTANE.....	0.3			0.0		0.4	
ISOBUTANE.....	0.0			0.0		0.3	
N-PENTANE.....	0.1			0.1		0.2	
ISOPENTANE.....	0.1			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.2			0.2		0.4	
NITROGEN.....	0.3			0.4		0.7	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.6			0.5		0.5	
HELIUM.....	0.02			0.02		0.02	
HEATING VALUE.....	1047			1051		1110	
SPECIFIC GRAVITY.....	0.589			0.592		0.632	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5413 11986	INDEX SAMPLE	5414 12563	INDEX SAMPLE	5415 13079
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CANADIAN			CANADIAN		CANADIAN	
FIELD.....	WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	C. A. RHODES NO. 1			THOMAS UNIT NO. 1		THOMAS NO. 2	
LOCATION.....	SEC. 6, T13N, R10W			SEC. 16, T11N, R9W		SEC. 16, T11N, R9W	
OWNER.....	SUN OIL CO.			WOODS PETROLEUM CORP.		WOODS PETROLEUM CORP.	
COMPLETED.....	11/08/68			04/17/70		03/15/71	
SAMPLED.....	07/25/69			12/03/70		10/11/71	
FORMATION.....	PENN-RED FORK			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	10368			11850		11339	
WELLHEAD PRESSURE, PSIG.....	4200			7058		5913	
OPEN FLOW, MCFD.....	2700			15400		44297	
COMPONENT, MOLE PCT.....							
METHANE.....	78.6			97.5		97.6	
ETHANE.....	11.9			1.0		1.1	
PROPANE.....	5.6			0.2		0.2	
N-BUTANE.....	0.8			0.0		0.1	
ISOBUTANE.....	0.6			0.0		0.0	
N-PENTANE.....	0.2			0.0		0.0	
ISOPENTANE.....	0.2			0.0		0.0	
CYCLOPENTANE.....	0.1			0.0		0.0	
HEXANES PLUS.....	0.1			0.0		0.0	
NITROGEN.....	1.3			0.3		0.3	
OXYGEN.....	0.1			0.0		TRACE	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.9		0.7	
HELIUM.....	1228			102		0.02	
HEATING VALUE.....	1228			1011		1017	
SPECIFIC GRAVITY.....	0.713			0.512		0.571	
		INDEX SAMPLE	5416 13103	INDEX SAMPLE	5417 13873	INDEX SAMPLE	5418 14259
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CANADIAN			CANADIAN		CANADIAN	
FIELD.....	WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	BESSIE HAMBY UNIT NO. 1-4			DENWALT NO. 1		DELANA NO. 1	
LOCATION.....	SEC. 1, T11N, R9W			SEC. 1, T12N, R10W		SEC. 2, T12N, R10W	
OWNER.....	TENNOCO OIL CO.			TEXAS OIL & GAS CORP.		TENNOCO OIL CO.	
COMPLETED.....	07/29/71			06/01/73		01/06/74	
SAMPLED.....	11/17/71			01/24/74		02/15/75	
FORMATION.....	PENN-MORROW			PENN-SPRINGER		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11084			11019		111018	
WELLHEAD PRESSURE, PSIG.....	7342			6125		6272	
OPEN FLOW, MCFD.....	3057			7400		33800	
COMPONENT, MOLE PCT.....							
METHANE.....	97.3			91.5		92.7	
ETHANE.....	1.3			4.5		3.7	
PROPANE.....	0.3			2.0		1.5	
N-BUTANE.....	0.0			0.9		0.3	
ISOBUTANE.....	0.0			0.4		0.3	
N-PENTANE.....	0.0			0.1		TRACE	
ISOPENTANE.....	0.0			0.1		0.2	
CYCLOPENTANE.....	0.0			TRACE		0.1	
HEXANES PLUS.....	0.0			0.1		0.2	
NITROGEN.....	0.3			0.3		0.5	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.5		0.5	
HELIUM.....	0.02			0.02		0.02	
HEATING VALUE.....	1017			1190		1087	
SPECIFIC GRAVITY.....	0.573			0.622		0.616	
		INDEX SAMPLE	5419 14405	INDEX SAMPLE	5420 14609	INDEX SAMPLE	5421 14614
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CANADIAN			CANADIAN		CANADIAN	
FIELD.....	WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	ALICE JOHNSON NO. 1			N. M. VICKERY NO. 1		EDDARD UNIT NO. 1	
LOCATION.....	SEC. 26, T11N, R10W			SEC. 30, T11N, R9W		SEC. 28, T11N, R10W	
OWNER.....	SAMEDEN OIL CORP.			TENNOCO OIL CO.		NOGIL OIL CORP.	
COMPLETED.....	12/17/74			11/26/75		01/13/76	
SAMPLED.....	06/30/75			03/04/76		03/17/76	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	12314			11955		13000	
WELLHEAD PRESSURE, PSIG.....	6222			4422		7800	
OPEN FLOW, MCFD.....	6000			5600		2924	
COMPONENT, MOLE PCT.....							
METHANE.....	88.7			93.8		96.9	
ETHANE.....	1.0			0.2		1.2	
PROPANE.....	2.9			0.9		0.2	
N-BUTANE.....	1.0			0.1		TRACE	
ISOBUTANE.....	0.2			0.2		TRACE	
N-PENTANE.....	0.3			TRACE		TRACE	
ISOPENTANE.....	0.6			0.1		TRACE	
CYCLOPENTANE.....	0.2			TRACE		TRACE	
HEXANES PLUS.....	36.9			TRACE		TRACE	
NITROGEN.....	0.0			0.4		0.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.1		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			1.1		1.2	
HELIUM.....	0.02			0.02		0.02	
HEATING VALUE.....	1177			1052		1008	
SPECIFIC GRAVITY.....	0.662			0.601		0.573	
		INDEX SAMPLE	5422 15975	INDEX SAMPLE	5423 17607	INDEX SAMPLE	5424 12314
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CANADIAN			CANADIAN		CANADIAN	
FIELD.....	WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	MILLARD NO. 1			HICKERSON NO. 2-36		HADLOCK NO. 1	
LOCATION.....	SEC. 30, T11N, R10W			SEC. 36, T14N, R9W		SEC. 30, T13N, R9W	
OWNER.....	COTTON PETROLEUM CORP.			KAISER-FRANCIS OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	06/-/80			11/10/85		12/29/69	
SAMPLED.....	06/-/80			03/07/85		06/08/70	
FORMATION.....	PENN-MORROW			PENN-ATOKA		ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			9670		12902	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			3200		4541	
OPEN FLOW, MCFD.....	NOT GIVEN			2600		15100	
COMPONENT, MOLE PCT.....							
METHANE.....	94.3			93.4		96.2	
ETHANE.....	2.7			2.6		1.6	
PROPANE.....	0.7			0.9		0.2	
N-BUTANE.....	0.1			0.2		0.1	
ISOBUTANE.....	0.1			0.1		0.0	
N-PENTANE.....	0.1			0.1		0.3	
ISOPENTANE.....	0.1			0.1		0.0	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	0.6			0.9		0.9	
OXYGEN.....	0.1			0.3		0.0	
ARGON.....	TRACE			0.6		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.0			0.5		1.0	
HELIUM.....	TRACE			0.02		1.00	
HEATING VALUE.....	1051			1049		1027	
SPECIFIC GRAVITY.....	0.602			0.607		0.585	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5425 15960	INDEX SAMPLE	5426 15962	INDEX SAMPLE	5427 4607
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CANADIAN			CANADIAN		CARTER	
FIELD.....	YUKON NW			YUKON NW		ARDMORE	
WELL NAME.....	WHEATLEY NO. 1-15			WHEATLEY NO. 1-15		HEGGES NO. 1	
LOCATION.....	SEC. 15, T12N, R5W			SEC. 15, T12N, R5W		SEC. 14, T5S, R1E	
OWNER.....	RALPH E. PLOTNER OIL & GAS			RALPH E. PLOTNER OIL & GAS		SAMEAN OIL CORP.	
COMPLETED.....	11/27/79			11/27/79		06/15/48	
SAMPLED.....	05/13/80			05/13/80		11/08/48	
FORMATION.....	PENN-OSWEGO			DEVO-HUNTON & MISS		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360			360		350	
DEPTH, FEET.....	7426			7814		2610	
WELLHEAD PRESSURE, PSIG.....	2188			1060		550	
OPEN FLOW, MCFD.....	17155			850		3000	
COMPONENT, MOLE PCT							
METHANE.....	80.8	---	---	56.2	---	90.5	---
ETHANE.....	10.2	---	---	16.2	---	8.5	---
PROPANE.....	4.6	---	---	10.8	---	---	---
N-BUTANE.....	1.2	---	---	3.2	---	---	---
ISOBUTANE.....	0.5	---	---	1.2	---	---	---
N-PENTANE.....	0.3	---	---	0.6	---	---	---
ISOPENTANE.....	0.2	---	---	0.5	---	---	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	---	---
HEXANES PLUS.....	0.1	---	---	0.2	---	---	---
NITROGEN.....	0.6	---	---	0.5	---	0.5	---
OXYGEN.....	0.1	---	---	TRACE	---	0.2	---
ARGON.....	0.0	---	---	0.0	---	---	---
HYDROGEN.....	0.0	---	---	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	---	---
CARBON DIOXIDE.....	0.4	---	---	0.4	---	0.2	---
HELIUM.....	0.05	---	---	0.02	---	0.08	---
HEATING VALUE.....	1204	---	---	1455	---	1069	---
SPECIFIC GRAVITY.....	0.700	---	---	0.847	---	0.602	---
		INDEX SAMPLE	5428 6927	INDEX SAMPLE	5429 3435	INDEX SAMPLE	5430 11376
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CARTER			CARTER		CARTER	
FIELD.....	ARDMORE			CADDO		CADDO	
WELL NAME.....	J. D. NOLEN NO. 1			MOBLE NO. 1		PRUITT NO. 1	
LOCATION.....	SEC. 12, T5S, R1E			SEC. 35, T3S, R1E		SEC. 35, T4S, R1E	
OWNER.....	AMOCO PRODUCTION CO.			UNION OIL CO.		E. LYLE JOHNSON	
COMPLETED.....	12/02/58			05/10/39		12/30/61	
SAMPLED.....	02/11/59			05/21/42		03/08/68	
FORMATION.....	PENN-SPRINGER			MISS-WOODFORD		PENN-GODDARD	
GEOLOGIC PROVINCE CODE.....	350			350		350	
DEPTH, FEET.....	8066			4289		3800	
WELLHEAD PRESSURE, PSIG.....	2490			NOT GIVEN		750	
OPEN FLOW, MCFD.....	12000			500		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	91.0	---	---	76.5	---	81.7	---
ETHANE.....	4.2	---	---	21.5	---	7.5	---
PROPANE.....	2.1	---	---	---	---	3.4	---
N-BUTANE.....	0.6	---	---	---	---	0.8	---
ISOBUTANE.....	0.4	---	---	---	---	0.3	---
N-PENTANE.....	0.2	---	---	---	---	0.2	---
ISOPENTANE.....	TRACE	---	---	---	---	0.0	---
CYCLOPENTANE.....	TRACE	---	---	---	---	0.1	---
HEXANES PLUS.....	0.1	---	---	---	---	0.2	---
NITROGEN.....	1.0	---	---	1.4	---	4.7	---
OXYGEN.....	TRACE	---	---	0.3	---	0.5	---
ARGON.....	TRACE	---	---	---	---	TRACE	---
HYDROGEN.....	0.1	---	---	---	---	TRACE	---
HYDROGEN SULFIDE.....	0.0	---	---	---	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.2	---	0.2	---
HELIUM.....	0.10	---	---	0.08	---	0.04	---
HEATING VALUE.....	1099	---	---	1160	---	1110	---
SPECIFIC GRAVITY.....	0.623	---	---	0.670	---	0.679	---
		INDEX SAMPLE	5431 11377	INDEX SAMPLE	5432 11378	INDEX SAMPLE	5433 9365
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CARTER			CARTER		CARTER	
FIELD.....	CADDO			CADDO		HEALDTON	
WELL NAME.....	PRUITT NO. 1			CONOVER NO. 1		STEWART-HAWK UNIT NO. 1	
LOCATION.....	SEC. 35, T4S, R1E			SEC. 26, T3S, R1E		SEC. 4, T4S, R3W	
OWNER.....	E. LYLE JOHNSON			E. LYLE JOHNSON		MOBIL OIL CORP.	
COMPLETED.....	04/13/53			---		02/10/64	
SAMPLED.....	03/08/68			03/08/68		05/15/64	
FORMATION.....	DEVO-HUNTON			DEVO-HUNTON		ORDO-BIRDSEYE	
GEOLOGIC PROVINCE CODE.....	350			350		350	
DEPTH, FEET.....	4279			4160		2620	
WELLHEAD PRESSURE, PSIG.....	950			1000		480	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		1500	
COMPONENT, MOLE PCT							
METHANE.....	81.5	---	---	83.3	---	75.8	---
ETHANE.....	8.8	---	---	8.5	---	14.2	---
PROPANE.....	4.0	---	---	3.7	---	6.5	---
N-BUTANE.....	1.1	---	---	0.7	---	1.4	---
ISOBUTANE.....	0.4	---	---	0.3	---	0.3	---
N-PENTANE.....	0.4	---	---	0.3	---	0.1	---
ISOPENTANE.....	TRACE	---	---	TRACE	---	0.2	---
CYCLOPENTANE.....	TRACE	---	---	---	---	TRACE	---
HEXANES PLUS.....	0.3	---	---	0.1	---	0.1	---
NITROGEN.....	2.9	---	---	2.4	---	1.2	---
OXYGEN.....	0.2	---	---	0.3	---	0.1	---
ARGON.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.2	---	TRACE	---
HELIUM.....	0.04	---	---	0.04	---	0.03	---
HEATING VALUE.....	1174	---	---	1151	---	1270	---
SPECIFIC GRAVITY.....	0.692	---	---	0.674	---	0.729	---
		INDEX SAMPLE	5434 14186	INDEX SAMPLE	5435 9794	INDEX SAMPLE	5436 16996
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CARTER			CARTER		CARTER	
FIELD.....	HEALDTON			HEALDTON		MURRAY STATE PARK	
WELL NAME.....	ORME NO. 3			MCCLURE NO. 2		STATE PARK A NO. 1	
LOCATION.....	SEC. 34, T3S, R3W			SEC. 14, T4S, R2W		SEC. 19, T5S, R3E	
OWNER.....	KIMBERLY DRILLING CO.			F. STEPHENSON		LOTION PETROLEUM CORP.	
COMPLETED.....	09/---/73			01/07/65		12/02/82	
SAMPLED.....	10/---/74			03/10/65		07/26/83	
FORMATION.....	PENN-DORNIC HILLS			PENN-HOXBAR		PENN-GODDARD	
GEOLOGIC PROVINCE CODE.....	350			350		350	
DEPTH, FEET.....	5700			1962		17405	
WELLHEAD PRESSURE, PSIG.....	1700			63		13500	
OPEN FLOW, MCFD.....	371.0			2300		3000	
COMPONENT, MOLE PCT							
METHANE.....	77.2	---	---	80.8	---	96.2	---
ETHANE.....	10.8	---	---	10.8	---	1.1	---
PROPANE.....	5.8	---	---	3.3	---	0.1	---
N-BUTANE.....	1.5	---	---	0.7	---	0.1	---
ISOBUTANE.....	0.5	---	---	0.3	---	0.0	---
N-PENTANE.....	0.4	---	---	0.1	---	0.1	---
ISOPENTANE.....	0.2	---	---	0.2	---	TRACE	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	TRACE	---
HEXANES PLUS.....	0.2	---	---	0.1	---	0.1	---
NITROGEN.....	3.1	---	---	7.4	---	0.6	---
OXYGEN.....	0.0	---	---	TRACE	---	TRACE	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.1	---	---	0.0	---	0.3	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	TRACE	---	1.4	---
HELIUM.....	0.08	---	---	0.13	---	0.02	---
HEATING VALUE.....	1233	---	---	1081	---	1011	---
SPECIFIC GRAVITY.....	0.730	---	---	0.676	---	0.581	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5437 11706	INDEX SAMPLE	5438 2647	INDEX SAMPLE	5439 4733
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CARTER			CARTER		CARTER	
FIELD.....	OVERBROOK			SHO-VEL-TUM		SHO-VEL-TUM	
WELL NAME.....	A. T. RINER NO. 1			MORGAN NO. 1		M. A. BRADY NO. 1	
LOCATION.....	SEC. 32, T5S, R3E			SEC. 4, T5S, R3W		SEC. 22, T1S, R3W	
OWNER.....	SULE OIL CO.-U.S.			CARTER OIL CO.		TEXACO INC.	
COMPLETED.....	01/16/68			04/25/33		01/15/49	
SAMPLED.....	12/13/68			09/14/33		05/11/49	
FORMATION.....	PENN-SPRINGER			NOT GIVEN		PENN-TUSSY U & DEESE	
GEOLOGIC PROVINCE CODE.....	350			350		350	
DEPTH, FEET.....	4890			2015		2782	
WELLHEAD PRESSURE, PSIG.....	1551			1551		325	
OPEN FLOW, MCFD.....	1835			8000		750	
COMPONENT, MOLE PCT							
METHANE.....	87.0			55.7		89.6	
ETHANE.....	6.5			28.5		1.6	
PROPANE.....	3.0			---		0.8	
N-BUTANE.....	1.0			---		0.2	
ISOBUTANE.....	0.1			---		0.2	
N-PENTANE.....	0.4			---		0.1	
ISOPENTANE.....	0.2			---		0.0	
CYCLOPENTANE.....	0.1			---		TRACE	
HEXANES PLUS.....	0.2			---		0.2	
NITROGEN.....	1.2			15.5		7.1	
OXYGEN.....	TRACE			0.3		0.2	
ARGON.....	TRACE			---		TRACE	
HYDROGEN.....	0.1			---		0.0	
HYDROGEN SULFIDE**.....	0.0			---		---	
CARBON DIOXIDE.....	0.1			0.0		0.11	
HELIUM.....	0.05			0.10		---	
HEATING VALUE*.....	1153			1075		981	
SPECIFIC GRAVITY.....	0.657			0.761		0.614	
		INDEX SAMPLE	5440 5014	INDEX SAMPLE	5441 5065	INDEX SAMPLE	5442 9932
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CARTER			CARTER		CARTER	
FIELD.....	SHO-VEL-TUM			SHO-VEL-TUM		SHO-VEL-TUM	
WELL NAME.....	IDA BUMPASS NO. 7			WILLIAMS NO. 1		DOROTHY GALT UNIT NO. 1	
LOCATION.....	SEC. 33, T1S, R3W			SEC. 11, T1S, R3W		SEC. 20, T1S, R3W	
OWNER.....	MOBIL OIL CORP.			KERR-MCGEE CORP.		TEXACO INC.	
COMPLETED.....	12/25/60			7/7/60		02/27/65	
SAMPLED.....	03/08/51			08/01/51		06/21/65	
FORMATION.....	PENN-SPRINGER			NOT GIVEN		MISS-GOODWIN	
GEOLOGIC PROVINCE CODE.....	350			NOT GIVEN		350	
DEPTH, FEET.....	5652			NOT GIVEN		6705	
WELLHEAD PRESSURE, PSIG.....	1425			NOT GIVEN		1583	
OPEN FLOW, MCFD.....	12500			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	90.6			84.7		84.5	
ETHANE.....	4.4			5.3		6.3	
PROPANE.....	1.7			4.6		3.5	
N-BUTANE.....	0.6			0.9		1.1	
ISOBUTANE.....	0.4			0.2		0.5	
N-PENTANE.....	0.1			0.3		0.4	
ISOPENTANE.....	0.2			0.3		0.2	
CYCLOPENTANE.....	TRACE			0.1		0.2	
HEXANES PLUS.....	0.2			0.0		0.4	
NITROGEN.....	1.6			0.6		2.7	
OXYGEN.....	0.1			0.2		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.0			0.15		0.12	
HEATING VALUE*.....	1095			1100		1167	
SPECIFIC GRAVITY.....	0.627			0.665		0.682	
		INDEX SAMPLE	5443 9946	INDEX SAMPLE	5444 8623	INDEX SAMPLE	5445 8842
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CARTER			CIMARRON		CIMARRON	
FIELD.....	SHO-VEL-TUM			BURTON SE		BURTON SE	
WELL NAME.....	DOROTHY GALT UNIT NO. 1			CLUCK A-1		CLUCK A NO. 1	
LOCATION.....	SEC. 20, T1S, R3W			SEC. 19, T4N, R9ECM		SEC. 20, T4N, R9ECM	
OWNER.....	TEXACO INC.			HUGHES SEEWALD		DARYL DAVIS & ASSOC.	
COMPLETED.....	02/27/65			07/27/62		09/15/62	
SAMPLED.....	06/10/65			07/29/62		02/05/63	
FORMATION.....	MISS-GOODWIN			PENN-MORROW M		PENN-MORROW M	
GEOLOGIC PROVINCE CODE.....	350			435		435	
DEPTH, FEET.....	6478			4410		4398	
WELLHEAD PRESSURE, PSIG.....	1208			985		990	
OPEN FLOW, MCFD.....	NOT GIVEN			25000		18000	
COMPONENT, MOLE PCT							
METHANE.....	86.9			66.6		58.0	
ETHANE.....	6.0			4.7		3.8	
PROPANE.....	3.0			2.6		2.1	
N-BUTANE.....	0.9			0.7		0.5	
ISOBUTANE.....	0.4			0.4		0.4	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.1			0.2		0.1	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	2.0			23.5		31.4	
OXYGEN.....	0.0			TRACE		2.8	
ARGON.....	0.0			TRACE		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		0.2	
HELIUM.....	0.10			0.86		0.70	
HEATING VALUE*.....	1132			886		759	
SPECIFIC GRAVITY.....	0.654			0.725		0.759	
		INDEX SAMPLE	5446 9216	INDEX SAMPLE	5447 9277	INDEX SAMPLE	5448 9278
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	BURTON SE			BURTON SE		BURTON SE	
WELL NAME.....	KLING A-1			HAGAN A NO. 1		CLUCK A NO. 1	
LOCATION.....	SEC. 19, T4N, R9ECM			SEC. 19, T4N, R9ECM		SEC. 20, T4N, R9ECM	
OWNER.....	HUGHES SEEWALD			HUGHES SEEWALD		HUGHES SEEWALD	
COMPLETED.....	01/7/64			09/7/63		09/7/62	
SAMPLED.....	04/08/64			04/08/64		04/08/64	
FORMATION.....	PENN-MORROW M			PENN-MORROW M		PENN-MORROW M	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4450			4440		4435	
WELLHEAD PRESSURE, PSIG.....	976			985		985	
OPEN FLOW, MCFD.....	5750			400		35000	
COMPONENT, MOLE PCT							
METHANE.....	63.7			62.3		67.2	
ETHANE.....	4.4			2.7		4.8	
PROPANE.....	2.3			1.0		2.6	
N-BUTANE.....	0.8			0.2		0.8	
ISOBUTANE.....	0.2			0.2		0.2	
N-PENTANE.....	0.1			0.2		0.3	
ISOPENTANE.....	0.3			0.4		0.1	
CYCLOPENTANE.....	0.1			0.1		0.2	
HEXANES PLUS.....	0.1			0.4		0.2	
NITROGEN.....	26.8			27.0		22.7	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		0.1	
HELIUM.....	0.88			0.89		0.84	
HEATING VALUE*.....	844			879		899	
SPECIFIC GRAVITY.....	0.735			0.757		0.725	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	5449 7276		INDEX SAMPLE	5450 14968		INDEX SAMPLE	5451 15694
STATE.....	OKLAHOMA			OKLAHOMA			OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON			CIMARRON	
FIELD.....	CASTANEDA			GRIGGS NE			GRIGGS NE	
WELL NAME.....	OKLAHOMA G NO. 1			SALTS NO. 1-A			ZIMMERMAN NO. 1	
LOCATION.....	SEC. 30, T9N, R6ECM			SEC. 12, T2N, R9ECM			SEC. 11, T2N, R9ECM	
OWNER.....	SKELLY OIL CO.			ARGONAUT ENERGY CORP.			ARGONAUT ENERGY CORP.	
COMPLETED.....	10/17/58			01/12/77			--/--/00	
SAMPLED.....	11/09/58			04/19/77			07/10/79	
FORMATION.....	PENN-DES MOINES			PENN-MORROW			PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	435			435			435	
DEPTH, FEET.....	4099			4524			5000	
WELLHEAD PRESSURE, PSIG.....	10			1090			NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			52500			NOT GIVEN	
COMPONENT, MOLE PCT.....								
METHANE.....	21.7			73.6			86.2	
ETHANE.....	10.2			5.1			5.9	
PROPANE.....	19.6			2.7			2.8	
N-BUTANE.....	9.2			1.0			0.8	
ISOBUTANE.....	3.4			0.4			0.3	
N-PENTANE.....	1.3			0.2			0.3	
ISOPENTANE.....	0.4			0.4			0.2	
CYCLOPENTANE.....	0.3			0.1			0.1	
HEXANES PLUS.....	1.3			0.2			0.2	
NITROGEN.....	27.8			15.6			3.0	
OXYGEN.....	0.1			0.0			0.0	
ARGON.....	TRACE			TRACE			TRACE	
HYDROGEN.....	0.2			0.0			TRACE	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.2			0.1			0.1	
HELIUM.....	0.20			0.59			0.20	
HEATING VALUE.....	19.25			0.709			11.24	
SPECIFIC GRAVITY.....	1.255						0.658	

	INDEX SAMPLE	5452 6146		INDEX SAMPLE	5453 6344		INDEX SAMPLE	5454 6460
STATE.....	OKLAHOMA			OKLAHOMA			OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON			CIMARRON	
FIELD.....	GRIGGS S			GRIGGS SE			GRIGGS SE	
WELL NAME.....	BRUEHE			GODWIN A NO. 1			W. D. YOUTSLER NO. 1	
LOCATION.....	SEC. 31, T1N, R9ECM			SEC. 29, T1N, R9ECM			SEC. 23, T1N, R9ECM	
OWNER.....	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.			TEXACO INC.	
COMPLETED.....	08/28/56			04/17/57			10/29/57	
SAMPLED.....	10/10/56			02/18/57			10/29/57	
FORMATION.....	PENN-MASSIVE LIME			PENN-MASSIVE LIME			PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	435			435			435	
DEPTH, FEET.....	3228			3390			4570	
WELLHEAD PRESSURE, PSIG.....	475			900			900	
OPEN FLOW, MCFD.....	1850			9800			1448	
COMPONENT, MOLE PCT.....								
METHANE.....	78.4			76.3			85.3	
ETHANE.....	5.4			5.2			5.3	
PROPANE.....	2.9			3.0			2.3	
N-BUTANE.....	1.1			1.0			0.7	
ISOBUTANE.....	0.3			0.4			0.4	
N-PENTANE.....	0.3			0.3			0.1	
ISOPENTANE.....	0.2			0.0			0.2	
CYCLOPENTANE.....	0.2			0.1			0.1	
HEXANES PLUS.....	0.2			0.3			0.2	
NITROGEN.....	10.3			12.5			4.9	
OXYGEN.....	0.0			TRACE			TRACE	
ARGON.....	TRACE			TRACE			TRACE	
HYDROGEN.....	0.1			0.0			0.1	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.1			0.1			0.2	
HELIUM.....	0.45			0.55			0.20	
HEATING VALUE.....	10.49			10.30			1083	
SPECIFIC GRAVITY.....	0.688			0.699			0.654	

	INDEX SAMPLE	5455 6461		INDEX SAMPLE	5456 6593		INDEX SAMPLE	5457 6594
STATE.....	OKLAHOMA			OKLAHOMA			OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON			CIMARRON	
FIELD.....	GRIGGS SE			GRIGGS SE			GRIGGS SE	
WELL NAME.....	W. D. YOUTSLER NO. 1			H. S. HAWKINS NO. 1			H. S. HAWKINS NO. 1	
LOCATION.....	SEC. 23, T1N, R9ECM			SEC. 26, T1N, R9ECM			SEC. 26, T1N, R9ECM	
OWNER.....	TEXACO INC.			TEXACO INC.			TEXACO INC.	
COMPLETED.....	10/29/57			04/18/58			04/18/58	
SAMPLED.....	12/03/57			05/15/58			05/15/58	
FORMATION.....	PENN-ATOKA			PENN-MORROW			PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	435			435			435	
DEPTH, FEET.....	4246			4568			4266	
WELLHEAD PRESSURE, PSIG.....	840			909			909	
OPEN FLOW, MCFD.....	5392			8089			15390	
COMPONENT, MOLE PCT.....								
METHANE.....	89.2			86.9			88.4	
ETHANE.....	5.4			5.4			5.5	
PROPANE.....	2.2			2.4			2.4	
N-BUTANE.....	0.7			0.7			0.9	
ISOBUTANE.....	0.3			0.3			0.3	
N-PENTANE.....	0.2			0.1			0.3	
ISOPENTANE.....	0.1			0.3			0.3	
CYCLOPENTANE.....	0.2			TRACE			0.1	
HEXANES PLUS.....	0.1			3.4			0.2	
NITROGEN.....	1.3			TRACE			1.5	
OXYGEN.....	TRACE			TRACE			TRACE	
ARGON.....	TRACE			TRACE			0.0	
HYDROGEN.....	0.1			0.0			0.0	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.1			0.1			0.1	
HELIUM.....	0.10			0.10			0.10	
HEATING VALUE.....	1118			1097			1132	
SPECIFIC GRAVITY.....	0.636			0.645			0.647	

	INDEX SAMPLE	5458 7180		INDEX SAMPLE	5459 7394		INDEX SAMPLE	5460 7395
STATE.....	OKLAHOMA			OKLAHOMA			OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON			CIMARRON	
FIELD.....	GRIGGS SE			GRIGGS SE			GRIGGS SE	
WELL NAME.....	L. J. WELLS NO. 1			RUTH CHUMAN NO. 1			RUTH CHUMAN NO. 1	
LOCATION.....	SEC. 10, T1N, R9ECM			SEC. 24, T1N, R9ECM			SEC. 24, T1N, R9ECM	
OWNER.....	CARTER OIL CO.			TEXACO INC.			TEXACO INC.	
COMPLETED.....	06/06/59			09/28/59			09/28/59	
SAMPLED.....	08/18/59			02/12/60			02/12/60	
FORMATION.....	PENN-CHEROKEE			PENN-OSWEGO			PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	435			435			435	
DEPTH, FEET.....	4308			4277			4676	
WELLHEAD PRESSURE, PSIG.....	838			839			210	
OPEN FLOW, MCFD.....	25150			22269			2060	
COMPONENT, MOLE PCT.....								
METHANE.....	88.4			90.9			87.8	
ETHANE.....	5.4			4.7			5.5	
PROPANE.....	2.2			1.6			2.3	
N-BUTANE.....	0.6			0.4			0.8	
ISOBUTANE.....	0.4			0.1			0.3	
N-PENTANE.....	0.2			0.1			0.2	
ISOPENTANE.....	0.5			0.1			0.2	
CYCLOPENTANE.....	0.1			TRACE			TRACE	
HEXANES PLUS.....	0.2			0.1			0.1	
NITROGEN.....	1.9			0.1			2.3	
OXYGEN.....	0.0			TRACE			0.1	
ARGON.....	0.0			TRACE			TRACE	
HYDROGEN.....	0.1			0.0			0.0	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.1			0.1			0.1	
HELIUM.....	0.20			0.10			0.10	
HEATING VALUE.....	1123			1077			1115	
SPECIFIC GRAVITY.....	0.645			0.614			0.646	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5461 7752	INDEX SAMPLE	5462 8019	INDEX SAMPLE	5463 8459
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	GRIGGS SE			GRIGGS SE		GRIGGS SE	
WELL NAME.....	GUSTAV DENCKER NO. 1			GRABEAL NO. 1		RUTH CHUMAN NO. 2	
LOCATION.....	SEC. 27, T2N, R9ECM			SEC. 20, T1N, R9ECM		SEC. 24, T2N, R9ECM	
OWNER.....	TEXACO INC.			GREENLAND DRILLING CO.		TEXACO INC.	
COMPLETED.....	04/18/60			04/--/61		02/06/62	
SAMPLED.....	11/03/60			05/--/61		03/12/62	
FORMATION.....	PENN-TOPEKA			PERM-RED CAVE		PENN-MASSIVE LIME	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	3434			1738		3402	
WELLHEAD PRESSURE, PSIG.....	480			NOT GIVEN		470	
OPEN FLOW, MCFD.....	1170			NOT GIVEN		1697	
COMPONENT, MOLE PCT							
METHANE.....	82.8	-----		28.3	-----	83.9	-----
ETHANE.....	5.9	-----		4.0	-----	5.5	-----
PROPANE.....	2.9	-----		3.3	-----	3.0	-----
N-BUTANE.....	0.9	-----		0.7	-----	0.9	-----
ISOBUTANE.....	0.4	-----		0.5	-----	0.4	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	5.6	-----		60.5	-----	5.4	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		0.2	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		TRACE	-----	0.1	-----
HELIUM.....	0.30	-----		2.00	-----	0.25	-----
HEATING VALUE.....	1086	-----		502	-----	1092	-----
SPECIFIC GRAVITY.....	0.671	-----		0.876	-----	0.663	-----
		INDEX SAMPLE	5464 8460	INDEX SAMPLE	5465 8545	INDEX SAMPLE	5466 16296
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	GRIGGS SE			GRIGGS SE		GRIGGS SE	
WELL NAME.....	RUTH CHUMAN NO. 2			GOWDY NO. 1		GUSTAVE DENCKER NO. 2	
LOCATION.....	SEC. 24, T1N, R9ECM			SEC. 11, T1N, R9ECM		SEC. 27, T2N, R9ECM	
OWNER.....	TEXACO INC.			COLORADO OIL & GAS CORP.		TEXACO INC.	
COMPLETED.....	02/06/62			04/09/61		03/24/81	
SAMPLED.....	03/12/62			05/01/62		07/28/81	
FORMATION.....	PENN-MARATON			PENN-TOPEKA		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4041			3452		4602	
WELLHEAD PRESSURE, PSIG.....	770			474		1012	
OPEN FLOW, MCFD.....	2763			6500		7300	
COMPONENT, MOLE PCT							
METHANE.....	87.0	-----		85.4	-----	84.9	-----
ETHANE.....	2.5	-----		5.4	-----	5.9	-----
PROPANE.....	2.9	-----		2.7	-----	2.7	-----
N-BUTANE.....	0.9	-----		0.6	-----	0.8	-----
ISOBUTANE.....	0.4	-----		0.3	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.1	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.2	-----
NITROGEN.....	2.3	-----		4.9	-----	4.4	-----
OXYGEN.....	TRACE	-----		0.0	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.15	-----		0.25	-----	0.25	-----
HEATING VALUE.....	1125	-----		1077	-----	1105	-----
SPECIFIC GRAVITY.....	0.651	-----		0.649	-----	0.661	-----
		INDEX SAMPLE	5467 17151	INDEX SAMPLE	5468 3639	INDEX SAMPLE	5469 3640
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	GRIGGS SE			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	HITCH NO. 2			E. COX NO. 1		E. COX NO. 1	
LOCATION.....	SEC. 25, T2N, R9ECM			SEC. 16, T5N, R8ECM		SEC. 16, T5N, R8ECM	
OWNER.....	SPECTRA ENERGY CORP.			UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.	
COMPLETED.....	01/08/84			05/08/43		05/08/43	
SAMPLED.....	01/08/84			05/09/43		05/09/43	
FORMATION.....	PENN-ATOKA			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4247			4684		4684	
WELLHEAD PRESSURE, PSIG.....	800			846		846	
OPEN FLOW, MCFD.....	2250			19000		19000	
COMPONENT, MOLE PCT							
METHANE.....	83.0	-----		60.8	-----	59.1	-----
ETHANE.....	5.4	-----		12.7	-----	11.9	-----
PROPANE.....	2.8	-----		---	-----	---	-----
N-BUTANE.....	0.3	-----		---	-----	---	-----
ISOBUTANE.....	0.3	-----		---	-----	---	-----
N-PENTANE.....	0.2	-----		---	-----	---	-----
ISOPENTANE.....	0.3	-----		---	-----	---	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	---	-----
HEXANES PLUS.....	0.1	-----		---	-----	---	-----
NITROGEN.....	6.4	-----		23.8	-----	26.1	-----
OXYGEN.....	0.2	-----		0.0	-----	0.2	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.5	-----	0.6	-----
HELIUM.....	0.27	-----		2.24	-----	2.13	-----
HEATING VALUE.....	1174	-----		---	-----	813	-----
SPECIFIC GRAVITY.....	0.666	-----		0.711	-----	0.719	-----
		INDEX SAMPLE	5470 3957	INDEX SAMPLE	5471 4155	INDEX SAMPLE	5472 4156
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	ROSE NO. 1			JESSIE JERRYNO. 1		JESSIE JERRYNO. 2	
LOCATION.....	SEC. 26, T5N, R8ECM			SEC. 19, T5N, R8ECM		SEC. 19, T5N, R8ECM	
OWNER.....	UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.	
COMPLETED.....	01/06/45			05/20/46		06/29/46	
SAMPLED.....	02/05/45			08/27/46		08/27/46	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4630			4871		4820	
WELLHEAD PRESSURE, PSIG.....	825			750		848	
OPEN FLOW, MCFD.....	14			NOT GIVEN		20000	
COMPONENT, MOLE PCT							
METHANE.....	61.4	-----		55.0	-----	51.5	-----
ETHANE.....	9.1	-----		13.2	-----	17.5	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	26.1	-----		28.0	-----	27.1	-----
OXYGEN.....	0.3	-----		0.1	-----	0.2	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.9	-----		1.4	-----	1.4	-----
HELIUM.....	2.19	-----		2.26	-----	2.26	-----
HEATING VALUE.....	785	-----		794	-----	835	-----
SPECIFIC GRAVITY.....	0.708	-----		0.740	-----	0.758	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5473 4157			INDEX SAMPLE	5474 4159			INDEX SAMPLE	5475 4160
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	EDWARD JERNYN NO. 1			J.C. JOHNSON NO. 1				A.L. ROSE NO. 1			
LOCATION.....	SEC. 18, T5N, R8ECM			SEC. 12, T5N, R7ECM				SEC. 24, T5N, R8ECM			
OWNER.....	UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.				UNION OIL CO. OF CALIF.			
COMPLETED.....	04/29/46			10/26/45				12/20/44			
SAMPLED.....	08/27/46			08/28/46				08/27/46			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4778			4855				4640			
WELLHEAD PRESSURE, PSIG.....	775			NOT GIVEN				850			
OPEN FLOW, MCFD.....	7455			NOT GIVEN				6885			
COMPONENT, MOLE PCT											
METHANE.....	54.8	-----		21.1	-----			58.0	-----		
ETHANE.....	14.3	-----		38.9	-----			13.2	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	27.5	-----		30.3	-----			25.6	-----		
OXYGEN.....	0.1	-----		0.2	-----			0.1	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE**.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	1.1	-----		8.7	-----			0.9	-----		
HELIUM.....	2.23	-----		0.92	-----			2.23	-----		
HEATING VALUE.....	811	-----		911	-----			824	-----		
SPECIFIC GRAVITY.....	0.741	-----		0.955	-----			0.726	-----		
		INDEX SAMPLE	5476 4161			INDEX SAMPLE	5477 4162			INDEX SAMPLE	5478 4163
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	RUSSELL SPARKMAN NO. 1			OKLAHOMA STATE NO. 1				H. P. MCKIRAHAN NO. 1			
LOCATION.....	SEC. 3, T5N, R8ECM			SEC. 6, T5N, R8ECM				SEC. 13, T5N, R7ECM			
OWNER.....	UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.				UNION OIL CO. OF CALIF.			
COMPLETED.....	02/11/46			06/27/45				05/02/46			
SAMPLED.....	08/28/46			08/28/46				08/28/46			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4719			4787				4848			
WELLHEAD PRESSURE, PSIG.....	780			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	170			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	55.9	-----		51.7	-----			64.9	-----		
ETHANE.....	13.4	-----		19.4	-----			0.0	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	27.4	-----		25.6	-----			23.8	-----		
OXYGEN.....	0.3	-----		0.4	-----			0.2	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE**.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.7	-----		1.1	-----			10.8	-----		
HELIUM.....	2.34	-----		2.15	-----			0.28	-----		
HEATING VALUE.....	806	-----		864	-----			657	-----		
SPECIFIC GRAVITY.....	0.733	-----		0.758	-----			0.758	-----		
		INDEX SAMPLE	5479 4164			INDEX SAMPLE	5480 4711			INDEX SAMPLE	5481 5094
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	H. P. MCKIRAHAN NO. 2			PARKES NO. 1				PARKES NO. 1			
LOCATION.....	SEC. 13, T5N, R8ECM			SEC. 34, T4N, R8ECM				SEC. 34, T4N, R8ECM			
OWNER.....	UNION OIL CO. OF CALIF.			BAY PETROLEUM CORP.				BAY PETROLEUM CORP.			
COMPLETED.....	06/03/46			04/10/49				03/27/51			
SAMPLED.....	08/28/46			07/18/49				10/29/51			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4848			4780				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			150				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			1200				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	80.2	-----		62.5	-----			62.2	-----		
ETHANE.....	0.0	-----		3.5	-----			3.2	-----		
PROPANE.....	---	-----		0.3	-----			1.8	-----		
N-BUTANE.....	---	-----		0.8	-----			0.6	-----		
ISOBUTANE.....	---	-----		0.3	-----			0.2	-----		
N-PENTANE.....	---	-----		0.4	-----			0.2	-----		
ISOPENTANE.....	---	-----		0.1	-----			0.2	-----		
CYCLOPENTANE.....	---	-----		TRACE	-----			TRACE	-----		
HEXANES PLUS.....	---	-----		TRACE	-----			TRACE	-----		
NITROGEN.....	9.5	-----		27.5	-----			29.0	-----		
OXYGEN.....	0.3	-----		0.0	-----			0.2	-----		
ARGON.....	---	-----		0.1	-----			0.1	-----		
HYDROGEN.....	---	-----		0.0	-----			0.0	-----		
HYDROGEN SULFIDE**.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	9.6	-----		0.3	-----			0.4	-----		
HELIUM.....	0.38	-----		1.31	-----			1.92	-----		
HEATING VALUE.....	812	-----		833	-----			778	-----		
SPECIFIC GRAVITY.....	0.687	-----		0.741	-----			0.726	-----		
		INDEX SAMPLE	5482 5095			INDEX SAMPLE	5483 5096			INDEX SAMPLE	5484 5432
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	PARKES NO. 2			BAKER NO. 1				WISSEMAN NO. 2 A-1			
LOCATION.....	SEC. 34, T4N, R8ECM			SEC. 34, T4N, R8ECM				SEC. 2, T5N, R9ECM			
OWNER.....	BAY PETROLEUM CORP.			BAY PETROLEUM CORP.				CITIES SERVICE OIL CO.			
COMPLETED.....	10/29/51			10/29/51				03/19/53			
SAMPLED.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				4640			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				839			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				5700			
COMPONENT, MOLE PCT											
METHANE.....	62.1	-----		62.1	-----			65.3	-----		
ETHANE.....	3.2	-----		3.2	-----			2.9	-----		
PROPANE.....	1.7	-----		0.8	-----			1.9	-----		
N-BUTANE.....	0.6	-----		0.6	-----			0.6	-----		
ISOBUTANE.....	TRACE	-----		0.1	-----			0.3	-----		
N-PENTANE.....	0.2	-----		0.0	-----			0.3	-----		
ISOPENTANE.....	TRACE	-----		0.0	-----			0.1	-----		
CYCLOPENTANE.....	TRACE	-----		0.0	-----			TRACE	-----		
HEXANES PLUS.....	0.2	-----		0.2	-----			0.1	-----		
NITROGEN.....	29.4	-----		29.1	-----			25.4	-----		
OXYGEN.....	0.3	-----		0.2	-----			TRACE	-----		
ARGON.....	0.1	-----		0.1	-----			0.1	-----		
HYDROGEN.....	---	-----		---	-----			0.0	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			0.0	-----		
CARBON DIOXIDE.....	0.3	-----		0.4	-----			0.8	-----		
HELIUM.....	1.88	-----		1.93	-----			2.14	-----		
HEATING VALUE.....	770	-----		778	-----			815	-----		
SPECIFIC GRAVITY.....	0.724	-----		0.728	-----			0.716	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	5485 5433		INDEX SAMPLE	5486 5452		INDEX SAMPLE	5487 5465
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	WHEENAND A-1		MELTON A-1			PURDY 1-A		
LOCATION.....	SEC. 2, T5N, R9ECM		SEC. 15, T5N, R9ECM			SEC. 20, T6N, R9ECM		
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.			COLUMBIAN FUEL CORP.		
COMPLETED.....	03/27/53		05/16/53			10/21/52		
SAMPLED.....	03/23/53		04/29/53			05/11/53		
FORMATION.....	PENN-KEYES		PENN-PURDY			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4604		4196			4240		
WELLHEAD PRESSURE, PSIG.....	839		935			1066		
OPEN FLOW, MCFD.....	5700		3060			31640		
COMPONENT, MOLE PCT								
METHANE.....	65.5		64.1			76.5		
ETHANE.....	2.9		3.2			6.6		
PROPANE.....	1.9		2.0			4.2		
N-BUTANE.....	0.6		0.6			1.1		
ISOBUTANE.....	0.4		0.3			0.4		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.1		TRACE			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	25.2		0.2			9.7		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.9			0.2		
HELIUM.....	2.14		2.16			0.50		
HEATING VALUE.....	826		816			1079		
SPECIFIC GRAVITY.....	0.720		0.723			0.703		

	INDEX SAMPLE	5488 5466		INDEX SAMPLE	5489 5472		INDEX SAMPLE	5490 5474
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	PURDY 1-B		DELOZIER NO. 1			WILSON NO. 1		
LOCATION.....	SEC. 19, T6N, R9ECM		SEC. 3, T3N, R8ECM			SEC. 35, T4N, R8ECM		
OWNER.....	COLTEXO CORP.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	04/27/53		12/15/52			07/7/52		
SAMPLED.....	05/11/53		05/26/53			05/26/53		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4647		4715			4713		
WELLHEAD PRESSURE, PSIG.....	838		650			746		
OPEN FLOW, MCFD.....	13875		NOT GIVEN			1852		
COMPONENT, MOLE PCT								
METHANE.....	60.5		61.8			62.4		
ETHANE.....	2.9		1.8			3.6		
PROPANE.....	2.0		1.8			2.0		
N-BUTANE.....	0.8		0.4			0.6		
ISOBUTANE.....	0.3		0.5			0.4		
N-PENTANE.....	0.4		0.2			0.4		
ISOPENTANE.....	0.1		0.1			TRACE		
CYCLOPENTANE.....	0.1		0.5			0.1		
HEXANES PLUS.....	0.3		1.1			0.4		
NITROGEN.....	29.2		28.0			28.0		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.2			0.2		
HELIUM.....	2.30		1.75			1.85		
HEATING VALUE.....	794		854			824		
SPECIFIC GRAVITY.....	0.744		0.756			0.738		

	INDEX SAMPLE	5491 5475		INDEX SAMPLE	5492 5476		INDEX SAMPLE	5493 5477
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	MIGGINS NO. 1		BAKER NO. 1			BAKER NO. 1		
LOCATION.....	SEC. 33, T4N, R8ECM		SEC. 34, T4N, R8ECM			SEC. 34, T4N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	06/7/52		10/7/50			05/7/49		
SAMPLED.....	05/26/53		05/26/53			05/26/53		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4744		4784			4725		
WELLHEAD PRESSURE, PSIG.....	779		787			781		
OPEN FLOW, MCFD.....	4218		7816			2265		
COMPONENT, MOLE PCT								
METHANE.....	62.8		62.7			62.5		
ETHANE.....	3.3		3.4			3.4		
PROPANE.....	1.8		1.8			1.7		
N-BUTANE.....	0.6		0.5			0.5		
ISOBUTANE.....	0.3		0.3			0.2		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	28.3		28.3			28.8		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.2		0.1			0.1		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	1.93		1.92			1.88		
HEATING VALUE.....	794		789			789		
SPECIFIC GRAVITY.....	0.724		0.725			0.724		

	INDEX SAMPLE	5494 5478		INDEX SAMPLE	5495 5480		INDEX SAMPLE	5496 5481
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	PARKES NO. 2		J. JERNYN NO. 2			COX NO. 1		
LOCATION.....	SEC. 34, T4N, R8ECM		SEC. 19, T4N, R8ECM			SEC. 16, T5N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	09/7/49		06/24/46			03/22/43		
SAMPLED.....	05/26/53		05/26/53			05/26/53		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4730		4813			4682		
WELLHEAD PRESSURE, PSIG.....	777		697			807		
OPEN FLOW, MCFD.....	4506		26375			3093		
COMPONENT, MOLE PCT								
METHANE.....	62.7		60.4			63.0		
ETHANE.....	3.5		3.5			3.2		
PROPANE.....	1.7		2.3			1.8		
N-BUTANE.....	0.9		0.7			0.6		
ISOBUTANE.....	0.3		0.4			0.4		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	TRACE		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	28.7		28.7			27.2		
OXYGEN.....	TRACE		0.3			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.7			0.7		
HELIUM.....	1.83		2.17			2.13		
HEATING VALUE.....	788		803			807		
SPECIFIC GRAVITY.....	0.723		0.745			0.729		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5497 5482	INDEX SAMPLE	5498 5483	INDEX SAMPLE	5499 5494
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	ROSE NO. 1			E. JERMYN NO. A-1		PURDY NO. 1-C	
LOCATION.....	SEC. 26, T5N, R8ECM			SEC. 18, T5N, R8ECM		SEC. 21, T6N, R9ECM	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLTEXO CORP.	
COMPLETED.....	12/20/44			04/29/46		05/31/53	
SAMPLED.....	05/26/53			05/26/53		06/03/53	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4640			4787		4554	
WELLHEAD PRESSURE, PSIG.....	824			767		839	
OPEN FLOW, MCFD.....	1852			33995		4605	
COMPONENT, MOLE PCT							
METHANE.....	62.1			61.0		59.0	
ETHANE.....	3.1			3.5		2.9	
PROPANE.....	2.6			2.5		1.8	
N-BUTANE.....	1.2			0.8		0.7	
ISOBUTANE.....	0.7			0.0		0.2	
N-PENTANE.....	0.3			0.3		0.3	
ISOPENTANE.....	0.2			0.7		TRACE	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	26.5			28.0		31.6	
OXYGEN.....	TRACE			0.1		0.2	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			TRACE		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.9		0.3	
HELIUM.....	2.13			2.9		2.40	
HEATING VALUE.....	852			811		754	
SPECIFIC GRAVITY.....	0.752			0.743		0.737	
		INDEX SAMPLE	5500 5499	INDEX SAMPLE	5501 5500	INDEX SAMPLE	5502 5512
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	SPARKMAN A-1			FERGUSON NO. 1-C		PURDY NO. 1-D	
LOCATION.....	SEC. 10, T5N, R9ECM			SEC. 35, T5N, R9ECM		SEC. 29, T6N, R9ECM	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		COLTEXO CORP.	
COMPLETED.....	06/18/53			06/03/53		7/1/50	
SAMPLED.....	06/19/53			06/03/53		07/04/53	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4624			4556		4552	
WELLHEAD PRESSURE, PSIG.....	834			837		840	
OPEN FLOW, MCFD.....	NCT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	61.7			63.3		60.6	
ETHANE.....	4.5			3.0		3.1	
PROPANE.....	3.9			1.9		1.9	
N-BUTANE.....	1.8			0.6		0.7	
ISOBUTANE.....	1.1			0.4		0.4	
N-PENTANE.....	0.8			0.4		0.3	
ISOPENTANE.....	0.5			0.1		0.1	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.8			0.2		0.2	
NITROGEN.....	21.6			26.9		29.2	
OXYGEN.....	0.1			0.0		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.2			1.2		0.9	
HELIUM.....	1.82			2.16		2.29	
HEATING VALUE.....	1089			813		787	
SPECIFIC GRAVITY.....	0.803			0.733		0.740	
		INDEX SAMPLE	5503 5513	INDEX SAMPLE	5504 5517	INDEX SAMPLE	5505 5518
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	PURDY NO. B-1			WHISENAND NO. B-1		WHISENAND NO. A-1	
LOCATION.....	SEC. 28, T6N, R9ECM			SEC. 1, T5N, R9ECM		SEC. 32, T6N, R9ECM	
OWNER.....	COLTEXO CORP.			TERMINAL FACILITIES, INC.		CITIES SERVICE OIL CO.	
COMPLETED.....	06/20/53			07/14/53		05/20/53	
SAMPLED.....	07/04/53			07/13/53		07/21/53	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4562			4562		4534	
WELLHEAD PRESSURE, PSIG.....	839			837		840	
OPEN FLOW, MCFD.....	54168			15100		8150	
COMPONENT, MOLE PCT							
METHANE.....	60.8			71.1		62.5	
ETHANE.....	3.0			4.0		3.3	
PROPANE.....	1.0			1.2		1.9	
N-BUTANE.....	0.6			0.8		0.8	
ISOBUTANE.....	0.5			0.2		0.3	
N-PENTANE.....	0.1			0.3		0.3	
ISOPENTANE.....	0.3			0.9		0.1	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.2		0.3	
NITROGEN.....	29.7			19.3		27.3	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.6			0.8		1.0	
HELIUM.....	2.25			1.90		2.21	
HEATING VALUE.....	778			825		815	
SPECIFIC GRAVITY.....	0.735			0.705		0.739	
		INDEX SAMPLE	5506 5519	INDEX SAMPLE	5507 5520	INDEX SAMPLE	5508 5521
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	JORDAN NO. B-1			FERGUSON NO. B-1		FORD NO. B-1	
LOCATION.....	SEC. 25, T4N, R8ECM			SEC. 3, T5N, R9ECM		SEC. 24, T6N, R9ECM	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	06/25/53			05/24/53		06/09/53	
SAMPLED.....	07/13/53			07/21/53		07/21/53	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4596			4218		4610	
WELLHEAD PRESSURE, PSIG.....	832			858		840	
OPEN FLOW, MCFD.....	16000			12100		26000	
COMPONENT, MOLE PCT							
METHANE.....	62.8			70.7		63.3	
ETHANE.....	3.3			5.6		3.4	
PROPANE.....	2.0			2.9		2.1	
N-BUTANE.....	0.8			0.9		0.8	
ISOBUTANE.....	0.3			0.4		0.3	
N-PENTANE.....	0.3			0.4		0.3	
ISOPENTANE.....	0.1			TRACE		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.3		0.2	
NITROGEN.....	26.8			17.4		26.5	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.1			0.3		0.7	
HELIUM.....	2.16			0.91		2.15	
HEATING VALUE.....	778			825		825	
SPECIFIC GRAVITY.....	0.738			0.720		0.732	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5509 SAMPLE 5522			INDEX 5510 SAMPLE 5523			INDEX 5511 SAMPLE 5524		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	KINSINGER NO. A-1		RHOTHEN NO. 1			STALLARD NO. 1		
LOCATION.....	SEC. 36, T6N, R9ECM		SEC. 27, T6N, R8ECM			SEC. 9, T5N, R8ECM		
OWNER.....	CITIES SERVICE OIL CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	06/13/53		06/13/53			06/27/53		
SAMPLED.....	07/21/53		07/21/53			07/21/53		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4612		4730			4698		
WELLHEAD PRESSURE, PSIG.....	891		789			800		
OPEN FLOW, MCFD.....	20600		46000			10000		
COMPONENT, MOLE PCT								
METHANE.....	72.0		62.2			62.3		
ETHANE.....	4.0		3.5			3.5		
PROPANE.....	2.2		2.0			2.2		
N-BUTANE.....	0.7		0.7			0.7		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.3		0.5			0.3		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.5			0.3		
NITROGEN.....	17.5		27.6			27.7		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.3			0.4		
HELIUM.....	1.87		1.99			2.14		
HEATING VALUE.....	926		837			820		
SPECIFIC GRAVITY.....	0.697		0.743			0.736		
INDEX 5512 SAMPLE 5525			INDEX 5513 SAMPLE 5549			INDEX 5514 SAMPLE 5554		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	WIGGINS NO. 1-B		FERGUSON UNIT NO. 1			WHISENAND NO. 1		
LOCATION.....	SEC. 26, T4N, R8ECM		SEC. 26, T5N, R9ECM			SEC. 8, T5N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		SHOIL CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	07/05/53		07/08/53			--/--/00		
SAMPLED.....	07/21/53		09/02/53			09/28/53		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4697		4552			4374		
WELLHEAD PRESSURE, PSIG.....	800		NOT GIVEN			820		
OPEN FLOW, MCFD.....	25000		31600			900		
COMPONENT, MOLE PCT								
METHANE.....	62.6		63.4			67.7		
ETHANE.....	3.7		3.7			4.0		
PROPANE.....	3.1		2.1			1.0		
N-BUTANE.....	0.6		0.7			0.4		
ISOBUTANE.....	0.3		0.3			0.4		
N-PENTANE.....	0.2		0.3			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	28.4		25.1			23.8		
OXYGEN.....	TRACE		0.1			0.1		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		1.0			0.3		
HELIUM.....	1.95		2.16			1.63		
HEATING VALUE.....	798		817			832		
SPECIFIC GRAVITY.....	0.726		0.729			0.702		
INDEX 5515 SAMPLE 5556			INDEX 5516 SAMPLE 5557			INDEX 5517 SAMPLE 5567		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	SPARKMAN NO. 2		BRACKEN NO. A-1			SCHOOLFIELD NO. 1		
LOCATION.....	SEC. 3, T5N, R8ECM		SEC. 34, T5N, R9ECM			SEC. 30, T6N, R9ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		TERMINAL FACILITIES, INC.			MACDONALD, BURNS, & NORRIS		
COMPLETED.....	--/--/00		10/02/53			12/01/53		
SAMPLED.....	10/02/53		10/02/53			12/01/53		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4443		4532			4524		
WELLHEAD PRESSURE, PSIG.....	1150		836			835		
OPEN FLOW, MCFD.....	3000		37790			40200		
COMPONENT, MOLE PCT								
METHANE.....	75.0		63.2			62.4		
ETHANE.....	6.3		3.1			2.8		
PROPANE.....	3.9		0.7			2.0		
N-BUTANE.....	SEC. 8		SEC. 25, T4N, R8ECM			SEC. 7		
ISOBUTANE.....	0.4		0.6			0.1		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.1		0.1			TRACE		
CYCLOPENTANE.....	TRACE		0.3			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	11.8		27.1			28.3		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		1.5			0.5		
HELIUM.....	0.91		2.22			2.30		
HEATING VALUE.....	782		786			787		
SPECIFIC GRAVITY.....	0.702		0.727			0.722		
INDEX 5518 SAMPLE 5603			INDEX 5519 SAMPLE 5606			INDEX 5520 SAMPLE 5654		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	HITCH-GRAY-PRICE NO. 1		MATHIS NO. 1			HALLIDAY NO. 1-A		
LOCATION.....	SEC. 25, T4N, R8ECM		SEC. 25, T4N, R8ECM			SEC. 25, T6N, R8ECM		
OWNER.....	TEXACO INC.		R. H. FULTON & CO.			SHELL OIL CO.		
COMPLETED.....	12/07/53		--/--/00			12/09/53		
SAMPLED.....	04/06/54		04/06/54			07/22/54		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4703		4670			4624		
WELLHEAD PRESSURE, PSIG.....	787		811			833		
OPEN FLOW, MCFD.....	7690		16400			20263		
COMPONENT, MOLE PCT								
METHANE.....	63.9		60.0			75.9		
ETHANE.....	3.2		3.1			5.9		
PROPANE.....	1.9		2.3			4.8		
N-BUTANE.....	0.6		0.8			1.1		
ISOBUTANE.....	0.3		0.5			0.5		
N-PENTANE.....	0.2		0.4			0.2		
ISOPENTANE.....	TRACE		0.3			0.2		
CYCLOPENTANE.....	TRACE		0.3			TRACE		
HEXANES PLUS.....	0.1		0.3			0.1		
NITROGEN.....	27.3		29.2			9.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.1		
HELIUM.....	2.04		2.35			0.61		
HEATING VALUE.....	798		816			1089		
SPECIFIC GRAVITY.....	0.717		0.750			0.707		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5521 SAMPLE 5655			INDEX 5522 SAMPLE 5656			INDEX 5523 SAMPLE 5657		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	PHILLIPS NO. 1		PARKMAN UNIT NO. 1			COLE UNIT NO. 1		
LOCATION.....	SEC. 21, T4N, R8ECM		SEC. 12, T5N, R9ECM			SEC. 15, T4N, R9ECM		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	03/22/54		03/25/54			01/28/54		
SAMPLED.....	07/21/54		07/21/54			07/22/54		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4791		4530			4595		
WELLHEAD PRESSURE, PSIG.....	787		832			827		
OPEN FLOW, MCFD.....	36278		118949			19990		
COMPONENT, MOLE PCT								
METHANE.....	63.4		67.5			62.2		
ETHANE.....	3.3		3.4			3.1		
PROPANE.....	2.0		2.3			1.9		
N-BUTANE.....	0.6		0.6			0.6		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.2		0.3			0.3		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	27.4		22.2			27.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		1.1			1.2		
HELIUM.....	2.01		1.99			2.01		
HEATING VALUE.....	809		861			796		
SPECIFIC GRAVITY.....	0.725		0.716			0.736		
INDEX 5524 SAMPLE 5658			INDEX 5525 SAMPLE 5659			INDEX 5526 SAMPLE 5723		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	HALLIDAY NO. B-1		SLEEPER UNIT NO. 1			FRANK PARKES NO. 1		
LOCATION.....	SEC. 24, T6N, R8ECM		SEC. 35, T6N, R9ECM			SEC. 20, T5N, R9ECM		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			VERNON TAYLOR, INC.		
COMPLETED.....	03/25/54		02/09/54			08/11/54		
SAMPLED.....	07/22/54		07/22/54			11/02/54		
FORMATION.....	PENN-MORROW		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4367		4648			4594		
WELLHEAD PRESSURE, PSIG.....	1838		1838			828		
OPEN FLOW, MCFD.....	6388		98727			43566		
COMPONENT, MOLE PCT								
METHANE.....	61.8		65.6			63.9		
ETHANE.....	2.8		3.3			2.8		
PROPANE.....	1.9		2.0			1.9		
N-BUTANE.....	0.6		0.6			0.6		
ISOBUTANE.....	0.4		0.3			0.3		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	29.1		24.7			26.8		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.5			0.9		
HELIUM.....	2.30		2.11			2.22		
HEATING VALUE.....	778		831			799		
SPECIFIC GRAVITY.....	0.728		0.714			0.722		
INDEX 5527 SAMPLE 5724			INDEX 5528 SAMPLE 5731			INDEX 5529 SAMPLE 5732		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	WIGGINS NO. 1		FERGUSON GAS UNIT NO. 1			WIGGINS G.U. NO. A-1		
LOCATION.....	SEC. 23, T4N, R8ECM		SEC. 2, T4N, R9ECM			SEC. 22, T4N, R8ECM		
OWNER.....	OIL CO.		STANOLIND OIL & GAS CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	09/11/54		03/09/54			08/10/54		
SAMPLED.....	11/02/54		11/13/54			11/13/54		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4692		4590			4718		
WELLHEAD PRESSURE, PSIG.....	762		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	5400		55415			7332		
COMPONENT, MOLE PCT								
METHANE.....	63.5		64.1			64.2		
ETHANE.....	3.1		3.1			3.2		
PROPANE.....	1.8		1.8			1.9		
N-BUTANE.....	0.5		0.6			0.7		
ISOBUTANE.....	0.3		0.5			0.4		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	27.8		26.2			26.2		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.6			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.4			0.7		
HELIUM.....	1.95		0.15			2.11		
HEATING VALUE.....	793		809			812		
SPECIFIC GRAVITY.....	0.720		0.713			0.721		
INDEX 5530 SAMPLE 5797			INDEX 5531 SAMPLE 5806			INDEX 5532 SAMPLE 5810		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	W. H. SPRADLIN		PHILLIPS CIMARRON NO. 1			GROSS NO. 1		
LOCATION.....	SEC. 8, T4N, R9ECM		SEC. 16, T4N, R8ECM			SEC. 25, T5N, R8ECM		
OWNER.....	COLUMBIAN FUEL CORP.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	08/28/53		04/12/55			08/20/54		
SAMPLED.....	03/26/55		05/11/55			04/07/55		
FORMATION.....	PENN-KEYES		PENN-ATOKA			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4599		4070			4681		
WELLHEAD PRESSURE, PSIG.....	824		709			823		
OPEN FLOW, MCFD.....	20250		12200			36000		
COMPONENT, MOLE PCT								
METHANE.....	64.3		45.0			64.2		
ETHANE.....	2.9		2.9			2.8		
PROPANE.....	1.8		1.9			1.7		
N-BUTANE.....	0.7		1.0			0.5		
ISOBUTANE.....	0.3		0.4			0.3		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.1		0.3			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	26.2		40.6			27.0		
OXYGEN.....	TRACE		0.0			0.1		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.1			0.8		
HELIUM.....	2.22		1.25			2.23		
HEATING VALUE.....	807		762			790		
SPECIFIC GRAVITY.....	0.719		0.828			0.718		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5533 5811			INDEX SAMPLE	5534 5812			INDEX SAMPLE	5535 5813
STATE.....	OKLAHOMA			STATE.....	OKLAHOMA			STATE.....	OKLAHOMA		
COUNTY.....	CIMARRON			COUNTY.....	CIMARRON			COUNTY.....	CIMARRON		
FIELD.....	KEYES GAS AREA			FIELD.....	KEYES GAS AREA			FIELD.....	KEYES GAS AREA		
WELL NAME.....	DAVID NO. 1			WELL NAME.....	ROONEY NO. 1			WELL NAME.....	GATHER NO. 1		
LOCATION.....	SEC. 15, T4N, R8ECM			LOCATION.....	SEC. 2, T5N, R8ECM			LOCATION.....	SEC. 2, T5N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.		
COMPLETED.....	10/22/54			COMPLETED.....	09/22/54			COMPLETED.....	11/21/53		
SAMPLED.....	04/07/55			SAMPLED.....	04/06/55			SAMPLED.....	04/06/55		
FORMATION.....	PENN-KEYES			FORMATION.....	PENN-KEYES			FORMATION.....	PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435			GEOLOGIC PROVINCE CODE.....	435			GEOLOGIC PROVINCE CODE.....	435		
DEPTH, FEET.....	4713			DEPTH, FEET.....	4624			DEPTH, FEET.....	4686		
WELLHEAD PRESSURE, PSIG.....	776			WELLHEAD PRESSURE, PSIG.....	807			WELLHEAD PRESSURE, PSIG.....	810		
OPEN FLOW, MCFD.....	6000			OPEN FLOW, MCFD.....	1620			OPEN FLOW, MCFD.....	4400		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	64.1			METHANE.....	62.6			METHANE.....	63.9		
ETHANE.....	2.9			ETHANE.....	2.6			ETHANE.....	3.0		
PROPANE.....	1.6			PROPANE.....	1.6			PROPANE.....	2.0		
N-BUTANE.....	0.4			N-BUTANE.....	0.5			N-BUTANE.....	0.7		
ISOBUTANE.....	0.2			ISOBUTANE.....	0.3			ISOBUTANE.....	0.4		
N-PENTANE.....	TRACE			N-PENTANE.....	0.1			N-PENTANE.....	0.2		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.2			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	0.0			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1		
NITROGEN.....	27.7			NITROGEN.....	29.0			NITROGEN.....	26.6		
OXYGEN.....	0.2			OXYGEN.....	0.2			OXYGEN.....	0.1		
ARGON.....	0.1			ARGON.....	0.1			ARGON.....	0.1		
HYDROGEN.....	TRACE			HYDROGEN.....	TRACE			HYDROGEN.....	TRACE		
HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	0.5			CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.6		
HELIUM.....	2.15			HELIUM.....	2.30			HELIUM.....	2.14		
HEATING VALUE.....	772			HEATING VALUE.....	767			HEATING VALUE.....	812		
SPECIFIC GRAVITY.....	0.711			SPECIFIC GRAVITY.....	0.716			SPECIFIC GRAVITY.....	0.723		
		INDEX SAMPLE	5536 5814			INDEX SAMPLE	5537 5815			INDEX SAMPLE	5538 5816
STATE.....	OKLAHOMA			STATE.....	OKLAHOMA			STATE.....	OKLAHOMA		
COUNTY.....	CIMARRON			COUNTY.....	CIMARRON			COUNTY.....	CIMARRON		
FIELD.....	KEYES GAS AREA			FIELD.....	KEYES GAS AREA			FIELD.....	KEYES GAS AREA		
WELL NAME.....	MORRISON NO. 1			WELL NAME.....	HIGH NO. 1			WELL NAME.....	JENKINS NO. 1		
LOCATION.....	SEC. 27, T5N, R8ECM			LOCATION.....	SEC. 6, T5N, R9ECM			LOCATION.....	SEC. 17, T5N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.		
COMPLETED.....	10/11/54			COMPLETED.....	11/01/54			COMPLETED.....	07/06/54		
SAMPLED.....	04/07/55			SAMPLED.....	04/06/55			SAMPLED.....	04/06/55		
FORMATION.....	PENN-KEYES			FORMATION.....	PENN-KEYES			FORMATION.....	PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435			GEOLOGIC PROVINCE CODE.....	435			GEOLOGIC PROVINCE CODE.....	435		
DEPTH, FEET.....	4692			DEPTH, FEET.....	4566			DEPTH, FEET.....	4733		
WELLHEAD PRESSURE, PSIG.....	807			WELLHEAD PRESSURE, PSIG.....	832			WELLHEAD PRESSURE, PSIG.....	785		
OPEN FLOW, MCFD.....	6800			OPEN FLOW, MCFD.....	14000			OPEN FLOW, MCFD.....	77580		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	64.3			METHANE.....	63.6			METHANE.....	62.9		
ETHANE.....	2.9			ETHANE.....	2.7			ETHANE.....	3.2		
PROPANE.....	1.7			PROPANE.....	1.6			PROPANE.....	2.0		
N-BUTANE.....	0.6			N-BUTANE.....	0.6			N-BUTANE.....	0.6		
ISOBUTANE.....	0.2			ISOBUTANE.....	0.3			ISOBUTANE.....	0.3		
N-PENTANE.....	0.1			N-PENTANE.....	0.1			N-PENTANE.....	0.1		
ISOPENTANE.....	0.2			ISOPENTANE.....	0.2			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1		
NITROGEN.....	26.7			NITROGEN.....	27.4			NITROGEN.....	27.8		
OXYGEN.....	TRACE			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	0.1			ARGON.....	0.1			ARGON.....	0.1		
HYDROGEN.....	TRACE			HYDROGEN.....	TRACE			HYDROGEN.....	TRACE		
HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	0.8			CARBON DIOXIDE.....	0.8			CARBON DIOXIDE.....	0.6		
HELIUM.....	2.18			HELIUM.....	2.28			HELIUM.....	2.15		
HEATING VALUE.....	792			HEATING VALUE.....	785			HEATING VALUE.....	795		
SPECIFIC GRAVITY.....	0.715			SPECIFIC GRAVITY.....	0.718			SPECIFIC GRAVITY.....	0.725		
		INDEX SAMPLE	5539 5817			INDEX SAMPLE	5540 5818			INDEX SAMPLE	5541 5819
STATE.....	OKLAHOMA			STATE.....	OKLAHOMA			STATE.....	OKLAHOMA		
COUNTY.....	CIMARRON			COUNTY.....	CIMARRON			COUNTY.....	CIMARRON		
FIELD.....	KEYES GAS AREA			FIELD.....	KEYES GAS AREA			FIELD.....	KEYES GAS AREA		
WELL NAME.....	BENSON NO. 1			WELL NAME.....	BACON NO. 1			WELL NAME.....	SLACK NO. 1		
LOCATION.....	SEC. 31, T5N, R9ECM			LOCATION.....	SEC. 10, T5N, R8ECM			LOCATION.....	SEC. 19, T5N, R9ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.		
COMPLETED.....	09/01/54			COMPLETED.....	08/26/54			COMPLETED.....	11/06/54		
SAMPLED.....	04/07/55			SAMPLED.....	04/06/55			SAMPLED.....	04/07/55		
FORMATION.....	PENN-KEYES			FORMATION.....	PENN-KEYES			FORMATION.....	PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435			GEOLOGIC PROVINCE CODE.....	435			GEOLOGIC PROVINCE CODE.....	435		
DEPTH, FEET.....	4621			DEPTH, FEET.....	4699			DEPTH, FEET.....	4614		
WELLHEAD PRESSURE, PSIG.....	824			WELLHEAD PRESSURE, PSIG.....	808			WELLHEAD PRESSURE, PSIG.....	826		
OPEN FLOW, MCFD.....	16400			OPEN FLOW, MCFD.....	1670			OPEN FLOW, MCFD.....	29500		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	63.6			METHANE.....	63.2			METHANE.....	64.3		
ETHANE.....	3.0			ETHANE.....	3.1			ETHANE.....	2.8		
PROPANE.....	1.5			PROPANE.....	1.0			PROPANE.....	1.5		
N-BUTANE.....	0.6			N-BUTANE.....	0.7			N-BUTANE.....	0.4		
ISOBUTANE.....	0.3			ISOBUTANE.....	0.3			ISOBUTANE.....	0.2		
N-PENTANE.....	0.2			N-PENTANE.....	0.2			N-PENTANE.....	0.1		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.2			ISOPENTANE.....	0.1		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1		
NITROGEN.....	27.2			NITROGEN.....	27.3			NITROGEN.....	27.3		
OXYGEN.....	0.2			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	0.1			ARGON.....	0.1			ARGON.....	0.1		
HYDROGEN.....	TRACE			HYDROGEN.....	TRACE			HYDROGEN.....	0.1		
HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	0.6			CARBON DIOXIDE.....	0.5			CARBON DIOXIDE.....	0.8		
HELIUM.....	2.13			HELIUM.....	2.19			HELIUM.....	2.25		
HEATING VALUE.....	797			HEATING VALUE.....	784			HEATING VALUE.....	775		
SPECIFIC GRAVITY.....	0.722			SPECIFIC GRAVITY.....	0.724			SPECIFIC GRAVITY.....	0.710		
		INDEX SAMPLE	5542 5820			INDEX SAMPLE	5543 5821			INDEX SAMPLE	5544 5822
STATE.....	OKLAHOMA			STATE.....	OKLAHOMA			STATE.....	OKLAHOMA		
COUNTY.....	CIMARRON			COUNTY.....	CIMARRON			COUNTY.....	CIMARRON		
FIELD.....	KEYES GAS AREA			FIELD.....	KEYES GAS AREA			FIELD.....	KEYES GAS AREA		
WELL NAME.....	ACKENBACK NO. 1			WELL NAME.....	PHILLIPS NO. 1			WELL NAME.....	BURFORD NO. 1		
LOCATION.....	SEC. 1, T5N, R8ECM			LOCATION.....	SEC. 35, T5N, R8ECM			LOCATION.....	SEC. 29, T5N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.		
COMPLETED.....	09/01/54			COMPLETED.....	08/26/54			COMPLETED.....	11/03/53		
SAMPLED.....	04/06/55			SAMPLED.....	04/07/55			SAMPLED.....	04/06/55		
FORMATION.....	PENN-KEYES			FORMATION.....	PENN-KEYES			FORMATION.....	PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435			GEOLOGIC PROVINCE CODE.....	435			GEOLOGIC PROVINCE CODE.....	435		
DEPTH, FEET.....	4614			DEPTH, FEET.....	4703			DEPTH, FEET.....	4760		
WELLHEAD PRESSURE, PSIG.....	833			WELLHEAD PRESSURE, PSIG.....	819			WELLHEAD PRESSURE, PSIG.....	828		
OPEN FLOW, MCFD.....	9600			OPEN FLOW, MCFD.....	62000			OPEN FLOW, MCFD.....	45000		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	62.9			METHANE.....	64.3			METHANE.....	64.2		
ETHANE.....	2.5			ETHANE.....	2.8			ETHANE.....	2.9		
PROPANE.....	1.5			PROPANE.....	1.7			PROPANE.....	1.8		
N-BUTANE.....	0.4			N-BUTANE.....	0.5			N-BUTANE.....	0.5		
ISOBUTANE.....	0.3			ISOBUTANE.....	0.4			ISOBUTANE.....	0.3		
N-PENTANE.....	0.1			N-PENTANE.....	0.1			N-PENTANE.....	0.1		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.2			ISOPENTANE.....	0.1		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1		
NITROGEN.....	28.3			NITROGEN.....	26.7			NITROGEN.....	27.0		
OXYGEN.....	0.1			OXYGEN.....	TRACE			OXYGEN.....	TRACE		
ARGON.....	0.1			ARGON.....	0.1			ARGON.....	0.1		
HYDROGEN.....	0.1			HYDROGEN.....	TRACE			HYDROGEN.....	TRACE		
HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.8			CARBON DIOXIDE.....	0.5		
HELIUM.....	2.29			HELIUM.....	2.20			HELIUM.....	2.18		
HEATING VALUE.....	758			HEATING VALUE.....	794			HEATING VALUE.....	790		
SPECIFIC GRAVITY.....	0.718			SPECIFIC GRAVITY.....	0.716			SPECIFIC GRAVITY.....	0.712		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5545 5823			INDEX SAMPLE	5546 5825			INDEX SAMPLE	5547 5827
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	KING NO. 1			SPRADLIN UNIT NO. 1				HUNT UNIT NO. 1			
LOCATION.....	SEC. 21, T5N, R8ECM			SEC. 9, T4N, R9ECM				SEC. 28, T4N, R8ECM			
OWNER.....	COLORADO INTERSTATE GAS CO.			SHELL OIL CO.				SHELL OIL CO.			
COMPLETED.....	07/10/54			06/-/54				09/-/53			
SAMPLED.....	04/06/55			04/26/55				04/26/55			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4692			4589				4780			
WELLHEAD PRESSURE, PSIG.....	805			825				735			
OPEN FLOW, MCFD.....	107000			10000				2350			
COMPONENT, MOLE PCT.....											
METHANE.....	64.3			64.2				64.0			
ETHANE.....	2.9			2.9				3.2			
PROPANE.....	0.8			1.9				1.9			
N-BUTANE.....	0.6			0.7				0.8			
ISOBUTANE.....	0.3			0.3				0.3			
N-PENTANE.....	0.2			0.2				0.1			
ISOPENTANE.....	0.2			0.3				0.3			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	0.2			0.2				0.2			
NITROGEN.....	26.5			25.9				27.0			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	TRACE			TRACE				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.7			1.0				0.3			
HELIUM.....	2.19			2.15				1.98			
HEATING VALUE.....	808			817				817			
SPECIFIC GRAVITY.....	0.721			0.725				0.725			
		INDEX SAMPLE	5548 5828			INDEX SAMPLE	5549 5829			INDEX SAMPLE	5550 5830
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	FERGUSON NO. 8-1			HALLIDAY NO. C-1				DAVOLT NO. 1			
LOCATION.....	SEC. 27, T5N, R9ECM			SEC. 26, T6N, R8ECM				SEC. 25, T6N, R9ECM			
OWNER.....	SHELL OIL CO.			SHELL OIL CO.				SHELL OIL CO.			
COMPLETED.....	06/-/54			04/-/54				06/-/54			
SAMPLED.....	04/26/55			04/26/55				04/26/55			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4490			4686				4583			
WELLHEAD PRESSURE, PSIG.....	831			828				825			
OPEN FLOW, MCFD.....	22800			11000				4800			
COMPONENT, MOLE PCT.....											
METHANE.....	60.0			61.2				64.8			
ETHANE.....	3.0			3.1				3.2			
PROPANE.....	1.7			2.1				1.9			
N-BUTANE.....	0.7			0.7				0.7			
ISOBUTANE.....	0.4			0.5				0.4			
N-PENTANE.....	0.3			0.2				0.2			
ISOPENTANE.....	0.2			0.2				0.2			
CYCLOPENTANE.....	0.1			TRACE				0.1			
HEXANES PLUS.....	0.3			0.2				0.3			
NITROGEN.....	31.1			28.8				25.5			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	TRACE			TRACE				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.5			0.5				0.6			
HELIUM.....	1.54			2.30				2.03			
HEATING VALUE.....	783			798				837			
SPECIFIC GRAVITY.....	0.749			0.736				0.727			
		INDEX SAMPLE	5551 5832			INDEX SAMPLE	5552 5837			INDEX SAMPLE	5553 5840
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	STATE NO. 1-D			CIMARRON NO. 1				HEATLEY NO. A-1			
LOCATION.....	SEC. 25, T5N, R9ECM			CELL 16, T4N, R8ECM				SEC. 30, T5N, R9ECM			
OWNER.....	SHELL OIL CO.			PHIL 16, T4N, R8ECM				CITIES SERVICE OIL CO.			
COMPLETED.....	05/-/54			04/12/55				10/10/53			
SAMPLED.....	04/26/55			05/11/55				05/03/55			
FORMATION.....	PENN-KEYES			PENN-ATOKA				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4532			4070				4660			
WELLHEAD PRESSURE, PSIG.....	709			709				827			
OPEN FLOW, MCFD.....	32000			12200				7531			
COMPONENT, MOLE PCT.....											
METHANE.....	64.0			44.9				64.0			
ETHANE.....	0.9			7.0				7.9			
PROPANE.....	1.9			4.0				1.8			
N-BUTANE.....	0.6			0.9				0.6			
ISOBUTANE.....	0.4			0.2				0.4			
N-PENTANE.....	0.2			0.2				0.3			
ISOPENTANE.....	0.1			0.2				TRACE			
CYCLOPENTANE.....	TRACE			0.1				0.2			
HEXANES PLUS.....	0.2			0.2				0.5			
NITROGEN.....	26.2			40.3				26.3			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.0			0.99				0.7			
HELIUM.....	2.15			0.73				2.15			
HEATING VALUE.....	807			773				827			
SPECIFIC GRAVITY.....	0.722			0.832				0.731			
		INDEX SAMPLE	5554 5841			INDEX SAMPLE	5555 5842			INDEX SAMPLE	5556 5843
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	SPRADLIN A NO. 1			SPRADLIN B NO. 1				BAUGHMAN NO. A-1			
LOCATION.....	SEC. 4, T4N, R9ECM			SEC. 5, T4N, R9ECM				SEC. 16, T5N, R9ECM			
OWNER.....	CITIES SERVICE GAS CO.			CITIES SERVICE OIL CO.				CITIES SERVICE OIL CO.			
COMPLETED.....	09/09/53			09/18/53				10/02/54			
SAMPLED.....	05/03/55			05/03/55				05/02/55			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4510			4610				4596			
WELLHEAD PRESSURE, PSIG.....	830			828				832			
OPEN FLOW, MCFD.....	21120			13924				37886			
COMPONENT, MOLE PCT.....											
METHANE.....	64.3			64.2				64.1			
ETHANE.....	0.9			0.9				2.8			
PROPANE.....	1.9			1.8				1.7			
N-BUTANE.....	0.6			0.6				0.5			
ISOBUTANE.....	0.4			0.4				0.5			
N-PENTANE.....	0.2			0.2				0.2			
ISOPENTANE.....	0.2			0.1				0.1			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.2			0.2				0.2			
NITROGEN.....	26.0			26.3				26.5			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.9			0.7				0.9			
HELIUM.....	2.20			2.19				2.22			
HEATING VALUE.....	817			810				804			
SPECIFIC GRAVITY.....	0.725			0.720				0.722			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5557 5845			INDEX SAMPLE	5558 5846			INDEX SAMPLE	5559 5847
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	TURNER NO. A-1			STATE NO. H-1				SPARKMAN NO. C-1			
LOCATION.....	SEC. 24, T5N, R9ECM			SEC. 31, T5N, R9ECM				SEC. 32, T5N, R9ECM			
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.				CITIES SERVICE OIL CO.			
COMPLETED.....	05/27/54			10/26/54				05/18/54			
SAMPLED.....	05/03/55			05/03/55				05/03/55			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4570			4562				4572			
WELLHEAD PRESSURE, PSIG.....	833			828				1330			
OPEN FLOW, MCFD.....	33000			32000				23940			
COMPONENT, MOLE PCT.....											
METHANE.....	64.6			63.9				64.1			
ETHANE.....	3.0			2.9				2.9			
PROPANE.....	1.9			1.8				1.8			
N-BUTANE.....	0.6			0.6				0.6			
ISOBUTANE.....	0.5			0.5				0.6			
N-PENTANE.....	0.3			0.2				0.1			
ISOPENTANE.....	0.1			0.1				0.1			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.2			0.3				0.3			
NITROGEN.....	25.4			26.5				26.4			
OXYGEN.....	TRACE			0.0				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.0			0.8				0.7			
HELIUM.....	2.15			2.1				2.13			
HEATING VALUE.....	826			815				816			
SPECIFIC GRAVITY.....	0.726			0.727				0.725			
		INDEX SAMPLE	5560 5848			INDEX SAMPLE	5561 5849			INDEX SAMPLE	5562 5850
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	WINGENBACK NO. B-1			SPARKMAN NO. D-1				SPARKMAN NO. B-1			
LOCATION.....	SEC. 33, T6N, R9ECM			SEC. 11, T5N, R9ECM				SEC. 31, T5N, R9ECM			
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.				CITIES SERVICE OIL CO.			
COMPLETED.....	01/09/54			09/08/54				01/01/54			
SAMPLED.....	02/05/55			05/03/55				05/02/55			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4574			4530				4628			
WELLHEAD PRESSURE, PSIG.....	835			834				834			
OPEN FLOW, MCFD.....	2900			27000				17704			
COMPONENT, MOLE PCT.....											
METHANE.....	64.2			67.0				65.0			
ETHANE.....	2.9			3.1				3.0			
PROPANE.....	1.8			1.8				1.8			
N-BUTANE.....	0.6			0.6				0.6			
ISOBUTANE.....	0.5			0.5				0.4			
N-PENTANE.....	0.1			0.1				0.2			
ISOPENTANE.....	0.1			0.1				0.2			
CYCLOPENTANE.....	TRACE			0.1				0.1			
HEXANES PLUS.....	0.2			0.2				0.2			
NITROGEN.....	26.6			23.2				25.5			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.1			TRACE				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.5			0.7				0.9			
HELIUM.....	2.25			2.09				2.11			
HEATING VALUE.....	805			851				824			
SPECIFIC GRAVITY.....	0.718			0.714				0.724			
		INDEX SAMPLE	5563 5851			INDEX SAMPLE	5564 5952			INDEX SAMPLE	5565 5953
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	SCHNAUFER A NO. 1			PHILLIPS NO. 1-B				FRENCH NO.			
LOCATION.....	SEC. 29, T5N, R9ECM			SEC. 8, T5N, R8ECM				SEC. 31, T6N, R9ECM			
OWNER.....	CITIES SERVICE OIL CO.			SHELL OIL CO.				SUPERIOR OIL CO.			
COMPLETED.....	04/10/54			07/06/55				07/18/54			
SAMPLED.....	05/03/55			07/16/55				10/21/55			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4466			4757				4576			
WELLHEAD PRESSURE, PSIG.....	833			818				837			
OPEN FLOW, MCFD.....	28000			33000				39500			
COMPONENT, MOLE PCT.....											
METHANE.....	65.2			62.9				62.2			
ETHANE.....	3.0			3.0				2.7			
PROPANE.....	1.8			1.8				1.8			
N-BUTANE.....	0.6			0.5				0.6			
ISOBUTANE.....	0.5			0.5				0.3			
N-PENTANE.....	0.2			0.2				0.3			
ISOPENTANE.....	0.1			0.0				0.1			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.2			0.1				0.2			
NITROGEN.....	25.3			28.1				28.5			
OXYGEN.....	0.1			0.1				0.0			
ARGON.....	0.1			TRACE				0.1			
HYDROGEN.....	0.1			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.8			0.8				0.8			
HELIUM.....	2.12			2.11				2.39			
HEATING VALUE.....	818			780				783			
SPECIFIC GRAVITY.....	0.716			0.722				0.728			
		INDEX SAMPLE	5566 5956			INDEX SAMPLE	5567 5957			INDEX SAMPLE	5568 5969
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	HAYWARD NO. 1			COLBY NO. 1				ED PHILLIPS NO. 1			
LOCATION.....	SEC. 29, T5N, R9ECM			SEC. 22, T5N, R9ECM				SEC. 18, T5N, R9ECM			
OWNER.....	KERR-McFEE CORP.			KERR-McFEE CORP.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	02/26/55			03/10/55				08/16/55			
SAMPLED.....	--/--/00			12/13/55				11/17/55			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4560			4462				4575			
WELLHEAD PRESSURE, PSIG.....	821			819				815			
OPEN FLOW, MCFD.....	40000			31000				62500			
COMPONENT, MOLE PCT.....											
METHANE.....	63.9			63.3				62.9			
ETHANE.....	2.5			2.9				2.6			
PROPANE.....	2.2			1.8				1.6			
N-BUTANE.....	0.7			0.7				0.6			
ISOBUTANE.....	0.1			0.2				0.2			
N-PENTANE.....	0.3			0.2				0.2			
ISOPENTANE.....	TRACE			0.2				0.1			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.2			0.2				0.2			
NITROGEN.....	24.6			27.2				28.1			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.1			0.0				0.1			
HYDROGEN.....	TRACE			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.9			0.9				1.1			
HELIUM.....	2.27			2.9				2.40			
HEATING VALUE.....	839			801				779			
SPECIFIC GRAVITY.....	0.724			0.728				0.727			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5569 5981	INDEX SAMPLE	5570 6069	INDEX SAMPLE	5571 6070
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	M. HAGER			WILES NO. 1		BURNETT NO. 1	
LOCATION.....	SEC. 36, T6N, R8ECM			SEC. 19, T5N, R8ECM		SEC. 23, T5N, R8ECM	
OWNER.....	COLTEXO CORP.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	09/20/53			08/12/55		09/27/55	
SAMPLED.....	12/01/55			06/08/56		06/08/56	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4576			4641		4646	
WELLHEAD PRESSURE, PSIG.....	809			809		809	
OPEN FLOW, MCFD.....	7804			2280		4200	
COMPONENT, MOLE PCT							
METHANE.....	62.4			64.1		64.1	
ETHANE.....	2.8			3.1		3.0	
PROPANE.....	1.7			2.0		2.0	
N-BUTANE.....	0.5			0.5		0.5	
ISOBUTANE.....	0.4			0.1		0.3	
N-PENTANE.....	0.1			0.3		0.2	
ISOPENTANE.....	0.2			TRACE		TRACE	
CYCLOPENTANE.....	TRACE			0.2		0.1	
HEXANES PLUS.....	0.2			26.8		26.5	
NITROGEN.....	28.3			0.0		0.0	
OXYGEN.....	TRACE			0.1		0.1	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			0.4		0.0	
HELIUM.....	2.39			2.20		2.21	
HEATING VALUE.....	780			805		800	
SPECIFIC GRAVITY.....	0.726			0.717		0.706	
		INDEX SAMPLE	5572 6071	INDEX SAMPLE	5573 6072	INDEX SAMPLE	5574 6081
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	HOLLIDAY NO. 2			HOLLIDAY NO. 4		WIGGINS NO. 1	
LOCATION.....	SEC. 36, T6N, R8ECM			SEC. 34, T6N, R8ECM		SEC. 23, T6N, R8ECM	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		WESTHOMA OIL CO.	
COMPLETED.....	07/05/55			07/11/55		09/11/54	
SAMPLED.....	06/08/56			06/08/56		06/09/56	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4696			4730		4692	
WELLHEAD PRESSURE, PSIG.....	797			4000		762	
OPEN FLOW, MCFD.....	2250					5400	
COMPONENT, MOLE PCT							
METHANE.....	61.3			60.5		63.5	
ETHANE.....	3.1			3.0		3.2	
PROPANE.....	2.7			3.1		1.8	
N-BUTANE.....	0.9			0.7		0.4	
ISOBUTANE.....	0.1			0.1		0.5	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.2			0.1		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	28.0			28.6		27.6	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.0		0.3	
HELIUM.....	2.29			2.43		1.86	
HEATING VALUE.....	816			796		806	
SPECIFIC GRAVITY.....	0.742			0.740		0.724	
		INDEX SAMPLE	5575 6096	INDEX SAMPLE	5576 6104	INDEX SAMPLE	5577 6256
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	BRADSHAW A-1			HITCH-GRAY-PRICE LAND CO.		C. B. SPRADLIN	
LOCATION.....	SEC. 14, T5N, R9ECM			SEC. 25, T4N, R8ECM		SEC. 16, T4N, R9ECM	
OWNER.....	COLUMBIAN SERVICE OIL CO.			TEXACO INC.		COLUMBIAN FUEL CORP.	
COMPLETED.....	05/04/55			12/24/53		05/11/54	
SAMPLED.....	07/19/56			07/03/56		03/04/57	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4474			4703		4593	
WELLHEAD PRESSURE, PSIG.....	820			765		831	
OPEN FLOW, MCFD.....	3200			2006		23500	
COMPONENT, MOLE PCT							
METHANE.....	65.2			63.6		63.5	
ETHANE.....	3.1			3.4		3.1	
PROPANE.....	2.6			1.9		1.9	
N-BUTANE.....	0.8			0.7		0.7	
ISOBUTANE.....	0.1			0.2		0.5	
N-PENTANE.....	0.1			0.2		0.2	
ISOPENTANE.....	0.2			0.2		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	24.1			27.2		26.6	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			0.2		0.8	
HELIUM.....	2.11			2.13		2.19	
HEATING VALUE.....	849			820		811	
SPECIFIC GRAVITY.....	0.725			0.728		0.726	
		INDEX SAMPLE	5578 6257	INDEX SAMPLE	5579 6259	INDEX SAMPLE	5580 6260
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	A. H. HAGER NO. 1			C. B. SPRADLIN NO. 1		M. B. ROSS NO. 1	
LOCATION.....	SEC. 36, T6N, R8ECM			SEC. 33, T5N, R9ECM		SEC. 28, T5N, R9ECM	
OWNER.....	COLUMBIAN FUEL CORP.			UNITED CARBON CO., INC.		UNITED CARBON CO., INC.	
COMPLETED.....	03/04/57			08/15/53		06/15/54	
SAMPLED.....	03/04/57			03/04/57		03/04/57	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4576			4530		4542	
WELLHEAD PRESSURE, PSIG.....	835			823		823	
OPEN FLOW, MCFD.....	5650			24000		3829	
COMPONENT, MOLE PCT							
METHANE.....	63.1			64.7		64.7	
ETHANE.....	2.8			3.1		2.9	
PROPANE.....	1.8			1.8		1.9	
N-BUTANE.....	0.5			0.6		0.8	
ISOBUTANE.....	0.3			0.4		0.4	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	27.9			26.1		25.8	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			1.1		0.6	
HELIUM.....	2.35			2.30		2.25	
HEATING VALUE.....	777			804		815	
SPECIFIC GRAVITY.....	0.717			0.721		0.717	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5581 6261	INDEX SAMPLE	5582 6262	INDEX SAMPLE	5583 6278
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	W. H. SPRADLIN NO. 1			V. S. BURKETT NO. 1		PHILLIPS C NO. 1	
LOCATION.....	SEC. 3, T4N, R9ECM			SEC. 10, T4N, R9ECM		SEC. 17, T4N, R8ECM	
OWNER.....	UNITED CARBON CO., INC.			UNITED CARBON CO., INC.		SHELL OIL CO.	
COMPLETED.....	08/11/53			09/10/53		12/30/55	
SAMPLED.....	03/04/57			03/04/57		03/19/57	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4512			4588		4760	
WELLHEAD PRESSURE, PSIG.....	1822			822		811	
OPEN FLOW, MCFD.....	18000			15800		8900	
COMPONENT, MOLE PCT							
METHANE.....	63.9			64.0		63.0	
ETHANE.....	3.1			3.2		3.2	
PROPANE.....	0.7			0.6		0.6	
N-BUTANE.....	0.6			0.6		0.6	
ISOBUTANE.....	0.3			0.4		0.4	
N-PENTANE.....	0.2			0.1		0.2	
ISOPENTANE.....	0.1			0.2		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	26.2			26.3		28.2	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.3			1.1		0.3	
HELIUM.....	2.28			2.57		2.17	
HEATING VALUE.....	795			799		798	
SPECIFIC GRAVITY.....	0.720			0.720		0.726	
		INDEX SAMPLE	5584 6324	INDEX SAMPLE	5585 6325	INDEX SAMPLE	5586 6366
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	HAYMORTH			HAYMORTH		BRYAN NO. 1	
LOCATION.....	SEC. 17, T5N, R9ECM			SEC. 5, T5N, R9ECM		SEC. 31, T5N, R8ECM	
OWNER.....	SUPERIOR OIL CO.			SUPERIOR OIL CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	08/25/54			08/17/54		07/10/51	
SAMPLED.....	05/14/57			05/14/57		08/19/57	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4602			4591		4824	
WELLHEAD PRESSURE, PSIG.....	810			806		790	
OPEN FLOW, MCFD.....	18691			9778		35000	
COMPONENT, MOLE PCT							
METHANE.....	63.5			63.8		61.7	
ETHANE.....	2.8			3.0		3.1	
PROPANE.....	1.8			1.9		2.0	
N-BUTANE.....	0.5			0.6		0.6	
ISOBUTANE.....	0.4			0.5		0.3	
N-PENTANE.....	0.1			0.2		0.2	
ISOPENTANE.....	0.1			TRACE		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	27.2			26.7		28.3	
OXYGEN.....	0.0			0.0		0.3	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			0.7		0.9	
HELIUM.....	2.36			2.27		2.11	
HEATING VALUE.....	784			805		781	
SPECIFIC GRAVITY.....	0.718			0.722		0.732	
		INDEX SAMPLE	5587 6367	INDEX SAMPLE	5588 6368	INDEX SAMPLE	5589 6369
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	BURKHARDT NO. 1			DITMAR NO. 1		ENTRICKIN NO. 2	
LOCATION.....	SEC. 4, T4N, R8ECM			SEC. 33, T5N, R8ECM		SEC. 20, T5N, R8ECM	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	08/29/56			06/11/56		10/15/56	
SAMPLED.....	08/19/57			08/19/57		08/19/57	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4734			4735		4750	
WELLHEAD PRESSURE, PSIG.....	797			789		788	
OPEN FLOW, MCFD.....	60000			32		30000	
COMPONENT, MOLE PCT							
METHANE.....	63.5			63.0		62.3	
ETHANE.....	3.1			3.0		3.0	
PROPANE.....	1.8			1.8		1.8	
N-BUTANE.....	0.6			0.6		0.6	
ISOBUTANE.....	0.4			0.4		0.4	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.2			0.1		0.2	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	27.2			27.5		27.9	
OXYGEN.....	TRACE			0.1		0.4	
ARGON.....	0.1			0.2		0.3	
HYDROGEN.....	0.2			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.7		0.7	
HELIUM.....	2.18			2.20		2.20	
HEATING VALUE.....	807			799		787	
SPECIFIC GRAVITY.....	0.724			0.728		0.728	
		INDEX SAMPLE	5590 6370	INDEX SAMPLE	5591 6371	INDEX SAMPLE	5592 6372
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	FOSTER NO. 1			HALLIDAY NO. 3		HARGIS NO. 1	
LOCATION.....	SEC. 24, T5N, R8ECM			SEC. 4, T5N, R8ECM		SEC. 8, T5N, R9ECM	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	08/05/55			05/24/55		08/22/55	
SAMPLED.....	08/19/57			08/19/57		08/20/57	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4603			4756		4670	
WELLHEAD PRESSURE, PSIG.....	814			805		817	
OPEN FLOW, MCFD.....	10200			2180		44000	
COMPONENT, MOLE PCT							
METHANE.....	62.8			61.1		63.6	
ETHANE.....	2.8			3.1		2.9	
PROPANE.....	1.6			1.6		1.8	
N-BUTANE.....	0.5			0.7		0.6	
ISOBUTANE.....	0.3			0.4		0.3	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.0			0.2		0.2	
NITROGEN.....	28.0			28.2		26.9	
OXYGEN.....	0.1			0.1		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.3			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			1.2		1.0	
HELIUM.....	2.31			2.27		2.30	
HEATING VALUE.....	769			791		800	
SPECIFIC GRAVITY.....	0.714			0.738		0.726	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5593 6373			INDEX SAMPLE	5594 6374			INDEX SAMPLE	5595 6375
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	HARRYMAN NO. 1			HARRYMAN NO. 1				HARRYMAN NO. 1			
LOCATION.....	SEC. 13, T5N, R8ECM			SEC. 12, T5N, R8ECM				SEC. 3, T4N, R8ECM			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	09/21/56			09/14/56				09/18/56			
SAMPLED.....	08/19/57			08/19/57				08/19/57			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4578			4516				4724			
WELLHEAD PRESSURE, PSIG.....	799			801				796			
OPEN FLOW, MCFD.....	7800			6800				4000			
COMPONENT, MOLE PCT											
METHANE.....	62.2			62.7				64.0			
ETHANE.....	2.7			2.6				3.0			
PROPANE.....	1.7			2.4				1.8			
N-BUTANE.....	0.5			0.5				0.6			
ISOBUTANE.....	0.3			0.2				0.4			
N-PENTANE.....	0.1			0.2				0.1			
ISOPENTANE.....	0.2			TRACE				0.2			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	28.8			27.8				26.8			
OXYGEN.....	0.2			0.0				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	TRACE			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.1			1.0				0.6			
HELIUM.....	2.29			2.33				2.85			
HEATING VALUE.....	767			782				805			
SPECIFIC GRAVITY.....	0.725			0.722				0.718			
		INDEX SAMPLE	5596 6376			INDEX SAMPLE	5597 6377			INDEX SAMPLE	5598 6378
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	JOHNSON NO. 1			LA HAR NO. 1				MCDOY NO. 1			
LOCATION.....	SEC. 36, T5N, R8ECM			SEC. 34, T5N, R8ECM				SEC. 10, T4N, R8ECM			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	07/30/55			07/29/55				07/14/56			
SAMPLED.....	08/19/57			08/19/57				08/19/57			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4679			4653				4670			
WELLHEAD PRESSURE, PSIG.....	812			810				798			
OPEN FLOW, MCFD.....	17000			33500				1290			
COMPONENT, MOLE PCT											
METHANE.....	63.0			64.0				59.8			
ETHANE.....	3.0			3.0				2.3			
PROPANE.....	1.9			1.8				1.7			
N-BUTANE.....	0.6			0.6				0.6			
ISOBUTANE.....	0.4			0.3				0.4			
N-PENTANE.....	0.3			0.1				0.1			
ISOPENTANE.....	0.1			TRACE				TRACE			
CYCLOPENTANE.....	0.1			TRACE				TRACE			
HEXANES PLUS.....	0.4			0.2				0.1			
NITROGEN.....	26.9			26.8				30.4			
OXYGEN.....	0.1			TRACE				1.0			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			0.1				0.0			
CARBON DIOXIDE.....	0.8			0.8				0.5			
HELIUM.....	2.22			2.19				2.10			
HEATING VALUE.....	816			802				794			
SPECIFIC GRAVITY.....	0.733			0.720				0.737			
		INDEX SAMPLE	5599 6379			INDEX SAMPLE	5600 6380			INDEX SAMPLE	5601 6381
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	NASH NO. 1			PETTY NO. 1				PHILMAG NO. 1			
LOCATION.....	SEC. 7, T5N, R9ECM			SEC. 30, T5N, R9ECM				SEC. 32, T5N, R8ECM			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	09/04/56			09/17/55				06/01/56			
SAMPLED.....	08/19/57			08/19/57				08/19/57			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4541			4846				4748			
WELLHEAD PRESSURE, PSIG.....	802			805				802			
OPEN FLOW, MCFD.....	28000			12130				59000			
COMPONENT, MOLE PCT											
METHANE.....	63.1			62.3				63.4			
ETHANE.....	2.8			3.2				3.1			
PROPANE.....	1.7			2.1				1.9			
N-BUTANE.....	0.5			0.6				0.6			
ISOBUTANE.....	0.4			0.4				0.4			
N-PENTANE.....	0.1			0.1				0.2			
ISOPENTANE.....	0.2			0.2				0.2			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.2			
NITROGEN.....	27.8			27.8				26.9			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.9			0.0				0.6			
HELIUM.....	2.35			2.25				2.19			
HEATING VALUE.....	782			795				808			
SPECIFIC GRAVITY.....	0.722			0.728				0.724			
		INDEX SAMPLE	5602 6382			INDEX SAMPLE	5603 6383			INDEX SAMPLE	5604 6384
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CIMARRON			CIMARRON				CIMARRON			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	ROBERTS NO. 1			ST. JOHN NO. 1				SLACK NO. 2			
LOCATION.....	SEC. 14, T5N, R8ECM			SEC. 14, T5N, R8ECM				SEC. 11, T5N, R8ECM			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	08/06/56			10/11/56				06/10/55			
SAMPLED.....	7--/00			08/19/57				08/19/57			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	435			435				435			
DEPTH, FEET.....	4604			4754				4576			
WELLHEAD PRESSURE, PSIG.....	780			785				811			
OPEN FLOW, MCFD.....	730			2450				3350			
COMPONENT, MOLE PCT											
METHANE.....	63.2			61.9				62.0			
ETHANE.....	3.0			3.6				2.8			
PROPANE.....	1.8			2.3				1.8			
N-BUTANE.....	0.6			0.7				0.6			
ISOBUTANE.....	0.4			0.4				0.4			
N-PENTANE.....	0.2			0.2				0.1			
ISOPENTANE.....	0.2			0.2				0.1			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.2				0.1			
NITROGEN.....	27.5			27.6				28.8			
OXYGEN.....	0.0			TRACE				0.1			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.6			2.18				0.7			
HELIUM.....	2.34			0.76				2.28			
HEATING VALUE.....	802			816				772			
SPECIFIC GRAVITY.....	0.726			0.736				0.725			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	5605 6385		INDEX SAMPLE	5606 6386		INDEX SAMPLE	5607 6387
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	SMITH NO. 1		THRASH NO. 1			WILMARTH NO. 1		
LOCATION.....	SEC. 2, T4N, R8ECM		SEC. 9, T5N, R9ECM			SEC. 5, T4N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	10/29/56		09/08/55			05/24/56		
SAMPLED.....	08/19/57		08/20/57			08/19/57		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4740		4644			4774		
WELLHEAD PRESSURE, PSIG.....	787		818			805		
OPEN FLOW, MCFD.....	16200		47500			13500		
COMPONENT, MOLE PCT								
METHANE.....	62.3		63.6			61.8		
ETHANE.....	3.1		2.9			3.0		
PROPANE.....	1.8		1.9			1.7		
N-BUTANE.....	0.6		0.6			0.6		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	28.1		26.6			28.6		
OXYGEN.....	0.3		0.1			0.5		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.9			0.5		
HELIUM.....	2.17		2.14			2.14		
HEATING VALUE.....	785		802			785		
SPECIFIC GRAVITY.....	0.726		0.723			0.731		
	INDEX SAMPLE	5608 6437		INDEX SAMPLE	5609 6438		INDEX SAMPLE	5610 6476
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	FRANCIS NO. 1		TIDLER NO. 1			ORD UNIT NO. 1		
LOCATION.....	SEC. 6, T4N, R8ECM		SEC. 7, T4N, R8ECM			SEC. 27, T4N, R9ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			SOHIO PETROLEUM CO., ET AL.		
COMPLETED.....	09/25/57		11/24/57			11/24/57		
SAMPLED.....	11/22/57		11/24/57			01/09/58		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4786		4766			4576		
WELLHEAD PRESSURE, PSIG.....	764		776			860		
OPEN FLOW, MCFD.....	43500		40000			750		
COMPONENT, MOLE PCT								
METHANE.....	62.4		63.2			58.0		
ETHANE.....	2.8		3.1			3.9		
PROPANE.....	1.7		1.7			1.7		
N-BUTANE.....	0.7		0.5			0.4		
ISOBUTANE.....	0.4		0.4			0.3		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.2		0.2			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	28.6		27.9			33.2		
OXYGEN.....	0.2		0.1			0.5		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.4			0.2		
HELIUM.....	2.20		2.10			1.50		
HEATING VALUE.....	775		729			729		
SPECIFIC GRAVITY.....	0.723		0.720			0.739		
	INDEX SAMPLE	5611 6518		INDEX SAMPLE	5612 6536		INDEX SAMPLE	5613 6621
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	ELMER ADAMS NO. 1		STATE NO. 1-18			MINNS NO. 1		
LOCATION.....	SEC. 12, T4N, R7ECM		SEC. 18, T4N, R8ECM			SEC. 6, T4N, R9ECM		
OWNER.....	UNION OIL CO. OF CALIF.		COLORADO OIL & GAS CORP.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	03/19/58		01/17/58			~/-/50		
SAMPLED.....	03/19/58		03/29/58			05/31/58		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4860		4810			4627		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		781			775		
OPEN FLOW, MCFD.....	NOT GIVEN		4650			38500		
COMPONENT, MOLE PCT								
METHANE.....	61.8		60.7			63.6		
ETHANE.....	4.6		0.1			3.2		
PROPANE.....	3.6		1.5			1.8		
N-BUTANE.....	1.6		0.3			0.7		
ISOBUTANE.....	0.0		0.1			0.4		
N-PENTANE.....	0.6		0.1			0.2		
ISOPENTANE.....	0.4		0.2			0.3		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.5		0.1			0.2		
NITROGEN.....	23.2		33.2			26.5		
OXYGEN.....	TRACE		0.7			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.7			0.7		
HELIUM.....	1.80		2.50			2.20		
HEATING VALUE.....	962		701			817		
SPECIFIC GRAVITY.....	0.782		0.724			0.727		
	INDEX SAMPLE	5614 6622		INDEX SAMPLE	5615 6623		INDEX SAMPLE	5616 6627
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	CONOVER NO. 1		BARRICK NO. 1			FORD NO. 1-22		
LOCATION.....	SEC. 5, T5N, R8ECM		SEC. 1, T4N, R8ECM			SEC. 22, T4N, R9ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO OIL & GAS CORP.		
COMPLETED.....	09/05/57		09/12/57			~/-/55		
SAMPLED.....	05/31/58		06/-/58			06/16/58		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4781		4676			4700		
WELLHEAD PRESSURE, PSIG.....	764		774			775		
OPEN FLOW, MCFD.....	4100		6100			33000		
COMPONENT, MOLE PCT								
METHANE.....	61.4		63.7			60.6		
ETHANE.....	3.4		3.8			3.2		
PROPANE.....	2.3		1.8			1.9		
N-BUTANE.....	0.7		0.7			0.7		
ISOBUTANE.....	0.4		0.3			0.4		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.3		0.3			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	27.7		26.2			29.7		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.1		0.7			1.1		
HELIUM.....	2.20		2.20			1.90		
HEATING VALUE.....	815		817			779		
SPECIFIC GRAVITY.....	0.745		0.728			0.743		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5617 SAMPLE 6628			INDEX 5618 SAMPLE 6629			INDEX 5619 SAMPLE 6649		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	FLEMING NO. 1		BORDON NO. 1-A			NEFF NO. 1		
LOCATION.....	SEC. 21, T4N, R9ECM		SEC. 8, T5N, R9ECM			SEC. 1, T4N, R7ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO OIL & GAS CORP.			UNION OIL CO. OF CALIF.		
COMPLETED.....	--/757		--/756			01/31/58		
SAMPLED.....	06/16/58		06/16/58			06/21/58		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4700		4700			4818		
WELLHEAD PRESSURE, PSIG.....	775		780			700		
OPEN FLOW, MCFD.....	2000		14000			4280		
COMPONENT, MOLE PCT.....								
METHANE.....	61.7		42.6			63.2		
ETHANE.....	3.2		11.8			2.8		
PROPANE.....	1.6		14.0			1.3		
N-BUTANE.....	0.3		5.7			0.4		
ISOBUTANE.....	0.3		3.7			0.2		
N-PENTANE.....	0.1		1.4			0.1		
ISOPENTANE.....	0.1		1.9			0.2		
CYCLOPENTANE.....	TRACE		0.2			TRACE		
HEXANES PLUS.....	0.1		1.0			0.1		
NITROGEN.....	30.0		15.2			28.7		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		1.2			0.8		
HELIUM.....	1.90		1.10			2.30		
HEATING VALUE.....	765		1523			762		
SPECIFIC GRAVITY.....	0.727		1.058			0.717		
INDEX 5620 SAMPLE 6700			INDEX 5621 SAMPLE 6991			INDEX 5622 SAMPLE 7182		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	TROTTI NO. A-1		WHISENAND NO. 1			WIGGINS NO. 1		
LOCATION.....	SEC. 15, T4N, R8ECM		SEC. 22, T6N, R9ECM			SEC. 33, T4N, R8ECM		
OWNER.....	HUGHES SEEWALD		PANHANDLE EASTERN PIPELINE C			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	--/700		11/09/58			07/28/52		
SAMPLED.....	07/01/58		03/03/59			08/26/59		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4647		4539			4806		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		774			753		
OPEN FLOW, MCFD.....	40000		1674			3920		
COMPONENT, MOLE PCT.....								
METHANE.....	64.0		59.9			63.1		
ETHANE.....	3.2		2.9			3.3		
PROPANE.....	1.8		1.9			1.8		
N-BUTANE.....	0.7		0.6			0.5		
ISOBUTANE.....	0.4		0.5			0.3		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.4		0.1			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	26.4		30.6			28.1		
OXYGEN.....	TRACE		0.1			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.4			0.2		
HELIUM.....	2.20		2.40			2.00		
HEATING VALUE.....	829		772			798		
SPECIFIC GRAVITY.....	0.728		0.739			0.723		
INDEX 5623 SAMPLE 7183			INDEX 5624 SAMPLE 7184			INDEX 5625 SAMPLE 7186		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	KINSINGER NO. 1		DELOZIER NO. 1			SPARKMAN A-1		
LOCATION.....	SEC. 36, T6N, R9ECM		SEC. 3, T3N, R8ECM			SEC. 10, T5N, R9ECM		
OWNER.....	CITIES SERVICE OIL CO.		COLORADO INTERSTATE GAS CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	06/13/53		12/15/52			07/12/53		
SAMPLED.....	08/21/59		08/26/59			08/21/59		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4612		4761			4624		
WELLHEAD PRESSURE, PSIG.....	762		7098			757		
OPEN FLOW, MCFD.....	10296		1620			17750		
COMPONENT, MOLE PCT.....								
METHANE.....	71.3		58.4			64.6		
ETHANE.....	3.7		1.7			3.1		
PROPANE.....	2.6		1.7			2.9		
N-BUTANE.....	0.7		0.5			0.6		
ISOBUTANE.....	0.3		0.3			0.2		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.3		0.3			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	18.1		32.2			25.0		
OXYGEN.....	0.0		1.2			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.6		
HELIUM.....	1.90		1.60			2.10		
HEATING VALUE.....	924		748			843		
SPECIFIC GRAVITY.....	0.702		0.747			0.726		
INDEX 5626 SAMPLE 7187			INDEX 5627 SAMPLE 7188			INDEX 5628 SAMPLE 7196		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	WHISENAND NO. 1		FLEMING NO. 1			FRANK PARKES NO. A-1		
LOCATION.....	SEC. 8, T5N, R8ECM		SEC. 21, T4N, R9ECM			SEC. 12, T4N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			HUGHES SEEWALD		
COMPLETED.....	10/30/53		08/07/57			01/04/58		
SAMPLED.....	08/21/59		08/26/59			08/25/59		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4753		4660			4636		
WELLHEAD PRESSURE, PSIG.....	778		751			748		
OPEN FLOW, MCFD.....	4800		1940			81000		
COMPONENT, MOLE PCT.....								
METHANE.....	62.0		56.6			63.1		
ETHANE.....	3.4		2.1			3.0		
PROPANE.....	2.0		0.6			1.1		
N-BUTANE.....	0.7		0.6			0.5		
ISOBUTANE.....	0.3		0.2			0.5		
N-PENTANE.....	0.2		0.2			TRACE		
ISOPENTANE.....	0.4		0.3			0.5		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	27.7		32.8			27.7		
OXYGEN.....	0.0		0.9			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.6			1.0		
HELIUM.....	2.15		1.85			2.20		
HEATING VALUE.....	823		754			791		
SPECIFIC GRAVITY.....	0.738		0.762			0.728		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5629			INDEX 5630			INDEX 5631		
SAMPLE 7244			SAMPLE 7245			SAMPLE 7271		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	BORDEN NO. 1-4		HALLIDAY B			HALLIDAY NO. 1		
LOCATION.....	SEC. 4, T5N, R9ECM		SEC. 24, T6N, R8ECM			SEC. 25, T6N, R8ECM		
OWNER.....	COLORADO OIL & GAS CORP.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	12/24/58		03/24/59			12/09/53		
SAMPLED.....	10/16/59		10/16/59			11/03/59		
FORMATION.....	PENN-KEYES		PENN-MORROW			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4618		4367			4624		
WELLHEAD PRESSURE, PSIG.....	760		950			758		
OPEN FLOW, MCFD.....	NOT GIVEN		6400			16000		
COMPONENT, MOLE PCT								
METHANE.....	63.0		76.5			60.8		
ETHANE.....	2.8		6.3			2.8		
PROPANE.....	1.7		9.1			2.6		
N-BUTANE.....	0.6		0.9			0.7		
ISOBUTANE.....	0.3		0.5			0.2		
N-PENTANE.....	0.6		TRACE			0.2		
ISOPENTANE.....	0.1		0.5			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	27.6		10.1			29.3		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.2			0.4		
HELIUM.....	2.20		0.60			2.40		
HEATING VALUE.....	797		1071			799		
SPECIFIC GRAVITY.....	0.729		0.700			0.741		

INDEX 5632			INDEX 5633			INDEX 5634		
SAMPLE 7272			SAMPLE 7283			SAMPLE 7284		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	STATE NO. 1-18		HALLIDAY B-1			WHISENAND B-1		
LOCATION.....	SEC. 18, T4N, R8ECM		SEC. 24, T6N, R8ECM			SEC. 1, T5N, R9ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		SHELL OIL CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	01/17/58		06/18/58			07/12/53		
SAMPLED.....	11/17/59		11/17/59			11/17/59		
FORMATION.....	PENN-KEYES		PENN-MORROW			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4810		4367			4552		
WELLHEAD PRESSURE, PSIG.....	733		758			759		
OPEN FLOW, MCFD.....	NOT GIVEN		1449			6287		
COMPONENT, MOLE PCT								
METHANE.....	62.6		60.4			69.4		
ETHANE.....	3.0		2.7			3.5		
PROPANE.....	2.0		3.1			3.0		
N-BUTANE.....	0.3		0.7			0.6		
ISOBUTANE.....	0.3		0.1			0.2		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	28.6		29.3			20.1		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.6			0.5		
HELIUM.....	2.20		2.30			1.90		
HEATING VALUE.....	790		795			893		
SPECIFIC GRAVITY.....	0.725		0.741			0.704		

INDEX 5635			INDEX 5636			INDEX 5637		
SAMPLE 7301			SAMPLE 7302			SAMPLE 7321		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	BURNS NO. 1		HAGAN			HEAD NO. 1		
LOCATION.....	SEC. 18, T4N, R9ECM		SEC. 19, T4N, R9ECM			SEC. 27, T6N, R9ECM		
OWNER.....	HUGHES SEEWALD		HUGHES SEEWALD			DIAMOND SHAMROCK CORP.		
COMPLETED.....	12/04/59		12/04/59			12/20/59		
SAMPLED.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	7419		743			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	62.9		62.9			61.3		
ETHANE.....	2.9		2.0			3.0		
PROPANE.....	3.1		2.0			3.1		
N-BUTANE.....	0.7		0.6			0.7		
ISOBUTANE.....	0.2		0.3			0.3		
N-PENTANE.....	0.3		0.3			0.3		
ISOPENTANE.....	0.0		TRACE			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		TRACE			0.1		
NITROGEN.....	26.9		27.9			29.4		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.0			0.4		
HELIUM.....	2.20		2.00			2.30		
HEATING VALUE.....	823		803			785		
SPECIFIC GRAVITY.....	0.732		0.726			0.733		

INDEX 5638			INDEX 5639			INDEX 5640		
SAMPLE 7393			SAMPLE 7500			SAMPLE 7807		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	HURST NO. 2		WHISENAND A-2			JERMYN NO. 1		
LOCATION.....	SEC. 9, T4N, R8ECM		SEC. 2, T5N, R9ECM			SEC. 19, T5N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		CITIES SERVICE OIL CO.			COLORADO OIL & GAS CORP.		
COMPLETED.....	02/12/60		04/13/60			05/05/60		
SAMPLED.....	PENN-KEYES		PENN-KEYES			01/04/61		
FORMATION.....	435		435			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4722		4590			4817		
WELLHEAD PRESSURE, PSIG.....	739		752			NOT GIVEN		
OPEN FLOW, MCFD.....	4579		40			7800		
COMPONENT, MOLE PCT								
METHANE.....	62.6		64.7			61.7		
ETHANE.....	3.2		3.3			3.5		
PROPANE.....	2.0		0.9			0.9		
N-BUTANE.....	0.6		0.7			0.6		
ISOBUTANE.....	0.4		0.4			0.8		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.1		0.1			0.3		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	28.3		24.9			28.7		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.6			0.6		
HELIUM.....	2.10		2.70			2.20		
HEATING VALUE.....	7400		729			781		
SPECIFIC GRAVITY.....	0.729		0.717			0.726		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5641 SAMPLE 8105			INDEX 5642 SAMPLE 8391			INDEX 5643 SAMPLE 8546		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	R. B. HANES NO. 1-2		PAUL HANKE NO. 1			NASH NO. 1		
LOCATION.....	SEC. 2, T3N, R9ECM		SEC. 3, T3N, R9ECM			SEC. 7, T5N, R9ECM		
OWNER.....	BAKER & TAYLOR DRILLING CO.		TEXACO INC.			HUGHES SEEWALD		
COMPLETED.....	--/--/00		12/03/61			--/--/00		
SAMPLED.....	08/02/61		02/01/62			05/09/62		
FORMATION.....	PENN-MORROW		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4275		4477			4544		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		592			NOT GIVEN		
OPEN FLOW, MCFD.....	828		8577			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	68.8		57.6			62.7		
ETHANE.....	8.9		3.3			2.8		
PROPANE.....	2.0		1.9			1.6		
N-BUTANE.....	0.5		0.9			0.6		
ISOBUTANE.....	0.5		0.7			0.8		
N-PENTANE.....	0.1		TRACE			0.1		
ISOPENTANE.....	TRACE		TRACE			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.6			0.2		
NITROGEN.....	22.1		32.0			27.8		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.4			1.3		
HELIUM.....	0.60		1.08			2.34		
HEATING VALUE.....	880		829			787		
SPECIFIC GRAVITY.....	0.708		0.783			0.729		
INDEX 5644 SAMPLE 8742			INDEX 5645 SAMPLE 8744			INDEX 5646 SAMPLE 8866		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	HANKE-HANES NO. 1		HANKE-HANES NO. 1			OKLAHOMA STATE C NO. 1		
LOCATION.....	SEC. 11, T3N, R9ECM		SEC. 11, T3N, R9ECM			SEC. 14, T6N, R9ECM		
OWNER.....	TEXACO INC.		TEXACO INC.			PETROLEUM, INC.		
COMPLETED.....	07/11/62		07/11/62			11/05/62		
SAMPLED.....	11/01/62		11/01/62			02/12/63		
FORMATION.....	PENN-MORROW		PENN-KEYES			PENN-WABAUNSEE		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4295		4545			2728		
WELLHEAD PRESSURE, PSIG.....	841		871			460		
OPEN FLOW, MCFD.....	9416		10214			1400		
COMPONENT, MOLE PCT								
METHANE.....	69.5		54.5			46.5		
ETHANE.....	8.4		3.9			3.9		
PROPANE.....	2.0		1.7			3.6		
N-BUTANE.....	0.5		0.6			1.3		
ISOBUTANE.....	0.4		0.3			0.3		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.2			0.0		
NITROGEN.....	21.6		36.2			42.7		
OXYGEN.....	TRACE		1.0			0.0		
ARGON.....	TRACE		0.3			0.0		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.3			0.1		
HELIUM.....	0.56		1.06			0.95		
HEATING VALUE.....	885		722			715		
SPECIFIC GRAVITY.....	0.706		0.772			0.821		
INDEX 5647 SAMPLE 9204			INDEX 5648 SAMPLE 9279			INDEX 5649 SAMPLE 9509		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	DOUGHTY NO. 1		WILKINS NO. 2			DOUGHTY NO. 1		
LOCATION.....	SEC. 22, T3N, R9ECM		SEC. 20, T4N, R9ECM			SEC. 22, T3N, R9ECM		
OWNER.....	MONSANTO CHEMICAL CO.		HUGHES SEEWALD			MONSANTO CO.		
COMPLETED.....	12/19/63		10/--/62			12/24/63		
SAMPLED.....	12/19/63		04/08/64			07/28/64		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4580		4720			4580		
WELLHEAD PRESSURE, PSIG.....	946		712			793		
OPEN FLOW, MCFD.....	1500		18000			1654		
COMPONENT, MOLE PCT								
METHANE.....	56.5		62.9			60.6		
ETHANE.....	3.0		3.2			3.1		
PROPANE.....	1.4		0.9			0.8		
N-BUTANE.....	0.8		0.8			0.6		
ISOBUTANE.....	TRACE		0.3			0.2		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.4		0.3			0.2		
NITROGEN.....	34.6		27.5			32.5		
OXYGEN.....	1.5		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.4			0.1		
HELIUM.....	1.29		2.14			0.64		
HEATING VALUE.....	735		817			766		
SPECIFIC GRAVITY.....	0.765		0.732			0.745		
INDEX 5650 SAMPLE 10651			INDEX 5651 SAMPLE 10652			INDEX 5652 SAMPLE 10653		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	WIGGINS NO. 1		E. JERMYN NO. A-1			ROSE NO. 1		
LOCATION.....	SEC. 33, T4N, R8ECM		SEC. 18, T5N, R8ECM			SEC. 26, T5N, R8ECM		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	07/20/66		07/19/66			07/20/66		
SAMPLED.....	07/20/66		07/20/66			07/20/66		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4806		4787			4640		
WELLHEAD PRESSURE, PSIG.....	621		622			631		
OPEN FLOW, MCFD.....	924		11421			2480		
COMPONENT, MOLE PCT								
METHANE.....	63.0		62.1			62.9		
ETHANE.....	3.3		3.4			3.0		
PROPANE.....	1.4		0.9			0.8		
N-BUTANE.....	0.5		0.8			0.7		
ISOBUTANE.....	0.4		0.3			0.4		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.1		0.1			0.4		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	28.0		27.2			27.2		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.6			0.7		
HELIUM.....	2.04		2.20			2.26		
HEATING VALUE.....	803		816			816		
SPECIFIC GRAVITY.....	0.730		0.740			0.730		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5653 10654	INDEX SAMPLE	5654 10655	INDEX SAMPLE	5655 10656
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	COX NO. 1			BAKER NO. 1		PARKES NO. 1	
LOCATION.....	SEC. 16, T5N, R8ECH			SEC. 34, T4N, R8ECH		SEC. 34, T5N, R8ECH	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	03/22/43			10/05/50		04/10/49	
SAMPLED.....	07/20/66			07/20/66		07/20/66	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-KEYES	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4682			4784		4725	
WELLHEAD PRESSURE, PSIG.....	625			620		617	
OPEN FLOW, MCFD.....	3749			1676		104	
COMPONENT, MOLE PCT							
METHANE.....	63.0			63.1		63.3	
ETHANE.....	3.1			3.4		3.4	
PROPANE.....	2.0			1.9		1.8	
N-BUTANE.....	0.7			0.6		0.5	
ISOBUTANE.....	0.4			0.3		0.2	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.2			0.2		0.1	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	27.3			27.8		28.1	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.2		0.2	
HELIUM.....	2.23			1.97		1.98	
HEATING VALUE.....	810			802		790	
SPECIFIC GRAVITY.....	0.730			0.720		0.720	
		INDEX SAMPLE	5656 10657	INDEX SAMPLE	5657 13733	INDEX SAMPLE	5658 15133
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES GAS AREA			KEYES GAS AREA		KEYES GAS AREA	
WELL NAME.....	FERGUSON UNIT NO. 1			ROSA B. NEFF G.U. NO. 1		M. B. ROSS NO. 3	
LOCATION.....	SEC. 2, T4N, R9ECH			SEC. 1, T4N, R7ECH		SEC. 28, T5N, R9ECH	
OWNER.....	ANOCO PRODUCTION CO.			CHARLES B. WILSON, JR., LTD.		ASHLAND EXPLORATION, INC.	
COMPLETED.....	03/09/54			02/-/59		06/24/77	
SAMPLED.....	07/20/66			10/01/73		11/02/77	
FORMATION.....	PENN-KEYES			PENN-KEYES		PENN-LANSING	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4590			4810		3190	
WELLHEAD PRESSURE, PSIG.....	834			435		356	
OPEN FLOW, MCFD.....	55415			500		800	
COMPONENT, MOLE PCT							
METHANE.....	62.3			61.8		56.9	
ETHANE.....	3.1			2.9		6.3	
PROPANE.....	2.0			1.6		3.4	
N-BUTANE.....	0.7			0.5		0.9	
ISOBUTANE.....	0.4			0.4		0.3	
N-PENTANE.....	0.2			0.1		0.2	
ISOPENTANE.....	0.2			0.2		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	27.2			29.2		30.6	
OXYGEN.....	0.1			0.0		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.2			0.8		0.1	
HELIUM.....	2.22			2.1		0.92	
HEATING VALUE.....	707			773		840	
SPECIFIC GRAVITY.....	0.740			0.729		0.772	
		INDEX SAMPLE	5659 6884	INDEX SAMPLE	5660 6885	INDEX SAMPLE	5661 12617
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES W			KEYES W		KEYES W	
WELL NAME.....	K. WINNING NO. 1			WINNING NO. 1		JOHNSON NO. 1	
LOCATION.....	SEC. 28, T5N, R7ECH			SEC. 28, T5N, R7ECH		SEC. 34, T5N, R7ECH	
OWNER.....	J. S. ABERCOMBIE			J. S. ABERCOMBIE		TEXAS ENERGIES, INC.	
COMPLETED.....	-/-/00			-/-/00		-/-/00	
SAMPLED.....	-/-/00			-/-/00		-/-/00	
FORMATION.....	PENN-KEYES			PENN-DES MOINES		PENN-MARMATON	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4824			4128		4060	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	57.3			37.6		38.4	
ETHANE.....	2.5			5.6		5.5	
PROPANE.....	1.2			3.8		4.8	
N-BUTANE.....	0.4			SEC. 0		1.0	
ISOBUTANE.....	0.3			0.6		0.6	
N-PENTANE.....	0.1			0.3		TRACE	
ISOPENTANE.....	0.1			0.1		0.4	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	34.7			48.7		48.0	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.6			0.6		TRACE	
HELIUM.....	2.60			1.29		1.23	
HEATING VALUE.....	694			661		688	
SPECIFIC GRAVITY.....	0.735			0.859		0.859	
		INDEX SAMPLE	5662 12661	INDEX SAMPLE	5663 13658	INDEX SAMPLE	5664 4102
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CIMARRON			CIMARRON		CIMARRON	
FIELD.....	KEYES W			MIDWELL		NOT GIVEN	
WELL NAME.....	JOHNSON NO. 1			DENNING NO. 1		SEEPAPE FROM WATER HOLE	
LOCATION.....	SEC. 34, T5N, R7ECH			SEC. 24, T4N, R9ECH		SEC. 17, T6N, R1ECH	
OWNER.....	TEXAS ENERGIES, INC.			AN-SON CORP.		FRED V. TUCKER	
COMPLETED.....	02/02/71			02/09/73		-/-/00	
SAMPLED.....	02/08/71			07/25/73		05/20/46	
FORMATION.....	PENN-CHEROKEE			PENN-MORROW		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	4161			4560		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			750		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			3000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	38.4			60.1		90.0	
ETHANE.....	4.2			4.0		0.0	
PROPANE.....	4.6			2.3		---	
N-BUTANE.....	0.8			0.6		---	
ISOBUTANE.....	0.5			0.4		---	
N-PENTANE.....	0.2			0.1		---	
ISOPENTANE.....	0.0			0.2		---	
CYCLOPENTANE.....	TRACE			TRACE		---	
HEXANES PLUS.....	0.1			0.1		---	
NITROGEN.....	48.7			30.7		3.8	
OXYGEN.....	0.0			0.0		0.6	
ARGON.....	0.1			0.1		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.1			0.1		5.6	
HELIUM.....	1.29			1.21		TRACE	
HEATING VALUE.....	659			792		912	
SPECIFIC GRAVITY.....	0.850			0.744		0.628	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5665			INDEX 5666			INDEX 5667		
SAMPLE 4954			SAMPLE 4030			SAMPLE 5473		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	NOT GIVEN		SAMPLE NE			SAMPLE NE		
WELL NAME.....	WATER WELL		R. R. OMOHUNDRO NO. 1			OMOHUNDRO NO. 1		
LOCATION.....	NEAR KENTON		SEC. 21, T3N, R8ECM			SEC. 21, T3N, R8ECM		
OWNER.....	FRED J. TUCKER		STANOLIND OIL & GAS CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	7/7/50		10/15/45			06/7/45		
SAMPLED.....	09/22/50		10/20/45			05/26/53		
FORMATION.....	NOT GIVEN		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	NOT GIVEN		4801			4800		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		835			800		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			1534		
COMPONENT, MOLE PCT								
METHANE.....	55.8		69.1			77.2		
ETHANE.....	0.1		19.1			5.9		
PROPANE.....	0.1		---			2.3		
N-BUTANE.....	0.1		---			0.6		
ISOBUTANE.....	0.0		---			0.3		
N-PENTANE.....	0.0		---			0.3		
ISOPENTANE.....	0.1		---			0.1		
CYCLOPENTANE.....	0.0		---			0.1		
HEXANES PLUS.....	0.0		---			0.1		
NITROGEN.....	42.1		10.5			11.9		
OXYGEN.....	0.3		0.1			0.0		
ARGON.....	0.02		---			TRACE		
HYDROGEN.....	TRACE		---			TRACE		
HYDROGEN SULFIDE**.....	---		---			0.0		
CARBON DIOXIDE.....	0.8		0.4			0.1		
HELIUM.....	0.02		0.80			0.80		
HEATING VALUE.....	576		1042			1014		
SPECIFIC GRAVITY.....	0.748		0.693			0.683		

INDEX 5668			INDEX 5669			INDEX 5670		
SAMPLE 6973			SAMPLE 7972			SAMPLE 8449		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	SAMPLE NE		SAMPLE NE			SAMPLE NE		
WELL NAME.....	UNIT NO. 1		PINKERTON A NO. 1			HARPER B NO. 1		
LOCATION.....	SEC. 20, T3N, R8ECM		SEC. 4, T2N, R8ECM			SEC. 8, T2N, R8ECM		
OWNER.....	TEXACO INC.		CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	01/11/58		05/05/61			01/23/62		
SAMPLED.....	02/17/59		05/18/61			03/06/62		
FORMATION.....	PENN-KEYES		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4899		4446			4514		
WELLHEAD PRESSURE, PSIG.....	633		898			908		
OPEN FLOW, MCFD.....	3500		10700			3050		
COMPONENT, MOLE PCT								
METHANE.....	68.8		75.4			76.1		
ETHANE.....	5.3		5.9			5.6		
PROPANE.....	2.6		0.6			2.4		
N-BUTANE.....	0.3		0.6			0.7		
ISOBUTANE.....	0.3		0.3			0.2		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.3		0.1			0.2		
NITROGEN.....	20.5		14.9			13.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	1.30		0.50			0.48		
HEATING VALUE.....	912		980			955		
SPECIFIC GRAVITY.....	0.712		0.688			0.691		

INDEX 5671			INDEX 5672			INDEX 5673		
SAMPLE 9081			SAMPLE 9082			SAMPLE 9083		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	SAMPLE NE		SAMPLE NE			SAMPLE NE		
WELL NAME.....	DUNGAN A NO. 1		DUNGAN A NO. 1			DUNGAN A NO. 1		
LOCATION.....	SEC. 21, T2N, R8ECM		SEC. 21, T2N, R8ECM			SEC. 21, T2N, R8ECM		
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	06/28/63		06/28/63			06/28/63		
SAMPLED.....	09/08/63		09/08/63			09/08/63		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	4580		4818			4458		
WELLHEAD PRESSURE, PSIG.....	964		800			875		
OPEN FLOW, MCFD.....	6900		19000			4000		
COMPONENT, MOLE PCT								
METHANE.....	83.9		81.5			81.5		
ETHANE.....	5.9		6.1			6.1		
PROPANE.....	2.2		2.5			2.5		
N-BUTANE.....	0.6		0.7			0.7		
ISOBUTANE.....	0.4		0.4			0.3		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.1		0.2			0.3		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	11/29/63		7.7			7.7		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.30		0.50			0.50		
HEATING VALUE.....	1064		1064			1056		
SPECIFIC GRAVITY.....	0.654		0.670			0.665		

INDEX 5674			INDEX 5675			INDEX 5676		
SAMPLE 13826			SAMPLE 9984			SAMPLE 9985		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CLEVELAND			CLEVELAND		
FIELD.....	STURGIS N		MOORE NW			MOORE NW		
WELL NAME.....	STATE OF OKLAHOMA B-1		CORFF NO. 1			CORFF NO. 1		
LOCATION.....	SEC. 14, T6N, R9ECM		SEC. 5, T10N, R3W			SEC. 5, T10N, R3W		
OWNER.....	SHENANDOAH OIL CORP.		J. M. HUBER CORP.			J. M. HUBER CORP.		
COMPLETED.....	10/06/73		08/03/64			08/03/64		
SAMPLED.....	11/29/73		07/14/65			07/14/65		
FORMATION.....	PENN-MARATON		ORDO-VIOLA			PENN-PRUE		
GEOLOGIC PROVINCE CODE.....	435		355			355		
DEPTH, FEET.....	3798		7710			7075		
WELLHEAD PRESSURE, PSIG.....	680		1739			2200		
OPEN FLOW, MCFD.....	2100		43905			2500		
COMPONENT, MOLE PCT								
METHANE.....	70.9		87.8			81.9		
ETHANE.....	7.0		6.6			6.9		
PROPANE.....	2.8		2.3			3.6		
N-BUTANE.....	0.6		0.7			1.1		
ISOBUTANE.....	0.3		0.7			0.7		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	0.2		TRACE			TRACE		
HEXANES PLUS.....	0.4		0.1			0.2		
NITROGEN.....	16.9		1.2			4.8		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.2		
HELIUM.....	0.53		0.04			0.08		
HEATING VALUE.....	987		1130			1139		
SPECIFIC GRAVITY.....	0.719		0.646			0.688		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 5677 11368	INDEX SAMPLE 5678 11374	INDEX SAMPLE 5679 12232
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CLEVELAND		CLEVELAND	CLEVELAND
FIELD.....	MOORE W		MOORE W	MOORE W
WELL NAME.....	E. HARRIS NO. 2		E. HARRIS NO. 1	SILER HEIRS NO. 1-L
LOCATION.....	SEC. 29, T10N, R3W		SEC. 29, T10N, R3W	SEC. 26, T10N, R4W
OWNER.....	SUN OIL CO.		SUN OIL CO.	SHENANDOAH OIL CORP.
COMPLETED.....	04/24/50		12/09/51	11/25/69
SAMPLED.....	03/11/68		03/11/68	04/-/70
FORMATION.....	DEVO-HUNTON		ORDO-SIMPSON	CAMO-ARBUCKLE
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	7950		8600	9641
WELLHEAD PRESSURE, PSIG.....	900		1000	2959
OPEN FLOW, MCFD.....	250		1500	2327
COMPONENT, MOLE PCT.....				
METHANE.....	76.4	85.6	79.9	
ETHANE.....	12.6	7.1	8.0	
PROpane.....	9.5	3.1	4.1	
N-BUTANE.....	1.5	1.3	0.9	
ISOBUTANE.....	0.8	0.6	0.6	
N-PENTANE.....	0.8	0.6	0.4	
ISOPENTANE.....	0.0	0.4	0.0	
CYCLOPENTANE.....	0.1	0.1	TRACE	
HEXANES PLUS.....	0.4	0.6	0.2	
NITROGEN.....	1.6	0.5	5.8	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.2	0.0	
HELIUM.....	0.04	0.01	0.00	
HEATING VALUE.....	1278	112	1137	
SPECIFIC GRAVITY.....	0.743	0.687	0.694	

		INDEX SAMPLE 5680 3421	INDEX SAMPLE 5681 3426	INDEX SAMPLE 5682 3557
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CLEVELAND		CLEVELAND	CLEVELAND
FIELD.....	NORMAN N		NORMAN N	NORMAN N
WELL NAME.....	DE ALLEN NO. 1		FRANKLIN COM. NO. 1A	T. H. MARVEL NO. 1
LOCATION.....	SEC. 27, T10N, R2W		SEC. 21, T10N, R2W	SEC. 21, T10N, R2W
OWNER.....	GULF OIL CO.- U.S.		ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.
COMPLETED.....	10/-/36		05/29/35	03/27/36
SAMPLED.....	05/15/42		05/15/42	05/16/42
FORMATION.....	ORDO-SIMPSON		ORDO-SIMPSON	ORDO-SIMPSON
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	7370		6988	6960
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1200	925
OPEN FLOW, MCFD.....	100		23270	9898
COMPONENT, MOLE PCT.....				
METHANE.....	46.4	77.2	67.4	
ETHANE.....	50.4	20.7	29.4	
PROpane.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	2.2	1.4	2.4	
OXYGEN.....	0.5	0.3	0.4	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.4	0.3	0.3	
HELIUM.....	0.05	0.09	0.09	
HEATING VALUE.....	1373	1153	1210	
SPECIFIC GRAVITY.....	0.819	0.667	0.715	

		INDEX SAMPLE 5683 11523	INDEX SAMPLE 5684 16793	INDEX SAMPLE 5685 12193
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CLEVELAND		CLEVELAND	CLEVELAND
FIELD.....	NORMAN NW		NORMAN NW	NORMAN NW
WELL NAME.....	MAY WALKER & STERLING NO. 1		BOSWELL NO. 1	N. J. VALOUCH NO. 1
LOCATION.....	SEC. 29, T10N, R2W		SEC. 7, T9N, R3W	SEC. 17, T8N, R2W
OWNER.....	TRICE PRODUCTION CO.		TRICE OIL CO.	UNION OIL CO. OF CALIF.
COMPLETED.....	--/-/59		02/-/83	04/23/68
SAMPLED.....	05/27/68		03/07/83	02/13/70
FORMATION.....	SENN-PRUE		ORDO-VIOLA & DEVO-HUNTON	ORDO-WILCOX
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	6500		8539	8065
WELLHEAD PRESSURE, PSIG.....	1200		350	NOT GIVEN
OPEN FLOW, MCFD.....	2000		1667	7100
COMPONENT, MOLE PCT.....				
METHANE.....	80.3	73.2	71.5	
ETHANE.....	7.9	5.1	10.5	
PROpane.....	4.4	5.1	7.4	
N-BUTANE.....	1.4	2.0	2.3	
ISOBUTANE.....	0.5	0.9	0.9	
N-PENTANE.....	0.9	0.6	0.6	
ISOPENTANE.....	0.1	1.1	0.6	
CYCLOPENTANE.....	0.1	0.3	0.1	
HEXANES PLUS.....	0.2	0.3	0.1	
NITROGEN.....	4.4	6.0	5.7	
OXYGEN.....	0.0	1.4	0.0	
ARGON.....	---	---	---	
HYDROGEN.....	TRACE	0.2	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.1	
CARBON DIOXIDE.....	0.1	0.0	0.0	
HELIUM.....	0.08	0.03	0.06	
HEATING VALUE.....	1173	1231	1283	
SPECIFIC GRAVITY.....	0.704	0.777	0.786	

		INDEX SAMPLE 5686 11448	INDEX SAMPLE 5687 11449	INDEX SAMPLE 5688 17248
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CLEVELAND		CLEVELAND	CLEVELAND
FIELD.....	OKLAHOMA CITY S		OKLAHOMA CITY S	STELLA E
WELL NAME.....	M. C. REYNOLDS 1-A		M. C. ADAMS NO. 2	JOHNSON "B" NO. 1-25
LOCATION.....	SEC. 6, T10N, R2W		SEC. 6, T10N, R2W	SEC. 25, T10N, R1E
OWNER.....	LOME STAR PRODUCING CO.		LOME STAR PRODUCING CO.	ANADARKO PRODUCTION CO.
COMPLETED.....	04/28/58		04/29/58	08/26/83
SAMPLED.....	04/10/68		04/10/68	04/12/84
FORMATION.....	ORDO-WILCOX		ORDO-VIOLA	ORDO-SIMPSON
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	7375		7146	5936
WELLHEAD PRESSURE, PSIG.....	1230		1637	1500
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	500
COMPONENT, MOLE PCT.....				
METHANE.....	73.5	83.7	37.5	
ETHANE.....	7.9	7.2	26.1	
PROpane.....	4.5	1.6	22.5	
N-BUTANE.....	2.0	1.3	7.2	
ISOBUTANE.....	0.9	0.6	2.3	
N-PENTANE.....	1.0	0.5	1.5	
ISOPENTANE.....	0.4	0.2	0.9	
CYCLOPENTANE.....	0.3	0.2	0.3	
HEXANES PLUS.....	0.7	0.6	0.6	
NITROGEN.....	2.4	1.6	1.0	
OXYGEN.....	TRACE	0.0	TRACE	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	0.2	
HELIUM.....	0.07	0.09	0.01	
HEATING VALUE.....	1269	1297	1897	
SPECIFIC GRAVITY.....	0.743	0.696	1.127	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5689 SAMPLE 14792		INDEX 5690 SAMPLE 14812		INDEX 5691 SAMPLE 5017	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	COAL	COAL	COAL	COAL	
FIELD.....	ASHLAND	ASHLAND	ASHLAND S	ASHLAND S	
WELL NAME.....	SMALLEY NO. 1-12	GOODMAN NO. 1	H. A. JONES NO. 1	H. A. JONES NO. 1	
LOCATION.....	SEC. 12, T3N, R11E	SEC. 1, T3N, R11E	SEC. 35, T3N, R11E	SEC. 35, T3N, R11E	
OWNER.....	CONTINENTAL OIL CO.	NFC PETROLEUM CORP.	OHIO OIL CO.	OHIO OIL CO.	
COMPLETED.....	--/--/700	06/17/76	10/19/50	10/19/50	
SAMPLED.....	09/30/76	10/--/76	03/03/51	03/03/51	
FORMATION.....	PENN-HARTSHORNE	PENN-HARTSHORNE	OKRD-BROMIDE	OKRD-BROMIDE	
GEOLOGIC PROVINCE CODE.....	345	345	345	345	
DEPTH, FEET.....	3320	3347	8955	8955	
WELLHEAD PRESSURE, PSIG.....	500	486	2600	2600	
OPEN FLOW, MCFD.....	5300	4881	2500	2500	
COMPONENT, MOLE PCT					
METHANE.....	95.4	91.3	95.8	95.8	
ETHANE.....	3.1	3.3	1.4	1.4	
PROPANE.....	1.5	1.7	0.3	0.3	
N-BUTANE.....	0.4	0.4	0.2	0.2	
ISOBUTANE.....	0.2	0.2	0.0	0.0	
N-PENTANE.....	0.1	0.1	0.0	0.0	
ISOPENTANE.....	0.1	0.1	0.0	0.0	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	0.1	
NITROGEN.....	8.3	2.1	1.1	1.1	
OXYGEN.....	0.3	TRACE	0.1	0.1	
ARGON.....	0.1	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.5	1.0	1.0	
HELIUM.....	0.12	0.13	0.04	0.04	
HEATING VALUE.....	993	1062	1015	1015	
SPECIFIC GRAVITY.....	0.639	0.616	0.585	0.585	
INDEX 5692 SAMPLE 15285		INDEX 5693 SAMPLE 3434		INDEX 5694 SAMPLE 3464	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	COAL	COAL	COAL	COAL	
FIELD.....	ASHLAND S	CENTRAHOMA	CENTRAHOMA	CENTRAHOMA	
WELL NAME.....	SIDMORE NO. 1-35	HARRYMAN NO. 1	HARRYMAN NO. 2	HARRYMAN NO. 2	
LOCATION.....	SEC. 35, T3N, R11E	SEC. 27, T2N, R9E	SEC. 27, T2N, R9E	SEC. 27, T2N, R9E	
OWNER.....	ARL EXPLORATION CO.	RAMSEY PETROLEUM CORP.	RAMSEY PETROLEUM CORP.	RAMSEY PETROLEUM CORP.	
COMPLETED.....	05/25/77	05/14/41	05/25/41	05/25/41	
SAMPLED.....	05/26/77	05/23/42	05/23/42	05/23/42	
FORMATION.....	PENN-CROMWELL & WAPANUCKA	PENN-CROMWELL	PENN-MCALESTER	PENN-MCALESTER	
GEOLOGIC PROVINCE CODE.....	345	345	345	345	
DEPTH, FEET.....	6877	4790	1208	1208	
WELLHEAD PRESSURE, PSIG.....	2125	1750	550	550	
OPEN FLOW, MCFD.....	4000	5000	10634	10634	
COMPONENT, MOLE PCT					
METHANE.....	95.5	79.5	80.1	80.1	
ETHANE.....	1.7	19.8	15.7	15.7	
PROPANE.....	0.2	---	---	---	
N-BUTANE.....	0.1	---	---	---	
ISOBUTANE.....	0.0	---	---	---	
N-PENTANE.....	TRACE	---	---	---	
ISOPENTANE.....	0.1	---	---	---	
CYCLOPENTANE.....	TRACE	---	---	---	
HEXANES PLUS.....	0.1	---	---	---	
NITROGEN.....	0.6	TRACE	3.3	3.3	
OXYGEN.....	0.0	0.3	0.5	0.5	
ARGON.....	TRACE	---	---	---	
HYDROGEN.....	TRACE	---	---	---	
HYDROGEN SULFIDE**.....	0.0	---	---	---	
CARBON DIOXIDE.....	1.6	0.3	0.2	0.2	
HELIUM.....	0.05	0.08	0.20	0.20	
HEATING VALUE.....	1016	1160	1093	1093	
SPECIFIC GRAVITY.....	0.588	0.657	0.650	0.650	
INDEX 5695 SAMPLE 3878		INDEX 5696 SAMPLE 8520		INDEX 5697 SAMPLE 8521	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	COAL	COAL	COAL	COAL	
FIELD.....	CENTRAHOMA	CENTRAHOMA	CENTRAHOMA	CENTRAHOMA	
WELL NAME.....	CAYTE NO. 1	HINE MAYER JR., A NO. 1	C. W. JOHNSTON NO. 1	C. W. JOHNSTON NO. 1	
LOCATION.....	SEC. 28, T2N, R9E	SEC. 1, T1N, R9E	SEC. 6, T1N, R10E	SEC. 6, T1N, R10E	
OWNER.....	PHILLIPS PETROLEUM CO.	TENNECO OIL CO.	TENNECO OIL CO.	TENNECO OIL CO.	
COMPLETED.....	05/02/44	11/01/61	01/23/62	01/23/62	
SAMPLED.....	08/05/44	04/21/62	04/21/62	04/21/62	
FORMATION.....	PENN-CROMWELL	ORDO-OIL CREEK	ORDO-MCLISH	ORDO-MCLISH	
GEOLOGIC PROVINCE CODE.....	345	345	345	345	
DEPTH, FEET.....	4973	8218	8082	8082	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	3305	3222	3222	
OPEN FLOW, MCFD.....	1698	32400	14000	14000	
COMPONENT, MOLE PCT					
METHANE.....	82.2	94.7	95.1	95.1	
ETHANE.....	17.2	1.6	1.7	1.7	
PROPANE.....	---	0.4	0.4	0.4	
N-BUTANE.....	---	0.1	0.1	0.1	
ISOBUTANE.....	---	0.0	0.1	0.1	
N-PENTANE.....	---	TRACE	TRACE	TRACE	
ISOPENTANE.....	---	0.1	0.1	0.1	
CYCLOPENTANE.....	---	TRACE	TRACE	TRACE	
HEXANES PLUS.....	---	TRACE	TRACE	TRACE	
NITROGEN.....	0.0	TRACE	2.1	2.1	
OXYGEN.....	0.5	TRACE	TRACE	TRACE	
ARGON.....	---	TRACE	0.0	0.0	
HYDROGEN.....	---	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	---	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.5	0.3	0.3	
HELIUM.....	0.08	0.07	0.07	0.07	
HEATING VALUE.....	1141	1006	1015	1015	
SPECIFIC GRAVITY.....	0.643	0.585	0.583	0.583	
INDEX 5698 SAMPLE 13672		INDEX 5699 SAMPLE 13673		INDEX 5700 SAMPLE 11313	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	COAL	COAL	COAL	COAL	
FIELD.....	CENTRAHOMA	CENTRAHOMA	CHILES DOME	CHILES DOME	
WELL NAME.....	HINE MAYER JR., A NO. 2	HINE MAYER JR., A NO. 2	A. D. CODY G.U. 2 NO. 1	A. D. CODY G.U. 2 NO. 1	
LOCATION.....	SEC. 1, T1N, R9E	SEC. 1, T1N, R9E	SEC. 19, T3N, R10E	SEC. 19, T3N, R10E	
OWNER.....	TENNECO OIL CO.	TENNECO OIL CO.	ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.	
COMPLETED.....	08/01/73	11/22/72	02/14/58	02/14/58	
SAMPLED.....	08/01/73	08/01/73	02/27/68	02/27/68	
FORMATION.....	ORDO-VIOLA & OIL CREEK	PENN-WAPANUCKA	PENN-WAPANUCKA	PENN-WAPANUCKA	
GEOLOGIC PROVINCE CODE.....	345	345	345	345	
DEPTH, FEET.....	7475	6000	3650	3650	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	613	613	
OPEN FLOW, MCFD.....	1000	2000	8023	8023	
COMPONENT, MOLE PCT					
METHANE.....	89.5	87.1	88.0	88.0	
ETHANE.....	4.7	7.0	6.3	6.3	
PROPANE.....	1.9	0.8	2.2	2.2	
N-BUTANE.....	0.6	0.7	0.7	0.7	
ISOBUTANE.....	0.4	0.4	0.2	0.2	
N-PENTANE.....	0.2	0.2	0.2	0.2	
ISOPENTANE.....	0.2	0.2	0.1	0.1	
CYCLOPENTANE.....	0.1	TRACE	0.1	0.1	
HEXANES PLUS.....	0.2	0.2	0.2	0.2	
NITROGEN.....	1.8	0.9	1.6	1.6	
OXYGEN.....	0.2	0.0	0.1	0.1	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.4	0.3	0.3	
HELIUM.....	0.04	0.06	0.08	0.08	
HEATING VALUE.....	1105	1105	1015	1015	
SPECIFIC GRAVITY.....	0.638	0.654	0.644	0.644	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5701 3670			INDEX SAMPLE	5702 11660			INDEX SAMPLE	5703 14112
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	COAL			COAL				COAL			
FIELD.....	LULA NE			LULA NE				LULA NE			
WELL NAME.....	CUSHING ROYALTY CORP. 81			BRODRECHT NO. 1				MORGAN NO. 1			
LOCATION.....	SEC. 22, T3N, R9E			SEC. 23, T3N, R9E				SEC. 27, T3N, R9E			
OWNER.....	AROCO PRODUCTION CO.			BGR OIL CORP.				WESTHEIMER-NEUSTADT CORP.			
COMPLETED.....	05/22/43			01/04/68				09/25/73			
SAMPLED.....	09/27/43			10/02/68				07/24/74			
FORMATION.....	PENN-CROMWELL			PENN-WAPANUCKA				PENN-CROMWELL			
GEOLOGIC PROVINCE CODE.....	345			345				345			
DEPTH, FEET.....	3522			3114				4060			
WELLHEAD PRESSURE, PSIG.....	1560			1290				1500			
OPEN FLOW, MCFD.....	44800			6000				20000			
COMPONENT, MOLE PCT.....											
METHANE.....	77.9			85.8				84.9			
ETHANE.....	19.7			7.5				7.9			
PROPANE.....	---			0.8				0.8			
N-BUTANE.....	---			0.7				0.8			
ISOBUTANE.....	---			0.2				0.3			
N-PENTANE.....	---			0.3				0.2			
ISOPENTANE.....	---			0.1				0.2			
CYCLOPENTANE.....	---			TRACE				0.1			
HEXANES PLUS.....	---			0.2				0.1			
NITROGEN.....	1.6			0.9				2.2			
OXYGEN.....	0.4			0.0				TRACE			
ARGON.....	---			0.0				0.0			
HYDROGEN.....	---			1.1				TRACE			
HYDROGEN SULFIDE.....	---			0.0				0.0			
CARBON DIOXIDE.....	0.3			0.1				0.2			
HELIUM.....	0.08			0.08				0.09			
HEATING VALUE.....	1142			1134				1142			
SPECIFIC GRAVITY.....	0.663			0.653				0.663			
		INDEX SAMPLE	5704 14126			INDEX SAMPLE	5705 17242			INDEX SAMPLE	5706 9058
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	COAL			COAL				COAL			
FIELD.....	LULA NE			OWL				TUPELO NE			
WELL NAME.....	MORGAN NO. 1			PALMER ROYALTY NO. 1				SIMS NO. 1			
LOCATION.....	SEC. 27, T3N, R9E			SEC. 6, T1N, R9E				SEC. 17, T2N, R9E			
OWNER.....	WESTHEIMER-NEUSTADT CORP.			KEITH F. WALKER OIL PROD.				HEFNER PRODUCTION CO.			
COMPLETED.....	03/25/73			10/08/83				11/30/61			
SAMPLED.....	07/24/74			04/08/84				08/06/63			
FORMATION.....	PENN-CROMWELL			PENN-CROMWELL				PENN-CROMWELL			
GEOLOGIC PROVINCE CODE.....	345			345				345			
DEPTH, FEET.....	4060			5117				5520			
WELLHEAD PRESSURE, PSIG.....	1500			1646				2225			
OPEN FLOW, MCFD.....	20000			773				15500			
COMPONENT, MOLE PCT.....											
METHANE.....	85.1			80.4				81.5			
ETHANE.....	7.7			9.2				9.1			
PROPANE.....	3.0			4.7				3.8			
N-BUTANE.....	0.8			1.3				1.3			
ISOBUTANE.....	0.3			0.6				0.1			
N-PENTANE.....	0.2			0.3				0.2			
ISOPENTANE.....	0.2			0.3				0.8			
CYCLOPENTANE.....	TRACE			0.3				0.3			
HEXANES PLUS.....	0.1			0.5				0.6			
NITROGEN.....	2.3			1.9				1.7			
OXYGEN.....	TRACE			0.1				0.1			
ARGON.....	0.0			TRACE				0.0			
HYDROGEN.....	TRACE			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.2				0.4			
HELIUM.....	0.08			0.10				0.10			
HEATING VALUE.....	1137			1236				1219			
SPECIFIC GRAVITY.....	0.660			0.720				0.709			
		INDEX SAMPLE	5707 6921			INDEX SAMPLE	5708 5083			INDEX SAMPLE	5709 17521
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	COMANCHE			COMANCHE				COMANCHE			
FIELD.....	WILDCAT			APACHE S				FLETCHER			
WELL NAME.....	COOK NO. 2			MYERS NO. 1				TEN BEARS NO. 1			
LOCATION.....	SEC. 15, T1N, R11E			SEC. 10, T4N, R11W				SEC. 5, T4N, R9W			
OWNER.....	ANDERSON-PRICHARD OIL CORP.			TIDEWATER OIL CO.				KERR-MCGEE CORP.			
COMPLETED.....	--/--/00			03/21/51				07/--/84			
SAMPLED.....	01/12/59			07/03/51				11/09/84			
FORMATION.....	ORDO-BROWIDE			ORDO-SIMPSON				MISS-SPIERS			
GEOLOGIC PROVINCE CODE.....	345			350				350			
DEPTH, FEET.....	NOT GIVEN			3440				18910			
WELLHEAD PRESSURE, PSIG.....	3095			3000				8850			
OPEN FLOW, MCFD.....	205			1229				3500			
COMPONENT, MOLE PCT.....											
METHANE.....	97.0			87.5				95.3			
ETHANE.....	0.6			2.4				1.4			
PROPANE.....	0.1			0.8				0.2			
N-BUTANE.....	0.0			TRACE				0.0			
ISOBUTANE.....	0.0			0.3				0.0			
N-PENTANE.....	0.0			0.3				0.0			
ISOPENTANE.....	0.0			0.3				0.0			
CYCLOPENTANE.....	0.0			0.3				0.0			
HEXANES PLUS.....	0.0			0.1				0.0			
NITROGEN.....	0.5			1.5				1.6			
OXYGEN.....	TRACE			0.2				TRACE			
ARGON.....	0.0			0.0				TRACE			
HYDROGEN.....	0.1			0.0				TRACE			
HYDROGEN SULFIDE.....	0.0			---				0.0			
CARBON DIOXIDE.....	0.5			0.3				1.2			
HELIUM.....	0.10			0.03				0.02			
HEATING VALUE.....	996			1126				996			
SPECIFIC GRAVITY.....	0.574			0.651				0.583			
		INDEX SAMPLE	5710 3756			INDEX SAMPLE	5711 3828			INDEX SAMPLE	5712 14281
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	COMANCHE			COMANCHE				COMANCHE			
FIELD.....	FORT SILL			FORT SILL				FORT SILL			
WELL NAME.....	H. E. CLINE NO. 1			STEPHENS E. NO. 1				RYAN NO. 1			
LOCATION.....	SEC. 8, T3N, R10W			SEC. 20, T3N, R10W				SEC. 23, T3N, R10W			
OWNER.....	TEXACO INC.			JOHN B. HAWLEY, JR.				SHEBESTER, INC.			
COMPLETED.....	04/--/43			10/03/43				11/30/73			
SAMPLED.....	04/01/44			05/06/44				02/28/75			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	350			350				350			
DEPTH, FEET.....	820			800				1395			
WELLHEAD PRESSURE, PSIG.....	210			100				535			
OPEN FLOW, MCFD.....	3000			3000				2340			
COMPONENT, MOLE PCT.....											
METHANE.....	83.8			75.8				90.9			
ETHANE.....	13.9			19.0				3.6			
PROPANE.....	---			---				1.7			
N-BUTANE.....	---			---				0.4			
ISOBUTANE.....	---			---				0.3			
N-PENTANE.....	---			---				0.1			
ISOPENTANE.....	---			---				TRACE			
CYCLOPENTANE.....	---			---				TRACE			
HEXANES PLUS.....	---			---				0.1			
NITROGEN.....	1.8			4.8				2.8			
OXYGEN.....	0.4			0.2				0.0			
ARGON.....	---			---				TRACE			
HYDROGEN.....	---			---				0.0			
HYDROGEN SULFIDE.....	---			---				0.0			
CARBON DIOXIDE.....	0.1			0.2				TRACE			
HELIUM.....	TRACE			TRACE				0.10			
HEATING VALUE.....	1098			1108				1062			
SPECIFIC GRAVITY.....	0.634			0.671				0.615			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5713 SAMPLE 15014			INDEX 5714 SAMPLE 17385			INDEX 5715 SAMPLE 15015		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	FORT SILL		FORT SILL			FORT SILL E		
WELL NAME.....	W. S. SANDERS NO. 10-1		DEEDEE NO. 2-9			HARDZOG NO. 15-1		
LOCATION.....	SEC. 10, T3N, R10W		SEC. 9, T3N, R10W			SEC. 19, T3N, R10W		
OWNER.....	WOODS PETROLEUM CORP.		TYO PRODUCTION CORP.			WOODS PETROLEUM CORP.		
COMPLETED.....	01/13/77		10/13/83			02/04/77		
SAMPLED.....	05/10/77		08/--/84			05/10/77		
FORMATION.....	PENN-SPRINGER		PENN-SPRINGER			PENN-SPRINGER		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	5684		4906			7250		
WELLHEAD PRESSURE, PSIG.....	2412		1920			2415		
OPEN FLOW, MCFD.....	35622		1000			41399		
COMPONENT, MOLE PCT								
METHANE.....	93.0	-----	91.8	-----		93.4	-----	
ETHANE.....	3.6	-----	4.2	-----		3.7	-----	
PROPANE.....	1.1	-----	1.4	-----		1.2	-----	
N-BUTANE.....	0.3	-----	0.4	-----		0.3	-----	
ISOBUTANE.....	0.1	-----	0.2	-----		0.1	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.1	-----	
ISOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.2	-----	
NITROGEN.....	1.1	-----	0.2	-----		0.7	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.1	-----		0.1	-----	
HELIUM.....	0.05	-----	0.08	-----		0.05	-----	
HEATING VALUE.....	1075	-----	1089	-----		1080	-----	
SPECIFIC GRAVITY.....	0.605	-----	0.616	-----		0.605	-----	
INDEX 5716 SAMPLE 5441			INDEX 5717 SAMPLE 15017			INDEX 5718 SAMPLE 11243		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	HANBURY SE		LAWTON			STERLING		
WELL NAME.....	GOODY NO. 1		WATSON NO. B-2			MART G. VAUGHT NO. 1		
LOCATION.....	SEC. 21, T2N, R9W		SEC. 1, T2N, R10W			SEC. 27, T3N, R9W		
OWNER.....	WILLIAM H. ATKINSON		QUACHITA EXPLORATION, INC.			ARKLA EXPLORATION CO.		
COMPLETED.....	11/05/52		--/--/00			01/03/67		
SAMPLED.....	04/02/53		04/14/77			12/13/67		
FORMATION.....	PENN-SAND		NOT GIVEN			PENN-HIX		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	728		NOT GIVEN			5215		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		3920			600		
OPEN FLOW, MCFD.....	NOT GIVEN		250			950		
COMPONENT, MOLE PCT								
METHANE.....	87.8	-----	84.3	-----		90.2	-----	
ETHANE.....	4.8	-----	4.8	-----		4.2	-----	
PROPANE.....	1.9	-----	1.9	-----		1.4	-----	
N-BUTANE.....	0.6	-----	0.6	-----		0.3	-----	
ISOBUTANE.....	0.2	-----	0.2	-----		0.1	-----	
N-PENTANE.....	0.2	-----	0.1	-----		TRACE	-----	
ISOPENTANE.....	0.1	-----	0.1	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.1	-----	
NITROGEN.....	3.8	-----	6.5	-----		2.8	-----	
OXYGEN.....	TRACE	-----	1.0	-----		0.2	-----	
ARGON.....	0.0	-----	0.2	-----		TRACE	-----	
HYDROGEN.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.3	-----	0.2	-----		0.1	-----	
HELIUM.....	0.06	-----	0.06	-----		0.05	-----	
HEATING VALUE.....	1075	-----	1034	-----		1063	-----	
SPECIFIC GRAVITY.....	0.638	-----	0.653	-----		0.620	-----	
INDEX 5719 SAMPLE 11357			INDEX 5720 SAMPLE 11			INDEX 5721 SAMPLE 925		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	COMANCHE		COTTON			CREEK		
FIELD.....	STIERLIEB		WALTERS			BRISTOW N		
WELL NAME.....	SALLIE NO. 1		NEAL NO. 2			WRIGHT NO. 1		
LOCATION.....	SEC. 7, T3N, R9W		SEC. 31, T1S, R10W			SEC. 19, T17N, R9E		
OWNER.....	A. A. CAMERON		M.O. & G. CO. & H.J. PARKER			ATLANTIC RICHFIELD CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	03/06/68		05/16/19			09/16/24		
FORMATION.....	PENN-ROWE		PENN-CISCO			PENN-RED FORK		
GEOLOGIC PROVINCE CODE.....	350		350			355		
DEPTH, FEET.....	5692		2109			2645		
WELLHEAD PRESSURE, PSIG.....	1400		540			850		
OPEN FLOW, MCFD.....	300000		12000			11000		
COMPONENT, MOLE PCT								
METHANE.....	86.6	-----	0.0	-----		72.9	-----	
ETHANE.....	0.0	-----	0.0	-----		18.9	-----	
PROPANE.....	1.9	-----	---	-----		---	-----	
N-BUTANE.....	1.1	-----	---	-----		---	-----	
ISOBUTANE.....	TRACE	-----	---	-----		---	-----	
N-PENTANE.....	0.1	-----	---	-----		---	-----	
ISOPENTANE.....	0.5	-----	---	-----		---	-----	
CYCLOPENTANE.....	0.1	-----	---	-----		---	-----	
HEXANES PLUS.....	0.1	-----	---	-----		---	-----	
NITROGEN.....	5.4	-----	0.0	-----		7.1	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.6	-----	
ARGON.....	0.1	-----	---	-----		---	-----	
HYDROGEN.....	TRACE	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.2	-----	0.0	-----		0.2	-----	
HELIUM.....	0.08	-----	TRACE	-----		0.09	-----	
HEATING VALUE.....	1070	-----	0	-----		1077	-----	
SPECIFIC GRAVITY.....	0.652	-----	0.000	-----		0.681	-----	
INDEX 5722 SAMPLE 15363			INDEX 5723 SAMPLE 2491			INDEX 5724 SAMPLE 11097		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CREEK		CREEK			CREEK		
FIELD.....	BRISTOW S		CUSHING			CUSHING		
WELL NAME.....	COLEMAN NO. 1		NORA WILLIAMS NO. 10			TURNER NO. 1		
LOCATION.....	SEC. 17, T15N, R9E		SEC. 3, T16N, R7E			SEC. 26, T18N, R7E		
OWNER.....	KRUHME OIL CO.		MOBIL OIL CORP.			M. L. HARRIS		
COMPLETED.....	03/12/78		03/03/72			09/08/67		
SAMPLED.....	08/15/78		05/03/32			09/08/67		
FORMATION.....	PENN-DUTCHER		PENN-TUCKER			PENN-BARTLESVILLE		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3081		2625			2955		
WELLHEAD PRESSURE, PSIG.....	580		350			320		
OPEN FLOW, MCFD.....	350		3000			1250		
COMPONENT, MOLE PCT								
METHANE.....	81.0	-----	67.4	-----		88.8	-----	
ETHANE.....	7.8	-----	23.6	-----		5.2	-----	
PROPANE.....	4.5	-----	---	-----		0.2	-----	
N-BUTANE.....	1.3	-----	---	-----		0.2	-----	
ISOBUTANE.....	0.4	-----	---	-----		0.4	-----	
N-PENTANE.....	0.3	-----	---	-----		0.1	-----	
ISOPENTANE.....	0.2	-----	---	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	---	-----		0.1	-----	
HEXANES PLUS.....	0.1	-----	---	-----		0.2	-----	
NITROGEN.....	4.1	-----	8.5	-----		3.9	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.0	-----	
ARGON.....	TRACE	-----	---	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	---	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.3	-----		0.4	-----	
HELIUM.....	0.06	-----	0.12	-----		0.08	-----	
HEATING VALUE.....	1161	-----	1106	-----		1053	-----	
SPECIFIC GRAVITY.....	0.693	-----	0.709	-----		0.627	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5725			INDEX 5726			INDEX 5727		
SAMPLE 2484			SAMPLE 3304			SAMPLE 3843		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CREEK		CREEK			CREEK		
FIELD.....	HITCHCOCK		IRON POST			IRON POST		
WELL NAME.....	BARNETT NO. 1		LEWIS BEAR NO. 2			BEAVER NO. 1		
LOCATION.....	SEC. 18, T17N, R10E		SEC. 3, T14N, R7E			SEC. 32, T14N, R8E		
OWNER.....	CURTIS OIL CO., ET AL.		MID-CONTINENT REFINING CO.			NORTHERN ORDONANCE, INC.		
COMPLETED.....	02/01/32		03/14/42			05/02/44		
SAMPLED.....	03/24/32		04/22/42			05/22/44		
FORMATION.....	NOT GIVEN		PENN-DUTCHER			PENN-FLAT TOP		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	2166		3146			2491		
WELLHEAD PRESSURE, PSIG.....	780		900			150		
OPEN FLOW, MCFD.....	7000		12568			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	59.4		79.9			24.0		
ETHANE.....	33.1		15.8			67.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	6.6		3.6			8.4		
OXYGEN.....	0.1		0.5			0.5		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.6		0.1			0.1		
HELIUM.....	0.16		0.12			0.00		
HEATING VALUE.....	1195		1093			1444		
SPECIFIC GRAVITY.....	0.751		0.651			0.924		

INDEX 5728			INDEX 5729			INDEX 5730		
SAMPLE 11108			SAMPLE 1822			SAMPLE 17320		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CREEK		CREEK			CREEK		
FIELD.....	IRON POST		MANNFORD			MANNFORD		
WELL NAME.....	WINN NO. 1		HARMON NO. 1			P. B. JACKSON NO. 1		
LOCATION.....	SEC. 23, T15N, R8E		SEC. 28, T19N, R9E			SEC. 7, T18N, R9E		
OWNER.....	MORTON & POUND DRILLING CO.		CARTER OIL CO. & W.J. SHERRY			TEXACO INC.		
COMPLETED.....	04/04/66		04/01/29			11/03/83		
SAMPLED.....	09/09/67		08/03/29			04/25/84		
FORMATION.....	PENN-DUTCHER		PENN-CLEVELAND			PENN-BURGESS		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3287		1359			2898		
WELLHEAD PRESSURE, PSIG.....	400		555			781		
OPEN FLOW, MCFD.....	2150		3000			1752		
COMPONENT, MOLE PCT.....								
METHANE.....	83.9		75.5			70.7		
ETHANE.....	8.1		13.2			9.4		
PROPANE.....	3.2		---			4.9		
N-BUTANE.....	0.6		---			1.2		
ISOBUTANE.....	0.4		---			0.4		
N-PENTANE.....	0.1		---			0.3		
ISOPENTANE.....	0.2		---			0.2		
CYCLOPENTANE.....	0.1		---			0.1		
HEXANES PLUS.....	0.2		---			0.2		
NITROGEN.....	3.0		11.0			12.3		
OXYGEN.....	0.0		0.2			TRACE		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.06		0.17			0.07		
HEATING VALUE.....	1139		1001			1101		
SPECIFIC GRAVITY.....	0.669		0.669			0.741		

INDEX 5731			INDEX 5732			INDEX 5733		
SAMPLE 17388			SAMPLE 11765			SAMPLE 5733		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CREEK		CREEK			CREEK		
FIELD.....	MANNFORD		SLICK			STROUD		
WELL NAME.....	FLORES NO. 2		WELSHOP NO. 1			ROUNTREE NO. 1		
LOCATION.....	SEC. 29, T18N, R9E		SEC. 29, T16N, R10E			SEC. 2, T14N, R7E		
OWNER.....	LITTLE RIVER ENERGY CO.		KISKA OIL CO.			D. B. HALERNEE		
COMPLETED.....	01/05/84		09/19/68			---/---/42		
SAMPLED.....	08/22/84		02/19/69			05/13/42		
FORMATION.....	PENN-SKINNER		PENN-BARTLESVILLE			PENN-BARTLESVILLE		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	2337		2423			3117		
WELLHEAD PRESSURE, PSIG.....	775		780			1150		
OPEN FLOW, MCFD.....	1300		4500			12000		
COMPONENT, MOLE PCT.....								
METHANE.....	68.1		81.2			78.9		
ETHANE.....	7.4		4.1			15.9		
PROPANE.....	5.3		2.9			---		
N-BUTANE.....	1.3		0.0			---		
ISOBUTANE.....	0.6		0.5			---		
N-PENTANE.....	0.3		0.3			---		
ISOPENTANE.....	0.2		0.3			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.2		0.3			---		
NITROGEN.....	16.0		9.1			4.5		
OXYGEN.....	TRACE		0.1			0.4		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		TRACE			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.27		0.11			0.13		
HEATING VALUE.....	1089		1067			1084		
SPECIFIC GRAVITY.....	0.756		0.688			0.655		

INDEX 5734			INDEX 5735			INDEX 5736		
SAMPLE 3863			SAMPLE 4181			SAMPLE 17129		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CREEK		CREEK			CREEK		
FIELD.....	STROUD		STROUD			STROUD		
WELL NAME.....	LEOTA GOFF NO. 1		MCVEY NO. 1			MANES NO. 1		
LOCATION.....	SEC. 14, T14N, R7E		SEC. 29, T15N, R7E			SEC. 12, T14N, R7E		
OWNER.....	ATLANTIC RICHFIELD CO.		DAVON OIL CO.			MAHAN-ROWSEY, INC.		
COMPLETED.....	06/16/44		11/30/46			08/26/81		
SAMPLED.....	07/29/44		11/---/46			10/26/83		
FORMATION.....	PENN-PRUE		PENN-PRUE			PENN-UNCONFORMITY SAND		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	2656		2860			3368		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1054		
OPEN FLOW, MCFD.....	1705		NOT GIVEN			1500		
COMPONENT, MOLE PCT.....								
METHANE.....	76.7		75.0			83.4		
ETHANE.....	17.4		19.0			8.2		
PROPANE.....	---		---			2.6		
N-BUTANE.....	---		---			0.8		
ISOBUTANE.....	---		---			0.2		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.4		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.2		
NITROGEN.....	5.4		5.6			3.6		
OXYGEN.....	0.0		0.1			0.2		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.1		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.4		0.2			TRACE		
HELIUM.....	0.11		0.11			0.06		
HEATING VALUE.....	1089		1100			1135		
SPECIFIC GRAVITY.....	0.666		0.674			0.670		

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5737 SAMPLE 3779			INDEX 5738 SAMPLE 17254			INDEX 5739 SAMPLE 17271		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CREEK		CUSTER			CUSTER		
FIELD.....	VANDERSLICE		ALFORD SW			ALFORD SW		
WELL NAME.....	ORA GIBSON		SMITH "HH" NO. 1			REINSCHEMIEDT NO. 1		
LOCATION.....	SEC. 31, T14N, R7E		SEC. 30, T15N, R19W			SEC. 30, T15N, R19W		
OWNER.....	TEXACO INC.		TEXAS OIL & GAS CORP.			TXO PRODUCTION CORP.		
COMPLETED.....	12/7/42		06/12/81			11/08/83		
SAMPLED.....	04/11/44		04/17/84			04/29/84		
FORMATION.....	PENN-PRUE		PENN-SKINNER			PENN-SKINNER		
GEOLOGIC PROVINCE CODE.....	355		360			360		
DEPTH, FEET.....	2857		11124			11174		
WELLHEAD PRESSURE, PSIG.....	965		6175			3440		
OPEN FLOW, MCFD.....	9580		3300			4400		
COMPONENT, MOLE PCT.....								
METHANE.....	67.4		79.9			76.7		
ETHANE.....	20.5		5.7			8.7		
PROPANE.....	---		5.0			4.2		
N-BUTANE.....	---		1.4			1.1		
ISOBUTANE.....	---		0.2			0.7		
N-PENTANE.....	---		0.2			0.3		
ISOPENTANE.....	---		0.7			0.2		
CYCLOPENTANE.....	---		0.5			0.2		
HEXANES PLUS.....	---		0.6			0.3		
NITROGEN.....	11.4		0.4			5.6		
OXYGEN.....	0.4		0.1			1.3		
ARGON.....	---		0.0			0.1		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.6			0.7		
HELIUM.....	0.15		0.03			0.02		
HEATING VALUE.....	1050		1278			1147		
SPECIFIC GRAVITY.....	0.705		0.737			0.726		
INDEX 5740 SAMPLE 13291			INDEX 5741 SAMPLE 13660			INDEX 5742 SAMPLE 15305		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CUSTER		CUSTER			CUSTER		
FIELD.....	ANTHONY		ANTHONY			ANTHONY		
WELL NAME.....	WRIGHT NO. 1-4		WRIGHT NO. 1-4			MOELKER NO. 1		
LOCATION.....	SEC. 4, T14N, R17W		SEC. 4, T14N, R17W			SEC. 33, T15N, R17W		
OWNER.....	ARKLA EXPLORATION CO.		ARKLA EXPLORATION CO.			FERGUSON OIL CO., INC.		
COMPLETED.....	04/25/73		04/25/73			09/19/77		
SAMPLED.....	07/07/72		07/26/73			06/22/78		
FORMATION.....	MISS-OSAGE		PENN-MORROW			DEVO-HUNTON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	15600		13106			15708		
WELLHEAD PRESSURE, PSIG.....	5599		7448			4200		
OPEN FLOW, MCFD.....	3252		11882			8630		
COMPONENT, MOLE PCT.....								
METHANE.....	96.0		95.9			92.2		
ETHANE.....	0.3		1.6			0.2		
PROPANE.....	TRACE		TRACE			TRACE		
N-BUTANE.....	0.0		TRACE			0.0		
ISOBUTANE.....	0.0		0.1			0.0		
N-PENTANE.....	0.0		TRACE			0.0		
ISOPENTANE.....	0.0		TRACE			0.0		
CYCLOPENTANE.....	0.0		0.1			0.0		
HEXANES PLUS.....	0.0		0.1			0.0		
NITROGEN.....	0.7		0.0			2.1		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.9		1.3			5.3		
HELIUM.....	0.02		0.03			0.03		
HEATING VALUE.....	978		1020			938		
SPECIFIC GRAVITY.....	0.586		0.584			0.616		
INDEX 5743 SAMPLE 17742			INDEX 5744 SAMPLE 11288			INDEX 5745 SAMPLE 11289		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CUSTER		CUSTER			CUSTER		
FIELD.....	ANTHONY NE		ANTHONY NW			ANTHONY NW		
WELL NAME.....	LYLE COIT NO. 1		LYLE COIT NO. 1			RENE GRAFT NO. 1		
LOCATION.....	SEC. 22, T15N, R17W		SEC. 17, T15N, R17W			SEC. 18, T15N, R17W		
OWNER.....	WARD PETROLEUM CO.		HUNT OIL CO.			HUNT OIL CO.		
COMPLETED.....	10/30/84		10/28/61			05/20/61		
SAMPLED.....	7/7/00		02/16/68			02/16/68		
FORMATION.....	PENN-SPRINGER		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	12160		11196			12240		
WELLHEAD PRESSURE, PSIG.....	4600		4800			988		
OPEN FLOW, MCFD.....	40233		746			915		
COMPONENT, MOLE PCT.....								
METHANE.....	96.0		94.3			97.1		
ETHANE.....	1.0		0.7			0.9		
PROPANE.....	0.2		0.1			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	2.1		2.0			0.0		
OXYGEN.....	0.2		0.6			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		1.4			1.5		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1222		996			1003		
SPECIFIC GRAVITY.....	0.580		0.587			0.575		
INDEX 5746 SAMPLE 13289			INDEX 5747 SAMPLE 16862			INDEX 5748 SAMPLE 15800		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CUSTER		CUSTER			CUSTER		
FIELD.....	ANTHONY NW		ANTHONY SE			ARAPAH0		
WELL NAME.....	66 FT NO. 1-A		GOODWIN NO. 1			COULSON NO. 1		
LOCATION.....	SEC. 7, T15N, R17W		SEC. 18, T14N, R16W			SEC. 28, T13N, R17W		
OWNER.....	A. J. WESSELY		OLD DOMINION OIL CORP.			HARPER OIL CO.		
COMPLETED.....	10/30/71		07/25/82			10/02/79		
SAMPLED.....	07/7/72		04/05/83			10/02/79		
FORMATION.....	PENN-ATOKA		PENN-SPRINGER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10742		13276			15740		
WELLHEAD PRESSURE, PSIG.....	4978		2844			9800		
OPEN FLOW, MCFD.....	2286		6408			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	81.3		93.7			96.9		
ETHANE.....	10.8		3.5			0.7		
PROPANE.....	4.5		0.6			0.1		
N-BUTANE.....	1.0		0.1			TRACE		
ISOBUTANE.....	0.7		0.1			TRACE		
N-PENTANE.....	0.3		TRACE			TRACE		
ISOPENTANE.....	0.1		TRACE			0.0		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	0.4		0.3			0.3		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		1.1			1.9		
HELIUM.....	0.03		0.02			0.02		
HEATING VALUE.....	1222		1040			1002		
SPECIFIC GRAVITY.....	0.702		0.594			0.581		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5749 16844			INDEX SAMPLE	5750 17349			INDEX SAMPLE	5751 15740
STATE	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY	CUSTER			CUSTER				CUSTER			
FIELD	ARAPAHO			ARAPAHO				ARAPAHO NE			
WELL NAME	CANNADAY NO. 1			STRONG NO. 1				STEHR NO. 1			
LOCATION	SEC. 34, T14N, R17W			SEC. 18, T13N, R17W				SEC. 21, T13N, R16W			
OWNER	HARPER OIL CO.			HARPER OIL CO.				AN-SON CORP.			
COMPLETED	07/13/82			03/26/84				07/24/79			
SAMPLED	03/25/83			07/06/84				09/06/79			
FORMATION	PENN-MORROW			PENN-ATOKA				PENN-ATOKA			
GEOLOGIC PROVINCE CODE	360			360				360			
DEPTH, FEET	14250			13387				13217			
WELLHEAD PRESSURE, PSIG	8650			9300				NOT GIVEN			
OPEN FLOW, MCFD	4634			3700				1200			
COMPONENT, MOLE PCT											
METHANE	95.2			90.7				86.8			
ETHANE	1.8			4.8				7.5			
PROPANE	0.3			1.5				2.8			
N-BUTANE	0.1			0.3				0.5			
ISOBUTANE	TRACE			0.5				0.5			
N-PENTANE	0.1			0.2				0.2			
ISOPENTANE	0.1			0.0				0.2			
CYCLOPENTANE	0.1			0.1				TRACE			
HEXANES PLUS	0.2			0.5				0.2			
NITROGEN	0.3			0.3				0.5			
OXYGEN	TRACE			TRACE				0.0			
ARGON	TRACE			0.0				0.0			
HYDROGEN	0.2			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	1.6			1.0				0.7			
HELIUM	0.02			0.02				0.03			
HEATING VALUE*	1031			1109				1147			
SPECIFIC GRAVITY	0.594			0.634				0.656			
		INDEX SAMPLE	5752 17791			INDEX SAMPLE	5753 17910			INDEX SAMPLE	5754 16089
STATE	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY	CUSTER			CUSTER				CUSTER			
FIELD	BUTLER			BUTLER-CUSTER				CANUTE N			
WELL NAME	DICKERSON NO. 28-1			PHILLIPS DELOIS NO. 1-32				HUTTON NO. 1-15			
LOCATION	SEC. 28, T14N, R17W			SEC. 52, T14N, R18W				SEC. 15, T12N, R20W			
OWNER	SANTA FE MINERALS, INC.			MUSTANG PRODUCTION CO.				GHK GAS CORP.			
COMPLETED	06/06/84			05/03/85				02/11/80			
SAMPLED	07/19/85			11/18/85				10/13/80			
FORMATION	PENN-MORROW			PENN-SKINNER				PENN-ATOKA			
GEOLOGIC PROVINCE CODE	360			360				360			
DEPTH, FEET	14029			11473				14803			
WELLHEAD PRESSURE, PSIG	2300			2300				9170			
OPEN FLOW, MCFD	1500			1800				7600			
COMPONENT, MOLE PCT											
METHANE	97.0			82.7				95.9			
ETHANE	0.2			4.2				2.1			
PROPANE	0.0			1.2				0.4			
N-BUTANE	0.0			0.4				0.1			
ISOBUTANE	0.0			0.4				TRACE			
N-PENTANE	0.0			0.4				TRACE			
ISOPENTANE	0.0			0.4				TRACE			
CYCLOPENTANE	0.0			0.1				TRACE			
HEXANES PLUS	0.0			0.1				0.5			
NITROGEN	0.3			0.6				0.5			
OXYGEN	TRACE			TRACE				0.0			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	0.0			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	0.02			1.0				0.9			
HELIUM	0.02			0.03				0.02			
HEATING VALUE*	1009			1212				1028			
SPECIFIC GRAVITY	0.575			0.702				0.584			
		INDEX SAMPLE	5755 17898			INDEX SAMPLE	5756 16875			INDEX SAMPLE	5757 16502
STATE	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY	CANUTE N			CUSTER				CUSTER			
FIELD	SANDERS NO. 1-17			CARPENTER E				CARPENTER NE			
WELL NAME	APACHE CORP.			KEPHART NO. 1-20				K-C CATTLE NO. 1-33			
LOCATION	SEC. 17, T12N, R20W			SEC. 20, T12N, R20W				SEC. 33, T13N, R20W			
OWNER	APACHE CORP.			GHK GAS CORP.				GHK GAS CORP.			
COMPLETED	08/18/85			04/12/82				08/26/81			
SAMPLED	11/08/85			04/11/83				04/27/82			
FORMATION	PENN-RED FORK			PENN-RED FORK				PENN-RED FORK			
GEOLOGIC PROVINCE CODE	360			360				360			
DEPTH, FEET	13547			13735				13145			
WELLHEAD PRESSURE, PSIG	7200			8700				9600			
OPEN FLOW, MCFD	2098			3148				2309			
COMPONENT, MOLE PCT											
METHANE	91.5			87.8				87.6			
ETHANE	4.6			6.6				7.0			
PROPANE	1.2			0.4				2.3			
N-BUTANE	0.3			0.5				0.4			
ISOBUTANE	0.2			0.4				0.3			
N-PENTANE	0.2			0.1				0.2			
ISOPENTANE	TRACE			0.4				0.2			
CYCLOPENTANE	0.1			0.1				0.1			
HEXANES PLUS	0.3			0.2				0.2			
NITROGEN	0.0			0.5				0.8			
OXYGEN	TRACE			0.0				0.1			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	TRACE			0.2				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	1.1			1.2				0.8			
HELIUM	0.02			0.02				0.02			
HEATING VALUE*	1045			1131				1127			
SPECIFIC GRAVITY	0.622			0.653				0.649			
		INDEX SAMPLE	5758 16798			INDEX SAMPLE	5759 17253			INDEX SAMPLE	5760 17376
STATE	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY	CUSTER			CUSTER				CUSTER			
FIELD	CARPENTER NE			CARPENTER NE				CARPENTER NE			
WELL NAME	BAKER NO. 21-1			FOSS NO. 1				EL PASO YOUNG STATE NO. 1			
LOCATION	SEC. 21, T13N, R19W			SEC. 13, T12N, R19W				SEC. 31, T13N, R19W			
OWNER	CONTINENTAL RESOURCES CORP.			TEXAS OIL & GAS CORP.				EL PASO EXPLORATION CO.			
COMPLETED	03/08/82			06/26/82				08/13/84			
SAMPLED	07/17/83			04/7/84				08/10/84			
FORMATION	PENN-CHEROKEE			PENN-DES MOINES				PENN-RED FORK			
GEOLOGIC PROVINCE CODE	360			360				360			
DEPTH, FEET	13224			13458				12976			
WELLHEAD PRESSURE, PSIG	5600			4924				3630			
OPEN FLOW, MCFD	2702			2100				1386			
COMPONENT, MOLE PCT											
METHANE	90.3			93.0				80.6			
ETHANE	4.8			4.0				8.8			
PROPANE	1.7			0.7				4.7			
N-BUTANE	0.4			0.4				1.4			
ISOBUTANE	0.4			0.1				1.2			
N-PENTANE	0.1			TRACE				0.4			
ISOPENTANE	0.2			0.1				0.5			
CYCLOPENTANE	0.2			0.1				0.2			
HEXANES PLUS	0.3			0.1				0.5			
NITROGEN	0.5			0.7				0.3			
OXYGEN	TRACE			TRACE				TRACE			
ARGON	TRACE			TRACE				TRACE			
HYDROGEN	0.2			0.0				0.0			
HYDROGEN SULFIDE**	0.0			0.0				0.0			
CARBON DIOXIDE	0.8			1.0				0.9			
HELIUM	0.02			0.03				0.02			
HEATING VALUE*	1104			1052				1268			
SPECIFIC GRAVITY	0.631			0.604				0.732			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE 5761 16851		INDEX SAMPLE 5762 16952		INDEX SAMPLE 5763 16889
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA
COUNTY.....	CUSTER		CUSTER		CUSTER
FIELD.....	CLINTON		CLINTON		CLINTON
WELL NAME.....	STRATTON FARMS NO. 26-1		LEWIS NO. 8-1		STRATTON FARMS NO. 3-1
LOCATION.....	SEC. 19, T12N, R18W		SEC. 8, T12N, R17W		SEC. 3, T12N, R17W
OWNER.....	WOODS PETROLEUM CORP.		WOODS PETROLEUM CORP.		WOODS PETROLEUM CORP.
COMPLETED.....	08/10/82		08/27/81		03/26/82
SAMPLED.....	03/31/83		03/31/83		04/20/83
FORMATION.....	PENN-ATOKA		PENN-ATOKA		PENN-ATOKA
GEOLOGIC PROVINCE CODE.....	360		360		360
DEPTH, FEET.....	13200		14666		14532
WELLHEAD PRESSURE, PSIG.....	9000		1000		10000
OPEN FLOW, MCFD.....	2000		100		750
COMPONENT, MOLE PCT					
METHANE.....	96.7		96.0		95.4
ETHANE.....	1.2		1.8		2.2
PROPANE.....	0.1		0.2		0.3
N-BUTANE.....	0.0		0.0		TRACE
ISOBUTANE.....	0.0		0.0		TRACE
N-PENTANE.....	0.0		0.0		TRACE
ISOPENTANE.....	0.0		0.0		TRACE
CYCLOPENTANE.....	0.0		0.0		TRACE
HEXANES PLUS.....	0.0		0.0		TRACE
NITROGEN.....	0.3		0.4		0.4
OXYGEN.....	0.0		TRACE		TRACE
ARGON.....	TRACE		TRACE		TRACE
HYDROGEN.....	0.2		0.2		0.2
HYDROGEN SULFIDE.....	0.0		0.0		0.0
CARBON DIOXIDE.....	1.4		1.3		1.3
HELIUM.....	0.02		0.02		0.02
HEATING VALUE.....	1004		1011		1014
SPECIFIC GRAVITY.....	0.575		0.578		0.581

	INDEX SAMPLE 5764 16971		INDEX SAMPLE 5765 16317		INDEX SAMPLE 5766 11431
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA
COUNTY.....	CUSTER		CUSTER		CUSTER
FIELD.....	CLINTON		CLINTON E		CRANE SE
WELL NAME.....	STOCKTON NO. 1-19		MEAHAM NO. 1-13		CRANE STAR NO. 1
LOCATION.....	SEC. 19, T12N, R17W		SEC. 13, T12N, R16W		SEC. 17, T15N, R14W
OWNER.....	AN-SOL CORP.		AN-SOL CORP.		AN-SOL OIL CO.
COMPLETED.....	09/19/82		12/22/80		04/05/66
SAMPLED.....	06/02/83		07/22/81		04/05/68
FORMATION.....	PENN-RED FORK		PENN-RED FORK		PENN-MORROW & MISS-CHESTER
GEOLOGIC PROVINCE CODE.....	360		360		360
DEPTH, FEET.....	12732		12268		1100
WELLHEAD PRESSURE, PSIG.....	5000		7938		4500
OPEN FLOW, MCFD.....	4583		91081		NOT GIVEN
COMPONENT, MOLE PCT					
METHANE.....	80.4		85.8		94.6
ETHANE.....	3.7		3.7		3.0
PROPANE.....	3.0		3.3		0.7
N-BUTANE.....	0.7		0.7		0.2
ISOBUTANE.....	0.4		0.5		TRACE
N-PENTANE.....	0.1		0.1		0.2
ISOPENTANE.....	0.5		0.2		0.0
CYCLOPENTANE.....	0.1		TRACE		TRACE
HEXANES PLUS.....	0.1		0.2		0.3
NITROGEN.....	4.5		0.6		0.3
OXYGEN.....	1.1		TRACE		0.0
ARGON.....	0.0		TRACE		TRACE
HYDROGEN.....	0.2		0.0		0.0
HYDROGEN SULFIDE.....	0.0		0.0		0.0
CARBON DIOXIDE.....	0.9		0.4		0.8
HELIUM.....	0.03		0.03		0.03
HEATING VALUE.....	1108		1162		1051
SPECIFIC GRAVITY.....	0.690		0.661		0.594

	INDEX SAMPLE 5767 13922		INDEX SAMPLE 5768 7648		INDEX SAMPLE 5769 9785
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA
COUNTY.....	CUSTER		CUSTER		CUSTER
FIELD.....	CUSTER CITY E		CUSTER CITY N		CUSTER CITY N
WELL NAME.....	PAULINE REINSON NO. 1		WEBB UNIT NO. 1		DIEHL ESTATE NO. 1
LOCATION.....	SEC. 20, T14N, R15W		SEC. 23, T15N, R16W		SEC. 20, T15N, R16W
OWNER.....	LVO CORP.		MOBIL OIL CORP.		MOBIL OIL CORP.
COMPLETED.....	01/15/74		06/14/67		04/01/64
SAMPLED.....	02/18/74		08/17/60		03/05/65
FORMATION.....	PENN-MORROW		DEVO-HUNTON		DEVO-HUNTON
GEOLOGIC PROVINCE CODE.....	360		360		360
DEPTH, FEET.....	12250		14174		14700
WELLHEAD PRESSURE, PSIG.....	6000		5335		4314
OPEN FLOW, MCFD.....	NOT GIVEN		13400		55000
COMPONENT, MOLE PCT					
METHANE.....	93.7		93.4		95.1
ETHANE.....	3.7		0.6		0.6
PROPANE.....	1.0		0.1		0.4
N-BUTANE.....	0.2		0.1		TRACE
ISOBUTANE.....	0.2		TRACE		TRACE
N-PENTANE.....	TRACE		0.1		TRACE
ISOPENTANE.....	0.1		0.0		TRACE
CYCLOPENTANE.....	TRACE		0.1		TRACE
HEXANES PLUS.....	0.1		0.4		0.1
NITROGEN.....	0.9		1.0		0.8
OXYGEN.....	0.0		TRACE		TRACE
ARGON.....	0.0		0.0		0.0
HYDROGEN.....	0.2		0.0		0.0
HYDROGEN SULFIDE.....	0.0		0.0		0.0
CARBON DIOXIDE.....	0.7		4.0		2.9
HELIUM.....	0.02		0.02		0.02
HEATING VALUE.....	1064		990		990
SPECIFIC GRAVITY.....	0.602		0.615		0.595

	INDEX SAMPLE 5770 9838		INDEX SAMPLE 5771 11631		INDEX SAMPLE 5772 11406
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA
COUNTY.....	CUSTER		CUSTER		CUSTER
FIELD.....	CUSTER CITY N		CUSTER CITY N		CUSTER CITY SE
WELL NAME.....	SHARP HUNT UNIT NO. 1		JONES NO. 1		BURGESS NO. 1
LOCATION.....	SEC. 26, T15N, R16W		SEC. 31, T15N, R15W		SEC. 6, T13N, R15W
OWNER.....	MOBIL OIL CORP.		PARKER DRILLING CO.		GULF OIL CO.-U.S.
COMPLETED.....	01/03/69		04/15/67		08/77/59
SAMPLED.....	04/06/69		08/20/68		03/19/68
FORMATION.....	PENN-CHEROKEE		PENN-MORROW		PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360		360
DEPTH, FEET.....	10249		11074		13365
WELLHEAD PRESSURE, PSIG.....	4465		3600		4152
OPEN FLOW, MCFD.....	11500		5000		1738
COMPONENT, MOLE PCT					
METHANE.....	84.8		95.2		95.6
ETHANE.....	7.5		1.3		2.5
PROPANE.....	3.2		0.0		0.5
N-BUTANE.....	0.7		0.0		0.3
ISOBUTANE.....	0.4		0.0		0.0
N-PENTANE.....	0.1		0.7		0.0
ISOPENTANE.....	0.1		0.0		0.0
CYCLOPENTANE.....	TRACE		0.1		0.0
HEXANES PLUS.....	0.2		0.3		0.0
NITROGEN.....	1.1		1.1		0.4
OXYGEN.....	0.3		0.2		0.0
ARGON.....	TRACE		TRACE		TRACE
HYDROGEN.....	0.0		0.1		TRACE
HYDROGEN SULFIDE.....	0.0		0.0		0.0
CARBON DIOXIDE.....	0.6		0.7		0.7
HELIUM.....	0.04		0.03		0.03
HEATING VALUE.....	10432		1040		1034
SPECIFIC GRAVITY.....	0.665		0.598		0.585

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5773 15458			INDEX SAMPLE	5774 16478			INDEX SAMPLE	5775 16838
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CUSTER			CUSTER				CUSTER			
FIELD.....	FAY E			HARMON E				HARMON E			
WELL NAME.....	UNIT A NO. 1			RED MOON NO. 1-29				HUBBART NO. 1			
LOCATION.....	SEC. 2, T15N, R14W			SEC. 29, T14N, R20W				SEC. 19, T14N, R19W			
OWNER.....	AMOCO PRODUCTION CO.			READING & BATES PETROLEUM CO				SANTA FE MINERALS, INC.			
COMPLETED.....	08/16/78			01/29/82				05/-/82			
SAMPLED.....	10/26/78			03/-/82				03/-/83			
FORMATION.....	PENN-MORROW			PENN-RED FORK				PENN-RED FORK			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	10478			12290				12272			
WELLHEAD PRESSURE, PSIG.....	5613			2050				5750			
OPEN FLOW, MCFD.....	2405			3156				3100			
COMPONENT, MOLE PCT											
METHANE.....	87.2	-----	-----	84.6	-----	-----	-----	85.4	-----	-----	-----
ETHANE.....	6.3	-----	-----	7.5	-----	-----	-----	8.0	-----	-----	-----
PROPANE.....	2.2	-----	-----	2.8	-----	-----	-----	2.8	-----	-----	-----
N-BUTANE.....	0.7	-----	-----	0.5	-----	-----	-----	0.7	-----	-----	-----
ISOBUTANE.....	0.5	-----	-----	0.5	-----	-----	-----	0.4	-----	-----	-----
N-PENTANE.....	0.2	-----	-----	0.1	-----	-----	-----	0.1	-----	-----	-----
ISOPENTANE.....	0.4	-----	-----	0.3	-----	-----	-----	0.3	-----	-----	-----
CYCLOPENTANE.....	0.1	-----	-----	0.1	-----	-----	-----	0.3	-----	-----	-----
HEXANES PLUS.....	0.3	-----	-----	0.2	-----	-----	-----	0.3	-----	-----	-----
NITROGEN.....	0.6	-----	-----	2.2	-----	-----	-----	0.5	-----	-----	-----
OXYGEN.....	TRACE	-----	-----	0.4	-----	-----	-----	0.0	-----	-----	-----
ARGON.....	0.0	-----	-----	TRACE	-----	-----	-----	0.0	-----	-----	-----
HYDROGEN.....	0.4	-----	-----	TRACE	-----	-----	-----	0.2	-----	-----	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
CARBON DIOXIDE.....	0.3	-----	-----	0.7	-----	-----	-----	0.8	-----	-----	-----
HELIUM.....	0.03	-----	-----	0.02	-----	-----	-----	0.02	-----	-----	-----
HEATING VALUE.....	1158	-----	-----	1129	-----	-----	-----	1167	-----	-----	-----
SPECIFIC GRAVITY.....	0.656	-----	-----	0.667	-----	-----	-----	0.670	-----	-----	-----

		INDEX SAMPLE	5776 16955			INDEX SAMPLE	5777 16980			INDEX SAMPLE	5778 12752
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CUSTER			CUSTER				CUSTER			
FIELD.....	HARMON E			HARMON E				INDIANAPOLIS			
WELL NAME.....	WELMS NO. 1-16			STINSON NO. 1-6				NICKEL NO. 35-1			
LOCATION.....	SEC. 16, T14N, R19W			SEC. 16, T13N, R20W				SEC. 35, T13N, R16W			
OWNER.....	INEXCO OIL CO.			HELMERICH & PAYNE, INC.				RODEN OIL CO.			
COMPLETED.....	05/26/83			04/22/82				11/19/70			
SAMPLED.....	05/26/83			06/17/83				04/02/71			
FORMATION.....	PENN-MORROW			PENN-RED FORK				PENN-SPRINGER			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	15208			13089				14880			
WELLHEAD PRESSURE, PSIG.....	7527			4090				9400			
OPEN FLOW, MCFD.....	3229							48000			
COMPONENT, MOLE PCT											
METHANE.....	95.6	-----	-----	88.8	-----	-----	-----	96.5	-----	-----	-----
ETHANE.....	0.1	-----	-----	1.9	-----	-----	-----	1.0	-----	-----	-----
PROPANE.....	0.0	-----	-----	0.4	-----	-----	-----	TRACE	-----	-----	-----
N-BUTANE.....	0.0	-----	-----	0.4	-----	-----	-----	0.1	-----	-----	-----
ISOBUTANE.....	0.0	-----	-----	0.0	-----	-----	-----	0.1	-----	-----	-----
N-PENTANE.....	0.0	-----	-----	0.3	-----	-----	-----	0.0	-----	-----	-----
ISOPENTANE.....	0.0	-----	-----	TRACE	-----	-----	-----	0.1	-----	-----	-----
CYCLOPENTANE.....	0.0	-----	-----	TRACE	-----	-----	-----	0.2	-----	-----	-----
HEXANES PLUS.....	0.0	-----	-----	0.1	-----	-----	-----	0.3	-----	-----	-----
NITROGEN.....	0.3	-----	-----	0.7	-----	-----	-----	0.3	-----	-----	-----
OXYGEN.....	TRACE	-----	-----	0.1	-----	-----	-----	TRACE	-----	-----	-----
ARGON.....	TRACE	-----	-----	TRACE	-----	-----	-----	0.0	-----	-----	-----
HYDROGEN.....	0.3	-----	-----	0.3	-----	-----	-----	0.0	-----	-----	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
CARBON DIOXIDE.....	3.1	-----	-----	0.5	-----	-----	-----	1.3	-----	-----	-----
HELIUM.....	0.02	-----	-----	0.02	-----	-----	-----	0.02	-----	-----	-----
HEATING VALUE.....	983	-----	-----	1108	-----	-----	-----	1022	-----	-----	-----
SPECIFIC GRAVITY.....	0.588	-----	-----	0.637	-----	-----	-----	0.584	-----	-----	-----

		INDEX SAMPLE	5779 16877			INDEX SAMPLE	5780 16952			INDEX SAMPLE	5781 16854
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CUSTER			CUSTER				CUSTER			
FIELD.....	MOOREWOOD NE			MOOREWOOD NE				PARKERSBURGH			
WELL NAME.....	BAKER NO. 1-31			WILSON NO. 16-1				STRATTON FARMS NO. 10-1			
LOCATION.....	SEC. 31, T15N, R19W			SEC. 16, T15N, R20W				SEC. 10, T12N, R17W			
OWNER.....	COASTAL OIL & GAS CORP.			HARPER OIL CO.				WOODS PETROLEUM CORP.			
COMPLETED.....	04/13/83			07/12/82				12/27/72			
SAMPLED.....	04/13/83			05/23/83				03/31/83			
FORMATION.....	PENN-CHEROKEE			PENN-CHEROKEE				PENN-ATOKA			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	11251			11168				14296			
WELLHEAD PRESSURE, PSIG.....	6095			4203				9000			
OPEN FLOW, MCFD.....	4737			1196				3000			
COMPONENT, MOLE PCT											
METHANE.....	86.5	-----	-----	79.4	-----	-----	-----	93.0	-----	-----	-----
ETHANE.....	8.3	-----	-----	10.3	-----	-----	-----	3.3	-----	-----	-----
PROPANE.....	2.6	-----	-----	3.2	-----	-----	-----	0.7	-----	-----	-----
N-BUTANE.....	0.4	-----	-----	0.5	-----	-----	-----	0.2	-----	-----	-----
ISOBUTANE.....	0.1	-----	-----	0.6	-----	-----	-----	0.1	-----	-----	-----
N-PENTANE.....	0.1	-----	-----	0.2	-----	-----	-----	0.0	-----	-----	-----
ISOPENTANE.....	0.1	-----	-----	0.8	-----	-----	-----	0.0	-----	-----	-----
CYCLOPENTANE.....	TRACE	-----	-----	0.1	-----	-----	-----	0.1	-----	-----	-----
HEXANES PLUS.....	TRACE	-----	-----	0.2	-----	-----	-----	0.2	-----	-----	-----
NITROGEN.....	0.7	-----	-----	0.6	-----	-----	-----	0.5	-----	-----	-----
OXYGEN.....	0.1	-----	-----	0.0	-----	-----	-----	0.1	-----	-----	-----
ARGON.....	TRACE	-----	-----	TRACE	-----	-----	-----	TRACE	-----	-----	-----
HYDROGEN.....	0.2	-----	-----	0.3	-----	-----	-----	0.2	-----	-----	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
CARBON DIOXIDE.....	0.7	-----	-----	0.8	-----	-----	-----	1.6	-----	-----	-----
HELIUM.....	TRACE	-----	-----	0.03	-----	-----	-----	0.02	-----	-----	-----
HEATING VALUE.....	1118	-----	-----	1118	-----	-----	-----	1088	-----	-----	-----
SPECIFIC GRAVITY.....	0.641	-----	-----	0.724	-----	-----	-----	0.609	-----	-----	-----

		INDEX SAMPLE	5782 8016			INDEX SAMPLE	5783 16535			INDEX SAMPLE	5784 13560
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	CUSTER			CUSTER				CUSTER			
FIELD.....	PUTNAM			STAFFORD				STAFFORD N			
WELL NAME.....	M. E. HORTON NO. 1			STAFFORD FARMS NO. 1-5				BEAUCHAMP NO. 1-21			
LOCATION.....	SEC. 14, T15N, R15W			SEC. 5, T12N, R18W				SEC. 21, T13N, R18W			
OWNER.....	MOBIL OIL CO.			BRACKEN EXPLORATION CO.				ARKLA EXPLORATION CO.			
COMPLETED.....	03/22/61			02/03/82				12/27/72			
SAMPLED.....	06/-/82			06/-/82				03/06/73			
FORMATION.....	MISS-MERAMEC			PENN-RED FORK				PENN-RED FORK			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	13192			13145				12310			
WELLHEAD PRESSURE, PSIG.....	7000			1300				6600			
OPEN FLOW, MCFD.....	1018			1105				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	93.2	-----	-----	81.0	-----	-----	-----	83.7	-----	-----	-----
ETHANE.....	3.2	-----	-----	8.8	-----	-----	-----	8.3	-----	-----	-----
PROPANE.....	0.8	-----	-----	4.5	-----	-----	-----	4.2	-----	-----	-----
N-BUTANE.....	0.4	-----	-----	1.2	-----	-----	-----	1.0	-----	-----	-----
ISOBUTANE.....	0.4	-----	-----	1.1	-----	-----	-----	0.8	-----	-----	-----
N-PENTANE.....	0.2	-----	-----	0.3	-----	-----	-----	0.2	-----	-----	-----
ISOPENTANE.....	0.1	-----	-----	0.8	-----	-----	-----	0.8	-----	-----	-----
CYCLOPENTANE.....	0.1	-----	-----	0.8	-----	-----	-----	0.2	-----	-----	-----
HEXANES PLUS.....	0.3	-----	-----	0.7	-----	-----	-----	0.4	-----	-----	-----
NITROGEN.....	0.4	-----	-----	0.4	-----	-----	-----	0.1	-----	-----	-----
OXYGEN.....	TRACE	-----	-----	0.0	-----	-----	-----	0.1	-----	-----	-----
ARGON.....	0.0	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
HYDROGEN.....	TRACE	-----	-----	TRACE	-----	-----	-----	0.0	-----	-----	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
CARBON DIOXIDE.....	0.9	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
HELIUM.....	0.01	-----	-----	0.02	-----	-----	-----	0.02	-----	-----	-----
HEATING VALUE.....	1081	-----	-----	1270	-----	-----	-----	1220	-----	-----	-----
SPECIFIC GRAVITY.....	0.616	-----	-----	0.732	-----	-----	-----	0.694	-----	-----	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5785 SAMPLE 14979			INDEX 5786 SAMPLE 15908			INDEX 5787 SAMPLE 16386		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CUSTER		CUSTER			CUSTER		
FIELD.....	THOMAS S		THOMAS S			TURKEY CREEK		
WELL NAME.....	BOYO MILLER NO. 1		SEC. 8, MCNEILL NO. 4			STRATTON FARM NO. 31-1		
LOCATION.....	SEC. 10, T14N, R14W		SEC. 13, T14N, R14W			SEC. 31, T12N, R17W		
OWNER.....	DAVIS OIL CO.		SOUTHPORT EXPLORATION, INC.			WOODS PETROLEUM CORP.		
COMPLETED.....	4/7/70		4/7/70			10/13/81		
SAMPLED.....	04/24/77		02/28/80			11/16/81		
FORMATION.....	PENN-RED FORK		PENN-RED FORK			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		10630			15336		
WELLHEAD PRESSURE, PSIG.....	4982		NOT GIVEN			10000		
OPEN FLOW, MCFD.....	4350		449			13500		
COMPONENT, MOLE PCT								
METHANE.....	83.0		78.3			96.9		
ETHANE.....	9.3		9.1			1.2		
PROPANE.....	4.4		4.6			0.1		
N-BUTANE.....	0.9		0.0			0.0		
ISOBUTANE.....	0.5		0.6			0.0		
N-PENTANE.....	0.2		0.1			0.0		
ISOPENTANE.....	0.2		0.1			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.1		0.1			0.0		
NITROGEN.....	0.9		4.3			0.4		
OXYGEN.....	0.0		1.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.5			1.3		
HELIUM.....	0.03		0.04			0.02		
HEATING VALUE.....	1191		1156			1006		
SPECIFIC GRAVITY.....	0.695		0.710			0.575		
INDEX 5788 SAMPLE 13559			INDEX 5789 SAMPLE 15809			INDEX 5790 SAMPLE 16023		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CUSTER		WEATHERFORD			WEATHERFORD		
FIELD.....	WEATHERFORD		WEATHERFORD			WEATHERFORD		
WELL NAME.....	URANIA LEONARD NO. 1		WELL NO. 1-16			GOUCHER NO. 1		
LOCATION.....	SEC. 26, T13N, R15W		SEC. 16, T13N, R14W			SEC. 23, T13N, R14W		
OWNER.....	ARKLA EXPLORATION CO.		TENNECO OIL CO.			TRIGG DRILLING CO., INC.		
COMPLETED.....	09/05/72		06/13/79			4/7/80		
SAMPLED.....	03/06/73		10/17/79			07/31/80		
FORMATION.....	PENN-RED FORK		PENN-MORROW & SPRINGER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	13428		13820			13177		
WELLHEAD PRESSURE, PSIG.....	6556		6600			5640		
OPEN FLOW, MCFD.....	1450		6200			1500		
COMPONENT, MOLE PCT								
METHANE.....	60.2		96.5			95.8		
ETHANE.....	15.8		1.8			2.3		
PROPANE.....	12.0		0.2			0.5		
N-BUTANE.....	3.7		0.0			0.1		
ISOBUTANE.....	0.8		0.0			TRACE		
N-PENTANE.....	0.9		0.0			TRACE		
ISOPENTANE.....	1.8		0.1			TRACE		
CYCLOPENTANE.....	0.2		TRACE			TRACE		
HEXANES PLUS.....	1.4		TRACE			TRACE		
NITROGEN.....	0.3		0.3			0.2		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		1.0			0.3		
HELIUM.....	TRACE		0.03			0.04		
HEATING VALUE.....	1618		1023			1028		
SPECIFIC GRAVITY.....	0.951		0.580			0.581		
INDEX 5791 SAMPLE 16104			INDEX 5792 SAMPLE 16518			INDEX 5793 SAMPLE 17093		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CUSTER		CUSTER			CUSTER		
FIELD.....	WEATHERFORD		WEATHERFORD			WEATHERFORD		
WELL NAME.....	BERGNER NO. 1		STEINER NO. 1			HUNNICUTT UNIT		
LOCATION.....	SEC. 21, T13N, R14W		SEC. 22, T13N, R14W			SEC. 26, T12N, R14W		
OWNER.....	KATSER-FRANCIS OIL CO.		KATSER-FRANCIS OIL CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	08/26/80		04/06/81			08/12/82		
SAMPLED.....	10/20/80		05/14/82			10/17/83		
FORMATION.....	PENN-BRITT		PENN-BRITT			PENN-SPRINGER & BRITT		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	13504		NOT GIVEN			13250		
WELLHEAD PRESSURE, PSIG.....	5900		NOT GIVEN			11125		
OPEN FLOW, MCFD.....	25396		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	96.3		96.5			97.1		
ETHANE.....	1.8		0.7			1.1		
PROPANE.....	0.3		0.3			0.2		
N-BUTANE.....	TRACE		0.0			0.0		
ISOBUTANE.....	TRACE		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	TRACE		0.0			0.0		
NITROGEN.....	0.3		0.3			0.1		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			1.4		
HELIUM.....	0.03		0.03			0.02		
HEATING VALUE.....	1019		1016			1009		
SPECIFIC GRAVITY.....	0.579		0.579			0.575		
INDEX 5794 SAMPLE 17182			INDEX 5795 SAMPLE 17689			INDEX 5796 SAMPLE 16318		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CUSTER		CUSTER			CUSTER		
FIELD.....	WEATHERFORD		WEATHERFORD			WEATHERFORD SW		
WELL NAME.....	CORNELL NO. 1-24		EVA ASHBY NO. 2			PALMER NO. 1-17		
LOCATION.....	SEC. 24, T13N, R15W		SEC. 29, T13N, R14W			SEC. 17, T12N, R15W		
OWNER.....	ARKLA EXPLORATION CO.		AMOCO PRODUCTION CO.			AN-SON CORP.		
COMPLETED.....	07/26/83		01/30/85			11/20/80		
SAMPLED.....	02/14/84		05/17/85			07/22/81		
FORMATION.....	PENN-ATOKA		PENN-CHEROKEE			PENN-RED FORK		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	13007		11675			12533		
WELLHEAD PRESSURE, PSIG.....	3850		5400			7925		
OPEN FLOW, MCFD.....	6500		5235			8670		
COMPONENT, MOLE PCT								
METHANE.....	84.3		79.4			84.8		
ETHANE.....	7.9		2.0			8.3		
PROPANE.....	5.5		1.9			3.7		
N-BUTANE.....	0.9		0.6			0.8		
ISOBUTANE.....	0.8		0.6			0.6		
N-PENTANE.....	0.3		0.9			0.2		
ISOPENTANE.....	0.5		0.3			0.3		
CYCLOPENTANE.....	0.3		0.3			0.1		
HEXANES PLUS.....	0.5		0.7			0.2		
NITROGEN.....	0.5		0.8			0.7		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.5			0.4		
HELIUM.....	0.02		0.04			0.02		
HEATING VALUE.....	1215		1297			1186		
SPECIFIC GRAVITY.....	0.694		0.749			0.678		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5797 SAMPLE 16956			INDEX 5798 SAMPLE 11553			INDEX 5799 SAMPLE 12823		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CUSTER		DEWEY			DEWEY		
FIELD.....	WEATHERFORD SW		ALEDO			ALEDO		
WELL NAME.....	KATSEY NO. 1-16		E. H. WALKER NO. 1			BRAY NO. 1		
LOCATION.....	SEC. 16, T12N, R15W		SEC. 5, T15N, R18W			SEC. 29, T16N, R18W		
OWNER.....	INEXCO OIL CO.		J. C. BARNES OIL CO.			MCCULLOCH OIL CORP.		
COMPLETED.....	05/26/83		03/13/87			09/28/70		
SAMPLED.....	05/26/83		06/13/68			05/21/71		
FORMATION.....	PENN-CHEKROCKE		DEVO-HUNTON			PENN-CLEVELAND		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	12586		15372			9604		
WELLHEAD PRESSURE, PSIG.....	6000		5222			NOT GIVEN		
OPEN FLOW, MCFD.....	6351		115079			1910		
COMPONENT, MOLE PCT								
METHANE.....	83.5		91.8			81.1		
ETHANE.....	8.6		0.2			10.3		
PROPANE.....	3.8		0.0			5.2		
N-BUTANE.....	0.9		0.3			0.9		
ISOBUTANE.....	0.5		0.0			0.7		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.5		0.2			0.0		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		TRACE			0.1		
NITROGEN.....	0.6		1.8			0.9		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.3		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		5.2			0.5		
HELIUM.....	0.02		0.04			0.04		
HEATING VALUE.....	1186		961			1209		
SPECIFIC GRAVITY.....	0.683		0.826			0.696		

INDEX 5800 SAMPLE 12824			INDEX 5801 SAMPLE 17383			INDEX 5802 SAMPLE 14587		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	ALEDO		CANTON NW			CESTOS		
WELL NAME.....	BRAY NO. 1		BLACK BULL NO. 1			TERREL NO. 1		
LOCATION.....	SEC. 29, T16N, R18W		SEC. 22, T19N, R14W			SEC. 2, T19N, R18W		
OWNER.....	MCCULLOCH OIL CORP.		TXO PRODUCTION CORP.			WOODS PETROLEUM CORP.		
COMPLETED.....	09/28/70		01/15/84			01/15/76		
SAMPLED.....	05/21/71		08/-/84			02/23/76		
FORMATION.....	PENN-CHEKROCKE		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10945		8424			9102		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		350			3400		
OPEN FLOW, MCFD.....	700		285			1000		
COMPONENT, MOLE PCT								
METHANE.....	82.3		76.5			95.5		
ETHANE.....	9.7		10.7			2.3		
PROPANE.....	4.0		6.7			0.7		
N-BUTANE.....	0.9		1.9			0.1		
ISOBUTANE.....	0.7		1.0			0.1		
N-PENTANE.....	0.3		0.5			TRACE		
ISOPENTANE.....	0.2		0.6			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.5		0.3			0.1		
NITROGEN.....	0.6		1.0			0.6		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.5			0.4		
HELIUM.....	0.03		0.05			0.08		
HEATING VALUE.....	1216		1304			1043		
SPECIFIC GRAVITY.....	0.698		0.757			0.586		

INDEX 5803 SAMPLE 12740			INDEX 5804 SAMPLE 14506			INDEX 5805 SAMPLE 14299		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	CESTOS SE		CESTOS SW			EAGLE CITY W		
WELL NAME.....	CARTER NO. 1		KENNEDY BROTHERS NO. 1			KATY ZO WOHACH UNIT NO. 1		
LOCATION.....	SEC. 20, T19N, R17W		SEC. 35, T19N, R19W			SEC. 25, T17N, R14W		
OWNER.....	SNEE & EBERLY		JONES & FELLOW OIL CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	02/26/70		06/27/75			10/15/74		
SAMPLED.....	03/24/71		10/24/75			03/18/75		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9411		10160			9527		
WELLHEAD PRESSURE, PSIG.....	3750		NOT GIVEN			5552		
OPEN FLOW, MCFD.....	NOT GIVEN		26550			7503		
COMPONENT, MOLE PCT								
METHANE.....	95.3		96.0			88.2		
ETHANE.....	2.1		1.6			6.7		
PROPANE.....	0.5		0.4			2.9		
N-BUTANE.....	0.1		0.1			0.5		
ISOBUTANE.....	0.1		0.1			0.4		
N-PENTANE.....	0.1		TRACE			TRACE		
ISOPENTANE.....	0.0		TRACE			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.4		0.5			0.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		1.3			0.3		
HELIUM.....	0.03		0.04			0.04		
HEATING VALUE.....	1032		1033			1133		
SPECIFIC GRAVITY.....	0.592		0.587			0.641		

INDEX 5806 SAMPLE 14737			INDEX 5807 SAMPLE 12531			INDEX 5808 SAMPLE 14889		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	EAGLE CITY W		LEEDY			LEEDY		
WELL NAME.....	KATY WOHACH UNIT NO. 1		HENRY HARRELL ET AL. NO. 1			GAMBLE NO. 1		
LOCATION.....	SEC. 35, T17N, R14W		SEC. 10, T16N, R20W			SEC. 15, T16N, R20W		
OWNER.....	BONRAY OIL CO.		MCCULLOCH OIL CORP.			UNION OIL CO. OF CALIF.		
COMPLETED.....	04/24/78		04/28/70			05/28/76		
SAMPLED.....	08/25/76		11/1/70			01/27/77		
FORMATION.....	PENN-MORROW		DEVO-HUNTON			DEVO-HUNTON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9700		16464			16582		
WELLHEAD PRESSURE, PSIG.....	5430		5793			4340		
OPEN FLOW, MCFD.....	1500		56000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	90.0		95.8			94.5		
ETHANE.....	5.8		0.5			0.3		
PROPANE.....	2.0		0.1			TRACE		
N-BUTANE.....	0.4		0.0			0.0		
ISOBUTANE.....	0.2		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.0		
ISOPENTANE.....	0.2		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	0.1		0.0			0.0		
NITROGEN.....	0.6		2.3			2.1		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		1.2			3.0		
HELIUM.....	0.04		0.04			0.04		
HEATING VALUE.....	1106		98			963		
SPECIFIC GRAVITY.....	0.626		0.579			0.593		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5809 SAMPLE 14499			INDEX 5810 SAMPLE 11255			INDEX 5811 SAMPLE 9818		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	LEONEL SE		MOBSCOT NW			OKWOOD N		
WELL NAME.....	BOND NO. 1		CROSS UNIT NO. 1			HARPER UNIT NO. 1		
LOCATION.....	SEC. 12, T17N, R14W		SEC. 25, T17N, R16W			SEC. 4, T17N, R14W		
OWNER.....	TEXAS OIL & GAS CORP.		AROCO PRODUCTION CO.			TEXACO INC.		
COMPLETED.....	--/--/00		10/01/67			09/24/64		
SAMPLED.....	10/24/75		01/10/68			03/22/65		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		10244			9470		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		4250			4239		
OPEN FLOW, MCFD.....	NOT GIVEN		9245			7576		
COMPONENT, MOLE PCT.....								
METHANE.....	88.0		91.9			85.9		
ETHANE.....	6.7		3.6			7.7		
PROPANE.....	2.8		1.1			3.2		
N-BUTANE.....	0.6		0.3			0.7		
ISOBUTANE.....	0.4		0.2			0.4		
N-PENTANE.....	0.1		0.1			TRACE		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	0.5		1.3			1.0		
OXYGEN.....	0.0		0.2			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.6			0.5		
HELIUM.....	0.04		0.03			0.05		
HEATING VALUE.....	1136		1068			1146		
SPECIFIC GRAVITY.....	0.647		0.615			0.657		
INDEX 5812 SAMPLE 13507			INDEX 5813 SAMPLE 13508			INDEX 5814 SAMPLE 14300		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	OKWOOD N		OKWOOD N			OKWOOD N		
WELL NAME.....	FEIKES NO. 1		STATE UNIT NO. 1			MURRY NO. 1		
LOCATION.....	SEC. 31, T18N, R14W		SEC. 36, T18N, R15W			SEC. 7, T18N, R14W		
OWNER.....	WOODS PETROLEUM CORP.		WOODS PETROLEUM CORP.			SNEE & EBERLY		
COMPLETED.....	10/25/72		08/12/72			09/06/74		
SAMPLED.....	01/18/73		01/18/73			03/18/74		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9370		9380			9135		
WELLHEAD PRESSURE, PSIG.....	3712		3899			2000		
OPEN FLOW, MCFD.....	6376		14277			5400		
COMPONENT, MOLE PCT.....								
METHANE.....	82.0		54.0			82.8		
ETHANE.....	7.6		26.5			8.4		
PROPANE.....	3.0		1.0			4.6		
N-BUTANE.....	1.5		2.7			1.1		
ISOBUTANE.....	0.9		1.7			0.7		
N-PENTANE.....	0.6		0.6			0.2		
ISOPENTANE.....	0.7		0.1			0.4		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.3		0.3			0.3		
NITROGEN.....	0.8		0.0			0.9		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.02			0.4		
HELIUM.....	0.04		0.02			0.04		
HEATING VALUE.....	1268		1556			1214		
SPECIFIC GRAVITY.....	0.731		0.915			0.697		
INDEX 5815 SAMPLE 16533			INDEX 5816 SAMPLE 8958			INDEX 5817 SAMPLE 12421		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	OKWOOD N		OKWOOD N			PUTNAM		
WELL NAME.....	LEO HUNTON NO. 2-14		LEO HUNTON NO. 1			CLARK NO. 1		
LOCATION.....	SEC. 14, T17N, R14W		SEC. 24, T17N, R15W			SEC. 8, T16N, R17W		
OWNER.....	MUSTANG PRODUCTION CO.		TEXACO INC. & SUN OIL CO.			WESSELY PETROLEUM, LTD.		
COMPLETED.....	05/26/82		11/15/62			01/17/70		
SAMPLED.....	05/26/82		05/14/63			--/--/00		
FORMATION.....	PENN-MORROW		MISS-CHESTER			DEVO-HUNTON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9466		10117			14078		
WELLHEAD PRESSURE, PSIG.....	4000		2995			4740		
OPEN FLOW, MCFD.....	2300		815			12439		
COMPONENT, MOLE PCT.....								
METHANE.....	87.9		83.4			93.6		
ETHANE.....	6.6		7.3			0.3		
PROPANE.....	2.7		4.8			TRACE		
N-BUTANE.....	0.7		1.6			0.0		
ISOBUTANE.....	0.3		0.5			0.0		
N-PENTANE.....	0.1		0.5			0.0		
ISOPENTANE.....	0.2		0.2			0.0		
CYCLOPENTANE.....	0.1		0.2			0.0		
HEXANES PLUS.....	0.2		0.7			0.0		
NITROGEN.....	0.3		0.3			1.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.2			4.7		
HELIUM.....	0.04		0.04			0.03		
HEATING VALUE.....	1141		1141			954		
SPECIFIC GRAVITY.....	0.649		0.714			0.607		
INDEX 5818 SAMPLE 6277			INDEX 5819 SAMPLE 8341			INDEX 5820 SAMPLE 9944		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	PUTNAM		PUTNAM			PUTNAM		
WELL NAME.....	A. M. KUNC NO. 1		WELLS UNIT NO. 1			R16S UNIT NO. 1		
LOCATION.....	SEC. 11, T17N, R18W		SEC. 30, T17N, R17W			SEC. 30, T18N, R16W		
OWNER.....	ATLANTIC RICHFIELD CO.		PETROLEUM, INC.			AMERADA HESS CORP.		
COMPLETED.....	01/02/57		09/25/61			08/20/64		
SAMPLED.....	03/14/57		12/17/61			06/29/65		
FORMATION.....	PENN-OSWEGO		PENN-OSWEGO			PENN-COTTAGE GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9159		9092			7730		
WELLHEAD PRESSURE, PSIG.....	3500		3175			2089		
OPEN FLOW, MCFD.....	NOT GIVEN		57118			3520		
COMPONENT, MOLE PCT.....								
METHANE.....	81.2		72.3			78.7		
ETHANE.....	10.2		11.8			9.0		
PROPANE.....	4.7		8.5			5.1		
N-BUTANE.....	1.2		0.6			1.4		
ISOBUTANE.....	0.8		2.0			1.0		
N-PENTANE.....	0.3		0.6			0.3		
ISOPENTANE.....	0.1		0.1			0.3		
CYCLOPENTANE.....	0.1		0.1			0.2		
HEXANES PLUS.....	0.3		0.2			0.5		
NITROGEN.....	1.2		1.2			2.9		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.1			0.0		
CARBON DIOXIDE.....	0.5		0.8			0.4		
HELIUM.....	0.07		0.04			0.20		
HEATING VALUE.....	1235		0.794			1230		
SPECIFIC GRAVITY.....	0.705					0.729		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5821			INDEX 5822			INDEX 5823		
SAMPLE 10011			SAMPLE 10502			SAMPLE 10503		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	PUTNAM		PUTNAM			PUTNAM		
WELL NAME.....	R16 UNIT NO. 1		FIELDS UNIT NO. 1-31			CALKINS UNIT NO. 1-25		
LOCATION.....	SEC. 30, T18N, R16W		SEC. 31, T18N, R16W			SEC. 25, T18N, R17W		
OWNER.....	AMERADA HESS CORP.		SARKEYS, INC.			SARKEYS, INC.		
COMPLETED.....	07/11/64		09/16/63			01/27/65		
SAMPLED.....	07/22/65		08/01/65			08/01/65		
FORMATION.....	PENN-TONKAWA		PENN-OSWEGO			PENN-COTTAGE GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7239		8652			7795		
WELLHEAD PRESSURE, PSIG.....	2059		1750			2054		
OPEN FLOW, MCFD.....	2231		632			6200		
COMPONENT, MOLE PCT.....								
METHANE.....	80.0		80.9			79.5		
ETHANE.....	8.7		10.6			9.0		
PROPANE.....	4.7		4.5			5.1		
N-BUTANE.....	1.2		1.0			1.6		
ISOBUTANE.....	0.6		0.5			0.4		
N-PENTANE.....	0.1		0.1			0.7		
ISOPENTANE.....	1.0		0.4			0.1		
CYCLOPENTANE.....	0.1		TRACE			0.2		
HEXANES PLUS.....	0.4		0.1			0.5		
NITROGEN.....	2.7		1.6			2.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.2		
HELIUM.....	0.16		0.09			0.16		
HEATING VALUE.....	1220		1203			1234		
SPECIFIC GRAVITY.....	0.718		0.695			0.723		
INDEX 5824			INDEX 5825			INDEX 5826		
SAMPLE 10504			SAMPLE 10806			SAMPLE 10913		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	PUTNAM		PUTNAM			PUTNAM		
WELL NAME.....	CALKINS UNIT NO. 1		HARRY BUTLER NO. 2			MERCER-HALLMARK UNIT NO. 1		
LOCATION.....	SEC. 25, T18N, R17W		SEC. 8, T17N, R16W			SEC. 10, T18N, R18W		
OWNER.....	SARKEYS, INC.		TENNECO OIL CO.			AMERADA HESS CORP.		
COMPLETED.....	01/27/65		10/01/66			09/16/66		
SAMPLED.....	08/01/65		11/29/66			04/06/67		
FORMATION.....	PENN-TONKAWA		PENN-BIG LIME			PENN-NORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7282		8800			10186		
WELLHEAD PRESSURE, PSIG.....	2111		1700			3350		
OPEN FLOW, MCFD.....	1170		4500			56550		
COMPONENT, MOLE PCT.....								
METHANE.....	80.9		77.8			95.7		
ETHANE.....	9.0		8.9			1.9		
PROPANE.....	4.5		5.2			0.4		
N-BUTANE.....	1.2		1.7			0.1		
ISOBUTANE.....	0.7		0.7			0.0		
N-PENTANE.....	0.2		0.5			0.1		
ISOPENTANE.....	0.4		0.5			0.0		
CYCLOPENTANE.....	0.1		0.3			TRACE		
HEXANES PLUS.....	0.3		0.5			0.1		
NITROGEN.....	2.3		3.4			0.4		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			1.1		
HELIUM.....	0.17		0.15			0.04		
HEATING VALUE.....	1206		1243			1027		
SPECIFIC GRAVITY.....	0.704		0.740			0.585		
INDEX 5827			INDEX 5828			INDEX 5829		
SAMPLE 11391			SAMPLE 11392			SAMPLE 11393		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	PUTNAM		PUTNAM			PUTNAM		
WELL NAME.....	W. J. HOYT A UNIT		LITTLE HAWK UNIT NO. 1			D. C. PETREE		
LOCATION.....	SEC. 27, T18N, R17W		SEC. 19, T18N, R17W			SEC. 2, T17N, R18W		
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		
COMPLETED.....	03/19/68		03/19/68			03/19/68		
SAMPLED.....	03/19/68		03/19/68			03/19/68		
FORMATION.....	PENN-NORROW		PENN-NORROW			PENN-OSWEGO		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9962		10134			9131		
WELLHEAD PRESSURE, PSIG.....	2400		2500			2800		
OPEN FLOW, MCFD.....	734		13000			1057		
COMPONENT, MOLE PCT.....								
METHANE.....	94.6		94.3			82.1		
ETHANE.....	2.7		1.7			9.9		
PROPANE.....	0.7		0.5			4.4		
N-BUTANE.....	0.1		0.0			1.0		
ISOBUTANE.....	0.2		0.0			0.5		
N-PENTANE.....	0.2		0.0			0.3		
ISOPENTANE.....	0.0		0.0			0.2		
CYCLOPENTANE.....	TRACE		0.0			0.1		
HEXANES PLUS.....	0.2		0.0			0.2		
NITROGEN.....	0.3		0.3			0.9		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		1.1			0.4		
HELIUM.....	0.04		0.02			0.06		
HEATING VALUE.....	1208		1208			1205		
SPECIFIC GRAVITY.....	0.597		0.592			0.694		
INDEX 5830			INDEX 5831			INDEX 5832		
SAMPLE 11541			SAMPLE 13203			SAMPLE 14733		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	PUTNAM		PUTNAM			PUTNAM		
WELL NAME.....	PASTORIOUS NO. 1		KNOX NO. 1-33			GOSDA UNIT NO. 1		
LOCATION.....	SEC. 10, T17N, R19W		SEC. 33, T17N, R18W			SEC. 8, T17N, R17W		
OWNER.....	APACHE CORP.		MCCULLOCH OIL CORP.			ENERGY RESERVES GROUP, INC.		
COMPLETED.....	06/15/62		05/26/71			04/18/76		
SAMPLED.....	06/15/68		05/08/72			04/18/76		
FORMATION.....	PENN-OSWEGO		MISS-			DEVO-HUNTON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9550		14388			13362		
WELLHEAD PRESSURE, PSIG.....	3052		NOT GIVEN			4150		
OPEN FLOW, MCFD.....	NOT GIVEN		4675			44		
COMPONENT, MOLE PCT.....								
METHANE.....	77.8		96.5			93.3		
ETHANE.....	5.6		0.3			0.4		
PROPANE.....	6.2		TRACE			0.1		
N-BUTANE.....	1.9		0.0			0.0		
ISOBUTANE.....	0.2		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	1.9		0.0			0.0		
CYCLOPENTANE.....	0.1		0.0			0.0		
HEXANES PLUS.....	0.2		0.0			0.0		
NITROGEN.....	4.9		0.9			1.4		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			4.9		
HELIUM.....	0.05		0.03			0.03		
HEATING VALUE.....	1215		983			955		
SPECIFIC GRAVITY.....	0.752		0.582			0.611		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5833 SAMPLE 14959			INDEX 5834 SAMPLE 14960			INDEX 5835 SAMPLE 15826		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	PUTNAM		PUTNAM			PUTNAM		
WELL NAME.....	FARRIS NO. 1		FARRIS NO. 1			NICHOLS NO. 1		
LOCATION.....	SEC. 7, T16N, R18W		SEC. 7, T16N, R18W			SEC. 29, T16N, R15W		
OWNER.....	WESSELY ENERGY CORP.		WESSELY ENERGY CORP.			FERGUSON OIL CO., INC.		
COMPLETED.....	04/15/76		04/15/76			11/26/77		
SAMPLED.....	04/07/77		04/07/77			10--/79		
FORMATION.....	PENN-COTTAGE GROVE		PENN-TONKAWA			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8512		7883			1246		
WELLHEAD PRESSURE, PSIG.....	2239		1836			4134		
OPEN FLOW, MCFD.....	969		450			2545		
COMPONENT, MOLE PCT								
METHANE.....	82.1		81.9			86.9		
ETHANE.....	9.7		9.3			6.2		
PROpane.....	4.6		4.4			2.5		
N-BUTANE.....	1.1		1.1			0.4		
ISOBUTANE.....	0.5		0.5			0.7		
N-PENTANE.....	0.3		0.3			0.1		
ISOPENTANE.....	0.2		0.2			0.7		
CYCLOPENTANE.....	0.1		TRACE			0.2		
HEXANES PLUS.....	0.2		0.1			0.8		
NITROGEN.....	0.9		1.5			0.7		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.5			0.7		
HELIUM.....	0.07		0.10			0.04		
HEATING VALUE.....	1214		1191			1176		
SPECIFIC GRAVITY.....	0.696		0.692			0.675		
INDEX 5836 SAMPLE 16364			INDEX 5837 SAMPLE 16365			INDEX 5838 SAMPLE 16682		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	PUTNAM		PUTNAM			PUTNAM		
WELL NAME.....	VANDERWORK NO. 1		VANDERWORK NO. 1			COMBS NO. 1-36		
LOCATION.....	SEC. 4, T18N, R17W		SEC. 4, T18N, R17W			SEC. 36, T16N, R15W		
OWNER.....	SCARTH OIL & GAS CO.		SCARTH OIL & GAS CO.			SENECA OIL CO.		
COMPLETED.....	--/70		--/70			10/05/82		
SAMPLED.....	10/26/81		10/26/81			10/05/82		
FORMATION.....	MISS-OSAGE		MISS-OSAGE			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	12076		12114			10868		
WELLHEAD PRESSURE, PSIG.....	1100		1575			3300		
OPEN FLOW, MCFD.....	50		6000			2100		
COMPONENT, MOLE PCT								
METHANE.....	90.8		92.9			92.7		
ETHANE.....	2.1		2.2			3.7		
PROpane.....	0.9		0.8			1.2		
N-BUTANE.....	0.3		0.3			0.3		
ISOBUTANE.....	0.3		0.2			0.2		
N-PENTANE.....	0.2		0.3			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.2			0.2		
NITROGEN.....	0.6		0.7			0.4		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	4.0		2.0			0.9		
HELIUM.....	0.02		0.03			0.03		
HEATING VALUE.....	1044		1055			1076		
SPECIFIC GRAVITY.....	0.644		0.621			0.613		
INDEX 5839 SAMPLE 16969			INDEX 5840 SAMPLE 17130			INDEX 5841 SAMPLE 17358		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	PUTNAM		PUTNAM			PUTNAM		
WELL NAME.....	LEROY DENNIS NO. 1		VANDERWORK NO. 1			E. S. COLLIER UNIT NO. 2		
LOCATION.....	SEC. 33, T19N, R17W		SEC. 33, T19N, R17W			SEC. 15, T17N, R18W		
OWNER.....	ENERGY RESERVES GROUP, INC.		SCARTH OIL & GAS CO.			ARCO OIL & GAS CO.		
COMPLETED.....	06/06/83		03/--/82			04/19/84		
SAMPLED.....	06/06/83		12/09/81			07/24/84		
FORMATION.....	MISS-OSAGE L		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	11846		9800			10678		
WELLHEAD PRESSURE, PSIG.....	3700		1290			3750		
OPEN FLOW, MCFD.....	1800		228			4000		
COMPONENT, MOLE PCT								
METHANE.....	88.9		93.2			85.1		
ETHANE.....	4.0		3.3			8.0		
PROpane.....	1.9		0.9			3.1		
N-BUTANE.....	0.7		0.2			0.7		
ISOBUTANE.....	0.4		0.1			0.5		
N-PENTANE.....	0.3		0.1			0.2		
ISOPENTANE.....	0.4		0.1			0.2		
CYCLOPENTANE.....	0.2		TRACE			0.1		
HEXANES PLUS.....	0.4		0.1			0.3		
NITROGEN.....	0.8		0.8			0.6		
OXYGEN.....	TRACE		0.2			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.2		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.4		0.9			0.1		
HELIUM.....	0.03		0.04			0.03		
HEATING VALUE.....	1124		1050			1162		
SPECIFIC GRAVITY.....	0.655		0.603			0.673		
INDEX 5842 SAMPLE 17359			INDEX 5843 SAMPLE 16697			INDEX 5844 SAMPLE 13521		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	DEWEY		DEWEY			DEWEY		
FIELD.....	PUTNAM		SEILING NE			SEILING SW		
WELL NAME.....	E. S. COLLIER UNIT NO. 2		MCDANIEL NO. 4			FUGUA NO. 1		
LOCATION.....	SEC. 15, T17N, R18W		SEC. 4, T19N, R17W			SEC. 14, T17N, R17W		
OWNER.....	ARCO OIL & GAS CO.		ARCO PETROLEUM CORP.			TEXAS OIL & GAS CORP.		
COMPLETED.....	04/19/84		10/28/82			11/13/72		
SAMPLED.....	07/24/84		10/27/82			01/05/73		
FORMATION.....	PENN-RED FORK		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9563		8950			9284		
WELLHEAD PRESSURE, PSIG.....	3460		2840			1600		
OPEN FLOW, MCFD.....	3000		1000			2122		
COMPONENT, MOLE PCT								
METHANE.....	78.6		95.0			91.1		
ETHANE.....	11.7		7.3			4.4		
PROpane.....	5.6		0.7			1.9		
N-BUTANE.....	1.2		0.2			0.5		
ISOBUTANE.....	0.7		0.1			0.4		
N-PENTANE.....	0.3		0.1			0.1		
ISOPENTANE.....	0.3		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	0.6		0.3			0.4		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		0.1			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.7			0.7		
HELIUM.....	0.04		0.03			0.05		
HEATING VALUE.....	1251		1050			1108		
SPECIFIC GRAVITY.....	0.722		0.598			0.630		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5845 14950	INDEX SAMPLE	5846 15218	INDEX SAMPLE	5847 13204
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	DEWEY			DEWEY		DEWEY	
FIELD.....	TRAIL S			TRAIL S		TRAIL S	
WELL NAME.....	FARRIS NO. 1			MOORE NO. 1-34		CAIN NO. 1-11	
LOCATION.....	SEC. 36, T17N, R20W			SEC. 34, T17N, R20W		SEC. 11, T19N, R20W	
OWNER.....	WOODS PETROLEUM CORP.			DYCO PETROLEUM CORP.		MCCULLOCH OIL CORP.	
COMPLETED.....	12/08/75			7/-/70		03/02/71	
SAMPLED.....	03/17/77			03/02/78		05/08/72	
FORMATION.....	PENN-RED FORK			PENN-OSWEGO		MISS-	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	10406			10230		12328	
WELLHEAD PRESSURE, PSIG.....	2828			5000		900	
OPEN FLOW, MCFD.....	1290			NOT GIVEN		3099	
COMPONENT, MOLE PCT.....							
METHANE.....	82.1			80.2		96.4	
ETHANE.....	8.9			10.0		0.8	
PROPANE.....	4.4			4.3		0.3	
N-BUTANE.....	1.1			1.0		0.2	
ISOBUTANE.....	0.7			0.5		0.1	
N-PENTANE.....	0.4			0.2		TRACE	
ISOPENTANE.....	0.5			0.3		0.1	
CYCLOPENTANE.....	0.2			0.1		TRACE	
HEXANES PLUS.....	0.3			0.2		0.3	
NITROGEN.....	0.5			2.2		0.9	
OXYGEN.....	0.0			0.4		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.6		0.8	
HELIUM.....	0.03			0.03		0.02	
HEATING VALUE.....	1237			119		1019	
SPECIFIC GRAVITY.....	0.712			0.703		0.581	
		INDEX SAMPLE	5848 14025	INDEX SAMPLE	5849 16582	INDEX SAMPLE	5850 17534
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	DEWEY			DEWEY		DEWEY	
FIELD.....	VICI SW			WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	BASKETT NO. 1			DOMLING NO. 2-28		P. MILLS NO. 3	
LOCATION.....	SEC. 28, T19N, R20W			SEC. 28, T18N, R14W		SEC. 36, T18N, R14W	
OWNER.....	MONSANTO CO.			SOUTHLAND ROYALTY CO.		LADD PETROLEUM CORP.	
COMPLETED.....	12/21/73			07/20/82		08/09/84	
SAMPLED.....	06/10/74			07/20/82		12/07/84	
FORMATION.....	PENN-MORROW			PENN-MORROW		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	10180			9352		11288	
WELLHEAD PRESSURE, PSIG.....	1350			250		3900	
OPEN FLOW, MCFD.....	1200			1100		4150	
COMPONENT, MOLE PCT.....							
METHANE.....	85.7			77.1		90.9	
ETHANE.....	7.6			10.1		4.4	
PROPANE.....	3.5			6.4		1.5	
N-BUTANE.....	0.8			1.8		0.4	
ISOBUTANE.....	0.4			1.1		0.3	
N-PENTANE.....	0.2			0.4		0.2	
ISOPENTANE.....	0.2			0.7		TRACE	
CYCLOPENTANE.....	0.1			0.3		0.2	
HEXANES PLUS.....	0.2			0.5		0.5	
NITROGEN.....	0.7			1.0		0.9	
ARGON.....	0.0			0.0		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.6		0.5	
HELIUM.....	0.05			0.03		0.02	
HEATING VALUE.....	1167			1310		1104	
SPECIFIC GRAVITY.....	0.670			0.767		0.630	
		INDEX SAMPLE	5851 16950	INDEX SAMPLE	5852 11586	INDEX SAMPLE	5853 13445
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ELLIS			ELLIS		ELLIS	
FIELD.....	ARNETT E			ARNETT E		ARNETT E	
WELL NAME.....	BUCKLES NO. 1			BOYD NO. 1		HANAN NO. 1	
LOCATION.....	SEC. 7, T19N, R24W			SEC. 32, T20N, R23W		SEC. 31, T20N, R23W	
OWNER.....	KAESER-FRANCIS OIL CO.			AMOCO PRODUCTION CO.		WAGNESS PETROLEUM CO.	
COMPLETED.....	7/-/82			06/17/65		06/16/72	
SAMPLED.....	05/17/83			07/16/68		10/02/72	
FORMATION.....	PENN-MORROW			DEVO-HUNTON		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			13426		10634	
WELLHEAD PRESSURE, PSIG.....	2300			3855		3657	
OPEN FLOW, MCFD.....	250			16190		4155	
COMPONENT, MOLE PCT.....							
METHANE.....	92.5			95.9		95.3	
ETHANE.....	2.4			TRACE		1.9	
PROPANE.....	0.6			0.0		0.5	
N-BUTANE.....	0.2			0.0		0.1	
ISOBUTANE.....	0.1			0.0		0.2	
N-PENTANE.....	0.1			0.0		TRACE	
ISOPENTANE.....	0.1			0.0		0.1	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.1			0.0		0.1	
NITROGEN.....	1.5			1.7		0.3	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.0			1.9		1.6	
HELIUM.....	0.03			0.04		0.03	
HEATING VALUE.....	1020			979		1029	
SPECIFIC GRAVITY.....	0.608			0.581		0.593	
		INDEX SAMPLE	5854 13735	INDEX SAMPLE	5855 11246	INDEX SAMPLE	5856 11670
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ELLIS			ELLIS		ELLIS	
FIELD.....	ARNETT SE			ARNETT SE		ARNETT SE	
WELL NAME.....	BERRYMAN UNIT NO. 1			BERRYMAN NO. 2		BERRYMAN UNIT NO. 1	
LOCATION.....	SEC. 8, T20N, R24W			SEC. 30, T19N, R23W		SEC. 6, T18N, R23W	
OWNER.....	WESSLEY ENERGY CORP.			JONES & PELLOW OIL CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	07/31/73			07/20/67		08/13/68	
SAMPLED.....	10/06/73			12/20/67		10/18/68	
FORMATION.....	PENN-MORROW			PENN-COTTAGE GROVE		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	10130			8260		15154	
WELLHEAD PRESSURE, PSIG.....	3100			2100		4925	
OPEN FLOW, MCFD.....	3713			21090		7000	
COMPONENT, MOLE PCT.....							
METHANE.....	88.2			81.1		95.8	
ETHANE.....	5.3			9.0		0.3	
PROPANE.....	2.4			4.2		TRACE	
N-BUTANE.....	0.6			1.0		0.0	
ISOBUTANE.....	0.6			0.6		0.0	
N-PENTANE.....	0.1			0.4		0.0	
ISOPENTANE.....	0.3			0.2		0.0	
CYCLOPENTANE.....	0.1			0.2		0.0	
HEXANES PLUS.....	0.2			0.5		0.0	
NITROGEN.....	0.7			2.1		1.7	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			TRACE		0.4	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.4			0.4		2.1	
HELIUM.....	0.03			0.11		0.04	
HEATING VALUE.....	1122			1212		976	
SPECIFIC GRAVITY.....	0.654			0.710		0.583	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5857 SAMPLE 13529		INDEX 5858 SAMPLE 10510		INDEX 5859 SAMPLE 10511	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	ELLIS	ELLIS	ELLIS	ELLIS	
FIELD.....	ARNETT SE	BISHOP	BISHOP	BISHOP	
WELL NAME.....	A. C. BERRYMAN NO. 1-4	GRAY A-1	GRAY A-1	E. K. KING NO. 1	
LOCATION.....	SEC. 4, T18N, R23W	SEC. 7, T17N, R25W	SEC. 7, T17N, R25W	SEC. 20, T17N, R26W	
OWNER.....	MCCULLOCH OIL CORP.	TEXAS OIL & GAS CORP.	TEXAS OIL & GAS CORP.	TEXAS OIL & GAS CORP.	
COMPLETED.....	05/12/72	--/--/00	--/--/00	--/--/00	
SAMPLED.....	02/12/73	04/09/66	04/09/66	04/09/66	
FORMATION.....	PENN-MORROW	PENN-TONKAWA	PENN-TONKAWA	PENN-TONKAWA	
GEOLOGIC PROVINCE CODE	360	360	360	360	
DEPTH, FEET.....	12068	7900	7900	7900	
WELLHEAD PRESSURE, PSIG.	4000	1800	2200	2200	
OPEN FLOW, MCFD	4767	NOT GIVEN	1600	1600	
COMPONENT, MOLE PCT					
METHANE.....	92.6	82.5	79.6	79.6	
ETHANE.....	3.8	8.1	10.0	10.0	
PROPANE.....	0.9	4.4	4.7	4.7	
N-BUTANE.....	0.1	1.3	1.3	1.3	
ISOBUTANE.....	0.3	0.4	0.4	0.4	
N-PENTANE.....	TRACE	0.3	0.5	0.5	
ISOPENTANE.....	0.1	0.4	0.1	0.1	
CYCLOPENTANE.....	0.1	0.1	0.2	0.2	
HEXANES PLUS.....	0.2	0.1	0.7	0.7	
NITROGEN.....	0.1	1.6	1.2	1.2	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.7	0.5	0.5	0.5	
HELIUM.....	0.03	0.12	0.08	0.08	
HEATING VALUE.....	1061	1201	1259	1259	
SPECIFIC GRAVITY.....	0.613	0.698	0.730	0.730	
INDEX 5860 SAMPLE 10848		INDEX 5861 SAMPLE 6637		INDEX 5862 SAMPLE 13472	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	ELLIS	ELLIS	ELLIS	ELLIS	
FIELD.....	BISHOP	FARGO SE	FARGO SE	FARGO SE	
WELL NAME.....	ARCHIE B NO. 1	T. M. MOORE NO. 1	T. M. MOORE NO. 1	PERRIN NO. 1	
LOCATION.....	SEC. 18, T17N, R25W	SEC. 14, T21N, R23W	SEC. 14, T21N, R23W	SEC. 1, T21N, R23W	
OWNER.....	PHILLIPS PETROLEUM CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	MESA PETROLEUM CO.	
COMPLETED.....	05/11/54	02/19/58	02/19/58	12/06/71	
SAMPLED.....	01/23/67	06/12/58	06/12/58	11/--/72	
FORMATION.....	PENN-TONKAWA	PENN-MORROW	PENN-MORROW	PENN-MORROW	
GEOLOGIC PROVINCE CODE	360	360	360	360	
DEPTH, FEET.....	7811	9319	9096	9096	
WELLHEAD PRESSURE, PSIG.	2217	105	2795	2795	
OPEN FLOW, MCFD	19750	1290	18000	18000	
COMPONENT, MOLE PCT					
METHANE.....	82.7	91.8	83.1	83.1	
ETHANE.....	8.0	4.6	4.2	4.2	
PROPANE.....	4.4	4.4	1.3	1.3	
N-BUTANE.....	1.1	0.3	0.3	0.3	
ISOBUTANE.....	0.6	0.3	0.2	0.2	
N-PENTANE.....	0.2	0.1	0.1	0.1	
ISOPENTANE.....	0.3	0.1	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.2	0.1	0.1	
NITROGEN.....	2.0	0.1	7.5	7.5	
OXYGEN.....	0.0	TRACE	2.0	2.0	
ARGON.....	0.0	0.0	0.1	0.1	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	1.1	1.1	1.1	
HELIUM.....	0.12	0.09	0.04	0.04	
HEATING VALUE.....	1184	1091	977	977	
SPECIFIC GRAVITY.....	0.690	0.623	0.654	0.654	
INDEX 5863 SAMPLE 9070		INDEX 5864 SAMPLE 11582		INDEX 5865 SAMPLE 12697	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	ELLIS	ELLIS	ELLIS	ELLIS	
FIELD.....	GAGE	GAGE	GAGE	GAGE	
WELL NAME.....	PRETHER NO. 1-33	HARVEY UNIT B NO. 1	HARVEY UNIT B NO. 1	HARVEY UNIT NO. 1	
LOCATION.....	SEC. 33, T23N, R23W	SEC. 34, T22N, R24W	SEC. 34, T22N, R24W	SEC. 24, T23N, R24W	
OWNER.....	SHELL OIL CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	SHENANDOAH OIL CORP.	
COMPLETED.....	03/--/78	11/14/62	11/14/62	04/09/63	
SAMPLED.....	08/23/63	07/16/68	07/16/68	07/16/68	
FORMATION.....	PENN-MORROW	PENN-MORROW	PENN-MORROW	PENN-MORROW	
GEOLOGIC PROVINCE CODE	360	360	360	360	
DEPTH, FEET.....	8226	8807	8268	8268	
WELLHEAD PRESSURE, PSIG.	2625	1890	2390	2390	
OPEN FLOW, MCFD	84000	256	21000	21000	
COMPONENT, MOLE PCT					
METHANE.....	81.6	91.1	92.5	92.5	
ETHANE.....	9.3	4.0	3.3	3.3	
PROPANE.....	4.0	0.7	1.1	1.1	
N-BUTANE.....	1.1	0.6	0.2	0.2	
ISOBUTANE.....	0.9	0.2	0.2	0.2	
N-PENTANE.....	0.3	0.3	0.0	0.0	
ISOPENTANE.....	0.4	0.1	0.2	0.2	
CYCLOPENTANE.....	0.4	0.1	0.1	0.1	
HEXANES PLUS.....	1.0	0.3	0.2	0.2	
NITROGEN.....	0.3	0.3	1.0	1.0	
OXYGEN.....	0.0	0.0	0.2	0.2	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	1.0	0.8	0.8	
HELIUM.....	0.05	0.09	0.04	0.04	
HEATING VALUE.....	1184	1091	1061	1061	
SPECIFIC GRAVITY.....	0.727	0.635	0.612	0.612	
INDEX 5866 SAMPLE 15679		INDEX 5867 SAMPLE 9616		INDEX 5868 SAMPLE 9986	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	ELLIS	ELLIS	ELLIS	ELLIS	
FIELD.....	GAGE	GAGE N	GAGE SE	GAGE SE	
WELL NAME.....	PREWETT NO. 1	NO. 1	PEER NO. 1	PEER NO. 1	
LOCATION.....	SEC. 29, T23N, R23W	SEC. 8, T22N, R24W	SEC. 36, T21N, R24W	SEC. 36, T21N, R24W	
OWNER.....	PHOENIX RESOURCES CO.	TIDEWATER OIL CO.	J. M. HUBER CORP.	J. M. HUBER CORP.	
COMPLETED.....	03/--/78	07/11/64	04/09/63	04/09/63	
SAMPLED.....	06/23/79	10/28/69	07/11/65	07/11/65	
FORMATION.....	MISS-MERAMEC	PENN-MORROW	PENN-MORROW	PENN-MORROW	
GEOLOGIC PROVINCE CODE	360	360	360	360	
DEPTH, FEET.....	11617	8589	9604	9604	
WELLHEAD PRESSURE, PSIG.	1680	1500	3278	3278	
OPEN FLOW, MCFD	2151	1500	4390	4390	
COMPONENT, MOLE PCT					
METHANE.....	94.7	91.8	95.8	95.8	
ETHANE.....	1.6	4.2	1.6	1.6	
PROPANE.....	0.5	1.4	0.5	0.5	
N-BUTANE.....	0.3	0.4	0.1	0.1	
ISOBUTANE.....	0.1	0.3	0.1	0.1	
N-PENTANE.....	0.2	0.1	TRACE	TRACE	
ISOPENTANE.....	0.1	0.1	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.3	0.1	0.1	
NITROGEN.....	1.1	0.3	0.4	0.4	
OXYGEN.....	0.0	TRACE	TRACE	TRACE	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	TRACE	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.1	0.6	1.3	1.3	
HELIUM.....	0.04	0.05	0.04	0.04	
HEATING VALUE.....	1038	1097	1024	1024	
SPECIFIC GRAVITY.....	0.599	0.622	0.587	0.587	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5869 11583	INDEX SAMPLE	5870 11276	INDEX SAMPLE	5871 12611
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ELLIS			ELLIS		ELLIS	
FIELD.....	STATE OF OKLAHOMA K NO. 1			GOODWIN S		GOODWIN S	
WELL NAME.....	SEC. 33, T21N, R24W			W. A. MEIERS NO. 1		LEAH TAYLOR NO. 1	
LOCATION.....	AMOCO PRODUCTION CO.			SEC. 36, T20N, R26W		SEC. 23, T20N, R26W	
OWNER.....	08/09/60			MOBIL OIL CORP.		DIAMOND SHAMROCK CORP.	
COMPLETED.....	07/16/68			02/11/59		11/20/69	
SAMPLED.....	PENN-MORROW			02/12/68		12/24/70	
FORMATION.....	360			PENN-MORROW		DEVO-HUNTON & ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....				360		360	
DEPTH, FEET.....	9640			11360		13801	
WELLHEAD PRESSURE, PSIG.....	2263			3145		4360	
OPEN FLOW, MCFD.....	1242			13140		10745	
COMPONENT, MOLE PCT							
METHANE.....	93.4	-----		96.5	-----	96.5	-----
ETHANE.....	3.2	-----		0.9	-----	0.5	-----
PROPANE.....	0.8	-----		0.2	-----	0.1	-----
N-BUTANE.....	0.3	-----		0.0	-----	0.0	-----
ISOBUTANE.....	TRACE	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.2	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.2	-----		0.0	-----	0.0	-----
NITROGEN.....	0.4	-----		0.0	-----	0.0	-----
OXYGEN.....	0.1	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.3	-----		2.3	-----	1.9	-----
HELIUM.....	0.04	-----		0.03	-----	0.06	-----
HEATING VALUE.....	1127	-----		99	-----	99	-----
SPECIFIC GRAVITY.....	0.608	-----		0.582	-----	0.581	-----
		INDEX SAMPLE	5872 16341	INDEX SAMPLE	5873 16238	INDEX SAMPLE	5874 14630
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ELLIS			ELLIS		ELLIS	
FIELD.....	GRAND NW			GRAND W		HARMON SE	
WELL NAME.....	STATE OF OKLAHOMA NO. 1-36			STATE OF OKLAHOMA NO. 1		STATE NO. 1	
LOCATION.....	SEC. 36, T19N, R25W			SEC. 16, T18N, R25W		SEC. 32, T19N, R21W	
OWNER.....	HAMILTON BROTHERS OIL CO.			HAMILTON BROTHERS OIL CO.		ENSERCH EXPLORATION, INC.	
COMPLETED.....	01/30/81			12/7/80		09/03/75	
SAMPLED.....	09/25/81			04/20/81		03/26/76	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11214			11980		11060	
WELLHEAD PRESSURE, PSIG.....	5000			2176		3850	
OPEN FLOW, MCFD.....	10403			2020		3600	
COMPONENT, MOLE PCT							
METHANE.....	93.6	-----		94.1	-----	89.1	-----
ETHANE.....	3.4	-----		2.4	-----	5.7	-----
PROPANE.....	0.5	-----		0.5	-----	2.1	-----
N-BUTANE.....	0.2	-----		0.1	-----	0.5	-----
ISOBUTANE.....	0.0	-----		0.1	-----	0.4	-----
N-PENTANE.....	0.0	-----		TRACE	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	0.4	-----		0.5	-----	0.6	-----
ARGON.....	0.2	-----		0.0	-----	0.0	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.7	-----		2.0	-----	1.2	-----
HELIUM.....	0.03	-----		0.03	-----	0.04	-----
HEATING VALUE.....	1038	-----		1025	-----	1103	-----
SPECIFIC GRAVITY.....	0.603	-----		0.600	-----	0.637	-----
		INDEX SAMPLE	5875 15904	INDEX SAMPLE	5876 9581	INDEX SAMPLE	5877 14938
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ELLIS			ELLIS		ELLIS	
FIELD.....	HARMON SE			HIGGINS S		HIGGINS S	
WELL NAME.....	MORAN NO. 1			STUCKER NO. 1		STATE NO. 1-11	
LOCATION.....	SEC. 29, T19N, R22W			SEC. 8, T18N, R26W		SEC. 11, T18N, R26W	
OWNER.....	MOHANTO CO.			SUN OIL CO.		MOORE & BRACKEN, INC.	
COMPLETED.....	02/22/79			04/08/64		12/05/76	
SAMPLED.....	02/21/80			09/21/64		03/14/77	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11036			11674		11829	
WELLHEAD PRESSURE, PSIG.....	3080			5200		NOT GIVEN	
OPEN FLOW, MCFD.....	9354			4700		6000	
COMPONENT, MOLE PCT							
METHANE.....	88.5	-----		94.6	-----	95.1	-----
ETHANE.....	3.9	-----		2.5	-----	2.0	-----
PROPANE.....	2.2	-----		0.7	-----	0.3	-----
N-BUTANE.....	0.5	-----		0.2	-----	0.1	-----
ISOBUTANE.....	0.5	-----		TRACE	-----	0.1	-----
N-PENTANE.....	0.1	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	0.2	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.5	-----		0.5	-----	0.1	-----
NITROGEN.....	0.6	-----		0.1	-----	0.3	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.2	-----		1.0	-----	2.0	-----
HELIUM.....	0.04	-----		0.02	-----	0.03	-----
HEATING VALUE.....	1115	-----		1051	-----	1019	-----
SPECIFIC GRAVITY.....	0.644	-----		0.600	-----	0.593	-----
		INDEX SAMPLE	5878 16884	INDEX SAMPLE	5879 9542	INDEX SAMPLE	5880 11584
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ELLIS			ELLIS		ELLIS	
FIELD.....	ISLAND N			MILDER		MILDER	
WELL NAME.....	CHARLES HARRIS NO. 1-27			H. A. JONTRA NO. 1		SHATTUCK UNIT 1 NO. 2	
LOCATION.....	SEC. 27, T18N, R22W			SEC. 14, T22N, R25W		SEC. 14, T22N, R26W	
OWNER.....	AMQUEST CORP.			TEXACO INC.		AMOCO PRODUCTION CO.	
COMPLETED.....	04/21/83			05/13/64		06/08/59	
SAMPLED.....	04/21/83			08/19/64		07/16/68	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11943			8903		8984	
WELLHEAD PRESSURE, PSIG.....	3200			2900		825	
OPEN FLOW, MCFD.....	3027			3329		1428	
COMPONENT, MOLE PCT							
METHANE.....	92.5	-----		92.4	-----	87.2	-----
ETHANE.....	3.4	-----		4.0	-----	5.8	-----
PROPANE.....	0.9	-----		1.5	-----	2.9	-----
N-BUTANE.....	0.2	-----		0.4	-----	1.0	-----
ISOBUTANE.....	0.3	-----		0.1	-----	0.4	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.3	-----
ISOPENTANE.....	0.2	-----		0.1	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.1	-----	0.2	-----
NITROGEN.....	0.4	-----		0.3	-----	0.6	-----
OXYGEN.....	0.0	-----		0.0	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.2	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.5	-----		0.9	-----	1.0	-----
HELIUM.....	0.04	-----		0.04	-----	0.04	-----
HEATING VALUE.....	1071	-----		1071	-----	1149	-----
SPECIFIC GRAVITY.....	0.619	-----		0.615	-----	0.664	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5881 SAMPLE 14885			INDEX 5882 SAMPLE 16260			INDEX 5883 SAMPLE 6349		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	WILDER		WILDER			MOCAVE-LAVERNE GAS AREA		
WELL NAME.....	MOGAN NO. 1		STUART UNIT NO. 1			L. PEETOON NO. 1		
LOCATION.....	SEC. 2, T22N, R25W		SEC. 9, T22N, R26W			SEC. 29, T24N, R25W		
OWNER.....	H & L OPERATING CO.		MEADOURNE OIL CO.			SHELL OIL CO.		
COMPLETED.....	10/21/76		02/99/80			05/14/57		
SAMPLED.....	01/19/77		05/21/81			06/27/57		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8744		9118			7961		
WELLHEAD PRESSURE, PSIG.....	2800		2500			2300		
OPEN FLOW, MCFD.....	2600		2400			2400		
COMPONENT, MOLE PCT								
METHANE.....	91.3	---	86.2	---		82.8	---	
ETHANE.....	0.5	---	0.8	---		7.1	---	
PROPANE.....	1.5	---	3.0	---		3.1	---	
N-BUTANE.....	0.4	---	0.8	---		1.0	---	
ISOBUTANE.....	0.2	---	0.7	---		1.0	---	
N-PENTANE.....	0.1	---	0.2	---		0.2	---	
ISOPENTANE.....	0.2	---	0.8	---		1.1	---	
CYCLOPENTANE.....	0.1	---	0.3	---		0.5	---	
HEXANES PLUS.....	0.2	---	0.0	---		1.6	---	
NITROGEN.....	0.5	---	0.6	---		0.7	---	
OXYGEN.....	0.0	---	0.0	---		TRACE	---	
ARGON.....	TRACE	---	0.0	---		0.0	---	
HYDROGEN.....	0.0	---	0.0	---		0.0	---	
HYDROGEN SULFIDE.....	0.0	---	0.0	---		0.0	---	
CARBON DIOXIDE.....	0.0	---	1.1	---		0.7	---	
HELIUM.....	0.04	---	10.04	---		0.06	---	
HEATING VALUE.....	1091	---	1190	---		1270	---	
SPECIFIC GRAVITY.....	0.625	---	0.689	---		0.733	---	
INDEX 5884 SAMPLE 6618			INDEX 5885 SAMPLE 7320			INDEX 5886 SAMPLE 7613		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	MOCAVE-LAVERNE GAS AREA		MOCAVE-LAVERNE GAS AREA			MOCAVE-LAVERNE GAS AREA		
WELL NAME.....	RUSSELL TUNE UNIT NO. 1		STACEY A. WOOD NO. 1			MCCLUNG NO. 1		
LOCATION.....	SEC. 35, T24N, R23W		SEC. 11, T23N, R26W			SEC. 17, T24N, R24W		
OWNER.....	AMOCO PRODUCTION CO.		ATLANTIC RICHFIELD CO.			TEXOMA PRODUCTION CO.		
COMPLETED.....	11/26/57		11/16/59			06/24/60		
SAMPLED.....	05/27/58		12/31/59			07/21/60		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7849		8432			7720		
WELLHEAD PRESSURE, PSIG.....	2315		NOT GIVEN			1789		
OPEN FLOW, MCFD.....	19000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	91.5	---	90.1	---		87.2	---	
ETHANE.....	4.3	---	4.8	---		6.9	---	
PROPANE.....	1.6	---	1.6	---		3.0	---	
N-BUTANE.....	0.4	---	0.6	---		0.9	---	
ISOBUTANE.....	0.4	---	0.4	---		0.3	---	
N-PENTANE.....	0.1	---	0.1	---		0.1	---	
ISOPENTANE.....	0.2	---	0.3	---		0.1	---	
CYCLOPENTANE.....	0.1	---	0.1	---		0.1	---	
HEXANES PLUS.....	0.2	---	0.3	---		0.2	---	
NITROGEN.....	0.4	---	0.7	---		0.1	---	
OXYGEN.....	TRACE	---	TRACE	---		TRACE	---	
ARGON.....	0.0	---	TRACE	---		TRACE	---	
HYDROGEN.....	0.0	---	0.0	---		0.2	---	
HYDROGEN SULFIDE.....	0.0	---	0.0	---		0.0	---	
CARBON DIOXIDE.....	0.7	---	1.0	---		0.6	---	
HELIUM.....	0.10	---	0.04	---		0.10	---	
HEATING VALUE.....	1099	---	1108	---		1157	---	
SPECIFIC GRAVITY.....	0.623	---	0.637	---		0.656	---	
INDEX 5887 SAMPLE 8003			INDEX 5888 SAMPLE 8233			INDEX 5889 SAMPLE 8313		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	MOCAVE-LAVERNE GAS AREA		MOCAVE-LAVERNE GAS AREA			MOCAVE-LAVERNE GAS AREA		
WELL NAME.....	SNYDER NO. 1		SUTTER D NO. 1			CORLES UNIT B		
LOCATION.....	SEC. 2, T23N, R23W		SEC. 21, T23N, R23W			SEC. 4, T24N, R25W		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	08/11/61		06/22/61			06/28/61		
SAMPLED.....	05/31/61		10/10/61			12/04/61		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7891		8159			7562		
WELLHEAD PRESSURE, PSIG.....	2375		2200			1850		
OPEN FLOW, MCFD.....	1750		4200			1050		
COMPONENT, MOLE PCT								
METHANE.....	93.0	---	91.1	---		82.6	---	
ETHANE.....	3.5	---	4.6	---		7.8	---	
PROPANE.....	1.1	---	1.8	---		4.0	---	
N-BUTANE.....	0.3	---	0.9	---		1.0	---	
ISOBUTANE.....	0.3	---	0.3	---		0.7	---	
N-PENTANE.....	0.1	---	0.1	---		0.1	---	
ISOPENTANE.....	0.1	---	0.4	---		1.1	---	
CYCLOPENTANE.....	TRACE	---	TRACE	---		0.2	---	
HEXANES PLUS.....	0.2	---	0.1	---		0.3	---	
NITROGEN.....	0.7	---	0.8	---		1.0	---	
OXYGEN.....	0.0	---	0.0	---		TRACE	---	
ARGON.....	TRACE	---	0.0	---		TRACE	---	
HYDROGEN.....	TRACE	---	TRACE	---		0.2	---	
HYDROGEN SULFIDE.....	0.0	---	0.0	---		0.0	---	
CARBON DIOXIDE.....	0.6	---	0.8	---		0.5	---	
HELIUM.....	0.10	---	0.05	---		0.03	---	
HEATING VALUE.....	1072	---	1072	---		1226	---	
SPECIFIC GRAVITY.....	0.609	---	0.625	---		0.707	---	
INDEX 5890 SAMPLE 8902			INDEX 5891 SAMPLE 9827			INDEX 5892 SAMPLE 9852		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	MOCAVE-LAVERNE GAS AREA		MOCAVE-LAVERNE GAS AREA			MOCAVE-LAVERNE GAS AREA		
WELL NAME.....	SNYDER NO. 1		SUTTER D NO. 1			SUTTER 1-29		
LOCATION.....	SEC. 7, T23N, R24W		SEC. 21, T23N, R23W			SEC. 29, T22N, R23W		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			SHELL OIL CO.		
COMPLETED.....	10/17/62		02/15/65			01/29/65		
SAMPLED.....	03/25/63		03/25/63			04/23/65		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8230		9142			8708		
WELLHEAD PRESSURE, PSIG.....	2270		5500			2559		
OPEN FLOW, MCFD.....	600		5000			6600		
COMPONENT, MOLE PCT								
METHANE.....	87.1	---	82.3	---		91.2	---	
ETHANE.....	4.4	---	8.9	---		4.8	---	
PROPANE.....	1.4	---	3.8	---		1.7	---	
N-BUTANE.....	0.3	---	0.7	---		0.9	---	
ISOBUTANE.....	TRACE	---	0.7	---		0.1	---	
N-PENTANE.....	0.0	---	0.3	---		0.1	---	
ISOPENTANE.....	0.1	---	0.2	---		0.2	---	
CYCLOPENTANE.....	TRACE	---	0.2	---		0.1	---	
HEXANES PLUS.....	0.0	---	0.6	---		0.2	---	
NITROGEN.....	4.7	---	1.2	---		0.2	---	
OXYGEN.....	1.0	---	TRACE	---		0.0	---	
ARGON.....	0.1	---	0.0	---		TRACE	---	
HYDROGEN.....	0.0	---	0.0	---		0.0	---	
HYDROGEN SULFIDE.....	0.0	---	0.0	---		0.0	---	
CARBON DIOXIDE.....	0.9	---	0.7	---		0.9	---	
HELIUM.....	0.05	---	0.05	---		0.05	---	
HEATING VALUE.....	1012	---	1214	---		1098	---	
SPECIFIC GRAVITY.....	0.631	---	0.704	---		0.624	---	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5893 SAMPLE 13383			INDEX 5894 SAMPLE 13865			INDEX 5895 SAMPLE 14403		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	MOKANE-LAVERNE GAS AREA		MOKANE-LAVERNE GAS AREA			MOKANE-LAVERNE GAS AREA		
WELL NAME.....	LATTA UNIT NO. 1		WHITTENBERG NO. 1			HARDY NO. 1		
LOCATION.....	SEC. 5, T23N, R23W		SEC. 32, T24N, R23W			SEC. 7, T23N, R24W		
OWNER.....	WESSELY ENERGY CORP.		TEXAS OIL & GAS CORP.			ZOLLER & DANNEBERG, INC.		
COMPLETED.....	06/08/72		07/24/73			03/01/75		
SAMPLED.....	09/18/72		01/17/74			06/-/75		
FORMATION.....	MISS-CHESTER		PENN-NORROW			PENN-NORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8038		8034			8292		
WELLHEAD PRESSURE, PSIG.....	2645		2195			2100		
OPEN FLOW, MCFD.....	19239		2480			4100		
COMPONENT, MOLE PCT								
METHANE.....	94.7	-----	94.8	-----		86.0	-----	
ETHANE.....	2.5	-----	2.6	-----		6.5	-----	
PROpane.....	0.6	-----	0.9	-----		3.1	-----	
N-BUTANE.....	0.2	-----	0.2	-----		0.9	-----	
ISOBUTANE.....	0.2	-----	0.2	-----		0.6	-----	
N-PENTANE.....	0.1	-----	TRACE	-----		0.2	-----	
ISOPENTANE.....	0.1	-----	0.1	-----		0.7	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.2	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.4	-----	
NITROGEN.....	0.4	-----	0.4	-----		0.7	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.9	-----	0.8	-----		0.8	-----	
HELIUM.....	0.04	-----	0.01	-----		0.05	-----	
HEATING VALUE.....	1056	-----	1053	-----		1135	-----	
SPECIFIC GRAVITY.....	0.600	-----	0.597	-----		0.682	-----	
INDEX 5896 SAMPLE 16258			INDEX 5897 SAMPLE 10562			INDEX 5898 SAMPLE 10563		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	PEEK NE		PEEK S			PEEK S		
WELL NAME.....	MILLER NO. 1-3		BERRYMAN A NO. 1			J. W. BERRYMAN NO. 1		
LOCATION.....	SEC. 3, T18N, R22W		SEC. 26, T17N, R23W			SEC. 27, T17N, R23W		
OWNER.....	NATOMAS NORTH AMERICA, INC.		SUN OIL CO.			SUN OIL CO.		
COMPLETED.....	02/06/81		02/01/66			11/13/65		
SAMPLED.....	05/08/81		05/12/66			05/12/66		
FORMATION.....	PENN-NORROW		PENN-TONKAWA			PENN-TONKAWA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	11512		8405			8400		
WELLHEAD PRESSURE, PSIG.....	4210		2250			2250		
OPEN FLOW, MCFD.....	5500		42000			3000		
COMPONENT, MOLE PCT								
METHANE.....	91.2	-----	81.5	-----		84.2	-----	
ETHANE.....	4.7	-----	8.4	-----		7.9	-----	
PROpane.....	1.4	-----	4.2	-----		3.3	-----	
N-BUTANE.....	0.3	-----	1.2	-----		1.3	-----	
ISOBUTANE.....	0.2	-----	TRACE	-----		0.2	-----	
N-PENTANE.....	TRACE	-----	0.6	-----		0.6	-----	
ISOPENTANE.....	0.1	-----	0.4	-----		0.1	-----	
CYCLOPENTANE.....	TRACE	-----	0.3	-----		0.3	-----	
HEXANES PLUS.....	0.1	-----	0.7	-----		0.7	-----	
NITROGEN.....	0.6	-----	1.5	-----		1.1	-----	
OXYGEN.....	0.0	-----	0.3	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	1.3	-----	0.4	-----		0.4	-----	
HELIUM.....	0.04	-----	0.11	-----		0.10	-----	
HEATING VALUE.....	1071	-----	1229	-----		1201	-----	
SPECIFIC GRAVITY.....	0.618	-----	0.716	-----		0.690	-----	
INDEX 5899 SAMPLE 14724			INDEX 5900 SAMPLE 15944			INDEX 5901 SAMPLE 6939		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	PEEK S		PEEK S			SHATTUCK		
WELL NAME.....	WAGNON NO. 1-11		D. B. SHREWERD NO. 1			BATT UNIT NO. 1		
LOCATION.....	SEC. 11, T16N, R24W		SEC. 36, T18N, R23W			SEC. 32, T21N, R25W		
OWNER.....	AMOCO OIL CO.		TEXAS PACIFIC OIL CO., INC.			AMOCO PRODUCTION CO.		
COMPLETED.....	04/30/76		12/01/78			12/26/58		
SAMPLED.....	07/-/76		04/24/80			02/13/59		
FORMATION.....	PENN-TONKAWA		PENN-ATOKA			PENN-NORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8107		11070			9722		
WELLHEAD PRESSURE, PSIG.....	2100		5464			2875		
OPEN FLOW, MCFD.....	2600		3409			1817		
COMPONENT, MOLE PCT								
METHANE.....	86.3	-----	82.7	-----		93.6	-----	
ETHANE.....	7.0	-----	4.6	-----		2.9	-----	
PROpane.....	3.0	-----	1.7	-----		1.2	-----	
N-BUTANE.....	0.7	-----	1.3	-----		0.2	-----	
ISOBUTANE.....	0.4	-----	0.9	-----		0.2	-----	
N-PENTANE.....	0.1	-----	2.3	-----		TRACE	-----	
ISOPENTANE.....	0.2	-----	0.0	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.3	-----	
NITROGEN.....	1.2	-----	0.0	-----		TRACE	-----	
OXYGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
ARGON.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.1	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.3	-----	0.4	-----		1.1	-----	
HELIUM.....	0.11	-----	0.03	-----		0.03	-----	
HEATING VALUE.....	1150	-----	1287	-----		1068	-----	
SPECIFIC GRAVITY.....	0.659	-----	0.731	-----		0.607	-----	
INDEX 5902 SAMPLE 7492			INDEX 5903 SAMPLE 14306			INDEX 5904 SAMPLE 6827		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	SHATTUCK E		SHATTUCK N			SHATTUCK W		
WELL NAME.....	SHERILL OPER. UNIT NO. 1		WALTON NO. 1			H. J. SCHDENHALS UNIT NO. 1		
LOCATION.....	SEC. 36, T21N, R25W		SEC. 15, T21N, R25W			SEC. 24, T21N, R26W		
OWNER.....	AMOCO PRODUCTION CO.		ARKLA EXPLORATION CO.			MOBIL OIL CORP.		
COMPLETED.....	12/16/59		12/16/59			06/10/59		
SAMPLED.....	12/21/59		03/21/75			10/14/58		
FORMATION.....	PENN-NORROW		PENN-NORROW			PENN-NORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9742		9430			9243		
WELLHEAD PRESSURE, PSIG.....	2725		3100			2803		
OPEN FLOW, MCFD.....	2000		NOT GIVEN			13500		
COMPONENT, MOLE PCT								
METHANE.....	83.2	-----	91.0	-----		85.0	-----	
ETHANE.....	4.3	-----	4.5	-----		9.2	-----	
PROpane.....	3.6	-----	1.7	-----		3.2	-----	
N-BUTANE.....	1.7	-----	0.5	-----		0.5	-----	
ISOBUTANE.....	1.5	-----	0.3	-----		0.4	-----	
N-PENTANE.....	1.1	-----	0.1	-----		TRACE	-----	
ISOPENTANE.....	0.3	-----	0.2	-----		0.3	-----	
CYCLOPENTANE.....	0.4	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	2.0	-----	0.2	-----		0.1	-----	
NITROGEN.....	0.3	-----	0.5	-----		0.4	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.0	-----	
ARGON.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.2	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.6	-----	1.0	-----		0.8	-----	
HELIUM.....	0.02	-----	0.04	-----		0.04	-----	
HEATING VALUE.....	1333	-----	1300	-----		1157	-----	
SPECIFIC GRAVITY.....	0.765	-----	0.631	-----		0.663	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5905 SAMPLE 10717			INDEX 5906 SAMPLE 10770			INDEX 5907 SAMPLE 8488		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	TANGIER		TANGIER			TOUZALIN		
WELL NAME.....	F. H. MOREHART NO. 1		MOREHART NO. 1			STATE OF OKLAHOMA UNIT Y		
LOCATION.....	SEC. 12, T22N, R23W		SEC. 12, T22N, R23W			SEC. 36, T22N, R26W		
OWNER.....	SUN OIL CO.		SUN OIL CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	07/14/66		06/28/66			02/09/62		
SAMPLED.....	09/14/66		11/07/66			04/02/62		
FORMATION.....	MISS-CHESTER		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8612		8403			9197		
WELLHEAD PRESSURE, PSIG.....	2535		2493			1125		
OPEN FLOW, MCFD.....	3902		2043			650		
COMPONENT, MOLE PCT								
METHANE.....	89.9		80.0			96.4		
ETHANE.....	3.9		8.8			1.3		
PROPANE.....	1.7		4.8			0.3		
N-BUTANE.....	0.5		1.5			0.1		
ISOBUTANE.....	0.3		0.9			TRACE		
N-PENTANE.....	0.1		0.5			TRACE		
ISOPENTANE.....	0.3		0.5			0.1		
CYCLOPENTANE.....	0.1		0.2			TRACE		
HEXANES PLUS.....	0.3		0.0			0.1		
NITROGEN.....	1.7		1.3			0.9		
OXYGEN.....	0.2		0.2			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.0		0.9			0.7		
HELIUM.....	0.06		0.05			0.07		
HEATING VALUE.....	1088		1249			1020		
SPECIFIC GRAVITY.....	0.640		0.734			0.580		
INDEX 5908 SAMPLE 8489			INDEX 5909 SAMPLE 11581			INDEX 5910 SAMPLE 13151		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			ELLIS		
FIELD.....	TOUZALIN		TOUZALIN			VICI W		
WELL NAME.....	STATE OF OKLAHOMA G-U. Y		STATE OF OKLAHOMA Y-T NO. 1			HAMILTON NO. 1		
LOCATION.....	SEC. 36, T22N, R26W		SEC. 36, T22N, R26W			SEC. 5, T19N, R21W		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			NATOL PETROLEUM CORP.		
COMPLETED.....	02/12/62		02/12/62			--/--/00		
SAMPLED.....	04/02/62		07/11/68			02/16/72		
FORMATION.....	MISS-CHESTER		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9684		NOT GIVEN			10402		
WELLHEAD PRESSURE, PSIG.....	3075		2586			3363		
OPEN FLOW, MCFD.....	7600		33282			9225		
COMPONENT, MOLE PCT								
METHANE.....	95.2		95.3			85.9		
ETHANE.....	1.6		1.8			7.6		
PROPANE.....	0.3		0.4			0.2		
N-BUTANE.....	0.1		0.2			0.7		
ISOBUTANE.....	TRACE		0.0			0.4		
N-PENTANE.....	TRACE		0.1			0.2		
ISOPENTANE.....	0.1		0.0			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	TRACE		0.2			0.1		
NITROGEN.....	1.7		0.8			0.6		
OXYGEN.....	0.2		0.1			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.9			1.1		
HELIUM.....	0.06		1033			0.04		
HEATING VALUE.....	1008		0.591			1148		
SPECIFIC GRAVITY.....	0.580					0.665		
INDEX 5911 SAMPLE 13155			INDEX 5912 SAMPLE 13979			INDEX 5913 SAMPLE 16016		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ELLIS		ELLIS			GARFIELD		
FIELD.....	VICI W		VICI W			BARNES W		
WELL NAME.....	CIF M NO. 1		BARNON MORGAN NO. 1			RANCH NO. 2		
LOCATION.....	SEC. 4, T19N, R21W		SEC. 3, T19N, R21W			SEC. 5, T23N, R3W		
OWNER.....	NATOL PETROLEUM CORP.		NATOL PETROLEUM CORP.			KETAL OIL PRODUCING CO.		
COMPLETED.....	03/21/71		12/12/73			--/--/00		
SAMPLED.....	02/--/72		04/19/74			07/21/80		
FORMATION.....	PENN-MORROW		PENN-MORROW			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10386		10329			980		
WELLHEAD PRESSURE, PSIG.....	4500		2500			200		
OPEN FLOW, MCFD.....	9169		10000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	97.5		85.1			78.4		
ETHANE.....	0.5		7.3			7.4		
PROPANE.....	0.1		0.5			4.3		
N-BUTANE.....	0.1		0.9			1.0		
ISOBUTANE.....	TRACE		0.6			0.5		
N-PENTANE.....	TRACE		0.3			0.3		
ISOPENTANE.....	0.0		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.4			0.2		
NITROGEN.....	0.7		0.5			8.2		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		1.0			0.2		
HELIUM.....	0.03		0.04			0.18		
HEATING VALUE.....	1008		1183			1103		
SPECIFIC GRAVITY.....	0.573		0.683			0.701		
INDEX 5914 SAMPLE 4946			INDEX 5915 SAMPLE 10054			INDEX 5916 SAMPLE 17736		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	GARFIELD		GARFIELD			GARFIELD		
FIELD.....	BILLINGS NW		BROWN S			DOUGLAS W		
WELL NAME.....	JOHNSON R NO. 1		JOHNSON NO. 1			EAST DOUGLAS NO. 32-1		
LOCATION.....	SEC. 12, T24N, R3W		SEC. 15, T20N, R4W			SEC. 32, T21N, R4W		
OWNER.....	NORTHERN OKLAHOMA GAS CO.		JORDON PETROLEUM CO.			CLARK RESOURCES, INC.		
COMPLETED.....	02/14/64		02/01/64			10/09/84		
SAMPLED.....	08/03/50		08/07/65			06/29/85		
FORMATION.....	MISS-LIME		PENN-RED FORK			MISS-CHESTER - COTTAGE GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4568		5576			6220		
WELLHEAD PRESSURE, PSIG.....	1560		1800			1800		
OPEN FLOW, MCFD.....	1360		1880			960		
COMPONENT, MOLE PCT								
METHANE.....	73.0		86.0			83.4		
ETHANE.....	9.5		6.6			7.0		
PROPANE.....	4.1		2.5			3.6		
N-BUTANE.....	1.2		0.8			1.4		
ISOBUTANE.....	0.3		0.4			0.6		
N-PENTANE.....	0.3		0.1			0.5		
ISOPENTANE.....	TRACE		0.1			0.5		
CYCLOPENTANE.....	0.1		0.1			0.2		
HEXANES PLUS.....	0.3		0.2			0.6		
NITROGEN.....	10.4		2.6			1.7		
OXYGEN.....	0.2		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	---		0.0			TRACE		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.4		
HELIUM.....	0.17		0.10			0.06		
HEATING VALUE.....	1101		1249			1212		
SPECIFIC GRAVITY.....	0.726		0.658			0.704		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5917 5860	INDEX SAMPLE	5918 9644	INDEX SAMPLE	5919 9902
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GARFIELD			GARFIELD		GARFIELD	
FIELD.....	ELK HORN NW			ENID NE		ENID NE	
WELL NAME.....	BENNETT NO. 1			BRAXHAGE NO. 1		LEMKE NO. 1	
LOCATION.....	SEC. 38, T20N, R3W			SEC. 19, T23N, R7W		SEC. 23, T23N, R5W	
OWNER.....	M & M DRILLING CORP., ET AL.			SUN OIL CO.		LIVINGSTON OIL CO.	
COMPLETED.....	10/24/54			11/22/62		03/26/65	
SAMPLED.....	06/11/55			11/23/64		04/21/65	
FORMATION.....	PENN-PERRY			PENN-SKINNER		MISS-	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4054			5966		5947	
WELLHEAD PRESSURE, PSIG.....	1625			1425		1040	
OPEN FLOW, MCFD.....	4100			1420		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	87.2			84.8		72.1	
ETHANE.....	5.9			5.9		9.6	
PROPANE.....	2.6			3.1		6.6	
N-BUTANE.....	0.9			1.0		3.4	
ISOBUTANE.....	0.3			0.6		1.8	
N-PENTANE.....	0.2			0.2		0.7	
ISOPENTANE.....	0.1			0.3		1.3	
CYCLOPENTANE.....	0.1			TRACE		0.3	
HEXANES PLUS.....	0.3			0.2		0.9	
NITROGEN.....	2.1			3.3		2.8	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.4		0.4	
HELIUM.....	0.09			0.10		0.05	
HEATING VALUE.....	1129			1131		1392	
SPECIFIC GRAVITY.....	0.653			0.670		0.828	
		INDEX SAMPLE	5920 12310	INDEX SAMPLE	5921 12316	INDEX SAMPLE	5922 12890
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GARFIELD			GARFIELD		GARFIELD	
FIELD.....	ENID NE			ENID NE		ENID NE	
WELL NAME.....	ZALOUDEK NO. 3-1			ZALOUDEK NO. 3-1		HOMER P. KING NO. 1	
LOCATION.....	SEC. 3, T23N, R6W			SEC. 3, T23N, R6W		SEC. 29, T23N, R5W	
OWNER.....	EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		CHAMPLIN PETROLEUM CO.	
COMPLETED.....	05/27/70			04/09/70		03/26/70	
SAMPLED.....	07/01/70			07/08/70		06/29/71	
FORMATION.....	PENN-SKINNER			MISS-		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5658			6062		5937	
WELLHEAD PRESSURE, PSIG.....	1697			2510		763	
OPEN FLOW, MCFD.....	1650					4249	
COMPONENT, MOLE PCT							
METHANE.....	83.4			82.1		87.7	
ETHANE.....	7.3			6.1		5.6	
PROPANE.....	3.4			3.7		2.1	
N-BUTANE.....	0.8			1.0		0.4	
ISOBUTANE.....	0.5			0.7		0.2	
N-PENTANE.....	0.4			0.4		0.1	
ISOPENTANE.....	TRACE			0.1		TRACE	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.3		0.1	
NITROGEN.....	3.9			5.0		3.4	
OXYGEN.....	TRACE			0.2		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.09			0.12		0.10	
HEATING VALUE.....	1122			1075		1073	
SPECIFIC GRAVITY.....	0.668			0.690		0.632	
		INDEX SAMPLE	5923 2361	INDEX SAMPLE	5924 2362	INDEX SAMPLE	5925 2363
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GARFIELD			GARFIELD		GARFIELD	
FIELD.....	GARBER			GARBER		GARBER	
WELL NAME.....	KENDT NO. 1-A			WILCOX NO. 1		HAYES NO. 1	
LOCATION.....	SEC. 35, T23N, R4W			SEC. 19, T23N, R3W		SEC. 30, T23N, R3W	
OWNER.....	CHAMPLIN REFINING CO.			CHAMPLIN REFINING CO.		CHAMPLIN REFINING CO.	
COMPLETED.....	03/01/31			11/01/27		02/01/31	
SAMPLED.....	07/17/31			07/17/31		07/17/31	
FORMATION.....	MISS-			ORDO-WILCOX		MISS-	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5095			5250		5080	
WELLHEAD PRESSURE, PSIG.....	1700			1750		1700	
OPEN FLOW, MCFD.....	6000			8000		12000	
COMPONENT, MOLE PCT							
METHANE.....	69.7			69.7		74.4	
ETHANE.....	24.8			27.5		23.4	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	2.7			1.6		1.1	
OXYGEN.....	2.1			0.3		0.1	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.7			0.9		1.0	
HELIUM.....	0.04			0.06		0.06	
HEATING VALUE.....	1150			1199		1173	
SPECIFIC GRAVITY.....	0.707			0.708		0.685	
		INDEX SAMPLE	5926 4483	INDEX SAMPLE	5927 5376	INDEX SAMPLE	5928 9200
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GARFIELD			GARFIELD		GARFIELD	
FIELD.....	GARBER			GARBER E		GREEN VALLEY	
WELL NAME.....	MARINER NO. 2			CASSADY NO. 2		BAMBERG NO. 1	
LOCATION.....	SEC. 6, T22N, R3W			SEC. 23, T22N, R3W		SEC. 2, T21N, R3W	
OWNER.....	CITIES SERVICE OIL CO.			PANDA DRILLING CO.		ROYCE S. HERNDON, ET AL.	
COMPLETED.....	--/--/00			10/02/52		11/13/63	
SAMPLED.....	03/17/48			01/02/53		12/13/63	
FORMATION.....	PENN-OSWEGO			NOT GIVEN		PENN-CREWS	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4620			1421		2122	
WELLHEAD PRESSURE, PSIG.....	1520			675		500	
OPEN FLOW, MCFD.....	NOT GIVEN			1000		3000	
COMPONENT, MOLE PCT							
METHANE.....	50.7			61.8		44.2	
ETHANE.....	47.3			3.7		2.4	
PROPANE.....	---			3.0		1.6	
N-BUTANE.....	---			0.7		0.7	
ISOBUTANE.....	---			0.3		0.1	
N-PENTANE.....	---			0.3		0.1	
ISOPENTANE.....	---			0.0		0.3	
CYCLOPENTANE.....	---			0.1		TRACE	
HEXANES PLUS.....	---			0.1		0.1	
NITROGEN.....	0.8			27.3		49.9	
OXYGEN.....	0.5			TRACE		0.0	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.6			0.1		0.1	
HELIUM.....	0.06			0.31		0.45	
HEATING VALUE.....	1361			873		581	
SPECIFIC GRAVITY.....	0.800			0.756		0.809	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5929 9948	INDEX SAMPLE	5930 13713	INDEX SAMPLE	5931 12190
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GARFIELD			GARFIELD		GARFIELD	
FIELD.....	HUNTER S			HUNTER S		KREMLIN E	
WELL NAME.....	ATHEY NO. 1			FISCHAGER NO. 2		IRENE GAU NO. 1	
LOCATION.....	SEC. 20, T23N, R4W			SEC. 17, T23N, R4W		SEC. 35, T24N, R6W	
OWNER.....	LIVINGSTON OIL CO.			MASSEY & MOORE CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	03/28/64			02/-/73		12/16/69	
SAMPLED.....	07/01/65			09/10/73		02/12/70	
FORMATION.....	MISS-OSAGE			MISS-		PENN-SKINNER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5590			5500		5608	
WELLHEAD PRESSURE, PSIG.....	2072			1120		1815	
OPEN FLOW, MCFD.....	9368			1200		13000	
COMPONENT, MOLE PCT							
METHANE.....	84.0			83.5		82.4	
ETHANE.....	7.3			7.9		5.8	
PROPANE.....	3.1			3.7		3.3	
N-BUTANE.....	0.9			1.1		0.8	
ISOBUTANE.....	0.4			0.6		0.6	
N-PENTANE.....	0.2			0.3		0.5	
ISOPENTANE.....	0.3			0.3		0.2	
CYCLOPENTANE.....	TRACE			0.1		0.2	
HEXANES PLUS.....	0.2			0.2		0.5	
NITROGEN.....	2.9			2.2		4.8	
OXYGEN.....	0.3			0.0		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.2		0.6	
HELIUM.....	0.09			0.08		0.13	
HEATING VALUE.....	1138			1180		1135	
SPECIFIC GRAVITY.....	0.672			0.686		0.691	
		INDEX SAMPLE	5932 15083	INDEX SAMPLE	5933 10095	INDEX SAMPLE	5934 9016
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GARFIELD			GARFIELD		GARFIELD	
FIELD.....	KREMLIN E			MITCHELL		SOONER TREND	
WELL NAME.....	THOMPSON NO. 1			FORSHEE NO. 1		M. C. LIEBHART NO. 1	
LOCATION.....	SEC. 1, T24N, R6W			SEC. 11, T20N, R3W		SEC. 35, T22N, R8W	
OWNER.....	R. S. LAMBERTS OIL CO.			LIVINGSTON OIL CO.		HARPER OIL CO., ET AL.	
COMPLETED.....	12/27/76			04/17/65		02/23/62	
SAMPLED.....	08/26/77			09/26/65		06/17/63	
FORMATION.....	PENN-SKINNER			PENN-SKINNER		MISS-MERAMEC	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5326			5378		6746	
WELLHEAD PRESSURE, PSIG.....	875			875		175	
OPEN FLOW, MCFD.....	1250			1350		750	
COMPONENT, MOLE PCT							
METHANE.....	77.0			76.5		84.6	
ETHANE.....	1.2			1.0		8.1	
PROPANE.....	4.6			4.5		3.0	
N-BUTANE.....	1.5			1.1		1.3	
ISOBUTANE.....	0.3			0.7		0.3	
N-PENTANE.....	0.4			0.3		0.3	
ISOPENTANE.....	0.3			0.2		0.4	
CYCLOPENTANE.....	0.0			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.4	
NITROGEN.....	7.8			7.3		1.1	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.3	
CARBON DIOXIDE.....	0.3			0.0		0.3	
HELIUM.....	0.12			0.12		0.10	
HEATING VALUE.....	1143			1140		1188	
SPECIFIC GRAVITY.....	0.724			0.719		0.681	
		INDEX SAMPLE	5935 9356	INDEX SAMPLE	5936 9558	INDEX SAMPLE	5937 10291
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GARFIELD			GARFIELD		GARFIELD	
FIELD.....	SOONER TREND			SOONER TREND		SOONER TREND	
WELL NAME.....	LESTER DIERKSON NO. 1			J. LEE CROMWELL		HODGGEN NO. 1	
LOCATION.....	SEC. 23, T22N, R8W			SEC. 10, T21N, R8W		SEC. 33, T22N, R8W	
OWNER.....	ATLANTIC RICHFIELD CO.			HARPER OIL CO.		SUN OIL CO.	
COMPLETED.....	03/27/64			05/23/64		08/01/65	
SAMPLED.....	05/19/64			09/15/64		11/16/65	
FORMATION.....	MISS-LIME			MISS-		MISS-MERAMEC	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6961			7254		6840	
WELLHEAD PRESSURE, PSIG.....	2094			1485		1958	
OPEN FLOW, MCFD.....	345000			1950		4126	
COMPONENT, MOLE PCT							
METHANE.....	82.1			86.4		80.2	
ETHANE.....	3.3			7.5		8.2	
PROPANE.....	3.7			3.6		3.2	
N-BUTANE.....	1.7			0.8		1.2	
ISOBUTANE.....	TRACE			0.3		0.6	
N-PENTANE.....	0.5			0.3		0.6	
ISOPENTANE.....	0.5			0.2		0.1	
CYCLOPENTANE.....	0.2			0.1		0.3	
HEXANES PLUS.....	0.5			0.1		0.9	
NITROGEN.....	2.1			1.4		4.0	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.4		0.6	
HELIUM.....	0.07			0.06		0.04	
HEATING VALUE.....	1213			1136		1193	
SPECIFIC GRAVITY.....	0.702			0.654		0.719	
		INDEX SAMPLE	5938 10433	INDEX SAMPLE	5939 10549	INDEX SAMPLE	5940 10725
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GARFIELD			GARFIELD		GARFIELD	
FIELD.....	SOONER TREND			SOONER TREND		SOONER TREND	
WELL NAME.....	SAWYER NO. 1			MUNKRESS NO. 1		HENRY MOEHLE UNIT NO. 1	
LOCATION.....	SEC. 1, T21N, R7W			SEC. 6, T21N, R8W		SEC. 3, T22N, R8W	
OWNER.....	SKELLY OIL CO.			HARPER OIL CO.		CHAMPLIN PETROLEUM CO.	
COMPLETED.....	04/7/65			12/01/65		05/15/66	
SAMPLED.....	03/07/66			05/03/66		09/09/66	
FORMATION.....	MISS-MERAMEC			PENN-RED FORK		MISS-	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6770			6550		6546	
WELLHEAD PRESSURE, PSIG.....	1200			1600		1943	
OPEN FLOW, MCFD.....	850			1285		17420	
COMPONENT, MOLE PCT							
METHANE.....	84.5			92.9		89.0	
ETHANE.....	7.7			3.7		5.7	
PROPANE.....	3.2			1.0		2.2	
N-BUTANE.....	1.1			0.2		0.7	
ISOBUTANE.....	0.5			0.1		0.3	
N-PENTANE.....	0.2			0.1		0.1	
ISOPENTANE.....	0.3			0.1		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	1.4			1.4		1.3	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.3		0.2	
HELIUM.....	0.10			0.1		0.05	
HEATING VALUE.....	1165			1057		1117	
SPECIFIC GRAVITY.....	0.677			0.602		0.640	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 5941 SAMPLE 10741		INDEX 5942 SAMPLE 10749		INDEX 5943 SAMPLE 10772	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	GARFIELD	GARFIELD	GARFIELD	GARFIELD	
FIELD.....	SOONER TREND	SOONER TREND	SOONER TREND	SOONER TREND	
WELL NAME.....	ROBERTA BASS NO. 1	ANDERSON-BEARD NO. 1	ANDERSON-BEARD NO. 1	NEWTON MCGILL UNIT NO. 1	
LOCATION.....	SEC. 15, T22N, R7W	SEC. 19, T21N, R6W	SEC. 19, T21N, R6W	SEC. 24, T22N, R7W	
OWNER.....	TENNECO OIL CO.	GUNGOLL & GUNGOLL	GUNGOLL & GUNGOLL	ATLANTIC RICHFIELD CO.	
COMPLETED.....	07/23/66	07/01/66	07/01/66	05/23/66	
SAMPLED.....	07/23/66	10/15/66	10/15/66	11/09/66	
FORMATION.....	PERM-WICHITA-ALBANY	MISS-	MISS-	MISS-	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	6520	6830	6830	6573	
WELLHEAD PRESSURE, PSIG.....	1649	2200	2200	2022	
OPEN FLOW, MCFD.....	3040	18000	18000	13763	
COMPONENT, MOLE PCT					
METHANE.....	84.3	86.5	86.5	84.3	
ETHANE.....	7.5	7.4	7.4	8.4	
PROPANE.....	3.3	3.0	3.0	3.4	
N-BUTANE.....	1.1	0.9	0.9	1.0	
ISOBUTANE.....	0.3	0.2	0.2	0.3	
N-PENTANE.....	0.4	0.1	0.1	0.2	
ISOPENTANE.....	0.3	0.3	0.3	0.2	
CYCLOPENTANE.....	0.1	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.3	0.1	0.1	0.1	
NITROGEN.....	2.0	1.1	1.1	1.5	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.4	0.4	0.4	
HELIUM.....	0.07	0.05	0.05	0.06	
HEATING VALUE.....	1172	1139	1139	1159	
SPECIFIC GRAVITY.....	0.679	0.654	0.654	0.669	

INDEX 5944 SAMPLE 11651		INDEX 5945 SAMPLE 11759		INDEX 5946 SAMPLE 16345	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	GARFIELD	GARFIELD	GARFIELD	GARFIELD	
FIELD.....	SOONER TREND	SOONER TREND	SOONER TREND	SOONER TREND	
WELL NAME.....	BAKER NO. 26-1	EGGERS-BARBEE NO. 1	EGGERS-BARBEE NO. 1	CLARENCE GIGOUX NO. 1	
LOCATION.....	SEC. 26, T20N, R8W	SEC. 4, T21N, R5W	SEC. 4, T21N, R5W	SEC. 26, T23N, R8W	
OWNER.....	RODMAN CORP.	VIERSEN & COCHRAN	VIERSEN & COCHRAN	TEXAS AMERICAN OIL CORP.	
COMPLETED.....	07/18/67	07/00	07/00	07/05/81	
SAMPLED.....	09/20/68	02/07/69	02/07/69	10/01/81	
FORMATION.....	DEVO-HUNTON	MISS-	MISS-	ORDO-WILCOX 2ND	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	7995	6150	6150	7361	
WELLHEAD PRESSURE, PSIG.....	2000	2200	2200	2400	
OPEN FLOW, MCFD.....	2000	NOT GIVEN	NOT GIVEN	1550	
COMPONENT, MOLE PCT					
METHANE.....	70.3	55.5	55.5	76.1	
ETHANE.....	14.5	18.3	18.3	6.2	
PROPANE.....	2.0	1.4	1.4	3.5	
N-BUTANE.....	2.0	5.0	5.0	1.1	
ISOBUTANE.....	0.9	2.8	2.8	0.6	
N-PENTANE.....	1.5	0.4	0.4	0.4	
ISOPENTANE.....	0.1	0.6	0.6	0.2	
CYCLOPENTANE.....	0.1	0.3	0.3	0.1	
HEXANES PLUS.....	0.2	0.7	0.7	0.4	
NITROGEN.....	5.1	0.3	0.3	10.3	
OXYGEN.....	0.0	0.0	0.0	0.1	
ARGON.....	0.0	0.0	0.0	TRACE	
HYDROGEN.....	0.0	TRACE	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.6	0.6	0.8	
HELIUM.....	0.07	TRACE	TRACE	0.10	
HEATING VALUE.....	1317	1659	1659	1080	
SPECIFIC GRAVITY.....	0.783	0.976	0.976	0.719	

INDEX 5947 SAMPLE 14930		INDEX 5948 SAMPLE 15103		INDEX 5949 SAMPLE 974	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	GARVIN	GARVIN	GARVIN	GARVIN	
FIELD.....	BUTTERFLY N	CIVIT SW	CIVIT SW	EOLA-ROBBERTSON	
WELL NAME.....	MCKINLEY NO. 1	MOODY NO. 1	MOODY NO. 1	F. J. PEARCE NO. 3	
LOCATION.....	SEC. 13, T1N, R1E	SEC. 6, T3N, R2E	SEC. 6, T3N, R2E	SEC. 13, T1N, R3W	
OWNER.....	WESTHEIMER-NEUSTADT CORP.	SHEBESTER, INC.	SHEBESTER, INC.	TEXAS PACIFIC COAL & OIL CO.	
COMPLETED.....	08/12/76	09/22/77	09/22/77	08/1/74	
SAMPLED.....	02/24/77	11/11/77	11/11/77	01/15/75	
FORMATION.....	PENN-HOXBAR	PERM-ADA	PERM-ADA	PERM-ROBBERTSON	
GEOLOGIC PROVINCE CODE.....	350	350	350	350	
DEPTH, FEET.....	3061	2628	2628	1580	
WELLHEAD PRESSURE, PSIG.....	340	1055	1055	7	
OPEN FLOW, MCFD.....	1200	3500	3500	200	
COMPONENT, MOLE PCT					
METHANE.....	78.2	80.7	80.7	65.0	
ETHANE.....	10.2	2.0	2.0	27.0	
PROPANE.....	4.8	TRACE	TRACE	---	
N-BUTANE.....	1.2	---	---	---	
ISOBUTANE.....	0.4	0.0	0.0	---	
N-PENTANE.....	0.3	0.2	0.2	---	
ISOPENTANE.....	0.2	TRACE	TRACE	---	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	---	
HEXANES PLUS.....	0.1	0.1	0.1	---	
NITROGEN.....	4.6	16.6	16.6	7.4	
OXYGEN.....	0.0	0.0	0.0	0.3	
ARGON.....	TRACE	TRACE	TRACE	---	
HYDROGEN.....	0.0	0.0	0.0	---	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	---	
CARBON DIOXIDE.....	TRACE	0.1	0.1	0.2	
HELIUM.....	0.05	0.15	0.15	0.10	
HEATING VALUE.....	1180	870	870	1142	
SPECIFIC GRAVITY.....	0.708	0.641	0.641	0.722	

INDEX 5950 SAMPLE 1089		INDEX 5951 SAMPLE 6442		INDEX 5952 SAMPLE 15299	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	GARVIN	GARVIN	GARVIN	GARVIN	
FIELD.....	EOLA-ROBBERTSON	EOLA-ROBBERTSON	EOLA-ROBBERTSON	EOLA-ROBBERTSON	
WELL NAME.....	F. H. HARRIS NO. 6	MAYS-RINGER NO. 1	MAYS-RINGER NO. 1	ELLA COOK NO. B-4	
LOCATION.....	SEC. 16, T1N, R3W	SEC. 8, T1N, R3W	SEC. 8, T1N, R3W	SEC. 12, T1N, R3W	
OWNER.....	MOBIL OIL CORP.	JOHN F. RINGER, ET AL.	JOHN F. RINGER, ET AL.	TEXAS PACIFIC OIL CO., INC.	
COMPLETED.....	04/--/25	11/07/55	11/07/55	03/--/75	
SAMPLED.....	07/07/25	11/11/57	11/11/57	06/--/78	
FORMATION.....	PERM-ROBBERTSON	PERM-PONTOTOC	PERM-PONTOTOC	MISS-STAMORE	
GEOLOGIC PROVINCE CODE.....	350	350	350	350	
DEPTH, FEET.....	1546	2690	2690	5700	
WELLHEAD PRESSURE, PSIG.....	750	750	750	1800	
OPEN FLOW, MCFD.....	10000	8868	8868	2000	
COMPONENT, MOLE PCT					
METHANE.....	75.0	78.0	78.0	83.2	
ETHANE.....	14.2	1.1	1.1	8.8	
PROPANE.....	---	1.9	1.9	4.0	
N-BUTANE.....	---	0.6	0.6	1.2	
ISOBUTANE.....	---	0.4	0.4	0.4	
N-PENTANE.....	---	0.0	0.0	0.4	
ISOPENTANE.....	---	0.1	0.1	0.2	
CYCLOPENTANE.....	---	TRACE	TRACE	0.1	
HEXANES PLUS.....	---	---	---	0.2	
NITROGEN.....	5.3	14.6	14.6	1.3	
OXYGEN.....	0.2	0.0	0.0	TRACE	
ARGON.....	---	0.0	0.0	0.0	
HYDROGEN.....	---	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.02	TRACE	TRACE	0.2	
HELIUM.....	0.08	0.10	0.10	0.05	
HEATING VALUE.....	1104	956	956	1198	
SPECIFIC GRAVITY.....	0.674	0.673	0.673	0.688	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5953 4614	INDEX SAMPLE	5954 4704	INDEX SAMPLE	5955 4705
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	GARVIN			GARVIN		GARVIN	
FIELD	GOLDEN TREND			GOLDEN TREND		GOLDEN TREND	
WELL NAME	BRADSHAW-WATKINS NO. 1			G. O. CHRISTIAN NO. 1		ROSE-VOSE NO. 1	
LOCATION	SEC. 4, T4N, R3W			SEC. 5, T1N, R1W		SEC. 3, T2N, R3W	
OWNER	CARTER OIL CO.			CARTER OIL CO.		CONTINENTAL OIL CO.	
COMPLETED	07/27/48			05/19/48		08/15/48	
SAMPLED	11/03/48			09/22/48		09/22/48	
FORMATION	PERM-DEESE			PERM-DEESE		PERM-DEESE	
GEOLOGIC PROVINCE CODE	350			350		350	
DEPTH, FEET	7110			6090		8050	
WELLHEAD PRESSURE, PSIG	508			2800		NOT GIVEN	
OPEN FLOW, MCFD	197			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	35.4			75.5		62.6	
ETHANE	21.2			9.9		15.1	
PROPANE	---			5.9		12.3	
N-BUTANE	---			1.6		4.5	
ISOBUTANE	---			5.6		1.3	
N-PENTANE	---			0.7		1.0	
ISOPENTANE	---			0.0		0.5	
CYCLOPENTANE	---			0.1		0.1	
HEXANES PLUS	---			0.7		0.5	
NITROGEN	2.9			4.7		1.6	
OXYGEN	0.2			TRACE		0.1	
ARGON	---			0.1		0.1	
HYDROGEN	---			0.1		---	
HYDROGEN SULFIDE	---			---		---	
CARBON DIOXIDE	0.3			0.3		0.3	
HELIUM	0.03			0.07		0.02	
HEATING VALUE	1455			1234		1512	
SPECIFIC GRAVITY	0.873			0.752		0.893	
		INDEX SAMPLE	5956 6802	INDEX SAMPLE	5957 9815	INDEX SAMPLE	5958 9816
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	GARVIN			GARVIN		GARVIN	
FIELD	GOLDEN TREND			GOLDEN TREND		GOLDEN TREND	
WELL NAME	W. K. DONNEL NO. 9			WOODRUFF F NO. 1		WOODRUFF F NO. 1	
LOCATION	SEC. 11, T4N, R3W			SEC. 14, T4N, R3W		SEC. 14, T4N, R3W	
OWNER	ATLANTIC RICHFIELD CO.			SKELLY OIL CO.		SKELLY OIL CO.	
COMPLETED	07/7-758			01/02/65		01/02/65	
SAMPLED	09/10/58			03/12/65		03/12/65	
FORMATION	ORDO-BROMIDE			ORDO-OIL CREEK		CARD-ARBUCKLE	
GEOLOGIC PROVINCE CODE	350			350		350	
DEPTH, FEET	9260			8571		8733	
WELLHEAD PRESSURE, PSIG	1500			2775		2550	
OPEN FLOW, MCFD	NOT GIVEN			4388		1532	
COMPONENT, MOLE PCT							
METHANE	77.0			77.5		87.5	
ETHANE	10.5			10.5		14.6	
PROPANE	5.9			3.2		1.8	
N-BUTANE	2.5			2.5		0.8	
ISOBUTANE	0.9			0.9		0.4	
N-PENTANE	0.7			0.6		0.3	
ISOPENTANE	0.7			1.7		0.3	
CYCLOPENTANE	0.2			0.3		TRACE	
HEXANES PLUS	0.5			0.9		0.2	
NITROGEN	0.5			6.4		3.7	
OXYGEN	TRACE			0.0		TRACE	
ARGON	0.0			0.0		TRACE	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.2			0.0		0.3	
HELIUM	0.03			0.10		0.07	
HEATING VALUE	1338			1233		1092	
SPECIFIC GRAVITY	0.767			0.768		0.648	
		INDEX SAMPLE	5959 9885	INDEX SAMPLE	5960 12802	INDEX SAMPLE	5961 12803
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	GARVIN			GARVIN		GARVIN	
FIELD	GOLDEN TREND			GOLDEN TREND		GOLDEN TREND	
WELL NAME	BOST-HAYS NO. 2			BROWN NO. 1		BROWN K NO. 1	
LOCATION	SEC. 27, T4N, R3W			SEC. 16, T4N, R3W		SEC. 16, T4N, R3W	
OWNER	TEACOC INC.			CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED	02/22/65			03/08/71		03/08/71	
SAMPLED	05/05/65			04/29/71		04/29/71	
FORMATION	ORDO-OIL CREEK			ORDO-OIL CREEK		ORDO-OIL CREEK	
GEOLOGIC PROVINCE CODE	350			350		350	
DEPTH, FEET	10502			9104		9187	
WELLHEAD PRESSURE, PSIG	2384			2277		2130	
OPEN FLOW, MCFD	6325			4532		1455	
COMPONENT, MOLE PCT							
METHANE	89.3			47.7		52.8	
ETHANE	5.1			19.5		14.4	
PROPANE	1.9			1.9		15.0	
N-BUTANE	0.7			6.6		7.4	
ISOBUTANE	0.3			3.1		3.6	
N-PENTANE	0.1			0.7		2.5	
ISOPENTANE	0.3			1.4		1.3	
CYCLOPENTANE	TRACE			0.3		0.3	
HEXANES PLUS	0.2			1.1		1.3	
NITROGEN	1.5			0.7		0.9	
OXYGEN	0.0			0.0		0.0	
ARGON	TRACE			0.0		0.0	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.2			0.1		TRACE	
HELIUM	0.05			TRACE		0.02	
HEATING VALUE	1106			1827		1804	
SPECIFIC GRAVITY	0.636			1.076		1.061	
		INDEX SAMPLE	5962 14789	INDEX SAMPLE	5963 14790	INDEX SAMPLE	5964 17482
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	GARVIN			GARVIN		GARVIN	
FIELD	GOLDEN TREND			GOLDEN TREND		GOLDEN TREND	
WELL NAME	ELLI THORPE "A" NO. 1			ELLI THORPE "A" NO. 1		GAUGHN RANCHES A NO. 1	
LOCATION	SEC. 12, T3N, R3W			SEC. 12, T3N, R3W		SEC. 10, T3N, R3W	
OWNER	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS OIL CO.	
COMPLETED	11/07/76			12/20/74		04/26/84	
SAMPLED	10/01/76			10/01/76		10/09/84	
FORMATION	ORDO-BROMIDE			ORDO-BROMIDE		DEVON-HUNTON	
GEOLOGIC PROVINCE CODE	350			350		350	
DEPTH, FEET	8496			8232		8378	
WELLHEAD PRESSURE, PSIG	2500			2200		2350	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		750	
COMPONENT, MOLE PCT							
METHANE	77.8			39.7		75.8	
ETHANE	9.3			15.5		13.8	
PROPANE	2.1			2.0		2.0	
N-BUTANE	0.8			6.2		TRACE	
ISOBUTANE	0.5			1.8		0.1	
N-PENTANE	0.1			0.2		0.5	
ISOPENTANE	0.1			0.2		TRACE	
CYCLOPENTANE	0.2			0.8		0.1	
HEXANES PLUS	0.5			1.3		1.6	
NITROGEN	0.0			TRACE		TRACE	
OXYGEN	TRACE			0.0		TRACE	
ARGON	0.0			0.0		0.0	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.1		0.5	
HELIUM	0.0			TRACE		0.05	
HEATING VALUE	1265			1266		1259	
SPECIFIC GRAVITY	0.741			1.211		0.735	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	5965 17546	INDEX SAMPLE	5966 17788	INDEX SAMPLE	5967 4657
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	GARVIN		GARVIN		GARVIN	
FIELD.....	GOLDEN TREND		GOLDEN TREND		KATIE SE	
WELL NAME.....	VAUGHN RANCHES A NO. 1		COREY NO. 1		YEARY-VAUGHN NO. 1	
LOCATION.....	SEC. 10, T3N, R3W		SEC. 15, T4N, R4W		SEC. 9, T1N, R1W	
OWNER.....	PHILLIPS OIL CO.		RACHALK PRODUCTION, INC.		CARTER OIL CO.	
COMPLETED.....	04/26/84		04/25/85		11/05/48	
SAMPLED.....	12/17/84		07/26/85		02/25/49	
FORMATION.....	MISS-SYCAMORE		PENN-OSBORNE		PENN-HOXBAR	
GEOLOGIC PROVINCE CODE.....	350		350		350	
DEPTH, FEET.....	8092		8060		4730	
WELLHEAD PRESSURE, PSIG.....	2400		1750		1200	
OPEN FLOW, MCFD.....	750		1240		10025	
COMPONENT, MOLE PCT						
METHANE.....	63.5		78.3		82.5	
ETHANE.....	16.6		10.3		8.6	
PROpane.....	9.8		4.8		3.8	
N-BUTANE.....	3.9		1.5		1.0	
ISOBUTANE.....	0.3		0.2		0.7	
N-PENTANE.....	1.4		0.5		0.5	
ISOPENTANE.....	0.9		0.4		0.0	
CYCLOPENTANE.....	0.4		0.1		0.1	
HEXANES PLUS.....	1.3		0.3		0.4	
NITROGEN.....	0.6		3.3		2.0	
OXYGEN.....	0.1		0.0		0.1	
ARGON.....	0.0		0.0		TRACE	
HYDROGEN.....	0.1		TRACE		0.1	
HYDROGEN SULFIDE.....	0.0		0.0		---	
CARBON DIOXIDE.....	0.2		0.0		0.1	
HELIUM.....	TRACE		0.08		0.08	
HEATING VALUE.....	1351		1224		1192	
SPECIFIC GRAVITY.....	0.902		0.722		0.691	

	INDEX SAMPLE	5968 17854	INDEX SAMPLE	5969 3546	INDEX SAMPLE	5970 3642
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	GARVIN		GARVIN		GARVIN	
FIELD.....	PANTHER CREEK		PAULS VALLEY		PAULS VALLEY E	
WELL NAME.....	MAYES HEIRS NO. 1-34		TETER NO. 1		A. P. BURNS NO. 1	
LOCATION.....	SEC. 34, T3N, R3W		SEC. 31, T4N, R1E		SEC. 17, T3N, R2E	
OWNER.....	SOMTEX EXPLORATION CO.		UNION OIL CO. OF CALIF.		OHIO OIL CO.	
COMPLETED.....	01/20/85		04/08/42		---/---/00	
SAMPLED.....	10/04/85		05/19/42		05/08/43	
FORMATION.....	DEVO-HUNTON		ORDO-SIMPSON		PENN-	
GEOLOGIC PROVINCE CODE.....	350		350		350	
DEPTH, FEET.....	9300		3898		2880	
WELLHEAD PRESSURE, PSIG.....	1100		800		175	
OPEN FLOW, MCFD.....	500		3500		30000	
COMPONENT, MOLE PCT						
METHANE.....	77.7		31.0		85.5	
ETHANE.....	11.7		68.0		10.1	
PROpane.....	5.2		---		---	
N-BUTANE.....	1.6		---		---	
ISOBUTANE.....	0.5		---		---	
N-PENTANE.....	0.7		---		---	
ISOPENTANE.....	0.3		---		---	
CYCLOPENTANE.....	0.3		---		---	
HEXANES PLUS.....	0.7		---		---	
NITROGEN.....	1.1		0.2		1.7	
OXYGEN.....	0.0		0.5		0.3	
ARGON.....	0.0		---		---	
HYDROGEN.....	TRACE		---		---	
HYDROGEN SULFIDE.....	0.0		---		---	
CARBON DIOXIDE.....	0.3		0.3		2.3	
HELIUM.....	0.03		TRACE		0.06	
HEATING VALUE.....	1292		1513		1047	
SPECIFIC GRAVITY.....	0.746		0.897		0.635	

	INDEX SAMPLE	5971 3852	INDEX SAMPLE	5972 17551	INDEX SAMPLE	5973 12336
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	GARVIN		GARVIN		GARVIN	
FIELD.....	PAULS VALLEY E		PAULS VALLEY N		PAULS VALLEY W	
WELL NAME.....	A. J. BRUNDIGE NO. 1		ALBERT UNIT NO. 1		HATCHER C NO. 4	
LOCATION.....	SEC. 1, T3N, R2E		SEC. 2, T3N, R1W		SEC. 28, T4N, R1W	
OWNER.....	OHIO OIL CO.		PETROLEUM, INC.		CITIES SERVICE OIL CO.	
COMPLETED.....	---/---/00		12/07/83		06/17/70	
SAMPLED.....	---/---/00		---/---/00		07/28/70	
FORMATION.....	PENN-		ORDO-BROMIDE		ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....	350		350		350	
DEPTH, FEET.....	NOT GIVEN		4063		4504	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1000		1250	
OPEN FLOW, MCFD.....	NOT GIVEN		1877		35000	
COMPONENT, MOLE PCT						
METHANE.....	82.4		87.7		78.6	
ETHANE.....	10.8		3.2		9.8	
PROpane.....	---		0.2		4.6	
N-BUTANE.....	---		TRACE		1.1	
ISOBUTANE.....	---		0.2		0.5	
N-PENTANE.....	---		TRACE		0.3	
ISOPENTANE.....	---		0.1		0.1	
CYCLOPENTANE.....	---		0.1		0.1	
HEXANES PLUS.....	---		TRACE		0.2	
NITROGEN.....	5.9		5.8		4.4	
OXYGEN.....	0.4		0.7		0.0	
ARGON.....	---		0.1		0.0	
HYDROGEN.....	---		0.1		TRACE	
HYDROGEN SULFIDE.....	---		0.0		0.0	
CARBON DIOXIDE.....	0.4		1.7		TRACE	
HELIUM.....	0.06		0.03		0.08	
HEATING VALUE.....	1028		966		1176	
SPECIFIC GRAVITY.....	0.638		0.623		0.704	

	INDEX SAMPLE	5974 12517	INDEX SAMPLE	5975 16733	INDEX SAMPLE	5976 11058
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	GARVIN		GARVIN		GARVIN	
FIELD.....	WHITEHEAD		WILLOW-GARVIN		WYNNEWOOD	
WELL NAME.....	FRANKLIN UNIT NO.1		LAUSON NO. 1-2		ANDERSON B NO. 1	
LOCATION.....	SEC. 4, T3N, R1W		SEC. 2, T3N, R2E		SEC. 23, T2N, R1E	
OWNER.....	PETROLEUM, INC.		READING & BATES PETROLEUM CO		SUPERIOR OIL CO.	
COMPLETED.....	03/27/70		10/08/81		03/08/67	
SAMPLED.....	11/09/70		12/11/82		08/11/67	
FORMATION.....	ORDO-BROMIDE		PENN-TORKAWA		ORDO-BROMIDE	
GEOLOGIC PROVINCE CODE.....	350		350		350	
DEPTH, FEET.....	4580		2042		2955	
WELLHEAD PRESSURE, PSIG.....	1450		750		1260	
OPEN FLOW, MCFD.....	3270		2414		12614	
COMPONENT, MOLE PCT						
METHANE.....	81.6		82.9		93.8	
ETHANE.....	7.6		0.2		0.2	
PROpane.....	3.7		TRACE		---	
N-BUTANE.....	0.9		0.1		0.0	
ISOBUTANE.....	0.6		0.0		0.0	
N-PENTANE.....	0.3		TRACE		0.0	
ISOPENTANE.....	0.1		0.1		0.0	
CYCLOPENTANE.....	TRACE		0.1		0.0	
HEXANES PLUS.....	0.2		0.1		0.0	
NITROGEN.....	1.7		15.8		5.3	
OXYGEN.....	0.1		0.1		0.0	
ARGON.....	0.0		TRACE		TRACE	
HYDROGEN.....	0.1		0.2		0.1	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	2.9		0.2		0.4	
HELIUM.....	0.03		0.10		0.15	
HEATING VALUE.....	1137		961		954	
SPECIFIC GRAVITY.....	0.699		0.630		0.580	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5977 14815	INDEX SAMPLE	5978 15869	INDEX SAMPLE	5979 13519
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	ALEX NW			ALEX NW		AMBER NE	
WELL NAME.....	WEAVER NO. 1			SOUTHERLAND "A" NO. 1		MARSHALL NO. 1	
LOCATION.....	SEC. 21, T6N, R6W			SEC. 3, T5N, R6W		SEC. 9, T8N, R6W	
OWNER.....	KERR-MCGEE CORP.			CITIES SERVICE CO		W. C. PAYNE	
COMPLETED.....	04/21/76			--/--/00		12/31/71	
SAMPLED.....	10/15/76			--/--/00		01/30/73	
FORMATION.....	PENN-SPRINGER			PENN-MORROW & SPRINGER		PENN-OSBORNE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	12997			13216		10464	
WELLHEAD PRESSURE, PSIG.....	4150			4394		1600	
OPEN FLOW, MCFD.....	5117			3650		1100	
COMPONENT, MOLE PCT							
METHANE.....	85.7			88.7		86.9	
ETHANE.....	7.8			5.2		7.2	
PROPANE.....	3.7			2.5		2.8	
N-BUTANE.....	0.7			0.5		0.6	
ISOBUTANE.....	0.3			0.3		0.3	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.3			0.1		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	0.8			0.7		1.3	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.4		0.0	
CARBON DIOXIDE.....	0.3			0.6		0.3	
HELIUM.....	0.03			0.03		0.07	
HEATING VALUE.....	1164			1117		1130	
SPECIFIC GRAVITY.....	0.663			0.637		0.647	
		INDEX SAMPLE	5980 16769	INDEX SAMPLE	5981 17308	INDEX SAMPLE	5982 17853
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	AMBER NE			AMBER NE		AMBER NE	
WELL NAME.....	ALL NO. 1			WEAVER NO. 2		ROYAL NO. 1	
LOCATION.....	SEC. 30, T8N, R5W			SEC. 11, T8N, R6W		SEC. 14, T8N, R6W	
OWNER.....	ANDERMAN SMITH OPERATING CO.			SULLIVAN & CO.		SULLIVAN & CO.	
COMPLETED.....	02/14/83			11/02/83		05/07/82	
SAMPLED.....	02/14/83			05/24/84		10/03/85	
FORMATION.....	PENN-OSBORNE			PENN-BOYO		PENN-HOXBAR	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	10474			6949		7000	
WELLHEAD PRESSURE, PSIG.....	1500			2300		2250	
OPEN FLOW, MCFD.....	1750			250		860	
COMPONENT, MOLE PCT							
METHANE.....	87.2			78.3		74.1	
ETHANE.....	6.3			4.4		3.9	
PROPANE.....	2.7			1.5		1.7	
N-BUTANE.....	0.8			0.4		0.5	
ISOBUTANE.....	0.3			0.3		0.8	
N-PENTANE.....	0.2			0.2		0.7	
ISOPENTANE.....	0.4			0.1		0.0	
CYCLOPENTANE.....	0.1			0.1		1.5	
HEXANES PLUS.....	0.2			0.2		3.5	
NITROGEN.....	1.0			13.9		12.2	
OXYGEN.....	TRACE			0.3		1.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.2			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.6			0.1		TRACE	
HELIUM.....	0.05			0.09		0.07	
HEATING VALUE.....	1144			961		1174	
SPECIFIC GRAVITY.....	0.657			0.676		0.792	
		INDEX SAMPLE	5983 8041	INDEX SAMPLE	5984 17863	INDEX SAMPLE	5985 4647
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	BLANCHARD NW			BRADLEY GOLDEN TREND		BRADLEY NE	
WELL NAME.....	HILLTOP NO. 2			RAYBURN NO. A-1		TOM MAINKA NO. 1	
LOCATION.....	SEC. 17, T8N, R5W			SEC. 25, T5N, R5W		SEC. 12, T5N, R5W	
OWNER.....	CLEAR PETROLEUM, INC.			CITIES SERVICE OIL & GAS COR		GULF OIL CORP.	
COMPLETED.....	--/--/00			11/28/82		10/05/48	
SAMPLED.....	06/24/61			10/11/85		12/28/48	
FORMATION.....	SRD0-BROWIDE			PERM-HART		ORDO-TULIP CREEK	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11810			8622		13137	
WELLHEAD PRESSURE, PSIG.....	3560			1277		2560	
OPEN FLOW, MCFD.....	11454			400		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	87.4			75.5		73.3	
ETHANE.....	6.1			5.8		25.6	
PROPANE.....	2.4			5.5		---	
N-BUTANE.....	0.8			2.1		---	
ISOBUTANE.....	0.7			0.7		---	
N-PENTANE.....	0.2			0.9		---	
ISOPENTANE.....	0.2			0.3		---	
CYCLOPENTANE.....	0.1			0.5		---	
HEXANES PLUS.....	0.2			0.0		---	
NITROGEN.....	1.3			3.3		0.4	
OXYGEN.....	TRACE			0.0		0.2	
ARGON.....	0.0			0.0		---	
HYDROGEN.....	TRACE			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.5			0.3		0.5	
HELIUM.....	0.04			0.08		0.03	
HEATING VALUE.....	1139			1299		1201	
SPECIFIC GRAVITY.....	0.656			0.773		0.689	
		INDEX SAMPLE	5986 3643	INDEX SAMPLE	5987 10744	INDEX SAMPLE	5988 1211
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	CEMENT			CEMENT SE		CHICKASHA	
WELL NAME.....	G. C. LAFLIN NO. 1			RUNKLE UNIT NO. 1		IRWIN NO. 1	
LOCATION.....	SEC. 7, T5N, R8W			SEC. 29, T5N, R8W		NOT GIVEN	
OWNER.....	OIL CO.			MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED.....	05/--/43			06/15/66		--/--/00	
SAMPLED.....	05/08/43			09/29/66		--/--/00	
FORMATION.....	PENN-KISTLER			PENN-SPRINGER		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5040			15076		3100	
WELLHEAD PRESSURE, PSIG.....	1735			6800		NOT GIVEN	
OPEN FLOW, MCFD.....	41000			29800		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	85.5			90.0		70.9	
ETHANE.....	7.5			3.5		6.6	
PROPANE.....	---			0.5		---	
N-BUTANE.....	---			0.3		---	
ISOBUTANE.....	---			0.3		---	
N-PENTANE.....	---			0.2		---	
ISOPENTANE.....	---			0.3		---	
CYCLOPENTANE.....	---			0.5		---	
HEXANES PLUS.....	5.1			0.5		21.2	
NITROGEN.....	1.7			0.0		0.7	
OXYGEN.....	---			0.0		---	
ARGON.....	---			TRACE		---	
HYDROGEN.....	---			0.0		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.2			TRACE		0.6	
HELIUM.....	TRACE			11.31		0.17	
HEATING VALUE.....	1001			0.643		836	
SPECIFIC GRAVITY.....	0.624					0.685	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	5989 1320	INDEX SAMPLE	5990 1321	INDEX SAMPLE	5991 1788
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	CHICKASHA			CHICKASHA		CHICKASHA	
WELL NAME.....	EDMONSON			E. C. SMITH		WOODS NO. 4	
LOCATION.....	SEC. 23, T5N, R8W			SEC. 11, T4N, R8W		SEC. 2, T4N, R8W	
OWNER.....	MOBIL OIL CORP.			OKLAHOMA NATURAL GAS CO.		MERIDIAN GAS CO.	
COMPLETED.....	--/--/00			--/--/00		03/14/29	
SAMPLED.....	11/11/26			11/12/26		06/01/29	
FORMATION.....	PERM-RAMSEY			PERM-NICHOLAS		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2000			1215		2107	
WELLHEAD PRESSURE, PSIG.....	600			100		440	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		6415	
COMPONENT, MOLE PCT							
METHANE.....	93.7			79.7		96.1	
ETHANE.....	4.5			5.5		3.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	1.0			18.5		0.6	
OXYGEN.....	0.6			0.2		0.2	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.06			0.19		0.07	
HEATING VALUE.....	1030			906		1027	
SPECIFIC GRAVITY.....	0.586			0.645		0.575	
		INDEX SAMPLE	5992 1847	INDEX SAMPLE	5993 1848	INDEX SAMPLE	5994 3268
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	CHICKASHA			CHICKASHA		CHICKASHA	
WELL NAME.....	DRYDEN NO. 4			GOERTE NO. 2		CHARLSON NO. 7	
LOCATION.....	SEC. 35, T5N, R8W			SEC. 26, T4N, R8W		SEC. 22, T5N, R8W	
OWNER.....	OKLAHOMA GAS UTILITIES CO.			OKLAHOMA GAS UTILITIES CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	--/--/29			01/01/29		12/10/41	
SAMPLED.....	08/30/29			08/30/29		04/16/42	
FORMATION.....	PENN-			PENN-MERIDIAN		PENN-CHARLSON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2200			2083		3860	
WELLHEAD PRESSURE, PSIG.....	510			1805		1805	
OPEN FLOW, MCFD.....	43000			3500		194000	
COMPONENT, MOLE PCT							
METHANE.....	93.6			83.0		95.4	
ETHANE.....	8.6			8.8		5.9	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	1.4			10.9		0.0	
OXYGEN.....	0.0			0.0		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.4			0.1		0.3	
HELIUM.....	TRACE			0.20		0.08	
HEATING VALUE.....	1031			945		1036	
SPECIFIC GRAVITY.....	0.587			0.628		0.578	
		INDEX SAMPLE	5995 3560	INDEX SAMPLE	5996 3864	INDEX SAMPLE	5997 5242
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	CHICKASHA			CHICKASHA		CHICKASHA	
WELL NAME.....	POOLER NO. A5			RIDER NO. 1		GLOVER NO. 4	
LOCATION.....	SEC. 22, T5N, R8W			SEC. 15, T5N, R8W		SEC. 27, T5N, R8W	
OWNER.....	SINCLAIR-PRAIRIE OIL CO.			OKLAHOMA NATURAL GAS CO.		LITTLE NICK OIL CO.	
COMPLETED.....	01/30/42			07/05/44		08/--/51	
SAMPLED.....	05/18/42			08/28/44		05/13/52	
FORMATION.....	PENN-CHARLSON			PERM-BASAL		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4735			3106		8963	
WELLHEAD PRESSURE, PSIG.....	1805			NOT GIVEN		4950	
OPEN FLOW, MCFD.....	157192			6000		25000	
COMPONENT, MOLE PCT							
METHANE.....	93.0			96.2		96.8	
ETHANE.....	6.3			2.8		1.4	
PROPANE.....	---			---		0.2	
N-BUTANE.....	---			---		TRACE	
ISOBUTANE.....	---			---		0.1	
N-PENTANE.....	---			---		0.1	
ISOPENTANE.....	---			---		0.0	
CYCLOPENTANE.....	---			---		TRACE	
HEXANES PLUS.....	---			---		TRACE	
NITROGEN.....	0.1			0.0		1.0	
OXYGEN.....	0.4			0.4		0.1	
ARGON.....	---			---		TRACE	
HYDROGEN.....	---			---		TRACE	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.1			0.6		0.3	
HELIUM.....	0.07			0.02		0.03	
HEATING VALUE.....	1055			1025		1018	
SPECIFIC GRAVITY.....	0.589			0.576		0.574	
		INDEX SAMPLE	5998 15561	INDEX SAMPLE	5999 16762	INDEX SAMPLE	6000 17869
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	CHICKASHA			CHICKASHA		CHICKASHA	
WELL NAME.....	HIGH SPRINGS UNIT NO. 4			ROBERTS A NO. 1		DOVER #4 NO. 2	
LOCATION.....	SEC. 12, T4N, RTW			SEC. 30, T4N, RTW		SEC. 17, T7N, RTW	
OWNER.....	HACK OIL CO.			COTTON PETROLEUM CORP.		COTTON PETROLEUM CORP.	
COMPLETED.....	03/24/76			05/--/82		01/13/85	
SAMPLED.....	02/02/79			07/31/83		10/14/85	
FORMATION.....	PENN-SPRINGER			PENN-BRITT		PENN-MADE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	16970			17742		8408	
WELLHEAD PRESSURE, PSIG.....	3595			9000		2275	
OPEN FLOW, MCFD.....	1389			4250		1075	
COMPONENT, MOLE PCT							
METHANE.....	93.6			94.9		90.7	
ETHANE.....	3.5			2.7		3.1	
PROPANE.....	0.9			0.4		1.4	
N-BUTANE.....	0.1			0.1		0.4	
ISOBUTANE.....	0.1			0.0		0.1	
N-PENTANE.....	0.1			TRACE		0.2	
ISOPENTANE.....	TRACE			TRACE		0.1	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.2			0.1		0.3	
NITROGEN.....	0.5			0.3		3.2	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.2		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.8			1.1		0.3	
HELIUM.....	0.03			0.02		0.09	
HEATING VALUE.....	1053			1059		1059	
SPECIFIC GRAVITY.....	0.600			0.586		0.622	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6001 12176	INDEX SAMPLE	6002 16310	INDEX SAMPLE	6003 16694
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	CHICKASHA NW			CHICKASHA NW		CHICKASHA NW	
WELL NAME.....	DIERICH NO. 1			UNION NO. 1		MC CARTHY NO. 1	
LOCATION.....	SEC. 13, T7N, R8W			SEC. 29, T7N, R8W		SEC. 18, T7N, R8W	
OWNER.....	PHILLIPS PETROLEUM CO.			COTTON PETROLEUM CORP.		COTTON PETROLEUM CORP.	
COMPLETED.....	01/11/70			06/-/80		07/09/82	
SAMPLED.....	01/26/70			08/06/81		10/18/82	
FORMATION.....	PENN-SPRINGER			PENN-SPRINGER		MISS-BOATWRIGHT	
GEOLOGIC PROVINCE CODE.....	360			16333		360	
DEPTH, FEET.....	14393			NOT GIVEN		16079	
WELLHEAD PRESSURE, PSIG.....	8120			2147		10000	
OPEN FLOW, MCFD.....	28000					6000	
COMPONENT, MOLE PCT							
METHANE.....	91.8	-----	95.6	-----	94.2	-----	
ETHANE.....	4.3	-----	2.4	-----	3.4	-----	
PROPANE.....	1.7	-----	0.4	-----	0.6	-----	
N-BUTANE.....	0.3	-----	0.1	-----	0.2	-----	
ISOBUTANE.....	0.1	-----	TRACE	-----	0.1	-----	
N-PENTANE.....	TRACE	-----	TRACE	-----	0.1	-----	
ISOPENTANE.....	0.1	-----	TRACE	-----	0.1	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----	0.1	-----	
NITROGEN.....	0.5	-----	0.4	-----	0.3	-----	
OXYGEN.....	TRACE	-----	0.0	-----	TRACE	-----	
ARGON.....	0.0	-----	TRACE	-----	TRACE	-----	
HYDROGEN.....	0.0	-----	TRACE	-----	0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	
CARBON DIOXIDE.....	0.5	-----	1.0	-----	0.9	-----	
HELIUM.....	0.03	-----	0.02	-----	0.02	-----	
HEATING VALUE.....	1074	-----	1030	-----	1055	-----	
SPECIFIC GRAVITY.....	0.610	-----	0.586	-----	0.598	-----	
		INDEX SAMPLE	6004 16906	INDEX SAMPLE	6005 17357	INDEX SAMPLE	6006 16267
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	CHICKASHA NW			CHICKASHA NW		CHICKASHA SE	
WELL NAME.....	THOMAS NO. 1-7			LILLY B. NO. 1		W. B. SMITH NO. 1	
LOCATION.....	SEC. 7, T6N, R7W			SEC. 2, T6N, R8W		SEC. 14, T6N, R7W	
OWNER.....	DEVON ENERGY CORP.			J. WALTER DUNCAN		WAGNER & BROWN OIL & GAS PRO	
COMPLETED.....	07/20/82			03/21/84		02/07/80	
SAMPLED.....	04/28/83			06/28/84		05/27/81	
FORMATION.....	PENN-WADE			PENN-YULE		PENN-MEDRANO	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8440			8248		9122	
WELLHEAD PRESSURE, PSIG.....	2175			2000		2575	
OPEN FLOW, MCFD.....	6500			1145		6400	
COMPONENT, MOLE PCT							
METHANE.....	91.4	-----	94.6	-----	85.4	-----	
ETHANE.....	2.8	-----	2.7	-----	5.9	-----	
PROPANE.....	1.5	-----	0.6	-----	4.0	-----	
N-BUTANE.....	0.3	-----	0.1	-----	0.1	-----	
ISOBUTANE.....	0.2	-----	0.1	-----	0.5	-----	
N-PENTANE.....	0.1	-----	0.1	-----	0.3	-----	
ISOPENTANE.....	0.3	-----	TRACE	-----	0.3	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----	0.1	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----	0.2	-----	
NITROGEN.....	2.4	-----	1.5	-----	2.1	-----	
OXYGEN.....	0.0	-----	0.0	-----	0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----	0.0	-----	
HYDROGEN.....	0.2	-----	0.0	-----	0.0	-----	
HYDROGEN SULFIDE.....	0.5	-----	0.0	-----	0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----	0.2	-----	
HELIUM.....	0.09	-----	0.09	-----	0.08	-----	
HEATING VALUE.....	1065	-----	1042	-----	1168	-----	
SPECIFIC GRAVITY.....	0.616	-----	0.592	-----	0.678	-----	
		INDEX SAMPLE	6007 8458	INDEX SAMPLE	6008 10984	INDEX SAMPLE	6009 10985
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	CHITWOOD			CHITWOOD		CHITWOOD	
WELL NAME.....	D. CRADDOCK NO. 1			J. D. HOLBROOK NO. 1		J. D. HOLBROOK NO. 1	
LOCATION.....	SEC. 33, T5N, R6W			SEC. 35, T5N, R6W		SEC. 35, T5N, R6W	
OWNER.....	MOBIL OIL CORP.			MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED.....	01/03/62			10/01/66		10/01/66	
SAMPLED.....	03/09/62			06/08/67		06/08/67	
FORMATION.....	ORDO-BROMIDE			PENN-CUNNINGHAM		ORDO-BROMIDE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	16193			11460		15926	
WELLHEAD PRESSURE, PSIG.....	3134			3050		2758	
OPEN FLOW, MCFD.....	45000			22434		5032	
COMPONENT, MOLE PCT							
METHANE.....	85.7	-----	84.7	-----	84.5	-----	
ETHANE.....	7.1	-----	3.3	-----	7.3	-----	
PROPANE.....	3.5	-----	2.4	-----	2.9	-----	
N-BUTANE.....	1.1	-----	0.9	-----	1.0	-----	
ISOBUTANE.....	0.1	-----	0.3	-----	0.3	-----	
N-PENTANE.....	0.3	-----	0.2	-----	0.2	-----	
ISOPENTANE.....	0.3	-----	0.3	-----	0.4	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----	0.1	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----	0.2	-----	
NITROGEN.....	0.7	-----	4.0	-----	2.1	-----	
OXYGEN.....	TRACE	-----	0.8	-----	0.4	-----	
ARGON.....	0.0	-----	TRACE	-----	TRACE	-----	
HYDROGEN.....	0.0	-----	0.1	-----	0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.0	-----	0.5	-----	
HELIUM.....	0.02	-----	0.05	-----	0.02	-----	
HEATING VALUE.....	1186	-----	1091	-----	1146	-----	
SPECIFIC GRAVITY.....	0.678	-----	0.665	-----	0.673	-----	
		INDEX SAMPLE	6010 15912	INDEX SAMPLE	6011 5720	INDEX SAMPLE	6012 14813
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	DIRBLE SW			GOLDEN TREND		GOLDEN TREND	
WELL NAME.....	BARNETT NO. 1			COSTELLO NO. 1		SIMMS A NO. 1	
LOCATION.....	SEC. 14, T6N, R5W			SEC. 14, T5N, R5W		SEC. 9, T4N, R5W	
OWNER.....	ARKLA EXPLORATION CO.			SULF OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	11/17/79			09/26/54		08/12/76	
SAMPLED.....	03/04/80			10/26/54		10/15/76	
FORMATION.....	ORDO-SIMPSON			ORDO-BROMIDE & SIMPSON		ORDO-BROMIDE 1ST	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	13192			11747		15297	
WELLHEAD PRESSURE, PSIG.....	3900			1200		4355	
OPEN FLOW, MCFD.....	2600			NOT GIVEN		13633	
COMPONENT, MOLE PCT							
METHANE.....	85.1	-----	82.3	-----	87.6	-----	
ETHANE.....	7.3	-----	9.0	-----	7.9	-----	
PROPANE.....	3.2	-----	3.8	-----	2.8	-----	
N-BUTANE.....	0.9	-----	1.2	-----	0.7	-----	
ISOBUTANE.....	0.4	-----	0.7	-----	0.4	-----	
N-PENTANE.....	0.3	-----	0.3	-----	0.2	-----	
ISOPENTANE.....	0.2	-----	0.4	-----	0.2	-----	
CYCLOPENTANE.....	0.1	-----	0.3	-----	TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.3	-----	0.1	-----	
NITROGEN.....	1.6	-----	1.0	-----	0.4	-----	
OXYGEN.....	0.3	-----	TRACE	-----	0.0	-----	
ARGON.....	TRACE	-----	0.1	-----	TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	
CARBON DIOXIDE.....	0.4	-----	0.0	-----	0.6	-----	
HELIUM.....	0.03	-----	0.04	-----	0.02	-----	
HEATING VALUE.....	1155	-----	1212	-----	1145	-----	
SPECIFIC GRAVITY.....	0.671	-----	0.699	-----	0.651	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6013 14814	INDEX SAMPLE	6014 17287	INDEX SAMPLE	6015 4304
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	GOLDEN TREND			HARNESS		KNOX	
WELL NAME.....	SIMMS A NO. 1			AGAWAH NO. 28-A		WOODS NO. B-1	
LOCATION.....	SEC. 9, T4N, R5W			SEC. 28, T5N, R7W		SEC. 17, T 3N, R 5W	
OWNER.....	CITIES SERVICE OIL CO.			RICKS EXPLORATION CO.		MCCASLAND & RAE	
COMPLETED.....	08/12/76			09/14/82		01/-/47	
SAMPLED.....	10/15/76			05/15/84		03/15/47	
FORMATION.....	ORDO-BROMIDE 1ST			PENN-CUNNINGHAM		PENN-	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	15297			NOT GIVEN		3098	
WELLHEAD PRESSURE, PSIG.....	4353			3000		1200	
OPEN FLOW, MCFD.....	13633			2300		15000	
COMPONENT, MOLE PCT							
METHANE.....	88.0	---	---	90.9	---	79.3	---
ETHANE.....	6.7	---	---	5.5	---	17.6	---
PROPANE.....	2.8	---	---	1.6	---	---	---
N-BUTANE.....	0.7	---	---	0.2	---	---	---
ISOBUTANE.....	0.3	---	---	0.1	---	---	---
N-PENTANE.....	0.2	---	---	0.0	---	---	---
ISOPENTANE.....	0.2	---	---	0.3	---	---	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	---	---
HEXANES PLUS.....	0.1	---	---	0.1	---	---	---
NITROGEN.....	0.4	---	---	0.5	---	2.6	---
OXYGEN.....	0.0	---	---	0.1	---	0.2	---
ARGON.....	TRACE	---	---	TRACE	---	---	---
HYDROGEN.....	0.0	---	---	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	---	---
CARBON DIOXIDE.....	0.5	---	---	0.6	---	0.2	---
HELIUM.....	0.02	---	---	0.04	---	0.05	---
HEATING VALUE.....	1140	---	---	1093	---	1119	---
SPECIFIC GRAVITY.....	0.647	---	---	0.621	---	0.655	---

		INDEX SAMPLE	6016 6086	INDEX SAMPLE	6017 10319	INDEX SAMPLE	6018 12128
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	KNOX			KNOX		LAVERTY	
WELL NAME.....	HARRISON NO. 2			L. H. HARRISON NO. 16		C. T. WANGENSTEEN NO. 1	
LOCATION.....	SEC. 29, T 3N, R 5W			SEC. 28, T 3N, R 5W		SEC. 19, T6N, R8W	
OWNER.....	BRITISH AMERICAN OIL CO. LTD			MOBIL OIL CORP.		SUN OIL CO.	
COMPLETED.....	02/14/56			10/13/65		07/20/69	
SAMPLED.....	06/16/56			12/09/65		11/28/69	
FORMATION.....	ORDO-BROMIDE			PENN-		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	15120			2366		15816	
WELLHEAD PRESSURE, PSIG.....	6700			500		7850	
OPEN FLOW, MCFD.....	31000			3500		38000	
COMPONENT, MOLE PCT							
METHANE.....	88.9	---	---	90.8	---	92.2	---
ETHANE.....	2.7	---	---	0.9	---	1.3	---
PROPANE.....	2.1	---	---	0.7	---	1.2	---
N-BUTANE.....	0.6	---	---	0.6	---	0.2	---
ISOBUTANE.....	0.6	---	---	0.2	---	0.2	---
N-PENTANE.....	0.2	---	---	0.1	---	0.0	---
ISOPENTANE.....	0.2	---	---	0.2	---	0.1	---
CYCLOPENTANE.....	0.1	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	0.2	---	---	0.7	---	0.1	---
NITROGEN.....	0.2	---	---	0.0	---	0.8	---
OXYGEN.....	TRACE	---	---	0.0	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.2	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.6	---	---	0.2	---	0.8	---
HELIUM.....	0.03	---	---	0.05	---	0.02	---
HEATING VALUE.....	1151	---	---	1107	---	1065	---
SPECIFIC GRAVITY.....	0.647	---	---	0.624	---	0.609	---

		INDEX SAMPLE	6019 15594	INDEX SAMPLE	6020 13344	INDEX SAMPLE	6021 11943
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	MARLOW DISTRICT			MIDDLEBURG S		MIDDLEBURG SE	
WELL NAME.....	FRITTS NO. 2			BOYD NO. 1		SPROWLS NO. 1	
LOCATION.....	SEC. 31, T3N, R6W			SEC. 29, T7N, R5W		SEC. 14, T7N, R5W	
OWNER.....	PETRO-LEWIS CORP.			PHILLIPS PETROLEUM CO.		SENECA OIL CO.	
COMPLETED.....	08/19/78			08/05/78		12/20/68	
SAMPLED.....	03/30/79			08/01/72		06/20/69	
FORMATION.....	PENN-MEDRANO			PENN-HOXBAR-BOYD		PENN-OSBORNE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8980			7257		10300	
WELLHEAD PRESSURE, PSIG.....	2376			975		3183	
OPEN FLOW, MCFD.....	1800			31		9964	
COMPONENT, MOLE PCT							
METHANE.....	92.1	---	---	50.3	---	85.5	---
ETHANE.....	4.1	---	---	6.4	---	6.9	---
PROPANE.....	1.9	---	---	7.8	---	3.3	---
N-BUTANE.....	0.2	---	---	0.3	---	0.5	---
ISOBUTANE.....	0.2	---	---	2.1	---	0.5	---
N-PENTANE.....	0.1	---	---	1.0	---	0.3	---
ISOPENTANE.....	0.1	---	---	0.2	---	0.0	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.2	---
HEXANES PLUS.....	0.2	---	---	0.4	---	0.4	---
NITROGEN.....	0.5	---	---	1.4	---	1.7	---
OXYGEN.....	0.0	---	---	TRACE	---	TRACE	---
ARGON.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN.....	0.0	---	---	0.0	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.5	---	0.3	---
HELIUM.....	0.03	---	---	0.07	---	1.07	---
HEATING VALUE.....	1104	---	---	1104	---	1157	---
SPECIFIC GRAVITY.....	0.620	---	---	0.904	---	0.669	---

		INDEX SAMPLE	6022 9672	INDEX SAMPLE	6023 15846	INDEX SAMPLE	6024 11629
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	MINCO E			MINCO W		RUSH SPRINGS SW	
WELL NAME.....	STERMER NO. 1			WEHLING NO. 1		RUSH SPRINGS UNIT NO. 2	
LOCATION.....	SEC. 19, T10N, R6W			SEC. 51, T10N, R8W		SEC. 51, T3N, R7W	
OWNER.....	MONSANTO CO.			NOVA ENERGY CORP.		CHEVRON OIL CO.	
COMPLETED.....	10/17/64			12/19/78		07/08/67	
SAMPLED.....	12/24/64			11/29/79		08/20/68	
FORMATION.....	PENN-OSBORNE			DEVO-HUNTON		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	9775			13002		16852	
WELLHEAD PRESSURE, PSIG.....	48645			14665		10925	
OPEN FLOW, MCFD.....	10250			14910		30000	
COMPONENT, MOLE PCT							
METHANE.....	85.0	---	---	94.8	---	96.9	---
ETHANE.....	8.3	---	---	1.1	---	1.5	---
PROPANE.....	3.2	---	---	0.2	---	0.3	---
N-BUTANE.....	0.8	---	---	0.1	---	0.0	---
ISOBUTANE.....	0.4	---	---	0.1	---	0.0	---
N-PENTANE.....	0.3	---	---	0.0	---	0.0	---
ISOPENTANE.....	0.1	---	---	TRACE	---	0.0	---
CYCLOPENTANE.....	0.2	---	---	TRACE	---	0.0	---
HEXANES PLUS.....	0.4	---	---	0.1	---	0.0	---
NITROGEN.....	0.7	---	---	1.7	---	0.4	---
OXYGEN.....	TRACE	---	---	0.2	---	0.0	---
ARGON.....	0.0	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.6	---	---	0.6	---	0.9	---
HELIUM.....	0.04	---	---	0.02	---	0.03	---
HEATING VALUE.....	1178	---	---	997	---	1017	---
SPECIFIC GRAVITY.....	0.676	---	---	0.590	---	0.575	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6025 SAMPLE 11630		INDEX 6026 SAMPLE 16164		INDEX 6027 SAMPLE 12096	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY	GRADY		GRADY	
FIELD.....	LUSH SPRINGS SW	TABLER NE		TUTTLE E	
WELL NAME.....	RUSH SPRINGS UNIT NO. 1	MCCALLA RANCH NO. 1		SURBECK NO. 1	
LOCATION.....	SEC. 8, T3N, R7W	SEC. 12, T7N, R6W		SEC. 13, T9N, R5W	
OWNER.....	CHEVRON OIL CO.	SHELL OIL CO.		CHARLES R. WALBERT, ET AL.	
COMPLETED.....	12/01/67	08/29/80		05/22/69	
SAMPLED.....	08/20/68	01/09/81		11/05/69	
FORMATION.....	PENN-SPRINGER	PENN-HOXBAR		PENN-BERRY	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	36877	7234		8899	
WELLHEAD PRESSURE, PSIG.....	10494	2850		2500	
OPEN FLOW, MCFD.....	6050	3680		2526	
COMPONENT, MOLE PCT					
METHANE.....	83.8	80.9		89.2	
ETHANE.....	2.1	3.8		5.3	
PROPANE.....	0.3	1.4		2.2	
N-BUTANE.....	0.2	0.4		0.5	
ISOBUTANE.....	0.0	0.3		0.4	
N-PENTANE.....	0.3	0.0		0.2	
ISOPENTANE.....	TRACE	0.1		TRACE	
CYCLOPENTANE.....	0.1	TRACE		0.2	
HEXANES PLUS.....	0.1	0.1		0.4	
NITROGEN.....	9.8	11.0		1.4	
OXYGEN.....	2.4	1.6		0.0	
ARGON.....	0.1	0.1		0.0	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.7	0.1		0.3	
HELIUM.....	0.02	0.07		0.06	
HEATING VALUE.....	923	963		1123	
SPECIFIC GRAVITY.....	0.642	0.660		0.643	

INDEX 6028 SAMPLE 13099		INDEX 6029 SAMPLE 13396		INDEX 6030 SAMPLE 17593	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY	GRADY		GRADY	
FIELD.....	TUTTLE E	TUTTLE E		TUTTLE E	
WELL NAME.....	ENGLECK NO. 1	PLUMLEE UNIT NO. 1		W. C. FREEZE NO. 1	
LOCATION.....	SEC. 3, T9N, R5W	SEC. 2, T9N, R5W		SEC. 2, T9N, R5W	
OWNER.....	MACKELLAR, INC.	AMOCO PRODUCTION CO.		KATSER-FRANCIS OIL CO.	
COMPLETED.....	11/02/71	--/70		--/70	
SAMPLED.....	02/12/71	09/25/72		02/15/85	
FORMATION.....	PENN-BERRY	PENN-BERRY		PENN-BERRY	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	8815	8806		10732	
WELLHEAD PRESSURE, PSIG.....	2500	620		175	
OPEN FLOW, MCFD.....	3577	NOT GIVEN		605	
COMPONENT, MOLE PCT					
METHANE.....	85.1	86.9		85.6	
ETHANE.....	5.5	6.0		5.4	
PROPANE.....	0.8	2.7		2.2	
N-BUTANE.....	0.8	0.8		0.6	
ISOBUTANE.....	0.6	0.4		0.3	
N-PENTANE.....	0.4	0.2		0.3	
ISOPENTANE.....	0.1	0.3		0.3	
CYCLOPENTANE.....	0.1	TRACE		0.1	
HEXANES PLUS.....	0.3	0.1		0.2	
NITROGEN.....	3.8	2.3		1.5	
OXYGEN.....	0.1	TRACE		0.0	
ARGON.....	0.0	0.0		TRACE	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.3	0.3		3.5	
HELIUM.....	0.08	0.07		0.06	
HEATING VALUE.....	1126	1116		1087	
SPECIFIC GRAVITY.....	0.672	0.649		0.673	

INDEX 6031 SAMPLE 13790		INDEX 6032 SAMPLE 13791		INDEX 6033 SAMPLE 14167	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY	GRADY		GRADY	
FIELD.....	WATONGA-CHICKASHA TREND	WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	MAIER NO. 1	MAIER NO. 1		LITTLE NO. 1	
LOCATION.....	SEC. 4, T7N, R7W	SEC. 4, T7N, R7W		SEC. 8, T9N, R8W	
OWNER.....	APEXCO, INC.	APEXCO, INC.		WOODS PETROLEUM CORP.	
COMPLETED.....	09/29/73	09/29/73		04/19/74	
SAMPLED.....	10/28/73	10/28/73		10/04/74	
FORMATION.....	PENN-SPRINGER	PENN-SPRINGER		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	12938		12388	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	7442		8253	
OPEN FLOW, MCFD.....	NOT GIVEN	40000		80000	
COMPONENT, MOLE PCT					
METHANE.....	87.8	87.2		96.7	
ETHANE.....	6.7	6.4		1.7	
PROPANE.....	2.9	2.7		0.2	
N-BUTANE.....	0.5	0.4		TRACE	
ISOBUTANE.....	0.5	0.4		0.1	
N-PENTANE.....	TRACE	0.1		TRACE	
ISOPENTANE.....	0.2	0.1		TRACE	
CYCLOPENTANE.....	0.1	TRACE		TRACE	
HEXANES PLUS.....	0.2	0.1		0.1	
NITROGEN.....	0.6	1.5		0.2	
OXYGEN.....	TRACE	0.3		0.0	
ARGON.....	0.0	0.2		0.0	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.5	0.5		0.9	
HELIUM.....	0.02	0.03		0.02	
HEATING VALUE.....	1141	1112		1026	
SPECIFIC GRAVITY.....	0.650	0.647		0.579	

INDEX 6034 SAMPLE 14168		INDEX 6035 SAMPLE 14503		INDEX 6036 SAMPLE 14618	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY	GRADY		GRADY	
FIELD.....	WATONGA-CHICKASHA TREND	WATONGA-CHICKASHA TREND		WATONGA-CHICKASHA TREND	
WELL NAME.....	MALCOM NO. 1	CIRCLE BAR K		SHOCKEY NO. 1	
LOCATION.....	SEC. 24, T9N, R8W	SEC. 24, T9N, R7W		SEC. 36, T7N, R7W	
OWNER.....	WOODS PETROLEUM CORP.	COTTON PETROLEUM CORP.		COTTON PETROLEUM CORP.	
COMPLETED.....	11/11/73	09/01/75		01/03/76	
SAMPLED.....	10/04/74	10/04/75		03/--/76	
FORMATION.....	PENN-SPRINGER	PENN-SPRINGER		PENN-SPRINGER	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	12444	12930		13043	
WELLHEAD PRESSURE, PSIG.....	8306	7500		3061	
OPEN FLOW, MCFD.....	37759	30000		37000	
COMPONENT, MOLE PCT					
METHANE.....	96.8	86.4		86.7	
ETHANE.....	1.7	7.4		7.7	
PROPANE.....	0.3	3.1		2.9	
N-BUTANE.....	TRACE	0.6		0.3	
ISOBUTANE.....	0.1	0.6		0.3	
N-PENTANE.....	TRACE	0.1		TRACE	
ISOPENTANE.....	TRACE	0.4		0.2	
CYCLOPENTANE.....	TRACE	0.3		TRACE	
HEXANES PLUS.....	0.1	0.3		0.1	
NITROGEN.....	0.2	0.7		1.1	
OXYGEN.....	TRACE	0.0		0.0	
ARGON.....	0.0	0.0		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.8	0.5		0.5	
HELIUM.....	0.02	0.02		0.03	
HEATING VALUE.....	1027	1152		1132	
SPECIFIC GRAVITY.....	0.578	0.664		0.649	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6037 15903	INDEX SAMPLE	6038 16643	INDEX SAMPLE	6039 6363
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRADY			GRADY		GRADY	
FIELD.....	WATONGA-CHICKASHA TREND			WATONGA-CHICKASHA TREND		CHEROKITA TREND	
WELL NAME.....	EISENHOUR NO. 14			RALPH JACOBS NO. 2-30		JOHNSON NO. 1	
LOCATION.....	SEC. 12, T29N, R8W			SEC. 30, T29N, R7W		SEC. 18, T27N, R8W	
OWNER.....	LADD PETROLEUM CORP.			GULF OIL EXPL. & PROD. CO.		DAVON DRILLING CO.	
COMPLETED.....	07/02/79			11/20/81		05/25/57	
SAMPLED.....	02/15/80			09/14/82		08/10/57	
FORMATION.....	PENN-TONKAWA			PENN-TONKAWA		PENN-CHEROKEE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7894			7781		5133	
WELLHEAD PRESSURE, PSIG.....	2350			2100		1875	
OPEN FLOW, MCFD.....	2500			1200		15000	
COMPONENT, MOLE PCT.....							
METHANE.....	89.4			87.9		72.9	
ETHANE.....	3.2			3.4		4.7	
PROPANE.....	1.6			1.9		1.6	
N-BUTANE.....	0.4			0.6		0.8	
ISOBUTANE.....	0.2			0.2		0.4	
N-PENTANE.....	0.1			0.1		0.3	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.2		0.2	
NITROGEN.....	4.5			4.7		17.6	
OXYGEN.....	TRACE			0.1		0.9	
ARGON.....	TRACE			TRACE		0.2	
HYDROGEN.....	TRACE			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.3		0.2	
HELIUM.....	0.13			0.13		0.06	
HEATING VALUE.....	1042			1055		940	
SPECIFIC GRAVITY.....	0.622			0.636		0.710	
		INDEX SAMPLE	6040 9718	INDEX SAMPLE	6041 11371	INDEX SAMPLE	6042 11372
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRANT			GRANT		GRANT	
FIELD.....	CLYDE SW			DEER CREEK		DEER CREEK	
WELL NAME.....	PITCHER NO. 1			LANE B NO. 1		HOXSEY NO. 1	
LOCATION.....	SEC. 10, T27N, R6W			SEC. 22, T27N, R3W		SEC. 14, T27N, R3W	
OWNER.....	VIERSEN & COCHRAN			APPLETON OIL CO.		APPLETON OIL CO.	
COMPLETED.....	12/22/64			08/04/59		12/01/59	
SAMPLED.....	02/05/65			03/13/68		03/13/68	
FORMATION.....	PENN-CHEROKEE			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4828			4335		4028	
WELLHEAD PRESSURE, PSIG.....	1780			300		400	
OPEN FLOW, MCFD.....	4339			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	79.8			78.7		82.0	
ETHANE.....	6.4			7.8		7.6	
PROPANE.....	0.9			0.3		0.5	
N-BUTANE.....	0.9			1.5		1.4	
ISOBUTANE.....	0.3			0.7		0.5	
N-PENTANE.....	0.3			0.4		0.5	
ISOPENTANE.....	0.2			0.6		0.2	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.4		0.3	
NITROGEN.....	0.2			0.0		0.3	
OXYGEN.....	0.0			0.2		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.2	
HELIUM.....	0.13			0.11		0.10	
HEATING VALUE.....	1060			1190		1179	
SPECIFIC GRAVITY.....	0.684			0.724		0.697	
		INDEX SAMPLE	6043 11370	INDEX SAMPLE	6044 11373	INDEX SAMPLE	6045 12532
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRANT			GRANT		GRANT	
FIELD.....	DEER CREEK S			DEER CREEK S		HAWLEY SW	
WELL NAME.....	DESTER A NO. 3			LANE A NO. 1		WROENYOKE RANCH NO. 1	
LOCATION.....	SEC. 27, T27N, R3W			SEC. 27, T27N, R3W		SEC. 17, T26N, R8W	
OWNER.....	APPLETON OIL CO.			APPLETON OIL CO.		JONES & PELLOW OIL CO.	
COMPLETED.....	06/05/63			06/18/59		02/18/70	
SAMPLED.....	03/13/68			03/13/68		11/12/70	
FORMATION.....	MISS--			MISS--		DEVO-MISENER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4162			3989		5900	
WELLHEAD PRESSURE, PSIG.....	160			720		2100	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		5654	
COMPONENT, MOLE PCT.....							
METHANE.....	73.0			67.9		89.0	
ETHANE.....	8.9			7.4		4.1	
PROPANE.....	4.7			3.9		1.9	
N-BUTANE.....	1.5			0.7		0.7	
ISOBUTANE.....	0.7			0.5		0.4	
N-PENTANE.....	0.7			0.4		0.3	
ISOPENTANE.....	TRACE			0.2		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.4			0.2		0.3	
NITROGEN.....	9.6			15.8		2.9	
OXYGEN.....	0.0			1.9		0.0	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		TRACE	
HELIUM.....	0.25			0.22		0.11	
HEATING VALUE.....	1049			1019		1102	
SPECIFIC GRAVITY.....	0.743			0.752		0.641	
		INDEX SAMPLE	6046 16615	INDEX SAMPLE	6047 15003	INDEX SAMPLE	6048 11358
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	GRANT			GRANT		GRANT	
FIELD.....	LYLE NW			MAYFLOWER NW		MEDFORD W	
WELL NAME.....	GILE NO. 1-16			PICKETT NO. 1		BLUBAUGH NO. 1	
LOCATION.....	SEC. 16, T29N, R6W			SEC. 13, T28N, R3W		SEC. 13, T27N, R6W	
OWNER.....	MID-AMERICA PETROLEUM, INC.			PETROLEUM RESOURCES CO.		TEXACO INC.	
COMPLETED.....	04/29/82			12/28/76		12/31/58	
SAMPLED.....	08/03/82			05/19/77		03/07/68	
FORMATION.....	MISS-LINE			PENN-RED FORK		PENN-RED FORK	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5006			4556		4824	
WELLHEAD PRESSURE, PSIG.....	2650			2280		910	
OPEN FLOW, MCFD.....	4900			5479		1598	
COMPONENT, MOLE PCT.....							
METHANE.....	68.0			78.5		87.5	
ETHANE.....	7.2			8.9		5.7	
PROPANE.....	3.7			2.4		2.5	
N-BUTANE.....	1.7			0.7		1.0	
ISOBUTANE.....	0.4			0.3		0.2	
N-PENTANE.....	0.4			0.3		0.4	
ISOPENTANE.....	0.5			0.2		0.1	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.3			0.2		0.3	
NITROGEN.....	17.0			10.1		1.9	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.1			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.3		0.1	
HELIUM.....	0.25			0.16		0.07	
HEATING VALUE.....	1046			1046		1134	
SPECIFIC GRAVITY.....	0.759			0.687		0.653	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6049 SAMPLE 16472			INDEX 6050 SAMPLE 14670			INDEX 6051 SAMPLE 11361		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	GRANT		GRANT			GRANT		
FIELD.....	NASH SE		NASH SE			WAKITA TREND		
WELL NAME.....	SKAGGS NO. 1-15		OVERTON NO. 1			CARRIE RIXSE NO. 1		
LOCATION.....	SEC. 15, T25N, R8W		SEC. 8, T25N, R7W			SEC. 9, T28N, R7W		
OWNER.....	H646, INC.		HACK OIL CO.			GULF OIL CO.- U.S.		
COMPLETED.....	11/25/81		02/10/76			05/12/57		
SAMPLED.....	03/31/82		05/17/76			03/07/68		
FORMATION.....	DEVO-HUNTON		DEVO-HUNTON			PENN-CHEROKEE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6248		6112			4758		
WELLHEAD PRESSURE, PSIG.....	2180		2200			1056		
OPEN FLOW, MCFD.....	1400		NOT GIVEN			1348		
COMPONENT, MOLE PCT.....								
METHANE.....	88.6		73.5			76.3		
ETHANE.....	5.0		8.0			7.9		
PROPANE.....	2.0		7.0			3.7		
N-BUTANE.....	0.7		4.4			1.1		
ISOBUTANE.....	0.3		1.6			0.5		
N-PENTANE.....	0.3		0.4			0.4		
ISOPENTANE.....	0.1		1.2			0.0		
CYCLOPENTANE.....	0.1		0.2			TRACE		
HEXANES PLUS.....	0.3		0.0			0.3		
NITROGEN.....	1.6		0.0			9.3		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.1		
HELIUM.....	0.06		0.06			0.14		
HEATING VALUE.....	1127		1422			1097		
SPECIFIC GRAVITY.....	0.643		0.832			0.707		

INDEX 6052 SAMPLE 1979			INDEX 6053 SAMPLE 6575			INDEX 6054 SAMPLE 7309		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	GRANT		GREER			GREER		
FIELD.....	WEBB		ERICK GAS AREA S			JESTER S		
WELL NAME.....	WEBB NO. 2		TANDY NO. 1			J. W. McDONALD		
LOCATION.....	SEC. 2, T27N, R3W		SEC. 11, T7N, R24W			SEC. 15, T6N, R24W		
OWNER.....	KAY COUNTY GAS CO.		EL PASO NATURAL GAS CO.			DIAMOND SHAMROCK CORP.		
COMPLETED.....	02/19/79		02/19/79			08/23/59		
SAMPLED.....	03/25/30		05/06/58			12/12/59		
FORMATION.....	MISS--		PERM-DOLomite			PERM-GRANITE WASH		
GEOLOGIC PROVINCE CODE.....	360		350			350		
DEPTH, FEET.....	4153		1650			1260		
WELLHEAD PRESSURE, PSIG.....	570		429			330		
OPEN FLOW, MCFD.....	9500		940			1040		
COMPONENT, MOLE PCT.....								
METHANE.....	78.4		91.7			65.3		
ETHANE.....	18.4		3.6			0.9		
PROPANE.....	---		1.3			0.7		
N-BUTANE.....	---		0.4			0.3		
ISOBUTANE.....	---		0.2			0.1		
N-PENTANE.....	---		TRACE			0.1		
ISOPENTANE.....	---		0.1			0.1		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	2.6		2.2			31.3		
OXYGEN.....	0.3		0.2			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.1			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.1		
HELIUM.....	0.10		0.10			1.00		
HEATING VALUE.....	1124		0.57			723		
SPECIFIC GRAVITY.....	0.661		0.609			0.704		

INDEX 6055 SAMPLE 15016			INDEX 6056 SAMPLE 15240			INDEX 6057 SAMPLE 11723		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	GREER		HARPER			HARPER		
FIELD.....	WILLOW NW		BOILING SPRINGS N			BUFFALO		
WELL NAME.....	ROCKEY NO. 1		ROOT NO. 1			VIOLET COOK NO. 1		
LOCATION.....	SEC. 33, T7N, R22W		SEC. 9, T25N, R20W			SEC. 6, T27N, R22W		
OWNER.....	THERMO DYNE, INC.		SUN PRODUCTION CO.			EASON OIL CO.		
COMPLETED.....	7/7/70		06/15/77			04/10/68		
SAMPLED.....	06/08/77		03/01/68			12/31/68		
FORMATION.....	PERM-GRANITE WASH		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	350		360			360		
DEPTH, FEET.....	1500		6676			5891		
WELLHEAD PRESSURE, PSIG.....	250		2768			2500		
OPEN FLOW, MCFD.....	NOT GIVEN		9966			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	90.6		92.5			91.1		
ETHANE.....	4.2		3.8			3.4		
PROPANE.....	1.8		1.3			1.6		
N-BUTANE.....	0.6		0.5			1.4		
ISOBUTANE.....	0.2		0.2			0.2		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.2		0.1			TRACE		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.3		
NITROGEN.....	0.0		0.9			2.2		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.3			0.2		
CARBON DIOXIDE.....	TRACE		0.07			0.15		
HELIUM.....	0.08		1.08			1.08		
HEATING VALUE.....	0.623		0.611			0.624		
SPECIFIC GRAVITY.....								

INDEX 6058 SAMPLE 11325			INDEX 6059 SAMPLE 11326			INDEX 6060 SAMPLE 11455		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	HARPER		HARPER			HARPER		
FIELD.....	BUFFALO N		BUFFALO N			BUFFALO N		
WELL NAME.....	ROBERT R. ROHRER NO. 1		ROSA LEE KUHN NO. 1			HALCOMB-MILLER UNIT NO. 2		
LOCATION.....	SEC. 6, T28N, R22W		SEC. 6, T28N, R22W			SEC. 7, T28N, R22W		
OWNER.....	ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.			ATLANTIC RICHFIELD CO.		
COMPLETED.....	08/24/59		03/31/59			01/29/60		
SAMPLED.....	03/01/68		03/01/68			04/16/58		
FORMATION.....	PENN-MORROW		PENN-OSWEGO			ORDO-VIOLA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7220		3950			7304		
WELLHEAD PRESSURE, PSIG.....	1405		1469			1362		
OPEN FLOW, MCFD.....	4053		1191			2302		
COMPONENT, MOLE PCT.....								
METHANE.....	91.8		86.0			75.5		
ETHANE.....	3.7		5.7			7.9		
PROPANE.....	1.6		3.5			4.3		
N-BUTANE.....	0.5		1.1			1.4		
ISOBUTANE.....	0.2		0.2			0.7		
N-PENTANE.....	0.2		0.1			0.3		
ISOPENTANE.....	0.1		0.4			0.3		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.4		0.2			0.2		
NITROGEN.....	0.9		2.5			7.7		
OXYGEN.....	0.0		0.0			0.4		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.1			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.09		0.13			0.11		
HEATING VALUE.....	1102		1143			1139		
SPECIFIC GRAVITY.....	0.623		0.665			0.721		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6061 SAMPLE 15479		INDEX 6062 SAMPLE 14641		INDEX 6063 SAMPLE 14957	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER	HARPER		HARPER	
FIELD.....	BUFFALO NW	BUFFALO SE		BUFFALO SE	
WELL NAME.....	PROCTOR NO. 15	RICHARDSON NO. 1		MAPHET NO. 1	
LOCATION.....	SEC. 35, T28N, R23W	SEC. 24, T27N, R22W		SEC. 14, T27N, R22W	
OWNER.....	KENNEDY & MITCHELL, INC.	NATIONAL COOP. REFINERY ASSN		NATIONAL COOP. REFINERY ASSN	
COMPLETED.....	10/31/78	11/19/75		06/23/76	
SAMPLED.....	11/09/78	04/23/76		03/30/77	
FORMATION.....	MISS-CHESTER	PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	5878	5959		6047	
WELLHEAD PRESSURE, PSIG.....	1684	1987		1528	
OPEN FLOW, MCFD.....	3073	9038		16442	
COMPONENT, MOLE PCT					
METHANE.....	84.9	87.3		94.0	
ETHANE.....	5.5	4.7		2.5	
PROPANE.....	3.8	3.1		0.7	
N-BUTANE.....	1.1	1.1		0.3	
ISOBUTANE.....	0.7	0.6		TRACE	
N-PENTANE.....	0.3	0.3		0.1	
ISOPENTANE.....	0.4	0.3		0.1	
CYCLOPENTANE.....	0.2	0.1		TRACE	
HEXANES PLUS.....	0.4	0.3		0.1	
NITROGEN.....	2.2	1.9		1.3	
OXYGEN.....	0.0	0.0		TRACE	
ARGON.....	0.0	0.0		TRACE	
HYDROGEN.....	0.1	0.0		0.0	
HYDROGEN SULFIDE**.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.3	0.2		0.5	
HELIUM.....	0.13	0.10		0.08	
HEATING VALUE.....	1176	1151		1039	
SPECIFIC GRAVITY.....	0.685	0.665		0.593	

INDEX 6064 SAMPLE 17686		INDEX 6065 SAMPLE 11331		INDEX 6066 SAMPLE 17252	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER	HARPER		HARPER	
FIELD.....	BUFFALO SW	CLARK CREEK E		CLARK CREEK W	
WELL NAME.....	DOANS NO. 1	CLAUDE SHORT NO. 1		RAIDINE NO. 1021	
LOCATION.....	SEC. 1, T27N, R23W	SEC. 22, T29N, R22W		SEC. 21, T29N, R24W	
OWNER.....	TXO PRODUCTION CORP.	MOBIL OIL CORP.		NATURAL GAS ANADARKO, INC.	
COMPLETED.....	09/28/84	07/30/64		05/16/85	
SAMPLED.....	05/29/85	03/04/68		04/12/84	
FORMATION.....	PENN-MORROW	PENN-MORROW		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	5940	5595		6050	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1565		1490	
OPEN FLOW, MCFD.....	1800	15713		2892	
COMPONENT, MOLE PCT					
METHANE.....	88.8	91.7		84.4	
ETHANE.....	4.5	3.2		5.1	
PROPANE.....	2.6	1.3		2.8	
N-BUTANE.....	0.9	0.5		0.8	
ISOBUTANE.....	0.4	0.1		0.4	
N-PENTANE.....	0.2	0.2		0.3	
ISOPENTANE.....	0.5	0.2		0.2	
CYCLOPENTANE.....	0.1	0.1		0.1	
HEXANES PLUS.....	0.3	0.1		0.2	
NITROGEN.....	1.4	2.2		5.7	
OXYGEN.....	0.0	0.0		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.3	0.1		0.2	
HELIUM.....	0.10	0.11		0.20	
HEATING VALUE.....	1140	1055		1084	
SPECIFIC GRAVITY.....	0.654	0.613		0.663	

INDEX 6067 SAMPLE 9937		INDEX 6068 SAMPLE 13950		INDEX 6069 SAMPLE 14247	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER	HARPER		HARPER	
FIELD.....	FORT SUPPLY NE	FORT SUPPLY NE		FORT SUPPLY NE	
WELL NAME.....	DEWESE NO. 1	SMITH NO. 1		DEWESE NO. 1	
LOCATION.....	SEC. 2, T25N, R21W	SEC. 23, T25N, R21W		SEC. 21, T25N, R21W	
OWNER.....	CONTINENTAL OIL CO.	OKLAHOMA NATURAL GAS CO.		DYCO PETROLEUM CORP.	
COMPLETED.....	03/09/65	01/29/74		10/10/74	
SAMPLED.....	08/23/68	03/13/74		12/30/74	
FORMATION.....	MISS-CHESTER	MISS-CHESTER		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	7026	6994		6946	
WELLHEAD PRESSURE, PSIG.....	1951	1750		1436	
OPEN FLOW, MCFD.....	5601	2900		8250	
COMPONENT, MOLE PCT					
METHANE.....	90.3	92.5		91.3	
ETHANE.....	4.6	3.6		3.9	
PROPANE.....	1.9	1.4		1.7	
N-BUTANE.....	0.5	0.3		0.8	
ISOBUTANE.....	0.4	0.3		0.3	
N-PENTANE.....	TRACE	0.1		0.1	
ISOPENTANE.....	0.3	0.2		0.2	
CYCLOPENTANE.....	0.1	0.2		TRACE	
HEXANES PLUS.....	0.3	0.2		0.1	
NITROGEN.....	1.0	0.7		1.2	
OXYGEN.....	0.1	0.0		TRACE	
ARGON.....	TRACE	0.0		0.0	
HYDROGEN.....	0.0	TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.4	0.6		0.5	
HELIUM.....	0.08	0.10		0.10	
HEATING VALUE.....	1109	1085		1080	
SPECIFIC GRAVITY.....	0.633	0.617		0.618	

INDEX 6070 SAMPLE 11083		INDEX 6071 SAMPLE 11356		INDEX 6072 SAMPLE 11578	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER	HARPER		HARPER	
FIELD.....	LOVEDALE	LOVEDALE		LOVEDALE	
WELL NAME.....	JOHNSON NO. 1	LOCKHART UNIT C		STATE NO. 1	
LOCATION.....	SEC. 5, T26N, R21W	SEC. 14, T26N, R21W		SEC. 21, T26N, R21W	
OWNER.....	EDWIN L. COX	AMOCO PRODUCTION CO.		ATKMAN BROTHERS CORP.	
COMPLETED.....	05/22/67	10/24/61		05/28/66	
SAMPLED.....	08/05/67	03/08/68		07/22/68	
FORMATION.....	PENN-TONKAWA	PENN-TONKAWA		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	4929	6250		5104	
WELLHEAD PRESSURE, PSIG.....	1642	1450		1200	
OPEN FLOW, MCFD.....	9182	NOT GIVEN		16000	
COMPONENT, MOLE PCT					
METHANE.....	81.1	80.7		78.7	
ETHANE.....	9.1	9.2		8.1	
PROPANE.....	3.8	4.0		4.7	
N-BUTANE.....	1.1	1.1		1.3	
ISOBUTANE.....	0.3	0.3		0.7	
N-PENTANE.....	0.3	0.3		0.6	
ISOPENTANE.....	0.2	0.3		0.0	
CYCLOPENTANE.....	TRACE	TRACE		0.1	
HEXANES PLUS.....	0.3	0.3		0.4	
NITROGEN.....	4.2	4.1		4.9	
OXYGEN.....	TRACE	0.0		0.1	
ARGON.....	TRACE	TRACE		0.0	
HYDROGEN.....	0.1	0.0		0.0	
HYDROGEN SULFIDE**.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.2		0.1	
HELIUM.....	0.19	0.20		0.24	
HEATING VALUE.....	1156	1161		1182	
SPECIFIC GRAVITY.....	0.691	0.694		0.715	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6073 11636	INDEX SAMPLE	6074 15233	INDEX SAMPLE	6075 15597
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	LOVEDALE			LOVEDALE		LOVEDALE	
WELL NAME.....	WITTS NO. 1			RUBLE NO. 1		SMITH NO. 1	
LOCATION.....	SEC. 12, T26N, R20W			SEC. 1, T25N, R21W		SEC. 32, T26N, R21W	
OWNER.....	KIRKPATRICK OIL CO.			TEXAS OIL & GAS CORP.		NORTHERN NATURAL GAS EXPL. C	
COMPLETED.....	--/--/00			12/08/77		07/06/78	
SAMPLED.....	08/23/68			03/21/78		03/21/79	
FORMATION.....	DEVON-HUNTON			MISS-CHESTER		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			6724		6564	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2653		1878	
OPEN FLOW, MCFD.....	NOT GIVEN			4800		5485	
COMPONENT, MOLE PCT							
METHANE.....	84.3	-----		91.7	-----	92.7	-----
ETHANE.....	6.3	-----		3.9	-----	2.8	-----
PROPANE.....	2.9	-----		0.6	-----	1.1	-----
N-BUTANE.....	1.1	-----		0.5	-----	0.4	-----
ISOBUTANE.....	0.2	-----		0.3	-----	0.2	-----
N-PENTANE.....	0.4	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.3	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.1	-----	0.2	-----
NITROGEN.....	3.9	-----		1.0	-----	1.7	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.4	-----	0.3	-----
HELIUM.....	0.11	-----		0.09	-----	0.09	-----
HEATING VALUE.....	1135	-----		1095	-----	1065	-----
SPECIFIC GRAVITY.....	0.674	-----		0.618	-----	0.610	-----
		INDEX SAMPLE	6076 9049	INDEX SAMPLE	6077 9710	INDEX SAMPLE	6078 11696
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	LOVEDALE NW			LOVEDALE NW		LOVEDALE NW	
WELL NAME.....	SHARP			BESSIE NO. 1		WOOLFOLK UNIT NO. 1	
LOCATION.....	SEC. 32, T29N, R21W			SEC. 11, T28N, R21W		SEC. 18, T27N, R20W	
OWNER.....	DAVE MORGAN OIL CO., ET AL.			GULF OIL CO.- U.S.		TENNECO OIL CO.	
COMPLETED.....	12/06/62			11/13/64		12/22/67	
SAMPLED.....	07/22/63			01/19/63		--/--/00	
FORMATION.....	PENN-MORROW			PENN-MORROW		SILU-CHIMNEYHILL	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5668			7678		7384	
WELLHEAD PRESSURE, PSIG.....	1900			1773		2452	
OPEN FLOW, MCFD.....	3500			1449		5800	
COMPONENT, MOLE PCT							
METHANE.....	92.1	-----		93.5	-----	86.9	-----
ETHANE.....	4.0	-----		2.4	-----	4.0	-----
PROPANE.....	1.4	-----		0.9	-----	1.7	-----
N-BUTANE.....	0.5	-----		0.1	-----	0.5	-----
ISOBUTANE.....	0.1	-----		TRACE	-----	0.3	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.2	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	0.2	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.3	-----
NITROGEN.....	0.9	-----		1.5	-----	5.2	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.3	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		1.0	-----	0.2	-----
HELIUM.....	0.10	-----		0.08	-----	0.12	-----
HEATING VALUE.....	1092	-----		1030	-----	1051	-----
SPECIFIC GRAVITY.....	0.619	-----		0.597	-----	0.640	-----
		INDEX SAMPLE	6079 12683	INDEX SAMPLE	6080 13799	INDEX SAMPLE	6081 15316
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	LOVEDALE NW			LOVEDALE NW		LOVEDALE NW	
WELL NAME.....	ART HEPNER NO. 1-19			O. E. HOWARD NO. 1		CANFIELD GAS UNIT NO. 3	
LOCATION.....	SEC. 19, T27N, R20W			SEC. 11, T27N, R21W		SEC. 23, T28N, R21W	
OWNER.....	TENNECO OIL CO.			TENNECO OIL CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	11/17/70			06/12/73		01/28/78	
SAMPLED.....	02/15/71			11/05/73		07/17/78	
FORMATION.....	DEVON-HUNTON			PENN-MORROW		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7330			5880		5761	
WELLHEAD PRESSURE, PSIG.....	1850			1850		1300	
OPEN FLOW, MCFD.....	4440			1658		1500	
COMPONENT, MOLE PCT							
METHANE.....	88.5	-----		91.8	-----	93.9	-----
ETHANE.....	4.2	-----		2.9	-----	2.3	-----
PROPANE.....	1.8	-----		1.6	-----	0.7	-----
N-BUTANE.....	0.5	-----		0.4	-----	0.3	-----
ISOBUTANE.....	0.1	-----		0.1	-----	0.1	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.1	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	0.2	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.1	-----
NITROGEN.....	4.0	-----		1.1	-----	1.8	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.0	-----	0.3	-----
HELIUM.....	0.13	-----		0.08	-----	0.09	-----
HEATING VALUE.....	1068	-----		1087	-----	1042	-----
SPECIFIC GRAVITY.....	0.633	-----		0.616	-----	0.596	-----
		INDEX SAMPLE	6082 11420	INDEX SAMPLE	6083 2224	INDEX SAMPLE	6084 4380
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	LOVEDALE NW			LOVEDALE NW		LOVEDALE NW	
WELL NAME.....	EASTWOOD NO. 1			MOCAVE-LAVERNE GAS AREA		MOCAVE-LAVERNE GAS AREA	
LOCATION.....	SEC. 21, T25N, R23W			HOWELL NO. 1		HEIRONOMUS NO. 1	
OWNER.....	ARCO PRODUCTION CO.			SEC. 14, T26N, R24W		SEC. 3, T26N, R24W	
COMPLETED.....	07/07/64			ATLANTIC RICHFIELD CO.		O. M. HUBER CORP.	
SAMPLED.....	03/29/68			--/--/00		09/01/47	
FORMATION.....	PENN-MORROW			10/31/30		12/23/47	
GEOLOGIC PROVINCE CODE.....	360			PENN-TONKAWA		PENN-TONKAWA	
DEPTH, FEET.....	9710			5400		5439	
WELLHEAD PRESSURE, PSIG.....	2040			1459		1495	
OPEN FLOW, MCFD.....	8600			11250		834	
COMPONENT, MOLE PCT							
METHANE.....	92.7	-----		76.7	-----	78.5	-----
ETHANE.....	3.7	-----		20.5	-----	18.4	-----
PROPANE.....	1.5	-----		---	-----	---	-----
N-BUTANE.....	0.4	-----		---	-----	---	-----
ISOBUTANE.....	0.3	-----		---	-----	---	-----
N-PENTANE.....	TRACE	-----		---	-----	---	-----
ISOPENTANE.....	0.3	-----		---	-----	---	-----
CYCLOPENTANE.....	0.1	-----		---	-----	---	-----
HEXANES PLUS.....	0.2	-----		---	-----	---	-----
NITROGEN.....	0.5	-----		2.7	-----	2.5	-----
OXYGEN.....	0.0	-----		0.0	-----	0.2	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	TRACE	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.4	-----		0.21	-----	0.2	-----
HELIUM.....	0.07	-----		---	-----	0.18	-----
HEATING VALUE.....	1095	-----		1144	-----	1125	-----
SPECIFIC GRAVITY.....	0.618	-----		0.668	-----	0.658	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6085 5270	INDEX SAMPLE	6086 5414	INDEX SAMPLE	6087 6082
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME.....	M. WOLFE NO. 1			LEROY LONG NO. 1		MCCLEUNG A NO. 1	
LOCATION.....	SEC. 4, T25N, R25W			SEC. 3, T25N, R25W		SEC. 11, T26N, R25W	
OWNER.....	SUN OIL CO.			SUN OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	--/--/00			08/31/52		05/23/56	
SAMPLED.....	09/26/52			03/11/53		06/12/56	
FORMATION.....	PENN-HOOVER			PENN-NORROW		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			7280		5455	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1700		1590	
OPEN FLOW, MCFD.....	NOT GIVEN			640		100000	
COMPONENT, MOLE PCT.....							
METHANE.....	74.3			80.8		81.1	
ETHANE.....	6.8			7.9		7.5	
PROpane.....	4.9			5.7		3.7	
N-BUTANE.....	2.0			1.7		1.0	
ISOBUTANE.....	1.0			1.0		0.6	
N-PENTANE.....	1.9			0.4		0.3	
ISOPENTANE.....	2.6			0.3		0.4	
CYCLOPENTANE.....	0.2			0.1		0.2	
HEXANES PLUS.....	1.0			0.2		0.4	
NITROGEN.....	4.1			1.3		4.2	
OXYGEN.....	0.7			TRACE		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			TRACE		0.2	
HYDROGEN SULFIDE**.....	--			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.2		0.0	
HELIUM.....	0.10			0.09		0.17	
HEATING VALUE.....	1353			1243		1164	
SPECIFIC GRAVITY.....	0.822			0.720		0.697	
		INDEX SAMPLE	6088 6083	INDEX SAMPLE	6089 6106	INDEX SAMPLE	6090 6121
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME.....	MCCLEUNG A NO. 1			HILL NO. 1		EFFIE STINSON NO. 1	
LOCATION.....	SEC. 11, T26N, R25W			SEC. 6, T25N, R26W		SEC. 12, T26N, R25W	
OWNER.....	CITIES SERVICE OIL CO.			SUN OIL CO.		MOBIL OIL CORP.	
COMPLETED.....	05/25/56			06/22/56		03/08/56	
SAMPLED.....	06/12/56			07/13/56		08/08/56	
FORMATION.....	MISS-CHESTER			PENN-HOOVER		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6945			4346		5540	
WELLHEAD PRESSURE, PSIG.....	1809			1364		1587	
OPEN FLOW, MCFD.....	11500			53000		22500	
COMPONENT, MOLE PCT.....							
METHANE.....	77.1			48.0		86.1	
ETHANE.....	3.5			16.2		6.6	
PROpane.....	1.8			18.2		3.2	
N-BUTANE.....	0.8			8.7		1.0	
ISOBUTANE.....	0.6			3.4		0.7	
N-PENTANE.....	0.3			2.2		0.2	
ISOPENTANE.....	0.8			1.8		0.3	
CYCLOPENTANE.....	0.7			0.3		0.1	
HEXANES PLUS.....	1.3			1.2		0.4	
NITROGEN.....	10.0			0.0		0.8	
OXYGEN.....	2.1			0.1		0.0	
ARGON.....	0.1			0.0		0.0	
HYDROGEN.....	0.2			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.0		0.3	
HELIUM.....	0.06			0.03		0.08	
HEATING VALUE.....	1078			1301		1179	
SPECIFIC GRAVITY.....	0.733			1.114		0.672	
		INDEX SAMPLE	6091 6124	INDEX SAMPLE	6092 6130	INDEX SAMPLE	6093 6133
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME.....	EFFIE STINSON NO. 1			FREEMAN NO. 1		CARLISLE NO. 1	
LOCATION.....	SEC. 1, T26N, R25W			SEC. 6, T27N, R25W		SEC. 25, T26N, R25W	
OWNER.....	MOBIL OIL CORP.			AN-SON CORP.		SUN OIL CO.	
COMPLETED.....	03/08/56			04/28/56		06/14/56	
SAMPLED.....	08/08/56			08/18/56		08/21/56	
FORMATION.....	PENN-NORROW			PENN-NORROW		PENN-HOOVER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6908			6620		4152	
WELLHEAD PRESSURE, PSIG.....	1754			1320		1360	
OPEN FLOW, MCFD.....	12300			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	86.0			91.4		85.5	
ETHANE.....	6.0			4.7		2.4	
PROpane.....	3.2			1.8		2.5	
N-BUTANE.....	1.0			0.5		0.4	
ISOBUTANE.....	0.7			0.5		0.4	
N-PENTANE.....	0.2			0.1		0.3	
ISOPENTANE.....	0.4			TRACE		0.2	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.4			TRACE		0.3	
NITROGEN.....	0.5			0.6		3.5	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		0.1	
HELIUM.....	0.08			0.10		0.19	
HEATING VALUE.....	1187			1098		1123	
SPECIFIC GRAVITY.....	0.673			0.620		0.662	
		INDEX SAMPLE	6094 6140	INDEX SAMPLE	6095 6154	INDEX SAMPLE	6096 6155
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME.....	STINSON NO. 1			W. M. STURGEON UNIT NO. 1		W. M. STURGEON UNIT NO. 1	
LOCATION.....	SEC. 34, T26N, R25W			SEC. 2, T26N, R25W		SEC. 2, T26N, R25W	
OWNER.....	SUN OIL CO.			SHELL OIL CO.		SHELL OIL CO.	
COMPLETED.....	07/20/56			08/30/56		08/30/56	
SAMPLED.....	10/02/56			10/01/56		10/01/56	
FORMATION.....	PENN-HOOVER			PENN-HOOVER		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7278			4186		6893	
WELLHEAD PRESSURE, PSIG.....	1349			1287		1517	
OPEN FLOW, MCFD.....	6100			17000		3690	
COMPONENT, MOLE PCT.....							
METHANE.....	86.5			84.1		91.0	
ETHANE.....	6.1			5.4		4.2	
PROpane.....	2.3			0.5		1.9	
N-BUTANE.....	0.5			0.9		0.4	
ISOBUTANE.....	0.4			0.3		0.4	
N-PENTANE.....	0.1			0.4		0.3	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	TRACE			0.3		0.2	
HEXANES PLUS.....	3.4			0.1		0.4	
NITROGEN.....	0.0			4.0		0.7	
OXYGEN.....	0.0			TRACE		0.1	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.5	
HELIUM.....	0.19			0.20		0.06	
HEATING VALUE.....	1099			1146		1109	
SPECIFIC GRAVITY.....	0.646			0.681		0.631	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	6097 6168		INDEX SAMPLE	6098 6208		INDEX SAMPLE	6099 6224
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	HARPER		HARPER			HARPER		
FIELD.....	MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		
WELL NAME.....	BARBY NO. 1		LOUIS BARBY NO. 1			ELMA A. ODELL NO. 1		
LOCATION.....	SEC. 12, T26N, R26W		SEC. 6, T26N, R25W			SEC. 1, T25N, R25W		
OWNER.....	SUN OIL CO.		MOBIL OIL CORP.			MOBIL OIL CORP.		
COMPLETED.....	04/20/56		08/03/56			12/02/56		
SAMPLED.....	10/25/56		12/06/56			12/06/57		
FORMATION.....	PENN-HOOVER		MISS-CHESTER			PENN-HOOVER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4205		6918			4228		
WELLHEAD PRESSURE, PSIG.....	1348		1796			1195		
OPEN FLOW, MCFD.....	3750		27			650		
COMPONENT, MOLE PCT.....								
METHANE.....	85.0		83.6			85.6		
ETHANE.....	6.4		4.1			3.9		
PROpane.....	2.4		1.4			3.5		
N-BUTANE.....	0.8		2.8			0.8		
ISOBUTANE.....	0.3		0.3			0.2		
N-PENTANE.....	0.4		1.6			0.2		
ISOPENTANE.....	0.0		3.2			0.0		
CYCLOPENTANE.....	TRACE		0.4			TRACE		
HEXANES PLUS.....	0.2		1.1			0.2		
NITROGEN.....	3.9		0.7			3.2		
OXYGEN.....	0.3		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.2		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.7			0.1		
HELIUM.....	0.17		0.06			0.21		
HEATING VALUE.....	1102		1338			1116		
SPECIFIC GRAVITY.....	0.657		0.772			0.655		

	INDEX SAMPLE	6100 6253		INDEX SAMPLE	6101 6511		INDEX SAMPLE	6102 6512
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	HARPER		HARPER			HARPER		
FIELD.....	MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		
WELL NAME.....	STATE UNIT NO. 1		LOVE UNIT NO. 1			LOVE UNIT NO. 1		
LOCATION.....	SEC. 34, T27N, R25W		SEC. 8, T26N, R24W			SEC. 8, T26N, R24W		
OWNER.....	SHELL OIL CO.		J. M. HUBER CORP.			J. M. HUBER CORP.		
COMPLETED.....	02/13/56		02/24/58			02/24/58		
SAMPLED.....	02/11/57		02/25/58			02/24/58		
FORMATION.....	PENN-HOOVER		PENN-MORROW			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4180		6904			6956		
WELLHEAD PRESSURE, PSIG.....	1336		1764			1844		
OPEN FLOW, MCFD.....	16000		40000			5000		
COMPONENT, MOLE PCT.....								
METHANE.....	85.2		85.0			92.2		
ETHANE.....	6.1		6.9			3.5		
PROpane.....	2.3		3.5			1.3		
N-BUTANE.....	0.6		1.1			0.4		
ISOBUTANE.....	0.4		0.7			0.3		
N-PENTANE.....	0.1		0.5			0.1		
ISOPENTANE.....	0.1		0.5			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	4.3		0.7			0.7		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.0			1.1		
HELIUM.....	0.22		0.10			0.10		
HEATING VALUE.....	1085		1172			1077		
SPECIFIC GRAVITY.....	0.652		0.676			0.620		

	INDEX SAMPLE	6103 7160		INDEX SAMPLE	6104 7327		INDEX SAMPLE	6105 7338
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	HARPER		HARPER			HARPER		
FIELD.....	MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		
WELL NAME.....	EARL MCATEE UNIT NO. 1		A. D. STARBUCK NO. 1			DUNAWAY NO. 1		
LOCATION.....	SEC. 3, T26N, R24W		SEC. 11, T26N, R24W			SEC. 32, T27N, R25W		
OWNER.....	UNITED PRODUCING CO., INC.		ATLANTIC RICHFIELD CO.			OKLAHOMA NATURAL GAS CO.		
COMPLETED.....	05/22/59		11/09/59			09/28/59		
SAMPLED.....	07/28/59		12/28/59			02/1/60		
FORMATION.....	MISS-CHESTER		PENN-TONKAWA			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6512		5534			6760		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1554			1709		
OPEN FLOW, MCFD.....	5900		12500			10000		
COMPONENT, MOLE PCT.....								
METHANE.....	90.1		79.0			87.8		
ETHANE.....	4.8		7.8			4.9		
PROpane.....	3.8		4.7			2.9		
N-BUTANE.....	0.0		0.3			1.0		
ISOBUTANE.....	0.0		0.8			0.6		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.1		0.4			0.8		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.4		
NITROGEN.....	0.1		5.2			0.5		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.3			0.5		
HELIUM.....	0.10		0.20			0.10		
HEATING VALUE.....	1143		1167			1170		
SPECIFIC GRAVITY.....	0.638		0.712			0.666		

	INDEX SAMPLE	6106 7497		INDEX SAMPLE	6107 7567		INDEX SAMPLE	6108 7802
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	HARPER		HARPER			HARPER		
FIELD.....	MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		
WELL NAME.....	J. F. MOBERLY		TAFT NO. 1			STUART UNIT NO. 1		
LOCATION.....	SEC. 19, T26N, R23W		SEC. 22, T26N, R26W			SEC. 18, T26N, R25W		
OWNER.....	TEXOMA PRODUCTION CO.		SHELL OIL CO.			ATLANTIC RICHFIELD CO.		
COMPLETED.....	03/14/60		11/19/60			09/09/60		
SAMPLED.....	04/11/60		05/21/60			12/23/60		
FORMATION.....	PENN-MORROW		MISS-CHESTER			PENN-TONKAWA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5582		7193			5419		
WELLHEAD PRESSURE, PSIG.....	1540		1734			1541		
OPEN FLOW, MCFD.....	14400		4000			15250		
COMPONENT, MOLE PCT.....								
METHANE.....	81.0		87.0			82.5		
ETHANE.....	8.4		6.7			8.0		
PROpane.....	0.0		2.9			3.6		
N-BUTANE.....	1.0		0.7			0.9		
ISOBUTANE.....	0.0		0.6			0.5		
N-PENTANE.....	0.1		TRACE			0.2		
ISOPENTANE.....	0.8		0.5			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.1			0.1		
NITROGEN.....	6.6		1.0			3.6		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.2		
HELIUM.....	0.20		0.10			0.20		
HEATING VALUE.....	1109		1151			1138		
SPECIFIC GRAVITY.....	0.687		0.657			0.675		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6109 8363	INDEX SAMPLE	6110 8364	INDEX SAMPLE	6111 10859
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME.....	1 L ADAMS NO. 1			HEIRONYMUS NO. 1		STATE OF OKLAHOMA L NO. 1	
LOCATION.....	SEC. 28, T28N, R24W			SEC. 17, T28N, R23E		SEC. 36, T25N, R25W	
OWNER.....	MAY EXPLORATION VENTURES			MAY EXPLORATION VENTURES		CABOT CORP.	
COMPLETED.....	01/02/62			11/02/61		02/01/66	
SAMPLED.....	--/--/00			--/--/00		01/31/67	
FORMATION.....	MISS-CHESTER			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6236			6030		7850	
WELLHEAD PRESSURE, PSIG.....	1741			NOT GIVEN		1860	
OPEN FLOW, MCFD.....	4250			5389		7100	
COMPONENT, MOLE PCT.....							
METHANE.....	90.6			89.5		87.6	
ETHANE.....	4.5			4.4		6.2	
PROPANE.....	2.0			2.0		2.9	
N-BUTANE.....	0.6			0.7		0.7	
ISOBUTANE.....	0.3			0.4		0.4	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.3			0.4		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.2		0.2	
NITROGEN.....	1.0			0.7		0.7	
OXYGEN.....	TRACE			TRACE		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			TRACE		0.0	
CARBON DIOXIDE.....	0.3			0.6		0.6	
HELIUM.....	0.11			0.15		0.08	
HEATING VALUE.....	1197			1110		1138	
SPECIFIC GRAVITY.....	0.629			0.639		0.652	
		INDEX SAMPLE	6112 11277	INDEX SAMPLE	6113 11278	INDEX SAMPLE	6114 12897
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME.....	ERPLE PROPHET NO. 1			W. P. WOOD NO. 1		MILLER-LOTSPEICH NO. 1	
LOCATION.....	SEC. 35, T27N, R23W			SEC. 36, T27N, R23W		SEC. 19, T29N, R25W	
OWNER.....	SOUTHLAND ROYALTY CO.			SOUTHLAND ROYALTY CO.		EXXON CO., U.S.A.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	02/13/68			02/13/68		07/20/71	
FORMATION.....	PENN-TONKAWA			PENN-TONKAWA		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			5236		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1490			1421		300	
OPEN FLOW, MCFD.....	NOT GIVEN			14500		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	76.4			80.3		90.9	
ETHANE.....	7.4			7.7		4.6	
PROPANE.....	2.8			3.0		2.1	
N-BUTANE.....	1.0			0.9		0.6	
ISOBUTANE.....	0.3			0.4		0.3	
N-PENTANE.....	0.4			0.3		0.2	
ISOPENTANE.....	0.2			TRACE		TRACE	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.3			0.3		0.2	
NITROGEN.....	9.0			5.8		0.8	
OXYGEN.....	1.6			0.1		0.0	
ARGON.....	0.1			TRACE		0.0	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.16			0.19		0.08	
HEATING VALUE.....	1068			1113		1111	
SPECIFIC GRAVITY.....	0.708			0.687		0.626	
		INDEX SAMPLE	6115 14859	INDEX SAMPLE	6116 14860	INDEX SAMPLE	6117 14745
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HARPER			HARPER		HARPER	
FIELD.....	MOCANE-LAVERNE GAS AREA			MOCANE-LAVERNE GAS AREA		MOCANE-LAVERNE GAS AREA	
WELL NAME.....	CRAWFORD NO. 1			CRAWFORD NO. 1-36		HEIRONYMUS UNIT "D" NO. 2	
LOCATION.....	SEC. 12, T25N, R24W			SEC. 36, T26N, R25W		SEC. 2, T26N, R24W	
OWNER.....	MURPHY			AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	05/10/76			11/04/76		--/--/00	
SAMPLED.....	11/12/76			11/12/76		10/12/84	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7030			7066		5349	
WELLHEAD PRESSURE, PSIG.....	1850			1227		175	
OPEN FLOW, MCFD.....	3800			2124		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	90.8			84.3		80.0	
ETHANE.....	4.7			6.9		8.3	
PROPANE.....	2.0			4.0		4.5	
N-BUTANE.....	0.6			1.5		1.5	
ISOBUTANE.....	0.3			0.7		0.6	
N-PENTANE.....	0.3			0.3		0.5	
ISOPENTANE.....	0.3			0.3		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			0.5		0.4	
NITROGEN.....	0.6			0.8		3.4	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.0		0.3	
HELIUM.....	0.07			0.08		0.15	
HEATING VALUE.....	1122			1204		1201	
SPECIFIC GRAVITY.....	0.635			0.689		0.715	
		INDEX SAMPLE	6118 16363	INDEX SAMPLE	6119 14006	INDEX SAMPLE	6120 3469
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HASKELL			HASKELL		HASKELL	
FIELD.....	BROOKEN			KCDTA NE		KINTA	
WELL NAME.....	MURPHY NO. 1			CARSON NO. 1-30		E. JOHNSON NO. 1	
LOCATION.....	SEC. 8, T9N, R18E			SEC. 30, T10N, R23E		SEC. 26, T8N, R20E	
OWNER.....	SUN GAS CO.			CLEARLY PETROLEUM CORP.		OKLAHOMA NATURAL GAS CO.	
COMPLETED.....	07/12/81			01/12/76		06/13/27	
SAMPLED.....	10/20/81			05/03/74		06/02/42	
FORMATION.....	PENN-BOOCH			PENN-SPIRO		-COAL	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	1350			7396		837	
WELLHEAD PRESSURE, PSIG.....	310			1571		245	
OPEN FLOW, MCFD.....	3000			15815		556	
COMPONENT, MOLE PCT.....							
METHANE.....	96.6			96.2		96.4	
ETHANE.....	1.9			0.9		1.4	
PROPANE.....	0.3			0.3		0.3	
N-BUTANE.....	0.0			0.0		---	
ISOBUTANE.....	0.0			0.0		---	
N-PENTANE.....	0.0			0.0		---	
ISOPENTANE.....	0.0			0.0		---	
CYCLOPENTANE.....	0.0			0.0		---	
HEXANES PLUS.....	0.0			0.0		---	
NITROGEN.....	0.6			0.0		0.9	
OXYGEN.....	0.0			0.0		0.4	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	TRACE			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.4			2.3		0.9	
HELIUM.....	0.05			0.03		0.04	
HEATING VALUE.....	1026			1093		1002	
SPECIFIC GRAVITY.....	0.572			0.583		0.576	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6121 8179	INDEX SAMPLE 6122 8354	INDEX SAMPLE 6123 8355
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	HASKELL		HASKELL	HASKELL
FIELD.....	KINTA		KINTA	KINTA
WELL NAME.....	GLADYS HENDERSON UNIT NO. 1		ADAMS STATE UNIT NO. 1	ADAMS STATE UNIT NO. 1
LOCATION.....	SEC. 10, T7N, R19E		SEC. 12, T7N, R19E	SEC. 12, T7N, R19E
OWNER.....	MOBIL OIL CORP.		MOBIL OIL CORP.	MOBIL OIL CORP.
COMPLETED.....	06/29/61		09/21/61	09/21/61
SAMPLED.....	08/19/61		01/07/62	01/07/62
FORMATION.....	PENN-CROMWELL		PENN-SPIRO	PENN-CROMWELL
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	5522		5788	6238
WELLHEAD PRESSURE, PSIG.....	1391		1231	1409
OPEN FLOW, MCFD.....	2740		1980	5700
COMPONENT, MOLE PCT				
METHANE.....	95.4	94.9	95.8	95.8
ETHANE.....	1.3	0.8	1.2	1.2
PROPANE.....	0.4	0.1	0.3	0.3
N-BUTANE.....	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0
NITROGEN.....	0.7	2.2	0.8	0.8
OXYGEN.....	TRACE	0.9	0.1	0.1
ARGON.....	TRACE	0.2	0.1	0.1
HYDROGEN.....	0.1	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.0	1.6	1.6
HELIUM.....	0.10	0.07	0.04	0.04
HEATING VALUE.....	1000	979	1000	1000
SPECIFIC GRAVITY.....	0.589	0.580	0.582	0.582

		INDEX SAMPLE 6124 9031	INDEX SAMPLE 6125 9712	INDEX SAMPLE 6126 9796
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	HASKELL		HASKELL	HASKELL
FIELD.....	KINTA		KINTA	KINTA
WELL NAME.....	E. VAUGHN NO. 1		MCKINNEY UNIT NO. 1	FED. COLLEGE UNIT NO. 1
LOCATION.....	SEC. 32, T8N, R21E		SEC. 32, T8N, R21E	SEC. 15, T8N, R22E
OWNER.....	MOBIL OIL CORP.		EXXON CO., U.S.A.	TEXAS PACIFIC OIL CO.
COMPLETED.....	08/08/62		11/30/64	11/25/64
SAMPLED.....	07/05/63		01/20/65	03/12/65
FORMATION.....	PENN-SPIRO		PENN-CROMWELL	PENN-SPIRO
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	8064		7498	5860
WELLHEAD PRESSURE, PSIG.....	1195		1150	1175
OPEN FLOW, MCFD.....	1629		1930	4596
COMPONENT, MOLE PCT				
METHANE.....	94.4	95.0	95.9	95.9
ETHANE.....	0.7	0.0	0.8	0.8
PROPANE.....	0.2	0.0	0.4	0.4
N-BUTANE.....	0.1	0.0	0.0	0.0
ISOBUTANE.....	0.1	0.0	0.0	0.0
N-PENTANE.....	0.1	0.0	0.0	0.0
ISOPENTANE.....	0.1	0.0	0.0	0.0
CYCLOPENTANE.....	0.1	0.0	0.0	0.0
HEXANES PLUS.....	0.3	0.0	0.0	0.0
NITROGEN.....	0.2	1.6	0.6	0.6
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	0.0	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.8	0.7	2.6	2.6
HELIUM.....	0.10	0.07	0.67	0.67
HEATING VALUE.....	1001	973	996	996
SPECIFIC GRAVITY.....	0.610	0.590	0.586	0.586

		INDEX SAMPLE 6127 9854	INDEX SAMPLE 6128 10089	INDEX SAMPLE 6129 10090
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	HASKELL		HASKELL	HASKELL
FIELD.....	KINTA		KINTA	KINTA
WELL NAME.....	GREENWOOD UNIT NO. 1		J. FRED DIITMAN UNIT NO. 1	J. FRED DIITMAN UNIT NO. 1
LOCATION.....	SEC. 26, T10N, R23E		SEC. 21, T8N, R21E	SEC. 21, T8N, R21E
OWNER.....	MOBIL OIL CORP.		EXXON CO., U.S.A.	EXXON CO., U.S.A.
COMPLETED.....	04/26/64		06/30/65	06/30/65
SAMPLED.....	04/22/65		08/30/65	08/30/65
FORMATION.....	PENN-SPIRO		PENN-CROMWELL	PENN-SPIRO
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	5808		6342	5932
WELLHEAD PRESSURE, PSIG.....	1100		1600	1700
OPEN FLOW, MCFD.....	1919		3000	6000
COMPONENT, MOLE PCT				
METHANE.....	96.8	96.4	96.1	96.1
ETHANE.....	0.0	0.0	0.6	0.6
PROPANE.....	0.2	0.0	0.0	0.0
N-BUTANE.....	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0
NITROGEN.....	0.5	1.5	1.3	1.3
OXYGEN.....	0.0	0.0	0.1	0.1
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	0.1	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.3	1.4	1.8	1.8
HELIUM.....	0.09	0.10	0.08	0.08
HEATING VALUE.....	1004	987	984	984
SPECIFIC GRAVITY.....	0.575	0.577	0.580	0.580

		INDEX SAMPLE 6130 10188	INDEX SAMPLE 6131 10347	INDEX SAMPLE 6132 11719
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	HASKELL		HASKELL	HASKELL
FIELD.....	KINTA		KINTA	KINTA
WELL NAME.....	LOVE STAR NO. 1		ABBOTT UNIT A NO. 1	FENTON NO. 1
LOCATION.....	SEC. 8, T8N, R22E		SEC. 22, T8N, R21E	SEC. 17, T8N, R21E
OWNER.....	MOBIL OIL CORP.		AMOCO PRODUCTION CO.	SUNSET INTERNATL. PET. CORP.
COMPLETED.....	05/18/65		11/01/65	11/01/65
SAMPLED.....	10/03/65		12/29/65	12/30/68
FORMATION.....	PENN-SPIRO		PENN-SPIRO	DEVO-HUNTON
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	6286		6570	6520
WELLHEAD PRESSURE, PSIG.....	1180		1150	2250
OPEN FLOW, MCFD.....	15000		2600	3540
COMPONENT, MOLE PCT				
METHANE.....	96.2	94.4	95.7	95.7
ETHANE.....	0.9	0.7	0.6	0.6
PROPANE.....	0.1	0.0	0.1	0.1
N-BUTANE.....	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0
NITROGEN.....	0.7	1.3	2.2	2.2
OXYGEN.....	0.0	0.3	0.0	0.0
ARGON.....	TRACE	0.6	0.1	0.1
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	2.0	2.0	1.3	1.3
HELIUM.....	0.07	0.07	0.08	0.08
HEATING VALUE.....	993	984	983	983
SPECIFIC GRAVITY.....	0.582	0.587	0.584	0.584

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6133 13758	INDEX SAMPLE	6134 16594	INDEX SAMPLE	6135 17176
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HASKELL			HASKELL		HASKELL	
FIELD.....	KINTA			KINTA		KINTA	
WELL NAME.....	CARSON NO. 1-29			BONHAM B NO. 1-1		ROSE NO. 2-24	
LOCATION.....	SEC. 29, T10N, R23E			SEC. 1, T9N, R22E		SEC. 24, T7N, R19E	
OWNER.....	CLEAR PETROLEUM CORP.			HADSON PETROLEUM CO.		SAMSON RESOURCES CO.	
COMPLETED.....	07/31/73			7/78		11/02/81	
SAMPLED.....	09/27/73			07/78		02/14/84	
FORMATION.....	PENN-SPIRO			PENN-ATOKA		PENN-WAPANUCKA	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	6761			7314		9635	
WELLHEAD PRESSURE, PSIG.....	1532			165		780	
OPEN FLOW, MCFD.....	8628			NOT GIVEN		3100	
COMPONENT, MOLE PCT.....							
METHANE.....	92.5			95.8		94.1	
ETHANE.....	0.9			1.0		0.6	
PROpane.....	0.1			0.0		0.1	
N-BUTANE.....	0.0			0.0		TRACE	
ISOBUTANE.....	0.0			0.0		TRACE	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.2	
CYCLOPENTANE.....	0.0			0.0		0.1	
HEXANES PLUS.....	0.0			0.0		0.1	
NITROGEN.....	3.9			0.7		0.3	
OXYGEN.....	0.5			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.0			2.2		4.3	
HELIUM.....	0.09			0.08		0.04	
HEATING VALUE.....	956			991		984	
SPECIFIC GRAVITY.....	0.598			0.584		0.609	
		INDEX SAMPLE	6136 17598	INDEX SAMPLE	6137 15727	INDEX SAMPLE	6138 15728
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HASKELL			HASKELL		HASKELL	
FIELD.....	KINTA			RUSSELL SE		RUSSELL SE	
WELL NAME.....	BROWN #1 NO. 2-9			BROWN #1 NO. 1		BROWN #1 NO. 1	
LOCATION.....	SEC. 9, T9N, R23E			SEC. 33, T9N, R18E		SEC. 33, T9N, R18E	
OWNER.....	C & S EXPLORATION, INC.			CITIES SERVICE CO.		CITIES SERVICE CO.	
COMPLETED.....	05/26/84			03/08/79		03/08/79	
SAMPLED.....	02/25/85			08/17/79		08/17/79	
FORMATION.....	PENN-ATOKA			PENN-CROMWELL		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	1218			5454		4887	
WELLHEAD PRESSURE, PSIG.....	140			815		837	
OPEN FLOW, MCFD.....	2673			1884		10391	
COMPONENT, MOLE PCT.....							
METHANE.....	96.7			95.2		96.0	
ETHANE.....	2.2			0.8		0.8	
PROpane.....	0.1			0.1		0.1	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.5			0.7		0.8	
OXYGEN.....	0.5			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			3.1		2.2	
HELIUM.....	0.05			0.09		0.09	
HEATING VALUE.....	1024			981		989	
SPECIFIC GRAVITY.....	0.572			0.592		0.584	
		INDEX SAMPLE	6139 14382	INDEX SAMPLE	6140 14952	INDEX SAMPLE	6141 15726
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HASKELL			HASKELL		HASKELL	
FIELD.....	STIGLER			STIGLER W		STIGLER W	
WELL NAME.....	MCCARROLL NO. 1			JOHNSON NO. 1		COLLEGE UNIT NO. 1	
LOCATION.....	SEC. 10, T9N, R21E			SEC. 17, T9N, R20E		SEC. 15, T9N, R20E	
OWNER.....	SOUTHERN UNION PRODUCTION CO			SERVICE DRILLING CO.		E. LYLE JOHNSON, INC.	
COMPLETED.....	02/01/74			10/12/76		09/20/78	
SAMPLED.....	06/11/75			03/29/77		08/20/79	
FORMATION.....	PENN-SPIRO			PENN-SPIRO		PENN-WAPANUCKA	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	4011			3900		4235	
WELLHEAD PRESSURE, PSIG.....	1950			1375		1394	
OPEN FLOW, MCFD.....	2200			10310		10141	
COMPONENT, MOLE PCT.....							
METHANE.....	96.5			97.0		96.2	
ETHANE.....	1.1			0.0		0.3	
PROpane.....	0.1			0.1		0.1	
N-BUTANE.....	0.0			0.1		0.1	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.1		TRACE	
ISOPENTANE.....	0.0			0.1		TRACE	
CYCLOPENTANE.....	0.0			0.0		TRACE	
HEXANES PLUS.....	0.0			TRACE		0.1	
NITROGEN.....	1.6			1.4		1.7	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.1		0.5	
HELIUM.....	0.09			0.09		0.11	
HEATING VALUE.....	1000			1015		1009	
SPECIFIC GRAVITY.....	0.572			0.572		0.578	
		INDEX SAMPLE	6142 17084	INDEX SAMPLE	6143 3450	INDEX SAMPLE	6144 3459
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HASKELL			HUGHES		HUGHES	
FIELD.....	STIGLER W			ADAMS DISTRICT		ADAMS DISTRICT	
WELL NAME.....	GOLLON NO. 1-23			M. K. FREEM NO. 1		ADAMS ESTATE NO. 2	
LOCATION.....	SEC. 23, T9N, R19E			SEC. 29, T9N, R9E		SEC. 31, T9N, R9E	
OWNER.....	AMERADA OIL & GAS CO., INC			AMERADA HESS CORP.		AMERADA HESS CORP.	
COMPLETED.....	10/20/82			03/30/38		01/11/39	
SAMPLED.....	10/05/83			05/27/42		05/27/42	
FORMATION.....	DEVON-HUNTON			PENN-CROMWELL		PENN-CROMWELL	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	4816			3328		3350	
WELLHEAD PRESSURE, PSIG.....	2175			NOT GIVEN		580	
OPEN FLOW, MCFD.....	29000			14000		27416	
COMPONENT, MOLE PCT.....							
METHANE.....	93.7			61.2		72.4	
ETHANE.....	0.2			35.0		19.8	
PROpane.....	0.1			---		---	
N-BUTANE.....	0.0			---		---	
ISOBUTANE.....	0.0			---		---	
N-PENTANE.....	0.0			---		---	
ISOPENTANE.....	0.0			---		---	
CYCLOPENTANE.....	0.0			---		---	
HEXANES PLUS.....	0.0			---		---	
NITROGEN.....	3.7			3.0		7.0	
OXYGEN.....	0.2			0.5		0.4	
ARGON.....	0.1			---		---	
HYDROGEN.....	0.6			---		---	
HYDROGEN SULFIDE**.....	0.0			---		---	
CARBON DIOXIDE.....	0.3			0.2		0.2	
HELIUM.....	0.14			0.12		0.16	
HEATING VALUE.....	975			1247		1088	
SPECIFIC GRAVITY.....	0.578			0.744		0.685	

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6145 SAMPLE 3461			INDEX 6146 SAMPLE 4431			INDEX 6147 SAMPLE 3472		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	HUGHES		HUGHES			HUGHES		
FIELD.....	ADAMS DISTRICT		ALABAMA E			ALABAMA SE		
WELL NAME.....	ADAMS ESTATE NO. 1		HENEHA NO. 1			GRANNEMAN NO. 1		
LOCATION.....	SEC. 31, T9N, R9E		SEC. 2, T9N, R11E			SEC. 23, T9N, R11E		
OWNER.....	AMERAS HESS CORP.		WTO-CONTINENT PETROLEUM CORP			J. P. WALKER		
COMPLETED.....	04/01/35		08/26/47			06/15/41		
SAMPLED.....	05/27/42		02/04/48			05/25/42		
FORMATION.....	DEVON-MISENER		NOT GIVEN			PENN-BOOCH		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4023		2952			2245		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		975			685		
OPEN FLOW, MCFD.....	119		8500			7000		
COMPONENT, MOLE PCT								
METHANE.....	49.3	-----	74.7	-----		81.6	-----	
ETHANE.....	48.1	-----	22.8	-----		13.4	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	1.9	-----	1.8	-----		4.2	-----	
OXYGEN.....	0.3	-----	0.2	-----		0.4	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.3	-----	0.4	-----		0.2	-----	
HELIUM.....	0.07	-----	0.10	-----		0.18	-----	
HEATING VALUE.....	1361	-----	1165	-----		1067	-----	
SPECIFIC GRAVITY.....	0.804	-----	0.679	-----		0.641	-----	
INDEX 6148 SAMPLE 15649			INDEX 6149 SAMPLE 5103			INDEX 6150 SAMPLE 3451		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	HUGHES		HUGHES			HUGHES		
FIELD.....	ATWOOD S		CALVIN			CALVIN S		
WELL NAME.....	POOL NO. 1-13		A. LYONS NO. 1			BEAKER NO. 1		
LOCATION.....	SEC. 13, T5N, R9E		SEC. 33, T6N, R10E			SEC. 8, T5N, R10E		
OWNER.....	JOHN A. TAYLOR		SKELLY OIL CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	12/03/78		11/29/51			03/28/40		
SAMPLED.....	06/14/79		11/29/51			05/27/42		
FORMATION.....	PENN-GILCREASE		PENN-ATOKA			PENN-CROMWELL		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3800		NOT GIVEN			4398		
WELLHEAD PRESSURE, PSIG.....	1300		NOT GIVEN			1680		
OPEN FLOW, MCFD.....	2400		NOT GIVEN			8609		
COMPONENT, MOLE PCT								
METHANE.....	89.3	-----	81.0	-----		85.6	-----	
ETHANE.....	4.5	-----	8.8	-----		13.1	-----	
PROPANE.....	0.7	-----	0.4	-----		---	-----	
N-BUTANE.....	0.5	-----	1.0	-----		---	-----	
ISOBUTANE.....	0.2	-----	0.3	-----		---	-----	
N-PENTANE.....	0.2	-----	0.4	-----		---	-----	
ISOPENTANE.....	0.1	-----	0.0	-----		---	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		---	-----	
HEXANES PLUS.....	0.1	-----	0.3	-----		---	-----	
NITROGEN.....	2.7	-----	3.9	-----		0.4	-----	
OXYGEN.....	0.3	-----	0.2	-----		0.5	-----	
ARGON.....	TRACE	-----	TRACE	-----		---	-----	
HYDROGEN.....	TRACE	-----	TRACE	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.1	-----	0.3	-----		0.3	-----	
HELIUM.....	0.11	-----	0.11	-----		0.10	-----	
HEATING VALUE.....	1011	-----	1149	-----		1102	-----	
SPECIFIC GRAVITY.....	0.625	-----	0.689	-----		0.626	-----	
INDEX 6151 SAMPLE 3460			INDEX 6152 SAMPLE 13685			INDEX 6153 SAMPLE 14939		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	HUGHES		HUGHES			HUGHES		
FIELD.....	CALVIN S		CALVIN W			CARSON		
WELL NAME.....	NO. 1		RAPER NO. 1			MCWAY NO. 1-31		
LOCATION.....	SEC. 8, T5N, R10E		SEC. 30, T6N, R10E			SEC. 31, T9N, R12E		
OWNER.....	PHILLIPS PETROLEUM CO.		FERGUSON OIL CO., INC.			N.F.C. PETROLEUM CORP.		
COMPLETED.....	02/27/42		02/21/73			11/02/76		
SAMPLED.....	05/27/42		08/10/73			03/11/77		
FORMATION.....	PENN-CROMWELL		PENN-CROMWELL			PENN-BOOCH		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4361		4398			2820		
WELLHEAD PRESSURE, PSIG.....	1650		1660			454		
OPEN FLOW, MCFD.....	22500		4500			3401		
COMPONENT, MOLE PCT								
METHANE.....	87.4	-----	88.7	-----		83.8	-----	
ETHANE.....	11.1	-----	5.4	-----		6.3	-----	
PROPANE.....	---	-----	2.0	-----		2.6	-----	
N-BUTANE.....	---	-----	0.5	-----		0.6	-----	
ISOBUTANE.....	---	-----	0.2	-----		---	-----	
N-PENTANE.....	---	-----	0.1	-----		0.2	-----	
ISOPENTANE.....	---	-----	0.1	-----		0.1	-----	
CYCLOPENTANE.....	---	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	0.2	-----		0.1	-----	
NITROGEN.....	0.7	-----	2.3	-----		4.9	-----	
OXYGEN.....	0.4	-----	TRACE	-----		0.6	-----	
ARGON.....	---	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	---	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	---	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.3	-----	0.2	-----		0.2	-----	
HELIUM.....	0.11	-----	0.13	-----		0.09	-----	
HEATING VALUE.....	1084	-----	1149	-----		1074	-----	
SPECIFIC GRAVITY.....	0.617	-----	0.633	-----		0.655	-----	
INDEX 6154 SAMPLE 16628			INDEX 6155 SAMPLE 9913			INDEX 6156 SAMPLE 10516		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	HUGHES		HUGHES			HUGHES		
FIELD.....	CARSON		DUSTIN N			DUSTIN S		
WELL NAME.....	JOHNSON NO. 1		COPE NO. 1			BRANNON A NO. 1-LC		
LOCATION.....	SEC. 2, T8N, R12E		SEC. 17, T9N, R12E			SEC. 2, T9N, R12E		
OWNER.....	JAY PETROLEUM, INC.		SNEE & EBERLY			PHILLIPS PETROLEUM CO.		
COMPLETED.....	03/28/82		05/04/65			12/29/64		
SAMPLED.....	08/30/82		06/04/65			04/07/66		
FORMATION.....	PENN-GILCREASE		PENN-GILCREASE			PENN-BOOCH		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3002		2660			1972		
WELLHEAD PRESSURE, PSIG.....	170		1000			640		
OPEN FLOW, MCFD.....	1000		15619			7269		
COMPONENT, MOLE PCT								
METHANE.....	83.8	-----	90.4	-----		94.6	-----	
ETHANE.....	8.0	-----	4.9	-----		2.0	-----	
PROPANE.....	2.8	-----	1.7	-----		0.5	-----	
N-BUTANE.....	0.7	-----	0.5	-----		0.2	-----	
ISOBUTANE.....	0.3	-----	0.3	-----		0.0	-----	
N-PENTANE.....	0.2	-----	TRACE	-----		0.0	-----	
ISOPENTANE.....	0.2	-----	TRACE	-----		0.0	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.0	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.0	-----	
NITROGEN.....	3.1	-----	1.6	-----		2.5	-----	
OXYGEN.....	0.5	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.2	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	TRACE	-----	0.2	-----		0.1	-----	
HELIUM.....	0.09	-----	0.08	-----		0.10	-----	
HEATING VALUE.....	1125	-----	1022	-----		1014	-----	
SPECIFIC GRAVITY.....	0.664	-----	0.622	-----		0.583	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6157 10517	INDEX SAMPLE	6158 10058	INDEX SAMPLE	6159 10059
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	DUSTIN S			FURMAN SE		FURMAN SE	
WELL NAME.....	BRANNON A NO. 1-UC			MEADORS NO. 1		DARKS NO. 1	
LOCATION.....	SEC. 17, T9N, R12E			SEC. 36, T9N, R9E		SEC. 36, T9N, R9E	
OWNER.....	PHILLIPS PETROLEUM CO.			WOOD OIL CO.		WOOD OIL CO.	
COMPLETED.....	12/23/64			05/03/65		06/16/65	
SAMPLED.....	04/07/66			08/10/65		08/10/65	
FORMATION.....	PENN-BARTLESVILLE			PENN-GILCREASE		PENN-BOOCH	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1362			2836		2519	
WELLHEAD PRESSURE, PSIG.....	440			1160		1100	
OPEN FLOW, MCFD.....	2017			4000		750	
COMPONENT, MOLE PCT							
METHANE.....	93.8	-----		82.9	-----	76.7	-----
ETHANE.....	2.1	-----		4.4	-----	3.4	-----
PROpane.....	0.5	-----		2.3	-----	2.3	-----
N-BUTANE.....	0.2	-----		0.6	-----	0.6	-----
ISOBUTANE.....	0.0	-----		0.2	-----	0.3	-----
N-PENTANE.....	0.0	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.0	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		0.1	-----	0.1	-----
NITROGEN.....	3.1	-----		8.8	-----	15.1	-----
OXYGEN.....	0.1	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.3	-----	1.0	-----
HELIUM.....	0.07	-----		0.14	-----	0.13	-----
HEATING VALUE.....	1008	-----		1023	-----	946	-----
SPECIFIC GRAVITY.....	0.587	-----		0.658	-----	0.689	-----

		INDEX SAMPLE	6160 15814	INDEX SAMPLE	6161 1307	INDEX SAMPLE	6162 3463
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	GERTY			GILCREST SW		GREASY CREEK	
WELL NAME.....	COSPER NO. 7-1			T.1-T.0, NO. 1		CANARD NO. 2	
LOCATION.....	SEC. 7, T4N, R10E			SEC. 19, T9N, R9E		SEC. 27, T9N, R10E	
OWNER.....	JONES & FELLOW OIL CO.			INDIAN TERR. ILLUM. OIL CO.		DR. T. J. LYNCH	
COMPLETED.....	08/20/79			05/17/26		10/21/41	
SAMPLED.....	10/23/79			09/23/26		05/25/42	
FORMATION.....	PENN-BOOCH			PENN-GILCREASE		PENN-BOOCH	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2910			3370		2310	
WELLHEAD PRESSURE, PSIG.....	956			1100		570	
OPEN FLOW, MCFD.....	2433			8000		3720	
COMPONENT, MOLE PCT							
METHANE.....	89.4	-----		61.2	-----	81.2	-----
ETHANE.....	3.7	-----		31.5	-----	14.9	-----
PROpane.....	1.7	-----		---	-----	---	-----
N-BUTANE.....	0.4	-----		---	-----	---	-----
ISOBUTANE.....	0.3	-----		---	-----	---	-----
N-PENTANE.....	0.1	-----		---	-----	---	-----
ISOPENTANE.....	0.2	-----		---	-----	---	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	---	-----
HEXANES PLUS.....	0.1	-----		---	-----	---	-----
NITROGEN.....	4.0	-----		6.6	-----	3.2	-----
OXYGEN.....	0.0	-----		0.3	-----	0.4	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	TRACE	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.4	-----	0.2	-----
HELIUM.....	0.17	-----		0.11	-----	0.04	-----
HEATING VALUE.....	1058	-----		1184	-----	1090	-----
SPECIFIC GRAVITY.....	0.626	-----		0.743	-----	0.645	-----

		INDEX SAMPLE	6163 3473	INDEX SAMPLE	6164 3754	INDEX SAMPLE	6165 3896
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	GREASY CREEK			GREASY CREEK		GREASY CREEK	
WELL NAME.....	BYRD NO. 1			AUSTIN NO. 1		DANNENBURG NO. 1	
LOCATION.....	SEC. 5, T8N, R11E			SEC. 4, T7N, R10E		SEC. 35, T9N, R10E	
OWNER.....	DR. T. J. LYNCH			ALADDIN PETROLEUM CORP.		CREEKMORE-ROONEY CO.	
COMPLETED.....	09/-/737			01/27/44		03/21/44	
SAMPLED.....	05/25/42			03/30/44		08/29/44	
FORMATION.....	PENN-CALVIN			PENN-CROWHILL		PENN-GILCREASE	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1540			3482		3172	
WELLHEAD PRESSURE, PSIG.....	420			1445		NOT GIVEN	
OPEN FLOW, MCFD.....	1500			27		1000	
COMPONENT, MOLE PCT							
METHANE.....	91.6	-----		81.4	-----	70.2	-----
ETHANE.....	4.9	-----		16.3	-----	27.7	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	2.8	-----		1.8	-----	1.1	-----
OXYGEN.....	0.4	-----		0.3	-----	0.4	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.5	-----
HELIUM.....	0.13	-----		0.13	-----	0.08	-----
HEATING VALUE.....	1016	-----		1117	-----	1208	-----
SPECIFIC GRAVITY.....	0.594	-----		0.645	-----	0.703	-----

		INDEX SAMPLE	6166 3905	INDEX SAMPLE	6167 4391	INDEX SAMPLE	6168 4392
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	GREASY CREEK			GREASY CREEK		GREASY CREEK	
WELL NAME.....	BAILEY CONSOLIDATED NO. 1			MEADORS NO. 1		MEADORS NO. 1	
LOCATION.....	SEC. 19, T8N, R11E			SEC. 36, T9N, R10E		SEC. 36, T9N, R10E	
OWNER.....	OTHA H. GRIMES			MID-CONTINENT PETROLEUM CORP		MID-CONTINENT PETROLEUM CORP	
COMPLETED.....	11/28/42			06/30/42		07/18/47	
SAMPLED.....	06/09/44			12/15/47		12/15/47	
FORMATION.....	PENN-GILCREASE			PENN-BOOCH		PENN-BOOCH	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2870			2224		2242	
WELLHEAD PRESSURE, PSIG.....	560			715		800	
OPEN FLOW, MCFD.....	14000			3880		2100	
COMPONENT, MOLE PCT							
METHANE.....	89.6	-----		79.0	-----	81.1	-----
ETHANE.....	9.0	-----		17.5	-----	16.0	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	0.7	-----		2.9	-----	2.3	-----
OXYGEN.....	0.2	-----		0.3	-----	0.2	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.4	-----		0.2	-----	0.3	-----
HELIUM.....	0.10	-----		0.09	-----	0.09	-----
HEATING VALUE.....	1069	-----		1144	-----	1108	-----
SPECIFIC GRAVITY.....	0.606	-----		0.656	-----	0.647	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6169 4474	INDEX SAMPLE	6170 4557	INDEX SAMPLE	6171 4558
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	GREASY CREEK			GREASY CREEK		GREASY CREEK	
WELL NAME.....	STEEL NO. 1			SMITH 8 NO. 1		NICKS NO. 1	
LOCATION.....	SEC. 17, T8N, R11E			SEC. 12, T8N, R10E		SEC. 12, T8N, R10E	
OWNER.....	OTHA H. GRIMES			CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	01/-/48			05/18/48		04/16/48	
SAMPLED.....	04/16/48			09/10/48		09/10/48	
FORMATION.....	PENN-GILCREASE			PENN-BOOCH		PENN-BOOCH	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2972			2330		2305	
WELLHEAD PRESSURE, PSIG.....	940			875		800	
OPEN FLOW, MCFD.....	1050			1100		5540	
COMPONENT, MOLE PCT							
METHANE.....	89.0	---	---	80.1	---	80.7	---
ETHANE.....	8.5	---	---	14.9	---	---	---
PROpane.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	0.0	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	1.7	---	---	4.4	---	3.9	---
OXYGEN.....	0.3	---	---	0.2	---	0.1	---
ARGON.....	---	---	---	---	---	0.0	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE**.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.4	---	---	0.3	---	0.3	---
HELIUM.....	0.09	---	---	0.12	---	0.11	---
HEATING VALUE.....	1054	---	---	1074	---	817	---
SPECIFIC GRAVITY.....	0.609	---	---	0.650	---	0.491	---
		INDEX SAMPLE	6172 4557	INDEX SAMPLE	6173 5070	INDEX SAMPLE	6174 5115
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	GREASY CREEK			GREASY CREEK		GREASY CREEK	
WELL NAME.....	RASBERRY			MYERS NO. 1		CORDELL NO. 1	
LOCATION.....	SEC. 12, T8N, R10E			SEC. 9, T7N, R10E		SEC. 2, T8N, R10E	
OWNER.....	CITIES SERVICE OIL CO.			WHITE EAGLE OIL CO.		DAVIDOR & DAVIDOR, INC.	
COMPLETED.....	06/16/48			03/01/51		04/1/50	
SAMPLED.....	09/10/48			06/01/51		12/03/51	
FORMATION.....	PENN-BOOCH			PENN-CROMWELL		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2333			3580		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	800			1400		NOT GIVEN	
OPEN FLOW, MCFD.....	638			2144		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	80.1	---	---	84.3	---	89.4	---
ETHANE.....	15.3	---	---	8.7	---	3.8	---
PROpane.....	---	---	---	2.9	---	2.9	---
N-BUTANE.....	---	---	---	0.7	---	0.9	---
ISOBUTANE.....	---	---	---	0.1	---	0.0	---
N-PENTANE.....	---	---	---	0.3	---	0.3	---
ISOPENTANE.....	---	---	---	0.0	---	0.2	---
CYCLOPENTANE.....	---	---	---	TRACE	---	0.0	---
HEXANES PLUS.....	---	---	---	0.3	---	0.3	---
NITROGEN.....	4.1	---	---	2.3	---	2.6	---
OXYGEN.....	0.1	---	---	0.1	---	0.1	---
ARGON.....	---	---	---	TRACE	---	TRACE	---
HYDROGEN.....	---	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE**.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.3	---	---	0.1	---	0.1	---
HELIUM.....	0.11	---	---	0.11	---	0.11	---
HEATING VALUE.....	1086	---	---	1141	---	1093	---
SPECIFIC GRAVITY.....	0.650	---	---	0.662	---	0.640	---
		INDEX SAMPLE	6175 9956	INDEX SAMPLE	6176 9957	INDEX SAMPLE	6177 16449
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	GREASY CREEK			GREASY CREEK		GREASY CREEK	
WELL NAME.....	TOWNSEND NO. 2			ROGERS-BRUNER NO. 1		HUGHES NO. 1-A	
LOCATION.....	SEC. 29, T8N, R11E			SEC. 20, T8N, R11E		SEC. 28, T8N, R10E	
OWNER.....	OTHA H. GRIMES			OTHA H. GRIMES		LEMA PETROLEUM, INC.	
COMPLETED.....	03/05/55			11/06/56		03/15/82	
SAMPLED.....	07/06/55			07/06/55		03/13/82	
FORMATION.....	PENN-BARTLESVILLE			PENN-GILCREASE		PENN-HARTSHORNE	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1722			2898		2500	
OPEN FLOW, MCFD.....	1660			1210		3000	
COMPONENT, MOLE PCT							
METHANE.....	90.0	---	---	90.2	---	93.6	---
ETHANE.....	2.9	---	---	1.5	---	2.5	---
PROpane.....	1.5	---	---	1.5	---	1.0	---
N-BUTANE.....	0.4	---	---	0.3	---	0.2	---
ISOBUTANE.....	0.1	---	---	0.1	---	0.3	---
N-PENTANE.....	0.1	---	---	TRACE	---	0.1	---
ISOPENTANE.....	TRACE	---	---	0.2	---	0.1	---
CYCLOPENTANE.....	0.1	---	---	TRACE	---	0.1	---
HEXANES PLUS.....	0.2	---	---	TRACE	---	0.2	---
NITROGEN.....	4.2	---	---	2.7	---	1.7	---
OXYGEN.....	0.0	---	---	0.2	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN.....	0.0	---	---	0.0	---	0.1	---
HYDROGEN SULFIDE**.....	0.0	---	---	0.3	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.0	---	TRACE	---
HELIUM.....	0.10	---	---	0.07	---	0.05	---
HEATING VALUE.....	1044	---	---	1053	---	1059	---
SPECIFIC GRAVITY.....	0.622	---	---	0.616	---	0.601	---
		INDEX SAMPLE	6178 4636	INDEX SAMPLE	6179 3465	INDEX SAMPLE	6180 3866
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	HILL TOP			HILL TOP		HILL TOP	
WELL NAME.....	DERRICK A NO. 1			A. C. MCKAY NO. 1		M. O. CLARKE A NO. 1	
LOCATION.....	SEC. 32, T6N, R11E			SEC. 16, T5N, R11E		SEC. 21, T5N, R11E	
OWNER.....	CO.			MOBIL OIL CORP.		STANDARD OIL & GAS CO.	
COMPLETED.....	07/21/48			03/04/41		07/21/44	
SAMPLED.....	11/24/48			05/25/42		09/12/44	
FORMATION.....	PENN-			PENN-CROMWELL		PENN-CROMWELL	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	4866			5360		5463	
WELLHEAD PRESSURE, PSIG.....	1948			22500		NOT GIVEN	
OPEN FLOW, MCFD.....	2650					30000	
COMPONENT, MOLE PCT							
METHANE.....	82.2	---	---	90.8	---	93.8	---
ETHANE.....	11.6	---	---	8.5	---	9.1	---
PROpane.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	4.6	---	---	TRACE	---	0.0	---
OXYGEN.....	0.9	---	---	0.5	---	0.4	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE**.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.6	---	---	0.3	---	0.7	---
HELIUM.....	0.07	---	---	0.1	---	0.10	---
HEATING VALUE.....	1041	---	---	1070	---	1042	---
SPECIFIC GRAVITY.....	0.641	---	---	0.602	---	0.589	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6181 3998	INDEX SAMPLE	6182 13977	INDEX SAMPLE	6183 1739
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	HILL TOP			HILL TOP		HOLDENVILLE	
WELL NAME.....	C. PEARSON NO. 1			WILBANKS NO. 1		JACKSON NO. 1	
LOCATION.....	SEC. 16, T8N, R11E			SEC. 29, T5N, R11E		SEC. 11, T7N, R8E	
OWNER.....	TEKACO INC.			WOODS PETROLEUM CORP.		INDEPENDENT OIL & GAS CO.	
COMPLETED.....	01/28/45			04/11/74		02/20/29	
SAMPLED.....	03/27/45			04/15/74		04/12/29	
FORMATION.....	PENN-CROMWELL			PENN-BOGGY		NOT GIVEN	
GEOLOGIC PROVINCE CODE	355			355		355	
DEPTH, FEET.....	5428			1511		3020	
WELLHEAD PRESSURE, PSIG	1500			650		990	
OPEN FLOW, MCFD.....	2250			NOT GIVEN		55806	
COMPONENT, MOLE PCT							
METHANE.....	92.9			92.6		67.2	
ETHANE.....	6.1			2.2		24.5	
PROPANE.....	---			0.2		---	
N-BUTANE.....	---			TRACE		---	
ISOBUTANE.....	---			0.1		---	
N-PENTANE.....	---			0.0		---	
ISOPENTANE.....	---			0.1		---	
CYCLOPENTANE.....	---			TRACE		---	
HEXANES PLUS.....	---			4.6		---	
NITROGEN.....	0.0			---		7.5	
OXYGEN.....	0.3			0.0		0.3	
ARGON.....	---			TRACE		---	
HYDROGEN.....	---			TRACE		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.6			TRACE		0.5	
HELIUM.....	1050			0.7		0.10	
HEATING VALUE.....	1050			---		1120	
SPECIFIC GRAVITY.....	0.592			0.389		0.713	

		INDEX SAMPLE	6184 2242	INDEX SAMPLE	6185 16638	INDEX SAMPLE	6186 4130
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	HOLDENVILLE			HOLDENVILLE NE		KICKAPOO E	
WELL NAME.....	LOUISA TIGER NO. 1			WILLIAMS NO. 1-24		B. L. PRICE NO. 1	
LOCATION.....	SEC. 9, T7N, R8E			SEC. 24, T8N, R9E		SEC. 26, T8N, R10E	
OWNER.....	MID-CONTINENT PETROLEUM CORP			LUBELL OIL CO.		SKELLY OIL CO.	
COMPLETED.....	10/20/30			03/19/46		01/19/46	
SAMPLED.....	11/22/30			09/07/82		10/10/46	
FORMATION.....	PENN-BOOCH			PENN-GILCREASE		PENN-UNION VALLEY	
GEOLOGIC PROVINCE CODE	355			355		355	
DEPTH, FEET.....	2950			3200		3370	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			940		1500	
OPEN FLOW, MCFD.....	10000			3000		1000	
COMPONENT, MOLE PCT							
METHANE.....	76.4			86.8		80.2	
ETHANE.....	19.7			4.0		19.5	
PROPANE.....	---			2.1		---	
N-BUTANE.....	---			0.6		---	
ISOBUTANE.....	---			0.4		---	
N-PENTANE.....	---			0.2		---	
ISOPENTANE.....	---			0.1		---	
CYCLOPENTANE.....	---			0.1		---	
HEXANES PLUS.....	---			0.3		---	
NITROGEN.....	3.7			---		---	
OXYGEN.....	7.1			TRACE		0.0	
ARGON.....	---			0.0		---	
HYDROGEN.....	---			0.1		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.2			0.2		0.3	
HELIUM.....	0.09			0.11		0.12	
HEATING VALUE.....	1127			1071		1162	
SPECIFIC GRAVITY.....	0.670			0.647		0.654	

		INDEX SAMPLE	6187 4770	INDEX SAMPLE	6188 11685	INDEX SAMPLE	6189 11656
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	KICKAPOO E			LAMAR E		LAMAR E	
WELL NAME.....	B. L. PRICE NO. 1			SANDERS NO. 1		SANDERS NO. 1	
LOCATION.....	SEC. 26, T8N, R10E			SEC. 25, T8N, R11E		SEC. 25, T8N, R11E	
OWNER.....	SKELLY OIL CO.			LUBELL OIL CO.		LUBELL OIL CO.	
COMPLETED.....	06/22/49			04/14/68		04/14/68	
SAMPLED.....	01/20/49			09/24/68		09/24/68	
FORMATION.....	PENN-BOOCH			PENN-HARTSHORNE		PENN-WAPANUCKA	
GEOLOGIC PROVINCE CODE	355			355		355	
DEPTH, FEET.....	2360			2406		3466	
WELLHEAD PRESSURE, PSIG	710			640		910	
OPEN FLOW, MCFD.....	1200			3500		3000	
COMPONENT, MOLE PCT							
METHANE.....	88.3			88.5		82.5	
ETHANE.....	3.7			10.6		10.6	
PROPANE.....	2.3			2.2		3.4	
N-BUTANE.....	0.6			0.4		0.8	
ISOBUTANE.....	0.2			0.4		0.4	
N-PENTANE.....	0.1			0.2		0.4	
ISOPENTANE.....	0.3			TRACE		0.0	
CYCLOPENTANE.....	---			TRACE		TRACE	
HEXANES PLUS.....	0.0			---		0.3	
NITROGEN.....	4.3			2.4		1.2	
OXYGEN.....	0.0			0.0		---	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.1		TRACE	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	---			---		0.2	
HELIUM.....	0.12			0.10		0.09	
HEATING VALUE.....	1066			1091		1187	
SPECIFIC GRAVITY.....	0.634			0.631		0.680	

		INDEX SAMPLE	6190 17895	INDEX SAMPLE	6191 13640	INDEX SAMPLE	6192 1040
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	LAMAR N			LEGAL N		PAPOOSE	
WELL NAME.....	YAROSLASKI NO. 1			MARTIN NO. 1		ALEXANDER NO. 1	
LOCATION.....	SEC. 8, T7N, R11E			SEC. 23, T4N, R11E		SEC. 8, T9N, R9E	
OWNER.....	GLENC INTERNATIONAL CORP.			WESCHER DIVERSIFIED MGMT. CO		PAPOOSE OIL CO.	
COMPLETED.....	03/26/85			10/13/72		04/11/74	
SAMPLED.....	11/07/85			07/05/73		04/28/25	
FORMATION.....	PENN-RED FORK			PENN-CROMWELL		PENN-	
GEOLOGIC PROVINCE CODE	355			355		355	
DEPTH, FEET.....	1798			7300		3314	
WELLHEAD PRESSURE, PSIG	220			2600		20	
OPEN FLOW, MCFD.....	130			2600		200	
COMPONENT, MOLE PCT							
METHANE.....	88.8			94.5		52.9	
ETHANE.....	3.2			2.4		42.0	
PROPANE.....	0.6			0.4		---	
N-BUTANE.....	0.6			0.1		---	
ISOBUTANE.....	0.2			---		---	
N-PENTANE.....	0.4			TRACE		---	
ISOPENTANE.....	0.0			---		---	
CYCLOPENTANE.....	0.2			TRACE		---	
HEXANES PLUS.....	0.6			---		---	
NITROGEN.....	4.0			0.0		4.0	
OXYGEN.....	0.0			0.1		0.7	
ARGON.....	0.0			0.6		---	
HYDROGEN.....	TRACE			---		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.2			0.1		0.4	
HELIUM.....	0.10			0.08		0.06	
HEATING VALUE.....	1085			1017		1289	
SPECIFIC GRAVITY.....	0.644			0.586		0.787	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

B26

		INDEX SAMPLE	6193 3814	INDEX SAMPLE	6194 4729	INDEX SAMPLE	6195 11328
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	PARADOSE			PECAN GROVE		STUART SW	
WELL NAME.....	NORTON NO. 1			DAVIS-MURTA NO. 1		WOODFORD NO. 1	
LOCATION.....	SEC. 6, T9N, R10E			SEC. 20, T8N, R9E		SEC. 26, T5N, R11E	
OWNER.....	KEENER OIL & GAS CO.			GULF OIL CO.- U.S.		LUBELL OIL CO.	
COMPLETED.....	01/02/42			01/23/49		05/31/59	
SAMPLED.....	04/25/44			05/16/49		02/29/68	
FORMATION.....	PENN.-BOOCH			PENN.-CROWELL		PENN.-HARTSHORNE	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2580			3320		3085	
WELLHEAD PRESSURE, PSIG.....	275			190		640	
OPEN FLOW, MCFD.....	500			1300		40	
COMPONENT, MOLE PCT							
METHANE.....	68.0			67.5		87.3	
ETHANE.....	21.5			19.5		9.8	
PROPANE.....	---			6.4		2.4	
N-BUTANE.....	---			1.2		0.6	
ISOBUTANE.....	---			0.4		0.2	
N-PENTANE.....	---			0.4		0.2	
ISOPENTANE.....	---			0.1		TRACE	
CYCLOPENTANE.....	---			TRACE		0.1	
HEXANES PLUS.....	---			0.4		0.2	
NITROGEN.....	10.0			3.5		3.5	
OXYGEN.....	0.4			0.1		0.4	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			TRACE		0.0	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	0.0			0.4		0.2	
HELIUM.....	0.07			0.02		0.15	
HEATING VALUE.....	1074			1292		1082	
SPECIFIC GRAVITY.....	0.704			0.777		0.643	
		INDEX SAMPLE	6196 3868	INDEX SAMPLE	6197 16464	INDEX SAMPLE	6198 962
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	HUGHES			HUGHES		HUGHES	
FIELD.....	WETUMKA DISTRICT E			WETUMKA DISTRICT E		WETUMKA DISTRICT	
WELL NAME.....	JARRETT NO. 1			ALPHA NO. 1		A. LONG NO. 1	
LOCATION.....	SEC. 14, T9N, R10E			SEC. 15, T9N, R10E		SEC. 4, T7N, R8E	
OWNER.....	MEELY-WOLFE DRILLING CO.			W&J EXPLORATION, INC.		PRAIRIE OIL & GAS CO.	
COMPLETED.....	04/10/44			04/07/81		06/---/24	
SAMPLED.....	08/25/44			02/22/82		01/09/25	
FORMATION.....	NOT GIVEN			PENN.-GILCREASE		PENN.----	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2632			2662		3194	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			400		12	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.1			87.6		5.7	
ETHANE.....	14.6			2.2		84.2	
PROPANE.....	---			0.0		---	
N-BUTANE.....	---			0.7		---	
ISOBUTANE.....	---			0.3		---	
N-PENTANE.....	---			0.2		---	
ISOPENTANE.....	---			0.1		---	
CYCLOPENTANE.....	---			0.1		---	
HEXANES PLUS.....	---			0.1		---	
NITROGEN.....	3.6			4.2		9.1	
OXYGEN.....	0.3			0.0		0.6	
ARGON.....	---			TRACE		---	
HYDROGEN.....	---			0.13		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.4			0.1		0.5	
HELIUM.....	0.00			0.1		0.04	
HEATING VALUE.....	1083			1080		1567	
SPECIFIC GRAVITY.....	0.647			0.643		1.017	
		INDEX SAMPLE	6199 4129	INDEX SAMPLE	6200 7576	INDEX SAMPLE	6201 1751
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	JEFFERSON			JEFFERSON		KAY	
FIELD.....	OSCAR			SEAY		BLACKWELL DISTRICT	
WELL NAME.....	NO. D SEAY NO. 40			NO. 6		VICKERY NO. 4	
LOCATION.....	SEC. 3, T7S, R5W			SEC. 19, T7S, R5W		SEC. 28, T27N, R1E	
OWNER.....	CONTINENTAL OIL CO.			THERMAL PRODUCERS, INC.		HAG OIL CO.	
COMPLETED.....	12/---/45			02/05/60		03/16/29	
SAMPLED.....	10/23/46			06/10/60		04/22/29	
FORMATION.....	PENN.-CISCO			PENN.-CISCO		---LIME	
GEOLOGIC PROVINCE CODE.....	350			350		355	
DEPTH, FEET.....	845			698		794	
WELLHEAD PRESSURE, PSIG.....	215			NOT GIVEN		75	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		100	
COMPONENT, MOLE PCT							
METHANE.....	51.2			57.7		55.4	
ETHANE.....	4.1			2.4		5.4	
PROPANE.....	---			0.1		---	
N-BUTANE.....	---			0.1		---	
ISOBUTANE.....	---			0.0		---	
N-PENTANE.....	---			0.0		---	
ISOPENTANE.....	---			0.0		---	
CYCLOPENTANE.....	---			TRACE		---	
HEXANES PLUS.....	---			0.1		---	
NITROGEN.....	43.1			37.5		38.1	
OXYGEN.....	0.0			0.0		0.2	
ARGON.....	---			0.1		---	
HYDROGEN.....	---			0.0		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.4			0.9		0.5	
HELIUM.....	1.19			0.90		0.62	
HEATING VALUE.....	592			643		658	
SPECIFIC GRAVITY.....	0.752			0.733		0.743	
		INDEX SAMPLE	6202 16732	INDEX SAMPLE	6203 15717	INDEX SAMPLE	6204 11527
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	KAY			KAY		KAY	
FIELD.....	BRAMAN			BRAMAN N		BRAMAN NW	
WELL NAME.....	SEC. 16, T28N, R1W			SEC. 22, T29N, R1W		CORBIN NO. 3	
LOCATION.....	WESTERN PACIFIC PET., INC.			CHASE EXPLORATION CORP.		SEC. 25, T29N, R2W	
OWNER.....	12/22/81			11/10/77		STRUBY-KIERMAN	
COMPLETED.....	12/13/82			07/28/79		---/---/00	
SAMPLED.....	PENN.-STALNAKER			PERA-NEVA		05/31/68	
FORMATION.....	355			355		PENN.-CHEROKEE	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2410			900		3656	
WELLHEAD PRESSURE, PSIG.....	850			110		1536	
OPEN FLOW, MCFD.....	760			225		2000	
COMPONENT, MOLE PCT							
METHANE.....	59.7			62.8		77.9	
ETHANE.....	5.1			3.8		6.7	
PROPANE.....	0.8			2.0		3.0	
N-BUTANE.....	0.9			0.3		1.0	
ISOBUTANE.....	0.3			0.3		0.3	
N-PENTANE.....	0.2			0.1		0.2	
ISOPENTANE.....	0.1			0.1		0.4	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.3			0.1		0.2	
NITROGEN.....	29.3			29.3		9.6	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.5		0.1	
HELIUM.....	0.51			0.75		0.36	
HEATING VALUE.....	950			797		1071	
SPECIFIC GRAVITY.....	0.764			0.733		0.694	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6205 SAMPLE 10019		INDEX 6206 SAMPLE 11546		INDEX 6207 SAMPLE 5343	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	KAY	KAY		KAY	
FIELD.....	BRAMAN W	CHILCOCK E		DILLWORTH DISTRICT	
WELL NAME.....	WILLIAMSON NO. 1	WIDENER NO. 2		J. COURTNEY NO. 1	
LOCATION.....	SEC. 4, T28N, R2W	SEC. 20, T29N, R3E		SEC. 21, T29N, R1E	
OWNER.....	CONSOLIDATED OIL & GAS, INC.	SELL & WOLFE OIL CO.		DAVE MORGAN OIL CO.	
COMPLETED.....	07/19/65	--/--/00		09/15/52	
SAMPLED.....	07/31/65	06/20/68		12/02/52	
FORMATION.....	MISS-CHAT	PENN-BARTLESVILLE		PENN-CLEVELAND	
GEOLOGIC PROVINCE CODE.....	355	355		355	
DEPTH, FEET.....	4050	3200		3041	
WELLHEAD PRESSURE, PSIG.....	1300	190		NOT GIVEN	
OPEN FLOW, MCFD.....	2444	NOT GIVEN		1300	
COMPONENT, MOLE PCT					
METHANE.....	58.8	73.8		65.0	
ETHANE.....	7.1	7.8		7.8	
PROPANE.....	2.8	3.4		4.5	
N-BUTANE.....	0.9	1.2		1.1	
ISOBUTANE.....	0.4	0.4		0.3	
N-PENTANE.....	0.1	0.6		0.3	
ISOPENTANE.....	0.3	0.1		0.1	
CYCLOPENTANE.....	TRACE	0.2		TRACE	
HEXANES PLUS.....	0.1	0.7		0.1	
NITROGEN.....	28.2	11.2		20.3	
OXYGEN.....	0.1	0.0		0.0	
ARGON.....	0.1	0.0		TRACE	
HYDROGEN.....	0.0	0.1		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.3	0.3		0.1	
HELIUM.....	0.84	0.37		0.24	
HEATING VALUE.....	862	1103		984	
SPECIFIC GRAVITY.....	0.765	0.734		0.752	

INDEX 6208 SAMPLE 5344		INDEX 6209 SAMPLE 13192		INDEX 6210 SAMPLE 14917	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	KAY	KAY		KAY	
FIELD.....	DILLWORTH DISTRICT	DILLWORTH DISTRICT		DILLWORTH DISTRICT	
WELL NAME.....	SEPEL NO. 1	COLE NO. 5		GREEN NO. 1	
LOCATION.....	SEC. 21, T29N, R1E	SEC. 18, T29N, R1E		SEC. 6, T28N, R1E	
OWNER.....	DAVE MORGAN OIL CO.	PERRY, ADAMS & LEWIS, INC.		UNIT OPERATIONS, INC.	
COMPLETED.....	07/22/52	03/07/72		07/12/76	
SAMPLED.....	12/02/52	04/15/72		02/21/77	
FORMATION.....	PENN-CLEVELAND	PENN-OSWEGO		PENN-OSWEGO	
GEOLOGIC PROVINCE CODE.....	355	355		355	
DEPTH, FEET.....	3058	3019		2995	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1285		685	
OPEN FLOW, MCFD.....	2000	3000		2398	
COMPONENT, MOLE PCT					
METHANE.....	64.8	76.4		76.6	
ETHANE.....	7.8	7.7		8.3	
PROPANE.....	4.5	3.0		4.0	
N-BUTANE.....	1.0	1.0		1.2	
ISOBUTANE.....	0.3	0.5		0.4	
N-PENTANE.....	0.3	0.3		0.3	
ISOPENTANE.....	0.1	0.7		0.2	
CYCLOPENTANE.....	0.1	0.1		TRACE	
HEXANES PLUS.....	0.2	0.2		0.1	
NITROGEN.....	20.3	9.6		8.5	
OXYGEN.....	TRACE	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.2		0.2	
HELIUM.....	0.23	0.35		0.18	
HEATING VALUE.....	991	1091		1109	
SPECIFIC GRAVITY.....	0.758	0.709		0.708	

INDEX 6211 SAMPLE 4562		INDEX 6212 SAMPLE 1053		INDEX 6213 SAMPLE 1312	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	KAY	KAY		KAY	
FIELD.....	GARRETT NW	HUBBARD		HUBBARD	
WELL NAME.....	SCHOOLLAND DUCK NO. 1	NORTH NO. 2		KANEY NO. 1	
LOCATION.....	SEC. 13, T27N, R1E	SEC. 12, T26N, R2W		SEC. 17, T28N, R3E	
OWNER.....	CARTER OIL CO.	MARLAND OIL CO.		BLACKWELL OIL & GAS CO.	
COMPLETED.....	09/06/48	01/05/25		09/10/26	
SAMPLED.....	09/14/48	05/01/25		10/01/26	
FORMATION.....	PENN-	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355	355		355	
DEPTH, FEET.....	3562	2554		874	
WELLHEAD PRESSURE, PSIG.....	1300	600		200	
OPEN FLOW, MCFD.....	500	45000		4500	
COMPONENT, MOLE PCT					
METHANE.....	63.0	37.6		15.4	
ETHANE.....	21.6	31.1		5.4	
PROPANE.....	---	---		---	
N-BUTANE.....	---	---		---	
ISOBUTANE.....	---	---		---	
N-PENTANE.....	---	---		---	
ISOPENTANE.....	---	---		---	
CYCLOPENTANE.....	---	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	14.5	30.4		77.6	
OXYGEN.....	0.2	0.2		0.5	
ARGON.....	---	---		---	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE.....	---	---		---	
CARBON DIOXIDE.....	0.4	0.4		0.2	
HELIUM.....	0.34	0.34		1.04	
HEATING VALUE.....	1025	938		253	
SPECIFIC GRAVITY.....	0.725	0.838		0.903	

INDEX 6214 SAMPLE 6148		INDEX 6215 SAMPLE 10351		INDEX 6216 SAMPLE 27	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	KAY	KAY		KAY	
FIELD.....	HUNNEWELL W	NARDIN N		NEUKIRK	
WELL NAME.....	ANNA LUTZ WELL NO. 1	STATE 16-1		MCMICHAEL NO. 1	
LOCATION.....	SEC. 14, T29N, R2W	SEC. 16, T27N, R2W		SEC. 17, T28N, R3E	
OWNER.....	UNION OIL CO. OF CALIF.	ARMA X PETROLEUM CORP.		MARLAND REFINING CO.	
COMPLETED.....	--/--/00	10/18/65		--/--/00	
SAMPLED.....	--/--/00	01/09/66		06/19/19	
FORMATION.....	NOT GIVEN	PENN-RED FORK		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355	355		355	
DEPTH, FEET.....	NOT GIVEN	4229		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1275		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	2016		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	53.8	87.1		51.3	
ETHANE.....	3.0	5.1		11.6	
PROPANE.....	1.8	1.4		---	
N-BUTANE.....	0.6	0.8		---	
ISOBUTANE.....	0.4	0.4		---	
N-PENTANE.....	0.2	0.3		---	
ISOPENTANE.....	0.2	0.2		---	
CYCLOPENTANE.....	0.2	0.1		---	
HEXANES PLUS.....	0.3	0.2		---	
NITROGEN.....	36.6	2.0		32.4	
OXYGEN.....	2.1	TRACE		4.7	
ARGON.....	0.1	TRACE		---	
HYDROGEN.....	0.0	0.0		---	
HYDROGEN SULFIDE.....	0.0	0.0		---	
CARBON DIOXIDE.....	0.1	0.3		0.0	
HELIUM.....	0.53	0.58		0.00	
HEATING VALUE.....	719	1130		728	
SPECIFIC GRAVITY.....	0.783	0.654		0.771	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6217			INDEX 6218			INDEX 6219		
SAMPLE 35			SAMPLE 58			SAMPLE 929		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	KAY		KAY			KAY		
FIELD.....	NEWKIRK		PONCA CITY			THOMAS		
WELL NAME.....	NO. 1		MARGUERITE PRIMEAUX NO. 7			SILES NO. 1		
LOCATION.....	SEC. 17, T28N, R3E		SEC. 4, T25N, R2E			SEC. 22, T25N, R2W		
OWNER.....	MARLAND OIL CO.		MARLAND OIL CO.			TWIN STATES OIL CO.		
COMPLETED.....	07/18		10/10/19			--/--/00		
SAMPLED.....	07/27/19		--/--/00			09/20/24		
FORMATION.....	NOT GIVEN		NOT GIVEN			--WAGGONER		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	500		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	112		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	14.0		44.6			32.4		
ETHANE.....	58.2		14.8			5.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	24.6		39.7			60.3		
OXYGEN.....	0.7		0.4			0.7		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.7		0.1			0.2		
HELIUM.....	TRACE		0.35			0.95		
HEATING VALUE.....	1185		0.793			425		
SPECIFIC GRAVITY.....	0.945		0.793			0.832		
INDEX 6220			INDEX 6221			INDEX 6222		
SAMPLE 930			SAMPLE 1328			SAMPLE 1391		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	KAY		KAY			KAY		
FIELD.....	THOMAS		THOMAS			THOMAS		
WELL NAME.....	THOMAS NO. 1		THOMAS NO. 7			NO. 8		
LOCATION.....	SEC. 15, T25N, R2W		SEC. 15, T25N, R2W			SEC. 15, T25N, R2W		
OWNER.....	MARLAND OIL CO.		MARLAND OIL CO.			MARLAND OIL CO.		
COMPLETED.....	05/20/24		--/--/00			--/--/00		
SAMPLED.....	09/20/24		12/02/26			05/20/27		
FORMATION.....	--WAGGONER		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	2063		2573			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		14			190		
OPEN FLOW, MCFD.....	150000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	28.5		40.1			37.8		
ETHANE.....	1.9		37.5			16.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	67.6		21.1			44.1		
OXYGEN.....	0.6		1.1			0.9		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	1.01		0.23			0.61		
HEATING VALUE.....	323		1078			677		
SPECIFIC GRAVITY.....	0.843		0.835			0.822		
INDEX 6223			INDEX 6224			INDEX 6225		
SAMPLE 1584			SAMPLE 4002			SAMPLE 4194		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	KAY		KAY			KAY		
FIELD.....	THOMAS		THOMAS			THOMAS		
WELL NAME.....	FRUITTS NO. 1		FRUITTS			JUESCHKE NO. 1		
LOCATION.....	SEC. 2, T25N, R2W		SEC. 3, T25N, R2W			SEC. 3, T25N, R2W		
OWNER.....	BARNSDALL & MARGAY OIL COS.		KAY COUNTY GAS CO.			C. L. JENKINS, ET AL.		
COMPLETED.....	--/--/28		02/11/45			08/31/45		
SAMPLED.....	03/06/28		--/--/00			11/09/46		
FORMATION.....	STRAY		MISS-CHAT			PENNI-		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	1156		4356			4411		
WELLHEAD PRESSURE, PSIG.....	475		1350			2300		
OPEN FLOW, MCFD.....	1350		10000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	23.7		67.5			71.8		
ETHANE.....	1.6		24.3			21.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	73.4		7.5			5.3		
OXYGEN.....	0.3		0.2			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.4			0.5		
HELIUM.....	0.92		0.19			0.20		
HEATING VALUE.....	269		1120			1127		
SPECIFIC GRAVITY.....	0.866		0.711			0.692		
INDEX 6226			INDEX 6227			INDEX 6228		
SAMPLE 12158			SAMPLE 12159			SAMPLE 12160		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	KINGFISHER		KINGFISHER			KINGFISHER		
FIELD.....	ALTONA		ALTONA			ALTONA		
WELL NAME.....	FRANKS NO. 1		STANGL A NO. 1			JUNG		
LOCATION.....	SEC. 28, T16N, R9W		SEC. 23, T15N, R9W			SEC. 22, T15N, R9W		
OWNER.....	MARION CORP.		MARION CORP.			MARION CORP.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	12/22/69		12/22/69			12/22/69		
FORMATION.....	MISS-CHESTER		MISS-CHESTER			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8592		8822			8908		
WELLHEAD PRESSURE, PSIG.....	2650		2600			2550		
OPEN FLOW, MCFD.....	20000		20000			1800		
COMPONENT, MOLE PCT								
METHANE.....	92.1		94.4			92.6		
ETHANE.....	3.9		1.0			5.7		
PROPANE.....	1.7		1.0			1.4		
N-BUTANE.....	0.5		0.2			0.3		
ISOBUTANE.....	0.1		0.1			0.1		
N-PENTANE.....	0.2		TRACE			0.1		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	0.7		0.7			0.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.5		
HELIUM.....	0.05		0.04			0.04		
HEATING VALUE.....	1100		1054			1077		
SPECIFIC GRAVITY.....	0.621		0.592			0.611		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6229 12370	INDEX SAMPLE 6230 13124	INDEX SAMPLE 6231 13930
STATE.....	OKLAHOMA			
COUNTY.....	KINGFISHER			
FIELD.....	ALTONA			
WELL NAME.....	GENE NO. 3-1			
LOCATION.....	SEC. 3, T16N, R9W			
OWNER.....	WHITE SHIELD OIL & GAS CORP.			
COMPLETED.....	06/24/70			
SAMPLED.....	08/18/70			
FORMATION.....	MISS-CHESTER			
GEOLOGIC PROVINCE CODE.....	360			
DEPTH, FEET.....	8146		8174	8243
WELLHEAD PRESSURE, PSIG.....	900		700	2659
OPEN FLOW, MCFD.....	2750		3500	2083
COMPONENT, MOLE PCT.....				
METHANE.....	93.0	68.6	92.2	
ETHANE.....	3.3	11.4	3.9	
PROPANE.....	1.2	9.7	1.7	
N-BUTANE.....	0.3	3.0	0.4	
ISOBUTANE.....	0.1	2.0	0.1	
N-PENTANE.....	0.1	0.9	0.1	
ISOPENTANE.....	0.1	0.6	0.2	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.2	0.5	0.2	
NITROGEN.....	1.1	2.2	0.5	
OXYGEN.....	0.2	TRACE	0.0	
ARGON.....	TRACE	0.0	0.0	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.0	0.3	
HELIUM.....	0.02	TRACE	0.03	
HEATING VALUE.....	1069	1420	1102	
SPECIFIC GRAVITY.....	0.607	0.845	0.620	

		INDEX SAMPLE 6232 15927	INDEX SAMPLE 6233 7219	INDEX SAMPLE 6234 7726
STATE.....	OKLAHOMA			
COUNTY.....	KINGFISHER			
FIELD.....	EDMOND N			
WELL NAME.....	H. NAKVINDA NO. 2			
LOCATION.....	SEC. 13, T15N, R5W			
OWNER.....	UNION TEXAS PETROLEUM CORP.			
COMPLETED.....	01/28/80			
SAMPLED.....	03/27/80			
FORMATION.....	PENN-SKINNER			
GEOLOGIC PROVINCE CODE.....	360			
DEPTH, FEET.....	6460		8198	7805
WELLHEAD PRESSURE, PSIG.....	1649		2725	3000
OPEN FLOW, MCFD.....	7288		13164	8320
COMPONENT, MOLE PCT.....				
METHANE.....	84.3	93.1	93.6	
ETHANE.....	3.6	1.8	3.0	
PROPANE.....	1.1	0.3	0.3	
N-BUTANE.....	0.5	0.1	0.2	
ISOBUTANE.....	0.2	0.0	0.1	
N-PENTANE.....	0.4	0.2	TRACE	
ISOPENTANE.....	0.2	0.1	0.1	
CYCLOPENTANE.....	0.3	0.2	0.2	
HEXANES PLUS.....	2.8	0.7	0.3	
NITROGEN.....	0.0	TRACE	TRACE	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.1	0.0	0.0	
CARBON DIOXIDE.....	0.06	0.0	0.0	
HELIUM.....	1165	1084	1074	
HEATING VALUE.....	0.682	0.611	0.604	
SPECIFIC GRAVITY.....				

		INDEX SAMPLE 6235 9842	INDEX SAMPLE 6236 16308	INDEX SAMPLE 6237 17309
STATE.....	OKLAHOMA			
COUNTY.....	KINGFISHER			
FIELD.....	OKARCHE N			
WELL NAME.....	VIET UNIT NO. 1			
LOCATION.....	SEC. 10, T16N, R7W			
OWNER.....	AMOCO PRODUCTION CO.			
COMPLETED.....	02/02/65			
SAMPLED.....	04/11/65			
FORMATION.....	MISS-MANNING			
GEOLOGIC PROVINCE CODE.....	360			
DEPTH, FEET.....	7398		8521	9200
WELLHEAD PRESSURE, PSIG.....	2650		1663	1200
OPEN FLOW, MCFD.....	2461		482	1700
COMPONENT, MOLE PCT.....				
METHANE.....	93.6	77.5	43.9	
ETHANE.....	3.5	10.4	25.8	
PROPANE.....	0.3	5.3	17.5	
N-BUTANE.....	0.1	0.1	0.3	
ISOBUTANE.....	0.1	0.8	2.9	
N-PENTANE.....	TRACE	0.6	1.6	
ISOPENTANE.....	0.1	0.3	0.7	
CYCLOPENTANE.....	0.1	0.2	0.2	
HEXANES PLUS.....	0.2	0.4	0.6	
NITROGEN.....	0.5	1.8	0.0	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	TRACE	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.2	0.2	
HELIUM.....	0.05	0.03	TRACE	
HEATING VALUE.....	1071	1282	1896	
SPECIFIC GRAVITY.....	0.603	0.747	1.059	

		INDEX SAMPLE 6238 12678	INDEX SAMPLE 6239 7699	INDEX SAMPLE 6240 9024
STATE.....	OKLAHOMA			
COUNTY.....	KINGFISHER			
FIELD.....	SOONER TREND			
WELL NAME.....	WINNIFRED GARMS NO. 1			
LOCATION.....	SEC. 36, T18N, R9W			
OWNER.....	INEXCO OIL CO.			
COMPLETED.....	02/24/70			
SAMPLED.....	10/27-77			
FORMATION.....	PENN-RED FORK			
GEOLOGIC PROVINCE CODE.....	360			
DEPTH, FEET.....	7447		6992	8333
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2167	3000
OPEN FLOW, MCFD.....	4000		44000	400
COMPONENT, MOLE PCT.....				
METHANE.....	94.3	87.2	86.2	
ETHANE.....	3.2	5.4	8.4	
PROPANE.....	1.0	2.1	2.6	
N-BUTANE.....	0.2	0.7	0.7	
ISOBUTANE.....	0.1	0.7	0.3	
N-PENTANE.....	0.0	0.5	0.1	
ISOPENTANE.....	0.2	0.6	0.2	
CYCLOPENTANE.....	0.3	0.3	TRACE	
HEXANES PLUS.....	TRACE	1.0	0.1	
NITROGEN.....	0.6	1.2	1.2	
OXYGEN.....	0.0	TRACE	0.0	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.0	0.2	
HELIUM.....	0.05	0.04	0.03	
HEATING VALUE.....	1057	1191	1143	
SPECIFIC GRAVITY.....	0.594	0.684	0.652	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6241 SAMPLE 9353			INDEX 6242 SAMPLE 9809			INDEX 6243 SAMPLE 9810		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	KINGFISHER		KINGFISHER			KINGFISHER		
FIELD.....	SOONER TREND		SOONER TREND			SOONER TREND		
WELL NAME.....	J. H. LITK NO. 1		FOREMAN NO. 1			FOREMAN NO. 1		
LOCATION.....	SEC. 11, T19N, R5W		SEC. 22, T16N, R5W			SEC. 22, T16N, R5W		
OWNER.....	GETTY OIL CO.		RUSSELL MAGUIRE			RUSSELL MAGUIRE		
COMPLETED.....	07/20/63		01/05/65			01/05/65		
SAMPLED.....	05/14/64		--/--/00			--/--/00		
FORMATION.....	MISS-MERAMEC		PENN-SKINNER			MISS-LIME		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6066		6544			6788		
WELLHEAD PRESSURE, PSIG.....	2000		1600			100		
OPEN FLOW, MCFD.....	1577		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.0		78.0			77.1		
ETHANE.....	7.9		5.2			10.3		
PROPANE.....	4.4		2.9			3.3		
N-BUTANE.....	1.7		1.6			1.3		
ISOBUTANE.....	0.2		0.3			0.8		
N-PENTANE.....	0.4		0.3			0.5		
ISOPENTANE.....	0.4		0.3			0.5		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.4			0.4		
NITROGEN.....	2.2		10.5			2.5		
OXYGEN.....	0.1		0.3			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.4			0.3		
HELIUM.....	0.08		0.16			0.05		
HEATING VALUE.....	1199		1052			1266		
SPECIFIC GRAVITY.....	0.701		0.701			0.745		
INDEX 6244 SAMPLE 9921			INDEX 6245 SAMPLE 10686			INDEX 6246 SAMPLE 10758		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	KINGFISHER		KINGFISHER			KINGFISHER		
FIELD.....	SOONER TREND		SOONER TREND			SOONER TREND		
WELL NAME.....	R. RUDD NO. 1		WINANS NO. 1			GEORGE GREEN NO. 1		
LOCATION.....	SEC. 2, T19N, R5W		SEC. 9, T15N, R5W			SEC. 30, T19N, R7W		
OWNER.....	GETTY OIL CO.		CHARLES J. RICHARD			ASHLAND OIL & REFINING CO.		
COMPLETED.....	04/11/65		--/--/00			01/09/66		
SAMPLED.....	06/12/65		07/29/66			10/19/66		
FORMATION.....	PENN-CLEVELAND		PENN-OSWEGO			MISS-MERAMEC		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6066		6625			7480		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1070			1764		
OPEN FLOW, MCFD.....	NOT GIVEN		2100			13699		
COMPONENT, MOLE PCT								
METHANE.....	73.1		80.1			83.0		
ETHANE.....	12.8		8.4			8.6		
PROPANE.....	7.1		4.7			3.7		
N-BUTANE.....	2.3		1.1			1.1		
ISOBUTANE.....	0.7		0.6			0.4		
N-PENTANE.....	0.4		0.5			0.2		
ISOPENTANE.....	0.4		0.8			0.3		
CYCLOPENTANE.....	0.2		0.3			0.3		
HEXANES PLUS.....	0.3		0.6			0.3		
NITROGEN.....	1.6		2.2			2.0		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.3			0.3		
HELIUM.....	0.03		0.06			0.06		
HEATING VALUE.....	1338		1256			1182		
SPECIFIC GRAVITY.....	0.783		0.730			0.687		
INDEX 6247 SAMPLE 11366			INDEX 6248 SAMPLE 11403			INDEX 6249 SAMPLE 11404		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	KINGFISHER		KINGFISHER			KINGFISHER		
FIELD.....	SOONER TREND		SOONER TREND			SOONER TREND		
WELL NAME.....	MOBBS NO. 18N, R8W		POPE UTAH NO. 2			POPE UTAH NO. 2		
LOCATION.....	SEC. 23, T18N, R8W		SEC. 10, T18N, R9W			SEC. 10, T18N, R9W		
OWNER.....	KING RESOURCES CO.		GULF OIL CO.- U.S.			GULF OIL CO.- U.S.		
COMPLETED.....	--/--/00		01/22/64			01/22/64		
SAMPLED.....	03/09/68		03/14/68			03/14/68		
FORMATION.....	MISS-MANNING		MISS-LIME			DEVON-HUNTON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7412		7996			8472		
WELLHEAD PRESSURE, PSIG.....	1600		844			3336		
OPEN FLOW, MCFD.....	607		2000			5690		
COMPONENT, MOLE PCT								
METHANE.....	88.2		78.0			84.2		
ETHANE.....	5.8		4.2			8.6		
PROPANE.....	2.7		0.3			3.2		
N-BUTANE.....	0.9		0.3			0.9		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.2		0.6			0.2		
ISOPENTANE.....	0.3		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.4			0.2		
NITROGEN.....	1.0		6.5			1.6		
OXYGEN.....	0.0		0.4			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.2			0.2		
HELIUM.....	0.09		0.03			0.03		
HEATING VALUE.....	1143		1132			1165		
SPECIFIC GRAVITY.....	0.650		0.714			0.672		
INDEX 6250 SAMPLE 11456			INDEX 6251 SAMPLE 12162			INDEX 6252 SAMPLE 12163		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	KINGFISHER		KINGFISHER			KINGFISHER		
FIELD.....	SOONER TREND		SOONER TREND			SOONER TREND		
WELL NAME.....	J. L. WRIGHT NO. 1		STRACK NO. 25-1			HARTMAN NO. 25-1		
LOCATION.....	SEC. 16, T19N, R7W		SEC. 25, T17N, R8W			SEC. 25, T17N, R8W		
OWNER.....	WHITE SHIELD OIL & REFINING CO.		WHITE SHIELD OIL & GAS CORP.			WHITE SHIELD OIL & GAS CORP.		
COMPLETED.....	03/06/62		10/19/69			09/01/69		
SAMPLED.....	04/17/68		12/22/69			12/22/69		
FORMATION.....	PENN-RED FORK		MISS-LIME			PENN-RED FORK & MISS		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6747		8006			7459		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1500			2050		
OPEN FLOW, MCFD.....	NOT GIVEN		3506			1187		
COMPONENT, MOLE PCT								
METHANE.....	90.2		66.4			83.5		
ETHANE.....	3.4		2.0			9.4		
PROPANE.....	4.4		0.4			3.8		
N-BUTANE.....	0.5		6.5			0.9		
ISOBUTANE.....	0.1		2.7			0.2		
N-PENTANE.....	0.1		1.4			0.2		
ISOPENTANE.....	0.3		1.2			0.2		
CYCLOPENTANE.....	0.1		0.3			0.1		
HEXANES PLUS.....	0.2		1.5			0.3		
NITROGEN.....	2.5		2.1			2.6		
OXYGEN.....	0.5		0.3			0.2		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.0			0.1		
HELIUM.....	0.04		0.02			0.03		
HEATING VALUE.....	1071		1596			1176		
SPECIFIC GRAVITY.....	0.628		0.944			0.689		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6253 SAMPLE 12247		INDEX 6254 SAMPLE 12344		INDEX 6255 SAMPLE 12679	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	KINGFISHER	KINGFISHER	KINGFISHER	KINGFISHER	
FIELD.....	SOONER TREND	SOONER TREND	SOONER TREND	SOONER TREND	
WELL NAME.....	ELOISE M. BOLLENBACH NO. 1	HAZEL S. PETERSEN NO. 1-11	HAZEL S. PETERSEN NO. 1-11	WANNIFRED GARMS NO. 1	
LOCATION.....	SEC. 8, T18N, R8W	SEC. 11, T18N, R9W	SEC. 11, T18N, R9W	SEC. 36, T18N, R9W	
OWNER.....	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.	INEXCO OIL CO.	
COMPLETED.....	11/29/69	03/20/70	03/20/70	02/24/70	
SAMPLED.....	04/28/70	08/07/70	08/07/70	02/25/71	
FORMATION.....	PENN-RED FORK	ORDO-VIOLA	ORDO-VIOLA	MISS-LIME	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	7044	8509	8509	7447	
WELLHEAD PRESSURE, PSIG.....	2217	2915	2915	NOT GIVEN	
OPEN FLOW, MCFD.....	32950	14188	14188	4000	
COMPONENT, MOLE PCT.....					
METHANE.....	92.9	90.0	90.0	85.8	
ETHANE.....	3.5	0.2	0.2	0.1	
PROPANE.....	1.4	1.9	1.9	2.2	
N-BUTANE.....	0.3	0.6	0.6	0.6	
ISOBUTANE.....	0.2	0.4	0.4	0.3	
N-PENTANE.....	0.1	0.2	0.2	0.1	
ISOPENTANE.....	0.1	0.1	0.1	0.2	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.2	0.2	0.1	
NITROGEN.....	0.9	1.1	1.1	2.2	
OXYGEN.....	0.1	TRACE	TRACE	0.2	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	TRACE	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	0.2	0.2	
HELIUM.....	0.05	0.05	0.05	0.04	
HEATING VALUE.....	1071	1111	1111	1120	
SPECIFIC GRAVITY.....	0.605	0.632	0.632	0.651	

INDEX 6256 SAMPLE 13743		INDEX 6257 SAMPLE 14666		INDEX 6258 SAMPLE 11352	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	KINGFISHER	KINGFISHER	KINGFISHER	KIOWA	
FIELD.....	SOONER TREND	SOONER TREND	SOONER TREND	CARNEGIE W	
WELL NAME.....	FLORENE NO. 4	SMITH BROS. NO. 1	SMITH BROS. NO. 1	CODY NO. 1	
LOCATION.....	SEC. 5, T19N, R9W	SEC. 6, T16N, R6W	SEC. 6, T16N, R6W	SEC. 15, T7N, R14W	
OWNER.....	HARPER OIL CO.	AM-SON CORP.	AM-SON CORP.	EKXON CO., U.S.A.	
COMPLETED.....	08/27/73	03/13/76	03/13/76	12/06/57	
SAMPLED.....	10/05/73	04/29/76	04/29/76	03/06/68	
FORMATION.....	PENN-OSWEGO	PENN-RED FORK	PENN-RED FORK	ORDO-BROMIDE	
GEOLOGIC PROVINCE CODE.....	360	360	360	350	
DEPTH, FEET.....	NOT GIVEN	6934	3202	350	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1635	1141	1141	
OPEN FLOW, MCFD.....	NOT GIVEN	6597	4247	4247	
COMPONENT, MOLE PCT.....					
METHANE.....	84.2	84.3	92.8	92.8	
ETHANE.....	4.6	7.4	2.6	2.6	
PROPANE.....	1.1	3.6	0.6	0.6	
N-BUTANE.....	1.2	1.4	0.1	0.1	
ISOBUTANE.....	0.7	0.7	0.3	0.3	
N-PENTANE.....	0.3	0.6	0.2	0.2	
ISOPENTANE.....	0.3	0.5	TRACE	TRACE	
CYCLOPENTANE.....	0.1	0.1	0.4	0.4	
HEXANES PLUS.....	0.2	0.4	0.3	0.3	
NITROGEN.....	1.1	0.7	2.5	2.5	
OXYGEN.....	0.0	0.0	0.1	0.1	
ARGON.....	0.0	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	0.1	0.1	
HELIUM.....	0.07	0.04	0.1	0.1	
HEATING VALUE.....	1199	1222	1055	1055	
SPECIFIC GRAVITY.....	0.687	0.696	0.610	0.610	

INDEX 6259 SAMPLE 5276		INDEX 6260 SAMPLE 7021		INDEX 6261 SAMPLE 1018	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	KIOWA	KIOWA	KIOWA	KIOWA	
FIELD.....	GOTERO N	KONAWA	KONAWA	RAINEY S	
WELL NAME.....	JAMES SHAFER NO. 1	DONLEY MILLIGAN NO. 1	DONLEY MILLIGAN NO. 1	NOT GIVEN	
LOCATION.....	SEC. 1, T7N, R16W	SEC. 29, T6N, R17W	SEC. 29, T6N, R17W	SEC. 3, T7N, R17W	
OWNER.....	STANOLIND OIL & GAS CO.	R. E. MAXEY & G. P. LIVERMOR	R. E. MAXEY & G. P. LIVERMOR	MARLAND OIL CO.	
COMPLETED.....	07/23/52	--/00	--/00	--/00	
SAMPLED.....	07/23/52	04/08/59	04/08/59	--/00	
FORMATION.....	PENN-SPRINGER	PERM-PONTOTOC	PERM-PONTOTOC	-SILTY	
GEOLOGIC PROVINCE CODE.....	350	350	350	350	
DEPTH, FEET.....	5628	800	1082	1082	
WELLHEAD PRESSURE, PSIG.....	2299	240	40	40	
OPEN FLOW, MCFD.....	3000	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	96.3	37.2	79.4	79.4	
ETHANE.....	1.4	1.0	17.5	17.5	
PROPANE.....	0.5	0.5	---	---	
N-BUTANE.....	0.1	0.4	---	---	
ISOBUTANE.....	0.0	0.1	---	---	
N-PENTANE.....	0.1	0.1	---	---	
ISOPENTANE.....	TRACE	TRACE	---	---	
CYCLOPENTANE.....	TRACE	TRACE	---	---	
HEXANES PLUS.....	0.1	TRACE	---	---	
NITROGEN.....	1.4	59.3	2.5	2.5	
OXYGEN.....	TRACE	TRACE	0.3	0.3	
ARGON.....	TRACE	0.3	---	---	
HYDROGEN.....	0.0	TRACE	---	---	
HYDROGEN SULFIDE.....	---	0.0	---	---	
CARBON DIOXIDE.....	0.1	0.1	0.4	0.4	
HELIUM.....	0.03	0.90	0.07	0.07	
HEATING VALUE.....	1026	0.04	1118	1118	
SPECIFIC GRAVITY.....	0.579	0.820	0.658	0.658	

INDEX 6262 SAMPLE 10719		INDEX 6263 SAMPLE 10748		INDEX 6264 SAMPLE 10751	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	LATIMER	LATIMER	LATIMER	LATIMER	
FIELD.....	KINTA	KINTA	KINTA	KINTA	
WELL NAME.....	WHITE B NO. 1	WHITE B NO. 1	WHITE B NO. 1	C. R. BUTLER UNIT NO. 1	
LOCATION.....	SEC. 1, T6N, R18E	SEC. 1, T6N, R18E	SEC. 1, T6N, R18E	SEC. 29, T6N, R19E	
OWNER.....	SKELLY OIL CO.	SKELLY OIL CO.	SKELLY OIL CO.	MOBIL OIL CO.	
COMPLETED.....	06/11/66	06/11/66	06/11/66	06/28/66	
SAMPLED.....	09/09/66	10/03/66	10/03/66	10/06/66	
FORMATION.....	PENN-ATOKA	PENN-ATOKA	PENN-ATOKA	PENN-SPITRO	
GEOLOGIC PROVINCE CODE.....	345	345	345	345	
DEPTH, FEET.....	4399	6496	10304	10304	
WELLHEAD PRESSURE, PSIG.....	1882	2987	3227	3227	
OPEN FLOW, MCFD.....	23302	13992	13100	13100	
COMPONENT, MOLE PCT.....					
METHANE.....	87.1	90.6	95.6	95.6	
ETHANE.....	2.2	6.7	0.7	0.7	
PROPANE.....	0.8	1.5	0.1	0.1	
N-BUTANE.....	0.3	0.3	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.1	0.0	0.0	
ISOPENTANE.....	0.0	0.1	0.0	0.0	
CYCLOPENTANE.....	0.0	TRACE	0.0	0.0	
HEXANES PLUS.....	0.0	0.1	0.0	0.0	
NITROGEN.....	9.2	0.2	0.3	0.3	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	0.0	0.0	
HYDROGEN.....	0.2	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.0	3.3	3.3	
HELIUM.....	0.07	0.03	0.03	0.03	
HEATING VALUE.....	954	1104	984	984	
SPECIFIC GRAVITY.....	0.620	0.617	0.592	0.592	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6265 10882	INDEX SAMPLE 6266 16474	INDEX SAMPLE 6267 15051
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	LATIMER		LATIMER	LATIMER
FIELD.....	KINTA		KINTA	PANOLA
WELL NAME.....	WHITE F NO. 1A		WHITE "H" NO. 2	FOSTER NO. 1-35
LOCATION.....	SEC. 13, T6N, R18E		SEC. 13, T6N, R17E	SEC. 35, T6N, R20E
OWNER.....	SKELLY OIL CO.		GETTY OIL CO.	MUSTANG PRODUCTION CO.
COMPLETED.....	09/14/66		10/31/81	06/28/80
SAMPLED.....	02/18/67		04/01/82	08/22/80
FORMATION.....	PENN-ATOKA		PENN-RED OAK	PENN-SPIRO
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	7299		6970	12630
WELLHEAD PRESSURE, PSIG.....	2530		600	4200
OPEN FLOW, MCFD.....	25776		1900	4000
COMPONENT, MOLE PCT.....				
METHANE.....	96.2	96.1	93.8	
ETHANE.....	1.6	1.6	0.4	
PROPANE.....	0.3	0.3	0.1	
N-BUTANE.....	0.0	0.0	TRACE	
ISOBUTANE.....	0.0	0.0	TRACE	
N-PENTANE.....	0.0	0.0	TRACE	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	TRACE	
HEXANES PLUS.....	0.0	0.0	0.1	
NITROGEN.....	0.6	0.6	0.3	
OXYGEN.....	0.1	0.2	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.9	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.3	0.4	5.2	
HELIUM.....	0.04	0.03	0.04	
HEATING VALUE.....	1011	1013	965	
SPECIFIC GRAVITY.....	0.582	0.569	0.611	

		INDEX SAMPLE 6268 16431	INDEX SAMPLE 6269 4053	INDEX SAMPLE 6270 8098
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	LATIMER		LATIMER	LATIMER
FIELD.....	PANOLA		RED OAK-NORRIS	RED OAK-NORRIS
WELL NAME.....	PIERCE NO. 1-30		HARDWAY NO. R0-52	MAXEY NO. 1
LOCATION.....	SEC. 30, T6N, R20E		SEC. 10, T6N, R22E	SEC. 10, T6N, R22E
OWNER.....	TENNECO OIL CO.		LE FLORE COUNTY GAS & ELEC.	MIDWEST OIL CORP.
COMPLETED.....	12/07/81		--/--/00	--/--/00
SAMPLED.....	02/23/82		07/26/61	07/26/61
FORMATION.....	PENN-SPIRO		PENN-ATOKA	PENN-RED OAK & SPIRO
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	13840		5881	6983
WELLHEAD PRESSURE, PSIG.....	4100		3150	4200
OPEN FLOW, MCFD.....	1140		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT.....				
METHANE.....	94.4	96.2	95.7	
ETHANE.....	0.3	2.8	2.2	
PROPANE.....	TRACE	---	0.4	
N-BUTANE.....	0.0	---	TRACE	
ISOBUTANE.....	0.0	---	TRACE	
N-PENTANE.....	0.0	---	TRACE	
ISOPENTANE.....	0.0	---	TRACE	
CYCLOPENTANE.....	0.0	---	TRACE	
HEXANES PLUS.....	0.0	---	TRACE	
NITROGEN.....	0.4	0.0	0.1	
OXYGEN.....	0.1	0.1	0.0	
ARGON.....	TRACE	---	0.0	
HYDROGEN.....	0.0	---	0.0	
HYDROGEN SULFIDE.....	0.0	---	0.0	
CARBON DIOXIDE.....	4.6	0.9	1.4	
HELIUM.....	0.04	0.01	TRACE	
HEATING VALUE.....	962	1025	1019	
SPECIFIC GRAVITY.....	0.602	0.578	0.583	

		INDEX SAMPLE 6271 8408	INDEX SAMPLE 6272 8421	INDEX SAMPLE 6273 8922
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	LATIMER		LATIMER	LATIMER
FIELD.....	RED OAK-NORRIS		RED OAK-NORRIS	RED OAK-NORRIS
WELL NAME.....	MAXEY NO. 1		ORR NO. 1	LEWIS
LOCATION.....	SEC. 10, T6N, R22E		SEC. 8, T6N, R22E	SEC. 4, T6N, R22E
OWNER.....	MIDWEST OIL CORP.		MIDWEST OIL CORP.	MIDWEST OIL CORP.
COMPLETED.....	07/07/61		03/31/60	02/20/62
SAMPLED.....	02/13/61		03/01/62	04/05/63
FORMATION.....	PENN-RED OAK		PENN-SPIRO	PENN-FANSHAW
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	7000		11514	6064
WELLHEAD PRESSURE, PSIG.....	3110		4000	2842
OPEN FLOW, MCFD.....	5300		15000	800
COMPONENT, MOLE PCT.....				
METHANE.....	96.1	92.8	95.9	
ETHANE.....	0.4	0.4	0.5	
PROPANE.....	0.2	0.1	0.4	
N-BUTANE.....	TRACE	TRACE	TRACE	
ISOBUTANE.....	0.0	0.0	TRACE	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	TRACE	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.4	0.9	0.4	
OXYGEN.....	0.1	0.1	TRACE	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.2	0.6	0.7	
HELIUM.....	0.03	0.06	0.02	
HEATING VALUE.....	1013	950	1027	
SPECIFIC GRAVITY.....	0.579	0.616	0.579	

		INDEX SAMPLE 6274 14810	INDEX SAMPLE 6275 1733	INDEX SAMPLE 6276 9826
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	LATIMER		LATIMER	LATIMER
FIELD.....	RED OAK-NORRIS		WILBURTON	WILBURTON
WELL NAME.....	SMALLWOOD NO. 1		MCURRAY NO. 1	J. L. HENLEY UNIT NO. 1
LOCATION.....	SEC. 28, T6N, R21E		SEC. 15, T5N, R18E	SEC. 29, T5N, R17E
OWNER.....	MUSTANG PRODUCTION CO.		LITESTONE OIL & GAS CO.	ATLANTIC RICHFIELD CO.
COMPLETED.....	08/10/76		--/--/00	12/30/64
SAMPLED.....	10/09/76		04/06/29	04/01/65
FORMATION.....	PENN-SPIRO		--SAND	PENN-SPIRO
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	12181		2518	10022
WELLHEAD PRESSURE, PSIG.....	4000		125	3750
OPEN FLOW, MCFD.....	20000		1500	20500
COMPONENT, MOLE PCT.....				
METHANE.....	93.2	73.8	96.1	
ETHANE.....	0.4	13.4	1.0	
PROPANE.....	TRACE	---	0.0	
N-BUTANE.....	0.0	---	0.0	
ISOBUTANE.....	0.0	---	0.0	
N-PENTANE.....	0.0	---	0.0	
ISOPENTANE.....	0.0	---	0.0	
CYCLOPENTANE.....	0.0	---	0.0	
HEXANES PLUS.....	0.0	---	0.0	
NITROGEN.....	0.2	10.4	0.5	
OXYGEN.....	0.0	1.9	TRACE	
ARGON.....	TRACE	---	0.0	
HYDROGEN.....	0.0	---	0.0	
HYDROGEN SULFIDE.....	0.0	0.6	0.0	
CARBON DIOXIDE.....	6.1	0.05	2.4	
HELIUM.....	0.04	0.05	0.05	
HEATING VALUE.....	951	988	991	
SPECIFIC GRAVITY.....	0.616	0.681	0.585	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6277 10945			INDEX SAMPLE	6278 13684			INDEX SAMPLE	6279 9953
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	LATIMER			LATIMER				LE FLORE			
FIELD.....	WILBURTON			WILBURTON				BOKOSHE S			
WELL NAME.....	DOVIE WEAVER B NO. 1			MCKEOWN NO. 1				JOE COCHRAN UNIT NO. 1			
LOCATION.....	SEC. 20, T6N, R19E			SEC. 30, T6N, R19E				SEC. 32, T8N, R24E			
OWNER.....	MOBIL OIL CORP.			FERGUSON OIL CO., INC.				AMOCO PRODUCTION CO.			
COMPLETED.....	--/--/00			03/13/73				10/05/64			
SAMPLED.....	04/13/67			08/14/73				07/02/65			
FORMATION.....	PENN-ATOKA			PENN-ATOKA				PENN-FANSHAME			
GEOLOGIC PROVINCE CODE.....	345			345				345			
DEPTH, FEET.....	11174			7450				6651			
WELLHEAD PRESSURE, PSIG.....	3675			710				2871			
OPEN FLOW, MCFD.....	13000			7300				5800			
COMPONENT, MOLE PCT											
METHANE.....	94.7			93.6				94.9			
ETHANE.....	0.7			3.7				1.8			
PROPANE.....	TRACE			1.2				0.4			
N-BUTANE.....	0.0			0.2				0.0			
ISOBUTANE.....	0.0			0.2				0.0			
N-PENTANE.....	0.0			0.2				0.0			
ISOPENTANE.....	0.0			0.0				0.0			
CYCLOPENTANE.....	0.0			TRACE				0.0			
HEXANES PLUS.....	0.0			0.1				0.0			
NITROGEN.....	0.4			0.4				0.8			
OXYGEN.....	0.0			0.0				0.2			
ARGON.....	0.0			TRACE				TRACE			
HYDROGEN.....	TRACE			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	4.1			0.4				0.9			
HELIUM.....	0.04			0.05				0.75			
HEATING VALUE.....	972			1073				1004			
SPECIFIC GRAVITY.....	0.599			0.603				0.590			
		INDEX SAMPLE	6280 9954			INDEX SAMPLE	6281 15482			INDEX SAMPLE	6282 1769
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	LE FLORE			LE FLORE				LE FLORE			
FIELD.....	BOKOSHE S			BOKOSHE S				CAMERON			
WELL NAME.....	JOE COCHRAN UNIT NO. 1			MACY MCBEE NO. 1				KRAMER NO. 1			
LOCATION.....	SEC. 32, T8N, R24E			SEC. 30, T8N, R24E				SEC. 7, T7N, R26E			
OWNER.....	AMOCO PRODUCTION CO.			RESERVE OIL, INC.				SOONER OIL & GAS CO.			
COMPLETED.....	10/05/64			--/--/00				12/--/28			
SAMPLED.....	07/02/65			10/26/78				05/03/29			
FORMATION.....	PENN-ATOKA			PENN-BRAZIL				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	345			345				345			
DEPTH, FEET.....	7940			NOT GIVEN				2200			
WELLHEAD PRESSURE, PSIG.....	2171			NOT GIVEN				90			
OPEN FLOW, MCFD.....	970			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	96.0			85.4				99.2			
ETHANE.....	1.5			1.3				0.1			
PROPANE.....	0.2			0.0				---			
N-BUTANE.....	0.0			0.0				---			
ISOBUTANE.....	0.0			0.0				---			
N-PENTANE.....	0.0			0.0				---			
ISOPENTANE.....	0.0			0.0				---			
CYCLOPENTANE.....	0.0			0.0				---			
HEXANES PLUS.....	0.0			0.0				---			
NITROGEN.....	0.4			8.8				0.4			
OXYGEN.....	0.0			2.3				0.1			
ARGON.....	TRACE			0.1				---			
HYDROGEN.....	0.0			TRACE				---			
HYDROGEN SULFIDE.....	0.0			1.9				0.1			
CARBON DIOXIDE.....	1.8			0.04				0.12			
HELIUM.....	0.10			0.91				1007			
HEATING VALUE.....	1005			0.630				0.558			
SPECIFIC GRAVITY.....	0.583										
		INDEX SAMPLE	6283 9955			INDEX SAMPLE	6284 10918			INDEX SAMPLE	6285 16758
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	LE FLORE			LE FLORE				LE FLORE			
FIELD.....	CAMERON			CAMERON				CEDARS			
WELL NAME.....	CLYDE CALDWELL UNIT NO. 1			HILL NO. 1				BLACKMAN NO. 2			
LOCATION.....	SEC. 21, T8N, R26E			SEC. 31, T8N, R26E				SEC. 29, T9N, R26E			
OWNER.....	AMOCO PRODUCTION CO.			GOSE PETROLEUM CO.				SAMSON RESOURCES CO.			
COMPLETED.....	09/04/65			11/14/66				03/10/82			
SAMPLED.....	07/02/65			12/11/80				01/27/83			
FORMATION.....	PENN-ATOKA			PENN-ATOKA				PENN-SPIRO			
GEOLOGIC PROVINCE CODE.....	345			345				345			
DEPTH, FEET.....	6326			5910				6868			
WELLHEAD PRESSURE, PSIG.....	2054			1810				685			
OPEN FLOW, MCFD.....	6200			6837				1800			
COMPONENT, MOLE PCT											
METHANE.....	95.4			96.8				93.7			
ETHANE.....	1.4			1.4				0.8			
PROPANE.....	0.2			0.2				0.1			
N-BUTANE.....	0.0			0.0				0.0			
ISOBUTANE.....	0.0			0.0				0.0			
N-PENTANE.....	0.0			0.0				0.0			
ISOPENTANE.....	0.0			0.0				0.0			
CYCLOPENTANE.....	0.0			0.0				0.0			
HEXANES PLUS.....	0.0			0.0				0.0			
NITROGEN.....	1.2			0.4				0.4			
OXYGEN.....	0.2			0.0				0.1			
ARGON.....	TRACE			0.0				TRACE			
HYDROGEN.....	0.0			0.0				0.2			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.5			1.2				4.7			
HELIUM.....	0.09			0.07				0.10			
HEATING VALUE.....	997			1011				967			
SPECIFIC GRAVITY.....	0.584			0.577				0.607			
		INDEX SAMPLE	6286 11107			INDEX SAMPLE	6287 16146			INDEX SAMPLE	6288 2799
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	LE FLORE			LE FLORE				LE FLORE			
FIELD.....	CEDARS W			CEDARS W				KINTA			
WELL NAME.....	PETTIGREW NO. 1			FRAZIER UNIT NO. 1				MCBEE NO. 1			
LOCATION.....	SEC. 16, T9N, R26E			SEC. 16, T9N, R26E				SEC. 29, T9N, R24E			
OWNER.....	SOUTHLAND ROYALTY CO.			SAMSON RESOURCES CO.				ARKANSAS OKLAHOMA GAS CO.			
COMPLETED.....	12/21/65			09/30/80				04/19/42			
SAMPLED.....	09/13/67			12/11/80				04/01/44			
FORMATION.....	PENN-CROMWELL			PENN-SPIRO				PENN-GILCREASE			
GEOLOGIC PROVINCE CODE.....	345			345				345			
DEPTH, FEET.....	7740			7372				5240			
WELLHEAD PRESSURE, PSIG.....	1327			NOT GIVEN				349			
OPEN FLOW, MCFD.....	7200			2200				55000			
COMPONENT, MOLE PCT											
METHANE.....	94.2			94.4				95.6			
ETHANE.....	0.8			0.1				0.8			
PROPANE.....	TRACE			0.1				---			
N-BUTANE.....	0.0			0.0				---			
ISOBUTANE.....	0.0			0.0				---			
N-PENTANE.....	0.0			0.0				---			
ISOPENTANE.....	0.0			0.0				---			
CYCLOPENTANE.....	0.0			0.0				---			
HEXANES PLUS.....	0.0			0.0				---			
NITROGEN.....	0.7			0.5				1.9			
OXYGEN.....	0.0			0.1				0.4			
ARGON.....	TRACE			TRACE				---			
HYDROGEN.....	TRACE			0.0				---			
HYDROGEN SULFIDE.....	0.0			0.0				---			
CARBON DIOXIDE.....	4.0			4.1				1.3			
HELIUM.....	0.26			0.10				0.02			
HEATING VALUE.....	969			973				983			
SPECIFIC GRAVITY.....	0.599			0.602				0.581			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6289 SAMPLE 8466		INDEX 6290 SAMPLE 9003		INDEX 6291 SAMPLE 9606	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	LE FLORE	LE FLORE	LE FLORE	LE FLORE	
FIELD.....	KINTA	KINTA	KINTA	KINTA	
WELL NAME.....	E. D. BURRIS UNIT NO. 1	ZOE HOLT	TACKETT UNIT NO. 1	TACKETT UNIT NO. 1	
LOCATION.....	SEC. 2, T9N, R24E	SEC. 20, T9N, R25E	SEC. 28, T8N, R23E	SEC. 28, T8N, R23E	
OWNER.....	EXXON CO., U.S.A.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	
COMPLETED.....	09/04/61	-/-/00	04/1/63	04/1/63	
SAMPLED.....	03/19/62	05/30/63	10/13/64	10/13/64	
FORMATION.....	PENN-SPIRO	NOT GIVEN	PENN-CROMWELL	PENN-CROMWELL	
GEOLOGIC PROVINCE CODE.....	345	345	345	345	
DEPTH, FEET.....	6184	NOT GIVEN	5626	5626	
WELLHEAD PRESSURE, PSIG.....	880	NOT GIVEN	1220	1220	
OPEN FLOW, MCFD.....	3000	NOT GIVEN	3500	3500	
COMPONENT, MOLE PCT.....					
METHANE.....	96.0	94.6	95.6	95.6	
ETHANE.....	1.1	0.9	1.5	1.5	
PROPANE.....	0.1	0.1	0.2	0.2	
N-BUTANE.....	TRACE	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	TRACE	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	0.0	
NITROGEN.....	0.5	0.6	1.5	1.5	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	2.4	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.3	1.3	1.1	1.1	
HELIUM.....	0.10	0.10	0.10	0.10	
HEATING VALUE.....	995	985	1000	1000	
SPECIFIC GRAVITY.....	0.585	0.563	0.588	0.588	

INDEX 6292 SAMPLE 9853		INDEX 6293 SAMPLE 10127		INDEX 6294 SAMPLE 12165	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	LE FLORE	LE FLORE	LE FLORE	LE FLORE	
FIELD.....	KINTA	KINTA	KINTA	KINTA	
WELL NAME.....	REES UNIT NO. 1	MILLER UNIT C NO. 1	HERBERT SHARD NO. 1	HERBERT SHARD NO. 1	
LOCATION.....	SEC. 2, T8N, R23E	SEC. 30, T8N, R23E	SEC. 4, T9N, R25E	SEC. 4, T9N, R25E	
OWNER.....	EXXON CO., U.S.A.	AMOCO PRODUCTION CO.	JAKE L. HAMON	JAKE L. HAMON	
COMPLETED.....	11/30/64	09/16/65	09/01/65	09/01/65	
SAMPLED.....	04/22/65	09/16/65	12/19/69	12/19/69	
FORMATION.....	PENN-SPIRO	PENN-SPIRO	PENN-SPIRO	PENN-SPIRO	
GEOLOGIC PROVINCE CODE.....	345	345	345	345	
DEPTH, FEET.....	5392	5690	5552	5552	
WELLHEAD PRESSURE, PSIG.....	1000	1115	931	931	
OPEN FLOW, MCFD.....	9370	NOT GIVEN	1200	1200	
COMPONENT, MOLE PCT.....					
METHANE.....	96.4	96.1	94.9	94.9	
ETHANE.....	0.9	1.0	1.8	1.8	
PROPANE.....	0.1	0.4	0.2	0.2	
N-BUTANE.....	0.0	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	0.0	
NITROGEN.....	0.7	0.7	1.3	1.3	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.2	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.8	1.5	1.5	1.5	
HELIUM.....	0.07	0.07	0.11	0.11	
HEATING VALUE.....	995	1002	999	999	
SPECIFIC GRAVITY.....	0.580	0.579	0.584	0.584	

INDEX 6295 SAMPLE 16607		INDEX 6296 SAMPLE 14604		INDEX 6297 SAMPLE 10382	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	LE FLORE	LE FLORE	LE FLORE	LE FLORE	
FIELD.....	KINTA	PAW PAW NE	PAW PAW NE	PEND	
WELL NAME.....	DEW NO. 1	ARKANSAS VALLEY FARMS NO. 1	ARKANSAS VALLEY FARMS NO. 1	B. E. COBB NO. 1	
LOCATION.....	SEC. 19, T8N, R24E	SEC. 34, T11N, R27E	SEC. 34, T11N, R27E	SEC. 17, T10N, R27E	
OWNER.....	UNIT DRILLING & EXPL. CO.	STEPHENS PRODUCTION CO.	STEPHENS PRODUCTION CO.	SUN OIL CO.	
COMPLETED.....	02/-/82	11/15/75	10/15/65	10/15/65	
SAMPLED.....	08/06/82	02/23/76	02/02/66	02/02/66	
FORMATION.....	PENN-BRAZIL	PENN-CROMWELL	PENN-CROMWELL	PENN-CROMWELL	
GEOLOGIC PROVINCE CODE.....	345	345	345	345	
DEPTH, FEET.....	7202	5263	3016	3016	
WELLHEAD PRESSURE, PSIG.....	2982	2703	1200	1200	
OPEN FLOW, MCFD.....	2896	14000	1044	1044	
COMPONENT, MOLE PCT.....					
METHANE.....	96.1	93.1	97.0	97.0	
ETHANE.....	1.4	1.1	1.2	1.2	
PROPANE.....	0.2	0.1	0.2	0.2	
N-BUTANE.....	0.0	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	0.0	
NITROGEN.....	0.2	0.5	1.2	1.2	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	0.9	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	TRACE	0.0	0.0	
CARBON DIOXIDE.....	1.9	0.0	0.3	0.3	
HELIUM.....	0.05	0.05	0.11	0.11	
HEATING VALUE.....	1004	972	1009	1009	
SPECIFIC GRAVITY.....	0.582	0.598	0.570	0.570	

INDEX 6298 SAMPLE 10383		INDEX 6299 SAMPLE 10627		INDEX 6300 SAMPLE 10628	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	LE FLORE	LE FLORE	LE FLORE	LE FLORE	
FIELD.....	PEND	PEND	PEND	PEND	
WELL NAME.....	B. E. COBB NO. 1	FORSYTH BROS. NO. 1	FORSYTH BROS. NO. 1	FORSYTH BROS. NO. 1	
LOCATION.....	SEC. 17, T10N, R27E	SEC. 16, T10N, R27E	SEC. 16, T10N, R27E	SEC. 16, T10N, R27E	
OWNER.....	SUN OIL CO.	SUN OIL CO.	SUN OIL CO.	SUN OIL CO.	
COMPLETED.....	10/15/65	03/25/66	03/25/66	03/25/66	
SAMPLED.....	02/02/66	06/18/66	06/18/66	06/18/66	
FORMATION.....	PENN-SPIRO	PENN-SPIRO	PENN-SPIRO	PENN-SPIRO	
GEOLOGIC PROVINCE CODE.....	345	345	345	345	
DEPTH, FEET.....	5890	5950	6350	6350	
WELLHEAD PRESSURE, PSIG.....	990	925	2025	2025	
OPEN FLOW, MCFD.....	2225	1020	4600	4600	
COMPONENT, MOLE PCT.....					
METHANE.....	94.2	96.8	93.7	93.7	
ETHANE.....	1.3	1.1	1.3	1.3	
PROPANE.....	0.6	0.4	0.0	0.0	
N-BUTANE.....	0.0	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	0.0	
NITROGEN.....	2.5	0.7	3.1	3.1	
OXYGEN.....	0.0	0.1	0.0	0.0	
ARGON.....	TRACE	TRACE	0.1	0.1	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.2	0.8	1.7	1.7	
HELIUM.....	0.15	0.14	0.10	0.10	
HEATING VALUE.....	993	1011	972	972	
SPECIFIC GRAVITY.....	0.588	0.575	0.591	0.591	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6301			INDEX 6302			INDEX 6303		
SAMPLE 14423			SAMPLE 14538			SAMPLE 10784		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LE FLORE		LE FLORE			LE FLORE		
FIELD.....	PENRO		PENRO			POCOLA S		
WELL NAME.....	KERR ESTATE NO. 1		CELAWSOON NO. 1			HARDIN NO. 1		
LOCATION.....	SEC. 27, T10N, R27E		SEC. 34, T10N, R27E			SEC. 32, T9N, R27E		
OWNER.....	CHEYENNE PETROLEUM CO.		LEAR PETROLEUM CORP.			MONSANTO CO.		
COMPLETED.....	7/7/70		06/23/75			07/13/66		
SAMPLED.....	07/25/75		11/25/75			11/25/66		
FORMATION.....	PENN-SPIRO		PENN-CROMWELL			PENN-SPIRO		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	5904		6203			7545		
WELLHEAD PRESSURE, PSIG.....	905		706			900		
OPEN FLOW, MCFD.....	3758		6300			2550		
COMPONENT, MOLE PCT								
METHANE.....	93.5		96.0			94.4		
ETHANE.....	1.3		1.2			0.7		
PROPANE.....	0.1		0.2			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	2.6		0.8			0.3		
OXYGEN.....	0.2		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.2		1.6			4.5		
HELIUM.....	0.10		0.12			0.12		
HEATING VALUE.....	973		999			971		
SPECIFIC GRAVITY.....	0.595		0.580			0.604		
INDEX 6304			INDEX 6305			INDEX 6306		
SAMPLE 300			SAMPLE 14864			SAMPLE 16763		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LE FLORE		LE FLORE			LE FLORE		
FIELD.....	POTEAU-GILMORE		RED OAK-NORRIS			SPIRO N		
WELL NAME.....	NO. 14		STOUT NO. 1-17			TURMAN NO. 1		
LOCATION.....	SEC. 26, T7N, R26E		SEC. 17, T7N, R23E			SEC. 11, T9N, R25E		
OWNER.....	LE FLORE COUNTY GAS & ELEC.		SNCC & EBERLY			SAMSON RESOURCES CO.		
COMPLETED.....	12/-/78		09/04/76			05/-/82		
SAMPLED.....	05/28/20		11/30/76			02/03/83		
FORMATION.....	PENN-HARTSHORNE		PENN-SPIRO			PENN-SPIRO		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	1753		11551			7876		
WELLHEAD PRESSURE, PSIG.....	278		NOT GIVEN			1670		
OPEN FLOW, MCFD.....	2530		42139			5600		
COMPONENT, MOLE PCT								
METHANE.....	95.9		90.1			95.0		
ETHANE.....	0.0		TRACE			1.1		
PROPANE.....	---		0.1			0.0		
N-BUTANE.....	---		0.0			0.0		
ISOBUTANE.....	---		0.0			0.0		
N-PENTANE.....	---		0.0			0.0		
ISOPENTANE.....	---		0.0			0.0		
CYCLOPENTANE.....	---		0.0			0.0		
HEXANES PLUS.....	---		0.0			0.0		
NITROGEN.....	1.7		0.8			0.4		
OXYGEN.....	1.9		TRACE			0.1		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.3		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.4		8.4			3.0		
HELIUM.....	0.10		0.08			0.09		
HEATING VALUE.....	971		923			986		
SPECIFIC GRAVITY.....	0.575		0.642			0.591		
INDEX 6307			INDEX 6308			INDEX 6309		
SAMPLE 11552			SAMPLE 3320			SAMPLE 3939		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	SPRO SE		LINCOLN			LINCOLN		
FIELD.....	GLENN NO. 1		AGRA N			AGRA N		
WELL NAME.....	SEC. 25, T9N, R25E		MC LAURY NO. 1			BONEBRAKE NO. 1		
LOCATION.....	MONSANTO CO.		SEC. 28, T17N, R5E			SEC. 32, T17N, R5E		
OWNER.....	MONSANTO CO.		WALMAN OIL CO.			DUDLEY MORGAN		
COMPLETED.....	12/22/67		12/02/41			12/01/42		
SAMPLED.....	06/24/68		09/21/42			12/21/44		
FORMATION.....	PENN-SPIRO		NOT GIVEN			PENN-SKINNER		
GEOLOGIC PROVINCE CODE.....	345		355			355		
DEPTH, FEET.....	8106		3400			3431		
WELLHEAD PRESSURE, PSIG.....	1100		1160			875		
OPEN FLOW, MCFD.....	1250		4000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.8		76.6			76.6		
ETHANE.....	0.5		17.6			14.0		
PROPANE.....	TRACE		0.0			---		
N-BUTANE.....	0.0		---			---		
ISOBUTANE.....	0.0		---			---		
N-PENTANE.....	0.0		---			---		
ISOPENTANE.....	0.0		---			---		
CYCLOPENTANE.....	0.0		---			---		
HEXANES PLUS.....	0.0		---			---		
NITROGEN.....	7.5		5.4			9.1		
OXYGEN.....	1.5		0.1			0.1		
ARGON.....	0.1		---			---		
HYDROGEN.....	0.2		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	3.3		0.2			0.1		
HELIUM.....	0.10		0.09			0.11		
HEATING VALUE.....	989		1027			1027		
SPECIFIC GRAVITY.....	0.628		0.666			0.662		
INDEX 6310			INDEX 6311			INDEX 6312		
SAMPLE 3390			SAMPLE 4176			SAMPLE 13818		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	ARLINGTON		DAVENPORT DISTRICT W			FALLIS		
WELL NAME.....	FOUQUET NO. 1		E. E. MASTEN NO. 1			HUFFINE NO. 1		
LOCATION.....	SEC. 9, T13N, R6E		SEC. 25, T15N, R4E			SEC. 20, T15N, R2E		
OWNER.....	HERNDON DRILLING CO.		OLSON DRILLING CO.			PACIFIC OIL & GAS CO.		
COMPLETED.....	04/08/38		09/30/46			7/7/70		
SAMPLED.....	05/13/42		11/10/01			11/10/01		
FORMATION.....	DEVON-HUNTON		PENN-CLEVELAND			PENN-SKINNER		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4105		2995			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1380		1250			NOT GIVEN		
OPEN FLOW, MCFD.....	6525		3399			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	68.6		83.4			26.2		
ETHANE.....	26.1		18.4			15.8		
PROPANE.....	---		---			26.0		
N-BUTANE.....	---		---			14.2		
ISOBUTANE.....	---		---			5.5		
N-PENTANE.....	---		---			4.5		
ISOPENTANE.....	---		---			3.4		
CYCLOPENTANE.....	---		---			0.4		
HEXANES PLUS.....	---		---			1.6		
NITROGEN.....	4.6		0.8			2.1		
OXYGEN.....	0.4		0.3			0.3		
ARGON.....	---		---			0.0		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.0			TRACE		
HELIUM.....	0.13		0.07			TRACE		
HEATING VALUE.....	1163		1144			2323		
SPECIFIC GRAVITY.....	0.705		0.650			1.403		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6313 13410	INDEX SAMPLE	6314 3703	INDEX SAMPLE	6315 3307
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	LINCOLN			LINCOLN		LINCOLN	
FIELD.....	KICKAPOO E			KICKAPOO N		LAFFOON	
WELL NAME.....	BULLHEAD NO. 1			N. W. LEONARD		SCHOOL LAND NO. 2	
LOCATION.....	SEC. 26, T12N, R2E			SEC. 10, T12N, R2E		SEC. 16, T13N, R6E	
OWNER.....	OKLAHOMA NATURAL GAS CO.			STANOLIND OIL & GAS CO.		MID-CONTINENT PETROLEUM CORP	
COMPLETED.....	02/26/72			04/05/73		12/29/73	
SAMPLED.....	10/03/72			11/19/73		04/22/72	
FORMATION.....	PENN-RED FORK			ORDO-WILCOX		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	5086			5635		4051	
WELLHEAD PRESSURE, PSIG.....	1850			600		846	
OPEN FLOW, MCFD.....	4147			NOT GIVEN		18572	
COMPONENT, MOLE PCT							
METHANE.....	67.7			58.6		69.1	
ETHANE.....	9.0			21.6		25.4	
PROpane.....	3.8			---		---	
N-BUTANE.....	1.6			---		---	
ISOBUTANE.....	0.6			---		---	
N-PENTANE.....	0.4			---		---	
ISOPENTANE.....	0.0			---		---	
CYCLOPENTANE.....	TRACE			---		---	
HEXANES PLUS.....	0.1			---		---	
NITROGEN.....	14.5			19.1		4.9	
OXYGEN.....	TRACE			0.5		0.4	
ARGON.....	TRACE			---		---	
HYDROGEN.....	0.0			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.13			0.12		0.11	
HEATING VALUE.....	1094			981		1155	
SPECIFIC GRAVITY.....	0.761			0.743		0.703	
		INDEX SAMPLE	6316 3305	INDEX SAMPLE	6317 16563	INDEX SAMPLE	6318 17642
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	LINCOLN			LINCOLN		LINCOLN	
FIELD.....	LINCREEK DISTRICT			MERRICK N		MERRICK N	
WELL NAME.....	UNGBLEY NO. 2			ELMO NO. 1		PATRICK NO. 1	
LOCATION.....	SEC. 8, T16N, R2E			SEC. 8, T16N, R2E		SEC. 8, T16N, R2E	
OWNER.....	UNION OIL CO. OF CALIF.			PHILLIPS OIL OPERATING CO.		ROYAL OAKS PETROLEUM CORP.	
COMPLETED.....	01/10/33			06/10/82		11/7/00	
SAMPLED.....	04/22/42			06/10/82		04/06/95	
FORMATION.....	PENN-CLEVELAND			PENN-RED FORK		PENN-RED FORK	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2070			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	705			1560		250	
OPEN FLOW, MCFD.....	796			NOT GIVEN		300	
COMPONENT, MOLE PCT							
METHANE.....	74.7			81.3		75.5	
ETHANE.....	20.3			8.7		7.9	
PROpane.....	---			3.8		5.3	
N-BUTANE.....	---			0.2		0.7	
ISOBUTANE.....	---			0.4		0.9	
N-PENTANE.....	---			0.4		0.4	
ISOPENTANE.....	---			0.2		0.3	
CYCLOPENTANE.....	---			0.1		0.1	
HEXANES PLUS.....	---			0.2		0.2	
NITROGEN.....	4.5			7.6		7.6	
OXYGEN.....	0.3			TRACE		TRACE	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			0.1		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.2	
HELIUM.....	0.12			0.08		0.07	
HEATING VALUE.....	1120			1172		1172	
SPECIFIC GRAVITY.....	0.676			0.692		0.738	
		INDEX SAMPLE	6319 4606	INDEX SAMPLE	6320 11730	INDEX SAMPLE	6321 13595
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	LINCOLN			LINCOLN		LINCOLN	
FIELD.....	MIDLOTHIAN NW			MIDLOTHIAN SW		MOUNT VERNON N	
WELL NAME.....	YANCY NO. 1			MILLS NO. 1		ANDERSON NO. 1	
LOCATION.....	SEC. 26, T14N, R3E			SEC. 35, T14N, R3E		SEC. 35, T16N, R3E	
OWNER.....	TOKLAN PRODUCTION CO.			EARLE BARNES		DAUBE EXPLORATION CO.	
COMPLETED.....	06/11/48			11/10/68		10/23/72	
SAMPLED.....	10/29/48			01/01/69		04/27/73	
FORMATION.....	PENN-PRUE			PENN-SKINNER		PENN-PRUE	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	4117			4362		4032	
WELLHEAD PRESSURE, PSIG.....	1480			1700		1624	
OPEN FLOW, MCFD.....	4150			5695		3011	
COMPONENT, MOLE PCT							
METHANE.....	70.8			81.8		83.0	
ETHANE.....	21.7			10.0		8.5	
PROpane.....	---			3.0		3.8	
N-BUTANE.....	---			1.0		1.0	
ISOBUTANE.....	---			0.3		0.5	
N-PENTANE.....	---			0.3		0.2	
ISOPENTANE.....	---			0.1		0.3	
CYCLOPENTANE.....	---			0.1		TRACE	
HEXANES PLUS.....	---			0.2		1.1	
NITROGEN.....	1.2			6.8		2.4	
OXYGEN.....	0.1			0.3		0.0	
ARGON.....	---			TRACE		0.0	
HYDROGEN.....	---			0.1		TRACE	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		TRACE	
HELIUM.....	0.05			0.08		0.08	
HEATING VALUE.....	1214			1087		1172	
SPECIFIC GRAVITY.....	0.699			0.677		0.680	
		INDEX SAMPLE	6322 11206	INDEX SAMPLE	6323 5913	INDEX SAMPLE	6324 3322
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	LINCOLN			LINCOLN		LINCOLN	
FIELD.....	MOUNT VERNON NE			MOUNT VERNON SW		NOT GIVEN	
WELL NAME.....	GRIMM NO. 1			MASON NO. 1		HILMER NO. 1	
LOCATION.....	SEC. 30, T16N, R4E			SEC. 18, T15N, R3E		SEC. 26, T17N, R3E	
OWNER.....	DAVIDOR & DAVIDOR, INC.			DAVIDOR & DAVIDOR, INC.		SKELLY OIL CO.	
COMPLETED.....	11/03/67			07/06/55		11/7/41	
SAMPLED.....	11/03/67			08/15/55		04/22/42	
FORMATION.....	PENN-RED FORK			PENN-PRUE		CANO-DOLomite	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	4114			3945		4420	
WELLHEAD PRESSURE, PSIG.....	1480			1520		1650	
OPEN FLOW, MCFD.....	8800			6400		11000	
COMPONENT, MOLE PCT							
METHANE.....	76.1			79.2		68.2	
ETHANE.....	6.5			3.0		20.7	
PROpane.....	3.3			1.2		---	
N-BUTANE.....	1.2			1.1		---	
ISOBUTANE.....	0.3			0.5		---	
N-PENTANE.....	0.3			0.4		---	
ISOPENTANE.....	0.1			0.2		---	
CYCLOPENTANE.....	0.1			0.2		---	
HEXANES PLUS.....	0.2			7.7		10.3	
NITROGEN.....	11.2			0.0		0.4	
OXYGEN.....	TRACE			TRACE		---	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	---			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.1		---	
CARBON DIOXIDE.....	0.10			0.10		0.1	
HELIUM.....	1063			1113		1062	
HEATING VALUE.....	1063			0.700		0.701	
SPECIFIC GRAVITY.....	0.707						

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6325 SAMPLE 5634			INDEX 6326 SAMPLE 17573			INDEX 6327 SAMPLE 3427		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	OLIVET		PARKLAND W			PECK DISTRICT		
WELL NAME.....	MOORE NO. 1		MINNIE B. MARTIN NO. 1			GRAY		
LOCATION.....	SEC. 21, T17N, R2E		SEC. 28, T16N, R4E			SEC. 3, T13N, R6E		
OWNER.....	OKLAHOMA NATURAL GAS CO.		PAN WESTERN ENERGY CORP.			HERNDON DRILLING CO.		
COMPLETED.....	04/05/54		--/--/00			01/--/42		
SAMPLED.....	06/09/54		01/24/85			05/13/42		
FORMATION.....	PENN-CLEVELAND		PENN-RED FORK			PENN---		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3607		4000			4138		
WELLHEAD PRESSURE, PSIG.....	1485		250			760		
OPEN FLOW, MCFD.....	18000		425			7650		
COMPONENT, MOLE PCT								
METHANE.....	79.5		71.0			67.4		
ETHANE.....	6.9		5.9			27.0		
PROPANE.....	3.2		3.6			---		
N-BUTANE.....	0.9		1.4			---		
ISOBUTANE.....	0.5		0.5			---		
N-PENTANE.....	0.3		0.4			---		
ISOPENTANE.....	0.2		0.4			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.2		0.3			---		
NITROGEN.....	7.8		15.0			5.2		
OXYGEN.....	0.0		1.1			0.1		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.2		TRACE			---		
HYDROGEN SULFIDE.....	0.0		0.1			---		
CARBON DIOXIDE.....	TRACE		0.1			0.2		
HELIUM.....	0.12		0.10			0.10		
HEATING VALUE.....	1095		1036			1167		
SPECIFIC GRAVITY.....	0.689		0.741			0.712		
INDEX 6328 SAMPLE 3845			INDEX 6329 SAMPLE 5005			INDEX 6330 SAMPLE 15476		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LINCOLN		RED HOUND			LINCOLN		
FIELD.....	PECK W		RED HOUND			RED HOUND W		
WELL NAME.....	LONG COMMUNITY NO. 1		SEC. POTTER NO. 1			STATE ORR NO. 1		
LOCATION.....	SEC. 6, T13N, R6E		SEC. 21, T16N, R3E			SEC. 36, T16N, R2E		
OWNER.....	JOHN B. HAWLEY, JR.		WILCOX OIL CO.			SULLIVAN & CO.		
COMPLETED.....	03/30/50		01/30/50			08/01/78		
SAMPLED.....	05/22/44		02/08/51			10/26/78		
FORMATION.....	PENN-FLAT TOP		DEVO-HUNTON			PENN-SKINNER		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4079		3751			4500		
WELLHEAD PRESSURE, PSIG.....	1200		2400			1625		
OPEN FLOW, MCFD.....	1000		6500			54000		
COMPONENT, MOLE PCT								
METHANE.....	65.6		78.0			79.6		
ETHANE.....	24.5		7.3			7.8		
PROPANE.....	---		3.3			3.3		
N-BUTANE.....	---		1.0			1.3		
ISOBUTANE.....	---		0.3			0.7		
N-PENTANE.....	---		0.2			0.5		
ISOPENTANE.....	---		0.2			0.3		
CYCLOPENTANE.....	---		TRACE			0.2		
HEXANES PLUS.....	---		0.1			0.4		
NITROGEN.....	9.4		3.0			4.8		
OXYGEN.....	0.4		0.2			0.4		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.1		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.3			0.0		
HELIUM.....	0.10		0.12			0.08		
HEATING VALUE.....	1104		1074			1177		
SPECIFIC GRAVITY.....	0.716		0.694			0.713		
INDEX 6331 SAMPLE 17471			INDEX 6332 SAMPLE 10963			INDEX 6333 SAMPLE 1062		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	SPORN		STONE NE			STROUD		
WELL NAME.....	HERT TRUST NO. 1-22		STATE NO. 1			ANNA SUKOVATX NO. 1		
LOCATION.....	SEC. 22, T17N, R3E		SEC. 36, T15N, R4E			SEC. 2, T14N, R5E		
OWNER.....	NONDORF OIL & GAS, INC.		GREENLAND DRILLING CO.			MOBIL OIL CORP.		
COMPLETED.....	04/22/84		02/14/67			04/--/25		
SAMPLED.....	10/02/84		05/23/67			05/23/25		
FORMATION.....	PENN-RED FORK		PENN-RED FORK			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3958		3979			3345		
WELLHEAD PRESSURE, PSIG.....	1425		1425			1250		
OPEN FLOW, MCFD.....	1000		2230			10000		
COMPONENT, MOLE PCT								
METHANE.....	76.8		81.4			73.8		
ETHANE.....	7.7		0.0			21.9		
PROPANE.....	3.8		3.6			---		
N-BUTANE.....	1.2		0.1			---		
ISOBUTANE.....	0.5		0.1			---		
N-PENTANE.....	0.3		0.5			---		
ISOPENTANE.....	0.1		0.0			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.2		0.2			---		
NITROGEN.....	8.9		6.8			3.9		
OXYGEN.....	TRACE		0.1			0.3		
ARGON.....	TRACE		0.0			---		
HYDROGEN.....	---		TRACE			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.0			0.1		
HELIUM.....	0.10		0.09			0.06		
HEATING VALUE.....	1103		1101			1140		
SPECIFIC GRAVITY.....	0.709		0.683			0.682		
INDEX 6334 SAMPLE 5144			INDEX 6335 SAMPLE 9905			INDEX 6336 SAMPLE 16791		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	STROUD		STROUD			STROUD		
WELL NAME.....	M. RUEB NO. 1		MCCALL NO 1			JOHN ROBERSON NO. 1-A		
LOCATION.....	SEC. 23, T15N, R5E		SEC. 32, T14N, R5E			SEC. 12, T14N, R5E		
OWNER.....	WID-CONTINENT PETROLEUM CORP		WID-CONTINENT PETROLEUM CORP.			TERRA ENERGY CORP.		
COMPLETED.....	09/01/51		03/17/65			12/03/82		
SAMPLED.....	12/27/51		05/25/65			03/03/83		
FORMATION.....	PENN-PRUE		PENN-RED FORK			PENN-BARTLESVILLE		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3327		3875			3720		
WELLHEAD PRESSURE, PSIG.....	1320		1375			1150		
OPEN FLOW, MCFD.....	1920		19570			2100		
COMPONENT, MOLE PCT								
METHANE.....	86.1		78.2			86.8		
ETHANE.....	5.8		5.9			3.9		
PROPANE.....	0.2		1.1			0.6		
N-BUTANE.....	0.6		0.6			0.2		
ISOBUTANE.....	0.1		0.5			0.2		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.0		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.2		
HEXANES PLUS.....	0.1		0.8			0.2		
NITROGEN.....	4.8		9.8			5.4		
OXYGEN.....	0.1		0.2			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.2			0.1		
HELIUM.....	0.09		0.10			0.10		
HEATING VALUE.....	1071		1082			1061		
SPECIFIC GRAVITY.....	0.643		0.706			0.643		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6337 SAMPLE 5222			INDEX 6338 SAMPLE 1906			INDEX 6339 SAMPLE 17187		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	STROUD NE		TRYON			TRYON		
WELL NAME.....	ENGLISH NO. 1		SCHOOL LAND NO. 1			SPORN ESTATE NO. 23-1		
LOCATION.....	SEC. 13, T15N, R6E		SEC. 36, T17N, R3E			SEC. 23, T16N, R3E		
OWNER.....	NED BIFFLE		CONTINENTAL OIL CO.			CHAMPLIN EXPLORATION, INC.		
COMPLETED.....	11/2/51		10/06/29			03/05/82		
SAMPLED.....	04/18/52		12/11/29			02/27/84		
FORMATION.....	PENN-SKINNER		PENN-BARTLESVILLE			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	2949		3923			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1100		1600			NOT GIVEN		
OPEN FLOW, MCFD.....	2420		16000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.7		69.2			76.0		
ETHANE.....	6.2		22.0			7.6		
PROPANE.....	2.8		---			3.6		
N-BUTANE.....	0.7		---			1.2		
ISOBUTANE.....	0.3		---			0.5		
N-PENTANE.....	0.2		---			0.4		
ISOPENTANE.....	0.2		---			0.3		
CYCLOPENTANE.....	0.1		---			0.1		
HEXANES PLUS.....	0.1		---			0.2		
NITROGEN.....	6.3		8.4			9.8		
OXYGEN.....	0.1		0.1			0.1		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	TRACE		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.1		
HELIUM.....	0.09		0.10			0.15		
HEATING VALUE.....	1081		1095			1101		
SPECIFIC GRAVITY.....	0.668		0.702			0.716		
INDEX 6340 SAMPLE 9915			INDEX 6341 SAMPLE 16429			INDEX 6342 SAMPLE 16967		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	WELLSTON N		WELLSTON S			WELLSTON S		
WELL NAME.....	STEWART NO. 1		DAVIS UNIT NO. 1-27			VAN GUNDY NO. 1-36		
LOCATION.....	SEC. 18, T14N, R3E		SEC. 27, T14N, R2E			SEC. 36, T14N, R2E		
OWNER.....	REX OIL REFINING, INC.		PSEC, INC.			PSEC, INC.		
COMPLETED.....	01/20/65		01/17/82			07/09/82		
SAMPLED.....	06/04/65		02/18/82			05/25/83		
FORMATION.....	PENN-SKINNER		PENN-CLEVELAND-JONES			PENN-CLEVELAND-JONES		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4400		4207			4040		
WELLHEAD PRESSURE, PSIG.....	1643		1620			241		
OPEN FLOW, MCFD.....	14424		7000			627		
COMPONENT, MOLE PCT								
METHANE.....	81.6		77.4			81.2		
ETHANE.....	5.4		8.2			7.4		
PROPANE.....	2.5		4.1			3.7		
N-BUTANE.....	0.3		1.2			1.5		
ISOBUTANE.....	0.5		0.3			0.4		
N-PENTANE.....	TRACE		0.3			0.5		
ISOPENTANE.....	0.1		0.2			0.6		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.3		
NITROGEN.....	8.8		7.8			3.8		
OXYGEN.....	0.2		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.1		
HELIUM.....	0.09		0.09			0.07		
HEATING VALUE.....	1031		1124			1182		
SPECIFIC GRAVITY.....	0.663		0.707			0.702		
INDEX 6343 SAMPLE 3402			INDEX 6344 SAMPLE 1839			INDEX 6345 SAMPLE 2303		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	WILZETTA NE		CRESCENT-LOVELL			CRESCENT-LOVELL		
WELL NAME.....	HICKS NO. 1		QUIGLEY NO. 1			KATSCOR NO. 1		
LOCATION.....	SEC. 30, T13N, R6E		SEC. 21, T18N, R4W			SEC. 34, T17N, R4W		
OWNER.....	ALLIED MATERIALS CORP.		BLACKWELL OIL & GAS CO.			EASON OIL CO.		
COMPLETED.....	07/15/41		05/22/29			10/13/30		
SAMPLED.....	05/13/42		08/13/29			03/24/31		
FORMATION.....	DEMO-HUNTON		NOT GIVEN			PENN-LAYTON		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4075		4020			4918		
WELLHEAD PRESSURE, PSIG.....	25800		16800			NOT GIVEN		
OPEN FLOW, MCFD.....	---		24000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.6		56.4			67.7		
ETHANE.....	18.9		27.1			30.5		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	7.7		6.0			1.2		
OXYGEN.....	0.6		0.3			0.0		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.2			0.6		
HELIUM.....	0.14		0.01			0.05		
HEATING VALUE.....	1074		1158			1232		
SPECIFIC GRAVITY.....	0.684		0.717			0.716		
INDEX 6346 SAMPLE 2646			INDEX 6347 SAMPLE 5044			INDEX 6348 SAMPLE 5726		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	CRESCENT-LOVELL		CRESCENT-LOVELL			CRESCENT-LOVELL		
WELL NAME.....	W. T. MILLER NO. 1		POLLARD NO. 1			HILL NO. 1		
LOCATION.....	SEC. 28, T17N, R4W		SEC. 6, T18N, R4W			SEC. 3, T18N, R4W		
OWNER.....	TRIGG OIL CO. & CARTER OIL C		TRIGG OIL CO., INC.			E. SAHAN		
COMPLETED.....	07/12/33		12/28/50			09/22/54		
SAMPLED.....	09/22/33		04/17/51			11/05/54		
FORMATION.....	DEMO-WILCOX		PENN-LAYTON			PENN-LAYTON		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	6120		4612			4788		
WELLHEAD PRESSURE, PSIG.....	2814		2000			1800		
OPEN FLOW, MCFD.....	6500		NOT GIVEN			1000		
COMPONENT, MOLE PCT								
METHANE.....	66.0		85.9			83.8		
ETHANE.....	25.5		6.4			7.4		
PROPANE.....	---		3.1			3.6		
N-BUTANE.....	---		1.0			0.9		
ISOBUTANE.....	---		0.3			0.4		
N-PENTANE.....	---		0.3			0.2		
ISOPENTANE.....	---		0.1			0.1		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.2			0.1		
NITROGEN.....	7.7		1.9			2.7		
OXYGEN.....	0.4		0.1			TRACE		
ARGON.....	---		TRACE			0.0		
HYDROGEN.....	---		0.0			0.1		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.4		0.8			0.2		
HELIUM.....	0.00		0.09			0.07		
HEATING VALUE.....	1126		1133			1144		
SPECIFIC GRAVITY.....	0.718		0.666			0.669		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6349 SAMPLE 5727			INDEX 6350 SAMPLE 10276			INDEX 6351 SAMPLE 11236		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	CRESCENT-LOVELL		CRESCENT-LOVELL			CRESCENT-LOVELL		
WELL NAME.....	POLLARD NO. 1		FICKEN NO. 2			ROUT NO. 1		
LOCATION.....	SEC. 5, T18N, R4W		SEC. 17, T18N, R4W			SEC. 12, T17N, R4W		
OWNER.....	E. R. BAHAN		EARL R. RAPP			PETROLEUM RESOURCES CO.		
COMPLETED.....	10/17/54		09/24/65			04/21/67		
SAMPLED.....	11/05/54		11/10/65			12/04/67		
FORMATION.....	PENN-LAYTON		PENN-CARMICHAEL			PENN-PERRY		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4680		3530			4570		
WELLHEAD PRESSURE, PSIG.....	1500		595			1450		
OPEN FLOW, MCFD.....	4500		3500			16595		
COMPONENT, MOLE PCT								
METHANE.....	85.2		81.7			78.9		
ETHANE.....	6.4		1.5			8.6		
PROPANE.....	3.2		4.0			4.2		
N-BUTANE.....	1.1		1.4			1.4		
ISOBUTANE.....	0.4		0.5			0.5		
N-PENTANE.....	0.3		0.5			0.3		
ISOPENTANE.....	0.3		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	2.6		3.6			5.1		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.09		0.11			0.10		
HEATING VALUE.....	1151		1179			1166		
SPECIFIC GRAVITY.....	0.672		0.699			0.708		

INDEX 6352 SAMPLE 11738			INDEX 6353 SAMPLE 4363			INDEX 6354 SAMPLE 13932		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	CRESCENT-LOVELL		EDMOND W			ELK HORN S		
WELL NAME.....	POSTON NO. 3		R. N. CHRISTNER NO. 2			EASTWOOD NO. 5		
LOCATION.....	SEC. 16, T18N, R4W		SEC. 30, T15N, R4W			SEC. 8, T18N, R3W		
OWNER.....	H. E. R. DRILLING CO.		STANOLIND OIL & GAS CO.			GENIE OIL & GAS CORP.		
COMPLETED.....	11/12/68		04/29/47			01/31/74		
SAMPLED.....	01/15/69		10/07/74			03/05/74		
FORMATION.....	PENN-CARMICHAEL		DEVO-HUNTON			PENN-JACK E SAND		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3548		6527			2652		
WELLHEAD PRESSURE, PSIG.....	1035		2800			1150		
OPEN FLOW, MCFD.....	10200		20000			16000		
COMPONENT, MOLE PCT								
METHANE.....	78.0		76.8			75.0		
ETHANE.....	6.8		22.0			6.0		
PROPANE.....	3.0		---			3.4		
N-BUTANE.....	1.2		---			1.0		
ISOBUTANE.....	0.6		---			0.5		
N-PENTANE.....	0.4		---			0.2		
ISOPENTANE.....	0.2		---			0.2		
CYCLOPENTANE.....	0.1		---			0.1		
HEXANES PLUS.....	0.2		---			0.1		
NITROGEN.....	8.4		0.6			13.1		
OXYGEN.....	0.0		0.2			0.1		
ARGON.....	TRACE		---			0.0		
HYDROGEN.....	TRACE		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		0.4			0.0		
HELIUM.....	0.14		0.04			0.24		
HEATING VALUE.....	1111		1172			1032		
SPECIFIC GRAVITY.....	0.706		0.671			0.708		

INDEX 6355 SAMPLE 17501			INDEX 6356 SAMPLE 16433			INDEX 6357 SAMPLE 17795		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	GUTHRIE LAKE		GUTHRIE LAKE E			GUTHRIE NE		
WELL NAME.....	SHANNON NO. 1-36		WELLS NO. 2			WELLS NO. 1-32		
LOCATION.....	SEC. 36, T16N, R3W		SEC. 10, T15N, R2W			SEC. 32, T17N, R1W		
OWNER.....	PSEC, INC.		ARTHUR FINSTON			BLUE QUAIL OIL & GAS, INC.		
COMPLETED.....	04/26/84		08/24/81			04/11/85		
SAMPLED.....	10/12/84		02/24/85			08/02/85		
FORMATION.....	PENN-SKINNER		ORDO-VIOLA			PENN-HOOVER		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	5517		5858			2315		
WELLHEAD PRESSURE, PSIG.....	1000		1200			965		
OPEN FLOW, MCFD.....	2300		750			2766		
COMPONENT, MOLE PCT								
METHANE.....	68.4		81.8			67.8		
ETHANE.....	11.0		9.2			5.9		
PROPANE.....	7.8		3.9			4.0		
N-BUTANE.....	2.3		1.6			1.6		
ISOBUTANE.....	0.8		0.4			0.6		
N-PENTANE.....	0.5		0.4			0.5		
ISOPENTANE.....	0.6		0.2			0.4		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.3		
NITROGEN.....	5.2		2.0			18.3		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	2.2		TRACE			TRACE		
HYDROGEN.....	0.2		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.2			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.08		0.04			0.26		
HEATING VALUE.....	1265		1197			1028		
SPECIFIC GRAVITY.....	0.805		0.695			0.758		

INDEX 6358 SAMPLE 10507			INDEX 6359 SAMPLE 16647			INDEX 6360 SAMPLE 3411		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	ICONIUM S		LANGSTON S			NAVINA		
WELL NAME.....	KIGHTLINGER		KNIGHTLINGER NO. 1			ICIA LINEGER NO. 1		
LOCATION.....	SEC. 21, T16N, R1E		SEC. 5, T16N, R1E			SEC. 17, T15N, R3W		
OWNER.....	OK & B DRILLING CO.		WIL-MC OIL CORP.			CONTINENTAL OIL CO.		
COMPLETED.....	02/08/66		03/14/82			07/03/41		
SAMPLED.....	04/06/66		09/03/82			05/14/42		
FORMATION.....	PENN-SKINNER		PENN-LAYTON			ORDO-ILCOX		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4787		3745			6201		
WELLHEAD PRESSURE, PSIG.....	1740		1740			2489		
OPEN FLOW, MCFD.....	6000		1176			550		
COMPONENT, MOLE PCT								
METHANE.....	82.3		79.7			78.2		
ETHANE.....	8.6		7.8			20.5		
PROPANE.....	3.6		3.7			---		
N-BUTANE.....	1.2		1.2			---		
ISOBUTANE.....	0.4		0.3			---		
N-PENTANE.....	0.4		0.3			---		
ISOPENTANE.....	0.3		0.3			---		
CYCLOPENTANE.....	0.1		0.2			---		
HEXANES PLUS.....	0.4		0.2			---		
NITROGEN.....	2.4		5.9			0.8		
OXYGEN.....	0.0		TRACE			0.3		
ARGON.....	0.0		---			---		
HYDROGEN.....	0.0		0.1			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.1			0.3		
HELIUM.....	0.07		0.06			0.08		
HEATING VALUE.....	1189		1140			1156		
SPECIFIC GRAVITY.....	0.694		0.699			0.662		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6361 SAMPLE 3419			INDEX 6362 SAMPLE 3760			INDEX 6363 SAMPLE 5855		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	NAVINA		PLEASANT VALLEY			PLEASANT VALLEY NE		
WELL NAME.....	BABCOCK NO. 1		SCHOOL LAND NO. 1			POTEE NO. 1		
LOCATION.....	SEC. 10, T15N, R4W		SEC. 16, T15N, R2W			SEC. 11, T15N, R2W		
OWNER.....	CITIES SERVICE OIL CO.		EASON OIL CO.			POWELL BRISCOE, INC.		
COMPLETED.....	12/30/41		08/15/43			11/01/54		
SAMPLED.....	05/14/42		04/02/44			06/07/55		
FORMATION.....	PENN-LAYTON		PENN-BARTLESVILLE			PENN-LAYTON		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	5012		5677			4580		
WELLHEAD PRESSURE, PSIG.....	1755		1520			2300		
OPEN FLOW, MCFD.....	2250		4000			15		
COMPONENT, MOLE PCT.....								
METHANE.....	44.2		69.0			78.6		
ETHANE.....	54.9		29.4			5.0		
PROPANE.....	---		---			2.2		
N-BUTANE.....	---		---			0.7		
ISOBUTANE.....	---		---			0.4		
N-PENTANE.....	---		---			0.3		
ISOPENTANE.....	---		---			0.1		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.2		
NITROGEN.....	0.2		4.4			12.1		
OXYGEN.....	0.4		0.9			TRACE		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.1		
HELIUM.....	0.02		0.06			0.20		
HEATING VALUE.....	1432		1154			1011		
SPECIFIC GRAVITY.....	0.832		0.706			0.682		
INDEX 6364 SAMPLE 14713			INDEX 6365 SAMPLE 17500			INDEX 6366 SAMPLE 17609		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	VAUGHN BELL NW		SEWARD NE			WATERLOO N		
WELL NAME.....	VAUGHTER NO. 1		KELLOGG NO. 1			EMMONS NO. 1-35		
LOCATION.....	SEC. 31, T15N, R3W		SEC. 23, T16N, R3W			SEC. 35, T15N, R3W		
OWNER.....	FERGUSON OIL CO., INC.		PUBLISHERS PETROLEUM			AMCANA OIL CO.		
COMPLETED.....	01/06/76		10/28/82			06/28/83		
SAMPLED.....	06/27/76		10/28/84			02/25/85		
FORMATION.....	PENN-LAYTON		PENN-LAYTON			DEVON-HISENER		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			6071		
WELLHEAD PRESSURE, PSIG.....	1700		NOT GIVEN			275		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			952		
COMPONENT, MOLE PCT.....								
METHANE.....	81.7		74.0			70.0		
ETHANE.....	8.3		5.9			10.8		
PROPANE.....	3.8		1.7			8.5		
N-BUTANE.....	1.2		1.3			3.4		
ISOBUTANE.....	0.5		0.5			0.9		
N-PENTANE.....	0.4		0.3			0.3		
ISOPENTANE.....	0.4		0.4			0.2		
CYCLOPENTANE.....	0.1		0.3			0.1		
HEXANES PLUS.....	0.3		0.3			0.1		
NITROGEN.....	2.7		12.8			3.9		
OXYGEN.....	TRACE		0.1			0.4		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.1			0.2		
HELIUM.....	0.06		0.13			0.04		
HEATING VALUE.....	1196		1073			1342		
SPECIFIC GRAVITY.....	0.698		0.730			0.811		
INDEX 6367 SAMPLE 9823			INDEX 6368 SAMPLE 9824			INDEX 6369 SAMPLE 9825		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOGAN		LOGAN			LOGAN		
FIELD.....	WELLSTON W		WELLSTON W			WELLSTON W		
WELL NAME.....	SHAW NO. 1		SHAW NO. 1			GRAHAM NO. 1		
LOCATION.....	SEC. 26, T15N, R1E		SEC. 35, T15N, R1E			SEC. 35, T15N, R1E		
OWNER.....	MOORE, MOORE & MILLER		MOORE, MOORE & MILLER			MOORE, MOORE & MILLER		
COMPLETED.....	10/15/64		02/03/65			02/03/65		
SAMPLED.....	03/27/65		03/27/65			03/27/65		
FORMATION.....	DEVON-HUNTON		PENN-CHECKERBOARD			PENN-BARTLESVILLE		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	5061		4034			4990		
WELLHEAD PRESSURE, PSIG.....	1740		900			1700		
OPEN FLOW, MCFD.....	12000		NOT GIVEN			2113		
COMPONENT, MOLE PCT.....								
METHANE.....	79.3		71.7			83.1		
ETHANE.....	11.0		12.0			7.0		
PROPANE.....	4.7		7.5			3.0		
N-BUTANE.....	1.1		1.1			0.9		
ISOBUTANE.....	0.6		1.1			0.4		
N-PENTANE.....	0.3		0.8			0.2		
ISOPENTANE.....	0.3		0.7			0.3		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.2		0.6			0.2		
NITROGEN.....	2.1		2.1			4.6		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.05		0.03			0.09		
HEATING VALUE.....	1240		1124			1124		
SPECIFIC GRAVITY.....	0.710		0.809			0.675		
INDEX 6370 SAMPLE 14471			INDEX 6371 SAMPLE 7728			INDEX 6372 SAMPLE 11353		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	LOVE		LOVE			LOVE		
FIELD.....	ENVILLE NW		ENVILLE SW			ENVILLE SW		
WELL NAME.....	STATE TRACT 5 NO. 1		E. L. SADLER UNIT NO. 1			E. L. SADLER NO. 1		
LOCATION.....	SEC. 12, T6S, R2E		SEC. 7, T7S, R2E			SEC. 7, T7S, R3E		
OWNER.....	APCO OIL CORP.		TEXACO INC.			SHELL OIL CO., ET AL.		
COMPLETED.....	05/09/75		08/24/60			09/04/58		
SAMPLED.....	09/18/75		10/19/60			03/04/68		
FORMATION.....	PENN-SPRINGER		ORDO-OIL CREEK			ORDO-OIL CREEK		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	9526		10979			8175		
WELLHEAD PRESSURE, PSIG.....	4715		5072			2600		
OPEN FLOW, MCFD.....	3147		57000			41000		
COMPONENT, MOLE PCT.....								
METHANE.....	93.1		84.6			87.7		
ETHANE.....	3.2		6.9			6.1		
PROPANE.....	0.6		2.9			2.7		
N-BUTANE.....	0.3		1.5			1.1		
ISOBUTANE.....	0.2		0.8			0.2		
N-PENTANE.....	0.1		0.8			0.2		
ISOPENTANE.....	0.3		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.3			0.1		
HEXANES PLUS.....	0.1		1.1			0.2		
NITROGEN.....	0.6		0.6			1.5		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.1		
HELIUM.....	0.04		0.02			0.03		
HEATING VALUE.....	1072		1272			1143		
SPECIFIC GRAVITY.....	0.608		0.710			0.654		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6373 11933	INDEX SAMPLE	6374 11359	INDEX SAMPLE	6375 6813
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	LOVE			LOVE		LOVE	
FIELD	ENVILLE SW			ENVILLE W		OVERBROOK	
WELL NAME	TIPPETT NO. 1			CLEMMIE S. STEVENS		TUCKER NO. 1	
LOCATION	SEC. 2, T7S, R2E			SEC. 32, T6S, R3E		SEC. 32, T6S, R2E	
OWNER	EDWIN L. COX			MOBIL OIL CORP.		ATLANTIC RICHFIELD CO.	
COMPLETED	04/26/69			01/23/61		04/-/58	
SAMPLED	06/13/69			03/08/68		09/24/58	
FORMATION	0800-OIL CREEK			0800-OIL CREEK		0800-OIL CREEK	
GEOLOGIC PROVINCE CODE	350			350		350	
DEPTH, FEET	7611			10400		10620	
WELLHEAD PRESSURE, PSIG	3682			3331		5274	
OPEN FLOW, MCFD	29502			10547		14	
COMPONENT, MOLE PCT							
METHANE	86.4			90.2		89.7	
ETHANE	6.2			4.7		4.8	
PROpane	3.1			0.7		1.7	
N-BUTANE	1.0			0.7		0.7	
ISOBUTANE	0.5			0.2		0.3	
N-PENTANE	0.6			0.2		0.2	
ISOPENTANE	0.0			0.0		0.3	
CYCLOPENTANE	0.1			0.1		TRACE	
HEXANES PLUS	0.5			0.2		0.1	
NITROGEN	1.4			1.8		1.7	
OXYGEN	0.0			0.0		0.1	
ARGON	0.0			TRACE		TRACE	
HYDROGEN	0.1			0.0		0.0	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.0			0.2		0.2	
HELIUM	0.05			0.07		0.03	
HEATING VALUE*	1173			1095		1099	
SPECIFIC GRAVITY	0.669			0.628		0.631	
		INDEX SAMPLE	6376 17602	INDEX SAMPLE	6377 17604	INDEX SAMPLE	6378 7923
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	MAJOR			MAJOR		MAJOR	
FIELD	BADO E			BADO E		CAMPBELL	
WELL NAME	CLASSEN A NO. 4			DYE #4 NO. 1		BARNES UNIT B	
LOCATION	SEC. 9, T20N, R14W			SEC. 4, T20N, R14W		SEC. 29, T23N, R15W	
OWNER	TXO PRODUCTION CORP.			TXO PRODUCTION CORP.		AMOCO PRODUCTION CO.	
COMPLETED	03/21/85			11/20/85		08/29/60	
SAMPLED	02/26/85			02/26/85		04/11/61	
FORMATION	DEVO-HUNTON			MISS--		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	9290			8370		8023	
WELLHEAD PRESSURE, PSIG	2900			2450		2650	
OPEN FLOW, MCFD	1750			3500		9100	
COMPONENT, MOLE PCT							
METHANE	89.9			86.7		82.4	
ETHANE	5.4			6.5		8.4	
PROpane	1.7			3.0		3.1	
N-BUTANE	0.5			1.1		1.5	
ISOBUTANE	0.1			0.5		0.5	
N-PENTANE	0.2			0.3		0.4	
ISOPENTANE	0.1			0.2		0.2	
CYCLOPENTANE	TRACE			0.1		0.1	
HEXANES PLUS	0.1			0.2		0.1	
NITROGEN	1.6			1.1		2.9	
OXYGEN	TRACE			TRACE		0.1	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	TRACE			TRACE		0.0	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.2			0.3		0.2	
HELIUM	0.04			0.03		0.10	
HEATING VALUE*	1090			1162		1168	
SPECIFIC GRAVITY	0.623			0.665		0.687	
		INDEX SAMPLE	6379 12294	INDEX SAMPLE	6380 13459	INDEX SAMPLE	6381 14712
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	MAJOR			MAJOR		MAJOR	
FIELD	CAMPBELL			CAMPBELL		CAMPBELL	
WELL NAME	JACQUITH NO. 1			PHILLIPS NO. 13-1		BOUMA NO. 1	
LOCATION	SEC. 12, T23N, R16W			SEC. 13, T22N, R15W		SEC. 14, T23N, R16W	
OWNER	W. B. OSBORN, OPERATOR			HARPER OIL CO.		L. R. FRENCH, JR.	
COMPLETED	05/04/70			03/20/72		10/07/75	
SAMPLED	05/12/70			10/25/72		06/28/76	
FORMATION	MISS--			MISS--		MISS--	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	6994			7502		7113	
WELLHEAD PRESSURE, PSIG	2394			1300		1526	
OPEN FLOW, MCFD	4861			1690		1168	
COMPONENT, MOLE PCT							
METHANE	92.5			88.0		92.3	
ETHANE	2.7			5.9		2.5	
PROpane	1.1			2.4		0.9	
N-BUTANE	0.5			0.9		0.4	
ISOBUTANE	0.2			0.5		0.1	
N-PENTANE	0.2			0.4		0.2	
ISOPENTANE	0.1			0.2		0.1	
CYCLOPENTANE	0.1			0.1		TRACE	
HEXANES PLUS	0.2			0.3		0.1	
NITROGEN	1.7			0.9		2.5	
OXYGEN	TRACE			TRACE		0.2	
ARGON	TRACE			0.0		TRACE	
HYDROGEN	TRACE			0.1		0.0	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.4			0.0		0.4	
HELIUM	0.06			0.04		0.05	
HEATING VALUE*	1064			1157		1040	
SPECIFIC GRAVITY	0.611			0.657		0.606	
		INDEX SAMPLE	6382 14731	INDEX SAMPLE	6383 6485	INDEX SAMPLE	6384 7006
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	MAJOR			MAJOR		MAJOR	
FIELD	CAMPBELL			CEARD DALE NE		CEARD DALE NE	
WELL NAME	COY NO. 1			ANNA M. HARRIS NO. 1		EARL E. SPAFFORD	
LOCATION	SEC. 1, T23N, R16W			SEC. 13, T22N, R15W		SEC. 33, T23N, R16W	
OWNER	W. B. OSBORN, OPERATOR			AMOCO PRODUCTION CO.		ATLANTIC RICHFIELD CO.	
COMPLETED	06/01/76			11/26/57		02/06/59	
SAMPLED	08/12/76			01/19/58		03/23/59	
FORMATION	MISS--			PENN-COTTAGE GROVE		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	7860			6209		8271	
WELLHEAD PRESSURE, PSIG	2225			2152		3015	
OPEN FLOW, MCFD	4000			17300		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	92.3			94.0		94.0	
ETHANE	2.8			2.9		2.0	
PROpane	1.0			0.9		0.6	
N-BUTANE	0.5			0.3		0.1	
ISOBUTANE	0.1			0.1		0.3	
N-PENTANE	0.2			0.1		0.1	
ISOPENTANE	0.2			TRACE		0.0	
CYCLOPENTANE	0.1			0.1		0.1	
HEXANES PLUS	0.2			0.2		0.3	
NITROGEN	1.7			0.2		1.6	
OXYGEN	0.0			TRACE		TRACE	
ARGON	TRACE			0.0		0.0	
HYDROGEN	0.0			0.0		TRACE	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.8			0.2		0.6	
HELIUM	0.05			0.04		TRACE	
HEATING VALUE*	1062			1074		1047	
SPECIFIC GRAVITY	0.616			0.599		0.602	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6385 7210	INDEX SAMPLE	6386 10106	INDEX SAMPLE	6387 10380
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	MAJOR			MAJOR		MAJOR	
FIELD.....	CEDARDALE NE			CEDARDALE NE		CEDARDALE NE	
WELL NAME.....	EARL B. SPAFFORD NO. 1			SCHLARB UNIT NO. 2		KEPNER UNIT B NO. 1	
LOCATION.....	SEC. 33, T23N, R16W			SEC. 22, T22N, R16W		SEC. 24, T22N, R16W	
OWNER.....	ATLANTIC RICHFIELD CO.			UNION OIL CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	02/06/59			06/26/65		10/07/65	
SAMPLED.....	09/19/59			09/08/65		11/30/65	
FORMATION.....	MISS-CHESTER			PENN-OSWEGO		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8271			6936		7442	
WELLHEAD PRESSURE, PSIG.....	2997			2350		2375	
OPEN FLOW, MCFD.....	32921			3500		4075	
COMPONENT, MOLE PCT							
METHANE.....	94.4			94.2		90.7	
ETHANE.....	1.9			2.8		3.4	
PROpane.....	0.5			0.9		1.9	
N-BUTANE.....	0.2			0.3		0.5	
ISOBUTANE.....	0.2			0.2		TRACE	
N-PENTANE.....	TRACE			0.1		0.2	
ISOPENTANE.....	TRACE			0.1		TRACE	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.3		0.2	
NITROGEN.....	1.9			0.5		0.2	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.6			0.5		2.7	
HELIUM.....	0.04			0.04		0.05	
HEATING VALUE.....	1031			1072		1068	
SPECIFIC GRAVITY.....	0.595			0.605		0.635	
		INDEX SAMPLE	6388 12777	INDEX SAMPLE	6389 13186	INDEX SAMPLE	6390 14732
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	MAJOR			MAJOR		MAJOR	
FIELD.....	CEDARDALE NE			CEDARDALE NE		CEDARDALE NE	
WELL NAME.....	JOHNSON NO. 2			SMITH NO. 1		ANGELL NO. 1-36	
LOCATION.....	SEC. 4, T21N, R15W			SEC. 14, T22N, R16W		SEC. 36, T23N, R16W	
OWNER.....	APACHE CORP.			FERGUSON OIL CO., INC.		JOSEPH I. O'NEILL, JR.	
COMPLETED.....	09/19/70			12/28/71		03/25/76	
SAMPLED.....	04/22/71			04/11/72		08/13/76	
FORMATION.....	PENN-RED FORK			PENN-OSWEGO		MISS-MERAMEC	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7120			6600		7376	
WELLHEAD PRESSURE, PSIG.....	1600			2372		2219	
OPEN FLOW, MCFD.....	16204			NOT GIVEN		11200	
COMPONENT, MOLE PCT							
METHANE.....	81.6			94.1		92.3	
ETHANE.....	6.3			2.9		3.7	
PROpane.....	3.8			1.1		1.3	
N-BUTANE.....	0.9			0.3		0.4	
ISOBUTANE.....	0.7			0.2		0.1	
N-PENTANE.....	0.4			0.1		0.2	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.3			0.2		0.2	
NITROGEN.....	4.6			0.4		1.2	
OXYGEN.....	0.7			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.0		0.3	
HELIUM.....	0.09			0.04		0.04	
HEATING VALUE.....	1132			1073		1083	
SPECIFIC GRAVITY.....	0.693			0.603		0.616	
		INDEX SAMPLE	6391 11327	INDEX SAMPLE	6392 13490	INDEX SAMPLE	6393 13949
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	CHESTER W			MAJOR		MAJOR	
FIELD.....	CHESTER W			CHESTER W		CHESTER W	
WELL NAME.....	C. A. SEVERN UNIT NO. 1			MCCOLLUM NO. 1-27		HAYNES NO. 1-28	
LOCATION.....	SEC. 6, T20N, R16W			SEC. 27, T21N, R16W		SEC. 28, T21N, R16W	
OWNER.....	ATLANTIC RICHFIELD CO.			ASHLAND OIL, INC.		ASHLAND OIL, INC.	
COMPLETED.....	01/12/62			06/24/72		10/15/73	
SAMPLED.....	03/01/68			12/27/72		--/--/00	
FORMATION.....	MISS-CHESTER			MISS-CHESTER		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8093			7844		7792	
WELLHEAD PRESSURE, PSIG.....	472			2220		2739	
OPEN FLOW, MCFD.....	1157			3765		4103	
COMPONENT, MOLE PCT							
METHANE.....	94.4			92.0		93.8	
ETHANE.....	2.0			2.0		3.3	
PROpane.....	0.8			1.5		1.1	
N-BUTANE.....	0.3			0.4		0.3	
ISOBUTANE.....	0.1			0.3		0.2	
N-PENTANE.....	TRACE			0.1		0.1	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	0.4			0.6		0.4	
OXYGEN.....	0.0			0.1		0.0	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		TRACE	
CARBON DIOXIDE.....	0.6			0.0		0.0	
HELIUM.....	0.06			0.04		0.5	
HEATING VALUE.....	1063			1085		1077	
SPECIFIC GRAVITY.....	0.600			0.615		0.607	
		INDEX SAMPLE	6394 6988	INDEX SAMPLE	6395 9856	INDEX SAMPLE	6396 11744
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	MAJOR			MAJOR		MAJOR	
FIELD.....	CHEYENNE VALLEY			CHEYENNE VALLEY		CHEYENNE VALLEY	
WELL NAME.....	FAIRVIEW NO. 1			C. G. CASE NO. 1		PHILLIPS NO. 1	
LOCATION.....	SEC. 32, T22N, R14W			SEC. 11, T21N, R15W		SEC. 19, T22N, R14W	
OWNER.....	AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	11/17/58			03/25/65		12/04/68	
SAMPLED.....	03/02/59			04/26/65		01/28/69	
FORMATION.....	PENN-CHEROKEE			PENN-CHEROKEE		MISS--	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6856			7502		7537	
WELLHEAD PRESSURE, PSIG.....	2000			2025		2293	
OPEN FLOW, MCFD.....	NOT GIVEN			2169		14500	
COMPONENT, MOLE PCT							
METHANE.....	94.5			86.4		89.4	
ETHANE.....	2.8			3.4		4.7	
PROpane.....	0.6			0.3		2.1	
N-BUTANE.....	0.7			1.0		0.5	
ISOBUTANE.....	0.4			0.8		0.4	
N-PENTANE.....	0.3			0.2		0.3	
ISOPENTANE.....	0.6			0.2		TRACE	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.6			0.5		0.3	
NITROGEN.....	0.6			1.4		1.5	
OXYGEN.....	TRACE			TRACE		0.2	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.1			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.5		0.2	
HELIUM.....	0.30			0.08		0.05	
HEATING VALUE.....	1110			1169		1107	
SPECIFIC GRAVITY.....	0.622			0.675		0.635	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6397 12388			INDEX SAMPLE	6398 12389			INDEX SAMPLE	6399 12403
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	MAJOR			MAJOR				MAJOR			
FIELD.....	CHEYENNE VALLEY			CHEYENNE VALLEY				CHEYENNE VALLEY			
WELL NAME.....	EDWARD SUTTER NO. 1			ORVILLE BYFIELD NO. 1				NELLIE E. NOBLE NO. 1			
LOCATION.....	SEC. 20, T22N, R13W			SEC. 31, T22N, R13W				SEC. 10, T22N, R14W			
OWNER.....	ASHLAND OIL, INC.			ASHLAND OIL, INC.				TENNECO OIL CO.			
COMPLETED.....	06/08/70			09/25/69				04/15/70			
SAMPLED.....	08/25/70			08/25/70				09/02/70			
FORMATION.....	MISS-			MISS-				MISS-			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	7898			7558				7370			
WELLHEAD PRESSURE, PSIG.....	2180			2310				1952			
OPEN FLOW, MCFD.....	5897			9671				4817			
COMPONENT, MOLE PCT											
METHANE.....	86.8			87.3				85.5			
ETHANE.....	6.6			6.0				7.0			
PROPANE.....	3.1			2.9				3.8			
N-BUTANE.....	0.7			0.9				0.9			
ISOBUTANE.....	0.7			0.6				0.7			
N-PENTANE.....	0.4			0.4				0.3			
ISOPENTANE.....	0.0			0.2				0.2			
CYCLOPENTANE.....	0.1			0.2				0.1			
HEXANES PLUS.....	0.3			0.5				0.2			
NITROGEN.....	1.2			0.9				1.0			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.0			0.0				0.0			
HYDROGEN.....	TRACE			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.1				TRACE			
HELIUM.....	0.04			0.04				0.07			
HEATING VALUE.....	1161			1177				1180			
SPECIFIC GRAVITY.....	0.662			0.668				0.670			
		INDEX SAMPLE	6400 12404			INDEX SAMPLE	6401 13952			INDEX SAMPLE	6402 12391
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	MAJOR			MAJOR				MAJOR			
FIELD.....	CHEYENNE VALLEY			CHEYENNE VALLEY				CHEYENNE VALLEY S			
WELL NAME.....	NELLIE E. NOBLE NO. 1			SUTTER NO. 1				EDWARDS NO. 1			
LOCATION.....	SEC. 10, T22N, R14W			SEC. 27, T22N, R13W				SEC. 20, T21N, R14W			
OWNER.....	TENNECO OIL CO.			L. B. FRENCH, JR.				SOUTHERN UNION PRODUCTION CO			
COMPLETED.....	04/15/70			06/13/73				06/21/70			
SAMPLED.....	09/02/70			08/13/74				08/27/70			
FORMATION.....	PENN-RED FORK			PENN-HUNTON				PENN-RED FORK			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	6536			8100				7323			
WELLHEAD PRESSURE, PSIG.....	1639			3100				2413			
OPEN FLOW, MCFD.....	8627			8000				6705			
COMPONENT, MOLE PCT											
METHANE.....	88.4			61.3				92.7			
ETHANE.....	4.6			16.4				8.1			
PROPANE.....	2.9			11.4				1.2			
N-BUTANE.....	0.7			5.1				0.2			
ISOBUTANE.....	0.6			1.7				0.1			
N-PENTANE.....	0.3			0.6				TRACE			
ISOPENTANE.....	0.3			1.0				0.1			
CYCLOPENTANE.....	0.1			0.2				TRACE			
HEXANES PLUS.....	0.4			0.7				0.1			
NITROGEN.....	1.3			0.4				1.2			
OXYGEN.....	0.0			TRACE				0.0			
ARGON.....	0.0			0.0				0.0			
HYDROGEN.....	0.1			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.2				0.0			
CARBON DIOXIDE.....	0.2			0.2				0.2			
HELIUM.....	0.07			TRACE				0.07			
HEATING VALUE.....	1147			1595				1063			
SPECIFIC GRAVITY.....	0.656			0.928				0.602			
		INDEX SAMPLE	6403 7925			INDEX SAMPLE	6404 8225			INDEX SAMPLE	6405 8547
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	MAJOR			MAJOR				MAJOR			
FIELD.....	OKENE NW			OKENE NW				OKENE NW			
WELL NAME.....	FRED UNIT NO. 1			REAMES UNIT C				KRAUSE			
LOCATION.....	SEC. 28, T20N, R11W			SEC. 32, T20N, R11W				SEC. 18, T20N, R11W			
OWNER.....	AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.				KINGWOOD OIL CO.			
COMPLETED.....	11/18/60			08/20/61				11/16/61			
SAMPLED.....	04/11/61			10/09/61				05/07/62			
FORMATION.....	MISS-CHESTER			MISS-CHESTER				MISS-CHESTER			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	7330			7357				7287			
WELLHEAD PRESSURE, PSIG.....	3575			3700				3442			
OPEN FLOW, MCFD.....	4700			11200				1500			
COMPONENT, MOLE PCT											
METHANE.....	90.2			92.6				91.5			
ETHANE.....	4.6			4.2				4.5			
PROPANE.....	1.9			1.3				1.8			
N-BUTANE.....	0.2			0.2				0.1			
ISOBUTANE.....	0.6			0.1				0.3			
N-PENTANE.....	0.4			TRACE				0.1			
ISOPENTANE.....	0.3			0.1				0.2			
CYCLOPENTANE.....	0.1			TRACE				0.1			
HEXANES PLUS.....	0.4			0.1				0.3			
NITROGEN.....	0.3			0.4				0.2			
OXYGEN.....	TRACE			0.0				TRACE			
ARGON.....	0.0			TRACE				0.0			
HYDROGEN.....	0.1			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.8				0.3			
HELIUM.....	0.04			0.04				0.03			
HEATING VALUE.....	1151			TRACE				1113			
SPECIFIC GRAVITY.....	0.647			0.605				0.624			
		INDEX SAMPLE	6406 8548			INDEX SAMPLE	6407 8809			INDEX SAMPLE	6408 9711
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	MAJOR			MAJOR				MAJOR			
FIELD.....	OKENE NW			OKENE NW				OKENE NW			
WELL NAME.....	KRAUSE			KARBER NO. 1				HUBBLE NO. 1			
LOCATION.....	SEC. 18, T20N, R11W			SEC. 22, T20N, R12W				SEC. 26, T21N, R13W			
OWNER.....	KINGWOOD OIL CO.			AMOCO PRODUCTION CO.				AMOCO PRODUCTION CO.			
COMPLETED.....	11/16/61			10/18/62				11/16/64			
SAMPLED.....	05/08/62			12/17/62				01/22/65			
FORMATION.....	PENN-RED FORK			MISS-CHESTER				MISS-CHESTER			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	7144			7438				7260			
WELLHEAD PRESSURE, PSIG.....	3377			3475				2820			
OPEN FLOW, MCFD.....	3000			7120				3120			
COMPONENT, MOLE PCT											
METHANE.....	91.4			89.6				92.9			
ETHANE.....	4.5			3.8				4.0			
PROPANE.....	1.7			1.1				1.4			
N-BUTANE.....	0.5			0.1				0.3			
ISOBUTANE.....	0.3			0.1				0.2			
N-PENTANE.....	0.1			TRACE				0.1			
ISOPENTANE.....	0.3			TRACE				0.1			
CYCLOPENTANE.....	0.1			TRACE				TRACE			
HEXANES PLUS.....	0.3			TRACE				0.1			
NITROGEN.....	0.4			3.7				0.4			
OXYGEN.....	0.0			0.9				TRACE			
ARGON.....	0.0			TRACE				TRACE			
HYDROGEN.....	0.0			0.1				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.3			0.5				0.4			
HELIUM.....	0.04			0.07				0.03			
HEATING VALUE.....	1114			1011				1080			
SPECIFIC GRAVITY.....	0.627			0.611				0.607			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6409 SAMPLE 10482		INDEX 6410 SAMPLE 10483		INDEX 6411 SAMPLE 11312	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	MAJOR	MAJOR	MAJOR	MAJOR	
FIELD.....	OKEENE NW	OKEENE NW	OKEENE NW	OKEENE NW	
WELL NAME.....	MOLLIE EWING NO. 1	MOLLIE EWING NO. 1	MOLLIE EWING NO. 1	TAYLOR NO. 1	
LOCATION.....	SEC. 9, T20N, R11W	SEC. 9, T20N, R11W	SEC. 9, T20N, R11W	SEC. 9, T20N, R12W	
OWNER.....	HELMERICH & PAYNE, INC.	HELMERICH & PAYNE, INC.	HELMERICH & PAYNE, INC.	WOODS PETROLEUM CORP.	
COMPLETED.....	02/19/66	02/15/66	02/15/66	01/01/68	
SAMPLED.....	03/29/66	03/29/66	03/29/66	02/27/68	
FORMATION.....	PENN-RED FORK	MISS-CHESTER	MISS-CHESTER	DEVO-HUNTON	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	7133	7260	7260	8583	
WELLHEAD PRESSURE, PSIG.....	2800	2750	2750	3090	
OPEN FLOW, MCFD.....	11990	1082	1082	22642	
COMPONENT, MOLE PCT					
METHANE.....	91.8	91.9	91.9	94.4	
ETHANE.....	4.0	4.0	4.0	2.4	
PROpane.....	1.4	1.4	1.4	0.6	
N-BUTANE.....	0.5	0.5	0.5	0.4	
ISOBUTANE.....	0.2	0.1	0.1	0.1	
N-PENTANE.....	0.2	0.1	0.1	0.2	
ISOPENTANE.....	0.1	0.1	0.1	0.1	
CYCLOPENTANE.....	0.2	0.1	0.1	0.1	
HEXANES PLUS.....	0.4	0.3	0.3	0.3	
NITROGEN.....	0.8	0.8	0.8	1.0	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.4	0.4	0.4	
HELIUM.....	0.06	0.06	0.06	0.03	
HEATING VALUE.....	1102	1094	1094	1064	
SPECIFIC GRAVITY.....	0.624	0.620	0.620	0.603	

INDEX 6412 SAMPLE 11319		INDEX 6413 SAMPLE 11324		INDEX 6414 SAMPLE 11461	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	MAJOR	MAJOR	MAJOR	MAJOR	
FIELD.....	OKEENE NW	OKEENE NW	OKEENE NW	OKEENE NW	
WELL NAME.....	MOLLIE EWING NO. 1	MOLLIE EWING NO. 1	MOLLIE EWING NO. 1	EWING NO. 1	
LOCATION.....	SEC. 9, T20N, R11W	SEC. 9, T20N, R11W	SEC. 9, T20N, R11W	SEC. 24, T20N, R12W	
OWNER.....	HELMERICH & PAYNE, INC.	HELMERICH & PAYNE, INC.	HELMERICH & PAYNE, INC.	EASON OIL CO.	
COMPLETED.....	02/19/66	02/15/66	02/15/66	07/1/62	
SAMPLED.....	02/29/68	02/29/68	02/29/68	04/24/68	
FORMATION.....	PENN-RED FORK	MISS-CHESTER	MISS-CHESTER	PENN-RED FORK	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	7133	7260	7220	7220	
WELLHEAD PRESSURE, PSIG.....	2274	1280	800	800	
OPEN FLOW, MCFD.....	140	120	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	86.3	85.7	92.7	92.7	
ETHANE.....	3.6	2.0	3.6	3.6	
PROpane.....	1.9	2.0	1.1	1.1	
N-BUTANE.....	1.3	1.3	0.4	0.4	
ISOBUTANE.....	0.9	1.0	0.1	0.1	
N-PENTANE.....	0.9	1.0	0.2	0.2	
ISOPENTANE.....	1.4	1.0	0.3	0.3	
CYCLOPENTANE.....	0.5	0.7	0.2	0.2	
HEXANES PLUS.....	1.3	2.3	0.6	0.6	
NITROGEN.....	0.9	1.0	0.5	0.5	
OXYGEN.....	0.0	0.1	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	TRACE	
HYDROGEN.....	TRACE	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	0.2	0.2	
HELIUM.....	0.06	0.06	0.04	0.04	
HEATING VALUE.....	1277	1289	1109	1109	
SPECIFIC GRAVITY.....	0.729	0.739	0.622	0.622	

INDEX 6415 SAMPLE 12233		INDEX 6416 SAMPLE 13084		INDEX 6417 SAMPLE 13085	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	MAJOR	MAJOR	MAJOR	MAJOR	
FIELD.....	OKEENE NW	OKEENE NW	OKEENE NW	OKEENE NW	
WELL NAME.....	MARTENS NO. 1	MCGEE NO. 1	MCGEE NO. 1	MCGEE NO. 1	
LOCATION.....	SEC. 17, T21N, R13W	SEC. 24, T21N, R13W	SEC. 24, T21N, R13W	SEC. 24, T21N, R13W	
OWNER.....	CHAMPLIN EXPLORATION, INC.	PUBLISHERS PETROLEUM	PUBLISHERS PETROLEUM	PUBLISHERS PETROLEUM	
COMPLETED.....	07/70	08/09/71	08/09/71	08/09/71	
SAMPLED.....	04/07/70	10/1/71	10/1/71	10/1/71	
FORMATION.....	DEVO-HUNTON	PENN-RED FORK	PENN-RED FORK	MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	8785	7036	7186	7186	
WELLHEAD PRESSURE, PSIG.....	670	2340	2986	2986	
OPEN FLOW, MCFD.....	3640	1759	3700	3700	
COMPONENT, MOLE PCT					
METHANE.....	86.2	92.2	89.6	89.6	
ETHANE.....	6.0	3.3	5.0	5.0	
PROpane.....	3.1	2.5	2.5	2.5	
N-BUTANE.....	1.0	0.3	0.6	0.6	
ISOBUTANE.....	0.7	0.2	0.4	0.4	
N-PENTANE.....	0.2	TRACE	0.1	0.1	
ISOPENTANE.....	0.2	TRACE	0.2	0.2	
CYCLOPENTANE.....	0.2	TRACE	TRACE	TRACE	
HEXANES PLUS.....	1.6	TRACE	0.2	0.2	
NITROGEN.....	1.6	1.9	1.0	1.0	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	0.1	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.2	0.1	0.1	
HELIUM.....	0.03	0.10	0.05	0.05	
HEATING VALUE.....	1182	1057	1119	1119	
SPECIFIC GRAVITY.....	0.677	0.606	0.633	0.633	

INDEX 6418 SAMPLE 13181		INDEX 6419 SAMPLE 14991		INDEX 6420 SAMPLE 15040	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	MAJOR	MAJOR	MAJOR	MAJOR	
FIELD.....	OKEENE NW	OKEENE NW	OKEENE NW	OKEENE NW	
WELL NAME.....	MURFELD NO. 1	EDWARDS NO. 1	EDWARDS NO. 1	MARTIN NO. 2-32	
LOCATION.....	SEC. 11, T21N, R13W	SEC. 28, T21N, R13W	SEC. 28, T21N, R13W	SEC. 32, T20N, R13W	
OWNER.....	L. R. FRENCH, JR.	TEXAS OIL & GAS CORP.	TEXAS OIL & GAS CORP.	UNIVERSAL RESOURCES CORP.	
COMPLETED.....	04/11/72	08/21/76	05/09/77	11/20/76	
SAMPLED.....	04/11/72	05/09/77	05/09/77	06/29/77	
FORMATION.....	MISS-	PENN-RED FORK	PENN-RED FORK	MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	7622	7264	7919	7919	
WELLHEAD PRESSURE, PSIG.....	1500	1850	2700	2700	
OPEN FLOW, MCFD.....	2826	3950	6700	6700	
COMPONENT, MOLE PCT					
METHANE.....	82.1	89.2	91.2	91.2	
ETHANE.....	8.2	4.9	4.5	4.5	
PROpane.....	4.8	4.8	1.9	1.9	
N-BUTANE.....	1.7	0.8	0.6	0.6	
ISOBUTANE.....	0.9	0.4	0.2	0.2	
N-PENTANE.....	0.3	0.2	0.2	0.2	
ISOPENTANE.....	0.1	0.2	0.1	0.1	
CYCLOPENTANE.....	0.1	TRACE	0.1	0.1	
HEXANES PLUS.....	0.3	0.2	0.1	0.1	
NITROGEN.....	0.9	1.1	0.8	0.8	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.4	0.3	0.3	
HELIUM.....	0.03	0.07	0.04	0.04	
HEATING VALUE.....	1244	1121	1102	1102	
SPECIFIC GRAVITY.....	0.711	0.641	0.624	0.624	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6421 SAMPLE 16171			INDEX 6422 SAMPLE 15248			INDEX 6423 SAMPLE 4303		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	MAJOR		MAJOR			MAJOR		
FIELD.....	OREENE NW		ORION SE			RINGWOOD		
WELL NAME.....	NIGHTENGALE NO. 4		THOMPSON UNIT NO. 1			OTT NO. 1		
LOCATION.....	SEC. 12, T20N, R12W		SEC. 21, T20N, R15W			SEC. 8, T21N, R9W		
OWNER.....	DOMC PETROLEUM CORP.		RESLENN OIL CO.			RESLENN OIL CO.		
COMPLETED.....	10/11/80		07/09/77			12/15/46		
SAMPLED.....	01/15/81		04/05/78			04/20/47		
FORMATION.....	DEVCO-HUNTON		MISS-			ORDO-WILCOX		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8460		9146			8012		
WELLHEAD PRESSURE, PSIG.....	1654		NOT GIVEN			1700		
OPEN FLOW, MCFD.....	2108		5170			13000		
COMPONENT, MOLE PCT								
METHANE.....	93.7		87.4			81.2		
ETHANE.....	3.1		6.1			14.5		
PROPANE.....	0.9		2.7			---		
N-BUTANE.....	0.3		0.9			---		
ISOBUTANE.....	0.2		0.4			---		
N-PENTANE.....	0.2		0.2			---		
ISOPENTANE.....	0.1		0.2			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.2		0.2			---		
NITROGEN.....	0.7		1.4			3.8		
OXYGEN.....	0.0		0.0			0.3		
ARGON.....	0.0		TRACE			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.4		0.4			0.2		
HELIUM.....	0.02		0.04			0.02		
HEATING VALUE.....	1072		1140			1082		
SPECIFIC GRAVITY.....	0.605		0.656			0.645		
INDEX 6424 SAMPLE 4691			INDEX 6425 SAMPLE 5009			INDEX 6426 SAMPLE 8920		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	MAJOR		MAJOR			MAJOR		
FIELD.....	RINGWOOD		RINGWOOD			RINGWOOD		
WELL NAME.....	HAYES 58-22		BATMAN NO. 1			D. H. CORNELSEN UNIT NO. 1		
LOCATION.....	SEC. 22, T22N, R10W		SEC. 13, T21N, R11W			SEC. 5, T22N, R12W		
OWNER.....	SUPERIOR OIL CO.		MAZDA OIL CORP.			ASHLAND OIL & REFINING CO.		
COMPLETED.....	04/28/48		7/7/00			02/10/63		
SAMPLED.....	02/28/49		03/20/51			04/10/63		
FORMATION.....	PENN-OSWEGO		NOT GIVEN			MISS-MANNING		
GEOLOGIC PROVINCE CODE.....	360		NOT GIVEN			360		
DEPTH, FEET.....	6704		NOT GIVEN			6642		
WELLHEAD PRESSURE, PSIG.....	1700		NOT GIVEN			2100		
OPEN FLOW, MCFD.....	3		NOT GIVEN			1500		
COMPONENT, MOLE PCT								
METHANE.....	91.9		89.4			90.8		
ETHANE.....	4.2		4.3			4.7		
PROPANE.....	1.5		1.1			1.9		
N-BUTANE.....	0.6		0.5			0.7		
ISOBUTANE.....	0.0		0.5			0.2		
N-PENTANE.....	0.3		0.3			0.1		
ISOPENTANE.....	0.1		0.2			0.4		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.3		0.3			0.1		
NITROGEN.....	0.8		0.9			0.7		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.4			0.2		
HELIUM.....	0.04		0.06			0.10		
HEATING VALUE.....	1096		1138			1110		
SPECIFIC GRAVITY.....	0.623		0.650			0.626		
INDEX 6427 SAMPLE 9513			INDEX 6428 SAMPLE 9522			INDEX 6429 SAMPLE 10189		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	MAJOR		MAJOR			MAJOR		
FIELD.....	RINGWOOD		RINGWOOD			RINGWOOD		
WELL NAME.....	SPEECE NO. 1		DIETZ NO. 1			FRICKEL NO. 1		
LOCATION.....	SEC. 17, T22N, R10W		SEC. 29, T23N, R12W			SEC. 6, T22N, R11W		
OWNER.....	CLEARY PETROLEUM, INC.		LIVINGSTON OIL CO.			CLEARY PETROLEUM, INC.		
COMPLETED.....	04/28/64		04/11/64			09/01/65		
SAMPLED.....	07/29/64		08/7/64			09/30/65		
FORMATION.....	MISS-MANNING		MISS-MANNING			PENN-OSWEGO		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6710		7019			6216		
WELLHEAD PRESSURE, PSIG.....	1420		1550			9516		
OPEN FLOW, MCFD.....	5480		1900			3098		
COMPONENT, MOLE PCT								
METHANE.....	91.3		88.4			89.2		
ETHANE.....	4.1		5.4			5.3		
PROPANE.....	1.6		2.3			2.2		
N-BUTANE.....	0.7		1.0			0.8		
ISOBUTANE.....	0.2		0.3			0.3		
N-PENTANE.....	0.4		0.4			0.2		
ISOPENTANE.....	0.1		0.2			0.4		
CYCLOPENTANE.....	0.2		0.2			0.1		
HEXANES PLUS.....	0.5		0.6			0.3		
NITROGEN.....	0.5		0.8			1.0		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.1		
HELIUM.....	0.05		0.05			0.06		
HEATING VALUE.....	1125		1166			1138		
SPECIFIC GRAVITY.....	0.634		0.662			0.645		
INDEX 6430 SAMPLE 10190			INDEX 6431 SAMPLE 10191			INDEX 6432 SAMPLE 10211		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	MAJOR		MAJOR			MAJOR		
FIELD.....	RINGWOOD		RINGWOOD			RINGWOOD		
WELL NAME.....	FRICKEL NO. 1		FRICKEL NO. 1			LECRONE A NO. 1-C		
LOCATION.....	SEC. 6, T22N, R11W		SEC. 6, T22N, R11W			SEC. 10, T23N, R10W		
OWNER.....	CLEARY PETROLEUM, INC.		CLEARY PETROLEUM, INC.			CHAMPLIN PETROLEUM CO.		
COMPLETED.....	09/01/65		09/01/65			05/22/65		
SAMPLED.....	09/30/65		09/30/65			10/14/65		
FORMATION.....	PENN-CHEROKEE		MISS-MANNING			PENN-RED FORK		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6460		6593			6300		
WELLHEAD PRESSURE, PSIG.....	2037		1923			1965		
OPEN FLOW, MCFD.....	6821		1815			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.3		89.5			91.2		
ETHANE.....	5.6		2.2			2.7		
PROPANE.....	2.6		0.7			0.6		
N-BUTANE.....	0.6		0.7			0.1		
ISOBUTANE.....	0.4		0.2			0.1		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.2		0.2			TRACE		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.4			0.1		
NITROGEN.....	2.3		1.0			4.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.1			0.3		
HELIUM.....	0.10		0.06			0.19		
HEATING VALUE.....	1112		1132			1004		
SPECIFIC GRAVITY.....	0.652		0.641			0.602		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6433 SAMPLE 10297		INDEX 6434 SAMPLE 10363		INDEX 6435 SAMPLE 10739	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	MAJOR	MAJOR	MAJOR	MAJOR	
FIELD.....	RINGWOOD	RINGWOOD	RINGWOOD	RINGWOOD	
WELL NAME.....	WARFIELD NO. 1	WARFIELD NO. 1	WARFIELD NO. 1	ROSE NO. 1	
LOCATION.....	SEC. 9, T22N, R11W	SEC. 9, T22N, R11W	SEC. 12, T22N, R12W	SEC. 12, T22N, R12W	
OWNER.....	SHELL OIL CO.	SHELL OIL CO.	SHELL OIL CO.	CLEAR PETROLEUM, INC.	
COMPLETED.....	06/08/65	06/28/65	06/28/65	--/--/00	
SAMPLED.....	11/17/65	01/17/66	10/02/66	10/02/66	
FORMATION.....	PENN-CHEROKEE	PENN-OSWEGO	PENN-CHEROKEE	PENN-CHEROKEE	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	6490	6238	6424	6424	
WELLHEAD PRESSURE, PSIG.....	1980	2000	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	9400	1620	16200	16200	
COMPONENT, MOLE PCT.....					
METHANE.....	86.7	79.8	85.8	85.8	
ETHANE.....	7.4	7.7	7.4	7.4	
PROANE.....	2.3	4.0	3.5	3.5	
N-BUTANE.....	0.7	1.9	1.0	1.0	
ISOBUTANE.....	0.2	0.6	0.4	0.4	
N-PENTANE.....	0.2	1.1	0.2	0.2	
ISOPENTANE.....	0.2	0.5	0.3	0.3	
CYCLOPENTANE.....	TRACE	0.5	0.1	0.1	
HEXANES PLUS.....	0.2	1.9	0.2	0.2	
NITROGEN.....	1.3	1.4	0.9	0.9	
OXYGEN.....	0.0	0.1	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.3	0.3	0.3	
HELIUM.....	0.05	0.05	0.06	0.06	
HEATING VALUE.....	1141	1323	1175	1175	
SPECIFIC GRAVITY.....	0.652	0.768	0.671	0.671	

INDEX 6436 SAMPLE 10762		INDEX 6437 SAMPLE 10763		INDEX 6438 SAMPLE 11306	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	MAJOR	MAJOR	MAJOR	MAJOR	
FIELD.....	RINGWOOD	RINGWOOD	RINGWOOD	RINGWOOD	
WELL NAME.....	BLASER NO. 1	BLASER NO. 1	BLASER NO. 1	K. E. FISHER NO. 1	
LOCATION.....	SEC. 18, T22N, R12W	SEC. 18, T22N, R12W	SEC. 3, T20N, R10W	SEC. 3, T20N, R10W	
OWNER.....	EARLSBORO OIL & GAS CO., INC	EARLSBORO OIL & GAS CO., INC	EARLSBORO OIL & GAS CO., INC	MIDWEST OIL CORP.	
COMPLETED.....	05/03/66	04/29/66	04/29/66	02/24/68	
SAMPLED.....	10/26/66	10/26/66	10/26/66	02/24/68	
FORMATION.....	PENN-RED FORK	MISS-MANNING	MISS-MANNING	MISS-MANNING	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	6507	7128	8014	8014	
WELLHEAD PRESSURE, PSIG.....	1890	1943	2475	2475	
OPEN FLOW, MCFD.....	1339	2809	9400	9400	
COMPONENT, MOLE PCT.....					
METHANE.....	86.0	85.6	81.3	81.3	
ETHANE.....	5.3	6.2	9.7	9.7	
PROANE.....	3.8	3.3	3.5	3.5	
N-BUTANE.....	1.3	1.9	1.4	1.4	
ISOBUTANE.....	0.4	0.4	0.4	0.4	
N-PENTANE.....	0.2	0.3	0.3	0.3	
ISOPENTANE.....	0.4	0.2	0.4	0.4	
CYCLOPENTANE.....	0.2	0.2	0.1	0.1	
HEXANES PLUS.....	0.2	0.4	0.3	0.3	
NITROGEN.....	1.7	2.3	2.4	2.4	
OXYGEN.....	0.3	0.0	0.0	0.0	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.3	0.3	0.3	
HELIUM.....	0.02	0.06	0.07	0.07	
HEATING VALUE.....	1162	1157	1195	1195	
SPECIFIC GRAVITY.....	0.673	0.677	0.699	0.699	

INDEX 6439 SAMPLE 11314		INDEX 6440 SAMPLE 11315		INDEX 6441 SAMPLE 11316	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	MAJOR	MAJOR	MAJOR	MAJOR	
FIELD.....	RINGWOOD	RINGWOOD	RINGWOOD	RINGWOOD	
WELL NAME.....	REXROAT NO. 1	BIERIG C	BIERIG C	UNIT 28 NO. 1	
LOCATION.....	SEC. 9, T22N, R11W	SEC. 33, T21N, R10W	SEC. 33, T21N, R10W	SEC. 28, T22N, R11W	
OWNER.....	LIVINGSTON OIL CO.	LIVINGSTON OIL CO.	LIVINGSTON OIL CO.	LIVINGSTON OIL CO.	
COMPLETED.....	11/22/60	03/03/64	03/03/64	02/17/62	
SAMPLED.....	02/27/68	02/27/68	02/27/68	02/27/68	
FORMATION.....	PENN-CHEROKEE	MISS-MANNING	MISS-MANNING	MISS-MANNING	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	6530	7267	6878	6878	
WELLHEAD PRESSURE, PSIG.....	1298	1215	575	575	
OPEN FLOW, MCFD.....	7281	3882	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	83.1	86.2	90.9	90.9	
ETHANE.....	7.3	7.3	4.0	4.0	
PROANE.....	3.8	2.8	1.5	1.5	
N-BUTANE.....	1.1	1.1	0.5	0.5	
ISOBUTANE.....	0.6	0.4	0.1	0.1	
N-PENTANE.....	0.4	0.2	0.1	0.1	
ISOPENTANE.....	0.2	0.3	0.2	0.2	
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	
HEXANES PLUS.....	0.3	0.1	0.1	0.1	
NITROGEN.....	1.7	1.1	2.2	2.2	
OXYGEN.....	0.1	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.4	0.0	0.0	
HELIUM.....	0.05	0.05	0.06	0.06	
HEATING VALUE.....	1191	1154	1073	1073	
SPECIFIC GRAVITY.....	0.691	0.662	0.621	0.621	

INDEX 6442 SAMPLE 12097		INDEX 6443 SAMPLE 12151		INDEX 6444 SAMPLE 12264	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	MAJOR	MAJOR	MAJOR	MAJOR	
FIELD.....	RINGWOOD	RINGWOOD	RINGWOOD	RINGWOOD	
WELL NAME.....	BIERIG C NO. 1	ARCHIE F. DICKSON	ARCHIE F. DICKSON	RUTH B. DAVIS UNIT NO. 1	
LOCATION.....	SEC. 33, T21N, R10W	SEC. 27, T20N, R10W	SEC. 27, T20N, R10W	SEC. 19, T23N, R9W	
OWNER.....	LVVO OIL CO.	TEANCO OIL CO.	TEANCO OIL CO.	CHARLIN PETROLEUM CO.	
COMPLETED.....	10/05/68	09/09/69	09/09/69	07/27/64	
SAMPLED.....	11/04/69	12/16/69	12/16/69	05/19/70	
FORMATION.....	PENN-OSWEGO	DEVO-HUNTON	DEVO-HUNTON	MISS-MANNING	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	6575	8371	6470	6470	
WELLHEAD PRESSURE, PSIG.....	2073	2302	2165	2165	
OPEN FLOW, MCFD.....	21096	3030	23800	23800	
COMPONENT, MOLE PCT.....					
METHANE.....	80.0	77.7	88.3	88.3	
ETHANE.....	8.1	9.5	5.6	5.6	
PROANE.....	3.3	4.5	2.4	2.4	
N-BUTANE.....	1.2	1.5	0.7	0.7	
ISOBUTANE.....	0.7	1.3	0.4	0.4	
N-PENTANE.....	0.4	0.3	0.2	0.2	
ISOPENTANE.....	0.4	0.1	0.2	0.2	
CYCLOPENTANE.....	0.2	0.3	0.1	0.1	
HEXANES PLUS.....	0.2	0.3	0.2	0.2	
NITROGEN.....	3.2	1.9	1.8	1.8	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	0.1	0.1	0.1	0.1	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.0	0.1	0.1	
HELIUM.....	0.01	0.03	0.04	0.04	
HEATING VALUE.....	1210	1323	1126	1126	
SPECIFIC GRAVITY.....	0.716	0.768	0.646	0.646	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6445 12265	INDEX SAMPLE 6446 12434	INDEX SAMPLE 6447 12435
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MAJOR		MAJOR	MAJOR
FIELD.....	RINGWOOD		RINGWOOD	RINGWOOD
WELL NAME.....	N. J. BURHAM UNIT NO. 1		81SEL NO. 1	81SEL NO. 1
LOCATION.....	SEC. 22, T23N, R9W		SEC. 5, T20N, R9W	SEC. 5, T20N, R9W
OWNER.....	CHAMPLIN PETROLEUM CO.		HARPER OIL CO.	HARPER OIL CO.
COMPLETED.....	05/22/65		02/12/70	08/14/69
SAMPLED.....	05/19/70		10/09/70	10/09/70
FORMATION.....	MISS--		DEVO-HUNTON	MISS--
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	6533		8155	7483
WELLHEAD PRESSURE, PSIG.....	1570		2100	1575
OPEN FLOW, MCFD.....	1290		40300	78
COMPONENT, MOLE PCT				
METHANE.....	85.9	77.5	81.4	
ETHANE.....	6.4	11.0	7.7	
PROpane.....	3.1	1.0	4.7	
N-BUTANE.....	0.8	1.4	1.8	
ISOBUTANE.....	0.6	0.7	0.9	
N-PENTANE.....	0.4	0.6	0.7	
ISOPENTANE.....	0.0	0.1	0.6	
CYCLOPENTANE.....	0.1	0.2	0.2	
HEXANES PLUS.....	0.4	0.5	0.6	
NITROGEN.....	2.1	2.8	1.8	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	TRACE	0.1	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.3	
HELIUM.....	0.04	0.07	0.04	
HEATING VALUE.....	1154	1246	1270	
SPECIFIC GRAVITY.....	0.667	0.732	0.731	
		INDEX SAMPLE 6448 12889	INDEX SAMPLE 6449 16698	INDEX SAMPLE 6450 5268
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MAJOR		MAJOR	MAJOR
FIELD.....	RINGWOOD		RINGWOOD	SELLING NE
WELL NAME.....	SCANNELL C NO. 1		LESLIE C. SWART NO. 1	KIMBALL NO. 1
LOCATION.....	SEC. 11, T21N, R11W		SEC. 15, T20N, R9W	SEC. 34, T20N, R16W
OWNER.....	SUN OIL CO.		DIAMOND SHAMROCK CORP.	CONTINENTAL OIL CO.
COMPLETED.....	04/12/71		05/18/82	04/03/52
SAMPLED.....	07/24/71		10/26/82	07/02/53
FORMATION.....	DEVO-HUNTON		DEVO-HUNTON	MISS-CHESTER
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	7882		8236	8362
WELLHEAD PRESSURE, PSIG.....	2107		1550	2431
OPEN FLOW, MCFD.....	7400		2000	3000
COMPONENT, MOLE PCT				
METHANE.....	87.3	83.7	80.1	
ETHANE.....	7.2	9.6	7.9	
PROpane.....	2.7	3.2	1.7	
N-BUTANE.....	0.9	0.9	1.7	
ISOBUTANE.....	0.4	0.4	0.0	
N-PENTANE.....	0.3	0.3	0.0	
ISOPENTANE.....	0.0	0.3	2.6	
CYCLOPENTANE.....	TRACE	0.1	0.3	
HEXANES PLUS.....	0.1	0.2	0.8	
NITROGEN.....	1.2	1.1	3.7	
OXYGEN.....	0.0	TRACE	TRACE	
ARGON.....	0.0	0.0	0.1	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.2	1.4	
HELIUM.....	0.03	0.03	0.08	
HEATING VALUE.....	1138	1187	1204	
SPECIFIC GRAVITY.....	0.648	0.679	0.755	
		INDEX SAMPLE 6451 7151	INDEX SAMPLE 6452 7211	INDEX SAMPLE 6453 14542
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MAJOR		MAJOR	MAJOR
FIELD.....	SELLING NE		SELLING NE	SELLING NE
WELL NAME.....	BRANSTETTER NO. 1		LOUTHAN NO. 1-22	JELLISON NO. 1-6
LOCATION.....	SEC. 14, T20N, R16W		SEC. 22, T20N, R16W	SEC. 6, T20N, R15W
OWNER.....	CALVERT DRILLING, INC.		WELL OIL CO.	PIONEER PRODUCTION CORP.
COMPLETED.....	--/--/00		03/04/59	05/18/75
SAMPLED.....	07/23/59		08/24/59	12/11/75
FORMATION.....	MISS-CHESTER		PENN-LAYTON	DEVO-HUNTON
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	8268		6956	9895
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2265	1600
OPEN FLOW, MCFD.....	NOT GIVEN		12000	4179
COMPONENT, MOLE PCT				
METHANE.....	85.8	79.9	94.1	
ETHANE.....	3.4	4.7	2.4	
PROpane.....	3.4	1.3	0.7	
N-BUTANE.....	0.9	0.8	0.2	
ISOBUTANE.....	TRACE	TRACE	0.1	
N-PENTANE.....	0.8	1.1	0.1	
ISOPENTANE.....	0.1	0.3	TRACE	
CYCLOPENTANE.....	0.3	0.3	0.1	
HEXANES PLUS.....	1.4	1.9	1.5	
NITROGEN.....	TRACE	0.0	0.0	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.5	0.7	
HELIUM.....	0.10	0.10	0.04	
HEATING VALUE.....	1179	1235	1038	
SPECIFIC GRAVITY.....	0.677	0.722	0.597	
		INDEX SAMPLE 6454 14543	INDEX SAMPLE 6455 8599	INDEX SAMPLE 6456 12035
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MAJOR		MAJOR	MAJOR
FIELD.....	SELLING NE		SOONER TREND	SOONER TREND
WELL NAME.....	JELLISON NO. 1-6		SCHIFFE NO. 1	MAY 36-1
LOCATION.....	SEC. 6, T20N, R15W		SEC. 36, T22N, R9W	SEC. 36, T21N, R9W
OWNER.....	PIONEER PRODUCTION CORP.		HARPER OIL CO.	WHITE SHIELD OIL & GAS CORP.
COMPLETED.....	05/18/75		10/15/75	12/12/68
SAMPLED.....	12/11/75		10/09/62	09/11/69
FORMATION.....	MISS-CHESTER		PENN-RED FORK	MISS-MANNING
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	7996		6466	6958
WELLHEAD PRESSURE, PSIG.....	1300		1850	2050
OPEN FLOW, MCFD.....	1464		NOT GIVEN	2000
COMPONENT, MOLE PCT				
METHANE.....	77.7	93.1	86.0	
ETHANE.....	9.6	3.5	6.7	
PROpane.....	6.2	1.8	3.1	
N-BUTANE.....	2.2	0.2	0.9	
ISOBUTANE.....	1.4	0.1	0.5	
N-PENTANE.....	0.4	TRACE	0.2	
ISOPENTANE.....	0.9	0.1	0.2	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.2	0.2	0.2	
NITROGEN.....	1.0	1.6	1.6	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	TRACE	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.1	0.3	
HELIUM.....	0.04	0.0	0.04	
HEATING VALUE.....	1311	1053	11.0	
SPECIFIC GRAVITY.....	0.754	0.500	0.663	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6457 SAMPLE 11415			INDEX 6458 SAMPLE 11416			INDEX 6459 SAMPLE 11417		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	MARSHALL		MARSHALL			MARSHALL		
FIELD.....	AYLESWORTH		AYLESWORTH			AYLESWORTH		
WELL NAME.....	M. A. BEFF		DRUMMOND M			A. A. DRUMMOND N		
LOCATION.....	SEC. 12, T6S, R6E		SEC. 12, T6S, R6E			SEC. 11, T6S, R6E		
OWNER.....	TEXACO INC.		TEXACO INC.			TEXACO INC.		
COMPLETED.....	03/20/67		03/20/65			10/23/67		
SAMPLED.....	03/28/68		03/28/68			03/28/68		
FORMATION.....	MISS-WOODFORD		MISS-SYCAMORE			ORDO-TULIP CREEK		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	2536		3560			5005		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	78.5	-----	74.3	-----		74.7	-----	
ETHANE.....	9.7	-----	10.2	-----		11.3	-----	
PROpane.....	5.7	-----	7.4	-----		7.7	-----	
N-BUTANE.....	1.6	-----	2.6	-----		1.9	-----	
ISOBUTANE.....	0.2	-----	0.6	-----		0.8	-----	
N-PENTANE.....	0.2	-----	0.8	-----		0.6	-----	
ISOPENTANE.....	0.2	-----	0.3	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.4	-----		0.2	-----	
NITROGEN.....	3.1	-----	2.9	-----		2.4	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.2	-----	
HELIUM.....	0.03	-----	0.03	-----		0.03	-----	
HEATING VALUE.....	1218	-----	1307	-----		1290	-----	
SPECIFIC GRAVITY.....	0.720	-----	0.773	-----		0.758	-----	
INDEX 6460 SAMPLE 11418			INDEX 6461 SAMPLE 11812			INDEX 6462 SAMPLE 3429		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	MARSHALL		MARSHALL			MARSHALL		
FIELD.....	AYLESWORTH		AYLESWORTH			CUMBERLAND		
WELL NAME.....	J. F. MORRIS		DRUMMOND NOBLE UNIT No. 1			LITTLE 106 NO. 3		
LOCATION.....	SEC. 12, T6S, R6E		SEC. 3, T6S, R6E			SEC. 34, T5S, R7E		
OWNER.....	TEXACO INC.		ROY A. GODFREY			UNION OIL CO. OF CALIF.		
COMPLETED.....	03/20/67		03/24/67			--/--/00		
SAMPLED.....	03/28/68		04/09/69			05/22/42		
FORMATION.....	DEV-HUNTON		ORDO-OIL CREEK			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	3550		4278			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1670			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		9995			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	71.3	-----	84.6	-----		87.7	-----	
ETHANE.....	10.7	-----	5.9	-----		8.4	-----	
PROpane.....	8.7	-----	3.8	-----		---	-----	
N-BUTANE.....	2.7	-----	1.2	-----		---	-----	
ISOBUTANE.....	0.9	-----	0.3	-----		---	-----	
N-PENTANE.....	0.6	-----	0.4	-----		---	-----	
ISOPENTANE.....	0.5	-----	0.1	-----		---	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		---	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		---	-----	
NITROGEN.....	4.1	-----	2.8	-----		2.1	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.4	-----	
ARGON.....	0.0	-----	TRACE	-----		---	-----	
HYDROGEN.....	0.1	-----	0.1	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		---	-----	
CARBON DIOXIDE.....	0.3	-----	0.4	-----		1.3	-----	
HELIUM.....	0.04	-----	0.09	-----		0.08	-----	
HEATING VALUE.....	1310	-----	1148	-----		1039	-----	
SPECIFIC GRAVITY.....	0.790	-----	0.677	-----		0.619	-----	
INDEX 6463 SAMPLE 3436			INDEX 6464 SAMPLE 3437			INDEX 6465 SAMPLE 3438		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	MARSHALL		MARSHALL			MARSHALL		
FIELD.....	CUMBERLAND		CUMBERLAND			CUMBERLAND		
WELL NAME.....	WILLIAM 109 NO. 1		LITTLE 100 NO. 1			LITTLE 106 NO. 3		
LOCATION.....	SEC. 20, T5S, R7E		SEC. 28, T5S, R7E			SEC. 34, T5S, R7E		
OWNER.....	UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.		
COMPLETED.....	04/01/42		04/13/40			03/04/41		
SAMPLED.....	05/22/42		05/22/42			05/22/42		
FORMATION.....	ORDO-MCLISH		ORDO-BROMIDE			ORDO-BROMIDE		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	5891		4857			4860		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	1298		4214			3475		
COMPONENT, MOLE PCT								
METHANE.....	80.0	-----	82.4	-----		80.0	-----	
ETHANE.....	16.9	-----	15.2	-----		17.8	-----	
PROpane.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	2.5	-----	1.8	-----		1.7	-----	
OXYGEN.....	0.4	-----	0.4	-----		0.3	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.1	-----	0.1	-----		0.1	-----	
HELIUM.....	0.05	-----	0.07	-----		0.05	-----	
HEATING VALUE.....	1113	-----	1107	-----		1129	-----	
SPECIFIC GRAVITY.....	0.651	-----	0.640	-----		0.652	-----	
INDEX 6466 SAMPLE 3439			INDEX 6467 SAMPLE 10480			INDEX 6468 SAMPLE 11813		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	MARSHALL		MARSHALL			MARSHALL		
FIELD.....	CUMBERLAND		MADILL			MADILL		
WELL NAME.....	CHRISMAN 104 NO. 2		R. L. GRIFFIN NO. 5			DILLEY UNIT NO. 1		
LOCATION.....	SEC. 20, T5S, R7E		SEC. 16, T5S, R5E			SEC. 32, T5S, R6E		
OWNER.....	UNION OIL CO. OF CALIF.		ATLANTIC RICHFIELD CO.			ROY A. GODFREY		
COMPLETED.....	07/08/41		12/25/65			07/20/67		
SAMPLED.....	05/22/42		03/28/66			04/09/69		
FORMATION.....	ORDO-BROMIDE		ORDO-OIL CREEK			ORDO-OIL CREEK		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	4983		7446			4703		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2600			1730		
OPEN FLOW, MCFD.....	265		42847			6753		
COMPONENT, MOLE PCT								
METHANE.....	61.6	-----	81.4	-----		85.3	-----	
ETHANE.....	37.1	-----	8.7	-----		5.8	-----	
PROpane.....	---	-----	4.1	-----		3.6	-----	
N-BUTANE.....	---	-----	1.4	-----		1.2	-----	
ISOBUTANE.....	---	-----	0.3	-----		0.3	-----	
N-PENTANE.....	---	-----	0.3	-----		0.4	-----	
ISOPENTANE.....	---	-----	0.3	-----		0.0	-----	
CYCLOPENTANE.....	---	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	---	-----	0.2	-----		0.2	-----	
NITROGEN.....	0.7	-----	2.6	-----		2.7	-----	
OXYGEN.....	0.3	-----	0.0	-----		0.0	-----	
ARGON.....	---	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	---	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	---	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.4	-----		0.3	-----	
HELIUM.....	0.05	-----	0.04	-----		0.10	-----	
HEATING VALUE.....	1289	-----	1191	-----		1143	-----	
SPECIFIC GRAVITY.....	0.744	-----	0.700	-----		0.670	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6469 16059	INDEX SAMPLE 6470 12081	INDEX SAMPLE 6471 7131
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	MARSHALL	MARSHALL	MARSHALL	MAYES
FIELD.....	POWELL S	WILDCAT	WILDCAT	WILDCAT
WELL NAME.....	FE 1 NO. 1	DUKE NO. 1	DUKE NO. 1	NO. 1
LOCATION.....	SEC. 11, T8S, R4E	SEC. 21, T5S, R4E	SEC. 29, T20N, R19E	SEC. 29, T20N, R19E
OWNER.....	AMERICAN QUASAR PET. CO.	UNION OIL CO. OF CALIF.	U.S. BUREAU OF MINES	U.S. BUREAU OF MINES
COMPLETED.....	12/09/79	--/--/00	--/--/00	--/--/00
SAMPLED.....	09/03/80	10/10/69	06/24/59	06/24/59
FORMATION.....	ORDO-OIL CREEK	PENN-ATOKA	PENN-ATOKA	PENN-ATOKA
GEOLOGIC PROVINCE CODE.....	350	350	355	355
DEPTH, FEET.....	16162	7315	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	9800	3648	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	4400	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	94.6	31.7	66.5	66.5
ETHANE.....	2.5	4.1	0.4	0.4
PROPANE.....	0.7	2.1	0.0	0.0
N-BUTANE.....	0.3	0.4	0.0	0.0
ISOBUTANE.....	0.2	0.2	0.0	0.0
N-PENTANE.....	0.1	TRACE	0.0	0.0
ISOPENTANE.....	0.1	TRACE	0.0	0.0
CYCLOPENTANE.....	0.1	TRACE	0.0	0.0
HEXANES PLUS.....	0.2	0.1	0.0	0.0
NITROGEN.....	0.9	0.9	24.3	24.3
OXYGEN.....	TRACE	0.1	0.3	0.3
ARGON.....	TRACE	TRACE	0.0	0.0
HYDROGEN.....	0.0	0.1	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.0	5.1	5.1
HELIUM.....	0.02	0.09	0.20	0.20
HEATING VALUE.....	1061	1061	681	681
SPECIFIC GRAVITY.....	0.599	0.612	0.727	0.727

		INDEX SAMPLE 6472 6084	INDEX SAMPLE 6473 11138	INDEX SAMPLE 6474 16709
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	MCCLAIN	MCCLAIN	MCCLAIN	MCCLAIN
FIELD.....	BYARS SW	FRENEY N	FRENEY N	FRENEY N
WELL NAME.....	CABELL NO. 1	KIDWELL NO. 1	JOHNSON NO. 1	JOHNSON NO. 1
LOCATION.....	SEC. 33, T5N, R2E	SEC. 23, T8N, R4W	SEC. 14, T8N, R4W	SEC. 14, T8N, R4W
OWNER.....	SUN OIL CO.	SUN OIL CO.	BLUE QUAIL ENERGY, INC.	BLUE QUAIL ENERGY, INC.
COMPLETED.....	02/29/56	02/17/66	11/17/82	11/17/82
SAMPLED.....	06/12/56	09/27/67	08/00-VIOLA	08/00-VIOLA
FORMATION.....	PENN-LATON	ORDO-OIL CREEK	ORDO-OIL CREEK	ORDO-OIL CREEK
GEOLOGIC PROVINCE CODE.....	355	355	355	355
DEPTH, FEET.....	3244	10925	9800	9800
WELLHEAD PRESSURE, PSIG.....	12500	NOT GIVEN	12500	12500
OPEN FLOW, MCFD.....	1788	4059	3250	3250
COMPONENT, MOLE PCT				
METHANE.....	75.4	84.8	87.7	87.7
ETHANE.....	1.6	2.9	6.5	6.5
PROPANE.....	3.6	2.5	2.3	2.3
N-BUTANE.....	1.0	0.7	0.7	0.7
ISOBUTANE.....	0.6	0.6	0.3	0.3
N-PENTANE.....	0.3	0.1	0.2	0.2
ISOPENTANE.....	0.3	0.3	0.3	0.3
CYCLOPENTANE.....	0.2	TRACE	0.1	0.1
HEXANES PLUS.....	0.2	0.1	0.3	0.3
NITROGEN.....	10.2	4.7	0.7	0.7
OXYGEN.....	TRACE	TRACE	TRACE	TRACE
ARGON.....	0.9	0.0	TRACE	TRACE
HYDROGEN.....	0.2	TRACE	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.6	0.6	0.6
HELIUM.....	0.12	0.05	0.03	0.03
HEATING VALUE.....	1088	1096	1139	1139
SPECIFIC GRAVITY.....	0.711	0.659	0.651	0.651

		INDEX SAMPLE 6475 6122	INDEX SAMPLE 6476 11123	INDEX SAMPLE 6477 13724
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	MCCLAIN	MCCLAIN	MCCLAIN	MCCLAIN
FIELD.....	NE WCASTLE NE	PAOLI N	TUTTLE E	TUTTLE E
WELL NAME.....	MARTHA SMITH	HANNER NO. 1	VON HARDEGEN NO. 1	VON HARDEGEN NO. 1
LOCATION.....	SEC. 2, T9N, R4W	SEC. 1, T9N, R1W	SEC. 18, T9N, R4W	SEC. 18, T9N, R4W
OWNER.....	GREAT SWEET GRASS OILS CO.	EDWIN L. COX	MIDWEST OIL CORP.	MIDWEST OIL CORP.
COMPLETED.....	05/16/56	12/27/66	11/06/72	11/06/72
SAMPLED.....	08/08/56	09/19/67	09/19/73	09/19/73
FORMATION.....	PENN-BARTLESVILLE	PERM-HART	PENN-BERRY	PENN-BERRY
GEOLOGIC PROVINCE CODE.....	355	355	355	355
DEPTH, FEET.....	8075	5770	8874	8874
WELLHEAD PRESSURE, PSIG.....	2380	1722	2357	2357
OPEN FLOW, MCFD.....	24000	10760	5100	5100
COMPONENT, MOLE PCT				
METHANE.....	36.4	74.5	88.2	88.2
ETHANE.....	19.1	12.5	5.5	5.5
PROPANE.....	20.7	1.3	2.2	2.2
N-BUTANE.....	10.8	1.3	0.6	0.6
ISOBUTANE.....	4.3	0.7	0.3	0.3
N-PENTANE.....	3.0	0.5	0.1	0.1
ISOPENTANE.....	0.7	0.1	0.5	0.5
CYCLOPENTANE.....	0.5	0.1	0.2	0.2
HEXANES PLUS.....	1.8	0.3	2.0	2.0
NITROGEN.....	0.4	0.0	0.0	0.0
OXYGEN.....	0.1	0.0	0.0	0.0
ARGON.....	0.0	0.0	0.0	0.0
HYDROGEN.....	0.0	0.1	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.2	0.3	0.3
HELIUM.....	TRACE	0.09	0.07	0.07
HEATING VALUE.....	1113	1111	1111	1111
SPECIFIC GRAVITY.....	1.258	0.738	0.642	0.642

		INDEX SAMPLE 6478 14111	INDEX SAMPLE 6479 15600	INDEX SAMPLE 6480 9987
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	MCCLAIN	MCCLAIN	MCCLAIN	MCCLAIN
FIELD.....	TUTTLE E	TUTTLE E	TUTTLE E	WASHINGTON DISTRICT
WELL NAME.....	SEC. 19, T9N, R4W	DUNNING NO. 1	PETERS NO. 1	PETERS NO. 1
LOCATION.....	SEC. 19, T9N, R4W	SEC. 10, T7N, R4W	SEC. 10, T7N, R4W	SEC. 10, T7N, R4W
OWNER.....	MESA PETROLEUM CO.	NATIONAL COOP. REFINERY ASSN	J. M. HUBER CORP.	J. M. HUBER CORP.
COMPLETED.....	11/05/73	01/31/79	01/29/64	01/29/64
SAMPLED.....	07/17/74	08/09/79	07/14/65	07/14/65
FORMATION.....	PENN-OSBORNE	PENN-OSBORNE	PENN-OSBORNE	PENN-OSBORNE
GEOLOGIC PROVINCE CODE.....	355	355	355	355
DEPTH, FEET.....	9040	9036	9400	9400
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	3000	2984	2984
OPEN FLOW, MCFD.....	NOT GIVEN	3493	7390	7390
COMPONENT, MOLE PCT				
METHANE.....	87.4	86.0	85.9	85.9
ETHANE.....	5.8	7.0	7.1	7.1
PROPANE.....	2.4	3.1	2.9	2.9
N-BUTANE.....	0.6	0.4	0.8	0.8
ISOBUTANE.....	0.4	0.4	0.4	0.4
N-PENTANE.....	0.2	0.3	0.1	0.1
ISOPENTANE.....	0.2	0.1	0.3	0.3
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.3	0.2	0.2
NITROGEN.....	2.5	1.5	1.7	1.7
OXYGEN.....	TRACE	0.0	TRACE	TRACE
ARGON.....	0.0	0.0	TRACE	TRACE
HYDROGEN.....	TRACE	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.2	0.5	0.5
HELIUM.....	0.08	0.06	0.10	0.10
HEATING VALUE.....	1107	1158	1140	1140
SPECIFIC GRAVITY.....	0.645	0.645	0.661	0.661

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6481 11307	INDEX SAMPLE 6482 11742	INDEX SAMPLE 6483 11838
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MCCLAIN		MCCLAIN	MCCLAIN
FIELD.....	WASHINGTON DISTRICT		WASHINGTON DISTRICT	WASHINGTON DISTRICT
WELL NAME.....	MARY JO TURNER NO. 1		MARY JO TURNER NO. 1	L. C. GILES NO. 1
LOCATION.....	SEC. 27, T7N, R3W		SEC. 35, T8N, R4W	SEC. 4, T7N, R3W
OWNER.....	MONSANTO CO.		SUN OIL CO.	UNION TEXAS PETROLEUM CORP.
COMPLETED.....	12/31/63		11/10/68	08/12/68
SAMPLED.....	02/26/68		01/24/69	04/25/69
FORMATION.....	PENN-OSBORNE		PENN-OSBORNE	PENN-OSBORNE
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	8140		9458	9100
WELLHEAD PRESSURE, PSIG.....	1161		2286	2909
OPEN FLOW, MCFD.....	8393		8300	2750
COMPONENT, MOLE PCT				
METHANE.....	84.4	85.2	85.2	85.2
ETHANE.....	8.0	7.3	7.3	7.3
PROPANE.....	3.3	3.1	3.1	2.9
N-BUTANE.....	1.1	1.0	1.0	1.0
ISOBUTANE.....	0.4	0.4	0.4	0.2
N-PENTANE.....	0.2	0.3	0.3	0.3
ISOPENTANE.....	0.2	0.3	0.3	0.3
CYCLOPENTANE.....	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.3	0.4	0.4	0.2
NITROGEN.....	1.5	1.5	1.7	1.7
OXYGEN.....	1.0	0.1	0.2	0.2
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	0.0	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.3	0.4	0.4
HELIUM.....	0.07	0.06	0.07	0.07
HEATING VALUE.....	1171	1171	1150	1150
SPECIFIC GRAVITY.....	0.676	0.676	0.667	0.667
		INDEX SAMPLE 6484 17071	INDEX SAMPLE 6485 12351	INDEX SAMPLE 6486 12352
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MCCLAIN		MCCURTAIN	MCCURTAIN
FIELD.....	WASHINGTON DISTRICT		GLOVER NE	GLOVER NE
WELL NAME.....	LESLIE NO. 2		WEIERHAEUSER NO. 25-1	WEIERHAEUSER NO. 25-1
LOCATION.....	SEC. 1, T7N, R4W		SEC. 25, T5S, R23E	SEC. 25, T5S, R23E
OWNER.....	MONSANTO OIL CO.		VIERSSEN & COCHRAN	VIERSSEN & COCHRAN
COMPLETED.....	05/09/83		08/02/70	08/02/70
SAMPLED.....	09/26/83		08/12/70	08/12/70
FORMATION.....	PENN-OSBORNE		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	355		400	400
DEPTH, FEET.....	9452		7000	7000
WELLHEAD PRESSURE, PSIG.....	1791		62	62
OPEN FLOW, MCFD.....	1231		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	83.1	53.4	53.4	53.4
ETHANE.....	7.4	1.4	1.6	1.6
PROPANE.....	3.3	0.1	0.1	0.1
N-BUTANE.....	0.3	0.0	0.0	0.0
ISOBUTANE.....	0.5	0.0	0.0	0.0
N-PENTANE.....	0.3	0.0	0.0	0.0
ISOPENTANE.....	0.8	0.0	0.0	0.0
CYCLOPENTANE.....	0.1	0.0	0.0	0.0
HEXANES PLUS.....	0.3	0.0	0.0	0.0
NITROGEN.....	2.0	40.4	39.9	39.9
OXYGEN.....	0.8	0.0	0.1	0.1
ARGON.....	TRACE	0.1	0.1	0.1
HYDROGEN.....	0.3	0.5	0.5	0.5
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	1.5	1.6	1.6
HELIUM.....	0.06	0.66	0.67	0.67
HEATING VALUE.....	1188	570	574	574
SPECIFIC GRAVITY.....	0.695	0.759	0.760	0.760
		INDEX SAMPLE 6487 3318	INDEX SAMPLE 6488 3771	INDEX SAMPLE 6489 11783
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MCINTOSH		MCINTOSH	MCINTOSH
FIELD.....	CHECOTAH		CHECOTAH SE	CUMMINGS
WELL NAME.....	ALTUS RHYME		SOUTH CHECOTAH NO. 1	CITIES SERVICE NO. 2
LOCATION.....	SEC. 30, T11N, R17E		SEC. 16, T11N, R17E	SEC. 9, T9N, R14E
OWNER.....	OKLAHOMA NATURAL GAS CO.		PHILLIPS PETROLEUM CO.	RAPP OIL & GAS CO.
COMPLETED.....	--/--/15		05/24/42	11/05/68
SAMPLED.....	04/23/42		04/06/44	02/28/69
FORMATION.....	SECO-GREEN RIVER		PENN-SALT SAND	PENN-GILCREASE
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	1923		1503	2667
WELLHEAD PRESSURE, PSIG.....	70		17	774
OPEN FLOW, MCFD.....	320		11	5421
COMPONENT, MOLE PCT				
METHANE.....	87.9	31.0	31.0	92.8
ETHANE.....	9.8	9.9	9.9	4.0
PROPANE.....	---	---	---	0.6
N-BUTANE.....	---	---	---	0.3
ISOBUTANE.....	---	---	---	0.0
N-PENTANE.....	---	---	---	0.0
ISOPENTANE.....	---	---	---	0.0
CYCLOPENTANE.....	---	---	---	0.0
HEXANES PLUS.....	---	---	---	0.0
NITROGEN.....	1.3	1.3	1.9	1.9
OXYGEN.....	0.4	0.4	0.4	0.4
ARGON.....	---	---	---	TRACE
HYDROGEN.....	---	---	---	0.1
HYDROGEN SULFIDE.....	---	---	---	0.0
CARBON DIOXIDE.....	0.4	0.2	0.2	0.0
HELIUM.....	0.16	0.21	0.10	0.10
HEATING VALUE.....	1066	1045	1038	1038
SPECIFIC GRAVITY.....	0.613	0.597	0.595	0.595
		INDEX SAMPLE 6490 12754	INDEX SAMPLE 6491 17776	INDEX SAMPLE 6492 2485
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MCINTOSH		MCINTOSH	MCINTOSH
FIELD.....	HANAWA		HITCHITA NE	HOFFMAN
WELL NAME.....	WELLS NO. 1-4		BRITTON NO. 1	S. HARNETT
LOCATION.....	SEC. 4, T8N, R13E		SEC. 16, T12N, R15E	SEC. 19, T12N, R14E
OWNER.....	OKLAHOMA NATURAL GAS CO.		MOFFITT, W.G.	R. D. THOMPSON & JOHN PENROD
COMPLETED.....	09/05/70		01/24/85	03/01/32
SAMPLED.....	04/01/71		--/--/00	03/28/32
FORMATION.....	PENN-CROMWELL		PENN-GILCREASE	ORDO-WILCOX
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	4120		2010	3072
WELLHEAD PRESSURE, PSIG.....	1820		396	1320
OPEN FLOW, MCFD.....	12000		3231	15
COMPONENT, MOLE PCT				
METHANE.....	93.7	83.5	83.5	65.0
ETHANE.....	7.8	3.7	3.7	12.8
PROPANE.....	0.7	0.1	0.1	---
N-BUTANE.....	0.1	0.8	0.8	---
ISOBUTANE.....	0.1	0.4	0.4	---
N-PENTANE.....	0.1	0.2	0.2	---
ISOPENTANE.....	0.0	0.2	0.2	---
CYCLOPENTANE.....	TRACE	0.1	0.1	---
HEXANES PLUS.....	0.1	0.3	0.3	---
NITROGEN.....	0.8	2.2	2.2	21.2
OXYGEN.....	0.0	TRACE	TRACE	0.3
ARGON.....	0.0	TRACE	TRACE	---
HYDROGEN.....	0.0	0.1	0.1	---
HYDROGEN SULFIDE.....	0.0	0.0	0.0	---
CARBON DIOXIDE.....	0.6	0.2	0.2	0.3
HELIUM.....	0.07	0.13	0.13	0.37
HEATING VALUE.....	1052	1159	888	888
SPECIFIC GRAVITY.....	0.597	0.673	0.708	0.708

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6493 16974	INDEX SAMPLE 6494 10828	INDEX SAMPLE 6495 11322
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MCINTOSH		MCINTOSH	MURRAY
FIELD.....	SALEM SE		ULAN N	DAVIS
WELL NAME.....	WELLS NO. 1-11		DES NO. 1	H. N. HORNER NO. 1
LOCATION.....	SEC. 12, T10N, R13E		SEC. 14, T8N, R13E	SEC. 32, T11N, R2E
OWNER.....	HOLD OIL CORP.		TRIDEN OIL, INC.	SONHO PETROLEUM CO.
COMPLETED.....	02/16/83		01/15/66	08/14/62
SAMPLED.....	06/13/83		01/03/67	02/28/68
FORMATION.....	PENN-GILCREASE		PENN-CROWELL	ORDO-BRONIDE
GEOLOGIC PROVINCE CODE.....	355		355	350
DEPTH, FEET.....	2712		4180	5400
WELLHEAD PRESSURE, PSIG.....	1164		1750	2000
OPEN FLOW, MCFD.....	2308		4000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	81.5	94.6	84.4	
ETHANE.....	8.3	3.5	6.8	
PROPANE.....	4.6	0.7	2.8	
N-BUTANE.....	1.1	0.2	0.5	
ISOBUTANE.....	0.0	0.0	0.3	
N-PENTANE.....	0.2	0.0	0.1	
ISOPENTANE.....	0.8	0.0	0.1	
CYCLOPENTANE.....	0.1	0.0	TRACE	
HEXANES PLUS.....	0.4	0.0	0.1	
NITROGEN.....	1.4	0.6	5.5	
ARGON.....	0.1	0.0	0.0	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.3	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.0	
HELIUM.....	0.2	0.4	1.3	
HEATING VALUE.....	0.07	0.09	0.05	
SPECIFIC GRAVITY.....	1229	1046	1054	
	0.709	0.593	0.660	
		INDEX SAMPLE 6496 12660	INDEX SAMPLE 6497 2571	INDEX SAMPLE 6498 3468
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MURRAY		MUSKOGEE	MUSKOGEE
FIELD.....	DAVIS NE		HASKELL	OKTAWA NW
WELL NAME.....	O. C. DAVIS NO. 6		BARNETT NO. 1	REINHARDT NO. 1
LOCATION.....	SEC. 14, T1N, R2E		SEC. 34, T16N, R15E	SEC. 21, T13N, R17E
OWNER.....	SUN OIL CO.		W. B. PINE	CLAUDE GARRETT
COMPLETED.....	07/14/70		09/24/32	05/7/41
SAMPLED.....	11/7/70		11/23/32	06/02/42
FORMATION.....	ORDO-OIL CREEK		NOT GIVEN	PENN-DUTCHER
GEOLOGIC PROVINCE CODE.....	350		355	355
DEPTH, FEET.....	2004		1081	1385
WELLHEAD PRESSURE, PSIG.....	1997		63	465
OPEN FLOW, MCFD.....	3690		877	2250
COMPONENT, MOLE PCT				
METHANE.....	97.3	66.2	85.0	
ETHANE.....	0.1	29.8	12.2	
PROPANE.....	0.2	---	---	
N-BUTANE.....	TRACE	---	---	
ISOBUTANE.....	0.2	---	---	
N-PENTANE.....	0.1	---	---	
ISOPENTANE.....	0.0	---	---	
CYCLOPENTANE.....	TRACE	---	---	
HEXANES PLUS.....	TRACE	---	---	
NITROGEN.....	1.3	3.4	2.1	
ARGON.....	0.1	0.4	0.4	
HYDROGEN.....	TRACE	---	---	
HYDROGEN SULFIDE.....	0.0	---	---	
CARBON DIOXIDE.....	0.8	0.1	0.1	
HELIUM.....	0.01	0.09	0.24	
HEATING VALUE.....	1004	1205	1080	
SPECIFIC GRAVITY.....	0.576	0.719	0.626	
		INDEX SAMPLE 6499 15275	INDEX SAMPLE 6500 3471	INDEX SAMPLE 6501 17669
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	MUSKOGEE		MUSKOGEE	NOBLE
FIELD.....	PORUM		WARNER SW	BILLINGS TOWNSITE
WELL NAME.....	NOB COMB NO. 1		POOLE NO. 1892	ELDEN C. GERKIN NO. 1
LOCATION.....	SEC. 24, T10N, R19E		SEC. 31, T12N, R19E	SEC. 32, T24N, R2W
OWNER.....	SERVICE DRILLING CO.		OKLAHOMA NATURAL GAS CO.	HEXAGON OIL & GAS, INC.
COMPLETED.....	09/22/77		06/13/30	06/09/84
SAMPLED.....	05/01/78		06/02/42	05/15/85
FORMATION.....	PENN-SPIRO		PENN-DUTCHER	MISS-CHAT
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	2995		539	4577
WELLHEAD PRESSURE, PSIG.....	1450		120	445
OPEN FLOW, MCFD.....	1146		787	436
COMPONENT, MOLE PCT				
METHANE.....	94.8	90.0	79.5	
ETHANE.....	1.0	7.9	7.9	
PROPANE.....	0.2	---	3.3	
N-BUTANE.....	0.0	---	1.5	
ISOBUTANE.....	0.0	---	0.4	
N-PENTANE.....	0.0	---	0.3	
ISOPENTANE.....	0.0	---	0.5	
CYCLOPENTANE.....	0.0	---	0.1	
HEXANES PLUS.....	0.0	---	0.3	
NITROGEN.....	3.5	1.1	5.5	
ARGON.....	0.3	0.4	0.2	
HYDROGEN.....	TRACE	---	TRACE	
HYDROGEN SULFIDE.....	0.1	---	0.0	
CARBON DIOXIDE.....	0.0	---	0.0	
HELIUM.....	0.1	0.4	0.4	
HEATING VALUE.....	0.12	0.15	0.18	
SPECIFIC GRAVITY.....	984	1053	1142	
	0.578	0.603	0.702	
		INDEX SAMPLE 6502 9073	INDEX SAMPLE 6503 17288	INDEX SAMPLE 6504 17702
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	NOBLE		NOBLE	NOBLE
FIELD.....	ECHO E		FOURDEE E	GREEN VALLEY E
WELL NAME.....	MASON NO. 1		MOE JEROME NO. 2	VEDA NO. 1
LOCATION.....	SEC. 13, T23N, R2W		SEC. 26, T22N, R1W	SEC. 20, T22N, R2W
OWNER.....	NATURAL GAS DRILLING CO.		WIL-MC OIL CORP.	WACKELLAR, INC.
COMPLETED.....	06/7/61		05/15/84	01/10/85
SAMPLED.....	08/30/63		05/15/84	06/10/85
FORMATION.....	PERM-CHASE GROUP		PENN-AVANT	PENN-RED FORK
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	804		3176	4812
WELLHEAD PRESSURE, PSIG.....	50		100	1363
OPEN FLOW, MCFD.....	50		250	3611
COMPONENT, MOLE PCT				
METHANE.....	79.9	78.0	69.9	
ETHANE.....	7.6	7.7	10.0	
PROPANE.....	3.9	3.8	4.6	
N-BUTANE.....	1.4	1.0	1.1	
ISOBUTANE.....	0.6	0.5	0.4	
N-PENTANE.....	0.3	0.3	0.4	
ISOPENTANE.....	0.6	0.2	0.1	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.3	0.2	0.3	
NITROGEN.....	5.3	10.0	12.6	
ARGON.....	TRACE	TRACE	0.1	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.3	
HELIUM.....	0.11	0.20	0.05	
HEATING VALUE.....	1172	1077	1098	
SPECIFIC GRAVITY.....	0.712	0.702	0.747	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6505 2650	INDEX SAMPLE	6506 4957	INDEX SAMPLE	6507 1858
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	NOBLE			NOBLE		NOBLE	
FIELD.....	LUCIEN			LUCIEN		PERRY DISTRICT	
WELL NAME.....	SCHOENWALD NO. 1			FREDERICK NO. 2		MCCORMICK NO. 1	
LOCATION.....	SEC. 20, T20N, R2W			SEC. 34, T20N, R2W		SEC. 33, T21N, R1W	
OWNER.....	SHEN OIL CO., ET AL.			THOMAS N. BERRY & CO.		INDIAN TERR. ILLUM. OIL CO.	
COMPLETED.....	08/25/33			07/16/50		08/18/29	
SAMPLED.....	10/17/33			11/18/50		09/04/29	
FORMATION.....	ORDO-BROMIDE			PENN-TONKAWA		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	5070			3100		3365	
WELLHEAD PRESSURE, PSIG.....	700			1200		1400	
OPEN FLOW, MCFD.....	9000			4000		18000	
COMPONENT, MOLE PCT							
METHANE.....	16.1			56.9		72.8	
ETHANE.....	75.7			3.2		12.4	
PROpane.....	---			1.3		---	
N-BUTANE.....	---			0.7		---	
ISOBUTANE.....	---			0.0		---	
N-PENTANE.....	---			0.6		---	
ISOPENTANE.....	---			0.2		---	
CYCLOPENTANE.....	---			TRACE		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	6.4			26.1		14.5	
OXYGEN.....	0.3			0.1		0.0	
ARGON.....	---			TRACE		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.4			0.3		0.1	
HELIUM.....	0.05			0.26		0.22	
HEATING VALUE.....	1538			832		960	
SPECIFIC GRAVITY.....	0.965			0.721		0.676	
		INDEX SAMPLE	6508 2983	INDEX SAMPLE	6509 9074	INDEX SAMPLE	6510 11470
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	NOBLE			NOBLE		NOBLE	
FIELD.....	PERRY DISTRICT			PERRY DISTRICT		PERRY DISTRICT	
WELL NAME.....	WALTERMIRE NO. 1			DELMAN		W. S. MCGUIRE NO. 5	
LOCATION.....	SEC. 33, T21N, R1W			SEC. 32, T21N, R1W		SEC. 9, T21N, R1W	
OWNER.....	KAY COUNTY GAS CO.			TOTO GAS CO.		GULF OIL CO.- U.S.	
COMPLETED.....	07/08			06/17/62		06/07/65	
SAMPLED.....	11/17/41			08/30/63		05/07/68	
FORMATION.....	PENN-HOOVER			PENN-TONKAWA		PENN-AVANT	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2295			3000		3325	
WELLHEAD PRESSURE, PSIG.....	670			1420		750	
OPEN FLOW, MCFD.....	2700			450		2727	
COMPONENT, MOLE PCT							
METHANE.....	9.3			65.0		76.9	
ETHANE.....	14.9			4.3		6.2	
PROpane.....	---			0.8		3.7	
N-BUTANE.....	---			0.9		1.2	
ISOBUTANE.....	---			0.5		0.5	
N-PENTANE.....	---			0.2		0.3	
ISOPENTANE.....	---			0.3		0.3	
CYCLOPENTANE.....	---			0.1		0.1	
HEXANES PLUS.....	---			0.2		0.2	
NITROGEN.....	75.0			25.3		10.2	
OXYGEN.....	0.2			TRACE		---	
ARGON.....	---			0.0		TRACE	
HYDROGEN.....	---			0.0		0.1	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.52			0.30		1.19	
HEATING VALUE.....	361			891		1083	
SPECIFIC GRAVITY.....	0.938			0.746		0.708	
		INDEX SAMPLE	6511 15055	INDEX SAMPLE	6512 4472	INDEX SAMPLE	6513 4793
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	NOBLE			NOBLE		NOBLE	
FIELD.....	PERRY SW			POLO		POLO	
WELL NAME.....	MARTIN KNORI "A" NO. 1			ALICE BRADBURY NO. 1		ELLWOOD A-1	
LOCATION.....	SEC. 7, T20N, R1W			SEC. 29, T22N, R1W		SEC. 26, T22N, R2W	
OWNER.....	BONRAY DRILLING CO.			ATLANTIC RICHFIELD CO.		ANDERSON-PRICHARD OIL CORP.	
COMPLETED.....	10/24/76			10/06/47		09/21/49	
SAMPLED.....	07/13/74			04/27/88		11/18/49	
FORMATION.....	PENN-CAMPBELL			MISS-LIME		PENN-BARTLESVILLE	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1835			4710		4732	
WELLHEAD PRESSURE, PSIG.....	725			860		1568	
OPEN FLOW, MCFD.....	14108			886		1000	
COMPONENT, MOLE PCT							
METHANE.....	67.2			65.2		73.3	
ETHANE.....	6.3			24.0		9.8	
PROpane.....	3.7			---		4.7	
N-BUTANE.....	1.2			---		1.3	
ISOBUTANE.....	0.6			---		0.4	
N-PENTANE.....	0.4			---		0.5	
ISOPENTANE.....	0.2			---		TRACE	
CYCLOPENTANE.....	0.1			---		0.1	
HEXANES PLUS.....	0.2			---		0.3	
NITROGEN.....	19.8			9.9		9.1	
OXYGEN.....	0.0			---		0.1	
ARGON.....	TRACE			---		TRACE	
HYDROGEN.....	0.0			---		TRACE	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.1			0.5		0.3	
HELIUM.....	0.27			0.16		0.12	
HEATING VALUE.....	732			1090		1138	
SPECIFIC GRAVITY.....	0.750			0.719		0.735	
		INDEX SAMPLE	6514 1202	INDEX SAMPLE	6515 8997	INDEX SAMPLE	6516 8622
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	NOBLE			NOBLE		NOBLE	
FIELD.....	SAMS			SAMS		THREE SANDS E	
WELL NAME.....	A. WOLLSESON NO. 1			MCCRACKEN NO. 2		W. CASE A NO. 2	
LOCATION.....	SEC. 2, T21N, R2E			SEC. 2, T21N, R2W		SEC. 7, T24N, R1E	
OWNER.....	MOBIL OIL CORP.			TOTO GAS CO.		OLYMPIC PETROLEUM CO.	
COMPLETED.....	11/15/25			10/23/61		03/23/61	
SAMPLED.....	---			06/03/63		07/26/62	
FORMATION.....	NOT GIVEN			PENN-AVANT		PENN-SKINNER	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2396			3519		4221	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1320		550	
OPEN FLOW, MCFD.....	NOT GIVEN			150		750	
COMPONENT, MOLE PCT							
METHANE.....	50.0			82.5		78.3	
ETHANE.....	12.6			6.1		7.5	
PROpane.....	---			3.4		4.1	
N-BUTANE.....	---			1.2		1.3	
ISOBUTANE.....	---			0.4		0.7	
N-PENTANE.....	---			0.3		0.3	
ISOPENTANE.....	---			0.2		0.4	
CYCLOPENTANE.....	---			0.1		0.1	
HEXANES PLUS.....	---			0.3		0.3	
NITROGEN.....	36.7			5.1		6.5	
OXYGEN.....	0.2			---		TRACE	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.3	
HELIUM.....	0.40			0.10		0.17	
HEATING VALUE.....	732			1128		1150	
SPECIFIC GRAVITY.....	0.770			0.682		0.715	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6517 11987	INDEX SAMPLE	6518 230	INDEX SAMPLE	6519 3326
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	NOBLE			NOBATA		NOBATA	
WELL NAME.....	TOKKAWA S			CALIFORNIA CREEK		WOODY	
LOCATION.....	BELLMAN NO. 1			TAYLOR NO. 2		BUNCH NO. 1	
OWNER.....	SEC. 30, T24N, R1W			SEC. 16, T28N, R16E		SEC. 1, T25N, R14E	
COMPLETED.....	KETAL OIL PRODUCING CO.			LUDDOWICZ-CELADON TILE CO.		T. S. & C. R. COLPITT	
SAMPLED.....	07/21/69			7/-/18		08/19/37	
FORMATION.....	07/28/69			04/29/20		04/24/42	
GEOLOGIC PROVINCE CODE.....	PENN-TONKAWA			PENN---		MISS-CHAT	
DEPTH, FEET.....	355			355		355	
WELLHEAD PRESSURE, PSIG.....	2692			687		1390	
OPEN FLOW, MCFD.....	900			70		525	
COMPONENT, MOLE PCT.....	1000			40		3000	
METHANE.....	56.8			96.5		95.8	
ETHANE.....	6.3			0.0		1.3	
PROpane.....	3.4			---		---	
N-BUTANE.....	0.8			---		---	
ISOBUTANE.....	0.2			---		---	
N-PENTANE.....	0.1			---		---	
ISOPENTANE.....	0.2			---		---	
CYCLOPENTANE.....	TRACE			---		---	
HEXANES PLUS.....	TRACE			---		---	
NITROGEN.....	31.8			2.7		1.1	
OXYGEN.....	0.0			0.7		0.3	
ARGON.....	TRACE			---		---	
HYDROGEN.....	TRACE			---		---	
HYDROGEN SULFIDE**.....	0.0			---		---	
CARBON DIOXIDE.....	TRACE			---		---	
HELIUM.....	0.38			0.1		1.4	
HEATING VALUE.....	823			TRACE		0.09	
SPECIFIC GRAVITY.....	0.770			0.570		0.994	
						0.580	
		INDEX SAMPLE	6520 15309	INDEX SAMPLE	6521 1302	INDEX SAMPLE	6522 4274
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKFUSKEE			OKFUSKEE		OKFUSKEE	
WELL NAME.....	ALABAMA			BEARDEN		BEARDEN NE	
LOCATION.....	DOUGLAS NO. 2			E. BRUNNER NO. 1		SAM NO. 1	
OWNER.....	SEC. 34, T10N, R11E			SEC. 16, T10N, R9E		SEC. 10, T10N, R9E	
COMPLETED.....	ESTORIL PRODUCING CORP.			BURKE-REIS OIL CO.		SUN OIL CO.	
SAMPLED.....	02/28/78			05/-/24		11/30/46	
FORMATION.....	06/27/78			09/23/26		01/28/47	
GEOLOGIC PROVINCE CODE.....	PENN-BOOCH			PENN-PAPOOSE		PENN---	
DEPTH, FEET.....	355			355		355	
WELLHEAD PRESSURE, PSIG.....	2124			3293		3056	
OPEN FLOW, MCFD.....	825			1250		550	
COMPONENT, MOLE PCT.....	2825			50000		1500	
METHANE.....	84.8			57.6		79.3	
ETHANE.....	5.0			26.0		15.5	
PROpane.....	2.6			---		---	
N-BUTANE.....	0.7			---		---	
ISOBUTANE.....	0.3			---		---	
N-PENTANE.....	0.2			---		---	
ISOPENTANE.....	0.2			---		---	
CYCLOPENTANE.....	0.1			---		---	
HEXANES PLUS.....	0.2			---		---	
NITROGEN.....	5.1			13.3		4.1	
OXYGEN.....	0.3			2.7		0.4	
ARGON.....	TRACE			---		---	
HYDROGEN.....	0.1			---		---	
HYDROGEN SULFIDE**.....	0.0			---		---	
CARBON DIOXIDE.....	0.3			0.5		0.6	
HELIUM.....	0.11			0.06		0.09	
HEATING VALUE.....	1081			1049		1081	
SPECIFIC GRAVITY.....	0.660			0.758		0.656	
		INDEX SAMPLE	6523 17751	INDEX SAMPLE	6524 16498	INDEX SAMPLE	6525 4116
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKFUSKEE			OKFUSKEE		OKFUSKEE	
WELL NAME.....	BLAKELY			BLAKELY N		CANARD	
LOCATION.....	WOODS NO. 1			SPEARRY NO. 4-A		ROLY CANARD NO. 1	
OWNER.....	SEC. 1, T11N, R10E			SEC. 24, T12N, R10E		SEC. 16, T10N, R10E	
COMPLETED.....	EAGLE OIL CO.			LOGOS OIL, INC.		AMERADA HESS CORP.	
SAMPLED.....	02/11/85			01/09/82		08/19/45	
FORMATION.....	07/11/85			04/18/82		10/18/46	
GEOLOGIC PROVINCE CODE.....	PENN-DUTCHER			PENN-DUTCHER		PENN-CROMWELL	
DEPTH, FEET.....	355			355		355	
WELLHEAD PRESSURE, PSIG.....	3009			2796		3309	
OPEN FLOW, MCFD.....	950			1100		1180	
COMPONENT, MOLE PCT.....	1000			2000		8574	
METHANE.....	69.4			42.8		66.9	
ETHANE.....	11.9			4.7		27.6	
PROpane.....	5.9			0.9		---	
N-BUTANE.....	1.9			0.3		---	
ISOBUTANE.....	0.6			0.2		---	
N-PENTANE.....	0.6			0.1		---	
ISOPENTANE.....	0.2			0.1		---	
CYCLOPENTANE.....	0.2			0.2		---	
HEXANES PLUS.....	0.6			38.2		3.8	
NITROGEN.....	7.1			9.0		0.9	
OXYGEN.....	0.8			0.0		---	
ARGON.....	TRACE			0.0		---	
HYDROGEN.....	TRACE			0.0		---	
HYDROGEN SULFIDE**.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.2			0.0		0.6	
HELIUM.....	0.11			0.06		0.15	
HEATING VALUE.....	1239			0.848		1172	
SPECIFIC GRAVITY.....	0.784					0.717	
		INDEX SAMPLE	6526 3784	INDEX SAMPLE	6527 1837	INDEX SAMPLE	6528 1838
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKFUSKEE			OKFUSKEE		OKFUSKEE	
WELL NAME.....	CASTLE E			CLEARVIEW DISTRICT		CLEARVIEW DISTRICT	
LOCATION.....	TANNER NO. 1			DOLLY DINDY NO. 1		DOLLY DINDY NO. C-1	
OWNER.....	SEC. 28, T12N, R9E			SEC. 31, T11N, R11E		SEC. 31, T11N, R11E	
COMPLETED.....	TEXACO INC.			MID-CONTINENT OIL CORP.		MID-CONTINENT OIL CORP.	
SAMPLED.....	03/12/44			07/13/28		07/01/29	
FORMATION.....	04/13/44			08/12/29		08/12/29	
GEOLOGIC PROVINCE CODE.....	PENN-CROMWELL			MISS-JEFFERSON		MISS-JEFFERSON	
DEPTH, FEET.....	355			355		355	
WELLHEAD PRESSURE, PSIG.....	3272			3071		3088	
OPEN FLOW, MCFD.....	1300			1100		1100	
COMPONENT, MOLE PCT.....	13140			25000		25000	
METHANE.....	69.6			58.0		60.5	
ETHANE.....	20.5			32.8		31.8	
PROpane.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	10.2			8.4		6.6	
OXYGEN.....	0.4			0.2		0.5	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.6		0.6	
HELIUM.....	0.00			0.01		0.01	
HEATING VALUE.....	1062			1175		1183	
SPECIFIC GRAVITY.....	0.702			0.758		0.748	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6529 4122	INDEX SAMPLE	6530 4478	INDEX SAMPLE	6531 1054
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKFUSKEE			OKFUSKEE		OKFUSKEE	
FIELD.....	DUSTIN			DUSTIN		DUSTIN NE	
WELL NAME.....	ROSE NO. 1			ROSE NO. 1		NO. 1	
LOCATION.....	SEC. 28, T10N, R12E			SEC. 31, T10N, R12E		SEC. 36, T10N, R12E	
OWNER.....	PUBLIC SERVICE CO. OF OKLA.			W. B. WELLS		CARTER OIL CO.	
COMPLETED.....	02/07/46			12/01/47		06/--/24	
SAMPLED.....	09/29/46			03/18/48		05/07/25	
FORMATION.....	PENN-NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2360			NOT GIVEN		3235	
WELLHEAD PRESSURE, PSIG.....	930			560		1100	
OPEN FLOW, MCFD.....	3500			960		2110	
COMPONENT, MOLE PCT							
METHANE.....	81.6	-----		83.4	-----	75.9	-----
ETHANE.....	16.3	-----		14.4	-----	22.1	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	0.8	-----		---	-----	---	-----
NITROGEN.....	0.8	-----		1.6	-----	1.2	-----
OXYGEN.....	---	-----		0.2	-----	0.5	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.4	-----		0.3	-----	0.3	-----
HELIUM.....	0.09	-----		0.10	-----	0.05	-----
HEATING VALUE.....	1119	-----		1103	-----	1165	-----
SPECIFIC GRAVITY.....	0.646	-----		0.636	-----	0.674	-----
		INDEX SAMPLE	6532 4182	INDEX SAMPLE	6533 3329	INDEX SAMPLE	6534 16691
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKFUSKEE			OKFUSKEE		OKFUSKEE	
FIELD.....	GREGORY			GREGORY		GREGORY	
WELL NAME.....	OVERALL NO. 2			GREGORY NO. 3		STANFORD NO. 1-26	
LOCATION.....	SEC. 15, T11N, R9E			SEC. 36, T10N, R11E		SEC. 26, T10N, R11E	
OWNER.....	PETROLEUM CO.			EAGLE P. OCHER CO.		STAR RESOURCES, INC.	
COMPLETED.....	08/28/45			02/13/39		10/19/82	
SAMPLED.....	11/08/46			04/24/42		10/19/82	
FORMATION.....	PENN-BASAL			PENN-GILCREASE		PENN-GILCREASE	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	NOT GIVEN			2513		2513	
WELLHEAD PRESSURE, PSIG.....	650			850		450	
OPEN FLOW, MCFD.....	716			1500		75	
COMPONENT, MOLE PCT							
METHANE.....	68.0	-----		40.3	-----	81.1	-----
ETHANE.....	27.5	-----		52.9	-----	8.8	-----
PROPANE.....	---	-----		---	-----	4.0	-----
N-BUTANE.....	---	-----		---	-----	1.1	-----
ISOBUTANE.....	---	-----		---	-----	0.5	-----
N-PENTANE.....	---	-----		---	-----	0.2	-----
ISOPENTANE.....	---	-----		---	-----	0.4	-----
CYCLOPENTANE.....	---	-----		---	-----	0.2	-----
HEXANES PLUS.....	4.2	-----		6.0	-----	0.3	-----
NITROGEN.....	0.1	-----		0.4	-----	0.1	-----
ARGON.....	---	-----		---	-----	0.0	-----
HYDROGEN.....	---	-----		---	-----	0.1	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.3	-----	0.2	-----
HELIUM.....	0.12	-----		0.12	-----	0.05	-----
HEATING VALUE.....	1182	-----		1356	-----	1186	-----
SPECIFIC GRAVITY.....	0.711	-----		0.846	-----	0.699	-----
		INDEX SAMPLE	6535 16692	INDEX SAMPLE	6536 4117	INDEX SAMPLE	6537 10169
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKFUSKEE			OKFUSKEE		OKFUSKEE	
FIELD.....	GREGORY			HICKORY RIDGE		IRON POST	
WELL NAME.....	STANFORD NO. 1-26			E. 1. BARRY NO. 1		WIGINTON NO. 1	
LOCATION.....	SEC. 26, T10N, R11E			SEC. 23, T10N, R10E		SEC. 11, T13N, R7E	
OWNER.....	STAR RESOURCES, INC.			AMERADA HESS CORP.		TURLEY OIL CO.	
COMPLETED.....	10/19/82			09/01/45		08/01/65	
SAMPLED.....	10/19/82			10/18/46		09/26/65	
FORMATION.....	PENN-STUART			PENN-WAPANUCKA		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	931			3157		3940	
WELLHEAD PRESSURE, PSIG.....	250			942		1450	
OPEN FLOW, MCFD.....	50			4394		4500	
COMPONENT, MOLE PCT							
METHANE.....	81.1	-----		66.7	-----	79.9	-----
ETHANE.....	3.7	-----		27.7	-----	7.3	-----
PROPANE.....	1.6	-----		---	-----	3.5	-----
N-BUTANE.....	0.4	-----		---	-----	1.1	-----
ISOBUTANE.....	0.3	-----		---	-----	0.5	-----
N-PENTANE.....	0.1	-----		---	-----	0.4	-----
ISOPENTANE.....	0.1	-----		---	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		---	-----	0.3	-----
NITROGEN.....	10.6	-----		4.0	-----	6.6	-----
OXYGEN.....	1.6	-----		0.4	-----	0.0	-----
ARGON.....	0.1	-----		---	-----	TRACE	-----
HYDROGEN.....	0.1	-----		---	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		1.1	-----	0.1	-----
HELIUM.....	0.13	-----		0.12	-----	0.10	-----
HEATING VALUE.....	1125	-----		1125	-----	1125	-----
SPECIFIC GRAVITY.....	0.659	-----		0.721	-----	0.697	-----
		INDEX SAMPLE	6538 10170	INDEX SAMPLE	6539 3412	INDEX SAMPLE	6540 3309
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKFUSKEE			OKFUSKEE		OKFUSKEE	
FIELD.....	IRON POST			LAFFOON SE		MASON	
WELL NAME.....	WIGINTON NO. 1			WASHINGTON NO. 1		ROSE NO. 1	
LOCATION.....	SEC. 11, T13N, R7E			SEC. 21, T13N, R7E		SEC. 10, T12N, R9E	
OWNER.....	TURLEY OIL CO.			ATLANTIC RICHFIELD CO.		BURKE-GRIS OIL CO.	
COMPLETED.....	08/01/65			11/17/36		12/30/40	
SAMPLED.....	09/26/65			05/13/45		04/24/42	
FORMATION.....	PENN-DUTCHER			DEVO-HUNTON		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	3500			4105		3891	
WELLHEAD PRESSURE, PSIG.....	1250			1245		1200	
OPEN FLOW, MCFD.....	6525			1222		4500	
COMPONENT, MOLE PCT							
METHANE.....	78.4	-----		67.9	-----	44.8	-----
ETHANE.....	5.2	-----		24.7	-----	49.6	-----
PROPANE.....	4.4	-----		---	-----	---	-----
N-BUTANE.....	1.4	-----		---	-----	---	-----
ISOBUTANE.....	0.6	-----		---	-----	---	-----
N-PENTANE.....	0.3	-----		---	-----	---	-----
ISOPENTANE.....	0.2	-----		---	-----	---	-----
CYCLOPENTANE.....	0.1	-----		---	-----	---	-----
HEXANES PLUS.....	0.2	-----		---	-----	---	-----
NITROGEN.....	8.9	-----		6.6	-----	5.0	-----
OXYGEN.....	0.0	-----		0.3	-----	0.4	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		0.4	-----	0.1	-----
HELIUM.....	0.13	-----		0.13	-----	0.13	-----
HEATING VALUE.....	1104	-----		1330	-----	1343	-----
SPECIFIC GRAVITY.....	0.709	-----		0.709	-----	0.823	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6541 SAMPLE 326			INDEX 6542 SAMPLE 15263			INDEX 6543 SAMPLE 932		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKFUSKEE		OKFUSKEE			OKFUSKEE		
FIELD.....	MORGAN		MORGAN			OKEMAH		
WELL NAME.....	BARNETT NO. 1		CHILDERS NO. 2-A			NO. 1 J. C. LOWRY		
LOCATION.....	SEC. 3, T12N, R11E		SEC. 4, T12N, R11E			SEC. 30, T11N, R10E		
OWNER.....	EAGLE Picher Co.		LOGOS OIL, INC.			SHAFFER OIL & REFINING CO.		
COMPLETED.....	01/-/20		10/10/77			05/01/24		
SAMPLED.....	06/03/20		04/22/78			09/24/24		
FORMATION.....	NOT GIVEN		PENN-DUTCHER			PERM-LYONS		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	1840		2666			3156		
WELLHEAD PRESSURE, PSIG.....	420		600			1225		
OPEN FLOW, MCFD.....	5000		3800			13000		
COMPONENT, MOLE PCT								
METHANE.....	88.3	-----	75.0	-----		65.7	-----	
ETHANE.....	10.3	-----	11.7	-----		30.1	-----	
PROPANE.....	---	-----	5.8	-----		---	-----	
N-BUTANE.....	---	-----	1.5	-----		---	-----	
ISOBUTANE.....	---	-----	0.4	-----		---	-----	
N-PENTANE.....	---	-----	0.3	-----		---	-----	
ISOPENTANE.....	---	-----	0.3	-----		---	-----	
CYCLOPENTANE.....	---	-----	0.1	-----		---	-----	
HEXANES PLUS.....	---	-----	0.1	-----		---	-----	
NITROGEN.....	0.6	-----	4.5	-----		3.8	-----	
OXYGEN.....	0.3	-----	0.0	-----		0.0	-----	
ARGON.....	---	-----	TRACE	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE**.....	---	-----	0.0	-----		---	-----	
CARBON DIOXIDE.....	0.3	-----	0.2	-----		0.2	-----	
HELIUM.....	0.10	-----	0.08	-----		0.16	-----	
HEATING VALUE*.....	1079	-----	1218	-----		1205	-----	
SPECIFIC GRAVITY.....	0.611	-----	0.735	-----		0.720	-----	
INDEX 6544 SAMPLE 1303			INDEX 6545 SAMPLE 3987			INDEX 6546 SAMPLE 12112		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKFUSKEE		OKFUSKEE			OKFUSKEE		
FIELD.....	OKEMAH		OKEMAH			OKEMAH		
WELL NAME.....	NO. 2		WIND NO. 1			ALEXANDER NO. 1		
LOCATION.....	SEC. 36, T11N, R9E		SEC. 31, T11N, R10E			SEC. 35, T11N, R9E		
OWNER.....	ATLANTIC RICHFIELD CO.		WILCOX OIL CO.			ROY O. MCANINCH		
COMPLETED.....	12/-/25		12/16/44			04/23/69		
SAMPLED.....	09/22/26		03/13/45			11/14/69		
FORMATION.....	DEVON-MISENER		PENN-GILCREASE			DEVON-HUNTON		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3841		2920			3660		
WELLHEAD PRESSURE, PSIG.....	1450		365			1300		
OPEN FLOW, MCFD.....	14000		8000			7340		
COMPONENT, MOLE PCT								
METHANE.....	53.4	-----	72.5	-----		71.0	-----	
ETHANE.....	42.6	-----	27.0	-----		12.9	-----	
PROPANE.....	---	-----	---	-----		7.0	-----	
N-BUTANE.....	---	-----	---	-----		1.6	-----	
ISOBUTANE.....	---	-----	---	-----		0.5	-----	
N-PENTANE.....	---	-----	---	-----		0.5	-----	
ISOPENTANE.....	---	-----	---	-----		0.5	-----	
CYCLOPENTANE.....	---	-----	---	-----		0.1	-----	
HEXANES PLUS.....	---	-----	---	-----		0.2	-----	
NITROGEN.....	3.0	-----	0.0	-----		5.6	-----	
OXYGEN.....	0.5	-----	0.0	-----		TRACE	-----	
ARGON.....	---	-----	---	-----		0.0	-----	
HYDROGEN.....	---	-----	---	-----		0.2	-----	
HYDROGEN SULFIDE**.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.6	-----	0.5	-----		0.0	-----	
HELIUM.....	0.07	-----	0.10	-----		0.10	-----	
HEATING VALUE*.....	1304	-----	1218	-----		1260	-----	
SPECIFIC GRAVITY.....	0.787	-----	0.693	-----		0.769	-----	
INDEX 6547 SAMPLE 1819			INDEX 6548 SAMPLE 3303			INDEX 6549 SAMPLE 3302		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKFUSKEE		OKFUSKEE			OKFUSKEE		
FIELD.....	OKEMAH		OKEMAH			OKEMAH		
WELL NAME.....	SPORLEADER NO. 2		MARTIN NO. 1			WESLEY NO. 1		
LOCATION.....	SEC. 29, T12N, R10E		SEC. 7, T13N, R10E			SEC. 21, T11N, R9E		
OWNER.....	MINNEHOMA OIL & GAS CO.		TEXACO INC.			SKELLY OIL CO.		
COMPLETED.....	-/-/00		10/25/40			02/21/41		
SAMPLED.....	07/15/29		04/24/42			04/24/42		
FORMATION.....	NOT GIVEN		PENN-GILCREASE			DEVON-HUNTON		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3090		2958			4009		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1200			1100		
OPEN FLOW, MCFD.....	27000		4300			20		
COMPONENT, MOLE PCT								
METHANE.....	66.2	-----	77.0	-----		55.2	-----	
ETHANE.....	29.3	-----	16.1	-----		39.8	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	3.1	-----	6.1	-----		4.0	-----	
OXYGEN.....	0.2	-----	0.2	-----		0.7	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE**.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	1.2	-----	0.2	-----		0.2	-----	
HELIUM.....	0.11	-----	0.18	-----		0.09	-----	
HEATING VALUE*.....	1196	-----	1069	-----		1272	-----	
SPECIFIC GRAVITY.....	0.725	-----	0.663	-----		0.773	-----	
INDEX 6550 SAMPLE 3844			INDEX 6551 SAMPLE 3846			INDEX 6552 SAMPLE 16555		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKFUSKEE		OKFUSKEE			OKFUSKEE		
FIELD.....	PETITOUAH		PETITOUAH			SCOTT GAS AREA		
WELL NAME.....	JEPSON NO. 1		KLOBZUBU NO. 1			SCOTT NO. 1		
LOCATION.....	SEC. 7, T13N, R7E		SEC. 7, T13N, R7E			SEC. 28, T10N, R10E		
OWNER.....	JOHN B. HAWLEY, JR.		JOHN B. HAWLEY, JR.			CHEROKEE RESOURCES, INC.		
COMPLETED.....	01/15/44		03/15/44			06/15/82		
SAMPLED.....	05/22/44		05/22/44			06/24/82		
FORMATION.....	PENN-FLAT TOP		PENN-FLAT TOP			PENN-GILCREASE		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4026		3226			2966		
WELLHEAD PRESSURE, PSIG.....	800		500			1350		
OPEN FLOW, MCFD.....	500		NOT GIVEN			3000		
COMPONENT, MOLE PCT								
METHANE.....	67.0	-----	67.0	-----		80.9	-----	
ETHANE.....	24.3	-----	23.0	-----		6.2	-----	
PROPANE.....	---	-----	---	-----		0.8	-----	
N-BUTANE.....	---	-----	---	-----		0.9	-----	
ISOBUTANE.....	---	-----	---	-----		0.5	-----	
N-PENTANE.....	---	-----	---	-----		0.2	-----	
ISOPENTANE.....	---	-----	---	-----		0.3	-----	
CYCLOPENTANE.....	---	-----	---	-----		0.1	-----	
HEXANES PLUS.....	---	-----	---	-----		0.2	-----	
NITROGEN.....	8.2	-----	9.5	-----		6.5	-----	
OXYGEN.....	0.4	-----	0.4	-----		0.1	-----	
ARGON.....	---	-----	---	-----		TRACE	-----	
HYDROGEN.....	---	-----	---	-----		0.1	-----	
HYDROGEN SULFIDE**.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.1	-----		0.2	-----	
HELIUM.....	TRACE	-----	TRACE	-----		0.12	-----	
HEATING VALUE*.....	1114	-----	1091	-----		1112	-----	
SPECIFIC GRAVITY.....	0.712	-----	0.711	-----		0.690	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6553 SAMPLE 17068			INDEX 6554 SAMPLE 13760			INDEX 6555 SAMPLE 13761		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKFUSKEE		OKFUSKEE			OKFUSKEE		
FIELD.....	SCOTT GAS AREA		WELEETKA DISTRICT E			WELEETKA DISTRICT E		
WELL NAME.....	MAGNESS NO. 1-10		NAZZARENA NO. 5			MOLT NO. 2		
LOCATION.....	SEC. 10, T10N, R10E		SEC. 6, T10N, R12E			SEC. 6, T10N, R12E		
OWNER.....	JORDAN OIL & GAS CO.		OKFUSKEE ENTERPRISES, INC.			OKFUSKEE ENTERPRISES, INC.		
COMPLETED.....	08/12/82		08/03/73			08/16/73		
SAMPLED.....	09/-/83		10/16/73			10/16/73		
FORMATION.....	PENN-BARTLESVILLE		PENN-CROWELL			MISS-JEFFERSON		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	2050		2940			3090		
WELLHEAD PRESSURE, PSIG.....	400		825			905		
OPEN FLOW, MCFD.....	600		3489			1334		
COMPONENT, MOLE PCT								
METHANE.....	81.1		77.7			75.8		
ETHANE.....	3.2		12.6			13.4		
PROpane.....	2.3		4.1			5.2		
N-BUTANE.....	0.0		0.7			1.3		
ISOBUTANE.....	0.6		0.4			0.6		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.0		0.2			0.4		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	11.8		2.0			2.6		
OXYGEN.....	0.2		TRACE			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.3		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.9			0.2		
HELIUM.....	0.18		0.10			0.10		
HEATING VALUE.....	973		1174			1238		
SPECIFIC GRAVITY.....	0.658		0.703			0.727		
INDEX 6556 SAMPLE 13762			INDEX 6557 SAMPLE 349			INDEX 6558 SAMPLE 11321		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKFUSKEE		OKFUSKEE			OKLAHOMA		
FIELD.....	WELEETKA DISTRICT E		YOURSTOWN			BRITTON		
WELL NAME.....	NAZZARENA NO. 5		WARDEN NO. 2			GLASS NO. 1		
LOCATION.....	SEC. 6, T10N, R12E		SEC. 4, T13N, R11E			SEC. 18, T13N, R3W		
OWNER.....	OKFUSKEE ENTERPRISES, INC.		KINGWOOD OIL CO.			ASHLAND OIL & REFINING CO.		
COMPLETED.....	08/10/73		05/-/720			01/11/52		
SAMPLED.....	10/16/73		06/07/720			02/28/68		
FORMATION.....	PENN-UNION VALLEY		PENN--			PENN-BARTLESVILLE		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	2816		1885			6417		
WELLHEAD PRESSURE, PSIG.....	358		155			760		
OPEN FLOW, MCFD.....	1500		11000			1782		
COMPONENT, MOLE PCT								
METHANE.....	73.7		85.9			83.6		
ETHANE.....	12.2		11.4			8.5		
PROpane.....	4.0		---			3.6		
N-BUTANE.....	0.6		---			1.1		
ISOBUTANE.....	0.7		---			0.3		
N-PENTANE.....	0.1		---			0.3		
ISOPENTANE.....	0.1		---			0.2		
CYCLOPENTANE.....	TRACE		---			0.1		
HEXANES PLUS.....	0.0		---			0.3		
NITROGEN.....	2.5		3.2			1.9		
OXYGEN.....	0.0		0.4			0.1		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	TRACE		---			0.0		
HYDROGEN SULFIDE**.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.2		0.0			TRACE		
HELIUM.....	0.10		0.10			0.03		
HEATING VALUE.....	1177		1057			1181		
SPECIFIC GRAVITY.....	0.688		0.621			0.681		
INDEX 6559 SAMPLE 17175			INDEX 6560 SAMPLE 17877			INDEX 6561 SAMPLE 15048		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	WOOD NO. 1-3		CAPTAIN CREEK W			CHOCTAW		
WELL NAME.....	WOOD NO. 1-3		STOVER NO. 12-1			DARRON "A" NO. 1		
LOCATION.....	SEC. 3, T12N, R3W		SEC. 12, T13N, R1E			SEC. 14, T12N, R1W		
OWNER.....	PITCO CO.		101 ENERGY CORP.			BEARD OIL CO.		
COMPLETED.....	11/19/82		03/02/85			---/---/00		
SAMPLED.....	02/15/84		10/25/85			06/29/77		
FORMATION.....	PENN-BASAL UNCONF. SAND		PENN-OSWEGO			PENN-OSWEGO		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	6900		4848			5570		
WELLHEAD PRESSURE, PSIG.....	2150		1750			1450		
OPEN FLOW, MCFD.....	475		600			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.3		82.1			84.7		
ETHANE.....	6.8		8.1			8.2		
PROpane.....	2.0		1.4			1.0		
N-BUTANE.....	1.0		1.3			1.0		
ISOBUTANE.....	0.4		0.4			0.3		
N-PENTANE.....	0.4		0.5			0.3		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	0.1		0.3			0.1		
HEXANES PLUS.....	0.3		2.3			0.5		
NITROGEN.....	2.4		0.2			0.0		
OXYGEN.....	0.9		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.4			0.2		
HELIUM.....	0.04		0.05			0.05		
HEATING VALUE.....	1123		1193			1170		
SPECIFIC GRAVITY.....	0.684		0.701			0.672		
INDEX 6562 SAMPLE 17641			INDEX 6563 SAMPLE 4300			INDEX 6564 SAMPLE 17809		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	COON CREEK W		EDMOND NE			EDMOND NE		
WELL NAME.....	WOOD NO. 1-5		PAULINE NO. 1			PAULINE NO. 2-A		
LOCATION.....	SEC. 5, T14N, R1W		SEC. 23, T14N, R2W			SEC. 28, T14N, R2W		
OWNER.....	SCOUT ENERGY CORP.		GULF OIL CORP.			HARPER OIL CO.		
COMPLETED.....	04/08/85		02/19/84			02/11/85		
SAMPLED.....	04/08/85		04/18/84			08/16/85		
FORMATION.....	PENN-CHECKERBOARD		PENN--			MIOC-UNCONFORMITY		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4730		5632			6159		
WELLHEAD PRESSURE, PSIG.....	1160		2080			1287		
OPEN FLOW, MCFD.....	1500		1920			1500		
COMPONENT, MOLE PCT								
METHANE.....	82.8		71.4			82.5		
ETHANE.....	9.2		25.3			8.4		
PROpane.....	4.0		---			1.8		
N-BUTANE.....	1.3		---			1.3		
ISOBUTANE.....	0.4		---			0.4		
N-PENTANE.....	0.5		---			0.4		
ISOPENTANE.....	TRACE		---			0.3		
CYCLOPENTANE.....	0.1		---			0.2		
HEXANES PLUS.....	0.2		---			0.4		
NITROGEN.....	1.3		2.0			2.1		
OXYGEN.....	TRACE		0.4			TRACE		
ARGON.....	0.0		---			0.0		
HYDROGEN.....	0.0		---			TRACE		
HYDROGEN SULFIDE**.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.2		0.9			0.2		
HELIUM.....	TRACE		0.04			0.10		
HEATING VALUE.....	1200		1177			1200		
SPECIFIC GRAVITY.....	0.690		0.699			0.698		

* CALCULATED 8735 BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6565			INDEX 6566			INDEX 6567		
SAMPLE 17825			SAMPLE 3952			SAMPLE 15062		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	EDMOND W		EDMOND W			EDMOND W		
WELL NAME.....	LOUIS BOUBROW NO. 2		GAFFNEY NO. 1			SNYDER NO. 1		
LOCATION.....	SEC. 1, T14N, R2W		SEC. 28, T14N, R4W			SEC. 2, T14N, R4W		
OWNER.....	CLIFFORD RESOURCES		CITIES SERVICE OIL CO.			CALVERT DRILLING CO.		
COMPLETED.....	06/04/85		10/14/84			12/-/76		
SAMPLED.....	09/04/85		11/-/84			07/28/77		
FORMATION.....	PENN-CHECKERBOARD		PENN-BARTLESVILLE			PENN-PRUE		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4995		6424			6180		
WELLHEAD PRESSURE, PSIG.....	1100		2922			1500		
OPEN FLOW, MCFD.....	1850		12800			9275		
COMPONENT, MOLE PCT.....								
METHANE.....	81.9		82.3			83.5		
ETHANE.....	8.2		17.3			8.8		
PROPANE.....	3.8		---			3.9		
N-BUTANE.....	1.3		---			1.1		
ISOBUTANE.....	0.4		---			0.4		
N-PENTANE.....	0.4		---			0.3		
ISOPENTANE.....	0.3		---			0.2		
CYCLOPENTANE.....	0.1		---			0.1		
HEXANES PLUS.....	0.3		---			0.2		
NITROGEN.....	3.1		0.9			1.6		
OXYGEN.....	0.0		0.2			0.0		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	TRACE		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.05		0.05			0.04		
HEATING VALUE.....	1182		1144			1191		
SPECIFIC GRAVITY.....	0.695		0.643			0.683		

INDEX 6568			INDEX 6569			INDEX 6570		
SAMPLE 15053			SAMPLE 16648			SAMPLE 3702		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	EDMOND W		HARRAH S			LUTHER S		
WELL NAME.....	SNYDER NO. 1		KUSEK NO. 3			HUNTER L. JOHNSON NO. 1		
LOCATION.....	SEC. 2, T14N, R4W		SEC. 2, T11N, T1E			SEC. 9, T13N		
OWNER.....	CALVERT DRILLING CO.		AMSTAR OIL, INC.			AMOCO PRODUCTION CO.		
COMPLETED.....	12/-/76		07/26/81			--/-/00		
SAMPLED.....	07/28/77		09/-/82			11/19/83		
FORMATION.....	DEVO-HUNTON		PENN-SKINNER			DEVO-HUNTON		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	6400		5280			5550		
WELLHEAD PRESSURE, PSIG.....	307		NOT GIVEN			1850		
OPEN FLOW, MCFD.....	1027		3788			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	81.8		70.7			77.8		
ETHANE.....	9.6		6.9			16.7		
PROPANE.....	4.4		4.4			---		
N-BUTANE.....	1.5		1.5			---		
ISOBUTANE.....	0.5		0.6			---		
N-PENTANE.....	0.5		0.3			---		
ISOPENTANE.....	0.3		0.4			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.3		0.2			---		
NITROGEN.....	0.9		14.5			4.8		
OXYGEN.....	0.0		0.0			0.2		
ARGON.....	0.0		TRACE			---		
HYDROGEN.....	0.0		0.1			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.1			0.4		
HELIUM.....	0.03		0.13			0.12		
HEATING VALUE.....	1236		1062			1087		
SPECIFIC GRAVITY.....	0.707		0.740			0.661		

INDEX 6571			INDEX 6572			INDEX 6573		
SAMPLE 1721			SAMPLE 1775			SAMPLE 1776		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	OKLAHOMA CITY		OKLAHOMA CITY			OKLAHOMA CITY		
WELL NAME.....	TROSPER NO. 1		E. FORTSON NO. 1			BODINE NO. 1		
LOCATION.....	SEC. 13, T11N, R3W		SEC. 24, T11N, R3W			SEC. 24, T11N, R3W		
OWNER.....	INDIAN TERR. ILLUM. OIL CO.		INDIAN TERR. ILLUM. OIL CO.			INDIAN TERR. ILLUM. OIL CO.		
COMPLETED.....	02/21/29		--/-/29			--/-/29		
SAMPLED.....	02/27/29		05/13/29			05/14/29		
FORMATION.....	PENN-OSWEGO		PENN-HOOVER			PENN-LAYTON		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3986		3900			4850		
WELLHEAD PRESSURE, PSIG.....	1500		1350			1750		
OPEN FLOW, MCFD.....	6000		38000			70000		
COMPONENT, MOLE PCT.....								
METHANE.....	66.3		66.4			70.1		
ETHANE.....	20.0		15.2			23.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	12.9		18.1			5.1		
OXYGEN.....	0.3		0.2			0.5		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.5		0.2			0.5		
HELIUM.....	0.11		0.11			0.07		
HEATING VALUE.....	1030		945			1138		
SPECIFIC GRAVITY.....	0.713		0.708			0.702		

INDEX 6574			INDEX 6575			INDEX 6576		
SAMPLE 1792			SAMPLE 1808			SAMPLE 1929		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	OKLAHOMA CITY		OKLAHOMA CITY			OKLAHOMA CITY		
WELL NAME.....	BODINE NO. 2		TROSPER NO. 1			UNSELL-KRAGER NO. 3		
LOCATION.....	SEC. 24, T11N, R3W		SEC. 13, T11N, R3W			SEC. 23, T11W, R3W		
OWNER.....	INDIAN TERR. ILLUM. OIL CO.		INDIAN TERR. ILLUM. OIL CO.			INDIAN TERR. ILLUM. OIL CO.		
COMPLETED.....	06/07/29		07/07/29			--/-/00		
SAMPLED.....	06/07/29		07/07/29			01/28/30		
FORMATION.....	PENN-BIG LIME		PENN-BIG LIME			PENN-CHECKERBOARD		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	6100		6140			5540		
WELLHEAD PRESSURE, PSIG.....	2200		2300			2000		
OPEN FLOW, MCFD.....	20000		100000			32000		
COMPONENT, MOLE PCT.....								
METHANE.....	78.2		73.9			70.3		
ETHANE.....	20.3		23.0			24.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	1.2		2.8			4.5		
OXYGEN.....	0.2		0.2			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.08		0.10			0.07		
HEATING VALUE.....	1156		1156			1158		
SPECIFIC GRAVITY.....	0.664		0.684			0.700		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6577 SAMPLE 2315			INDEX 6578 SAMPLE 2762			INDEX 6579 SAMPLE 11534		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	OKLAHOMA CITY		OKLAHOMA CITY			OKLAHOMA CITY		
WELL NAME.....	FARLEY NO. 2		FORSON NO. 1			INLAND HARM NO. 2		
LOCATION.....	SEC. 24, T11N, R3W		SEC. 24, T11N, R3W			SEC. 27, T12N, R3W		
OWNER.....	INDIAN TERR. ILLUM. OIL CO.		INDIAN TERR. ILLUM. OIL CO.			SUN OIL CO.		
COMPLETED.....	04/20/31		08/05/37			07/20/65		
SAMPLED.....	10/25/30		08/05/37			06/07/68		
FORMATION.....	PENN-PRUE		PENN-PAWUSKA			PENN-CLEVELAND		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	5385		3040			5722		
WELLHEAD PRESSURE, PSIG.....	1650		NOT GIVEN			508		
OPEN FLOW, MCFD.....	10500		17000			1207		
COMPONENT, MOLE PCT								
METHANE.....	55.5		16.8			83.5		
ETHANE.....	40.7		8.9			7.5		
PROpane.....	---		---			3.7		
N-BUTANE.....	---		---			1.3		
ISOBUTANE.....	---		---			0.4		
N-PENTANE.....	---		---			0.6		
ISOPENTANE.....	---		---			0.2		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.3		
NITROGEN.....	2.8		73.3			2.2		
OXYGEN.....	0.9		0.2			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			TRACE		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.1		0.6			0.1		
HELIUM.....	0.05		0.28			0.05		
HEATING VALUE.....	1292		930			1187		
SPECIFIC GRAVITY.....	0.773		0.907			0.689		
INDEX 6580 SAMPLE 17892			INDEX 6581 SAMPLE 17893			INDEX 6582 SAMPLE 11652		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	OKLAHOMA CITY		OKLAHOMA CITY			OKLAHOMA CITY		
WELL NAME.....	MAXEY NO. 1-34		MAXEY NO. 1-34			F. B. WAFFORD NO. 1		
LOCATION.....	SEC. 34, T11N, R3W		SEC. 34, T11N, R3W			SEC. 51, T11N, R1E		
OWNER.....	OEXCO, INC.		OEXCO, INC.			UNION OIL CO. OF CALIF.		
COMPLETED.....	12/12/84		12/12/84			11/14/57		
SAMPLED.....	11/06/85		11/06/85			09/23/68		
FORMATION.....	PENN-PRUE		ORDO-VIOLA			PENN-UNCONFORMITY SAND		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	6664		6828			5802		
WELLHEAD PRESSURE, PSIG.....	1061		1061			1118		
OPEN FLOW, MCFD.....	1140		1140			307		
COMPONENT, MOLE PCT								
METHANE.....	85.0		77.3			66.5		
ETHANE.....	6.9		6.3			8.3		
PROpane.....	3.0		2.8			5.7		
N-BUTANE.....	SEC. 3		SEC. 3			1.3		
ISOBUTANE.....	0.3		0.2			0.9		
N-PENTANE.....	0.7		0.8			0.5		
ISOPENTANE.....	0.2		0.2			0.0		
CYCLOPENTANE.....	0.2		0.2			TRACE		
HEXANES PLUS.....	0.6		0.7			0.1		
NITROGEN.....	1.4		8.0			15.2		
OXYGEN.....	0.0		1.8			1.3		
ARGON.....	0.0		0.1			TRACE		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.3			0.1		
HELIUM.....	0.04		0.04			0.07		
HEATING VALUE.....	1193		1102			1071		
SPECIFIC GRAVITY.....	0.688		0.721			0.767		
INDEX 6583 SAMPLE 17465			INDEX 6584 SAMPLE 17554			INDEX 6585 SAMPLE 17213		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	PEAVINE		PRAIRIE BELL NW			WHEATLAND		
WELL NAME.....	JULIUS NO. 3-A		SHANBOUR NO. 1			PEERY NO. 20-1		
LOCATION.....	SEC. 8, T14N, R2W		SEC. 8, T14N, R3W			SEC. 20, T11N, R4W		
OWNER.....	HARPER OIL CO.		XAE CORP.			RATLIFF EXPLORATION CO.		
COMPLETED.....	07/09/84		08/24/84			08/18/83		
SAMPLED.....	10/03/84		12/31/84			03/20/84		
FORMATION.....	PENN-BARTLESVILLE & CHKRBOARD		PENN-PRUE			ORDO-VIOLA		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	5010		5957			8414		
WELLHEAD PRESSURE, PSIG.....	1710		2100			2324		
OPEN FLOW, MCFD.....	920		770			1320		
COMPONENT, MOLE PCT								
METHANE.....	80.6		83.9			88.1		
ETHANE.....	10.0		4.4			5.4		
PROpane.....	4.4		3.4			2.4		
N-BUTANE.....	1.5		1.0			0.9		
ISOBUTANE.....	0.6		0.7			0.4		
N-PENTANE.....	0.5		0.2			0.4		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.1		0.3			0.2		
HEXANES PLUS.....	0.3		0.3			0.4		
NITROGEN.....	1.3		2.6			1.0		
OXYGEN.....	0.2		0.1			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.7			0.3		
HELIUM.....	0.04		0.06			0.03		
HEATING VALUE.....	1234		1154			1154		
SPECIFIC GRAVITY.....	0.712		0.678			0.659		
INDEX 6586 SAMPLE 17214			INDEX 6587 SAMPLE 17215			INDEX 6588 SAMPLE 17282		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
FIELD.....	WHEATLAND		WHEATLAND			WHEATLAND		
WELL NAME.....	PURCELL NO. 29-1		HARDY NO. 21-1			HOOD NO. 31-1		
LOCATION.....	SEC. 29, T11N, R4W		SEC. 21, T11N, R4W			SEC. 31, T11N, R4W		
OWNER.....	RATLIFF EXPLORATION CO.		RATLIFF EXPLORATION CO.			RATLIFF EXPLORATION CO.		
COMPLETED.....	11/11/83		09/19/83			08/04/83		
SAMPLED.....	03/20/84		03/20/84			05/07/84		
FORMATION.....	ORDO-WILCOX		PENN-BARTLESVILLE			PENN-SKINNER		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	8666		7602			8034		
WELLHEAD PRESSURE, PSIG.....	2100		2492			2367		
OPEN FLOW, MCFD.....	2100		1800			11576		
COMPONENT, MOLE PCT								
METHANE.....	83.1		80.3			89.1		
ETHANE.....	4.4		4.6			5.4		
PROpane.....	3.3		1.6			2.2		
N-BUTANE.....	1.2		0.6			0.6		
ISOBUTANE.....	0.6		0.6			0.2		
N-PENTANE.....	0.5		0.4			0.2		
ISOPENTANE.....	0.3		0.4			0.2		
CYCLOPENTANE.....	0.4		0.7			0.3		
HEXANES PLUS.....	0.4		1.1			1.1		
NITROGEN.....	3.5		0.1			TRACE		
OXYGEN.....	0.1		0.1			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.4			0.4		
HELIUM.....	0.05		0.03			0.05		
HEATING VALUE.....	1165		1267			1127		
SPECIFIC GRAVITY.....	0.693		0.733			0.644		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6589 4929	INDEX SAMPLE	6590 4761	INDEX SAMPLE	6591 16734
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
FIELD.....	WITCHER			WITCHER		WITCHER-MUNGER	
WELL NAME.....	LEHMER			WAGGIE PERKINS NO. 1		HOBBS NO. 1	
LOCATION.....	SEC. 13, T12N, R2W			SEC. 34, T13N, R2W		SEC. 26, T12N, R2W	
OWNER.....	ANDERSON-PRICHARD OIL CORP.			GULF OIL CO.- U.S.		PHILIP BOYLE, INC.	
COMPLETED.....	05/27/50			05/11/49		08/-/82	
SAMPLED.....	08/10/50			10/20/49		12/13/82	
FORMATION.....	PENN-CLEVELAND			PENN-CLEVELAND		DEVON-MISENER	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	5453			5539		6372	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1984		850	
OPEN FLOW, MCFD.....	675			3176		6316	
COMPONENT, MOLE PCT							
METHANE.....	80.0	---	---	79.1	---	74.9	---
ETHANE.....	3.5	---	---	4.7	---	10.8	---
PROpane.....	1.9	---	---	2.7	---	6.5	---
N-BUTANE.....	0.5	---	---	0.8	---	1.9	---
ISOBUTANE.....	0.2	---	---	0.6	---	0.6	---
N-PENTANE.....	0.1	---	---	0.1	---	0.5	---
ISOPENTANE.....	TRACE	---	---	0.5	---	0.6	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	0.2	---
HEXANES PLUS.....	0.2	---	---	0.0	---	0.4	---
NITROGEN.....	12.9	---	---	11.1	---	3.9	---
OXYGEN.....	0.2	---	---	0.1	---	TRACE	---
ARGON.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN.....	---	---	---	0.0	---	0.2	---
HYDROGEN SULFIDE.....	---	---	---	---	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.2	---	TRACE	---
HELIUM.....	0.11	---	---	0.10	---	0.03	---
HEATING VALUE.....	970	---	---	102	---	1230	---
SPECIFIC GRAVITY.....	0.664	---	---	0.688	---	0.759	---
		INDEX SAMPLE	6592 12161	INDEX SAMPLE	6593 17194	INDEX SAMPLE	6594 15265
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKMULGEE			OKMULGEE		OKMULGEE	
FIELD.....	BALD HILL			BALD HILL		BRINTON	
WELL NAME.....	FOSTER NO. 1			DILCO NO. 1-27		HALEY NO. 2-A	
LOCATION.....	SEC. 27, T15N, R14E			SEC. 27, T14N, R13E		SEC. 21, T13N, R12E	
OWNER.....	WATSON & ROE			DILCO		BILL WADLEY & SON DRILLING	
COMPLETED.....	11/12/69			09/08/83		06/13/77	
SAMPLED.....	12/28/69			02/23/84		04/27/78	
FORMATION.....	PENN-DUTCHER			PENN-WAPANUCKA		PENN-DUTCHER	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1707			1999		2188	
WELLHEAD PRESSURE, PSIG.....	347			605		605	
OPEN FLOW, MCFD.....	2400			1626		28000	
COMPONENT, MOLE PCT							
METHANE.....	88.0	---	---	87.8	---	81.6	---
ETHANE.....	7.3	---	---	5.9	---	9.5	---
PROpane.....	0.2	---	---	2.0	---	3.7	---
N-BUTANE.....	0.1	---	---	0.6	---	0.8	---
ISOBUTANE.....	0.1	---	---	0.3	---	0.3	---
N-PENTANE.....	0.2	---	---	0.2	---	0.2	---
ISOPENTANE.....	0.0	---	---	0.2	---	0.2	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	TRACE	---
HEXANES PLUS.....	0.1	---	---	0.2	---	0.1	---
NITROGEN.....	2.9	---	---	2.5	---	3.2	---
OXYGEN.....	TRACE	---	---	TRACE	---	0.0	---
ARGON.....	0.5	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.1	---	---	TRACE	---	0.2	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	TRACE	---	---	0.1	---	TRACE	---
HELIUM.....	0.02	---	---	0.09	---	0.09	---
HEATING VALUE.....	1062	---	---	1108	---	1148	---
SPECIFIC GRAVITY.....	0.622	---	---	0.643	---	0.674	---
		INDEX SAMPLE	6595 331	INDEX SAMPLE	6596 17671	INDEX SAMPLE	6597 17691
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKMULGEE			OKMULGEE		OKMULGEE	
FIELD.....	BRYANT			HAMILTON SWITCH		HAMILTON SWITCH	
WELL NAME.....	TISHIE BEAM NO. 1			DOUGLAS NO. 1-9		HULL NO. 9	
LOCATION.....	SEC. 33, T11N, R12E			SEC. 9, T14N, R13E		SEC. 29, T15N, R13E	
OWNER.....	KINGWOOD OIL CO.			DILCO OIL & GAS PROPERTIES		J. J. HULL, JR.	
COMPLETED.....	01/-/720			04/06/83		04/08/84	
SAMPLED.....	06/08/20			05/16/85		05/29/85	
FORMATION.....	PENN---			PENN-BOOCH		PENN-DUTCHER	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	940			1558		1945	
WELLHEAD PRESSURE, PSIG.....	250			400		300	
OPEN FLOW, MCFD.....	829			118		425	
COMPONENT, MOLE PCT							
METHANE.....	93.3	---	---	89.6	---	70.8	---
ETHANE.....	4.5	---	---	3.9	---	12.2	---
PROpane.....	---	---	---	1.2	---	7.9	---
N-BUTANE.....	---	---	---	0.3	---	2.6	---
ISOBUTANE.....	---	---	---	0.1	---	0.9	---
N-PENTANE.....	---	---	---	0.1	---	0.6	---
ISOPENTANE.....	---	---	---	TRACE	---	0.8	---
CYCLOPENTANE.....	---	---	---	TRACE	---	0.4	---
HEXANES PLUS.....	---	---	---	0.1	---	0.7	---
NITROGEN.....	1.8	---	---	4.9	---	3.2	---
OXYGEN.....	0.2	---	---	0.1	---	0.0	---
ARGON.....	---	---	---	TRACE	---	0.0	---
HYDROGEN.....	---	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	---	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.2	---	0.2	---
HELIUM.....	0.10	---	---	0.82	---	0.87	---
HEATING VALUE.....	1026	---	---	1357	---	1357	---
SPECIFIC GRAVITY.....	0.587	---	---	0.617	---	0.808	---
		INDEX SAMPLE	6598 17694	INDEX SAMPLE	6599 17289	INDEX SAMPLE	6600 348
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OKMULGEE			OKMULGEE		OKMULGEE	
FIELD.....	HAMILTON SWITCH			HASKELL		HENRYETTA DISTRICT	
WELL NAME.....	ELIZABETH NO. 2			ELIZABETH NO. 2		PINE NO. 2	
LOCATION.....	SEC. 33, T15N, R13E			SEC. 23, T16N, R14E		SEC. 33, T12N, R12E	
OWNER.....	J. J. HULL, JR.			U.T.C. ENERGY RESOURCES, INC		W. B. PINE	
COMPLETED.....	05/29/80			03/17/83		05/-/80	
SAMPLED.....	05/29/80			05/10/83		06/07/20	
FORMATION.....	PENN-DUTCHER			PENN-DUTCHER		PENN---	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1940			1815		2210	
WELLHEAD PRESSURE, PSIG.....	275			520		600	
OPEN FLOW, MCFD.....	330			3500		500	
COMPONENT, MOLE PCT							
METHANE.....	58.6	---	---	70.4	---	74.1	---
ETHANE.....	12.5	---	---	12.5	---	18.4	---
PROpane.....	14.4	---	---	7.9	---	---	---
N-BUTANE.....	1.4	---	---	0.9	---	---	---
ISOBUTANE.....	2.2	---	---	0.4	---	---	---
N-PENTANE.....	1.0	---	---	0.3	---	---	---
ISOPENTANE.....	1.9	---	---	0.4	---	---	---
CYCLOPENTANE.....	0.5	---	---	0.3	---	---	---
HEXANES PLUS.....	1.2	---	---	0.4	---	---	---
NITROGEN.....	2.5	---	---	0.5	---	2.6	---
OXYGEN.....	0.0	---	---	0.1	---	0.6	---
ARGON.....	0.0	---	---	0.0	---	---	---
HYDROGEN.....	0.0	---	---	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	---	---
CARBON DIOXIDE.....	0.2	---	---	0.2	---	TRACE	---
HELIUM.....	0.03	---	---	0.10	---	0.14	---
HEATING VALUE.....	1175	---	---	1121	---	1121	---
SPECIFIC GRAVITY.....	0.980	---	---	0.783	---	0.658	---

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6601 330			INDEX SAMPLE	6602 17209			INDEX SAMPLE	6603 1034
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	OKMULGEE			OKMULGEE				OKMULGEE			
FIELD.....	HENRYETTA S			HOFFMAN				MARTIN			
WELL NAME.....	RHODA BEAM NO. 1			GREEN NO. 1				WEBSTER NO. 2			
LOCATION.....	SEC. 34, T11N, R12E			SEC. 20, T12N, R14E				SEC. 33, T13N, R12E			
OWNER.....	KINGWOOD OIL CO.			BAILEY PETROLEUM CORP.				EAGLE LEADER LEAD CO.			
COMPLETED.....	01/-/720			08/15/83				03/12/25			
SAMPLED.....	06/08/20			03/-/784				04/23/25			
FORMATION.....	PENN--			PENN--CROWELL				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	355			355				355			
DEPTH, FEET.....	900			2162				745			
WELLHEAD PRESSURE, PSIG.....	395			167				250			
OPEN FLOW, MCFD.....	106			572				2000			
COMPONENT, MOLE PCT											
METHANE.....	79.8			83.7				90.7			
ETHANE.....	16.7			8.9				2.4			
PROPANE.....	---			3.3				---			
N-BUTANE.....	---			0.9				---			
ISOBUTANE.....	---			0.4				---			
N-PENTANE.....	---			0.3				---			
ISOPENTANE.....	---			0.1				---			
CYCLOPENTANE.....	---			0.2				---			
HEXANES PLUS.....	---			0.2				---			
NITROGEN.....	3.3			1.8				6.5			
OXYGEN.....	0.0			TRACE				0.3			
ARGON.....	---			TRACE				---			
HYDROGEN.....	---			0.0				---			
HYDROGEN SULFIDE.....	---			0.0				---			
CARBON DIOXIDE.....	0.0			0.0				0.3			
HELIUM.....	0.11			0.09				0.10			
HEATING VALUE.....	1108			1168				962			
SPECIFIC GRAVITY.....	0.650			0.676				0.599			
		INDEX SAMPLE	6604 327			INDEX SAMPLE	6605 16443			INDEX SAMPLE	6606 14861
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	OKMULGEE			OKMULGEE				OKMULGEE			
FIELD.....	DISTRICT			DISTRICT				POLYANNA			
WELL NAME.....	DWYER NO. 1			DETHROW NO. 1-10				LEE ESTATE NO. 3			
LOCATION.....	SEC. 32, T13N, R13E			SEC. 10, T13N, R13E				SEC. 11, T13N, R11E			
OWNER.....	LVO CORP.			OWS OIL & GAS CORP.				MCADAMS PIPE AND SUPPLY CO.			
COMPLETED.....	10/-/714			10/-/781				08/12/76			
SAMPLED.....	06/05/20			02/23/82				11/22/76			
FORMATION.....	PENN-1430 FT SAND			PENN-DUTCHER				PENN-DUTCHER			
GEOLOGIC PROVINCE CODE.....	355			355				355			
DEPTH, FEET.....	1428			1918				2320			
WELLHEAD PRESSURE, PSIG.....	120			800				750			
OPEN FLOW, MCFD.....	1532			3200				12500			
COMPONENT, MOLE PCT											
METHANE.....	74.2			84.0				78.1			
ETHANE.....	22.1			6.3				6.3			
PROPANE.....	---			3.3				2.9			
N-BUTANE.....	---			1.1				0.3			
ISOBUTANE.....	---			0.4				0.4			
N-PENTANE.....	---			0.4				TRACE			
ISOPENTANE.....	---			0.3				0.2			
CYCLOPENTANE.....	---			0.1				0.1			
HEXANES PLUS.....	---			0.3				0.1			
NITROGEN.....	1.9			3.3				9.8			
OXYGEN.....	0.5			TRACE				1.1			
ARGON.....	---			TRACE				0.1			
HYDROGEN.....	---			0.0				0.0			
HYDROGEN SULFIDE.....	---			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.0				0.8			
HELIUM.....	0.10			0.10				0.09			
HEATING VALUE.....	1148			1156				1020			
SPECIFIC GRAVITY.....	0.686			0.679				0.690			
		INDEX SAMPLE	6607 9747			INDEX SAMPLE	6608 11270			INDEX SAMPLE	6609 13590
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	OSAGE			OSAGE				OSAGE			
FIELD.....	ATLANTIC			AVANT				AVANT W			
WELL NAME.....	A. G. OLIPHANT NO. 8 WS			OSAGE 11569 NO. 3				STUART ESTATE NO. 10-A			
LOCATION.....	SEC. 19, T25N, R8E			SEC. 2, T23N, R11E				SEC. 7, T23N, R11E			
OWNER.....	TEXACO INC.			W. C. MCBRIDE, INC.				DYCO PETROLEUM CORP.			
COMPLETED.....	02/14/56			02/06/68				01/18/73			
SAMPLED.....	02/19/65			02/06/68				04/25/73			
FORMATION.....	PENN-PERU & BIG LIME			PENN-CLEVELAND				ORDO-SIMPSON			
GEOLOGIC PROVINCE CODE.....	355			355				355			
DEPTH, FEET.....	1938			936				2084			
WELLHEAD PRESSURE, PSIG.....	100			315				680			
OPEN FLOW, MCFD.....	1508			229				1700			
COMPONENT, MOLE PCT											
METHANE.....	82.0			93.4				88.3			
ETHANE.....	4.3			0.4				0.5			
PROPANE.....	0.6			0.9				TRACE			
N-BUTANE.....	TRACE			0.6				0.0			
ISOBUTANE.....	0.3			0.2				0.0			
N-PENTANE.....	0.1			0.2				0.0			
ISOPENTANE.....	0.1			0.1				0.0			
CYCLOPENTANE.....	TRACE			TRACE				0.0			
HEXANES PLUS.....	0.1			0.1				0.0			
NITROGEN.....	9.9			3.6				8.8			
OXYGEN.....	TRACE			0.0				0.0			
ARGON.....	TRACE			TRACE				0.1			
HYDROGEN.....	0.0			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	2.3			0.3				1.9			
HELIUM.....	0.49			0.06				0.31			
HEATING VALUE.....	947			1022				904			
SPECIFIC GRAVITY.....	0.654			0.603				0.611			
		INDEX SAMPLE	6610 13592			INDEX SAMPLE	6611 13593			INDEX SAMPLE	6612 28
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	OSAGE			OSAGE				OSAGE			
FIELD.....	AVANT W			AVANT W				BARNSDALL			
WELL NAME.....	OSAGE NO. 1-8			OSAGE NO. 1-8				NOT GIVEN			
LOCATION.....	SEC. 36, T23N, R11E			SEC. 36, T23N, R11E				SEC. 33, T22N, R10E			
OWNER.....	DYCO PETROLEUM CORP.			DYCO PETROLEUM CORP.				NOT GIVEN			
COMPLETED.....	02/18/77			02/18/77				-/-/00			
SAMPLED.....	05/03/73			05/03/73				-/-/00			
FORMATION.....	PENN-BURGESS			ORDO-SIMPSON				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	355			355				355			
DEPTH, FEET.....	1868			2132				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	620			720				NOT GIVEN			
OPEN FLOW, MCFD.....	1600			2000				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	88.8			84.9				77.2			
ETHANE.....	2.8			1.9				9.3			
PROPANE.....	1.5			TRACE				---			
N-BUTANE.....	0.5			0.2				---			
ISOBUTANE.....	0.1			0.0				---			
N-PENTANE.....	0.1			0.1				---			
ISOPENTANE.....	0.1			TRACE				---			
CYCLOPENTANE.....	TRACE			TRACE				---			
HEXANES PLUS.....	0.1			TRACE				---			
NITROGEN.....	12.0			12.0				12.6			
OXYGEN.....	0.0			0.0				0.1			
ARGON.....	TRACE			TRACE				---			
HYDROGEN.....	0.0			0.0				---			
HYDROGEN SULFIDE.....	0.0			0.0				---			
CARBON DIOXIDE.....	0.5			0.3				0.8			
HELIUM.....	0.53			0.29				0.22			
HEATING VALUE.....	1028			910				949			
SPECIFIC GRAVITY.....	0.627			0.621				0.661			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6613 7718	INDEX SAMPLE	6614 3325	INDEX SAMPLE	6615 103
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	OSAGE			OSAGE		OSAGE	
FIELD	BIG BEND N.			BIRCH CREEK S		BOULANGER	
WELL NAME	DAVIS NO. 2			OSAGE WELL 469		NO. 60	
LOCATION	SEC. 8, T25N, R3E			SEC. 4, T23N, R10E		SEC. 5, T27N, R10E	
OWNER	CHARLES W. OLIPHANT			CITIES SERVICE OIL CO.		AMERICAN PIPELINE CO.	
COMPLETED	10/10/60			12/27/39		10/-/19	
SAMPLED	10/01/60			--/--/00		02/11/20	
FORMATION	MISS-CHAT			MISS-		MISS-	
GEOLOGIC PROVINCE CODE	355			355		355	
DEPTH, FEET	3776			2098		1700	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			396		600	
OPEN FLOW, MCFD	NOT GIVEN			2310		4000	
COMPONENT, MOLE PCT							
METHANE	75.2			60.5		86.0	
ETHANE	9.1			22.3		7.3	
PROPANE	3.6			---		---	
N-BUTANE	0.9			---		---	
ISOBUTANE	0.5			---		---	
N-PENTANE	0.2			---		---	
ISOPENTANE	0.1			---		---	
CYCLOPENTANE	TRACE			---		---	
HEXANES PLUS	0.1			---		---	
NITROGEN	9.6			16.0		5.9	
OXYGEN	0.2			0.5		0.1	
ARGON	TRACE			---		---	
HYDROGEN	0.0			---		---	
HYDROGEN SULFIDE	0.0			---		---	
CARBON DIOXIDE	0.4			0.3		0.5	
HELIUM	0.10			0.27		0.19	
HEATING VALUE	1083			1014		1002	
SPECIFIC GRAVITY	0.709			0.735		0.619	
		INDEX SAMPLE	6616 3793	INDEX SAMPLE	6617 96	INDEX SAMPLE	6618 14821
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	OSAGE			OSAGE		OSAGE	
FIELD	BULLDOG DISTRICT N			BURBANK		CANDY CREEK	
WELL NAME	OSAGE GAS LEASE NO. 485			NO. 1		OAKLAND NO. 1A-4	
LOCATION	SEC. 16, T24N, R9E			SEC. 36, T27N, R5E		SEC. 4, T24N, R12E	
OWNER	CITIES SERVICE OIL CO.			KAY COUNTY GAS CO.		HELMERICH & PAYNE, INC.	
COMPLETED	11/2/42			08/-/19		03/18/76	
SAMPLED	04/14/44			02/07/20		10/28/76	
FORMATION	PENN-BURGESS			PENN-OSWEGO		MISS-CHAT	
GEOLOGIC PROVINCE CODE	355			355		355	
DEPTH, FEET	2256			1800		1720	
WELLHEAD PRESSURE, PSIG	350			550		625	
OPEN FLOW, MCFD	5000			3121		423	
COMPONENT, MOLE PCT							
METHANE	41.3			52.7		94.5	
ETHANE	43.6			25.6		1.5	
PROPANE	---			---		0.7	
N-BUTANE	---			---		0.4	
ISOBUTANE	---			---		0.2	
N-PENTANE	---			---		0.1	
ISOPENTANE	---			---		0.1	
CYCLOPENTANE	---			---		TRACE	
HEXANES PLUS	---			---		0.1	
NITROGEN	13.9			20.2		1.8	
OXYGEN	0.4			0.2		0.0	
ARGON	---			---		TRACE	
HYDROGEN	---			---		0.2	
HYDROGEN SULFIDE	---			---		0.0	
CARBON DIOXIDE	0.6			0.0		0.4	
HELIUM	0.15			0.45		0.03	
HEATING VALUE	1200			1011		1037	
SPECIFIC GRAVITY	0.835			0.769		0.595	
		INDEX SAMPLE	6619 15005	INDEX SAMPLE	6620 111	INDEX SAMPLE	6621 112
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	OSAGE			OSAGE		OSAGE	
FIELD	DOGA			DOMES-POND CREEK		DOMES-POND CREEK	
WELL NAME	TATE NO. 2120			NO. 186		NO. 193	
LOCATION	SEC. 17, T24N, R4E			SEC. 15, T29N, R10E		SEC. 15, T29N, R10E	
OWNER	CEJA CORP.			INDIAN TERR. ILLUM. OIL CO.		INDIAN TERR. ILLUM. OIL CO.	
COMPLETED	--/--/00			--/--/16		--/--/16	
SAMPLED	05/12/77			02/16/20		02/16/20	
FORMATION	MISS-CHAT			PENN-		PENN-	
GEOLOGIC PROVINCE CODE	355			355		355	
DEPTH, FEET	3415			1758		1834	
WELLHEAD PRESSURE, PSIG	1300			290		375	
OPEN FLOW, MCFD	NOT GIVEN			7000		787	
COMPONENT, MOLE PCT							
METHANE	66.3			95.1		92.7	
ETHANE	8.3			0.6		1.8	
PROPANE	3.9			---		---	
N-BUTANE	1.2			---		---	
ISOBUTANE	0.3			---		---	
N-PENTANE	0.3			---		---	
ISOPENTANE	0.1			---		---	
CYCLOPENTANE	0.1			---		---	
HEXANES PLUS	0.1			---		---	
NITROGEN	18.4			2.5		3.6	
OXYGEN	0.0			0.6		0.6	
ARGON	TRACE			---		---	
HYDROGEN	0.0			---		---	
HYDROGEN SULFIDE	0.0			---		---	
CARBON DIOXIDE	0.4			0.9		0.6	
HELIUM	0.33			0.33		0.67	
HEATING VALUE	1007			974		971	
SPECIFIC GRAVITY	0.751			0.579		0.584	
		INDEX SAMPLE	6622 1273	INDEX SAMPLE	6623 1299	INDEX SAMPLE	6624 3331
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	OSAGE			OSAGE		OSAGE	
FIELD	DOMES-POND CREEK			DOMES-POND CREEK		DOMES-POND CREEK	
WELL NAME	NO. 284			DALLAS - NO. 250		OSAGE NO. 73	
LOCATION	SEC. 5, T26N, R12E			SEC. 18, T27N, R11E		SEC. 5, T27N, R10E	
OWNER	INDIAN TERR. ILLUM. OIL CO.			INDIAN TERR. ILLUM. OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED	--/--/00			--/--/00		11/10/20	
SAMPLED	05/31/26			09/17/25		04/24/42	
FORMATION	NOT GIVEN			NOT GIVEN		MISS-	
GEOLOGIC PROVINCE CODE	355			355		355	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		1730	
WELLHEAD PRESSURE, PSIG	607			800		242	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		470	
COMPONENT, MOLE PCT							
METHANE	94.2			74.8		80.6	
ETHANE	1.2			2.4		13.0	
PROPANE	---			---		---	
N-BUTANE	---			---		---	
ISOBUTANE	---			---		---	
N-PENTANE	---			---		---	
ISOPENTANE	---			---		---	
CYCLOPENTANE	---			---		---	
HEXANES PLUS	---			---		---	
NITROGEN	1.3			18.8		4.7	
OXYGEN	0.5			2.0		0.4	
ARGON	---			---		---	
HYDROGEN	---			---		---	
HYDROGEN SULFIDE	---			---		---	
CARBON DIOXIDE	2.8			1.3		1.0	
HELIUM	0.03			0.70		0.28	
HEATING VALUE	976			801		1049	
SPECIFIC GRAVITY	0.596			0.665		0.649	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6625 3403	INDEX SAMPLE	6626 11902	INDEX SAMPLE	6627 14159
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OSAGE			OSAGE		OSAGE	
FIELD.....	DOMES-POND CREEK			DOMES-POND CREEK		DOMES-POND CREEK	
WELL NAME.....	OSAGE NO. 89			WELT NO. 1-C		FRIEND NO. E-2	
LOCATION.....	SEC. 30, T28N, R10E			SEC. 33, T26N, R11E		SEC. 17, T27N, R11E	
OWNER.....	CITIES SERVICE OIL CO.			BRR OIL CORP.		PRODUCERS OIL CO.	
COMPLETED.....	12/18/73			04/22/69		05/28/74	
SAMPLED.....	04/28/42			06/02/69		09/30/74	
FORMATION.....	MISS-CHAT			MISS-CHAT		MISS-CHAT	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1959			1840		1900	
WELLHEAD PRESSURE, PSIG.....	275			630		280	
OPEN FLOW, MCFD.....	161			2400		50000	
COMPONENT, MOLE PCT							
METHANE.....	91.1	-----		96.3	-----	85.6	-----
ETHANE.....	1.7	-----		0.4	-----	4.6	-----
PROPANE.....	---	-----		TRACE	-----	1.5	-----
N-BUTANE.....	---	-----		0.0	-----	0.6	-----
ISOBUTANE.....	---	-----		0.0	-----	0.4	-----
N-PENTANE.....	---	-----		0.0	-----	0.2	-----
ISOPENTANE.....	---	-----		0.0	-----	0.3	-----
CYCLOPENTANE.....	---	-----		0.0	-----	0.1	-----
HEXANES PLUS.....	---	-----		0.0	-----	0.1	-----
NITROGEN.....	5.0	-----		1.0	-----	2.0	-----
OXYGEN.....	0.6	-----		0.0	-----	0.0	-----
ARGON.....	---	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	---	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	1.2	-----		2.1	-----	4.6	-----
HELIUM.....	0.37	-----		0.03	-----	0.04	-----
HEATING VALUE.....	953	-----		983	-----	1052	-----
SPECIFIC GRAVITY.....	0.597	-----		0.580	-----	0.674	-----
		INDEX SAMPLE	6628 14862	INDEX SAMPLE	6629 14396	INDEX SAMPLE	6630 17230
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OSAGE			OSAGE		OSAGE	
FIELD.....	DRUM CREEK			KEYSTONE E		LABADIE LEASE	
WELL NAME.....	HADDEN NO. 2			REC-CH NO. 1		LABADIE NO. 1	
LOCATION.....	SEC. 1, T25N, R4E			SEC. 2, T20N, R10E		SEC. 31, T27N, R11E	
OWNER.....	INTERMOUNTAIN PETROLEUM CO.			KEWANEEO OIL CO.		T.P.E.X. EXPLORATION, INC.	
COMPLETED.....	11/-/76			04/29/79		01/09/81	
SAMPLED.....	11/7/76			06/20/75		03/29/84	
FORMATION.....	MISS-CHAT			PENN-TUCKER		MISS-CHAT	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	3433			2324		1866	
WELLHEAD PRESSURE, PSIG.....	1140			850		200	
OPEN FLOW, MCFD.....	260000			12300		100	
COMPONENT, MOLE PCT							
METHANE.....	66.9	-----		76.1	-----	86.5	-----
ETHANE.....	8.4	-----		6.7	-----	0.7	-----
PROPANE.....	3.4	-----		3.6	-----	TRACE	-----
N-BUTANE.....	0.0	-----		0.8	-----	TRACE	-----
ISOBUTANE.....	0.5	-----		0.4	-----	TRACE	-----
N-PENTANE.....	0.3	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	0.2	-----		---	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.1	-----
NITROGEN.....	18.3	-----		11.2	-----	7.0	-----
OXYGEN.....	0.0	-----		0.2	-----	1.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		TRACE	-----	4.0	-----
HELIUM.....	0.31	-----		0.08	-----	0.09	-----
HEATING VALUE.....	1002	-----		1038	-----	902	-----
SPECIFIC GRAVITY.....	0.747	-----		0.698	-----	0.637	-----
		INDEX SAMPLE	6631 1705	INDEX SAMPLE	6632 1706	INDEX SAMPLE	6633 17231
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	MANION			MANION		OSAGE	
FIELD.....	NO. 393			NO. 393-BRADEN HEAD		MISSION CREEK LEASE	
WELL NAME.....	NO. 393			SEC. 29, T23N, R9E		MISSION CREEK NO. 1	
LOCATION.....	SEC. 29, T23N, R9E			INDIAN TERR. ILLUM. OIL CO.		SEC. 26, T28N, R11E	
OWNER.....	INDIAN TERR. ILLUM. OIL CO.			---		T.P.E.X. EXPLORATION, INC.	
COMPLETED.....	--/--/28			--/--/28		11/18/83	
SAMPLED.....	11/13/28			11/14/28		03/29/84	
FORMATION.....	NOT GIVEN			NOT GIVEN		MISS-CHAT	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1000			600		1880	
WELLHEAD PRESSURE, PSIG.....	300			115		600	
OPEN FLOW, MCFD.....	1000			800		600	
COMPONENT, MOLE PCT							
METHANE.....	94.6	-----		88.6	-----	91.3	-----
ETHANE.....	2.6	-----		---	-----	1.3	-----
PROPANE.....	---	-----		---	-----	0.1	-----
N-BUTANE.....	---	-----		---	-----	0.2	-----
ISOBUTANE.....	---	-----		---	-----	0.1	-----
N-PENTANE.....	---	-----		---	-----	0.1	-----
ISOPENTANE.....	---	-----		---	-----	0.1	-----
CYCLOPENTANE.....	---	-----		---	-----	TRACE	-----
HEXANES PLUS.....	---	-----		---	-----	0.1	-----
NITROGEN.....	2.0	-----		7.2	-----	4.6	-----
OXYGEN.....	0.3	-----		0.5	-----	TRACE	-----
ARGON.....	---	-----		---	-----	TRACE	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	---	-----		0.2	-----	1.6	-----
HELIUM.....	0.15	-----		0.27	-----	0.3	-----
HEATING VALUE.....	1005	-----		957	-----	977	-----
SPECIFIC GRAVITY.....	0.581	-----		0.604	-----	0.606	-----
		INDEX SAMPLE	6634 127	INDEX SAMPLE	6635 14307	INDEX SAMPLE	6636 126
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OSAGE			OSAGE		OSAGE	
FIELD.....	MYERS NE			MYERS NE		MYERS NE	
WELL NAME.....	NO. 2			LEBSACK NO. 1-G		NO. 50	
LOCATION.....	SEC. 12, T26N, R8E			SEC. 11, T26N, R8E		SEC. 31, T27N, R9E	
OWNER.....	AMERICAN PIPELINE CO.			SERVICE DRILLING CO.		AMERICAN PIPELINE CO.	
COMPLETED.....	06/-/16			11/15/74		05/-/18	
SAMPLED.....	03/03/20			03/-/75		03/03/20	
FORMATION.....	PENN-BURGESS			PENN-BURGESS		PENN-	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	560			2500		1228	
WELLHEAD PRESSURE, PSIG.....	70			780		185	
OPEN FLOW, MCFD.....	15			4000		330	
COMPONENT, MOLE PCT							
METHANE.....	84.1	-----		78.9	-----	86.3	-----
ETHANE.....	0.0	-----		3.3	-----	0.0	-----
PROPANE.....	---	-----		0.8	-----	---	-----
N-BUTANE.....	---	-----		0.5	-----	---	-----
ISOBUTANE.....	---	-----		0.3	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	15.4	-----		8.7	-----	12.7	-----
OXYGEN.....	0.0	-----		0.0	-----	0.3	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.0	-----		0.3	-----	0.3	-----
HELIUM.....	0.43	-----		0.56	-----	0.46	-----
HEATING VALUE.....	852	-----		1067	-----	874	-----
SPECIFIC GRAVITY.....	0.616	-----		0.686	-----	0.610	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6637 1566	INDEX SAMPLE	6638 3399	INDEX SAMPLE	6639 3401
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OSAGE			OSAGE		OSAGE	
FIELD.....	NAVAL RESERVE			NAVAL RESERVE		NAVAL RESERVE	
WELL NAME.....	KAY CO. NO. 2			NO. 10 C		NO. 11-D	
LOCATION.....	SEC. 22, T24N, R7E			SEC. 22, T24N, R7E		SEC. 23, T24N, R7E	
OWNER.....	KAY COUNTY GAS CO.			KAY COUNTY GAS CO.		KAY COUNTY GAS CO.	
COMPLETED.....	--/--/00			04/13/40		02/20/42	
SAMPLED.....	01/11/28			04/30/42		04/30/42	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1140			2585		2568	
WELLHEAD PRESSURE, PSIG.....	387			940		900	
OPEN FLOW, MCFD.....	21000			1500		2250	
COMPONENT, MOLE PCT.....							
METHANE.....	49.8	-----		57.6	-----	57.1	-----
ETHANE.....	2.3	-----		17.3	-----	19.4	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	47.0	-----		24.1	-----	22.4	-----
OXYGEN.....	0.3	-----		0.3	-----	0.4	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		0.3	-----	0.3	-----
HELIUM.....	0.42	-----		0.35	-----	0.39	-----
HEATING VALUE.....	546	-----		894	-----	926	-----
SPECIFIC GRAVITY.....	0.762	-----		0.742	-----	0.746	-----
		INDEX SAMPLE	6640 11788	INDEX SAMPLE	6641 1309	INDEX SAMPLE	6642 105
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OSAGE			OSAGE		OSAGE	
FIELD.....	OSAGE CITY DISTRICT E			OSAGE-HOMINY DISTRICT		PAWHUSKA	
WELL NAME.....	OTTO HAMILTON NO. 4			NOT GIVEN		NO. 51	
LOCATION.....	SEC. 4, T21N, R9E			SEC. 32, T24N, R8E		SEC. 23, T26N, R9E	
OWNER.....	JOHN T. SANFORD			INDIAN TERR. ILLUM. OIL CO.		AMERICAN PIPELINE CO.	
COMPLETED.....	12/18/69			--/--/24		08/--/19	
SAMPLED.....	02/27/69			09/24/26		02/11/20	
FORMATION.....	PENN-BARTLESVILLE			NOT GIVEN		PENN-BARTLESVILLE	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2220			756		2100	
WELLHEAD PRESSURE, PSIG.....	600			145		740	
OPEN FLOW, MCFD.....	1050			300		5250	
COMPONENT, MOLE PCT.....							
METHANE.....	65.4	-----		55.5	-----	12.1	-----
ETHANE.....	8.5	-----		4.7	-----	81.1	-----
PROpane.....	5.2	-----		---	-----	---	-----
N-BUTANE.....	1.2	-----		---	-----	---	-----
ISOBUTANE.....	0.8	-----		---	-----	---	-----
N-PENTANE.....	0.5	-----		---	-----	---	-----
ISOPENTANE.....	0.1	-----		---	-----	---	-----
CYCLOPENTANE.....	0.2	-----		---	-----	---	-----
HEXANES PLUS.....	0.3	-----		---	-----	---	-----
NITROGEN.....	17.5	-----		38.7	-----	5.1	-----
OXYGEN.....	0.0	-----		0.5	-----	1.1	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----	0.3	-----
HELIUM.....	0.16	-----		0.36	-----	0.09	-----
HEATING VALUE.....	1066	-----		646	-----	1576	-----
SPECIFIC GRAVITY.....	0.775	-----		0.740	-----	0.984	-----
		INDEX SAMPLE	6643 107	INDEX SAMPLE	6644 4442	INDEX SAMPLE	6645 13600
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OSAGE			PAWHUSKA		PAWHUSKA	
FIELD.....	PAWHUSKA			PAWHUSKA NE		PAWHUSKA NE	
WELL NAME.....	NO. 25			OSAGE NO. 509		LOOKOUT 443A	
LOCATION.....	SEC. 15, T24N, R8E			SEC. 36, T26N, R9E		SEC. 36, T26N, R9E	
OWNER.....	PAWHUSKA OIL & GAS CO.			CITIES SERVICE OIL CO.		WACHMAN-SCHROEDER, ET AL.	
COMPLETED.....	--/--/18			11/20/47		--/--/00	
SAMPLED.....	02/13/20			01/12/48		05/21/73	
FORMATION.....	PENN-OSMEO			PENN-LAYTON		MISS-CHAT	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	1933			1074		1991	
WELLHEAD PRESSURE, PSIG.....	790			395		705	
OPEN FLOW, MCFD.....	12500			1900		2738	
COMPONENT, MOLE PCT.....							
METHANE.....	87.0	-----		85.5	-----	88.9	-----
ETHANE.....	6.5	-----		2.4	-----	5.7	-----
PROpane.....	---	-----		---	-----	1.6	-----
N-BUTANE.....	---	-----		---	-----	0.4	-----
ISOBUTANE.....	---	-----		---	-----	0.4	-----
N-PENTANE.....	---	-----		---	-----	0.1	-----
ISOPENTANE.....	---	-----		---	-----	0.1	-----
CYCLOPENTANE.....	---	-----		---	-----	TRACE	-----
HEXANES PLUS.....	---	-----		---	-----	0.1	-----
NITROGEN.....	5.1	-----		11.5	-----	2.5	-----
OXYGEN.....	0.8	-----		0.2	-----	0.0	-----
ARGON.....	---	-----		---	-----	TRACE	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.2	-----	2.1	-----
HELIUM.....	0.09	-----		0.22	-----	1.08	-----
HEATING VALUE.....	998	-----		909	-----	1049	-----
SPECIFIC GRAVITY.....	0.616	-----		0.616	-----	0.638	-----
		INDEX SAMPLE	6646 3875	INDEX SAMPLE	6647 81	INDEX SAMPLE	6648 128
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	OSAGE			PEARSONIA		PEARSONIA	
FIELD.....	PARSON SE			PEARSONIA		PEARSONIA	
WELL NAME.....	JOSEPHINE KIPP NO. 146			SEC. 20, T27N, R8E		SEC. 20, T27N, R8E	
LOCATION.....	SEC. 17, T22N, R8E			AMERICAN PIPELINE CO.		AMERICAN PIPELINE CO.	
OWNER.....	OKLAHOMA POWER & WATER CO.						
COMPLETED.....	02/17/43			02/06/20		01/--/18	
SAMPLED.....	08/24/44					03/05/20	
FORMATION.....	PENN-SKINNER			PENN-		PENN-	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	2304			806		951	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			195		200	
OPEN FLOW, MCFD.....	450			200		171	
COMPONENT, MOLE PCT.....							
METHANE.....	72.8	-----		58.1	-----	78.5	-----
ETHANE.....	20.7	-----		0.0	-----	0.0	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	12.8	-----		39.0	-----	19.3	-----
OXYGEN.....	0.1	-----		2.0	-----	1.5	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.5	-----		0.2	-----	0.1	-----
HELIUM.....	0.08	-----		0.62	-----	0.50	-----
HEATING VALUE.....	1108	-----		718	-----	795	-----
SPECIFIC GRAVITY.....	0.686	-----		0.725	-----	0.641	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6649 SAMPLE 131			INDEX 6650 SAMPLE 136			INDEX 6651 SAMPLE 13625		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OSAGE		OSAGE			OSAGE		
FIELD.....	PEARSONIA		PEARSONIA E			WHITE TAIL		
WELL NAME.....	NO. 26		NO. 53			BIGHEART NO. 1 A		
LOCATION.....	SEC. 17, T27N, R8E		SEC. 22, T27N, R8E			SEC. 4, T27N, R10E		
OWNER.....	AMERICAN PIPELINE CO.		AMERICAN PIPELINE CO.			WACHMAN-SCHROEDER		
COMPLETED.....	03/-/17		06/-/18			-/-/00		
SAMPLED.....	03/05/20		03/06/20			06/10/73		
FORMATION.....	PENN-		PENN-			MISS-CHAT		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	915		1444			1648		
WELLHEAD PRESSURE, PSIG.....	20		150			NOT GIVEN		
OPEN FLOW, MCFD.....	375		720			1700		
COMPONENT, MOLE PCT								
METHANE.....	61.8		71.9			82.6		
ETHANE.....	0.0		0.0			4.1		
PROPANE.....	---		---			2.0		
N-BUTANE.....	---		---			0.6		
ISOBUTANE.....	---		---			0.4		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.2		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.2		
NITROGEN.....	36.3		27.2			8.2		
OXYGEN.....	1.2		0.2			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE**.....	---		---			0.0		
CARBON DIOXIDE.....	0.0		0.0			1.0		
HELIUM.....	0.62		0.55			0.38		
HEATING VALUE.....	626		728			1023		
SPECIFIC GRAVITY.....	0.708		0.665			0.664		
INDEX 6652 SAMPLE 108			INDEX 6653 SAMPLE 3783			INDEX 6654 SAMPLE 1084		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	OSAGE		OSAGE			PAWNEE		
FIELD.....	LYNOMA		LYNOMA			HALLETT		
WELL NAME.....	NO. 244		OSAGE GAS LEASE NO. 482			GILLESPIE NO. 1		
LOCATION.....	SEC. 32, T24N, R9E		SEC. 15, T24N, R9E			SEC. 9, T20N, R7E		
OWNER.....	INDIAN TERR. ILLUM. OIL CO.		CITIES SERVICE OIL CO.			SUPERIOR OIL CO.		
COMPLETED.....	02/-/19		12/16/41			03/-/25		
SAMPLED.....	02/13/20		04/14/44			06/30/25		
FORMATION.....	PENN-BARTLESVILLE		MISS-LIME			PENN-SKINNER		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	2153		2224			2580		
WELLHEAD PRESSURE, PSIG.....	840		770			NOT GIVEN		
OPEN FLOW, MCFD.....	12500		630			7500		
COMPONENT, MOLE PCT								
METHANE.....	68.3		55.4			58.2		
ETHANE.....	9.2		17.6			25.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	17.7		25.7			15.3		
OXYGEN.....	4.0		0.6			0.5		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.7		0.2			0.2		
HELIUM.....	0.08		0.45			0.11		
HEATING VALUE.....	857		877			1052		
SPECIFIC GRAVITY.....	0.701		0.751			0.750		
INDEX 6655 SAMPLE 964			INDEX 6656 SAMPLE 17027			INDEX 6657 SAMPLE 1004		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	MARAMEC		MARAMEC			MASHAN		
WELL NAME.....	NO. 3		OKLAHOMA STATE "H" NO. 1			NO. 7		
LOCATION.....	SEC. 15, T20N, R6E		BARUCH-FOSTER CORP.			SEC. 22, T23N, R5E		
OWNER.....	PRAIRIE OIL & GAS CO.		09/24/82			J. L. DONAHOE		
COMPLETED.....	06/-/23		08/29/83			02/23/25		
SAMPLED.....	01/14/25		PENN-RED FORK			ORDO-WILCOX		
FORMATION.....	PENN---		355			355		
GEOLOGIC PROVINCE CODE.....	355		3023			3917		
DEPTH, FEET.....	3032		600			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	65		420			2000		
OPEN FLOW, MCFD.....	NOT GIVEN							
COMPONENT, MOLE PCT								
METHANE.....	65.8		67.5			3.8		
ETHANE.....	23.7		6.9			8.5		
PROPANE.....	---		1.3			---		
N-BUTANE.....	---		0.5			---		
ISOBUTANE.....	---		0.2			---		
N-PENTANE.....	---		0.1			---		
ISOPENTANE.....	---		0.1			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	9.8		0.0			86.2		
OXYGEN.....	0.3		0.0			0.6		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.3			0.1		
HELIUM.....	0.07		0.18			0.81		
HEATING VALUE.....	991		197			191		
SPECIFIC GRAVITY.....	0.716		0.752			0.953		
INDEX 6658 SAMPLE 3476			INDEX 6659 SAMPLE 3772			INDEX 6660 SAMPLE 4003		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	OSAGE CITY DISTRICT SE		RALSTON DISTRICT			WATCHORN E		
WELL NAME.....	CANBELY NO. 1		CANBELY NO. 1			CONN NO. 1		
LOCATION.....	SEC. 5, T20N, R9E		SEC. 2, T23N, R5E			SEC. 36, T23N, R3E		
OWNER.....	WOOD OIL CO.		ALADDIN PETROLEUM CORP.			KAY COUNTY GAS CO.		
COMPLETED.....	05/21/40		11/28/42			06/04/44		
SAMPLED.....	06/04/42		04/13/44			04/03/45		
FORMATION.....	PENN-GAS SAND		PENN-OSMEGO			PENN-STALNAKER		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	1794		2685			1807		
WELLHEAD PRESSURE, PSIG.....	265		900			710		
OPEN FLOW, MCFD.....	855		3000			4750		
COMPONENT, MOLE PCT								
METHANE.....	86.4		60.0			44.1		
ETHANE.....	8.2		23.9			19.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	4.2		15.4			36.2		
OXYGEN.....	0.5		0.4			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.6		0.1			0.0		
HELIUM.....	0.10		0.18			0.33		
HEATING VALUE.....	1022		786			787		
SPECIFIC GRAVITY.....	0.620		0.739			0.799		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6661 SAMPLE 14919			INDEX 6662 SAMPLE 1038			INDEX 6663 SAMPLE 3312		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PAWNEE		PAWNEE			PAWNEE		
FIELD.....	WATCHORN E		YALE			AVERY		
WELL NAME.....	DOYLE NO. 4		NO. 5			A. R. MEYERS NO. 2		
LOCATION.....	SEC. 36, T23N, R 3E		SEC. 22, T20N, R6E			SEC. 17, T17N, R6E		
OWNER.....	JAY PETROLEUM, INC.		WESTERLY OIL CO.			CAMAIL OIL CO. & E. T. MURRY		
COMPLETED.....	05/13/76		01/--/25			11/01/41		
SAMPLED.....	02/25/77		04/21/25			04/21/42		
FORMATION.....	PENN-OSWEGO		PENN-BARTLESVILLE			PENN-PERU		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3200		3040			2626		
WELLHEAD PRESSURE, PSIG.....	1380		570			NOT GIVEN		
OPEN FLOW, MCFD.....	1559		4125			2724		
COMPONENT, MOLE PCT								
METHANE.....	68.6		63.7			79.2		
ETHANE.....	7.3		24.5			17.8		
PROPANE.....	3.3		---			---		
N-BUTANE.....	0.9		---			---		
ISOBUTANE.....	0.3		---			---		
N-PENTANE.....	0.2		---			---		
ISOPENTANE.....	0.3		---			---		
CYCLOPENTANE.....	0.1		---			---		
HEXANES PLUS.....	0.2		---			---		
NITROGEN.....	18.4		10.5			2.5		
OXYGEN.....	0.0		0.6			0.3		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.7			0.1		
HELIUM.....	0.20		0.07			0.09		
HEATING VALUE.....	987		1084			1121		
SPECIFIC GRAVITY.....	0.735		0.729			0.655		

INDEX 6664 SAMPLE 3321			INDEX 6665 SAMPLE 17162			INDEX 6666 SAMPLE 17268		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PAYNE		PAYNE			PAYNE		
FIELD.....	BOYLES		BOYLES			BOYLES		
WELL NAME.....	BOYLES NO. 9		HOLDERREAD NO. 1			CIRCLE "T" RANCH NO. 2		
LOCATION.....	SEC. 26, T18N, R4E		SEC. 26, T18N, R4E			SEC. 26, T18N, R4E		
OWNER.....	MUL-BERRY OIL CO.		SUN EXPLORATION & PRODUCTION			EL DORADO DRILLING, INC.		
COMPLETED.....	11/04/41		03/16/42			08/06/43		
SAMPLED.....	04/21/42		01/25/84			04/20/84		
FORMATION.....	PENN-SKINNER		PENN-RED FORK			PENN-BARTLESVILLE		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3480		3537			3682		
WELLHEAD PRESSURE, PSIG.....	1260		700			180		
OPEN FLOW, MCFD.....	5343		1046			623		
COMPONENT, MOLE PCT								
METHANE.....	73.0		75.6			77.2		
ETHANE.....	18.5		8.0			10.3		
PROPANE.....	---		0.5			4.8		
N-BUTANE.....	---		1.5			1.5		
ISOBUTANE.....	---		0.7			0.6		
N-PENTANE.....	---		0.2			0.5		
ISOPENTANE.....	---		0.2			0.1		
CYCLOPENTANE.....	---		0.2			0.2		
HEXANES PLUS.....	---		0.3			0.4		
NITROGEN.....	7.8		8.3			4.3		
OXYGEN.....	0.5		TRACE			TRACE		
ARGON.....	---		0.0			0.0		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.13		0.09			0.07		
HEATING VALUE.....	1071		1153			1216		
SPECIFIC GRAVITY.....	0.682		0.733			0.729		

INDEX 6667 SAMPLE 4139			INDEX 6668 SAMPLE 16236			INDEX 6669 SAMPLE 4177		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PAYNE		PAYNE			PAYNE		
FIELD.....	GEORGIA		GOODNIGHT NE			HARMONY		
WELL NAME.....	STATE NO. 1		EDITT NO. 1			NANUMANN NO. 1		
LOCATION.....	SEC. 36, T18N, R4E		SEC. 17, T17N, R2E			SEC. 2, T17N, R5E		
OWNER.....	HOME GAS CO.		SANTA FE ENERGY CO.			MUL-BERRY OIL CO.		
COMPLETED.....	11/16/45		--/--/00			10/08/46		
SAMPLED.....	09/30/46		04/16/81			12/12/46		
FORMATION.....	PENN-BARTLESVILLE		ORDO-VIOLA			PENN-PRUE		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3689		4762			3050		
WELLHEAD PRESSURE, PSIG.....	1050		1600			NOT GIVEN		
OPEN FLOW, MCFD.....	6000		2743			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.6		77.6			71.9		
ETHANE.....	22.1		8.3			12.0		
PROPANE.....	---		4.1			---		
N-BUTANE.....	---		1.2			---		
ISOBUTANE.....	---		0.6			---		
N-PENTANE.....	---		0.4			---		
ISOPENTANE.....	---		0.3			---		
CYCLOPENTANE.....	---		0.2			---		
HEXANES PLUS.....	---		0.4			---		
NITROGEN.....	4.7		6.8			15.5		
OXYGEN.....	0.2		---			0.2		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		TRACE			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.3		0.0			0.2		
HELIUM.....	0.13		0.16			0.16		
HEATING VALUE.....	1131		1160			943		
SPECIFIC GRAVITY.....	0.687		0.719			0.680		

INDEX 6670 SAMPLE 396			INDEX 6671 SAMPLE 598			INDEX 6672 SAMPLE 3729		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	INGALLS		INGALLS			PAYNE		
FIELD.....	MAGNOLIA		NOT GIVEN			INGALLS		
WELL NAME.....	PET. CO. NO. 4		NOT GIVEN			MYATT NO. 1		
LOCATION.....	SEC. 38, T19N, R4E		SEC. 27, T19N, R4E			SEC. 125, T19N, R4E		
OWNER.....	MOBIL OIL CORP.		OKLAHOMA NATURAL GAS CO.			J. E. PROSBIE, INC.		
COMPLETED.....	--/--/00		--/--/00			11/16/43		
SAMPLED.....	05/--/21		07/--/21			03/23/44		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	NOT GIVEN		647			3732		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		180			NOT GIVEN		
OPEN FLOW, MCFD.....	13765		7500			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	45.4		45.3			24.0		
ETHANE.....	1.8		7.3			67.6		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	37.1		42.5			7.1		
OXYGEN.....	0.2		2.4			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
HELIUM.....	0.1		0.15			0.2		
CARBON DIOXIDE.....	0.30		0.15			0.70		
HEATING VALUE.....	761		572			1455		
SPECIFIC GRAVITY.....	0.791		0.806			0.918		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE 6673 3753		INDEX SAMPLE 6674 16458		INDEX SAMPLE 6675 963	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	PAYNE	COUNTY.....	PAYNE	COUNTY.....	PAYNE
FIELD.....	INGALLS N	FIELD.....	MEHAN	FIELD.....	NORFOLK
WELL NAME.....	STATE OF OKLA. TR. 15 NO. 1	WELL NAME.....	MCKENZIE NO. 8	WELL NAME.....	BALLARD-SKELLY
LOCATION.....	SEC. 16, T19N, R4E	LOCATION.....	SEC. 13, T18N, R3E	LOCATION.....	SEC. 32, T18, R5E
OWNER.....	STANOLIND OIL & GAS CO.	OWNER.....	EARTH ENERGY RESOURCES, INC.	OWNER.....	MUL-BERRY OIL CO.
COMPLETED.....	03/08/44	COMPLETED.....	11/20/80	COMPLETED.....	09/22/24
SAMPLED.....	03/25/44	SAMPLED.....	03/22/82	SAMPLED.....	01/08/25
FORMATION.....	ORDO-SIMPSON	FORMATION.....	PENN-PERU	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	355	GEOLOGIC PROVINCE CODE.....	355	GEOLOGIC PROVINCE CODE.....	355
DEPTH, FEET.....	4006	DEPTH, FEET.....	3212	DEPTH, FEET.....	1325
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1075	WELLHEAD PRESSURE, PSIG.....	800
OPEN FLOW, MCFD.....	250	OPEN FLOW, MCFD.....	3000	OPEN FLOW, MCFD.....	12000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	73.8	METHANE.....	62.8	METHANE.....	14.0
ETHANE.....	18.9	ETHANE.....	5.7	ETHANE.....	16.5
PROPANE.....	---	PROPANE.....	3.3	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	0.9	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	0.5	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	0.3	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	TRACE	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	0.3	HEXANES PLUS.....	---
NITROGEN.....	6.7	NITROGEN.....	22.9	NITROGEN.....	68.2
OXYGEN.....	0.4	OXYGEN.....	2.9	OXYGEN.....	0.6
ARGON.....	---	ARGON.....	0.1	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	TRACE	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.2
HELIUM.....	0.11	HELIUM.....	0.10	HELIUM.....	0.49
HEATING VALUE.....	1086	HEATING VALUE.....	911	HEATING VALUE.....	438
SPECIFIC GRAVITY.....	0.678	SPECIFIC GRAVITY.....	0.767	SPECIFIC GRAVITY.....	0.921

INDEX SAMPLE 6676 1953		INDEX SAMPLE 6677 1943		INDEX SAMPLE 6678 7195	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	PAYNE	COUNTY.....	PAYNE	COUNTY.....	PAYNE
FIELD.....	NORFOLK W	FIELD.....	NORFOLK W	FIELD.....	ORLANDO E
WELL NAME.....	DAMES NO. 1	WELL NAME.....	ECHO HAWK HEIRS NO. 1	WELL NAME.....	BARNES NO. 1-A
LOCATION.....	SEC. 4, T18N, R5E	LOCATION.....	SEC. 4, T18N, R5E	LOCATION.....	SEC. 13, T19N, R1W
OWNER.....	TRANSCONTINENTAL OIL CO.	OWNER.....	SHAFFER OIL & REFINING CO.	OWNER.....	WOLFE DRILLING CO.
COMPLETED.....	11/05/29	COMPLETED.....	11/30/29	COMPLETED.....	12/11/57
SAMPLED.....	02/03/30	SAMPLED.....	02/06/30	SAMPLED.....	08/31/59
FORMATION.....	PENN-PRUE	FORMATION.....	PENN-PRUE	FORMATION.....	PENN-SKINNER
GEOLOGIC PROVINCE CODE.....	355	GEOLOGIC PROVINCE CODE.....	355	GEOLOGIC PROVINCE CODE.....	355
DEPTH, FEET.....	2745	DEPTH, FEET.....	2670	DEPTH, FEET.....	4513
WELLHEAD PRESSURE, PSIG.....	800	WELLHEAD PRESSURE, PSIG.....	1750	WELLHEAD PRESSURE, PSIG.....	1750
OPEN FLOW, MCFD.....	7770	OPEN FLOW, MCFD.....	5857	OPEN FLOW, MCFD.....	3300
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	66.4	METHANE.....	71.5	METHANE.....	71.6
ETHANE.....	24.1	ETHANE.....	20.8	ETHANE.....	7.9
PROPANE.....	---	PROPANE.....	---	PROPANE.....	4.4
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	1.2
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	0.6
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	TRACE
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	0.8
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	0.3
NITROGEN.....	9.1	NITROGEN.....	7.4	NITROGEN.....	12.8
OXYGEN.....	0.3	OXYGEN.....	0.2	OXYGEN.....	0.1
ARGON.....	---	ARGON.....	---	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.14	HELIUM.....	0.14	HELIUM.....	0.20
HEATING VALUE.....	1105	HEATING VALUE.....	1097	HEATING VALUE.....	1095
SPECIFIC GRAVITY.....	0.716	SPECIFIC GRAVITY.....	0.692	SPECIFIC GRAVITY.....	0.744

INDEX SAMPLE 6679 4617		INDEX SAMPLE 6680 4668		INDEX SAMPLE 6681 3725	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	PAYNE	COUNTY.....	PAYNE	COUNTY.....	PAYNE
FIELD.....	RIPLEY SE	FIELD.....	RIPLEY SE	FIELD.....	STILLWATER
WELL NAME.....	BOYD NO. 1	WELL NAME.....	BUCKLES NO. 1	WELL NAME.....	HARRIET V. BERRY NO. 1
LOCATION.....	SEC. 28, T18N, R4E	LOCATION.....	SEC. 28, T18N, R4E	LOCATION.....	SEC. 26, T19N, R2E
OWNER.....	JERGENS OIL CO.	OWNER.....	JERGENS OIL CO.	OWNER.....	J. H. BERRY
COMPLETED.....	09/06/48	COMPLETED.....	11/19/48	COMPLETED.....	03/22/43
SAMPLED.....	11/09/48	SAMPLED.....	02/17/49	SAMPLED.....	03/15/44
FORMATION.....	PENN-	FORMATION.....	PENN-	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	355	GEOLOGIC PROVINCE CODE.....	355	GEOLOGIC PROVINCE CODE.....	355
DEPTH, FEET.....	3475	DEPTH, FEET.....	3514	DEPTH, FEET.....	4060
WELLHEAD PRESSURE, PSIG.....	1425	WELLHEAD PRESSURE, PSIG.....	1600	WELLHEAD PRESSURE, PSIG.....	900
OPEN FLOW, MCFD.....	2500	OPEN FLOW, MCFD.....	1500	OPEN FLOW, MCFD.....	3200
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	70.1	METHANE.....	76.6	METHANE.....	63.6
ETHANE.....	20.3	ETHANE.....	6.2	ETHANE.....	19.4
PROPANE.....	---	PROPANE.....	3.1	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	0.9	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	0.2	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	0.1	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	0.4	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	0.0	HEXANES PLUS.....	---
NITROGEN.....	9.0	NITROGEN.....	12.1	NITROGEN.....	16.5
OXYGEN.....	0.3	OXYGEN.....	TRACE	OXYGEN.....	0.4
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	TRACE	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.12	HELIUM.....	0.12	HELIUM.....	0.16
HEATING VALUE.....	1074	HEATING VALUE.....	1031	HEATING VALUE.....	993
SPECIFIC GRAVITY.....	0.695	SPECIFIC GRAVITY.....	0.694	SPECIFIC GRAVITY.....	0.722

INDEX SAMPLE 6682 3782		INDEX SAMPLE 6683 3770		INDEX SAMPLE 6684 3424	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	PAYNE	COUNTY.....	PAYNE	COUNTY.....	PITTSBURG
FIELD.....	YALE W	FIELD.....	YALE-QUAY	FIELD.....	ASHLAND S
WELL NAME.....	MORGAN NO. 1	WELL NAME.....	FRANK SIMPSON NO. 1	WELL NAME.....	CAMPBELL & CUNNINGHAM NO. 1
LOCATION.....	SEC. 10, T19N, R5E	LOCATION.....	SEC. 30, T19N, R5E	LOCATION.....	SEC. 20, T3N, R12E
OWNER.....	SULLY OIL CO.	OWNER.....	SULLY OIL CO.	OWNER.....	D. CAMPBELL
COMPLETED.....	02/06/44	COMPLETED.....	10/04/43	COMPLETED.....	12/04/40
SAMPLED.....	04/13/44	SAMPLED.....	04/06/44	SAMPLED.....	05/28/42
FORMATION.....	DEVO-MISENER	FORMATION.....	DEVO-MISENER	FORMATION.....	PENN-HARTSHORNE
GEOLOGIC PROVINCE CODE.....	355	GEOLOGIC PROVINCE CODE.....	355	GEOLOGIC PROVINCE CODE.....	345
DEPTH, FEET.....	3558	DEPTH, FEET.....	3633	DEPTH, FEET.....	1493
WELLHEAD PRESSURE, PSIG.....	1050	WELLHEAD PRESSURE, PSIG.....	1250	WELLHEAD PRESSURE, PSIG.....	185
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	38450	OPEN FLOW, MCFD.....	1500
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	67.0	METHANE.....	76.5	METHANE.....	83.8
ETHANE.....	24.8	ETHANE.....	22.8	ETHANE.....	15.3
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	7.4	NITROGEN.....	0.3	NITROGEN.....	0.1
OXYGEN.....	0.5	OXYGEN.....	0.0	OXYGEN.....	0.4
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	TRACE	HELIUM.....	0.12	HELIUM.....	0.09
HEATING VALUE.....	1123	HEATING VALUE.....	1184	HEATING VALUE.....	1123
SPECIFIC GRAVITY.....	0.713	SPECIFIC GRAVITY.....	0.671	SPECIFIC GRAVITY.....	0.635

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6685 3425	INDEX SAMPLE	6686 3433	INDEX SAMPLE	6687 12105
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	PITTSBURG			PITTSBURG		PITTSBURG	
FIELD.....	ASHLAND S			ASHLAND S		ASHLAND S	
WELL NAME.....	CAMPBELL & CUNNINGHAM			VAUGHN NO. 1		INVESTOR ROYALTY NO. 1	
LOCATION.....	SEC. 20, T3N, R12E			SEC. 30, T3N, R12E		SEC. 29, T3N, R12E	
OWNER.....	P. D. CAMPBELL			P. J. CAMPBELL		ARKLA EXPLORATION CO.	
COMPLETED.....	12/04/40			04/10/41		10/25/69	
SAMPLED.....	05/28/42			05/28/42		11/07/59	
FORMATION.....	05-8ROGG			PENN-HARTSHORNE		PENN-CROMWELL	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	555			1551		8300	
WELLHEAD PRESSURE, PSIG.....	115			185		2350	
OPEN FLOW, MCFD.....	500			1500		8000	
COMPONENT, MOLE PCT							
METHANE.....	87.4	-----		88.4	-----	84.0	-----
ETHANE.....	10.1	-----		3.1	-----	0.8	-----
PROPANE.....	---	-----		---	-----	0.1	-----
N-BUTANE.....	---	-----		---	-----	0.0	-----
ISOBUTANE.....	---	-----		---	-----	0.0	-----
N-PENTANE.....	---	-----		---	-----	0.0	-----
ISOPENTANE.....	---	-----		---	-----	0.0	-----
CYCLOPENTANE.....	---	-----		---	-----	0.0	-----
HEXANES PLUS.....	---	-----		---	-----	0.0	-----
NITROGEN.....	1.7	-----		1.7	-----	10.6	-----
OXYGEN.....	0.4	-----		0.4	-----	2.6	-----
ARGON.....	---	-----		---	-----	0.1	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.8	-----
CARBON DIOXIDE.....	0.15	-----		0.2	-----	1.8	-----
HELIUM.....	1066	-----		0.16	-----	0.04	-----
HEATING VALUE.....	1066	-----		1059	-----	868	-----
SPECIFIC GRAVITY.....	0.615	-----		0.610	-----	0.636	-----
		INDEX SAMPLE	6688 12186	INDEX SAMPLE	6689 14868	INDEX SAMPLE	6690 17399
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	PITTSBURG			PITTSBURG		PITTSBURG	
FIELD.....	ASHLAND S			ASHLAND S		BLANCO S	
WELL NAME.....	INVESTORS-ROYALTY NO. 1			LANE NO. 1-28		KNNIKIN NO. 1	
LOCATION.....	SEC. 29, T3N, R12E			SEC. 28, T4N, R12E		SEC. 26, T3N, R14E	
OWNER.....	ARKLA EXPLORATION CO.			CONTINENTAL OIL CO.		SAHSON RESOURCES CO.	
COMPLETED.....	10/25/69			09/02/76		12/13/83	
SAMPLED.....	02/05/70			12/11/76		09/01/84	
FORMATION.....	PENN-CROMWELL			PENN-HARTSHORNE		PENN-WAPANUCKA	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	2300			3401		4941	
WELLHEAD PRESSURE, PSIG.....	2350			495		1950	
OPEN FLOW, MCFD.....	3800			4200		19265	
COMPONENT, MOLE PCT							
METHANE.....	95.8	-----		91.2	-----	94.0	-----
ETHANE.....	0.8	-----		3.6	-----	3.8	-----
PROPANE.....	0.1	-----		1.7	-----	0.9	-----
N-BUTANE.....	0.0	-----		0.4	-----	0.2	-----
ISOBUTANE.....	0.0	-----		0.3	-----	0.1	-----
N-PENTANE.....	0.0	-----		TRACE	-----	0.1	-----
ISOPENTANE.....	0.0	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		TRACE	-----	0.1	-----
NITROGEN.....	0.9	-----		2.1	-----	0.3	-----
OXYGEN.....	0.0	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	2.2	-----		0.4	-----	0.5	-----
HELIUM.....	0.05	-----		0.13	-----	0.05	-----
HEATING VALUE.....	1063	-----		1060	-----	1063	-----
SPECIFIC GRAVITY.....	0.583	-----		0.613	-----	0.597	-----
		INDEX SAMPLE	6691 9814	INDEX SAMPLE	6692 12952	INDEX SAMPLE	6693 15879
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	PITTSBURG			PITTSBURG		PITTSBURG	
FIELD.....	BLOCKER S			BLOCKER S		BREWER S	
WELL NAME.....	DAVIS NO. 1			U.S.A. NO. 1		TURNER NO. 31-2	
LOCATION.....	SEC. 12, T6N, R16E			SEC. 12, T6N, R16E		SEC. 21, T4N, R14E	
OWNER.....	SNEE & EBERLY			SNEE & EBERLY		SUPRON ENERGY CORP.	
COMPLETED.....	01/20/65			01/15/71		01/11/80	
SAMPLED.....	03/20/65			03/12/71		03/22/78	
FORMATION.....	PENN-HARTSHORNE			PENN-RED OAK		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	2281			6999		7360	
WELLHEAD PRESSURE, PSIG.....	360			2489		2500	
OPEN FLOW, MCFD.....	1392			66132		2000	
COMPONENT, MOLE PCT							
METHANE.....	94.1	-----		86.0	-----	95.6	-----
ETHANE.....	4.2	-----		1.3	-----	1.4	-----
PROPANE.....	0.9	-----		0.3	-----	0.2	-----
N-BUTANE.....	0.1	-----		0.0	-----	TRACE	-----
ISOBUTANE.....	0.1	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	TRACE	-----
ISOPENTANE.....	TRACE	-----		0.0	-----	TRACE	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	TRACE	-----
NITROGEN.....	0.5	-----		9.2	-----	1.1	-----
OXYGEN.....	TRACE	-----		0.2	-----	0.2	-----
ARGON.....	TRACE	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.0	-----	0.0	-----
HELIUM.....	0.04	-----		0.03	-----	0.03	-----
HEATING VALUE.....	1059	-----		902	-----	999	-----
SPECIFIC GRAVITY.....	0.589	-----		0.624	-----	0.582	-----
		INDEX SAMPLE	6694 15937	INDEX SAMPLE	6695 1982	INDEX SAMPLE	6696 15245
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	PITTSBURG			PITTSBURG		PITTSBURG	
FIELD.....	BREWER S			CARNEY		CARNEY	
WELL NAME.....	TURNER A NO.1			CARNEY NO. 1		LASH NO. 1	
LOCATION.....	SEC. 32, T4N, R14E			SEC. 9, T7N, R10E		SEC. 10, T7N, R10E	
OWNER.....	TEXAS OIL & GAS CORP.			UTILITIES PRODUCTION CORP.		SAHSON RESOURCES CO.	
COMPLETED.....	09/14/79			09/21/76		03/22/78	
SAMPLED.....	05/02/80			04/03/30		03/22/78	
FORMATION.....	PENN-ATOKA			PENN-HARTSHORNE		PENN-SPIRO & CROMWELL	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	6496			1752		6606	
WELLHEAD PRESSURE, PSIG.....	200			500		1040	
OPEN FLOW, MCFD.....	2000			28000		14480	
COMPONENT, MOLE PCT							
METHANE.....	96.4	-----		95.0	-----	95.1	-----
ETHANE.....	1.5	-----		1.1	-----	1.0	-----
PROPANE.....	0.3	-----		---	-----	0.1	-----
N-BUTANE.....	TRACE	-----		---	-----	0.0	-----
ISOBUTANE.....	TRACE	-----		---	-----	0.0	-----
N-PENTANE.....	TRACE	-----		---	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		---	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	0.0	-----
HEXANES PLUS.....	TRACE	-----		---	-----	0.0	-----
NITROGEN.....	0.5	-----		0.3	-----	1.7	-----
OXYGEN.....	0.0	-----		0.3	-----	0.0	-----
ARGON.....	TRACE	-----		---	-----	TRACE	-----
HYDROGEN.....	0.0	-----		---	-----	0.3	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.1	-----
CARBON DIOXIDE.....	0.2	-----		0.3	-----	1.6	-----
HELIUM.....	1.04	-----		0.04	-----	0.06	-----
HEATING VALUE.....	1011	-----		1036	-----	985	-----
SPECIFIC GRAVITY.....	0.578	-----		0.581	-----	0.582	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6697 SAMPLE 3983			INDEX 6698 SAMPLE 10714			INDEX 6699 SAMPLE 15070		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PITTSBURG		PITTSBURG			PITTSBURG		
FIELD.....	CHOATE PRAIRIE		FEATHERSTON			FEATHERSTON		
WELL NAME.....	VAN HOOZER NO. 1-A		BROWN NO. 1			FEATHERSTONE TOWNSITE NO. 1		
LOCATION.....	SEC. 20, T8N, R14E		SEC. 21, T7N, R17E			SEC. 15, T7N, R17E		
OWNER.....	PUBLIC SERVICE CO. OF OKLA.		CHOATE GAS CO.			OKLEY PETROLEUM CO.		
COMPLETED.....	12/18/44		09/09/65			05/06/77		
SAMPLED.....	03/09/45		09/08/66			07/27/77		
FORMATION.....	PENN-GILCREASE		PENN-HARTSHORNE			PENN-HARTSHORNE		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	3458		2670			2372		
WELLHEAD PRESSURE, PSIG.....	350		260			230		
OPEN FLOW, MCFD.....	2500		1500			1639		
COMPONENT, MOLE PCT.....								
METHANE.....	92.5		95.7			95.4		
ETHANE.....	7.2		2.9			2.6		
PROPANE.....	---		0.4			0.3		
N-BUTANE.....	---		0.0			0.2		
ISOBUTANE.....	---		0.0			TRACE		
N-PENTANE.....	---		0.0			0.1		
ISOPENTANE.....	---		0.0			0.1		
CYCLOPENTANE.....	---		0.0			TRACE		
HEXANES PLUS.....	---		0.0			0.1		
NITROGEN.....	0.7		0.4			0.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.6			0.6		
HELIUM.....	0.12		TRACE			0.04		
HEATING VALUE.....	1066		1032			1041		
SPECIFIC GRAVITY.....	0.601		0.580			0.587		

INDEX 6700 SAMPLE 14808			INDEX 6701 SAMPLE 16218			INDEX 6702 SAMPLE 11330		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PITTSBURG		PITTSBURG			PITTSBURG		
FIELD.....	FEATHERSTON NW		FEATHERSTON NW			HARTSHORNE		
WELL NAME.....	ROBERTS NO. 1		MCGEORGE NO. 2			SMALLWOOD UNIT NO. 1		
LOCATION.....	SEC. 3, T7N, R17E		SEC. 31, T8N, R18E			SEC. 10, T4N, R16E		
OWNER.....	POTTS-STEPHENSON EXPL. CO.		POTTS-STEPHENSON EXPL. CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	05/26/76		06/7/80			01/07/64		
SAMPLED.....	10/12/76		03/28/81			03/01/68		
FORMATION.....	PENN-HARTSHORNE		PENN-HARTSHORNE			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	2502		2800			5535		
WELLHEAD PRESSURE, PSIG.....	585		500			1376		
OPEN FLOW, MCFD.....	3900		2000			2021		
COMPONENT, MOLE PCT.....								
METHANE.....	94.6		94.9			96.0		
ETHANE.....	3.8		3.4			2.2		
PROPANE.....	0.7		0.7			0.2		
N-BUTANE.....	0.1		0.1			0.0		
ISOBUTANE.....	TRACE		TRACE			0.0		
N-PENTANE.....	0.0		TRACE			0.0		
ISOPENTANE.....	0.1		TRACE			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	TRACE		TRACE			0.0		
NITROGEN.....	0.6		0.5			0.6		
OXYGEN.....	TRACE		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	---		---			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.3			0.5		
HELIUM.....	0.04		0.04			0.04		
HEATING VALUE.....	1052		1044			1028		
SPECIFIC GRAVITY.....	0.586		0.584			0.579		

INDEX 6703 SAMPLE 10420			INDEX 6704 SAMPLE 11257			INDEX 6705 SAMPLE 14664		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PITTSBURG		PITTSBURG			PITTSBURG		
FIELD.....	KINTA		KINTA			KIOWA NW		
WELL NAME.....	WILLIAM FLOYD NO. 1		WHITE P NO. 1			WNNAGAT NO. 1		
LOCATION.....	SEC. 28, T7N, R18E		SEC. 30, T7N, R18E			SEC. 8, T3N, R13E		
OWNER.....	SKELLY OIL CO.		SKELLY OIL CO.			SOUTHERN UNION PRODUCTION CO		
COMPLETED.....	02/28/66		11/13/68			05/20/75		
SAMPLED.....	02/28/66		7/7/73			04/23/75		
FORMATION.....	PENN-RED OAK		PENN-ATOKA			PENN-WAPANUCKA		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	7825		6402			9422		
WELLHEAD PRESSURE, PSIG.....	2484		2394			2407		
OPEN FLOW, MCFD.....	5374		14869			13931		
COMPONENT, MOLE PCT.....								
METHANE.....	96.3		88.3			95.6		
ETHANE.....	1.6		1.6			0.7		
PROPANE.....	0.6		0.3			0.1		
N-BUTANE.....	0.0		0.0			TRACE		
ISOBUTANE.....	0.0		0.0			TRACE		
N-PENTANE.....	0.0		0.0			TRACE		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			TRACE		
NITROGEN.....	0.0		5.2			0.4		
OXYGEN.....	0.0		1.7			0.0		
ARGON.....	0.0		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.1		1.1			3.1		
HELIUM.....	0.05		0.02			0.05		
HEATING VALUE.....	1011		933			984		
SPECIFIC GRAVITY.....	0.581		0.615			0.590		

INDEX 6706 SAMPLE 16134			INDEX 6707 SAMPLE 17658			INDEX 6708 SAMPLE 11260		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PITTSBURG		PITTSBURG			PITTSBURG		
FIELD.....	KIOWA NW		KIOWA S			MCALISTER		
WELL NAME.....	HALL NO. 1		SISCO NO. 1			W. H. STANTON NO. 1		
LOCATION.....	SEC. 19, T3N, R13E		SEC. 11, T3N, R14E			SEC. 22, T5N, R14E		
OWNER.....	CITIES SERVICE CO.		SAMSON RESOURCES CO.			SKELLY OIL CO.		
COMPLETED.....	05/06/80		07/28/84			11/14/67		
SAMPLED.....	05/19/80		05/19/80			11/25/68		
FORMATION.....	PENN-ATOKA		PENN-WAPANUCKA			PENN-HARTSHORNE		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	7052		10371			4395		
WELLHEAD PRESSURE, PSIG.....	2015		2200			677		
OPEN FLOW, MCFD.....	NOT GIVEN		4000			1133		
COMPONENT, MOLE PCT.....								
METHANE.....	89.1		96.3			90.2		
ETHANE.....	6.4		1.0			5.8		
PROPANE.....	2.0		0.1			1.7		
N-BUTANE.....	0.4		0.0			0.6		
ISOBUTANE.....	0.3		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.0		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	0.1		0.0			0.0		
HEXANES PLUS.....	0.1		0.0			0.0		
NITROGEN.....	0.5		0.5			1.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		2.1			0.5		
HELIUM.....	0.04		0.04			0.05		
HEATING VALUE.....	1044		954			1082		
SPECIFIC GRAVITY.....	0.636		0.593			0.619		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6709 11320	INDEX SAMPLE	6710 10884	INDEX SAMPLE	6711 17648
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	PITTSBURG			PITTSBURG		PITTSBURG	
FIELD.....	MCALISTER S			MCALISTER SE		PATRICK	
WELL NAME.....	CORONADO A NO. 1			GERMAN UNIT NO. 1		FISHER NO. 1	
LOCATION.....	SEC. 29, T3N, R13E			SEC. 33, T5N, R15E		SEC. 1, 68N, R16E	
OWNER.....	SKELLY OIL CO.			APACHE CORP.		BILL O. ADDRESS	
COMPLETED.....	12/05/67			11/11/65		06/25/84	
SAMPLED.....	02/29/68			--/--/00		04/19/85	
FORMATION.....	PENN-ATOKA			PENN-ATOKA		PENN-CROWWELL	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	8390			10328		5461	
WELLHEAD PRESSURE, PSIG.....	3630			3500		784	
OPEN FLOW, MCFD.....	6635			4300		2503	
COMPONENT, MOLE PCT.....							
METHANE.....	90.4	-----		98.1	-----	94.8	-----
ETHANE.....	3.1	-----		0.7	-----	0.0	-----
PROPANE.....	0.2	-----		0.1	-----	0.0	-----
N-BUTANE.....	0.3	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	1.0	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.3	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.2	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.6	-----		0.0	-----	0.0	-----
NITROGEN.....	2.3	-----		0.6	-----	2.5	-----
OXYGEN.....	0.4	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.0	-----		0.5	-----	2.6	-----
HELIUM.....	0.04	-----		0.09	-----	0.06	-----
HEATING VALUE.....	1080	-----		109	-----	960	-----
SPECIFIC GRAVITY.....	0.640	-----		0.566	-----	0.590	-----
		INDEX SAMPLE	6712 10092	INDEX SAMPLE	6713 10272	INDEX SAMPLE	6714 10505
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	PITTSBURG			PITTSBURG		PITTSBURG	
FIELD.....	PINE HOLLOW S			PINE HOLLOW S		PINE HOLLOW S	
WELL NAME.....	SUSAN MC DONALD UNIT NO. 1			SUSAN MC DONALD UNIT NO. 1		TENNECO NO. 36-1	
LOCATION.....	SEC. 26, T5N, R12E			SEC. 35, T5N, R12E		SEC. 36, T5N, R12E	
OWNER.....	EXXON CO., U.S.A.			EXXON CO., U.S.A.		TENNECO OIL CO.	
COMPLETED.....	07/13/65			04/29/64		--/--/00	
SAMPLED.....	08/31/65			11/02/65		03/29/66	
FORMATION.....	PENN-HARTSHORNE			PENN-HARTSHORNE		PENN-HARTSHORNE	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	3522			3675		3446	
WELLHEAD PRESSURE, PSIG.....	600			490		NOT GIVEN	
OPEN FLOW, MCFD.....	4066			3161		3363	
COMPONENT, MOLE PCT.....							
METHANE.....	91.4	-----		90.5	-----	89.4	-----
ETHANE.....	4.1	-----		4.3	-----	5.1	-----
PROPANE.....	1.7	-----		1.9	-----	2.3	-----
N-BUTANE.....	0.4	-----		0.4	-----	0.5	-----
ISOBUTANE.....	0.2	-----		0.3	-----	0.4	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	1.6	-----		1.8	-----	1.3	-----
OXYGEN.....	0.0	-----		0.0	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.4	-----	0.4	-----
HELIUM.....	0.10	-----		0.11	-----	0.11	-----
HEATING VALUE.....	1073	-----		1080	-----	1104	-----
SPECIFIC GRAVITY.....	0.613	-----		0.623	-----	0.634	-----
		INDEX SAMPLE	6715 14999	INDEX SAMPLE	6716 15885	INDEX SAMPLE	6717 15886
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	PITTSBURG			PITTSBURG		PITTSBURG	
FIELD.....	PINE HOLLOW S			PITTSBURG		PITTSBURG	
WELL NAME.....	MCKAY NO. 1-1			CHITTY SCOTT NO. 1		CHITTY SCOTT NO. 1	
LOCATION.....	SEC. 1, T6N, R13E			SEC. 30, T3N, R14E		SEC. 30, T3N, R14E	
OWNER.....	ARKLA EXPLORATION CO.			HAMILTON BROTHERS OIL CO.		HAMILTON BROTHERS OIL CO.	
COMPLETED.....	08/08/75			--/--/00		--/--/00	
SAMPLED.....	05/13/77			01/15/80		01/15/80	
FORMATION.....	PENN-CROWWELL			PENN-WAPANUCKA		PENN-CROWWELL	
GEOLOGIC PROVINCE CODE.....	345			345		345	
DEPTH, FEET.....	5721			9381		10279	
WELLHEAD PRESSURE, PSIG.....	1800			1300		675	
OPEN FLOW, MCFD.....	4053			470000		2200	
COMPONENT, MOLE PCT.....							
METHANE.....	95.0	-----		95.9	-----	96.1	-----
ETHANE.....	0.8	-----		0.1	-----	0.8	-----
PROPANE.....	0.1	-----		0.1	-----	0.1	-----
N-BUTANE.....	TRACE	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	TRACE	-----		0.0	-----	0.0	-----
NITROGEN.....	0.9	-----		0.5	-----	0.5	-----
OXYGEN.....	0.0	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	2.9	-----		0.0	-----	0.0	-----
HELIUM.....	0.06	-----		0.04	-----	0.03	-----
HEATING VALUE.....	994	-----		990	-----	990	-----
SPECIFIC GRAVITY.....	0.592	-----		0.585	-----	0.584	-----
		INDEX SAMPLE	6718 16538	INDEX SAMPLE	6719 16539	INDEX SAMPLE	6720 13131
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	PITTSBURG			PITTSBURG		PITTSBURG	
FIELD.....	PITTSBURG			PITTSBURG		PITTSBURG	
WELL NAME.....	HODGENS NO. 1			HODGENS NO. 1		REAMS NW	
LOCATION.....	SEC. 16, T3N, R14E			SEC. 16, T3N, R14E		MURRIN NO. 1-23	
OWNER.....	COTTON PETROLEUM CORP.			COTTON PETROLEUM CORP.		SEC. 23, T7N, R14E	
COMPLETED.....	07/0-8			07/-8		WILSHIRE OIL OF TEXAS	
SAMPLED.....	06/01/82			06/01/82		11/15/71	
FORMATION.....	PENN-WAPANUCKA			PENN-CROWWELL		01/03/72	
GEOLOGIC PROVINCE CODE.....	345			345		PENN-CROWWELL	
DEPTH, FEET.....	10114			10922		345	
WELLHEAD PRESSURE, PSIG.....	2050			2050		7096	
OPEN FLOW, MCFD.....	2072			2072		1550	
COMPONENT, MOLE PCT.....						3502	
METHANE.....	95.0	-----		95.6	-----	94.9	-----
ETHANE.....	0.6	-----		0.8	-----	0.6	-----
PROPANE.....	0.1	-----		0.1	-----	0.1	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.0	-----
NITROGEN.....	0.4	-----		0.3	-----	0.7	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	3.8	-----		3.0	-----	3.5	-----
HELIUM.....	0.04	-----		0.04	-----	0.06	-----
HEATING VALUE.....	976	-----		976	-----	975	-----
SPECIFIC GRAVITY.....	0.597	-----		0.589	-----	0.594	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6721 14540	INDEX SAMPLE 6722 14541	INDEX SAMPLE 6723 16630
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	PITTSBURG		PITTSBURG	PITTSBURG
FIELD.....	REAMS SE		REAMS SE	SAVANNA NE
WELL NAME.....	LAKE NO. 1-32		LAKE NO. 1-32	BOARDWALK NO. 1
LOCATION.....	SEC. 32, T7N, R16E		SEC. 32, T7N, R16E	SEC. 7, T4N, R15E
OWNER.....	SNEE & EBERLY		SNEE & EBERLY	SAMSON RESOURCES CO.
COMPLETED.....	06/28/75		06/28/75	02/16/82
SAMPLED.....	12/03/75		12/03/75	08/30/82
FORMATION.....	PENN-HARTSHORNE		PENN-BOOCH	PENN-ATOKA
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	8362
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	3000
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	6500
COMPONENT, MOLE PCT				
METHANE.....	91.0	91.0	95.3	
ETHANE.....	5.5	5.4	2.0	
PROPANE.....	1.6	1.6	0.3	
N-BUTANE.....	0.2	0.3	0.1	
ISOBUTANE.....	0.2	0.2	0.0	
N-PENTANE.....	TRACE	TRACE	TRACE	
ISOPENTANE.....	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	TRACE	0.1	TRACE	
NITROGEN.....	0.7	0.6	0.6	
OXYGEN.....	0.1	0.0	0.3	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.6	0.7	1.4	
HELIUM.....	0.03	0.03	0.03	
HEATING VALUE.....	1080	1086	1013	
SPECIFIC GRAVITY.....	0.615	0.618	0.584	
		INDEX SAMPLE 6724 3994	INDEX SAMPLE 6725 4468	INDEX SAMPLE 6726 4094
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	PITTSBURG		PITTSBURG	PITTSBURG
FIELD.....	SCIPID NW		SCIPID NW	ULAN E
WELL NAME.....	C.E. HORTON NO. 1		KLEENKE NO. 1	TRAVIS NO. 1
LOCATION.....	SEC. 15, T7N, R13E		SEC. 15, T7N, R12E	SEC. 5, T7N, R14E
OWNER.....	PUBLIC SERVICE CO. OF OKLA.		OTHA H. GRIMES	PUBLIC SERVICE CO. OF OKLA.
COMPLETED.....	07/10/44		02/07/48	03/31/45
SAMPLED.....	03/09/45		04/15/48	06/14/45
FORMATION.....	PENN-NOT GIVEN		PENN-CROMWELL	PENN-BOOCH
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	2369	4265	1867	
WELLHEAD PRESSURE, PSIG.....	350	1700	450	
OPEN FLOW, MCFD.....	500	17000	4	
COMPONENT, MOLE PCT				
METHANE.....	95.2	86.3	93.3	
ETHANE.....	1.7	12.3	6.4	
PROPANE.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	2.3	0.9	0.0	
OXYGEN.....	0.3	0.2	0.0	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.5	0.2	0.3	
HELIUM.....	TRACE	0.07	0.07	
HEATING VALUE.....	995	1095	1060	
SPECIFIC GRAVITY.....	0.579	0.622	0.589	
		INDEX SAMPLE 6727 16584	INDEX SAMPLE 6728 14325	INDEX SAMPLE 6729 14326
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	PITTSBURG		PITTSBURG	PITTSBURG
FIELD.....	ULAN E		ULAN E	ULAN E
WELL NAME.....	REEVES NO. 1-30		FINAMORE NO. 1	FINAMORE NO. 1
LOCATION.....	SEC. 30, T8N, R14E		SEC. 32, T7N, R14E	SEC. 32, T7N, R14E
OWNER.....	LUBELL OIL CO.		K&B OIL PROPERTY MGMT., INC.	K&B OIL PROPERTY MGMT., INC.
COMPLETED.....	07/21/82		--/--/00	--/--/00
SAMPLED.....	07/21/82		04/20/75	04/20/75
FORMATION.....	PENN-SAVANNA		PENN-WAPANUCKA	PENN-CROMWELL
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	1343	6692	7065	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	17	1715	
OPEN FLOW, MCFD.....	250	1600	2600	
COMPONENT, MOLE PCT				
METHANE.....	95.0	93.6	95.2	
ETHANE.....	0.6	0.1	0.8	
PROPANE.....	0.5	0.1	0.1	
N-BUTANE.....	0.2	0.0	0.0	
ISOBUTANE.....	TRACE	0.0	0.0	
N-PENTANE.....	0.1	0.0	0.0	
ISOPENTANE.....	0.1	0.0	0.0	
CYCLOPENTANE.....	0.1	0.0	0.0	
HEXANES PLUS.....	0.1	0.0	0.0	
NITROGEN.....	1.0	2.2	0.7	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.4	0.2	
HELIUM.....	0.05	0.07	0.05	
HEATING VALUE.....	1046	962	981	
SPECIFIC GRAVITY.....	0.589	0.600	0.594	
		INDEX SAMPLE 6730 12828	INDEX SAMPLE 6731 12829	INDEX SAMPLE 6732 16313
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	PITTSBURG		PITTSBURG	PITTSBURG
FIELD.....	WILBURTON		WILBURTON	WILBURTON
WELL NAME.....	R. A. KING UNIT NO. 1		R. A. KING UNIT NO. 1	THORNTON-RAILEY NO. 1-20
LOCATION.....	SEC. 26, T5N, R16E		SEC. 26, T5N, R16E	SEC. 20, T4N, R16E
OWNER.....	ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.	HAMILTON BROTHERS OIL CO.
COMPLETED.....	04/08/71		04/08/71	--/--/00
SAMPLED.....	05/20/71		05/20/71	08/--/81
FORMATION.....	PENN-RED OAK		PENN-SPIRO	PENN-ATOKA
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	6678	9340	7390	
WELLHEAD PRESSURE, PSIG.....	1550	3750	3000	
OPEN FLOW, MCFD.....	5900	24000	1538	
COMPONENT, MOLE PCT				
METHANE.....	96.5	99.1	96.4	
ETHANE.....	0.1	0.2	1.8	
PROPANE.....	0.3	0.0	0.3	
N-BUTANE.....	0.0	0.0	0.1	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	TRACE	
CYCLOPENTANE.....	0.0	0.0	TRACE	
HEXANES PLUS.....	0.0	0.0	0.1	
NITROGEN.....	0.5	0.6	0.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.1	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.2	0.0	0.9	
HELIUM.....	0.03	0.07	0.03	
HEATING VALUE.....	1012	1009	1025	
SPECIFIC GRAVITY.....	0.579	0.559	0.581	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6733 SAMPLE 16314			INDEX 6734 SAMPLE 6905			INDEX 6735 SAMPLE 1821		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PITTSBURG		PITTSBURG			PONTOTOC		
FIELD.....	WILBERTON		WILBERTON			ALLEN DISTRICT		
WELL NAME.....	THORNTON-RAILEY NO. 1-20		BAUMAN NO. 1			CRABTREE NO. 1		
LOCATION.....	SEC. 20, T4N, R16E		SEC. 29, T9N, R16E			SEC. 32, T5N, R7E		
OWNER.....	HAMILTON BROTHERS OIL CO.		UNION OIL CO.			SOUTHWEST GAS UTILITIES CORP		
COMPLETED.....	--/--/00		01/31/59			05/31/79		
SAMPLED.....	08/--/81		12/01/58			07/22/79		
FORMATION.....	PENN-WAPANUCKA		PENN-CROMWELL			PENN-		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	12766		4368			1476		
WELLHEAD PRESSURE, PSIG.....	2500		225			650		
OPEN FLOW, MCFD.....	1938		3283			10000		
COMPONENT, MOLE PCT								
METHANE.....	96.4		95.6			96.7		
ETHANE.....	1.7		0.7			0.8		
PROPANE.....	0.3		0.3			---		
N-BUTANE.....	0.0		0.0			---		
ISOBUTANE.....	0.0		0.0			---		
N-PENTANE.....	0.0		0.0			---		
ISOPENTANE.....	0.0		0.0			---		
CYCLOPENTANE.....	0.0		0.0			---		
HEXANES PLUS.....	0.0		0.0			---		
NITROGEN.....	0.4		1.4			2.2		
OXYGEN.....	0.0		0.1			0.2		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE**.....	0.0		0.0			---		
CARBON DIOXIDE.....	1.1		1.9			0.2		
HELIUM.....	0.03		0.0			0.08		
HEATING VALUE.....	1015		989			994		
SPECIFIC GRAVITY.....	0.578		0.586			0.571		

INDEX 6736 SAMPLE 4888			INDEX 6737 SAMPLE 3462			INDEX 6738 SAMPLE 3474		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PONTOTOC		PONTOTOC			PONTOTOC		
FIELD.....	ALLEN DISTRICT		BEBEE-KONAWA SW			BEBEE-KONAWA SW		
WELL NAME.....	JOHN NEAL NO. 1		JOHN NEAL NO. 1			NEUBERN NO. 1		
LOCATION.....	SEC. 31, T5N, R8E		SEC. 25, T5N, R4E			SEC. 31, T5N, R4E		
OWNER.....	JONES SHELburne, INC.		LAKE OIL CO.			LONG, YINGLING & LAUCK		
COMPLETED.....	04/18/50		05/07/30			03/28/48		
SAMPLED.....	05/19/50		05/25/42			05/25/42		
FORMATION.....	PENN-EARLSBORO		ORDO-VIOLO			ORDO-WILCOX 2ND		
GEOLOGIC PROVINCE CODE.....	345		345			345		
DEPTH, FEET.....	1610		2475			2205		
WELLHEAD PRESSURE, PSIG.....	600		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	5500		NOT GIVEN			1000		
COMPONENT, MOLE PCT								
METHANE.....	92.3		92.7			95.0		
ETHANE.....	1.6		0.0			1.3		
PROPANE.....	1.0		---			---		
N-BUTANE.....	0.3		---			---		
ISOBUTANE.....	0.1		---			---		
N-PENTANE.....	0.2		---			---		
ISOPENTANE.....	0.0		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	4.0		6.5			2.3		
OXYGEN.....	0.2		0.5			0.4		
ARGON.....	TRACE		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.3			0.9		
HELIUM.....	0.05		0.04			0.05		
HEATING VALUE.....	1016		937			986		
SPECIFIC GRAVITY.....	0.604		0.587			0.581		

INDEX 6739 SAMPLE 4760			INDEX 6740 SAMPLE 2619			INDEX 6741 SAMPLE 10831		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PONTOTOC		PONTOTOC			PONTATOMIE		
FIELD.....	BEBEE-KONAWA SW		FITTS			PRAGUE S		
WELL NAME.....	WILBURN HEIRS NO. 1		HARDEN NO. 1			SCHOOL LAND NO. 1		
LOCATION.....	SEC. 4, T4N, R5E		SEC. 30, T2N, R7E			SEC. 16, T1N, R6E		
OWNER.....	W. A. DELANEY, JR.		KING & DELANEY			LITTLE NICK OIL CO.		
COMPLETED.....	09/10/49		--/--/33			08/17/66		
SAMPLED.....	10/15/49		01/01/67			01/03/67		
FORMATION.....	PENN-EARLSBORO		NOT GIVEN			DEVON-HUNTON		
GEOLOGIC PROVINCE CODE.....	345		345			355		
DEPTH, FEET.....	1468		NOT GIVEN			4260		
WELLHEAD PRESSURE, PSIG.....	570		775			1250		
OPEN FLOW, MCFD.....	6000		NOT GIVEN			1200		
COMPONENT, MOLE PCT								
METHANE.....	83.0		86.4			71.6		
ETHANE.....	6.4		9.3			8.9		
PROPANE.....	3.2		---			5.1		
N-BUTANE.....	0.7		---			1.4		
ISOBUTANE.....	0.3		---			0.3		
N-PENTANE.....	0.2		---			0.2		
ISOPENTANE.....	0.0		---			0.3		
CYCLOPENTANE.....	0.0		---			0.2		
HEXANES PLUS.....	0.2		---			0.2		
NITROGEN.....	5.6		2.6			12.0		
OXYGEN.....	0.1		0.9			0.0		
ARGON.....	TRACE		---			0.0		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE**.....	---		---			0.0		
CARBON DIOXIDE.....	0.3		0.09			0.11		
HELIUM.....	0.06		0.09			1104		
HEATING VALUE.....	1090		1045			1104		
SPECIFIC GRAVITY.....	0.669		0.622			0.740		

INDEX 6742 SAMPLE 10113			INDEX 6743 SAMPLE 4073			INDEX 6744 SAMPLE 9793		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	PONTATOMIE		PONTATOMIE			PUSHMATAHA		
FIELD.....	RED HILL W		ROVER			ROVERS SW		
WELL NAME.....	D. K. NEAL NO. 1		VESTAL NO. 1			BRAME NO. 1		
LOCATION.....	SEC. 21, T11N, R4E		SEC. 28, T6N, R3E			SEC. 15, T3S, R15E		
OWNER.....	CONSTITUTIONAL OIL CO.		CEACCO INC.			F. STEPHENSON		
COMPLETED.....	08/07/65		12/20/44			09/15/60		
SAMPLED.....	--/--/00		06/22/45			03/10/65		
FORMATION.....	PENN-SKINNER		PENN-LAYTON			MISS-STANLEY		
GEOLOGIC PROVINCE CODE.....	355		355			408		
DEPTH, FEET.....	4301		2864			3062		
WELLHEAD PRESSURE, PSIG.....	1700		1140			1500		
OPEN FLOW, MCFD.....	10800		15000			750		
COMPONENT, MOLE PCT								
METHANE.....	64.6		67.5			92.6		
ETHANE.....	3.4		18.6			4.1		
PROPANE.....	2.0		---			1.4		
N-BUTANE.....	0.9		---			0.3		
ISOBUTANE.....	0.4		---			0.3		
N-PENTANE.....	0.3		---			0.1		
ISOPENTANE.....	0.3		---			---		
CYCLOPENTANE.....	0.1		---			TRACE		
HEXANES PLUS.....	0.2		---			0.1		
NITROGEN.....	24.2		13.7			0.7		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE**.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.2		0.0			TRACE		
HELIUM.....	0.15		0.18			0.05		
HEATING VALUE.....	918		1017			1091		
SPECIFIC GRAVITY.....	0.752		0.702			0.611		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6745 SAMPLE 17739			INDEX 6746 SAMPLE 10514			INDEX 6747 SAMPLE 10515		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ROGER MILLS		ROGER MILLS			ROGER MILLS		
FIELD.....	BERLIN N		BISHOP			BISHOP		
WELL NAME.....	KENNER NO. 1-30		APPEL NO. 1			BULLARD NO. 1		
LOCATION.....	SEC. 30, T12N, R23W		SEC. 8, T17N, R25W			SEC. 14, T17N, R25W		
OWNER.....	BRACKEN EXPLORATION CO.		TEXAS OIL & GAS CORP.			TEXAS OIL & GAS CORP.		
COMPLETED.....	04/12/85		--/--/00			--/--/00		
SAMPLED.....	--/--/00		04/12/66			04/12/66		
FORMATION.....	PENN-MORROW		PENN-TONKAWA			PENN-TONKAWA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	18421		NOT GIVEN			7900		
WELLHEAD PRESSURE, PSIG.....	13030		2000			2150		
OPEN FLOW, MCFD.....	2700		750			900		
COMPONENT, MOLE PCT								
METHANE.....	96.3		81.3			83.1		
ETHANE.....	0.4		7.0			8.2		
PROPANE.....	TRACE		4.2			3.8		
N-BUTANE.....	0.0		1.3			1.5		
ISOBUTANE.....	0.0		0.5			0.3		
N-PENTANE.....	0.0		0.3			0.4		
ISOPENTANE.....	0.0		0.4			0.4		
CYCLOPENTANE.....	0.0		0.1			0.2		
HEXANES PLUS.....	0.0		0.3			0.4		
NITROGEN.....	0.6		3.8			1.4		
ARGON.....	TRACE		0.3			0.0		
OXYGEN.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.6		0.4			0.4		
HELIUM.....	0.01		0.12			0.13		
HEATING VALUE.....	983		1168			1203		
SPECIFIC GRAVITY.....	0.584		0.702			0.695		
INDEX 6748 SAMPLE 15608			INDEX 6749 SAMPLE 17856			INDEX 6750 SAMPLE 17622		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ROGER MILLS		ROGER MILLS			ROGER MILLS		
FIELD.....	CARPENTER W		CARPENTER W			CHEYENNE W		
WELL NAME.....	SIMMONS NO. 1A		JOY TAYLOR NO. 1			WILLIAMS NO. 1		
LOCATION.....	SEC. 17, T12N, R22W		SEC. 25, T12N, R13W			SEC. 26, T12N, R23W		
OWNER.....	NATOHAS NORTH AMERICA, INC.		EL PASO EXPLORATION CO.			EL PASO EXPLORATION CO.		
COMPLETED.....	--/--/00		11/01/84			03/08/84		
SAMPLED.....	04/26/79		10/07/85			03/19/85		
FORMATION.....	PENN-TONKAWA		PENN-MORROW U			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9314		17378			17256		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		12500			11576		
OPEN FLOW, MCFD.....	75		6146			2096		
COMPONENT, MOLE PCT								
METHANE.....	97.1		97.3			97.2		
ETHANE.....	0.4		0.5			0.5		
PROPANE.....	0.1		TRACE			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.3		0.2			0.3		
ARGON.....	0.0		0.0			TRACE		
OXYGEN.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.1		2.0			1.9		
HELIUM.....	0.02		0.02			0.01		
HEATING VALUE.....	993		995			994		
SPECIFIC GRAVITY.....	0.579		0.577			0.576		
INDEX 6751 SAMPLE 14514			INDEX 6752 SAMPLE 14806			INDEX 6753 SAMPLE 14974		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ROGER MILLS		ROGER MILLS			ROGER MILLS		
FIELD.....	CHEYENNE W		CHEYENNE W			CHEYENNE W		
WELL NAME.....	HUNT CROSS NO. 1		LESTER UNIT NO. 1			ROARK NO. 1		
LOCATION.....	SEC. 22, T13N, R24W		SEC. 9, T13N, R24W			SEC. 17, T13N, R24W		
OWNER.....	L. L. ROARK NATURAL GAS CO.		HELMERICH & PAYNE, INC.			HOOPER & BRACKEN, INC.		
COMPLETED.....	06/11/75		08/06/76			10/08/76		
SAMPLED.....	10/31/75		10/12/76			04/20/77		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	15530		15086			15835		
WELLHEAD PRESSURE, PSIG.....	12220		12000			5910		
OPEN FLOW, MCFD.....	19742		10400			20721		
COMPONENT, MOLE PCT								
METHANE.....	97.1		97.1			97.3		
ETHANE.....	0.5		0.7			0.6		
PROPANE.....	0.1		0.1			0.1		
N-BUTANE.....	TRACE		0.0			0.0		
ISOBUTANE.....	TRACE		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	TRACE		0.0			0.0		
NITROGEN.....	0.3		0.3			0.2		
ARGON.....	0.0		TRACE			0.0		
OXYGEN.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.9		1.7			1.8		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	995		999			999		
SPECIFIC GRAVITY.....	0.577		0.576			0.577		
INDEX 6754 SAMPLE 14996			INDEX 6755 SAMPLE 15222			INDEX 6756 SAMPLE 16124		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ROGER MILLS		ROGER MILLS			ROGER MILLS		
FIELD.....	CHEYENNE W		CHEYENNE W			CHEYENNE W		
WELL NAME.....	L. L. ROARK UNIT NO. 1		STATE NO. 1-10			STATE NO. 1-28		
LOCATION.....	SEC. 16, T13N, R24W		SEC. 10, T13N, R24W			SEC. 28, T13N, R24W		
OWNER.....	SUN PRODUCTION CO.		HELMERICH & PAYNE, INC.			LADD PETROLEUM CORP.		
COMPLETED.....	05/11/77		09/17/76			09/24/80		
SAMPLED.....	05/11/77		03/--/78			10/28/80		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	15174		NOT GIVEN			15660		
WELLHEAD PRESSURE, PSIG.....	10800		NOT GIVEN			4900		
OPEN FLOW, MCFD.....	16700		NOT GIVEN			5200		
COMPONENT, MOLE PCT								
METHANE.....	97.1		97.1			97.3		
ETHANE.....	0.6		0.6			0.5		
PROPANE.....	0.1		0.1			0.1		
N-BUTANE.....	0.0		TRACE			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.1			0.0		
ISOPENTANE.....	0.0		TRACE			0.0		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	0.0		TRACE			0.0		
NITROGEN.....	0.2		0.0			0.2		
ARGON.....	TRACE		TRACE			TRACE		
OXYGEN.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.0		1.8			1.8		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	997		1001			997		
SPECIFIC GRAVITY.....	0.579		0.578			0.576		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6757 10902	INDEX SAMPLE	6758 11264	INDEX SAMPLE	6759 11423
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ROGER MILLS			ROGER MILLS		ROGER MILLS	
FIELD.....	CRAWFORD NW			CRAWFORD NW		CRAWFORD NW	
WELL NAME.....	W. B. THOMAS NO. 1			W. B. STRICKLAND NO. 1		W. H. YORK NO. 1	
LOCATION.....	SEC. 15, T16N, R26W			SEC. 28, T16N, R26W		SEC. 20, T16N, R25W	
OWNER.....	SUN OIL CO.			MIDWEST OIL CORP.		LONE STAR PRODUCING CO.	
COMPLETED.....	11/18/66			09/21/65		--/--/00	
SAMPLED.....	03/09/67			01/31/68		03/29/68	
FORMATION.....	PENN-TONKAWA			PENN-TONKAWA		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8294			8458		8506	
WELLHEAD PRESSURE, PSIG.....	2400			2250		2500	
OPEN FLOW, MCFD.....	12000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	87.5	-----		82.1	-----	83.7	-----
ETHANE.....	6.1	-----		8.3	-----	8.2	-----
PROPANE.....	2.3	-----		3.7	-----	3.8	-----
N-BUTANE.....	0.7	-----		1.7	-----	1.0	-----
ISOBUTANE.....	0.2	-----		0.6	-----	0.4	-----
N-PENTANE.....	0.3	-----		0.4	-----	0.3	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.3	-----		0.3	-----	0.1	-----
HEXANES PLUS.....	0.6	-----		0.5	-----	0.2	-----
NITROGEN.....	1.2	-----		1.7	-----	1.0	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.8	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.0	-----	1.0	-----
HELIUM.....	0.09	-----		0.02	-----	0.08	-----
HEATING VALUE.....	1149	-----		1195	-----	1176	-----
SPECIFIC GRAVITY.....	0.659	-----		0.693	-----	0.686	-----

		INDEX SAMPLE	6760 16422	INDEX SAMPLE	6761 16381	INDEX SAMPLE	6762 15972
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ROGER MILLS			ROGER MILLS		ROGER MILLS	
FIELD.....	CRAWFORD NW			DEMPSEY SE		DEMPSEY SE	
WELL NAME.....	CECIL NO. 1-4			PENNINGTON THOMPSON NO. 1		BRADY 1-20	
LOCATION.....	SEC. 4, T16N, R26W			SEC. 1, T12N, R25W		SEC. 20, T12N, R24W	
OWNER.....	HOOPER & BRACKEN ENERGIES, I			AMAREX, INC.		AMAREX, INC.	
COMPLETED.....	01/26/82			09/17/81		01/01/80	
SAMPLED.....	01/26/82			11/18/81		06/04/80	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	14070			14857		17280	
WELLHEAD PRESSURE, PSIG.....	3025			14000		11870	
OPEN FLOW, MCFD.....	6188			5750		12390	
COMPONENT, MOLE PCT							
METHANE.....	96.0	-----		97.6	-----	97.5	-----
ETHANE.....	0.4	-----		0.6	-----	0.3	-----
PROPANE.....	0.1	-----		0.1	-----	TRACE	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.0	-----
NITROGEN.....	0.2	-----		0.2	-----	0.3	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	3.3	-----		0.0	-----	1.0	-----
HELIUM.....	0.02	-----		0.02	-----	0.02	-----
HEATING VALUE.....	982	-----		1000	-----	997	-----
SPECIFIC GRAVITY.....	0.590	-----		0.574	-----	0.575	-----

		INDEX SAMPLE	6763 17828	INDEX SAMPLE	6764 15167	INDEX SAMPLE	6765 15564
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ROGER MILLS			ROGER MILLS		ROGER MILLS	
FIELD.....	ARMSTRONG NO. 1-14			HAMBURG W		HAMBURG W	
WELL NAME.....	SEC. 14, T12N, R24W			SEELY HOOPER NO. 1		SEELY HOOPER NO. 1	
LOCATION.....	SOHIO PETROLEUM CO.			SEC. 32, T15N, R26W		SEC. 5, T14N, R26W	
OWNER.....	10/05/84			ARKLA EXPLORATION CO.		ARKLA EXPLORATION CO.	
COMPLETED.....	09/10/85			09/03/77		--/--/00	
SAMPLED.....	09/10/85			12/13/77		02/09/79	
FORMATION.....	PENN-MORROW U			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	17200			14404		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	13800			10100		NOT GIVEN	
OPEN FLOW, MCFD.....	11970			3897		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	97.4	-----		97.1	-----	96.6	-----
ETHANE.....	0.3	-----		0.7	-----	0.6	-----
PROPANE.....	TRACE	-----		0.0	-----	0.1	-----
N-BUTANE.....	0.0	-----		0.0	-----	TRACE	-----
ISOBUTANE.....	0.0	-----		0.0	-----	TRACE	-----
N-PENTANE.....	0.0	-----		0.0	-----	TRACE	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.1	-----
NITROGEN.....	0.3	-----		0.0	-----	0.5	-----
OXYGEN.....	0.1	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.8	-----		1.8	-----	1.9	-----
HELIUM.....	0.01	-----		0.02	-----	0.02	-----
HEATING VALUE.....	992	-----		997	-----	997	-----
SPECIFIC GRAVITY.....	0.575	-----		0.577	-----	0.580	-----

		INDEX SAMPLE	6766 15715	INDEX SAMPLE	6767 16509	INDEX SAMPLE	6768 16725
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	ROGER MILLS			ROGER MILLS		ROGER MILLS	
FIELD.....	HAMBURG W			HAMBURG W		HAMBURG W	
WELL NAME.....	E. T. GAMBLE			WOODHOUSE NO. 1-34		HAMMON NW	
LOCATION.....	SEC. 13, T15N, R26W			SEC. 14, T14N, R21W		RANCH NO. 1	
OWNER.....	TEXACO INC.			VIERSEN & COCHRAN		COTTON PETROLEUM CORP.	
COMPLETED.....	01/31/79			01/06/82		06/--/82	
SAMPLED.....	07/26/79			05/01/82		12/08/82	
FORMATION.....	PENN-MORROW			PENN-RED FORK		PENN-RED FORK	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	14356			12566		13000	
WELLHEAD PRESSURE, PSIG.....	9400			7600		9000	
OPEN FLOW, MCFD.....	NOT GIVEN			3000		1200	
COMPONENT, MOLE PCT							
METHANE.....	96.8	-----		86.9	-----	90.9	-----
ETHANE.....	0.7	-----		7.3	-----	5.2	-----
PROPANE.....	0.1	-----		2.4	-----	1.4	-----
N-BUTANE.....	0.4	-----		0.0	-----	0.3	-----
ISOBUTANE.....	0.0	-----		0.4	-----	0.2	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.1	-----
NITROGEN.....	0.3	-----		0.9	-----	0.3	-----
OXYGEN.....	0.0	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.8	-----		1.0	-----	1.3	-----
HELIUM.....	0.02	-----		0.02	-----	0.02	-----
HEATING VALUE.....	1084	-----		1123	-----	1086	-----
SPECIFIC GRAVITY.....	0.581	-----		0.651	-----	0.624	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6769 16127	INDEX SAMPLE 6770 16186	INDEX SAMPLE 6771 16187
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	ROGER MILLS	ROGER MILLS	ROGER MILLS	ROGER MILLS
FIELD.....	LEEDEY SW	LEEDEY SW	LEEDEY SW	LEEDEY SW
WELL NAME.....	SWITZER NO. 2	SWITZER NO. 5-1	SWITZER NO. 1-6	SWITZER NO. 1-6
LOCATION.....	SEC. 25, T16N, R22W	SEC. 5, T15N, R21W	SEC. 32, T16N, R21W	SEC. 32, T16N, R21W
OWNER.....	SUNMARK EXPLORATION	WOODS PETROLEUM CORP.	WOODS PETROLEUM CORP.	WOODS PETROLEUM CORP.
COMPLETED.....	04/02/80	03/31/80	02/20/79	02/20/79
SAMPLED.....	11/06/80	02/18/81	02/18/81	02/18/81
FORMATION.....	PENN-RED FORK	PENN-RED FORK	PENN-RED FORK	PENN-RED FORK
GEOLOGIC PROVINCE CODE.....	360	360	360	360
DEPTH, FEET.....	11140	11450	11363	11363
WELLHEAD PRESSURE, PSIG.....	4800	6784	6440	6440
OPEN FLOW, MCFD.....	9825	40398	10526	10526
COMPONENT, MOLE PCT.....				
METHANE.....	84.7	77.2	82.8	82.8
ETHANE.....	8.1	8.2	8.5	8.5
PROPANE.....	3.6	4.7	4.3	4.3
N-BUTANE.....	0.9	2.4	0.9	0.9
ISOBUTANE.....	0.6	1.5	0.8	0.8
N-PENTANE.....	0.2	1.6	0.3	0.3
ISOPENTANE.....	0.4	1.8	0.5	0.5
CYCLOPENTANE.....	0.1	0.2	0.2	0.2
HEXANES PLUS.....	0.3	1.0	0.5	0.5
NITROGEN.....	0.5	0.5	0.5	0.5
OXYGEN.....	0.0	TRACE	0.0	0.0
ARGON.....	0.0	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	0.8	0.7	0.7
HELIUM.....	0.02	0.02	0.02	0.02
HEATING VALUE.....	1198	1386	1227	1227
SPECIFIC GRAVITY.....	0.681	0.804	0.706	0.706

		INDEX SAMPLE 6772 16356	INDEX SAMPLE 6773 16534	INDEX SAMPLE 6774 16853
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	ROGER MILLS	ROGER MILLS	ROGER MILLS	ROGER MILLS
FIELD.....	LEEDEY SW	LEEDEY SW	LEEDEY SW	LEEDEY SW
WELL NAME.....	LARRY SWITZER NO. 1	R.R. CARLTON NO. 3A-2	PETERSON NO. 10-1	PETERSON NO. 10-1
LOCATION.....	SEC. 35, T16N, R21W	SEC. 34, T16N, R21W	SEC. 10, T15N, R21W	SEC. 10, T15N, R21W
OWNER.....	DIAMOND SHAMROCK CORP.	DIAMOND SHAMROCK CORP.	WOODS PETROLEUM CORP.	WOODS PETROLEUM CORP.
COMPLETED.....	03/09/81	10/16/81	04/23/82	04/23/82
SAMPLED.....	10/20/81	06/01/82	04/01/83	04/01/83
FORMATION.....	PENN-RED FORK	PENN-PRUE	PENN-PRUE	PENN-PRUE
GEOLOGIC PROVINCE CODE.....	360	360	360	360
DEPTH, FEET.....	11347	10820	11022	11022
WELLHEAD PRESSURE, PSIG.....	6500	6300	5100	5100
OPEN FLOW, MCFD.....	NOT GIVEN	2829	3000	3000
COMPONENT, MOLE PCT.....				
METHANE.....	83.5	84.2	82.8	82.8
ETHANE.....	9.0	9.2	8.7	8.7
PROPANE.....	3.9	3.5	3.3	3.3
N-BUTANE.....	0.9	0.9	0.8	0.8
ISOBUTANE.....	0.5	0.5	0.7	0.7
N-PENTANE.....	0.2	0.1	0.2	0.2
ISOPENTANE.....	0.3	0.2	0.6	0.6
CYCLOPENTANE.....	0.1	0.1	0.4	0.4
HEXANES PLUS.....	0.2	0.1	0.8	0.8
NITROGEN.....	0.6	0.4	0.5	0.5
OXYGEN.....	0.1	0.0	0.0	0.0
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	0.0	0.1	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	0.9	1.1	1.1
HELIUM.....	0.02	0.03	0.03	0.03
HEATING VALUE.....	1191	1174	1222	1222
SPECIFIC GRAVITY.....	0.686	0.674	0.708	0.708

		INDEX SAMPLE 6775 16514	INDEX SAMPLE 6776 16513	INDEX SAMPLE 6777 16351
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	ROGER MILLS	ROGER MILLS	ROGER MILLS	ROGER MILLS
FIELD.....	MOOREWOOD	MOOREWOOD	MOOREWOOD	MOOREWOOD
WELL NAME.....	W.L. VAN HOOK ET AL. NO. 1-34	ROY C. SMITH, ET AL. NO. 1	MCLEAN NO. 1	MCLEAN NO. 1
LOCATION.....	SEC. 34, T15N, R21W	SEC. 29, T15N, R21W	SEC. 5, T11N, R24W	SEC. 5, T11N, R24W
OWNER.....	DIAMOND SHAMROCK CORP.	DIAMOND SHAMROCK CORP.	EL PASO EXPLORATION CO.	EL PASO EXPLORATION CO.
COMPLETED.....	03/03/82	02/23/82	03/11/81	03/11/81
SAMPLED.....	05/07/82	05/07/82	10/13/81	10/13/81
FORMATION.....	PENN-CHEROKEE L	PENN-CHEROKEE L	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	360	360	360
DEPTH, FEET.....	12700	12512	18853	18853
WELLHEAD PRESSURE, PSIG.....	16100	13600	13608	13608
OPEN FLOW, MCFD.....	1800	5000	9314	9314
COMPONENT, MOLE PCT.....				
METHANE.....	83.7	80.5	96.6	96.6
ETHANE.....	9.5	9.5	0.5	0.5
PROPANE.....	3.8	2.3	TRACE	TRACE
N-BUTANE.....	0.6	0.4	0.0	0.0
ISOBUTANE.....	0.3	0.2	0.0	0.0
N-PENTANE.....	0.1	0.2	0.0	0.0
ISOPENTANE.....	0.1	0.3	0.0	0.0
CYCLOPENTANE.....	0.1	0.1	0.0	0.0
HEXANES PLUS.....	0.2	0.2	0.0	0.0
NITROGEN.....	1.0	6.1	0.2	0.2
OXYGEN.....	0.2	1.2	0.0	0.0
ARGON.....	TRACE	0.0	TRACE	TRACE
HYDROGEN.....	0.0	TRACE	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.0	0.5	2.6	2.6
HELIUM.....	0.03	0.03	0.02	0.02
HEATING VALUE.....	1164	1072	988	988
SPECIFIC GRAVITY.....	0.671	0.681	0.582	0.582

		INDEX SAMPLE 6778 17477	INDEX SAMPLE 6779 15221	INDEX SAMPLE 6780 15300
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	ROGER MILLS	ROGER MILLS	ROGER MILLS	ROGER MILLS
FIELD.....	NOT GIVEN	PECK S	RANKIN SE	RANKIN SE
WELL NAME.....	PARR NO. 1-36	PENRY NO. 1	PURVIS NO. 1	PURVIS NO. 1
LOCATION.....	SEC. 36, T13N, R26W	SEC. 18, T17N, R21W	SEC. 30, T13N, R25W	SEC. 30, T13N, R25W
OWNER.....	PRODUCTION CORP.	ATCO OIL CO.	NATAMAS NORTH AMERICA, INC.	NATAMAS NORTH AMERICA, INC.
COMPLETED.....	11/7/82	02/03/77	01/14/77	01/14/77
SAMPLED.....	10/11/84	03/7/78	06/07/78	06/07/78
FORMATION.....	PENN-MORROW U	PENN-CHEROKEE	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	360	360	360
DEPTH, FEET.....	16340	10254	15944	15944
WELLHEAD PRESSURE, PSIG.....	3922	2015	8945	8945
OPEN FLOW, MCFD.....	9000	743	2716	2716
COMPONENT, MOLE PCT.....				
METHANE.....	95.6	80.1	97.1	97.1
ETHANE.....	10.5	10.5	0.5	0.5
PROPANE.....	0.1	0.0	TRACE	TRACE
N-BUTANE.....	0.0	1.3	0.1	0.1
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.5	0.1	0.1
ISOPENTANE.....	0.0	0.9	0.0	0.0
CYCLOPENTANE.....	0.0	0.1	TRACE	TRACE
HEXANES PLUS.....	0.3	0.3	0.1	0.1
NITROGEN.....	1.3	0.8	0.5	0.5
OXYGEN.....	0.3	TRACE	0.1	0.1
ARGON.....	TRACE	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.2	1.0	1.0
HELIUM.....	0.02	0.04	0.02	0.02
HEATING VALUE.....	990	1246	1006	1006
SPECIFIC GRAVITY.....	0.577	0.718	0.577	0.577

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	6781 17157	INDEX SAMPLE	6782 14123	INDEX SAMPLE	6783 13173
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	ROGER MILLS		ROGER MILLS		ROGER MILLS	
FIELD.....	RED FORK		REYDON SE		REYDON W	
WELL NAME.....	MARGARET DEAN ET AL NO. 1-31		PIERCE NO. 1		BETTY HOLTS NO. 1-29	
LOCATION.....	SEC. 31, T15N, R21W		SEC. 9, T13N, R25W		SEC. 29, T14N, R26W	
OWNER.....	DIAMOND SHAMROCK EXPL. CO.		EL PASO NATURAL GAS CO.		TEXAS PACIFIC OIL CO., INC.	
COMPLETED.....	03/19/83		05/27/74		12/07/71	
SAMPLED.....	01/24/84		08/07/74		03/31/72	
FORMATION.....	PENN-CLEVELAND		DEVO-HUNTON		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360		360		360	
DEPTH, FEET.....	10873		22566		15076	
WELLHEAD PRESSURE, PSIG.....	5864		6110		9990	
OPEN FLOW, MCFD.....	2000		12081		8781	
COMPONENT, MOLE PCT						
METHANE.....	83.1		91.6		97.1	
ETHANE.....	9.4		0.1		0.6	
PROPANE.....	3.8		TRACE		0.1	
N-BUTANE.....	SEC. 8		0.0		TRACE	
ISOBUTANE.....	0.6		0.0		TRACE	
N-PENTANE.....	0.1		0.0		0.1	
ISOPENTANE.....	0.9		0.0		0.0	
CYCLOPENTANE.....	0.1		0.0		0.1	
HEXANES PLUS.....	0.2		0.0		0.1	
NITROGEN.....	0.3		3.5		0.3	
OXYGEN.....	TRACE		0.0		0.0	
ARGON.....	TRACE		TRACE		0.0	
HYDROGEN.....	0.0		TRACE		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.9		4.7		1.5	
HELIUM.....	0.03		0.06		0.02	
HEATING VALUE.....	118		930		1010	
SPECIFIC GRAVITY.....	0.685		0.615		0.580	

	INDEX SAMPLE	6784 13784	INDEX SAMPLE	6785 13972	INDEX SAMPLE	6786 14309
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	ROGER MILLS		ROGER MILLS		ROGER MILLS	
FIELD.....	REYDON W		REYDON W		REYDON W	
WELL NAME.....	NELLIE "B" LIBBY NO. 1-33		SCRIVNER NO. 1		ROBERTSON NO. 1-A	
LOCATION.....	SEC. 33, T14N, R26W		SEC. 5, T14N, R26W		SEC. 1, T13N, R26W	
OWNER.....	TEXAS PACIFIC OIL CO., INC.		EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	--/--/00		11/25/73		01/25/75	
SAMPLED.....	10/25/73		04/03/74		04/31/75	
FORMATION.....	PENN-MORROW U		PENN-MORROW U		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360		360		360	
DEPTH, FEET.....	14884		14986		15136	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		10476		9413	
OPEN FLOW, MCFD.....	174446		4846		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	96.6		97.1		96.6	
ETHANE.....	0.7		0.6		0.6	
PROPANE.....	0.1		0.1		0.1	
N-BUTANE.....	TRACE		TRACE		0.1	
ISOBUTANE.....	TRACE		TRACE		TRACE	
N-PENTANE.....	TRACE		TRACE		TRACE	
ISOPENTANE.....	TRACE		TRACE		TRACE	
CYCLOPENTANE.....	TRACE		TRACE		TRACE	
HEXANES PLUS.....	0.0		TRACE		TRACE	
NITROGEN.....	0.5		0.3		0.7	
OXYGEN.....	TRACE		0.0		0.0	
ARGON.....	REYDON W		TRACE		TRACE	
HYDROGEN.....	TRACE		TRACE		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	1.7		1.9		1.8	
HELIUM.....	0.02		0.02		0.02	
HEATING VALUE.....	999		997		995	
SPECIFIC GRAVITY.....	0.578		0.578		0.580	

	INDEX SAMPLE	6787 15229	INDEX SAMPLE	6788 13513	INDEX SAMPLE	6789 17472
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	ROGER MILLS		ROGER MILLS		ROGER MILLS	
FIELD.....	REYDON W		ROL SW		ROLL NE	
WELL NAME.....	KING NO. 1		VIERS UNIT NO. 1		MARTIN NO. 1	
LOCATION.....	SEC. 9, T13N, R26W		SEC. 8, T15N, R22W		SEC. 1, T15N, R24W	
OWNER.....	DIAMOND PETROLEUM CORP.		GENERAL AMERICAN OIL CO.		ANDERMAN SMITH OPERATING CO.	
COMPLETED.....	01/06/78		12/20/72		05/03/84	
SAMPLED.....	03/13/78		01/19/73		10/09/84	
FORMATION.....	PENN-MORROW		PENN-MORROW		PENN-RED FORK	
GEOLOGIC PROVINCE CODE.....	360		360		360	
DEPTH, FEET.....	15330		14576		12071	
WELLHEAD PRESSURE, PSIG.....	9260		6935		3400	
OPEN FLOW, MCFD.....	7053		5844		175	
COMPONENT, MOLE PCT						
METHANE.....	95.4		96.6		82.1	
ETHANE.....	0.6		0.8		7.6	
PROPANE.....	0.1		0.1		2.4	
N-BUTANE.....	0.0		0.0		0.4	
ISOBUTANE.....	0.0		0.0		0.5	
N-PENTANE.....	0.0		0.1		0.1	
ISOPENTANE.....	0.0		0.0		0.2	
CYCLOPENTANE.....	0.0		0.0		0.1	
HEXANES PLUS.....	0.0		0.0		0.1	
NITROGEN.....	0.6		0.4		TRACE	
OXYGEN.....	0.4		0.0		TRACE	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	1.8		2.1		6.5	
HELIUM.....	0.02		0.02		0.02	
HEATING VALUE.....	980		995		1082	
SPECIFIC GRAVITY.....	0.584		0.581		0.703	

	INDEX SAMPLE	6790 17261	INDEX SAMPLE	6791 16240	INDEX SAMPLE	6792 16751
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	ROGER MILLS		ROGER MILLS		ROGER MILLS	
FIELD.....	ROLL SE		STRONG CITY		STRONG CITY	
WELL NAME.....	LOVETT "A" NO. 1		LOUMERS NO. 1		K. H. QUARTNEY NO. 1-30	
LOCATION.....	SEC. 12, T15N, R23W		SEC. 13, T14N, R23W		SEC. 30, T14N, R22W	
OWNER.....	TEXAS OIL & GAS CORP.		WOODS PETROLEUM CORP.		DIAMOND SHAMROCK CORP.	
COMPLETED.....	06/18/82		01/23/80		07/20/80	
SAMPLED.....	04/18/84		04/21/81		01/14/83	
FORMATION.....	PENN-RED FORK		PENN-RED FORK		PENN-RED FORK	
GEOLOGIC PROVINCE CODE.....	360		360		360	
DEPTH, FEET.....	11982		12587		12554	
WELLHEAD PRESSURE, PSIG.....	3264		4222		6210	
OPEN FLOW, MCFD.....	1375		2020		10567	
COMPONENT, MOLE PCT						
METHANE.....	87.7		91.0		89.8	
ETHANE.....	7.4		4.9		6.0	
PROPANE.....	2.3		0.9		1.2	
N-BUTANE.....	0.4		0.1		0.2	
ISOBUTANE.....	0.4		0.2		0.2	
N-PENTANE.....	0.1		TRACE		0.1	
ISOPENTANE.....	0.2		0.1		0.1	
CYCLOPENTANE.....	0.1		0.1		TRACE	
HEXANES PLUS.....	0.2		0.1		0.1	
NITROGEN.....	0.0		0.9		0.4	
OXYGEN.....	TRACE		0.1		0.1	
ARGON.....	0.0		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.2	
HYDROGEN SULFIDE.....	0.0		0.1		0.0	
CARBON DIOXIDE.....	1.0		1.5		1.4	
HELIUM.....	0.02		0.02		0.02	
HEATING VALUE.....	1034		1056		1076	
SPECIFIC GRAVITY.....	0.649		0.617		0.622	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6793 SAMPLE 15811			INDEX 6794 SAMPLE 16322			INDEX 6795 SAMPLE 16459		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ROGER MILLS		ROGER MILLS			ROGER MILLS		
FIELD.....	STRONG CITY N		STRONG CITY NE			STRONG CITY NE		
WELL NAME.....	WICKHAM NO. 1		THOMAS NO. 1			STRANAHAN NO. 1-29		
LOCATION.....	SEC. 26, T15N, R23W		SEC. 28, T15N, R22W			SEC. 29, T15N, R22W		
OWNER.....	HARPER OIL CO.		DIAMOND SHAMROCK CORP.			DIAMOND SHAMROCK CORP.		
COMPLETED.....	04/10/79		07/00			12/16/81		
SAMPLED.....	10/18/79		08/28/81			03/22/82		
FORMATION.....	PENN-CHEROKEE		PENN-RED FORK			PENN-CHEROKEE L		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	11205		12044			12600		
WELLHEAD PRESSURE, PSIG.....	6900		7700			6820		
OPEN FLOW, MCFD.....	NOT GIVEN		9600			6600		
COMPONENT, MOLE PCT								
METHANE.....	86.5		87.6			88.8		
ETHANE.....	7.9		7.3			6.6		
PROPANE.....	2.7		2.2			2.0		
N-BUTANE.....	0.6		0.4			0.4		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.3		0.1			0.1		
ISOPENTANE.....	0.3		0.2			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	0.4		0.5			0.5		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		1.2			0.9		
HELIUM.....	0.03		0.03			0.02		
HEATING VALUE.....	1144		1129			1114		
SPECIFIC GRAVITY.....	0.656		0.652			0.638		
INDEX 6796 SAMPLE 16526			INDEX 6797 SAMPLE 16601			INDEX 6798 SAMPLE 245		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ROGER MILLS		ROGER MILLS			ROGERS		
FIELD.....	STRONG CITY SE		STRONG CITY W			CLAREMORE		
WELL NAME.....	BLAIR PAIN NO. 1-8		BAILEY NO. 1			RITCHSON NO. 1		
LOCATION.....	SEC. 8, T13N, R22W		SEC. 17, T14N, R23W			SEC. 21, T21N, R16E		
OWNER.....	TENNECO OIL EXPL. & PROD. CO		EL PASO EXPLORATION CO.			OKLAHOMA NATURAL GAS CO.		
COMPLETED.....	11/01/81		05/04/82			07/19		
SAMPLED.....	05/26/82		08/04/82			05/06/20		
FORMATION.....	PENN-RED FORK		PENN-CHEROKEE U			PENN-BARTLESVILLE		
GEOLOGIC PROVINCE CODE.....	360		360			355		
DEPTH, FEET.....	12738		11590			700		
WELLHEAD PRESSURE, PSIG.....	8700		4460			130		
OPEN FLOW, MCFD.....	3290		2559			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	90.5		85.0			96.8		
ETHANE.....	5.6		8.6			2.2		
PROPANE.....	1.3		3.0			---		
N-BUTANE.....	0.3		0.6			---		
ISOBUTANE.....	0.3		0.3			---		
N-PENTANE.....	0.1		0.7			---		
ISOPENTANE.....	0.1		0.2			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.2		0.2			---		
NITROGEN.....	0.3		0.5			0.4		
OXYGEN.....	0.0		0.1			0.5		
ARGON.....	0.0		0.0			---		
HYDROGEN.....	0.1		0.1			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	1.2		1.0			0.0		
HELIUM.....	0.02		0.03			TRACE		
HEATING VALUE.....	1094		1177			1020		
SPECIFIC GRAVITY.....	0.628		0.668			0.569		
INDEX 6799 SAMPLE 3332			INDEX 6800 SAMPLE 1952			INDEX 6801 SAMPLE 3448		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	ROGERS		SEMINOLE			SEMINOLE		
FIELD.....	COLLINSVILLE		ALLEN DISTRICT			BETHEL		
WELL NAME.....	T. C. WALLACE NO. 1		LUCY NO. 1			WALLER NO. 1		
LOCATION.....	SEC. 10, T21N, R14E		SEC. 12, T5N, R7E			SEC. 14, T9N, R7E		
OWNER.....	T. C. COLPITT, ET AL.		PRODUCERS & REFINERS CORP.			MCINTYRE, SHERMAN & CUMMINGS		
COMPLETED.....	04/23/42		01/18/30			08/29/41		
SAMPLED.....	09/15/41		03/10/30			05/26/42		
FORMATION.....	PENN-BURGESS		PENN-			PENN-CROMWELL		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	1150		2877			3403		
WELLHEAD PRESSURE, PSIG.....	16		1050			940		
OPEN FLOW, MCFD.....	10		39000			23400		
COMPONENT, MOLE PCT								
METHANE.....	95.4		94.9			66.8		
ETHANE.....	0.3		1.7			25.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	2.1		2.3			7.5		
OXYGEN.....	0.4		0.1			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.7		1.1			0.2		
HELIUM.....	0.07		0.05			0.10		
HEATING VALUE.....	972		992			1125		
SPECIFIC GRAVITY.....	0.583		0.584			0.713		
INDEX 6802 SAMPLE 3456			INDEX 6803 SAMPLE 16951			INDEX 6804 SAMPLE 4556		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	SEMINOLE		SEMINOLE			SEMINOLE		
FIELD.....	BETHEL		BETHEL			BOWLEGS		
WELL NAME.....	WADKINS NO. 1		GARDNER NO. 1			LIVINGSTON NO. 2		
LOCATION.....	SEC. 13, T9N, R7E		SEC. 13, T9N, R7E			SEC. 5, T8N, R6E		
OWNER.....	MCINTYRE, SHERMAN & CUMMINGS		PAWNEE PETROLEUM CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	09/15/41		03/07/83			02/25/47		
SAMPLED.....	05/26/42		05/23/83			09/13/48		
FORMATION.....	PENN-CROMWELL		PENN-GILCREASE			PENN-CALVIN		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3355		3602			2200		
WELLHEAD PRESSURE, PSIG.....	940		1240			NOT GIVEN		
OPEN FLOW, MCFD.....	24300		1676			1000		
COMPONENT, MOLE PCT								
METHANE.....	50.6		73.0			38.8		
ETHANE.....	41.1		9.0			43.1		
PROPANE.....	---		4.9			---		
N-BUTANE.....	---		0.6			---		
ISOBUTANE.....	---		0.4			---		
N-PENTANE.....	---		0.2			---		
ISOPENTANE.....	---		0.1			---		
CYCLOPENTANE.....	---		0.1			---		
HEXANES PLUS.....	---		0.2			---		
NITROGEN.....	0.8		0.6			17.3		
OXYGEN.....	0.2		0.0			0.3		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		0.2			---		
HYDROGEN SULFIDE.....	---		0.2			---		
CARBON DIOXIDE.....	0.2		0.1			0.4		
HELIUM.....	0.12		0.15			0.11		
HEATING VALUE.....	1249		1137			1165		
SPECIFIC GRAVITY.....	0.793		0.736			0.844		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6805			INDEX 6806			INDEX 6807		
SAMPLE 926			SAMPLE 7419			SAMPLE 3452		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	SEMINOLE		SEMINOLE			SEMINOLE		
FIELD.....	CROMWELL		CROMWELL S			HOLDENVILLE		
WELL NAME.....	BRUNER NO. 1		R. ARHALOKOCHÉ NO. 1-A			FISH NO. 2		
LOCATION.....	SEC. 9, T10N, R8E		SEC. 28, T10N, R8E			SEC. 19, T77N, R8E		
OWNER.....	PURE OIL CO.		EXXON CO., U.S.A.			CITIES SERVICE OIL CO.		
COMPLETED.....	--/--/00		10/28/59			08/13/39		
SAMPLED.....	09/15/24		02/26/60			05/25/42		
FORMATION.....	NOT GIVEN		PENN-MEWOKA			ORDO-VIOLA		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3452		1093			4095		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		414			650		
OPEN FLOW, MCFD.....	NOT GIVEN		13			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	56.1		93.5			63.6		
ETHANE.....	35.2		0.4			9.4		
PROPANE.....	---		0.3			---		
N-BUTANE.....	---		0.2			---		
ISOBUTANE.....	---		0.1			---		
N-PENTANE.....	---		0.0			---		
ISOPENTANE.....	---		0.1			---		
CYCLOPENTANE.....	---		TRACE			---		
HEXANES PLUS.....	---		TRACE			---		
NITROGEN.....	7.8		5.0			26.0		
OXYGEN.....	0.3		0.2			0.2		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE**.....	---		0.0			---		
CARBON DIOXIDE.....	0.4		0.2			0.7		
HELIUM.....	0.09		0.10			0.09		
HEATING VALUE.....	1199		977			813		
SPECIFIC GRAVITY.....	0.765		0.590			0.716		

INDEX 6808			INDEX 6809			INDEX 6810		
SAMPLE 3453			SAMPLE 4012			SAMPLE 14702		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	SEMINOLE		SEMINOLE			SEMINOLE		
FIELD.....	HOLDENVILLE		HOLDENVILLE			HOLDENVILLE		
WELL NAME.....	SEC. 31, T7N, R8E		A. H. PALMER NO. 2			WALLACE NO. 1		
LOCATION.....	SEC. 31, T7N, R8E		SEC. 36, T6N, R7E			SEC. 30, T6N, R8E		
OWNER.....	CITIES SERVICE OIL CO.		STANOLIND OIL & GAS CO.			FRANK W. COLE		
COMPLETED.....	08/26/34		04/25/45			12/02/75		
SAMPLED.....	05/25/42		05/02/45			06/10/76		
FORMATION.....	ORDO-WILCOX		PENN-WAPANUCKA			MISS-JEFFERSON		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	4105		1751			3171		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		934			100		
OPEN FLOW, MCFD.....	NOT GIVEN		50000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.6		84.5			89.2		
ETHANE.....	14.4		10.8			3.5		
PROPANE.....	---		---			1.4		
N-BUTANE.....	---		---			0.3		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.2		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	11.0		2.5			4.6		
OXYGEN.....	0.5		0.8			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE**.....	---		---			0.0		
CARBON DIOXIDE.....	0.4		1.3			0.2		
HELIUM.....	0.08		0.11			0.12		
HEATING VALUE.....	1004		1050			1045		
SPECIFIC GRAVITY.....	0.677		0.635			0.626		

INDEX 6811			INDEX 6812			INDEX 6813		
SAMPLE 17675			SAMPLE 1954			SAMPLE 1996		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	SEMINOLE		SEMINOLE			SEMINOLE		
FIELD.....	KONAWA-DORA		LITTLE RIVER E			LITTLE RIVER E		
WELL NAME.....	DOSAR NO. 1		YAHOLA NO. 3			A. E. WALKER NO. 4		
LOCATION.....	SEC. 14, T6N, R5E		SEC. 8, T7N, R7E			SEC. 5, T7N, R7E		
OWNER.....	JAY PETROLEUM, INC.		MID-CONTINENT PETROLEUM CORP			GYPSY OIL CO.		
COMPLETED.....	12/04/84		02/28/30			04/01/30		
SAMPLED.....	05/14/85		03/11/30			04/18/30		
FORMATION.....	PENN-CARLSBORO		PENN-CROMWELL			PENN-CROMWELL		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	2780		NOT GIVEN			3218		
WELLHEAD PRESSURE, PSIG.....	1000		NOT GIVEN			3200		
OPEN FLOW, MCFD.....	2100		3000			100000		
COMPONENT, MOLE PCT								
METHANE.....	66.5		74.1			81.9		
ETHANE.....	4.6		16.6			12.6		
PROPANE.....	3.4		---			---		
N-BUTANE.....	1.1		---			---		
ISOBUTANE.....	1.3		---			---		
N-PENTANE.....	0.3		---			---		
ISOPENTANE.....	0.2		---			---		
CYCLOPENTANE.....	0.1		---			---		
HEXANES PLUS.....	0.2		---			---		
NITROGEN.....	23.0		8.0			4.8		
OXYGEN.....	1.1		0.6			0.3		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE**.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		0.5			0.5		
HELIUM.....	0.19		0.07			0.07		
HEATING VALUE.....	927		1048			1055		
SPECIFIC GRAVITY.....	0.745		0.681			0.644		

INDEX 6814			INDEX 6815			INDEX 6816		
SAMPLE 14547			SAMPLE 1932			SAMPLE 3661		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	SEMINOLE		SEMINOLE			SEMINOLE		
FIELD.....	LITTLE RIVER E		MISSION			SEMINOLE		
WELL NAME.....	JOHNNY WOLF NO. 3		DAVIS NO. 6			N. BUCK NO. 1		
LOCATION.....	SEC. 30, T8N, R6E		SEC. 7, T8N, R6E			SEC. 21, T10N, R7E		
OWNER.....	Viking Petroleum Co.		ATLANTIC RICHFIELD CO.			SHELL OIL CO.		
COMPLETED.....	05/05/75		12/12/29			08/-/43		
SAMPLED.....	12/10/75		02/03/30			10/13/43		
FORMATION.....	PENN-CROMWELL		PENN-GILCREASE			PENN-CROMWELL		
GEOLOGIC PROVINCE CODE.....	355		355			355		
DEPTH, FEET.....	3312		2886			3710		
WELLHEAD PRESSURE, PSIG.....	470		755			1100		
OPEN FLOW, MCFD.....	6903		3000			2000		
COMPONENT, MOLE PCT								
METHANE.....	83.9		75.1			51.5		
ETHANE.....	2.4		22.2			39.0		
PROPANE.....	0.6		---			---		
N-BUTANE.....	0.5		---			---		
ISOBUTANE.....	0.2		---			---		
N-PENTANE.....	0.1		---			---		
ISOPENTANE.....	0.1		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	7.3		2.4			8.8		
NITROGEN.....	0.0		0.2			0.3		
OXYGEN.....	0.0		---			---		
ARGON.....	0.0		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE**.....	0.0		---			---		
CARBON DIOXIDE.....	0.3		0.2			0.4		
HELIUM.....	0.08		0.07			0.20		
HEATING VALUE.....	1064		1159			1221		
SPECIFIC GRAVITY.....	0.658		0.678			0.790		

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6817 4126	INDEX SAMPLE 6818 13447	INDEX SAMPLE 6819 17890
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	SEMINOLE		SEMINOLE	SEMINOLE
FIELD.....	SEMINOLE		WEMOKA NE	WOFFORD S
WELL NAME.....	J. D. CAMBELL NO. 1		WORK B NO. 1	GAINES NO. 2
LOCATION.....	SEC. 21, T9N, R7E		SEC. 20, T9N, R8E	SEC. 20, T6N, R7E
OWNER.....	PORTABLE DRILLING CORP.		GENERAL AMERICAN OIL CO.	TNT ROYALTY CO.
COMPLETED.....	04/02/46		11/19/71	03/15/83
SAMPLED.....	10/25/46		10/13/73	11/02/85
FORMATION.....	PENN-		PENN-CROMWELL	PENN-SENORA U
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	1932		3266	1850
WELLHEAD PRESSURE, PSIG.....	740		500	100
OPEN FLOW, MCFD.....	6000		5286	150
COMPONENT, MOLE PCT				
METHANE.....	79.5	77.2	62.8	
ETHANE.....	2.5	3.7	7.6	
PROPANE.....	---	5.2	7.4	
N-BUTANE.....	---	1.1	4.3	
ISOBUTANE.....	---	0.3	1.0	
N-PENTANE.....	---	0.3	2.0	
ISOPENTANE.....	---	0.2	0.9	
CYCLOPENTANE.....	---	0.1	0.4	
HEXANES PLUS.....	---	0.1	1.2	
NITROGEN.....	17.6	4.7	12.0	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	---	TRACE	0.0	
HYDROGEN.....	---	0.0	TRACE	
HYDROGEN SULFIDE.....	---	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.1	0.3	
HELIUM.....	0.14	0.07	0.08	
HEATING VALUE.....	850	1178	1344	
SPECIFIC GRAVITY.....	0.642	0.719	0.892	

		INDEX SAMPLE 6820 7727	INDEX SAMPLE 6821 7729	INDEX SAMPLE 6822 10634
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	SEQUOYAH		SEQUOYAH	SEQUOYAH
FIELD.....	KINTA		KINTA	KINTA
WELL NAME.....	REDLAND RANCH NO. 2		REDLAND RANCH NO. 3	M. J. RINEHART NO. 1
LOCATION.....	SEC. 23, T10N, R25E		SEC. 34, T10N, R25E	SEC. 10, T10N, R26E
OWNER.....	STEPHENS PRODUCTION CO.		STEPHENS PRODUCTION CO.	CONTINENTAL OIL CO.
COMPLETED.....	01/06/60		08/05/60	03/16/66
SAMPLED.....	10/11/60		10/11/60	06/29/66
FORMATION.....	PENN-ATOKA		PENN-SPIRO	PENN-SPIRO
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	1645	5966	5626	
WELLHEAD PRESSURE, PSIG.....	405	1091	1200	
OPEN FLOW, MCFD.....	350	7500	5397	
COMPONENT, MOLE PCT				
METHANE.....	97.8	94.1	95.6	
ETHANE.....	1.1	0.7	1.6	
PROPANE.....	0.1	0.2	0.2	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	TRACE	TRACE	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	TRACE	TRACE	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.5	1.1	1.2	
OXYGEN.....	0.0	TRACE	0.0	
ARGON.....	0.2	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	2.1	1.2	
HELIUM.....	0.10	0.0	0.09	
HEATING VALUE.....	1014	996	1002	
SPECIFIC GRAVITY.....	0.560	0.590	0.580	

		INDEX SAMPLE 6823 10897	INDEX SAMPLE 6824 10919	INDEX SAMPLE 6825 4674
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	SEQUOYAH		SEQUOYAH	SEQUOYAH
FIELD.....	PAW PAW NE		PAW PAW NE	PAW PAW NE
WELL NAME.....	IRENE DICKENS NO. 1		IRENE DICKENS NO. 1	LAKE
LOCATION.....	SEC. 29, T11N, R27E		SEC. 29, T11N, R27E	JENNETT NO. 1
OWNER.....	SUN OIL CO.		SUN OIL CO.	SEC. 25, T2S, R7W
COMPLETED.....	01/15/60		01/15/60	PHILLIPS
SAMPLED.....	03/02/67		04/05/67	PET. CO. & KERR-MCG
FORMATION.....	PENN-CROMWELL		PENN-CROMWELL	PENN-NOT GIVEN
GEOLOGIC PROVINCE CODE.....	345		345	350
DEPTH, FEET.....	5325	5325	2643	
WELLHEAD PRESSURE, PSIG.....	940	940	1104	
OPEN FLOW, MCFD.....	11300	11300	71185	
COMPONENT, MOLE PCT				
METHANE.....	96.6	96.8	69.4	
ETHANE.....	1.2	1.1	5.3	
PROPANE.....	0.1	0.1	3.2	
N-BUTANE.....	0.0	0.0	1.0	
ISOBUTANE.....	0.0	0.0	0.7	
N-PENTANE.....	0.0	0.0	0.2	
ISOPENTANE.....	0.0	0.0	0.6	
CYCLOPENTANE.....	0.0	0.0	0.1	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.7	0.0	19.2	
OXYGEN.....	TRACE	0.0	0.1	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	1.3	1.3	0.2	
HELIUM.....	0.05	0.05	0.18	
HEATING VALUE.....	1003	1003	973	
SPECIFIC GRAVITY.....	0.576	0.575	0.738	

		INDEX SAMPLE 6826 10322	INDEX SAMPLE 6827 13171	INDEX SAMPLE 6828 635
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	STEPHENS		STEPHENS	STEPHENS
FIELD.....	CRUCE N		DUNCAN NE	DUNCAN N
WELL NAME.....	RUTH FUQUA NO. 1		DUNCAN NO. 1	CLARKSTON NO. 1
LOCATION.....	SEC. 1, T1N, R6W		SEC. 19, T1N, R7W	SEC. 30, T1N, R8W
OWNER.....	ATLANTIC RICHFIELD CO.		MCCULLOCH OIL CORP.	LONE STAR GAS CO.
COMPLETED.....	12/10/65		03/10/76	09/-/20
SAMPLED.....	12/10/65		03/26/72	08/07/21
FORMATION.....	PENN-SPRINGER		PENN-DEESE	-SAND
GEOLOGIC PROVINCE CODE.....	350		350	350
DEPTH, FEET.....	2846	9138	2117	
WELLHEAD PRESSURE, PSIG.....	588	2603	260	
OPEN FLOW, MCFD.....	6400	4774	2170	
COMPONENT, MOLE PCT				
METHANE.....	95.4	72.0	78.5	
ETHANE.....	1.7	5.9	16.9	
PROPANE.....	0.3	1.5	---	
N-BUTANE.....	0.0	1.2	---	
ISOBUTANE.....	0.0	0.7	---	
N-PENTANE.....	0.0	0.3	---	
ISOPENTANE.....	0.0	0.3	---	
CYCLOPENTANE.....	0.0	0.3	---	
HEXANES PLUS.....	0.0	0.6	---	
NITROGEN.....	0.0	12.1	3.9	
OXYGEN.....	0.0	2.4	0.5	
ARGON.....	TRACE	0.1	---	
HYDROGEN.....	0.0	0.0	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	TRACE	0.4	0.2	
HELIUM.....	0.09	0.04	0.01	
HEATING VALUE.....	1005	1064	1098	
SPECIFIC GRAVITY.....	0.576	0.750	0.659	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6829			INDEX 6830			INDEX 6831		
SAMPLE 636			SAMPLE 638			SAMPLE 1285		
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA			
COUNTY.....	STEPHENS		STEPHENS		STEPHENS			
FIELD.....	DUNCAN W		DUNCAN W		DUNCAN W			
WELL NAME.....	CARTER-HARDING NO. 2		CLARKSTON NO. 2		CLARK NO. 1			
LOCATION.....	SEC. 30, T1N, R8W		SEC. 30, T1N, R8W		SEC. 25, T1S, R9W			
OWNER.....	CARTER OIL CO.		LONE STAR GAS CO.		CARTER OIL CO.			
COMPLETED.....	07/-/721		07/-/720		04/03/26			
SAMPLED.....	08/07/21		08/07/21		07/19/26			
FORMATION.....	-SAND		-SAND		NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	350		350		350			
DEPTH, FEET.....	1822		1740		2022			
WELLHEAD PRESSURE, PSIG.....	700		250		600			
OPEN FLOW, MCFD.....	27240		15375		36000			
COMPONENT, MOLE PCT.....								
METHANE.....	89.8		86.8		38.1			
ETHANE.....	10.0		10.1		13.8			
PROPANE.....	---		---		---			
N-BUTANE.....	---		---		---			
ISOBUTANE.....	---		---		---			
N-PENTANE.....	---		---		---			
ISOPENTANE.....	---		---		---			
CYCLOPENTANE.....	---		---		---			
HEXANES PLUS.....	---		---		---			
NITROGEN.....	0.1		2.4		47.2			
OXYGEN.....	0.0		0.4		0.5			
ARGON.....	---		---		---			
HYDROGEN.....	---		---		---			
HYDROGEN SULFIDE**.....	0.0		0.2		0.5			
CARBON DIOXIDE.....	0.04		0.03		0.20			
HELIUM.....	1089		1060		633			
HEATING VALUE.....	0.604		0.618		0.826			
SPECIFIC GRAVITY.....								
INDEX 6832			INDEX 6833			INDEX 6834		
SAMPLE 1744			SAMPLE 3787			SAMPLE 5631		
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA			
COUNTY.....	STEPHENS		STEPHENS		STEPHENS			
FIELD.....	DUNCAN W		DUNCAN W		DUNCAN W			
WELL NAME.....	C. C. MORRELL NO. 5		HARRY BAKER NO. 1		JOHNSON E NO. 2			
LOCATION.....	SEC. 19, T1S, R8W		SEC. 25, T1S, R9W		SEC. 7, T1S, R8W			
OWNER.....	MOBILE OIL CORP.		MOBILE OIL CORP.		MOBILE OIL CORP.			
COMPLETED.....	01/06/29		03/03/44		05/19/54			
SAMPLED.....	04/13/29		04/15/44		05/29/54			
FORMATION.....	NOT GIVEN		NOT GIVEN		PENN-HOXBAR			
GEOLOGIC PROVINCE CODE.....	350		350		350			
DEPTH, FEET.....	1490		2461		3028			
WELLHEAD PRESSURE, PSIG.....	12839		984		1250			
OPEN FLOW, MCFD.....	---		22340		2000			
COMPONENT, MOLE PCT.....								
METHANE.....	70.1		81.2		89.2			
ETHANE.....	18.5		6.5		0.3			
PROPANE.....	---		---		0.1			
N-BUTANE.....	---		---		0.1			
ISOBUTANE.....	---		---		TRACE			
N-PENTANE.....	---		---		TRACE			
ISOPENTANE.....	---		---		TRACE			
CYCLOPENTANE.....	---		---		TRACE			
HEXANES PLUS.....	---		---		0.1			
NITROGEN.....	10.7		11.5		6.3			
OXYGEN.....	0.2		0.4		TRACE			
ARGON.....	---		---		TRACE			
HYDROGEN.....	---		---		0.1			
HYDROGEN SULFIDE**.....	---		---		0.0			
CARBON DIOXIDE.....	0.2		0.2		0.0			
HELIUM.....	0.12		0.15		0.14			
HEATING VALUE.....	1049		939		987			
SPECIFIC GRAVITY.....	0.696		0.637		0.604			
INDEX 6835			INDEX 6836			INDEX 6837		
SAMPLE 12245			SAMPLE 12246			SAMPLE 2474		
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA			
COUNTY.....	STEPHENS		STEPHENS		STEPHENS			
FIELD.....	DUNCAN W		DUNCAN W		EMPIRE-COMANCHE			
WELL NAME.....	HANMAN NO. 1		HANMAN NO. 1		MYRTLE DARE NO. 1			
LOCATION.....	SEC. 25, T1N, R8W		SEC. 25, T1N, R8W		SEC. 2, T2S, R8W			
OWNER.....	L. E. JONES PRODUCTION CO.		L. E. JONES PRODUCTION CO.		CONTINENTAL OIL CO.			
COMPLETED.....	02/04/70		02/04/70		01/29/32			
SAMPLED.....	04/27/70		04/27/70		---/---/00			
FORMATION.....	PERM-NICHOLAS U		PERM-NICHOLAS L		NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	350		350		350			
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		1433			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		495			
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		6282			
COMPONENT, MOLE PCT.....								
METHANE.....	87.1		86.8		89.5			
ETHANE.....	5.6		5.2		7.2			
PROPANE.....	0.0		0.0		---			
N-BUTANE.....	0.0		0.0		---			
ISOBUTANE.....	0.3		0.4		---			
N-PENTANE.....	0.1		0.2		---			
ISOPENTANE.....	0.1		0.3		---			
CYCLOPENTANE.....	TRACE		0.1		---			
HEXANES PLUS.....	0.1		0.1		---			
NITROGEN.....	2.3		0.0		2.8			
OXYGEN.....	TRACE		0.1		0.4			
ARGON.....	0.0		0.0		---			
HYDROGEN.....	TRACE		TRACE		---			
HYDROGEN SULFIDE**.....	0.0		0.0		---			
CARBON DIOXIDE.....	0.1		TRACE		0.1			
HELIUM.....	0.04		0.04		0.09			
HEATING VALUE.....	1123		1123		1032			
SPECIFIC GRAVITY.....	0.650		0.654		0.605			
INDEX 6838			INDEX 6839			INDEX 6840		
SAMPLE 12331			SAMPLE 13170			SAMPLE 13797		
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA			
COUNTY.....	STEPHENS		STEPHENS		STEPHENS			
FIELD.....	HOPE SW		HOPE SW		HOPE SW			
WELL NAME.....	WATTS NO. 1		MAYBERRY NO. 1		JACKSON NO. 1-26			
LOCATION.....	SEC. 23, T1N, R7W		SEC. 23, T1N, R7W		SEC. 26, T1N, R7W			
OWNER.....	PETROLEUM, INC.		MCCULLOCH OIL CORP.		MCCULLOCH OIL CORP.			
COMPLETED.....	02/21/72		01/02/72		12/26/72			
SAMPLED.....	03/22/72		03/22/72		10/31/73			
FORMATION.....	PENN-MADE U & L		PENN-SPRINGER		PENN-DORNICK HILLS			
GEOLOGIC PROVINCE CODE.....	350		350		350			
DEPTH, FEET.....	7300		12137		12844			
WELLHEAD PRESSURE, PSIG.....	1175		5953		900			
OPEN FLOW, MCFD.....	4000		50302		100			
COMPONENT, MOLE PCT.....								
METHANE.....	89.5		82.9		84.9			
ETHANE.....	4.6		7.0		8.1			
PROPANE.....	2.5		4.1		3.5			
N-BUTANE.....	0.7		0.9		1.1			
ISOBUTANE.....	0.4		0.9		0.5			
N-PENTANE.....	0.2		0.5		0.3			
ISOPENTANE.....	TRACE		0.8		0.3			
CYCLOPENTANE.....	0.1		0.2		TRACE			
HEXANES PLUS.....	0.2		1.0		0.2			
NITROGEN.....	1.2		0.2		0.7			
OXYGEN.....	TRACE		TRACE		0.0			
ARGON.....	0.0		0.0		0.0			
HYDROGEN.....	0.1		TRACE		TRACE			
HYDROGEN SULFIDE**.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	0.0		0.0		0.5			
HELIUM.....	0.06		0.03		0.05			
HEATING VALUE.....	1114		1271		1186			
SPECIFIC GRAVITY.....	0.634		0.737		0.676			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6841 SAMPLE 14888			INDEX 6842 SAMPLE 14987			INDEX 6843 SAMPLE 648		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	HOPE SW		HOPE SW			LOCO DISTRICT		
WELL NAME.....	CLARK NO. 1		CLARK NO. 1-15			CULVER NO. 1		
LOCATION.....	SEC. 16, T1N, R7W		SEC. 15, T1N, R7W			NOT GIVEN		
OWNER.....	MACDONALD OIL CO.		TESORO PETROLEUM CORP.			LOVE STAR GAS CO.		
COMPLETED.....	08/07/76		03/04/77			07/-/70		
SAMPLED.....	01/21/77		04/05/77			08/12/21		
FORMATION.....	PENN-BEGGS		PENN-HOXBAR			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	9442		9062			1680		
WELLHEAD PRESSURE, PSIG.....	3225		2762			190		
OPEN FLOW, MCFD.....	3292		14347			7400		
COMPONENT, MOLE PCT.....								
METHANE.....	87.9	-----	90.4	-----		88.1	-----	
ETHANE.....	5.3	-----	4.4	-----		8.7	-----	
PROPANE.....	3.0	-----	2.2	-----		---	-----	
N-BUTANE.....	0.9	-----	0.7	-----		---	-----	
ISOBUTANE.....	0.3	-----	0.2	-----		---	-----	
N-PENTANE.....	0.3	-----	0.2	-----		---	-----	
ISOPENTANE.....	0.3	-----	0.2	-----		---	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		---	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		---	-----	
NITROGEN.....	1.6	-----	1.1	-----		3.0	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		---	-----	
HYDROGEN.....	0.0	-----	0.0	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		---	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.2	-----	
HELIUM.....	0.06	-----	0.07	-----		0.03	-----	
HEATING VALUE.....	1139	-----	113	-----		1048	-----	
SPECIFIC GRAVITY.....	0.654	-----	0.632	-----		0.612	-----	
INDEX 6844 SAMPLE 649			INDEX 6845 SAMPLE 650			INDEX 6846 SAMPLE 1981		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	LOCO DISTRICT		LOCO DISTRICT			LOCO DISTRICT		
WELL NAME.....	MULLEN & ROBBISON		ALLEN & GILBERT NO. 3			PAUL ANDREA NO. 1		
LOCATION.....	NOT GIVEN		NOT GIVEN			SEC. 8, T2S, R6W		
OWNER.....	LOVE STAR GAS CO.		LOVE STAR GAS CO.			MOBIL OIL CORP.		
COMPLETED.....	--/714		--/714			11/15/29		
SAMPLED.....	08/12/21		08/12/21			04/03/30		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	800		745			3008		
WELLHEAD PRESSURE, PSIG.....	210		170			1080		
OPEN FLOW, MCFD.....	11272		9527			40000		
COMPONENT, MOLE PCT.....								
METHANE.....	90.3	-----	80.6	-----		77.9	-----	
ETHANE.....	2.5	-----	13.0	-----		16.7	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	6.9	-----	6.0	-----		4.9	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.2	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.0	-----	0.2	-----		0.3	-----	
HELIUM.....	0.21	-----	0.17	-----		0.13	-----	
HEATING VALUE.....	960	-----	1049	-----		1088	-----	
SPECIFIC GRAVITY.....	0.594	-----	0.645	-----		0.661	-----	
INDEX 6847 SAMPLE 3898			INDEX 6848 SAMPLE 12125			INDEX 6849 SAMPLE 14612		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	LOCO DISTRICT		LOCO DISTRICT			LOCO DISTRICT		
WELL NAME.....	P. H. PECK NO. 1-8		VIRGIL MCPHAIL NO. 1			HARLEY NO. 1		
LOCATION.....	SEC. 1, T2S, R6W		SEC. 1, T2S, R6W			SEC. 9, T2S, R6W		
OWNER.....	FAIR & BRIGHT		ANADARKO PRODUCTION CO.			WOODS PETROLEUM CORP.		
COMPLETED.....	07/30/44		10/11/68			10/21/75		
SAMPLED.....	08/17/44		11/-/69			03/10/76		
FORMATION.....	PENN-		PENN-NICHOLAS			PENN-HOXBAR		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	1164		3565			2745		
WELLHEAD PRESSURE, PSIG.....	370		1185			936		
OPEN FLOW, MCFD.....	8000		3671			8156		
COMPONENT, MOLE PCT.....								
METHANE.....	78.0	-----	80.8	-----		83.4	-----	
ETHANE.....	15.0	-----	5.1	-----		6.3	-----	
PROPANE.....	---	-----	2.7	-----		3.0	-----	
N-BUTANE.....	---	-----	0.7	-----		0.9	-----	
ISOBUTANE.....	---	-----	0.4	-----		0.7	-----	
N-PENTANE.....	---	-----	0.3	-----		0.1	-----	
ISOPENTANE.....	---	-----	TRACE	-----		0.2	-----	
CYCLOPENTANE.....	---	-----	---	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	0.2	-----		0.1	-----	
NITROGEN.....	6.4	-----	9.4	-----		4.8	-----	
OXYGEN.....	0.4	-----	---	-----		0.0	-----	
ARGON.....	---	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	---	-----	0.1	-----		0.0	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	TRACE	-----		0.2	-----	
HELIUM.....	0.07	-----	0.16	-----		0.07	-----	
HEATING VALUE.....	1059	-----	1044	-----		1112	-----	
SPECIFIC GRAVITY.....	0.658	-----	0.673	-----		0.671	-----	
INDEX 6850 SAMPLE 11285			INDEX 6851 SAMPLE 12114			INDEX 6852 SAMPLE 11145		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	MARLOW		MARLOW SE			MARLOW W		
WELL NAME.....	MARLOW DISTRICT		EDWARDS NO. 1			MESSALL NO. 2		
LOCATION.....	SEC. 34, T2N, R7W		SEC. 1, T2N, R7W			SEC. 2, T2N, R8W		
OWNER.....	GETTY OIL CO.		MACDONALD OIL CORP.			BLACKWOOD & NICHOLS CO.		
COMPLETED.....	03/27/58		05/-/69			--/700		
SAMPLED.....	02/13/68		11/13/69			10/03/67		
FORMATION.....	PENN-WADE		PENN-GRISCOE			PENN-HOXBAR		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	8676		9300			8582		
WELLHEAD PRESSURE, PSIG.....	1500		3000			NOT GIVEN		
OPEN FLOW, MCFD.....	---		NOT GIVEN			12500		
COMPONENT, MOLE PCT.....								
METHANE.....	83.1	-----	32.4	-----		86.8	-----	
ETHANE.....	6.6	-----	3.6	-----		6.3	-----	
PROPANE.....	3.1	-----	1.7	-----		2.9	-----	
N-BUTANE.....	1.3	-----	0.5	-----		1.0	-----	
ISOBUTANE.....	0.3	-----	0.3	-----		0.3	-----	
N-PENTANE.....	0.2	-----	0.1	-----		0.2	-----	
ISOPENTANE.....	0.3	-----	---	-----		0.3	-----	
CYCLOPENTANE.....	---	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.2	-----	
NITROGEN.....	4.1	-----	0.8	-----		1.5	-----	
OXYGEN.....	0.4	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	---	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.1	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.4	-----	---	-----		0.3	-----	
HELIUM.....	0.05	-----	0.03	-----		0.04	-----	
HEATING VALUE.....	1123	-----	1088	-----		1147	-----	
SPECIFIC GRAVITY.....	0.674	-----	0.612	-----		0.659	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6853 SAMPLE 11439			INDEX 6854 SAMPLE 11440			INDEX 6855 SAMPLE 11441		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	MARLOW W		MARLOW W			MARLOW W		
WELL NAME.....	BRISCOE ESTATE NO. 1		SADLER NO. 2			BRISCOE WILDER NO. 2		
LOCATION.....	SEC. 36, T2N, R9W		SEC. 36, T2N, R8W			SEC. 25, T2N, R8W		
OWNER.....	GULF OIL CO.- U.S.		GULF OIL CO.- U.S.			GULF OIL CO.- U.S.		
COMPLETED.....	11/29/66		11/29/66			12/09/60		
SAMPLED.....	03/27/68		03/27/68			03/27/68		
FORMATION.....	PENN-BRISCOE		PENN-CISCO U			PENN-CISCO M		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	7732		5116			6310		
WELLHEAD PRESSURE, PSIG.....	367		1367			1674		
OPEN FLOW, MCFD.....	3888		10000			3430		
COMPONENT, MOLE PCT								
METHANE.....	90.1		89.7			88.4		
ETHANE.....	4.8		4.0			4.2		
PROPANE.....	2.2		1.9			2.2		
N-BUTANE.....	0.5		0.6			0.8		
ISOBUTANE.....	0.4		0.3			0.3		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.4		0.2			0.2		
NITROGEN.....	0.8		2.7			3.0		
OXYGEN.....	0.0		0.1			0.2		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.01		0.05			0.05		
HEATING VALUE.....	1128		1091			1096		
SPECIFIC GRAVITY.....	0.636		0.635			0.642		
INDEX 6856 SAMPLE 11442			INDEX 6857 SAMPLE 16766			INDEX 6858 SAMPLE 16767		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	MARLOW W		MARLOW W			MARLOW W		
WELL NAME.....	SADLER NO. 1		MAMIE NO. 1-36			M. W. PAYNE NO. 1		
LOCATION.....	SEC. 36, T2N, R8W		SEC. 36, T2N, R8W			SEC. 35, T2N, R8W		
OWNER.....	GULF OIL CO.- U.S.		GULF OIL CORP.			GULF OIL CORP.		
COMPLETED.....	12/01/59		10/12/82			12/28/81		
SAMPLED.....	03/27/68		02/08/83			02/08/83		
FORMATION.....	PENN-CISCO L		PENN-HOXBAR L			PENN-BLAKE		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	7128		9542			4440		
WELLHEAD PRESSURE, PSIG.....	1378		4429			1435		
OPEN FLOW, MCFD.....	5700		15000			6000		
COMPONENT, MOLE PCT								
METHANE.....	82.7		86.7			76.1		
ETHANE.....	4.0		5.0			4.0		
PROPANE.....	2.3		2.8			2.8		
N-BUTANE.....	0.9		0.7			0.8		
ISOBUTANE.....	0.4		0.5			0.3		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.3		0.6			0.4		
CYCLOPENTANE.....	0.1		0.4			0.1		
HEXANES PLUS.....	0.3		0.7			0.6		
NITROGEN.....	7.1		1.3			1.6		
OXYGEN.....	1.4		0.2			1.5		
ARGON.....	0.1		0.0			0.1		
HYDROGEN.....	0.1		0.2			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.01		0.01			0.04		
HEATING VALUE.....	1054		1174			984		
SPECIFIC GRAVITY.....	0.674		0.674			0.698		
INDEX 6859 SAMPLE 3547			INDEX 6860 SAMPLE 3548			INDEX 6861 SAMPLE 9911		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	NELLIE DISTRICT N		NELLIE DISTRICT N			NELLIE DISTRICT N		
WELL NAME.....	ELLIZIA NO. 1		RICHARDS NO. 1			T. MUNLEY NO. 1		
LOCATION.....	SEC. 1, T1N, R9W		SEC. 26, T2N, R9W			SEC. 27, T2N, R9W		
OWNER.....	CONTINENTAL OIL CO.		LOVE STAR GAS CO.			SUN OIL CO.		
COMPLETED.....	03/11/27		11/28/75			03/31/65		
SAMPLED.....	05/20/42		05/20/42			06/02/65		
FORMATION.....	-GAS SAND		PENN-CISCO			PENN-NELLIE		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	1863		1843			1840		
WELLHEAD PRESSURE, PSIG.....	525		428			650		
OPEN FLOW, MCFD.....	8309		1700			600		
COMPONENT, MOLE PCT								
METHANE.....	79.8		81.3			88.3		
ETHANE.....	15.1		14.8			4.0		
PROPANE.....	---		---			1.8		
N-BUTANE.....	---		---			0.6		
ISOBUTANE.....	---		---			0.2		
N-PENTANE.....	---		---			0.2		
ISOPENTANE.....	---		---			0.1		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	4.2		3.1			4.5		
OXYGEN.....	0.4		0.0			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.1		
HELIUM.....	0.07		0.09			0.10		
HEATING VALUE.....	1079		1089			1058		
SPECIFIC GRAVITY.....	0.652		0.645			0.632		
INDEX 6862 SAMPLE 10531			INDEX 6863 SAMPLE 1743			INDEX 6864 SAMPLE 3428		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	NELLIE DISTRICT N		SHO-VEL-TUM			SHO-VEL-TUM		
WELL NAME.....	ELLIZIA MUNLEY UNIT NO. 1		M. GREEN NO. 1			T. PARKER NO. 1		
LOCATION.....	SEC. 25, T1S, R5W		SEC. 13, T1S, R4W			SEC. 16, T1S, R5W		
OWNER.....	ATLANTIC RICHFIELD CO.		MOBIL OIL CORP.			SKELLY OIL CO.		
COMPLETED.....	06/07/65		02/19/49			12/10/41		
SAMPLED.....	04/22/68		04/13/29			05/21/42		
FORMATION.....	PENN-BRISCOE		PENN-DEESE			-100 FT. SAND		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	6211		2515			756		
WELLHEAD PRESSURE, PSIG.....	2220		7381			100		
OPEN FLOW, MCFD.....	6050		---			3000		
COMPONENT, MOLE PCT								
METHANE.....	87.3		72.2			93.8		
ETHANE.....	6.3		16.6			4.3		
PROPANE.....	2.6		---			---		
N-BUTANE.....	0.8		---			---		
ISOBUTANE.....	0.3		---			---		
N-PENTANE.....	0.2		---			---		
ISOPENTANE.....	0.2		---			---		
CYCLOPENTANE.....	0.1		---			---		
HEXANES PLUS.....	0.3		---			---		
NITROGEN.....	1.5		10.8			1.0		
OXYGEN.....	0.1		0.2			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.0		0.3			0.4		
HELIUM.....	0.04		0.12			0.07		
HEATING VALUE.....	1138		1029			1027		
SPECIFIC GRAVITY.....	0.655		0.686			0.585		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6865 3549			INDEX SAMPLE	6866 3550			INDEX SAMPLE	6867 3551
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	STEPHENS			STEPHENS				STEPHENS			
FIELD.....	SHO-VEL-TUM			SHO-VEL-TUM				SHO-VEL-TUM			
WELL NAME.....	SIMPSON NO. 10			WADE NO. 1A				HEFNER NO. 1B			
LOCATION.....	SEC. 11, T1N, R5W			SEC. 12, T1N, R5W				SEC. 12, T1N, R5W			
OWNER.....	CLARK AND CORADEN DRILLING C			HELMERICH & PAYNE, INC.				HELMERICH & PAYNE, INC.			
COMPLETED.....	01/18/38			10/21/37				05/07/42			
SAMPLED.....	05/20/42			05/20/42				05/20/42			
FORMATION.....	PENN-DEESE			PENN-DEESE				PENN-DEESE L			
GEOLOGIC PROVINCE CODE.....	350			350				350			
DEPTH, FEET.....	3678			3600				5355			
WELLHEAD PRESSURE, PSIG.....	750			600				1860			
OPEN FLOW, MCFD.....	12500			7200				13120			
COMPONENT, MOLE PCT											
METHANE.....	72.5			68.4				68.8			
ETHANE.....	20.0			25.3				28.1			
PROPANE.....	---			---				---			
N-BUTANE.....	---			---				---			
ISOBUTANE.....	---			---				---			
N-PENTANE.....	---			---				---			
ISOPENTANE.....	---			---				---			
CYCLOPENTANE.....	---			---				---			
HEXANES PLUS.....	---			---				---			
NITROGEN.....	6.9			5.6				2.5			
OXYGEN.....	0.4			0.5				0.4			
ARGON.....	---			---				---			
HYDROGEN.....	---			---				---			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.1			0.1				0.1			
HELIUM.....	0.11			0.09				0.10			
HEATING VALUE.....	109			116				1200			
SPECIFIC GRAVITY.....	0.665			0.706				0.707			

		INDEX SAMPLE	6868 3552			INDEX SAMPLE	6869 3553			INDEX SAMPLE	6870 3556
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	STEPHENS			STEPHENS				STEPHENS			
FIELD.....	SHO-VEL-TUM			SHO-VEL-TUM				SHO-VEL-TUM			
WELL NAME.....	HEFNER NO. 2			ROBERSON NO. 4				FRENSELY NO. 3			
LOCATION.....	SEC. 12, T1N, R5W			SEC. 38, T1S, R5W				SEC. 36, T1S, R5W			
OWNER.....	HELMERICH & PAYNE, INC.			SKELLY OIL CO.				SKELLY OIL CO.			
COMPLETED.....	12/21/40			06/08/41				01/18/42			
SAMPLED.....	05/21/42			05/21/42				05/21/42			
FORMATION.....	PENN-DEESE			ORDO-BROMIDE				-1200 FT. SAND			
GEOLOGIC PROVINCE CODE.....	350			350				350			
DEPTH, FEET.....	5506			7060				1268			
WELLHEAD PRESSURE, PSIG.....	1250			620				345			
OPEN FLOW, MCFD.....	4507			1597				2500			
COMPONENT, MOLE PCT											
METHANE.....	72.8			76.1				95.2			
ETHANE.....	24.1			19.4				1.9			
PROPANE.....	---			---				---			
N-BUTANE.....	---			---				---			
ISOBUTANE.....	---			---				---			
N-PENTANE.....	---			---				---			
ISOPENTANE.....	---			---				---			
CYCLOPENTANE.....	---			---				---			
HEXANES PLUS.....	---			---				---			
NITROGEN.....	2.5			3.8				2.1			
OXYGEN.....	0.4			0.5				0.3			
ARGON.....	---			---				---			
HYDROGEN.....	---			---				---			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.1			0.1				0.4			
HELIUM.....	0.08			0.09				0.11			
HEATING VALUE.....	1169			1119				998			
SPECIFIC GRAVITY.....	0.687			0.669				0.578			

		INDEX SAMPLE	6871 3774			INDEX SAMPLE	6872 4417			INDEX SAMPLE	6873 4421
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	STEPHENS			STEPHENS				STEPHENS			
FIELD.....	SHO-VEL-TUM			SHO-VEL-TUM				SHO-VEL-TUM			
WELL NAME.....	EGGLESON NO. 1			HATTIE HARRELL NO. 1-A				ORAH CREEK NO. 1			
LOCATION.....	SEC. 30, T1N, R5W			SEC. 9, T1N, R5W				SEC. 5, T1S, R5W			
OWNER.....	T. H. MCCASLAND			TEXACO INC.				W. L. KERNSTADT			
COMPLETED.....	09/15/43			09/09/47				09/19/47			
SAMPLED.....	04/17/44			01/06/48				01/05/48			
FORMATION.....	PENN-			CULBERSON				PENN-DORNICK HILLS			
GEOLOGIC PROVINCE CODE.....	350			350				350			
DEPTH, FEET.....	1691			5325				6265			
WELLHEAD PRESSURE, PSIG.....	550			NOT GIVEN				1350			
OPEN FLOW, MCFD.....	11000			10000				10908			
COMPONENT, MOLE PCT											
METHANE.....	96.2			8.3				89.1			
ETHANE.....	2.4			89.5				9.3			
PROPANE.....	---			---				---			
N-BUTANE.....	---			---				---			
ISOBUTANE.....	---			---				---			
N-PENTANE.....	---			---				---			
ISOPENTANE.....	---			---				---			
CYCLOPENTANE.....	---			---				---			
HEXANES PLUS.....	---			---				---			
NITROGEN.....	0.8			1.1				0.8			
OXYGEN.....	0.4			0.5				0.4			
ARGON.....	---			---				---			
HYDROGEN.....	---			---				---			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.2			0.6				0.3			
HELIUM.....	TRACE			0.04				0.05			
HEATING VALUE.....	1018			1688				1069			
SPECIFIC GRAVITY.....	0.574			1.011				0.608			

		INDEX SAMPLE	6874 4731			INDEX SAMPLE	6875 5415			INDEX SAMPLE	6876 9768
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	STEPHENS			STEPHENS				STEPHENS			
FIELD.....	SHO-VEL-TUM			SHO-VEL-TUM				SHO-VEL-TUM			
WELL NAME.....	L. G. VOORHEES NO. 2			IRENE RIVIERE NO. 1				DENNIS NO. 3			
LOCATION.....	SEC. 4, T1S, R5W			SEC. 9, T1S, R5W				SEC. 32, T2N, R5W			
OWNER.....	CARTER OIL CO.			AMERADA HESS CORP.				COASTAL STATES GAS PROD. CO.			
COMPLETED.....	10/03/48			12/01/52				12/01/64			
SAMPLED.....	05/10/49			03/13/53				02/25/65			
FORMATION.....	PENN-SPRINGER			NOT GIVEN				PENN-DORNICK HILLS			
GEOLOGIC PROVINCE CODE.....	350			350				350			
DEPTH, FEET.....	6604			5220				7346			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1208				1050			
OPEN FLOW, MCFD.....	5717			7117				1802			
COMPONENT, MOLE PCT											
METHANE.....	88.6			92.3				90.5			
ETHANE.....	2.5			4.1				5.2			
PROPANE.....	---			---				---			
N-BUTANE.....	0.6			0.4				0.6			
ISOBUTANE.....	0.1			0.2				0.2			
N-PENTANE.....	---			---				---			
ISOPENTANE.....	0.5			TRACE				0.1			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	0.2			---				0.2			
NITROGEN.....	2.1			1.1				0.7			
OXYGEN.....	0.1			TRACE				TRACE			
ARGON.....	---			---				---			
HYDROGEN.....	---			---				---			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.1			0.0				0.0			
HELIUM.....	0.05			0.1				0.3			
HEATING VALUE.....	1109			107				0.04			
SPECIFIC GRAVITY.....	0.639			1074				1113			
				0.607				0.630			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6877 SAMPLE 9769			INDEX 6878 SAMPLE 9770			INDEX 6879 SAMPLE 9771		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	SHO-VEL-TUM		SHO-VEL-TUM			SHO-VEL-TUM		
WELL NAME.....	DENNIS NO. 3		DENNIS NO. 3			DENNIS NO. 3		
LOCATION.....	SEC. 32, T2N, R5W		SEC. 32, T2N, R5W			SEC. 32, T2N, R5W		
OWNER.....	COASTAL STATES GAS PROD. CO.		COASTAL STATES GAS PROD. CO.			COASTAL STATES GAS PROD. CO.		
COMPLETED.....	12/01/65		12/01/64			12/01/64		
SAMPLED.....	02/25/65		02/25/65			02/25/65		
FORMATION.....	NISS-SHARKHAM		PENN-SIMS			PENN-HUMPHREYS		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	8660		9616			9258		
WELLHEAD PRESSURE, PSIG.....	1750		950			1850		
OPEN FLOW, MCFD.....	7913		3692			789		
COMPONENT, MOLE PCT								
METHANE.....	87.1		89.3			89.3		
ETHANE.....	6.1		4.7			4.9		
PROpane.....	2.8		2.1			2.4		
N-BUTANE.....	0.7		0.9			1.0		
ISOBUTANE.....	0.4		0.4			0.2		
N-PENTANE.....	0.4		0.3			0.2		
ISOPENTANE.....	0.1		0.4			0.3		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.5		0.2			0.2		
NITROGEN.....	1.0		1.3			1.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.04		0.07			0.07		
HEATING VALUE.....	1169		1131			1131		
SPECIFIC GRAVITY.....	0.666		0.646			0.642		

INDEX 6880 SAMPLE 10295			INDEX 6881 SAMPLE 11084			INDEX 6882 SAMPLE 11085		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	SHO-VEL-TUM		SHO-VEL-TUM			SHO-VEL-TUM		
WELL NAME.....	CRABTREE MUDGE UNIT NO. 4		BUCK A NO. 1			BUCK A NO. 1		
LOCATION.....	SEC. 23, T1S, R5W		SEC. 27, T1S, R5W			SEC. 27, T1S, R5W		
OWNER.....	SKELLY OIL CO.		SKELLY OIL CO.			SKELLY OIL CO.		
COMPLETED.....	04/23/65		04/23/65			04/23/65		
SAMPLED.....	11/29/65		08/31/67			08/31/67		
FORMATION.....	NISS-SYCAMORE		PENN-SIMS			PENN-SIMS		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	3924		3242			3650		
WELLHEAD PRESSURE, PSIG.....	1582		1400			1480		
OPEN FLOW, MCFD.....	1000		11602			6186		
COMPONENT, MOLE PCT								
METHANE.....	87.4		94.0			88.1		
ETHANE.....	6.3		3.2			5.9		
PROpane.....	2.3		0.1			2.7		
N-BUTANE.....	0.0		0.1			0.7		
ISOBUTANE.....	TRACE		0.1			0.4		
N-PENTANE.....	0.3		TRACE			0.3		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	1.2		1.9			1.5		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.1			TRACE		
HELIUM.....	0.03		0.04			0.05		
HEATING VALUE.....	1120		1052			1132		
SPECIFIC GRAVITY.....	0.654		0.596			0.646		

INDEX 6883 SAMPLE 14231			INDEX 6884 SAMPLE 14232			INDEX 6885 SAMPLE 15243		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	SHO-VEL-TUM		SHO-VEL-TUM			SHO-VEL-TUM		
WELL NAME.....	DENVER NEWMAN NO. 1		DENVER NEWMAN NO. 1			FRENSELEY-MARTIN NO. 1		
LOCATION.....	SEC. 22, T1N, R4W		SEC. 22, T1N, R4W			SEC. 36, T1S, R5W		
OWNER.....	HELMERICH & PAYNE, INC.		HELMERICH & PAYNE, INC.			GETTY OIL CO.		
COMPLETED.....	10/02/74		10/02/74			12/22/77		
SAMPLED.....	11/21/74		11/21/74			03/21/78		
FORMATION.....	NISS-SYCAMORE		NISS-SYCAMORE			DEVO-HUNTON		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	6514		8522			4290		
WELLHEAD PRESSURE, PSIG.....	1714		1454			972		
OPEN FLOW, MCFD.....	2129		NOT GIVEN			5202		
COMPONENT, MOLE PCT								
METHANE.....	90.2		77.0			84.5		
ETHANE.....	5.2		10.3			7.1		
PROpane.....	2.0		5.6			3.1		
N-BUTANE.....	0.5		1.5			0.8		
ISOBUTANE.....	0.3		0.1			0.2		
N-PENTANE.....	0.1		0.3			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	1.1		3.4			2.5		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.7			1.2		
HELIUM.....	0.09		0.07			0.04		
HEATING VALUE.....	1107		1213			1120		
SPECIFIC GRAVITY.....	0.628		0.728			0.669		

INDEX 6886 SAMPLE 11299			INDEX 6887 SAMPLE 11309			INDEX 6888 SAMPLE 11375		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	STEPHENS		STEPHENS			STEPHENS		
FIELD.....	STAGE STAND NE		STAGE STAND NE			STAGE STAND SE		
WELL NAME.....	J. K. CALLOWAY UNIT NO. 1		V. J. CARSON NO. 1			NORRIS TRUST NO. 1		
LOCATION.....	SEC. 9, T1N, R8W		SEC. 9, T1N, R8W			SEC. 30, T1N, R7W		
OWNER.....	AMERADA HESS CORP.		AMERADA HESS CORP.			TEXACO INC.		
COMPLETED.....	09/08/56		01/17/56			03/01/65		
SAMPLED.....	02/19/68		02/19/68			03/15/68		
FORMATION.....	PENN-CISCO & PONTOTOC		PENN-ROWE			PENN-MEDRANO		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			7312		
WELLHEAD PRESSURE, PSIG.....	255		225			2305		
OPEN FLOW, MCFD.....	270		337			869		
COMPONENT, MOLE PCT								
METHANE.....	82.8		73.8			87.2		
ETHANE.....	5.5		3.5			5.3		
PROpane.....	2.9		1.1			3.0		
N-BUTANE.....	1.1		1.0			0.9		
ISOBUTANE.....	0.5		0.1			0.4		
N-PENTANE.....	0.4		0.4			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.2		
HEXANES PLUS.....	6.3		9.2			2.5		
NITROGEN.....	0.0		0.0			0.0		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.1		0.0			0.1		
CARBON DIOXIDE.....	0.1		0.08			0.05		
HELIUM.....	1.09		1.099			1.127		
HEATING VALUE.....	1102		0.707			0.654		
SPECIFIC GRAVITY.....	0.679							

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6889 SAMPLE 11408		INDEX 6890 SAMPLE 11409		INDEX 6891 SAMPLE 11432	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	STEPHENS	COUNTY.....	STEPHENS	COUNTY.....	STEPHENS
FIELD.....	STAGE STAND SE	FIELD.....	STAGE STAND SE	FIELD.....	STAGE STAND SE
WELL NAME.....	DEVINE NO. 1	WELL NAME.....	DEVINE NO. 1	WELL NAME.....	S. J. PINSON NO. 1
LOCATION.....	SEC. 22, T1N, R6W	LOCATION.....	SEC. 22, T1N, R6W	LOCATION.....	SEC. 30, T1N, R7W
OWNER.....	HERMAN GEORGE KAISER	OWNER.....	HERMAN GEORGE KAISER	OWNER.....	EASON OIL CO.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	03/25/68	SAMPLED.....	03/25/68	SAMPLED.....	04/05/68
FORMATION.....	PENN-DES MOINES	FORMATION.....	PENN-MISSOURI	FORMATION.....	PENN-DEESE
GEOLOGIC PROVINCE CODE.....	350	GEOLOGIC PROVINCE CODE.....	350	GEOLOGIC PROVINCE CODE.....	350
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	920	WELLHEAD PRESSURE, PSIG.....	825	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	86.2	METHANE.....	87.4	METHANE.....	87.5
ETHANE.....	7.6	ETHANE.....	6.4	ETHANE.....	4.9
PROPANE.....	3.2	PROPANE.....	3.0	PROPANE.....	2.8
N-BUTANE.....	1.0	N-BUTANE.....	0.7	N-BUTANE.....	0.9
ISOBUTANE.....	0.3	ISOBUTANE.....	0.1	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.1	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	0.9	NITROGEN.....	1.2	NITROGEN.....	2.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.02	HELIUM.....	0.03	HELIUM.....	0.05
HEATING VALUE.....	1164	HEATING VALUE.....	1142	HEATING VALUE.....	1123
SPECIFIC GRAVITY.....	0.661	SPECIFIC GRAVITY.....	0.650	SPECIFIC GRAVITY.....	0.652

INDEX 6892 SAMPLE 4006		INDEX 6893 SAMPLE 13594		INDEX 6894 SAMPLE 5564	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	STEPHENS	COUNTY.....	STEPHENS	COUNTY.....	TEXAS
FIELD.....	WELDON	FIELD.....	WILDCAT	FIELD.....	CAMRICK GAS AREA
WELL NAME.....	FRENSLEY C-114 NO. 1	WELL NAME.....	PRICE NO. 2	WELL NAME.....	J. H. COOK NO. 1
LOCATION.....	SEC. 12, T1N, R6W	LOCATION.....	SEC. 25, T2N, R6W	LOCATION.....	SEC. 27, T1N, R19ECM
OWNER.....	CARTER OIL CO.	OWNER.....	WHITE SHIELD OIL & GAS CORP.	OWNER.....	TEXACO INC.
COMPLETED.....	02/23/45	COMPLETED.....	08/09/72	COMPLETED.....	10/16/53
SAMPLED.....	04/21/45	SAMPLED.....	04/30/73	SAMPLED.....	11/20/53
FORMATION.....	NOT GIVEN	FORMATION.....	PENN-& MISS COMMINGLED	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	350	GEOLOGIC PROVINCE CODE.....	350	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	913	DEPTH, FEET.....	7944	DEPTH, FEET.....	6812
WELLHEAD PRESSURE, PSIG.....	150	WELLHEAD PRESSURE, PSIG.....	1125	WELLHEAD PRESSURE, PSIG.....	1417
OPEN FLOW, MCFD.....	2800	OPEN FLOW, MCFD.....	500	OPEN FLOW, MCFD.....	22250
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	86.5	METHANE.....	87.8	METHANE.....	86.4
ETHANE.....	8.3	ETHANE.....	3.7	ETHANE.....	6.9
PROPANE.....	---	PROPANE.....	3.0	PROPANE.....	3.5
N-BUTANE.....	---	N-BUTANE.....	0.8	N-BUTANE.....	0.9
ISOBUTANE.....	---	ISOBUTANE.....	0.5	ISOBUTANE.....	0.2
N-PENTANE.....	---	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	---	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	---	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0
NITROGEN.....	4.3	NITROGEN.....	1.1	NITROGEN.....	2.4
OXYGEN.....	0.5	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	---	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	---	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2
HELIUM.....	0.06	HELIUM.....	0.04	HELIUM.....	0.19
HEATING VALUE.....	1025	HEATING VALUE.....	1149	HEATING VALUE.....	1127
SPECIFIC GRAVITY.....	0.618	SPECIFIC GRAVITY.....	0.656	SPECIFIC GRAVITY.....	0.655

INDEX 6895 SAMPLE 5973		INDEX 6896 SAMPLE 6128		INDEX 6897 SAMPLE 6134	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	TEXAS	COUNTY.....	TEXAS	COUNTY.....	TEXAS
FIELD.....	CAMRICK GAS AREA	FIELD.....	CAMRICK GAS AREA	FIELD.....	CAMRICK GAS AREA
WELL NAME.....	WESTMORELAND NO. C-1	WELL NAME.....	FLETCHER NO. 2-25	WELL NAME.....	F. R. REUSZER
LOCATION.....	SEC. 26, T1N, R18ECM	LOCATION.....	SEC. 25, T3N, R18ECM	LOCATION.....	SEC. 3, T1N, R19ECM
OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	PANHANDLE EASTERN PIPELINE C	OWNER.....	CARTER OIL CO.
COMPLETED.....	11/01/55	COMPLETED.....	05/14/56	COMPLETED.....	05/22/56
SAMPLED.....	11/29/55	SAMPLED.....	08/15/56	SAMPLED.....	08/24/56
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	6632	DEPTH, FEET.....	6172	DEPTH, FEET.....	6666
WELLHEAD PRESSURE, PSIG.....	1014	WELLHEAD PRESSURE, PSIG.....	1389	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	235913	OPEN FLOW, MCFD.....	76000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	92.9	METHANE.....	84.9	METHANE.....	83.4
ETHANE.....	2.0	ETHANE.....	5.6	ETHANE.....	5.9
PROPANE.....	0.9	PROPANE.....	3.1	PROPANE.....	3.9
N-BUTANE.....	0.1	N-BUTANE.....	0.6	N-BUTANE.....	1.1
ISOBUTANE.....	0.1	ISOBUTANE.....	0.6	ISOBUTANE.....	0.7
N-PENTANE.....	0.0	N-PENTANE.....	0.5	N-PENTANE.....	0.5
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.3	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.4
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.4	HEXANES PLUS.....	1.0
NITROGEN.....	3.4	NITROGEN.....	2.4	NITROGEN.....	2.3
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.2	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.27	HELIUM.....	0.18	HELIUM.....	0.17
HEATING VALUE.....	1008	HEATING VALUE.....	1170	HEATING VALUE.....	1209
SPECIFIC GRAVITY.....	0.589	SPECIFIC GRAVITY.....	0.684	SPECIFIC GRAVITY.....	0.706

INDEX 6898 SAMPLE 6351		INDEX 6899 SAMPLE 6427		INDEX 6900 SAMPLE 6504	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	TEXAS	COUNTY.....	TEXAS	COUNTY.....	TEXAS
FIELD.....	CAMRICK GAS AREA	FIELD.....	CAMRICK GAS AREA	FIELD.....	CAMRICK GAS AREA
WELL NAME.....	J. L. ESTATE NO. 1	WELL NAME.....	J. L. ESTATE NO. 1	WELL NAME.....	J. L. ESTATE UNIT NO. 1
LOCATION.....	SEC. 4, T2N, R18ECM	LOCATION.....	SEC. 23, T3N, R17ECM	LOCATION.....	SEC. 27, T3N, R18ECM
OWNER.....	CARTER OIL CO.	OWNER.....	PANHANDLE EASTERN PIPELINE C	OWNER.....	CARTER OIL CO.
COMPLETED.....	07/08/57	COMPLETED.....	10/31/57	COMPLETED.....	02/17/58
SAMPLED.....	07/08/57	SAMPLED.....	10/31/57	SAMPLED.....	02/17/58
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	6246	DEPTH, FEET.....	6205	DEPTH, FEET.....	6330
WELLHEAD PRESSURE, PSIG.....	1490	WELLHEAD PRESSURE, PSIG.....	1235	WELLHEAD PRESSURE, PSIG.....	1310
OPEN FLOW, MCFD.....	80000	OPEN FLOW, MCFD.....	63000	OPEN FLOW, MCFD.....	70000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	94.2	METHANE.....	84.9	METHANE.....	86.1
ETHANE.....	0.5	ETHANE.....	6.1	ETHANE.....	5.8
PROPANE.....	0.6	PROPANE.....	3.0	PROPANE.....	3.6
N-BUTANE.....	0.3	N-BUTANE.....	0.6	N-BUTANE.....	0.9
ISOBUTANE.....	0.2	ISOBUTANE.....	0.6	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	2.7	NITROGEN.....	0.1	NITROGEN.....	2.2
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.24	HELIUM.....	0.10	HELIUM.....	0.20
HEATING VALUE.....	1042	HEATING VALUE.....	1048	HEATING VALUE.....	1132
SPECIFIC GRAVITY.....	0.604	SPECIFIC GRAVITY.....	0.672	SPECIFIC GRAVITY.....	0.658

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6901 6766	INDEX SAMPLE	6902 7408	INDEX SAMPLE	6903 7430
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	TEXAS			TEXAS		TEXAS	
FIELD	CAMRICK GAS AREA			CAMRICK GAS AREA		CAMRICK GAS AREA	
WELL NAME	LAMASTER NO. 1-31			LITTAU NO. 1-25		O. C. FLOWERS NO. 1-34	
LOCATION	SEC. 31, T1N, R19ECM			SEC. 25, T1N, R19ECM		SEC. 34, T1N, R19ECM	
OWNER	HORIZON OIL & GAS CO.			HORIZON OIL & GAS CO.		HAYFLO OIL CO.	
COMPLETED	05/10/58			05/19/59		01/-/60	
SAMPLED	07/18/58			02/18/60		03/09/60	
FORMATION	MISS--			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	7411			7202		6887	
WELLHEAD PRESSURE, PSIG	1816			1987		1245	
OPEN FLOW, MCFD	8100			1500		28500	
COMPONENT, MOLE PCT							
METHANE	95.4			88.9		85.8	
ETHANE	2.3			4.9		6.0	
PROPANE	0.7			2.9		3.6	
N-BUTANE	0.2			0.8		1.0	
ISOBUTANE	0.2			0.4		0.4	
N-PENTANE	0.1			0.1		0.2	
ISOPENTANE	0.1			0.4		0.2	
CYCLOPENTANE	0.0			0.2		0.1	
HEXANES PLUS	0.2			0.2		0.2	
NITROGEN	0.6			1.1		2.1	
OXYGEN	TRACE			0.0		TRACE	
ARGON	TRACE			0.0		TRACE	
HYDROGEN	0.0			0.0		TRACE	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.2			0.2		0.2	
HELIUM	0.04			0.10		0.10	
HEATING VALUE*	1053			1139		1148	
SPECIFIC GRAVITY	0.589			0.649		0.666	
		INDEX SAMPLE	6904 12177	INDEX SAMPLE	6905 12372	INDEX SAMPLE	6906 12373
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	TEXAS			TEXAS		TEXAS	
FIELD	CAMRICK GAS AREA			CAMRICK GAS AREA		CAMRICK GAS AREA	
WELL NAME	YOTH A NO. 1			FLETCHER NO. 2		BEASLEY NO. 1-B	
LOCATION	SEC. 20, T3N, R18ECM			SEC. 25, T3N, R17ECM		SEC. 23, T3N, R17ECM	
OWNER	ANADARKO PRODUCTION CO.			PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
COMPLETED	09/12/65			05/14/57		08/08/57	
SAMPLED	01/27/70			08/21/70		08/21/70	
FORMATION	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	6328			6200		6253	
WELLHEAD PRESSURE, PSIG	682			726		507	
OPEN FLOW, MCFD	10853			25515		14587	
COMPONENT, MOLE PCT							
METHANE	83.8			83.7		83.7	
ETHANE	6.0			6.0		6.1	
PROPANE	4.6			4.5		4.5	
N-BUTANE	1.0			1.3		1.2	
ISOBUTANE	0.6			0.5		0.4	
N-PENTANE	0.1			0.3		0.4	
ISOPENTANE	TRACE			0.4		0.3	
CYCLOPENTANE	0.1			0.1		0.1	
HEXANES PLUS	0.2			0.2		0.2	
NITROGEN	3.1			2.5		2.9	
OXYGEN	TRACE			0.1		TRACE	
ARGON	0.0			0.0		0.0	
HYDROGEN	0.0			0.1		0.1	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.2		0.2	
HELIUM	0.16			0.16		0.15	
HEATING VALUE*	1159			1177		1172	
SPECIFIC GRAVITY	0.681			0.689		0.689	
		INDEX SAMPLE	6907 12412	INDEX SAMPLE	6908 12908	INDEX SAMPLE	6909 15602
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	TEXAS			TEXAS		TEXAS	
FIELD	CAMRICK GAS AREA			CAMRICK GAS AREA		CAMRICK GAS AREA	
WELL NAME	BEASLEY NO. 1			GRAHAM NO. A-3		NEFF NO. NO. 2X	
LOCATION	SEC. 35, T3N, R17ECM			SEC. 31, T3N, R18ECM		SEC. 6, T2N, R18ECM	
OWNER	PETROLEUM, INC.			ANADARKO PRODUCTION CO.		KANSAS-NEBRASKA NATURAL GAS	
COMPLETED	06/30/66			--/--/00		09/16/78	
SAMPLED	09/06/70			07/23/71		04/23/79	
FORMATION	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	6442			NOT GIVEN		6373	
WELLHEAD PRESSURE, PSIG	728			574		360	
OPEN FLOW, MCFD	4289			NOT GIVEN		1000	
COMPONENT, MOLE PCT							
METHANE	81.9			85.7		83.4	
ETHANE	5.6			5.5		6.2	
PROPANE	5.2			4.0		4.5	
N-BUTANE	1.5			0.9		1.4	
ISOBUTANE	1.4			0.6		0.6	
N-PENTANE	0.6			0.3		0.4	
ISOPENTANE	0.3			0.3		0.4	
CYCLOPENTANE	0.2			TRACE		0.1	
HEXANES PLUS	0.7			0.2		0.3	
NITROGEN	2.2			2.5		2.4	
OXYGEN	TRACE			0.0		0.0	
ARGON	0.0			0.0		0.0	
HYDROGEN	0.1			0.0		TRACE	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	TRACE			0.1		0.3	
HELIUM	0.16			0.17		0.17	
HEATING VALUE*	1235			1144		1190	
SPECIFIC GRAVITY	0.722			0.666		0.696	
		INDEX SAMPLE	6910 17020	INDEX SAMPLE	6911 15825	INDEX SAMPLE	6912 16662
STATE	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY	TEXAS			TEXAS		TEXAS	
FIELD	CAMRICK GAS AREA			CABLE N		CABLE N	
WELL NAME	ETTER NO. B-2			DAISY NO. 1		DORSEY NO. 2-5	
LOCATION	SEC. 34, T2N, R18ECM			SEC. 31, T2N, R17ECM		SEC. 5, T1N, R17ECM	
OWNER	ENERGY, INC.			SOUTHLAND ROYALTY CO.		SOUTHLAND ROYALTY CO.	
COMPLETED	08/20/82			05/12/79		12/15/81	
SAMPLED	08/24/83			10/11/79		09/-/82	
FORMATION	PENN-MORROW			MISS-CHESTER		PENN-MORROW	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	6634			6711		6312	
WELLHEAD PRESSURE, PSIG	1314			1250		875	
OPEN FLOW, MCFD	2370			800		4230	
COMPONENT, MOLE PCT							
METHANE	88.7			91.7		80.3	
ETHANE	3.2			3.2		5.9	
PROPANE	2.0			1.6		4.7	
N-BUTANE	0.9			0.4		1.5	
ISOBUTANE	0.3			0.3		0.4	
N-PENTANE	0.3			0.1		0.4	
ISOPENTANE	0.4			0.2		0.3	
CYCLOPENTANE	0.2			0.3		0.3	
HEXANES PLUS	0.4			0.2		0.2	
NITROGEN	2.2			1.8		5.6	
OXYGEN	0.1			0.0		0.0	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.3			0.0		0.1	
HYDROGEN SULFIDE**	0.0			0.0		0.0	
CARBON DIOXIDE	0.3			0.2		0.0	
HELIUM	0.15			0.14		0.27	
HEATING VALUE*	1118			1078		1149	
SPECIFIC GRAVITY	0.649			0.618		0.703	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6913 16663	INDEX SAMPLE	6914 6420	INDEX SAMPLE	6915 6532
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	CAPLE N			CARTHAGE GAS AREA		CARTHAGE GAS AREA	
WELL NAME.....	DORSEY NO. 2-5			MCCLANAHAN NO. 2-32		REISS NO. 1	
LOCATION.....	SEC. 5, T6N, R17ECM			SEC. 32, T6N, R12ECM		SEC. 11, T6N, R10ECM	
OWNER.....	SOUTHLAND ROYALTY CO.			PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
COMPLETED.....	12/15/81			07/27/57		12/16/57	
SAMPLED.....	09/1/82			10/16/57		03/24/58	
FORMATION.....	MISS-CHESTER			PENN-MORROW		PENN-PURDY	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6938			5689		4455	
WELLHEAD PRESSURE, PSIG.....	300			1339		1115	
OPEN FLOW, MCFD.....	461			150567		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	90.6			80.9		71.3	
ETHANE.....	3.6			7.1		5.2	
PROPANE.....	1.9			4.6		3.3	
N-BUTANE.....	0.2			1.1		0.8	
ISOBUTANE.....	0.2			0.4		0.4	
N-PENTANE.....	0.2			0.1		0.1	
ISOPENTANE.....	0.2			0.2		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	2.1			4.6		17.5	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.14			0.20		0.80	
HEATING VALUE.....	1090			1147		959	
SPECIFIC GRAVITY.....	0.628			0.691		0.710	
		INDEX SAMPLE	6916 6845	INDEX SAMPLE	6917 6870	INDEX SAMPLE	6918 7228
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	CARTHAGE GAS AREA			CARTHAGE GAS AREA		CARTHAGE GAS AREA	
WELL NAME.....	FINCHAM NO. 1			MILLER NO. 1		DENNING NO. 1	
LOCATION.....	SEC. 27, T6N, R10ECM			SEC. 18, T6N, R10ECM		SEC. 30, T6N, R11ECM	
OWNER.....	GRAHAM-MICHAELIS DRILLING CO			SIERRA PETROLEUM CO., INC.		PETROLEUM, INC.	
COMPLETED.....	08/11/58			09/20/58		05/28/58	
SAMPLED.....	10/25/58			11/1/58		10/01/59	
FORMATION.....	PENN-PURDY			PENN-PURDY		PENN-PURDY	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4442			4310		4503	
WELLHEAD PRESSURE, PSIG.....	1117			1050		1108	
OPEN FLOW, MCFD.....	50			23		8000	
COMPONENT, MOLE PCT.....							
METHANE.....	70.5			78.2		72.5	
ETHANE.....	5.7			6.4		6.2	
PROPANE.....	4.7			3.6		4.7	
N-BUTANE.....	1.8			0.6		1.1	
ISOBUTANE.....	1.1			0.6		0.5	
N-PENTANE.....	0.5			0.1		0.1	
ISOPENTANE.....	0.8			0.1		0.4	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.8			0.1		0.1	
NITROGEN.....	13.1			9.5		13.3	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.60			0.40		0.70	
HEATING VALUE.....	1140			1058		1051	
SPECIFIC GRAVITY.....	0.774			0.686		0.722	
		INDEX SAMPLE	6919 7353	INDEX SAMPLE	6920 7643	INDEX SAMPLE	6921 7711
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	CARTHAGE GAS AREA			CARTHAGE GAS AREA		CARTHAGE GAS AREA	
WELL NAME.....	BOALDIN			GLODEN NO. 1		ROOFNER NO. A-1	
LOCATION.....	SEC. 17, T6N, R10ECM			SEC. 20, T6N, R11ECM		SEC. 29, T6N, R11ECM	
OWNER.....	PANHANDLE EASTERN PIPELINE C			EDWIN L. COX		LITLES SERVICE OIL CO.	
COMPLETED.....	12/10/58			10/--/59		07/26/60	
SAMPLED.....	01/19/60			08/12/60		10/17/60	
FORMATION.....	PENN-KEYES			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4580			3000		3018	
WELLHEAD PRESSURE, PSIG.....	834			450		414	
OPEN FLOW, MCFD.....	37120			2900		11000	
COMPONENT, MOLE PCT.....							
METHANE.....	76.4			66.3		63.0	
ETHANE.....	6.9			4.1		6.0	
PROPANE.....	3.2			4.1		3.3	
N-BUTANE.....	0.9			1.1		1.0	
ISOBUTANE.....	0.4			0.3		0.5	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.3			0.2		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	12.1			20.0		23.7	
OXYGEN.....	TRACE			TRACE		0.9	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.2		0.2	
HELIUM.....	1.70			0.70		0.70	
HEATING VALUE.....	1007			968		904	
SPECIFIC GRAVITY.....	0.689			0.743		0.752	
		INDEX SAMPLE	6922 7756	INDEX SAMPLE	6923 7774	INDEX SAMPLE	6924 7856
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	CARTHAGE GAS AREA			CARTHAGE GAS AREA		CARTHAGE GAS AREA	
WELL NAME.....	BESSIE SHRAUNER UNIT NO. 1			TUCKER NO. 1-18		QUIGLEY NO. 1	
LOCATION.....	SEC. 13, T6N, R10ECM			SEC. 18, T6N, R11ECM		SEC. 25, T6N, R10ECM	
OWNER.....	TEXA, INC.			GRAHAM-MICHAELIS DRILLING CO		PETROLEUM, INC.	
COMPLETED.....	06/02/60			04/25/60		12/31/60	
SAMPLED.....	11/03/60			11/15/60		02/13/61	
FORMATION.....	PENN-TOPEKA			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2958			2980		3042	
WELLHEAD PRESSURE, PSIG.....	420			420		435	
OPEN FLOW, MCFD.....	2930			12422		6500	
COMPONENT, MOLE PCT.....							
METHANE.....	65.4			65.1		66.6	
ETHANE.....	6.3			6.9		6.4	
PROPANE.....	3.6			4.1		3.5	
N-BUTANE.....	0.8			1.1		1.1	
ISOBUTANE.....	0.4			0.6		0.6	
N-PENTANE.....	0.1			0.7		0.3	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.2		0.3	
NITROGEN.....	22.3			21.6		19.9	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.1		0.3	
CARBON DIOXIDE.....	0.1			0.1		0.0	
HELIUM.....	0.70			0.70		0.70	
HEATING VALUE.....	923			955		978	
SPECIFIC GRAVITY.....	0.736			0.748		0.748	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6925			INDEX 6926			INDEX 6927		
SAMPLE 7893			SAMPLE 7894			SAMPLE 8042		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	CARTHAGE GAS AREA		CARTHAGE GAS AREA			CARTHAGE GAS AREA		
WELL NAME.....	REISS A		DENNEY			WELSH B NO. 1		
LOCATION.....	SEC. 27, T6N, R11ECM		SEC. 21, T6N, R11ECM			SEC. 21, T6N, R10ECM		
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	01/07/61		01/10/61			07/27/60		
SAMPLED.....	05/01/61		05/01/61			06/28/61		
FORMATION.....	PENN-TOPEKA		PENN-TOPEKA			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	3101		3008			2922		
WELLHEAD PRESSURE, PSIG.....	422		423			430		
OPEN FLOW, MCFD.....	7000		5800			2181		
COMPONENT, MOLE PCT								
METHANE.....	60.8	-----	65.8	-----		63.0	-----	
ETHANE.....	6.0	-----	6.3	-----		6.4	-----	
PROPANE.....	3.2	-----	3.4	-----		3.6	-----	
N-BUTANE.....	0.9	-----	1.0	-----		1.1	-----	
ISOBUTANE.....	0.5	-----	0.5	-----		0.6	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.3	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		0.1	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.2	-----	
NITROGEN.....	27.3	-----	21.1	-----		23.5	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.1	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.5	-----		0.2	-----	
HELIUM.....	0.70	-----	0.70	-----		0.70	-----	
HEATING VALUE.....	877	-----	90	-----		935	-----	
SPECIFIC GRAVITY.....	0.759	-----	0.742	-----		0.758	-----	
INDEX 6928			INDEX 6929			INDEX 6930		
SAMPLE 8560			SAMPLE 8904			SAMPLE 14420		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	CARTHAGE GAS AREA		CARTHAGE GAS AREA			CARTHAGE NW		
WELL NAME.....	BOALDIN NO. 1-20		ORVILLE HIGGINS NO. 2-25			ETTA NILES NO. 4		
LOCATION.....	SEC. 20, T6N, R10ECM		SEC. 25, T6N, R10ECM			SEC. 32, T6N, R10ECM		
OWNER.....	ANADARKO PRODUCTION CO.		HAMILTON BROS., INC.			MAURICE L. BROWN CO.		
COMPLETED.....	05/02/62		--/--/00			11/09/74		
SAMPLED.....	08/17/62		05/22/63			07/26/75		
FORMATION.....	PENN-KEYES		PENN-MORROW			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4572		NOT GIVEN			4605		
WELLHEAD PRESSURE, PSIG.....	778		NOT GIVEN			427		
OPEN FLOW, MCFD.....	6879		NOT GIVEN			5568		
COMPONENT, MOLE PCT								
METHANE.....	75.9	-----	78.6	-----		76.7	-----	
ETHANE.....	4.1	-----	4.1	-----		4.1	-----	
PROPANE.....	2.8	-----	4.1	-----		0.7	-----	
N-BUTANE.....	0.9	-----	1.3	-----		0.1	-----	
ISOBUTANE.....	0.4	-----	0.4	-----		0.1	-----	
N-PENTANE.....	0.3	-----	0.4	-----		0.1	-----	
ISOPENTANE.....	0.3	-----	TRACE	-----		TRACE	-----	
CYCLOPENTANE.....	0.1	-----	0.3	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.3	-----		TRACE	-----	
NITROGEN.....	12.7	-----	7.5	-----		12.2	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.0	-----	
ARGON.....	0.1	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.7	-----	0.6	-----		5.1	-----	
HELIUM.....	1.69	-----	0.40	-----		0.92	-----	
HEATING VALUE.....	998	-----	1106	-----		880	-----	
SPECIFIC GRAVITY.....	0.695	-----	0.704	-----		0.683	-----	
INDEX 6931			INDEX 6932			INDEX 6933		
SAMPLE 5917			SAMPLE 11166			SAMPLE 9897		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	DRAGUE		DRAGUE SE			DOMBEY NW		
WELL NAME.....	BURDGE NO. 2		MATTEY NO. 1-9			TEAGARDEN NO. 1		
LOCATION.....	SEC. 20, T6N, R16ECM		SEC. 9, T5N, R16ECM			SEC. 35, T5N, R19ECM		
OWNER.....	REPUBLIC NATURAL GAS CO.		CABOT CORP.			AMARILLO NATURAL GAS CO.		
COMPLETED.....	--/--/00		--/--/00			05/08/65		
SAMPLED.....	08/18/55		10/12/67			05/19/65		
FORMATION.....	PENN-MORROW		PENN-KEYES			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6484		6477			6814		
WELLHEAD PRESSURE, PSIG.....	1685		1320			1620		
OPEN FLOW, MCFD.....	21000		2000			4621		
COMPONENT, MOLE PCT								
METHANE.....	89.6	-----	87.0	-----		74.3	-----	
ETHANE.....	3.3	-----	3.9	-----		3.4	-----	
PROPANE.....	1.6	-----	1.9	-----		4.7	-----	
N-BUTANE.....	0.5	-----	0.5	-----		0.8	-----	
ISOBUTANE.....	0.3	-----	0.4	-----		TRACE	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.3	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		TRACE	-----	
CYCLOPENTANE.....	0.2	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.3	-----	0.3	-----		0.2	-----	
NITROGEN.....	3.4	-----	5.0	-----		1.3	-----	
OXYGEN.....	TRACE	-----	0.1	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.3	-----	0.3	-----		14.6	-----	
HELIUM.....	0.19	-----	0.20	-----		0.17	-----	
HEATING VALUE.....	1067	-----	1063	-----		989	-----	
SPECIFIC GRAVITY.....	0.629	-----	0.645	-----		0.789	-----	
INDEX 6934			INDEX 6935			INDEX 6936		
SAMPLE 16614			SAMPLE 16681			SAMPLE 17728		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	DOMBEY W		DOMBEY W			DOMBEY W		
WELL NAME.....	PHILLIPS NO. 1-30		PHILLIPS NO. 1			RICHARDS NO. 1-14		
LOCATION.....	SEC. 30, T4N, R19ECM		SEC. 25, T4N, R19ECM			SEC. 14, T3N, R19ECM		
OWNER.....	SENECA OIL CO.		FUNK EXPLORATION CO.			SENECA OIL CO.		
COMPLETED.....	04/24/82		12/28/81			11/03/84		
SAMPLED.....	08/10/82		10/05/82			06/27/85		
FORMATION.....	PENN-MORROW		MISS-CHESTER U			PENN-MORROW L & MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6579		6708			6864		
WELLHEAD PRESSURE, PSIG.....	1510		1587			1290		
OPEN FLOW, MCFD.....	1570		750000			4712		
COMPONENT, MOLE PCT								
METHANE.....	82.6	-----	86.4	-----		83.6	-----	
ETHANE.....	5.5	-----	5.0	-----		5.5	-----	
PROPANE.....	4.7	-----	3.3	-----		3.7	-----	
N-BUTANE.....	1.5	-----	1.0	-----		1.2	-----	
ISOBUTANE.....	0.7	-----	0.5	-----		0.5	-----	
N-PENTANE.....	0.3	-----	0.3	-----		0.3	-----	
ISOPENTANE.....	0.4	-----	0.1	-----		0.4	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.2	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.5	-----	
NITROGEN.....	3.2	-----	2.1	-----		2.1	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.1	-----	
ARGON.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.1	-----	0.1	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.4	-----	0.3	-----		1.6	-----	
HELIUM.....	0.16	-----	0.13	-----		0.03	-----	
HEATING VALUE.....	1176	-----	1162	-----		1162	-----	
SPECIFIC GRAVITY.....	0.698	-----	0.669	-----		0.697	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6937 15171	INDEX SAMPLE 6938 5686	INDEX SAMPLE 6939 6428
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	EVA NW		EVA NW	EVA NW
WELL NAME.....	ADDINGTON NO. 1		KELLEY NO. 9	KELLEY NO. 1
LOCATION.....	SEC. 2, T4N, R11ECM		SEC. 2, T4N, R10ECM	SEC. 2, T4N, R10ECM
OWNER.....	KENNEDY & MITCHELL, INC.		UNITED PRODUCING CO., INC.	ASHLAND OIL, INC.
COMPLETED.....	11/22/76		02/12/54	09/02/53
SAMPLED.....	12/20/77		09/08/54	11/06/57
FORMATION.....	PENN-MARMATON		PENN-TOPEKA	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	3837		2933	4430
WELLHEAD PRESSURE, PSIG.....	515		500	NOT GIVEN
OPEN FLOW, MCFD.....	2237		5200	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	76.1	45.5	46.2	
ETHANE.....	1.7	0.9	0.9	
PROPANE.....	4.0	3.2	2.7	
N-BUTANE.....	1.2	0.8	0.7	
ISOBUTANE.....	0.2	0.3	0.3	
N-PENTANE.....	0.3	0.2	0.1	
ISOPENTANE.....	0.2	0.2	0.2	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.2	0.2	0.1	
NITROGEN.....	9.5	43.5	43.5	
OXYGEN.....	0.0	TRACE	TRACE	
ARGON.....	0.0	0.1	0.1	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	TRACE	0.1	
HELIUM.....	0.27	0.91	0.90	
HEATING VALUE.....	1095	977	686	
SPECIFIC GRAVITY.....	0.709	0.916	0.811	
		INDEX SAMPLE 6940 6429	INDEX SAMPLE 6941 6430	INDEX SAMPLE 6942 6431
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	EVA NW		EVA NW	EVA NW
WELL NAME.....	KELLEY NO. 4		KELLEY NO. 9	KELLEY NO. 5
LOCATION.....	SEC. 2, T4N, R10ECM		SEC. 2, T4N, R10ECM	SEC. 11, T4N, R10ECM
OWNER.....	ASHLAND OIL, INC.		ASHLAND OIL, INC.	ASHLAND OIL, INC.
COMPLETED.....	12/17/53		02/16/54	01/05/54
SAMPLED.....	11/06/57		11/06/57	11/05/57
FORMATION.....	PENN-MORROW		PENN-TOPEKA	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	4425		2933	4424
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		500	403
OPEN FLOW, MCFD.....	NOT GIVEN		5200	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	53.6	45.0	74.9	
ETHANE.....	14.5	5.4	4.4	
PROPANE.....	19.5	3.5	2.9	
N-BUTANE.....	4.5	1.0	0.7	
ISOBUTANE.....	2.9	0.4	0.4	
N-PENTANE.....	1.0	0.3	0.1	
ISOPENTANE.....	0.6	0.2	0.2	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.5	0.2	TRACE	
NITROGEN.....	2.8	42.8	15.5	
OXYGEN.....	TRACE	TRACE	0.1	
ARGON.....	TRACE	0.1	TRACE	
HYDROGEN.....	0.2	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	
HELIUM.....	0.06	0.90	0.60	
HEATING VALUE.....	1651	726	963	
SPECIFIC GRAVITY.....	0.989	0.829	0.690	
		INDEX SAMPLE 6943 6432	INDEX SAMPLE 6944 6433	INDEX SAMPLE 6945 6434
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	EVA NW		EVA NW	EVA NW
WELL NAME.....	KELLEY NO. 6		KELLEY NO. 6	KELLEY NO. 8
LOCATION.....	SEC. 11, T4N, R10ECM		SEC. 11, T4N, R10ECM	SEC. 2, T4N, R10ECM
OWNER.....	ASHLAND OIL, INC.		ASHLAND OIL, INC.	ASHLAND OIL, INC.
COMPLETED.....	06/19/54		02/23/54	--/--/00
SAMPLED.....	11/05/57		11/06/57	11/06/57
FORMATION.....	PENN-CHEROKEE		PENN-KEYES	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	4020		4668	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	704		900	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	61.6	64.9	51.1	
ETHANE.....	7.9	2.6	13.1	
PROPANE.....	4.5	2.8	20.6	
N-BUTANE.....	1.1	0.7	6.6	
ISOBUTANE.....	0.5	0.4	3.8	
N-PENTANE.....	0.1	0.2	1.2	
ISOPENTANE.....	0.1	0.2	1.4	
CYCLOPENTANE.....	0.1	TRACE	0.2	
HEXANES PLUS.....	0.2	0.1	0.6	
NITROGEN.....	23.0	24.5	1.3	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	0.1	0.1	0.1	
HYDROGEN.....	0.0	TRACE	0.3	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.5	0.1	
HELIUM.....	0.60	1.50	0.01	
HEATING VALUE.....	967	862	1778	
SPECIFIC GRAVITY.....	0.772	0.730	1.054	
		INDEX SAMPLE 6946 6435	INDEX SAMPLE 6947 7155	INDEX SAMPLE 6948 7569
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	EVA NW		EVA NW	EVA NW
WELL NAME.....	KELLEY NO. 10		BURNS NO. 1	J. C. WHITE NO. 1
LOCATION.....	SEC. 11, T4N, R10ECM		SEC. 15, T4N, R10ECM	SEC. 15, T4N, R10ECM
OWNER.....	ASHLAND OIL, INC.		PARKER PETROLEUM CO., INC.	W. C. MCBRIDE, INC.
COMPLETED.....	12/08/54		02/15/56	02/25/60
SAMPLED.....	11/06/57		08/16/59	05/18/60
FORMATION.....	PENN-TOPEKA		PENN-KELLY	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	2930		4425	4250
WELLHEAD PRESSURE, PSIG.....	489		727	960
OPEN FLOW, MCFD.....	3360		11500	4130
COMPONENT, MOLE PCT				
METHANE.....	52.1	73.7	77.4	
ETHANE.....	5.2	3.9	5.7	
PROPANE.....	3.1	2.6	2.5	
N-BUTANE.....	5.8	0.6	0.6	
ISOBUTANE.....	0.3	0.4	0.6	
N-PENTANE.....	0.1	TRACE	0.1	
ISOPENTANE.....	0.3	0.4	0.3	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.1	0.1	0.2	
NITROGEN.....	31.8	17.3	11.7	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	0.1	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.1	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.2	
HELIUM.....	0.80	0.60	0.70	
HEATING VALUE.....	939	944	1014	
SPECIFIC GRAVITY.....	0.848	0.696	0.683	

* CALCULATED GROSS BTU PER CU FT; DRY; AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 6949 9969	INDEX SAMPLE 6950 10050	INDEX SAMPLE 6951 10051
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	EVA S		EVA SE	EVA SE
WELL NAME.....	EGGERS NO. 1		COON A NO. 1	COON A NO. 1
LOCATION.....	SEC. 3, T3N, R11E2CH		SEC. 17, T3N, R12E2CH	SEC. 17, T3N, R12E2CH
OWNER.....	GULF OIL CO.- U.S.		CITIES SERVICE OIL CO.	CITIES SERVICE OIL CO.
COMPLETED.....	07/29/64		12/29/64	12/29/64
SAMPLED.....	07/09/65		08/06/65	08/16/65
FORMATION.....	PENN-MARMATON		PENN-CHEROKEE	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	4618		5313	6316
WELLHEAD PRESSURE, PSIG.....	420		1257	1187
OPEN FLOW, MCFD.....	6390		5800	2600
COMPONENT, MOLE PCT				
METHANE.....	77.0	78.3	75.5	
ETHANE.....	5.8	7.9	6.5	
PROPANE.....	3.2	4.2	3.5	
N-BUTANE.....	0.8	1.0	1.3	
ISOBUTANE.....	0.4	0.6	0.7	
N-PENTANE.....	0.3	0.2	0.5	
ISOPENTANE.....	TRACE	0.2	0.4	
CYCLOPENTANE.....	0.1	0.1	0.2	
HEXANES PLUS.....	0.2	0.2	0.7	
NITROGEN.....	11.8	7.0	10.2	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.3	
HELIUM.....	0.27	0.16	0.20	
HEATING VALUE.....	1034	1129	1121	
SPECIFIC GRAVITY.....	0.694	0.703	0.734	
		INDEX SAMPLE 6952 14228	INDEX SAMPLE 6953 14229	INDEX SAMPLE 6954 14230
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	EVA SE		EVA SE	EVA SE
WELL NAME.....	STONEBRAKER AQ NO. 2		STONEBRAKER AQ NO. 2	STONEBRAKER AQ NO. 2
LOCATION.....	SEC. 20, T3N, R12E2CH		SEC. 20, T3N, R12E2CH	SEC. 20, T3N, R12E2CH
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	CITIES SERVICE OIL CO.
COMPLETED.....	09/10/74		11/21/74	11/21/74
SAMPLED.....	11/21/74		11/21/74	11/21/74
FORMATION.....	PENN-CHEROKEE		PENN-KEYES	PENN-LANSING
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	5303		6242	4428
WELLHEAD PRESSURE, PSIG.....	1098		1020	947
OPEN FLOW, MCFD.....	1414		1550	8000
COMPONENT, MOLE PCT				
METHANE.....	78.4	78.5	77.0	
ETHANE.....	8.4	6.6	5.9	
PROPANE.....	1.6	1.3	1.3	
N-BUTANE.....	1.1	1.3	1.0	
ISOBUTANE.....	0.4	0.6	0.4	
N-PENTANE.....	0.2	0.4	0.2	
ISOPENTANE.....	0.2	0.4	0.3	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.2	0.1	
NITROGEN.....	6.2	7.8	11.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	
HELIUM.....	0.15	0.19	0.22	
HEATING VALUE.....	1045	1123	1085	
SPECIFIC GRAVITY.....	0.699	0.706	0.695	
		INDEX SAMPLE 6955 8710	INDEX SAMPLE 6956 15393	INDEX SAMPLE 6957 15394
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	FLATS NW		GOFF CREEK	GOFF CREEK
WELL NAME.....	WISSE HAMBY NO. 1		HAWKINS NO. B-1	HAWKINS NO. B-1
LOCATION.....	SEC. 14, T6N, R11E2CH		SEC. 9, T4N, R14E2CH	SEC. 9, T4N, R14E2CH
OWNER.....	HUMBLE OIL & REFINING CO.		ANADARKO PRODUCTION CO.	ANADARKO PRODUCTION CO.
COMPLETED.....	09/02/62		12/09/77	12/09/77
SAMPLED.....	10/10/62		09/27/78	09/27/78
FORMATION.....	PENN-MORROW U		PENN-CHEROKEE	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	4504		5668	6163
WELLHEAD PRESSURE, PSIG.....	1175		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	3050		1176	838
COMPONENT, MOLE PCT				
METHANE.....	60.4	72.9	78.1	
ETHANE.....	4.9	7.8	6.3	
PROPANE.....	3.1	5.8	5.2	
N-BUTANE.....	0.7	1.4	1.4	
ISOBUTANE.....	0.4	0.6	0.7	
N-PENTANE.....	0.1	0.4	0.3	
ISOPENTANE.....	0.2	0.4	0.3	
CYCLOPENTANE.....	TRACE	0.1	0.1	
HEXANES PLUS.....	TRACE	0.4	0.2	
NITROGEN.....	24.5	9.6	6.9	
OXYGEN.....	0.2	0.0	0.0	
ARGON.....	0.2	0.0	0.0	
HYDROGEN.....	0.1	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.2	
HELIUM.....	0.31	0.18	0.17	
HEATING VALUE.....	830	1165	1150	
SPECIFIC GRAVITY.....	0.761	0.753	0.717	
		INDEX SAMPLE 6958 16160	INDEX SAMPLE 6959 6970	INDEX SAMPLE 6960 7190
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	GUYPON NE		GUYPON S	GUYPON S
WELL NAME.....	HURLTMAN "A" NO. 4		WAVIA NO. 2-LT	PEARL NO. 2
LOCATION.....	SEC. 16, T3N, R15E2CH		SEC. 17, T1N, R15E2CH	SEC. 16, T1N, R15E2CH
OWNER.....	GETTY OIL CO.		PHILLIPS PETROLEUM CO.	PHILLIPS PETROLEUM CO.
COMPLETED.....	07/24/80		01/21/59	09/05/58
SAMPLED.....	01/08/81		02/09/59	08/27/59
FORMATION.....	PENN-TORONTO		PENN-OSWEGO	PENN-MARMATON
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	4164		5756	5740
WELLHEAD PRESSURE, PSIG.....	950		1439	1621
OPEN FLOW, MCFD.....	2222		11992	20933
COMPONENT, MOLE PCT				
METHANE.....	70.7	83.0	84.0	
ETHANE.....	8.6	8.1	7.7	
PROPANE.....	4.4	3.7	2.9	
N-BUTANE.....	1.4	1.1	0.8	
ISOBUTANE.....	0.4	0.4	0.3	
N-PENTANE.....	0.4	0.2	0.1	
ISOPENTANE.....	0.3	0.2	0.5	
CYCLOPENTANE.....	TRACE	0.1	0.1	
HEXANES PLUS.....	TRACE	0.3	0.3	
NITROGEN.....	14.4	2.5	3.0	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.1	0.1	
HELIUM.....	0.27	0.10	0.10	
HEATING VALUE.....	1062	1169	1146	
SPECIFIC GRAVITY.....	0.738	0.681	0.671	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6961 SAMPLE 7420			INDEX 6962 SAMPLE 7758			INDEX 6963 SAMPLE 7766		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON S		GUYMON S			GUYMON S		
WELL NAME.....	REES A NO. 2		REES A NO. 2			REES A NO. 1		
LOCATION.....	SEC. 20, T1N, R15ECM		SEC. 26, T1N, R15ECM			SEC. 25, T2N, R14ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	12/31/59		10/04/60			07/26/60		
SAMPLED.....	02/25/60		11/04/60			11/09/60		
FORMATION.....	PERM-COUNCIL GROVE		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	3126		6694			6737		
WELLHEAD PRESSURE, PSIG.....	582		1595			1696		
OPEN FLOW, MCFD.....	10230		1814			3227		
COMPONENT, MOLE PCT								
METHANE.....	61.4	-----	84.3	-----		81.4	-----	
ETHANE.....	5.0	-----	5.0	-----		6.2	-----	
PROPANE.....	2.9	-----	3.7	-----		3.4	-----	
N-BUTANE.....	0.8	-----	1.4	-----		1.3	-----	
ISOBUTANE.....	0.4	-----	0.7	-----		0.7	-----	
N-PENTANE.....	0.2	-----	0.4	-----		0.4	-----	
ISOPENTANE.....	0.1	-----	0.5	-----		0.3	-----	
CYCLOPENTANE.....	TRACE	-----	0.2	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.4	-----		0.2	-----	
NITROGEN.....	28.5	-----	0.2	-----		5.7	-----	
OXYGEN.....	TRACE	-----	0.0	-----		TRACE	-----	
ARGON.....	0.1	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.1	-----		0.2	-----	
HELIUM.....	0.50	-----	0.10	-----		0.20	-----	
HEATING VALUE.....	945	-----	1177	-----		1132	-----	
SPECIFIC GRAVITY.....	0.753	-----	0.693	-----		0.693	-----	
INDEX 6964 SAMPLE 8740			INDEX 6965 SAMPLE 8741			INDEX 6966 SAMPLE 9062		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON S		GUYMON S			GUYMON S		
WELL NAME.....	WIGGINS NO. 1		WIGGINS NO. 1			KATE JACKSON NO. 1		
LOCATION.....	SEC. 10, T2N, R15ECM		SEC. 10, T2N, R15ECM			SEC. 17, T2N, R15ECM		
OWNER.....	YINGLING OIL, INC.		YINGLING OIL, INC.			YINGLING OIL, INC.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	11/01/62		11/01/62			08/12/63		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6331		6690			6725		
WELLHEAD PRESSURE, PSIG.....	1660		1780			1706		
OPEN FLOW, MCFD.....	10000		4450			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	90.0	-----	83.9	-----		82.7	-----	
ETHANE.....	4.9	-----	4.9	-----		5.1	-----	
PROPANE.....	1.8	-----	2.4	-----		3.2	-----	
N-BUTANE.....	0.6	-----	0.7	-----		0.7	-----	
ISOBUTANE.....	0.3	-----	0.3	-----		0.5	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.3	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		0.6	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.4	-----	
NITROGEN.....	1.4	-----	6.3	-----		5.5	-----	
OXYGEN.....	0.1	-----	0.3	-----		0.2	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.1	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.4	-----		0.2	-----	
HELIUM.....	0.11	-----	0.18	-----		0.20	-----	
HEATING VALUE.....	1103	-----	1052	-----		1129	-----	
SPECIFIC GRAVITY.....	0.630	-----	0.656	-----		0.690	-----	
INDEX 6967 SAMPLE 10288			INDEX 6968 SAMPLE 14647			INDEX 6969 SAMPLE 14649		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON S		GUYMON S			GUYMON S		
WELL NAME.....	HALL C NO. 1		HITCH NO. 8-2			LES NO. 2		
LOCATION.....	SEC. 16, T2N, R14ECM		SEC. 34, T1N, R15ECM			SEC. 35, T1N, R15ECM		
OWNER.....	CITIES SERVICE OIL CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	10/14/65		05/17/60			08/18/59		
SAMPLED.....	11/15/65		04/26/76			04/26/76		
FORMATION.....	PENN-KEYES		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6748		6783			6752		
WELLHEAD PRESSURE, PSIG.....	1715		520			728		
OPEN FLOW, MCFD.....	27000		409			465		
COMPONENT, MOLE PCT								
METHANE.....	83.4	-----	82.5	-----		82.3	-----	
ETHANE.....	6.2	-----	5.0	-----		4.8	-----	
PROPANE.....	3.2	-----	4.6	-----		4.3	-----	
N-BUTANE.....	1.0	-----	1.9	-----		1.8	-----	
ISOBUTANE.....	0.4	-----	0.6	-----		0.6	-----	
N-PENTANE.....	0.4	-----	0.5	-----		0.4	-----	
ISOPENTANE.....	0.1	-----	0.7	-----		0.8	-----	
CYCLOPENTANE.....	0.1	-----	0.3	-----		0.1	-----	
HEXANES PLUS.....	0.4	-----	0.3	-----		0.3	-----	
NITROGEN.....	4.5	-----	3.7	-----		4.2	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.2	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.2	-----		0.2	-----	
HELIUM.....	0.17	-----	0.17	-----		0.16	-----	
HEATING VALUE.....	1132	-----	1196	-----		1183	-----	
SPECIFIC GRAVITY.....	0.678	-----	0.712	-----		0.711	-----	
INDEX 6970 SAMPLE 1277			INDEX 6971 SAMPLE 1716			INDEX 6972 SAMPLE 1717		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	HONEY NO. 1		BACON NO. 1			HONEY NO. 1		
LOCATION.....	SEC. 21, T4N, R14ECM		SEC. 17, T4N, R15ECM			SEC. 21, T4N, R14ECM		
OWNER.....	H. F. WILCOX OIL & GAS CO.		CIMARRON UTILITIES CO.			CIMARRON UTILITIES CO.		
COMPLETED.....	--/--/00		04/--/28			--/--/00		
SAMPLED.....	07/06/26		02/23/29			02/26/29		
FORMATION.....	NOT GIVEN		PERM-MONOGAHELA			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2692		2605			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		500			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		10000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	65.8	-----	52.8	-----		63.4	-----	
ETHANE.....	21.4	-----	21.4	-----		22.2	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	11.8	-----	17.0	-----		13.2	-----	
OXYGEN.....	0.5	-----	0.3	-----		0.5	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.3	-----	
HELIUM.....	0.36	-----	0.37	-----		0.38	-----	
HEATING VALUE.....	1050	-----	1060	-----		1040	-----	
SPECIFIC GRAVITY.....	0.713	-----	0.771	-----		0.723	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6973			INDEX 6974			INDEX 6975		
SAMPLE 3257			SAMPLE 3765			SAMPLE 4014		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	ANNA CALVERT		MCGRATH NO. 1			NINA NO. 1		
LOCATION.....	SEC. 14, T3N, R16ECM		SEC. 3, T3N, R16ECM			SEC. 36, T1N, R13ECM		
OWNER.....	CABOT CORP.		REPUBLIC NATURAL GAS CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	05/1/43		04/15/43			07/12/44		
SAMPLED.....	04/03/42		04/14/44			04/29/45		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2585		2784			2795		
WELLHEAD PRESSURE, PSIG.....	440		427			400		
OPEN FLOW, MCFD.....	5200		24624			5000		
COMPONENT, MOLE PCT								
METHANE.....	67.9	-----	66.7	-----		68.9	-----	
ETHANE.....	20.2	-----	20.0	-----		18.8	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	11.2	-----	12.4	-----		11.5	-----	
OXYGEN.....	0.3	-----	0.4	-----		0.4	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.0	-----	0.1	-----		0.0	-----	
HELIUM.....	0.39	-----	0.37	-----		0.41	-----	
HEATING VALUE.....	1050	-----	1034	-----		1035	-----	
SPECIFIC GRAVITY.....	0.701	-----	0.706	-----		0.695	-----	

INDEX 6976			INDEX 6977			INDEX 6978		
SAMPLE 4905			SAMPLE 5079			SAMPLE 5381		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	ARKES NO. 1		PHILLIPS-HITCH R NO. 1			STONEBRAKER AB NO. 1		
LOCATION.....	SEC. 27, T4N, R16ECM		SEC. 29, T3N, R12ECM			SEC. 29, T3N, R12ECM		
OWNER.....	PANHANDLE EASTERN PIPELINE C		PHILLIPS PETROLEUM CO.			AMERICAN GAS PRODUCTION CO.		
COMPLETED.....	09/25/50		12/29/52			12/29/52		
SAMPLED.....	08/29/50		08/09/51			01/29/53		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2697		NOT GIVEN			2652		
WELLHEAD PRESSURE, PSIG.....	408		NOT GIVEN			400		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			4940		
COMPONENT, MOLE PCT								
METHANE.....	58.5	-----	74.9	-----		64.1	-----	
ETHANE.....	7.7	-----	6.0	-----		5.7	-----	
PROPANE.....	---	-----	3.2	-----		3.9	-----	
N-BUTANE.....	---	-----	0.8	-----		1.2	-----	
ISOBUTANE.....	---	-----	0.3	-----		0.4	-----	
N-PENTANE.....	---	-----	0.3	-----		0.3	-----	
ISOPENTANE.....	---	-----	0.0	-----		0.2	-----	
CYCLOPENTANE.....	---	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	0.2	-----		0.1	-----	
NITROGEN.....	28.1	-----	13.4	-----		23.0	-----	
OXYGEN.....	3.5	-----	0.3	-----		TRACE	-----	
ARGON.....	---	-----	0.1	-----		0.1	-----	
HYDROGEN.....	---	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	2.1	-----	0.1	-----		0.0	-----	
HELIUM.....	0.07	-----	0.43	-----		0.82	-----	
HEATING VALUE.....	731	-----	1009	-----		933	-----	
SPECIFIC GRAVITY.....	0.748	-----	0.701	-----		0.751	-----	

INDEX 6979			INDEX 6980			INDEX 6981		
SAMPLE 5395			SAMPLE 5418			SAMPLE 5419		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	SHORES A NO. 1		STONEBRAKER Y-1			MORSE A-1		
LOCATION.....	SEC. 36, T3N, R11ECM		SEC. 9, T2N, R12ECM			SEC. 24, T5N, R12ECM		
OWNER.....	AMERICAN GAS PRODUCTION CO.		AMERICAN GAS PRODUCTION CO.			AMERICAN GAS PRODUCTION CO.		
COMPLETED.....	12/18/52		01/22/53			01/08/53		
SAMPLED.....	02/13/53		03/17/53			03/17/53		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2638		2656			2590		
WELLHEAD PRESSURE, PSIG.....	404		429			400		
OPEN FLOW, MCFD.....	10700		26000			13300		
COMPONENT, MOLE PCT								
METHANE.....	59.1	-----	70.0	-----		71.9	-----	
ETHANE.....	5.0	-----	3.6	-----		5.8	-----	
PROPANE.....	3.7	-----	1.1	-----		3.6	-----	
N-BUTANE.....	1.2	-----	0.4	-----		1.0	-----	
ISOBUTANE.....	0.4	-----	0.4	-----		0.5	-----	
N-PENTANE.....	0.5	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		0.1	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	0.1	-----		0.1	-----	
NITROGEN.....	28.5	-----	17.9	-----		15.6	-----	
OXYGEN.....	0.1	-----	0.1	-----		0.5	-----	
ARGON.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN.....	---	-----	TRACE	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.1	-----		0.1	-----	
HELIUM.....	1.16	-----	0.51	-----		0.39	-----	
HEATING VALUE.....	856	-----	985	-----		994	-----	
SPECIFIC GRAVITY.....	0.763	-----	0.730	-----		0.717	-----	

INDEX 6982			INDEX 6983			INDEX 6984		
SAMPLE 6127			SAMPLE 6776			SAMPLE 7063		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	DROSSELMYER NO. 1-33		SCHOONOVER NO. A-1			ASHER		
LOCATION.....	SEC. 27, T3N, R16ECM		SEC. 13, T5N, R11ECM			SEC. 13, T5N, R16ECM		
OWNER.....	PANHANDLE EASTERN PIPELINE C		CITIES SERVICE OIL CO.			KANSAS-NEBRASKA NATURAL GAS		
COMPLETED.....	05/06/53		05/06/53			02/26/53		
SAMPLED.....	08/15/56		08/06/58			05/05/59		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2467		2398			2658		
WELLHEAD PRESSURE, PSIG.....	327		358			395		
OPEN FLOW, MCFD.....	1159		7650			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.0	-----	71.1	-----		73.1	-----	
ETHANE.....	6.2	-----	5.8	-----		3.4	-----	
PROPANE.....	3.4	-----	3.3	-----		1.3	-----	
N-BUTANE.....	1.0	-----	0.9	-----		0.3	-----	
ISOBUTANE.....	0.5	-----	0.5	-----		0.2	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.1	-----	
ISOPENTANE.....	0.2	-----	0.2	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.1	-----	
NITROGEN.....	14.6	-----	11.1	-----		20.5	-----	
OXYGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
ARGON.....	TRACE	-----	0.1	-----		0.1	-----	
HYDROGEN.....	---	-----	---	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.1	-----		0.1	-----	
HELIUM.....	0.40	-----	0.50	-----		0.60	-----	
HEATING VALUE.....	1024	-----	866	-----		866	-----	
SPECIFIC GRAVITY.....	0.719	-----	0.723	-----		0.682	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 6985			INDEX 6986			INDEX 6987		
SAMPLE 7064			SAMPLE 7070			SAMPLE 7138		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	FARMER NO. 1		HAKKE NO. 1			CURRAN NO. 1		
LOCATION.....	SEC. 20, T6N, R19ECM		SEC. 30, T4N, R18ECM			SEC. 1, T3N, R12ECM		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		
COMPLETED.....	04/07/58		--/--/53			08/01/51		
SAMPLED.....	05/05/59		05/18/59			07/07/59		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2654		2654			2638		
WELLHEAD PRESSURE, PSIG.....	358		313			283		
OPEN FLOW, MCFD.....	NOT GIVEN		487			1171		
COMPONENT, MOLE PCT								
METHANE.....	72.8		73.5			69.4		
ETHANE.....	1.9		4.7			6.5		
PROPANE.....	0.5		2.2			3.5		
N-BUTANE.....	0.1		0.6			0.0		
ISOBUTANE.....	TRACE		0.4			1.5		
N-PENTANE.....	0.0		0.1			0.3		
ISOPENTANE.....	0.1		0.1			TRACE		
CYCLOPENTANE.....	0.0		TRACE			0.1		
HEXANES PLUS.....	TRACE		0.1			0.0		
NITROGEN.....	23.6		17.6			17.9		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.80		0.50			0.40		
HEATING VALUE.....	792		933			977		
SPECIFIC GRAVITY.....	0.668		0.692			0.726		
INDEX 6988			INDEX 6989			INDEX 6990		
SAMPLE 7253			SAMPLE 7254			SAMPLE 7255		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	GUSTIN NO. 2		LUNDGRIN NO. 3			WRIGHT NO. 5		
LOCATION.....	SEC. 18, T4N, R17ECM		SEC. 21, T4N, R16ECM			SEC. 9, T3N, R16ECM		
OWNER.....	DORCHESTER CORP.		DORCHESTER CORP.			DORCHESTER CORP.		
COMPLETED.....	12/31/47		09/14/47			07/10/47		
SAMPLED.....	10/15/59		10/15/59			10/15/59		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2690		2628			2650		
WELLHEAD PRESSURE, PSIG.....	1750		2771			276		
OPEN FLOW, MCFD.....	NOT GIVEN		1049			846		
COMPONENT, MOLE PCT								
METHANE.....	75.9		75.6			75.2		
ETHANE.....	6.0		5.0			2.3		
PROPANE.....	3.2		5.5			3.7		
N-BUTANE.....	0.9		0.9			0.9		
ISOBUTANE.....	0.4		0.5			0.5		
N-PENTANE.....	TRACE		0.1			0.1		
ISOPENTANE.....	0.6		0.5			0.4		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.0			0.2		
NITROGEN.....	12.3		11.7			12.2		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.40		0.30			0.40		
HEATING VALUE.....	1034		1051			1053		
SPECIFIC GRAVITY.....	0.699		0.704			0.709		
INDEX 6991			INDEX 6992			INDEX 6993		
SAMPLE 7256			SAMPLE 7257			SAMPLE 7389		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	BALZER NO. 2		LORING NO. 1			GRAHAM NO. 2-31		
LOCATION.....	SEC. 36, T6N, R17ECM		SEC. 13, T5N, R16ECM			SEC. 31, T3N, R18ECM		
OWNER.....	DORCHESTER CORP.		DORCHESTER CORP.			PANHANDLE EASTERN PIPELINE C		
COMPLETED.....	04/28/49		08/09/49			11/--/59		
SAMPLED.....	10/15/59		10/15/59			02/10/60		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2675		2731			2522		
WELLHEAD PRESSURE, PSIG.....	293		280			350		
OPEN FLOW, MCFD.....	NOT GIVEN		845			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	76.3		75.6			73.2		
ETHANE.....	5.4		6.2			4.0		
PROPANE.....	2.2		0.8			0.3		
N-BUTANE.....	0.5		0.8			0.3		
ISOBUTANE.....	0.4		0.5			0.2		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	0.3		0.4			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.1		0.1			0.0		
NITROGEN.....	14.0		12.5			13.7		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.0			0.1		
HELIUM.....	0.40		0.0			0.0		
HEATING VALUE.....	975		1028			878		
SPECIFIC GRAVITY.....	0.683		0.697			0.681		
INDEX 6994			INDEX 6995			INDEX 6996		
SAMPLE 8207			SAMPLE 9463			SAMPLE 11437		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	PHILIP BOYLE, INC.		DECK RIDER NO. 1			A. N. BALZER NO. 1		
LOCATION.....	SEC. 2, T4N, R18ECM		SEC. 33, T1N, R18ECM			SEC. 26, T4N, R17ECM		
OWNER.....	PHILIP BOYLE, INC.		AMARILLO OIL CO.			SOMLO PETROLEUM CO.		
COMPLETED.....	06/06/61		--/--/60			02/04/65		
SAMPLED.....	11/01/61		08/20/64			04/07/68		
FORMATION.....	PERM-CHASE GROUP		PENN-COLLIER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2653		4613			6270		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1172			1388		
OPEN FLOW, MCFD.....	265		3872			4700		
COMPONENT, MOLE PCT								
METHANE.....	69.5		67.1			84.0		
ETHANE.....	1.7		4.7			5.6		
PROPANE.....	0.3		4.0			1.0		
N-BUTANE.....	0.1		1.4			1.6		
ISOBUTANE.....	TRACE		0.8			0.4		
N-PENTANE.....	TRACE		0.5			0.4		
ISOPENTANE.....	TRACE		0.3			0.4		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	TRACE		0.3			0.4		
NITROGEN.....	28.5		20.4			2.7		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		TRACE			0.3		
HELIUM.....	0.62		0.42			0.16		
HEATING VALUE.....	736		995			1178		
SPECIFIC GRAVITY.....	0.687		0.758			0.691		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	6997 11815	INDEX SAMPLE	6998 11816	INDEX SAMPLE	6999 12191
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
WELL NAME.....	STONEBRAKER A W NO. 1			STONEBRAKER A W NO. 1		STONEBRAKER AX NO. 1	
LOCATION.....	SEC. 27, T3N, R14ECM			SEC. 27, T3N, R14ECM		SEC. 26, T3N, R14ECM	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	01/20/69			01/20/69		01/22/69	
SAMPLED.....	04/11/69			04/11/69		02/12/70	
FORMATION.....	PENN-TORONTO			PENN-MORROW L		PENN-LANSING	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4272			6240		5138	
WELLHEAD PRESSURE, PSIG.....	1012			1481		1281	
OPEN FLOW, MCFD.....	5800			7200		3500	
COMPONENT, MOLE PCT.....							
METHANE.....	78.9			81.2		76.5	
ETHANE.....	8.1			7.4		7.1	
PROpane.....	3.8			4.3		4.3	
N-BUTANE.....	1.2			1.1		1.0	
ISOBUTANE.....	0.2			0.5		0.4	
N-PENTANE.....	0.4			0.3		0.5	
ISOPENTANE.....	0.2			TRACE		0.0	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.4		0.2	
NITROGEN.....	5.4			8.2		9.7	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	TRACE			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.3		0.0	
HELIUM.....	0.18			0.18		0.20	
HEATING VALUE.....	130			138		1097	
SPECIFIC GRAVITY.....	0.699			0.695		0.710	
		INDEX SAMPLE	7000 12192	INDEX SAMPLE	7001 12205	INDEX SAMPLE	7002 12394
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
WELL NAME.....	STONEBRAKER AX NO. 1			WASH A NO. 1		WEEF NO. 1-36	
LOCATION.....	SEC. 26, T3N, R14ECM			SEC. 15, T3N, R15ECM		SEC. 36, T3N, R17ECM	
OWNER.....	CITIES SERVICE OIL CO.			SKELLY OIL CO.		GRAHAM-MICHAELIS DRILLING CO	
COMPLETED.....	08/19/69			12/20/69		01/05/66	
SAMPLED.....	02/12/70			02/18/70		08/25/70	
FORMATION.....	PENN-TORONTO			PENN-MORROW U		PENN-MORROW L	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4284			6074		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	918			1200		986	
OPEN FLOW, MCFD.....	14250			4850		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	78.8			78.8		91.0	
ETHANE.....	7.8			6.3		3.2	
PROpane.....	4.2			4.9		1.6	
N-BUTANE.....	1.1			0.9		0.6	
ISOBUTANE.....	0.4			0.5		0.2	
N-PENTANE.....	0.4			0.4		0.2	
ISOPENTANE.....	0.3			0.0		0.1	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	6.4			7.5		2.4	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.0		0.2	
HELIUM.....	0.18			0.25		0.13	
HEATING VALUE.....	1142			1113		1075	
SPECIFIC GRAVITY.....	0.703			0.697		0.623	
		INDEX SAMPLE	7003 12858	INDEX SAMPLE	7004 12859	INDEX SAMPLE	7005 12880
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
WELL NAME.....	STONEBRAKER Y			STONEBRAKER AA-1		CASTO NO. 11	
LOCATION.....	SEC. 29, T2N, R12ECM			SEC. 10, T2N, R12ECM		SEC. 24, T3N, R16ECM	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		CABOT CORP.	
COMPLETED.....	--/--/00			--/--/00		06/24/71	
SAMPLED.....	06/23/71			06/23/71		06/24/71	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	185			155		150	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	71.8			70.2		76.1	
ETHANE.....	5.8			6.6		6.0	
PROpane.....	4.4			3.7		3.8	
N-BUTANE.....	1.0			1.0		1.0	
ISOBUTANE.....	0.6			0.5		0.7	
N-PENTANE.....	0.2			0.2		0.3	
ISOPENTANE.....	0.1			TRACE		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.2		0.2	
NITROGEN.....	15.4			18.0		11.4	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			TRACE		0.0	
HELIUM.....	0.49			0.56		0.36	
HEATING VALUE.....	1014			972		1061	
SPECIFIC GRAVITY.....	0.719			0.721		0.706	
		INDEX SAMPLE	7006 12900	INDEX SAMPLE	7007 12905	INDEX SAMPLE	7008 12906
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
WELL NAME.....	C. H. REYNOLDS NO. 1			TARVER NO. 1		LONG NO. 1-B	
LOCATION.....	SEC. 31, T1N, R11ECM			SEC. 2, T4N, R15ECM		SEC. 12, T4N, R15ECM	
OWNER.....	SKELLY OIL CO.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	07/23/71			07/19/71		07/19/71	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			195		195	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	63.5			76.2		75.4	
ETHANE.....	5.2			6.2		6.1	
PROpane.....	4.0			3.6		3.5	
N-BUTANE.....	1.0			1.0		1.0	
ISOBUTANE.....	0.7			0.3		0.2	
N-PENTANE.....	0.4			0.4		TRACE	
ISOPENTANE.....	0.0			0.1		0.6	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	23.7			11.7		12.4	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.1			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			TRACE		0.2	
HELIUM.....	1.20			0.36		0.36	
HEATING VALUE.....	1035			1039		1039	
SPECIFIC GRAVITY.....	0.752			0.700		0.705	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7009 SAMPLE 12907		INDEX 7010 SAMPLE 12929		INDEX 7011 SAMPLE 12932	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS	TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON	GUYMON-HUGOTON		GUYMON-HUGOTON	
WELL NAME.....	LONG NO. 1	EASTERWOOD NO. 1-20		BACON NO. 1-29	
LOCATION.....	SEC. 27, T4N, R14ECM	SEC. 20, T4N, R14ECM		SEC. 29, T4N, R14ECM	
OWNER.....	CONTINENTAL OIL CO.	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
COMPLETED.....	--/--/00	09/23/48		06/24/50	
SAMPLED.....	07/19/71	07/21/71		07/21/71	
FORMATION.....	PERM-CHASE GROUP	PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	2636		2520	
WELLHEAD PRESSURE, PSIG.....	195	195		212	
OPEN FLOW, MCFD.....	NOT GIVEN	201		278	
COMPONENT, MOLE PCT.....					
METHANE.....	76.5	76.1		76.0	
ETHANE.....	6.4	6.0		5.9	
PROPANE.....	3.5	3.6		3.6	
N-BUTANE.....	1.0	1.0		0.9	
ISOBUTANE.....	0.4	0.4		0.6	
N-PENTANE.....	0.2	0.3		0.4	
ISOPENTANE.....	0.1	TRACE		0.0	
CYCLOPENTANE.....	TRACE	TRACE		0.1	
HEXANES PLUS.....	36.0	36.0		36.0	
NITROGEN.....	11.6	12.0		11.9	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.0		0.0	
HELIUM.....	0.37	0.38		0.38	
HEATING VALUE.....	1040	1042		1051	
SPECIFIC GRAVITY.....	0.695	0.700		0.704	

INDEX 7012 SAMPLE 12975		INDEX 7013 SAMPLE 12976		INDEX 7014 SAMPLE 12977	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS	TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON	GUYMON-HUGOTON		GUYMON-HUGOTON	
WELL NAME.....	C. M. REYNOLDS NO. 1	ALLEN ESTATE NO. 1		HELLER-ROYSE NO. 1	
LOCATION.....	SEC. 31, T1N, R11ECM	SEC. 26, T6N, R16ECM		SEC. 15, T6N, R16ECM	
OWNER.....	SKELLY OIL CO.	MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED.....	--/--/00	--/--/00		--/--/00	
SAMPLED.....	08/27/71	08/26/71		08/26/71	
FORMATION.....	PERM-CHASE GROUP	PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	64.5	77.8		77.5	
ETHANE.....	5.1	5.8		5.8	
PROPANE.....	3.8	3.8		3.8	
N-BUTANE.....	1.0	0.8		0.8	
ISOBUTANE.....	0.5	0.5		0.4	
N-PENTANE.....	0.4	0.2		0.2	
ISOPENTANE.....	0.0	0.1		0.1	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.1	TRACE		0.1	
NITROGEN.....	23.3	11.1		11.2	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.1	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.0		0.0	
HELIUM.....	1.19	0.36		0.36	
HEATING VALUE.....	916	1037		1036	
SPECIFIC GRAVITY.....	0.743	0.687		0.688	

INDEX 7015 SAMPLE 12991		INDEX 7016 SAMPLE 13013		INDEX 7017 SAMPLE 13014	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS	TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON	GUYMON-HUGOTON		GUYMON-HUGOTON	
WELL NAME.....	STEELE NO. 1-B	CARBON NO. 1		STOCKEY NO. 1	
LOCATION.....	SEC. 34, T1N, R12ECM	SEC. 20, T1N, R14ECM		SEC. 31, T1N, R14ECM	
OWNER.....	AMOCO PRODUCTION CO.	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	--/--/00	--/--/00		--/--/00	
SAMPLED.....	08/27/71	09/21/71		09/21/71	
FORMATION.....	PERM-CHASE GROUP	PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	150	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	72.1	74.9		75.0	
ETHANE.....	5.4	5.9		5.9	
PROPANE.....	3.5	4.0		4.0	
N-BUTANE.....	0.9	0.7		1.0	
ISOBUTANE.....	0.5	0.7		0.6	
N-PENTANE.....	0.2	0.3		0.2	
ISOPENTANE.....	TRACE	TRACE		TRACE	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.1	0.2		0.1	
NITROGEN.....	16.6	12.8		12.5	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.0		0.0	
HELIUM.....	0.61	0.41		0.40	
HEATING VALUE.....	1079	1042		1041	
SPECIFIC GRAVITY.....	0.709	0.708		0.705	

INDEX 7018 SAMPLE 13015		INDEX 7019 SAMPLE 13016		INDEX 7020 SAMPLE 13017	
STATE.....	OKLAHOMA	OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS	TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON	GUYMON-HUGOTON		GUYMON-HUGOTON	
WELL NAME.....	OLIVE NO. 1	NIELSEN NO. 1		OLLIE NO. 1	
LOCATION.....	SEC. 32, T1N, R14ECM	SEC. 32, T1N, R14ECM		SEC. 34, T1N, R14ECM	
OWNER.....	PHILLIPS PETROLEUM CO.	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	--/--/00	--/--/00		--/--/00	
SAMPLED.....	09/21/71	09/21/71		09/21/71	
FORMATION.....	PERM-CHASE GROUP	PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	75.2	75.3		75.5	
ETHANE.....	5.9	5.8		5.9	
PROPANE.....	4.0	3.9		3.9	
N-BUTANE.....	0.9	0.5		0.9	
ISOBUTANE.....	0.6	0.5		0.5	
N-PENTANE.....	0.3	0.4		0.3	
ISOPENTANE.....	TRACE	TRACE		TRACE	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.2	0.2		0.2	
NITROGEN.....	12.4	12.6		12.3	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.0		0.0	
HELIUM.....	0.42	0.42		0.41	
HEATING VALUE.....	1045	1042		1042	
SPECIFIC GRAVITY.....	0.706	0.706		0.703	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7021 SAMPLE 13018			INDEX 7022 SAMPLE 13019			INDEX 7023 SAMPLE 13025		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	JEROME NO. 2		REPUBLIC NO. 1			NINA NO. 1		
LOCATION.....	SEC. 35, T1N, R14ECM		SEC. 36, T1N, R14ECM			SEC. 36, T1N, R13ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	09/21/71		09/21/71			09/21/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.9		74.7			74.6		
ETHANE.....	6.0		5.8			6.0		
PROPANE.....	3.9		3.9			4.0		
N-BUTANE.....	1.0		0.8			1.1		
ISOBUTANE.....	0.6		0.6			0.5		
N-PENTANE.....	0.3		0.3			0.3		
ISOPENTANE.....	0.2		TRACE			0.3		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	12.4		13.2			12.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			TRACE		
HELIUM.....	0.41		0.41			0.42		
HEATING VALUE.....	1057		1032			1057		
SPECIFIC GRAVITY.....	0.713		0.706			0.715		
INDEX 7024 SAMPLE 13026			INDEX 7025 SAMPLE 13027			INDEX 7026 SAMPLE 13028		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	HAZE NO. 1		LOIS NO. 1			JAKE NO. 1		
LOCATION.....	SEC. 35, T1N, R13ECM		SEC. 36, T1N, R13ECM			SEC. 33, T1N, R13ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	09/21/71		09/21/71			09/21/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.4		74.8			73.9		
ETHANE.....	6.0		6.0			5.8		
PROPANE.....	3.9		3.9			3.9		
N-BUTANE.....	1.1		0.9			0.9		
ISOBUTANE.....	0.5		0.6			0.6		
N-PENTANE.....	0.3		0.3			0.3		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	13.0		12.7			13.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.0		
HELIUM.....	0.42		0.41			0.43		
HEATING VALUE.....	1047		1049			1027		
SPECIFIC GRAVITY.....	0.714		0.712			0.711		
INDEX 7027 SAMPLE 13029			INDEX 7028 SAMPLE 13030			INDEX 7029 SAMPLE 13031		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	OTIO NO. 1		WAUGH NO. 1			OTIO NO. 1		
LOCATION.....	SEC. 32, T1N, R13ECM		SEC. 31, T1N, R13ECM			SEC. 35, T1N, R12ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	09/21/71		09/21/71			09/21/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.8		73.4			69.4		
ETHANE.....	6.0		5.7			5.7		
PROPANE.....	4.0		3.3			4.1		
N-BUTANE.....	1.0		0.7			0.9		
ISOBUTANE.....	0.5		0.5			0.7		
N-PENTANE.....	0.3		0.1			0.3		
ISOPENTANE.....	0.3		TRACE			TRACE		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	13.5		15.8			18.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			TRACE		
HELIUM.....	0.46		0.48			0.60		
HEATING VALUE.....	1036		981			988		
SPECIFIC GRAVITY.....	0.713		0.702			0.731		
INDEX 7030 SAMPLE 13032			INDEX 7031 SAMPLE 13033			INDEX 7032 SAMPLE 13034		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	ESTA NO. 1		ORR NO. 1			BERGNER NO. 1		
LOCATION.....	SEC. 31, T1N, R11ECM		SEC. 31, T2N, R12ECM			SEC. 32, T1N, R11ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	09/21/71		09/21/71			09/20/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	49.9		70.8			63.9		
ETHANE.....	4.3		5.8			5.3		
PROPANE.....	4.5		4.0			3.9		
N-BUTANE.....	1.2		1.0			1.0		
ISOBUTANE.....	0.7		0.6			0.5		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	36.5		16.5			23.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.6		
HELIUM.....	2.16		0.53			0.88		
HEATING VALUE.....	786		1006			929		
SPECIFIC GRAVITY.....	0.802		0.725			0.757		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7033 13035	INDEX SAMPLE	7034 13036	INDEX SAMPLE	7035 13037
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYNON-HUGOTON			GUYNON-HUGOTON		GUYNON-HUGOTON	
WELL NAME.....	BERGNER NO. B-1			BARKER NO. A-1		BERRY NO. 1-E	
LOCATION.....	SEC. 33, T1N, R11ECM			SEC. 34, T1N, R11ECM		SEC. 35, T1N, R11ECM	
OWNER.....	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	7/7/00			7/7/00		7/7/00	
SAMPLED.....	09/20/71			09/20/71		09/20/71	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	68.2			68.9		65.3	
ETHANE.....	5.7			5.7		6.0	
PROPANE.....	4.1			4.1		4.6	
N-BUTANE.....	1.1			1.0		1.1	
ISOBUTANE.....	0.6			0.5		0.7	
N-PENTANE.....	0.3			0.3		0.4	
ISOPENTANE.....	0.2			0.1		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	18.6			18.5		20.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.0		0.6	
HELIUM.....	0.83			0.71		0.35	
HEATING VALUE.....	997			984		994	
SPECIFIC GRAVITY.....	0.743			0.734		0.772	
		INDEX SAMPLE	7036 13038	INDEX SAMPLE	7037 13054	INDEX SAMPLE	7038 13055
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYNON-HUGOTON			GUYNON-HUGOTON		GUYNON-HUGOTON	
WELL NAME.....	BERRY NO. 1-F			HITCHLAND NO. 1		ROUGE NO. 1	
LOCATION.....	SEC. 36, T1N, R11ECM			SEC. 31, T1N, R16ECM		SEC. 32, T1N, R16ECM	
OWNER.....	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	7/7/00			7/7/00		7/7/00	
SAMPLED.....	09/20/71			10/06/71		10/06/71	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	71.6			74.9		74.9	
ETHANE.....	5.8			6.0		5.8	
PROPANE.....	4.9			4.9		5.8	
N-BUTANE.....	1.0			1.0		0.8	
ISOBUTANE.....	0.5			0.5		0.6	
N-PENTANE.....	0.3			0.3		0.2	
ISOPENTANE.....	0.3			0.1		0.0	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	15.6			10.9		13.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.0		0.0	
HELIUM.....	0.62			0.41		0.84	
HEATING VALUE.....	1023			1046		1027	
SPECIFIC GRAVITY.....	0.726			0.712		0.703	
		INDEX SAMPLE	7039 13056	INDEX SAMPLE	7040 13057	INDEX SAMPLE	7041 13058
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYNON-HUGOTON			GUYNON-HUGOTON		GUYNON-HUGOTON	
WELL NAME.....	ATKINS NO. 8-1			ATKINS NO. 8-1		ATKINS NO. 8-1	
LOCATION.....	SEC. 33, T1N, R16ECM			SEC. 34, T1N, R16ECM		SEC. 35, T1N, R16ECM	
OWNER.....	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	7/7/00			7/7/00		7/7/00	
SAMPLED.....	10/06/71			10/06/71		10/06/71	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.7			73.6		73.9	
ETHANE.....	5.8			5.7		5.8	
PROPANE.....	3.7			3.7		3.8	
N-BUTANE.....	0.9			0.8		0.9	
ISOBUTANE.....	0.6			0.6		0.5	
N-PENTANE.....	0.2			0.2		0.3	
ISOPENTANE.....	TRACE			TRACE		TRACE	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	14.9			14.5		14.0	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.0		0.0	
HELIUM.....	0.47			0.48		0.41	
HEATING VALUE.....	1010			1010		1016	
SPECIFIC GRAVITY.....	0.709			0.707		0.706	
		INDEX SAMPLE	7042 13059	INDEX SAMPLE	7043 13060	INDEX SAMPLE	7044 13061
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYNON-HUGOTON			GUYNON-HUGOTON		GUYNON-HUGOTON	
WELL NAME.....	ATKINS NO. 8-1			WINFIELD NO. 1		ATKINS NO. 8-1	
LOCATION.....	SEC. 36, T1N, R16ECM			SEC. 31, T1N, R17ECM		SEC. 32, T1N, R17ECM	
OWNER.....	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	7/7/00			7/7/00		7/7/00	
SAMPLED.....	10/06/71			10/06/71		10/06/71	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.4			73.9		73.4	
ETHANE.....	5.7			5.7		5.6	
PROPANE.....	3.2			3.7		3.2	
N-BUTANE.....	0.9			0.9		0.8	
ISOBUTANE.....	0.4			0.5		0.4	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	TRACE			TRACE		TRACE	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	15.5			14.4		15.6	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.0		TRACE	
HELIUM.....	0.50			0.49		0.50	
HEATING VALUE.....	1037			1012		985	
SPECIFIC GRAVITY.....	0.702			0.707		0.702	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7045 SAMPLE 13062			INDEX 7046 SAMPLE 13063			INDEX 7047 SAMPLE 13064		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	ATKINS NO. 8-3		ATKINS NO. 8-4			ATKINS B NO. 5		
LOCATION.....	SEC. 33, T1N, R17ECM		SEC. 34, T1N, R17ECM			SEC. 35, T1N, R17ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	10/07/71		10/07/71			10/07/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.4		79.4			73.9		
ETHANE.....	5.8		5.5			5.4		
PROPANE.....	3.8		3.5			3.1		
N-BUTANE.....	0.9		0.9			0.8		
ISOBUTANE.....	0.6		0.6			0.5		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	13.7		9.3			15.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		TRACE			0.0		
HELIUM.....	0.41		0.35			0.57		
HEATING VALUE*.....	1020		1062			975		
SPECIFIC GRAVITY.....	0.705		0.684			0.696		
INDEX 7048 SAMPLE 13065			INDEX 7049 SAMPLE 13067			INDEX 7050 SAMPLE 13068		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	PERCY NO. 2		RUDER NO. 1			HITCH NO. 8-2		
LOCATION.....	SEC. 31, T1N, R15ECM		SEC. 33, T1N, R15ECM			SEC. 34, T1N, R15ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	10/06/71		10/06/71			10/06/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.3		75.0			81.5		
ETHANE.....	5.8		6.0			4.8		
PROPANE.....	3.9		4.0			4.8		
N-BUTANE.....	0.9		0.9			1.9		
ISOBUTANE.....	0.5		0.5			0.8		
N-PENTANE.....	0.3		0.4			0.4		
ISOPENTANE.....	0.0		0.0			1.0		
CYCLOPENTANE.....	TRACE		0.1			0.3		
HEXANES PLUS.....	0.2		0.2			0.7		
NITROGEN.....	13.6		12.4			3.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.1		
HELIUM.....	0.42		0.40			0.17		
HEATING VALUE*.....	1028		1053			1234		
SPECIFIC GRAVITY.....	0.708		0.711			0.732		
INDEX 7051 SAMPLE 13069			INDEX 7052 SAMPLE 13070			INDEX 7053 SAMPLE 13071		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	SEC. 34, T1N, R15ECM		SEC. 35, T1N, R15ECM			SEC. 35, T1N, R15ECM		
LOCATION.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	10/06/71		10/06/71			10/06/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.4		74.7			82.0		
ETHANE.....	6.1		6.1			4.6		
PROPANE.....	4.1		4.3			4.7		
N-BUTANE.....	1.0		1.1			2.0		
ISOBUTANE.....	0.6		0.6			0.7		
N-PENTANE.....	0.3		0.3			0.5		
ISOPENTANE.....	0.1		0.3			0.5		
CYCLOPENTANE.....	0.1		0.1			0.3		
HEXANES PLUS.....	0.1		0.2			0.6		
NITROGEN.....	11.9		12.0			3.4		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.1		
HELIUM.....	0.41		0.42			0.16		
HEATING VALUE*.....	1059		1074			1227		
SPECIFIC GRAVITY.....	0.710		0.720			0.727		
INDEX 7054 SAMPLE 13072			INDEX 7055 SAMPLE 14644			INDEX 7056 SAMPLE 14645		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	SEAR NO. 1		JAN NO. 1			LES NO. 1		
LOCATION.....	SEC. 36, T1N, R15ECM		SEC. 24, T1N, R15ECM			SEC. 35, T1N, R15ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		03/13/46			08/08/45		
SAMPLED.....	10/06/71		04/26/71			04/26/71		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		2535			2665		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		153			143		
OPEN FLOW, MCFD.....	NOT GIVEN		169			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.3		75.5			75.6		
ETHANE.....	5.8		6.4			6.4		
PROPANE.....	3.9		3.6			3.6		
N-BUTANE.....	0.9		1.0			1.0		
ISOBUTANE.....	0.6		0.6			0.9		
N-PENTANE.....	0.4		0.2			0.2		
ISOPENTANE.....	0.0		0.3			0.3		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	12.4		12.0			11.9		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	0.42		0.40			0.39		
HEATING VALUE*.....	1046		1047			1048		
SPECIFIC GRAVITY.....	0.708		0.707			0.702		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7057 SAMPLE 14646			INDEX 7058 SAMPLE 14648			INDEX 7059 SAMPLE 14663		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON		GUYMON-HUGOTON			GUYMON-HUGOTON		
WELL NAME.....	HITCH NO. 8-1		TUNIS NO. 1			SEGAR NO. 1		
LOCATION.....	SEC. 34, T1N, R15ECM		SEC. 23, T1N, R15ECM			SEC. 36, T1N, R15ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	02/03/45		07/23/47			08/03/45		
SAMPLED.....	04/26/76		04/26/76			04/27/76		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		2530			2660		
DEPTH, FEET.....	2751		159			171		
WELLHEAD PRESSURE, PSIG.....	139		189			449		
OPEN FLOW, MCFD.....	NOT GIVEN							
COMPONENT, MOLE PCT								
METHANE.....	75.7	-----	75.4	-----		74.9	-----	
ETHANE.....	6.4	-----	6.3	-----		6.3	-----	
PROPANE.....	3.8	-----	3.6	-----		3.7	-----	
N-BUTANE.....	1.1	-----	0.9	-----		1.0	-----	
ISOBUTANE.....	0.4	-----	0.5	-----		0.5	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.2	-----	0.3	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.1	-----	
NITROGEN.....	11.5	-----	12.5	-----		12.6	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE**.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HELIUM.....	0.41	-----	0.40	-----		0.43	-----	
HEATING VALUE.....	1053	-----	1044	-----		1040	-----	
SPECIFIC GRAVITY.....	0.702	-----	0.704	-----		0.705	-----	
INDEX 7060 SAMPLE 12199			INDEX 7061 SAMPLE 15596			INDEX 7062 SAMPLE 16708		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	GUYMON-HUGOTON GAS AREA		GUYMON-HUGOTON GAS AREA			GUYMON-HUGOTON GAS AREA		
WELL NAME.....	STAMPER NO. 1		KENAN NO. 8-1			LOLMAUGH NO. 2		
LOCATION.....	SEC. 21, T4N, R16ECM		SEC. 36, T4N, R16ECM			SEC. 5, T5N, R16ECM		
OWNER.....	CABOT CORP.		ANADARKO PRODUCTION CO.			MOBIL OIL CORP.		
COMPLETED.....	02/27/69		06/27/76			03/03/81		
SAMPLED.....	02/16/70		04/05/79			11/16/82		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-COUNCIL GROVE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7100		6203			3033		
WELLHEAD PRESSURE, PSIG.....	1766		NOT GIVEN			274		
OPEN FLOW, MCFD.....	18592		6300			2434		
COMPONENT, MOLE PCT								
METHANE.....	89.1	-----	88.1	-----		73.9	-----	
ETHANE.....	3.4	-----	5.6	-----		5.1	-----	
PROPANE.....	1.5	-----	2.7	-----		1.1	-----	
N-BUTANE.....	0.3	-----	0.8	-----		0.7	-----	
ISOBUTANE.....	0.1	-----	0.3	-----		0.4	-----	
N-PENTANE.....	TRACE	-----	0.2	-----		0.3	-----	
ISOPENTANE.....	0.2	-----	0.2	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.2	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.4	-----	
NITROGEN.....	4.9	-----	1.5	-----		16.1	-----	
OXYGEN.....	0.3	-----	0.0	-----		TRACE	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.2	-----		TRACE	-----	
HELIUM.....	0.12	-----	0.12	-----		0.40	-----	
HEATING VALUE.....	1034	-----	112	-----		980	-----	
SPECIFIC GRAVITY.....	0.619	-----	0.643	-----		0.703	-----	
INDEX 7063 SAMPLE 13867			INDEX 7064 SAMPLE 16208			INDEX 7065 SAMPLE 7252		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	HITCHLAND N		HOOKER E			HOOKER SW		
WELL NAME.....	HITCH UNIT B NO. 1		HITCH UNIT B NO. 1			BALZER NO. 1		
LOCATION.....	SEC. 27, T1N, R16ECM		SEC. 2, T4N, R18ECM			SEC. 8, T3N, R17ECM		
OWNER.....	PETROLEUM, INC.		ANADARKO PRODUCTION CO.			SHELL OIL CO.		
COMPLETED.....	06/08/73		02/28/80			09/-/59		
SAMPLED.....	01/18/74		03/17/84			10/16/59		
FORMATION.....	PENN-MORROW		MISS-CHESTER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4450		6524			6360		
WELLHEAD PRESSURE, PSIG.....	1162		585			1700		
OPEN FLOW, MCFD.....	23857		797			19090		
COMPONENT, MOLE PCT								
METHANE.....	89.1	-----	86.2	-----		79.9	-----	
ETHANE.....	5.0	-----	5.0	-----		5.4	-----	
PROPANE.....	2.1	-----	3.4	-----		3.4	-----	
N-BUTANE.....	0.6	-----	1.0	-----		1.0	-----	
ISOBUTANE.....	0.4	-----	0.5	-----		0.9	-----	
N-PENTANE.....	0.3	-----	0.3	-----		0.4	-----	
ISOPENTANE.....	0.2	-----	0.3	-----		0.9	-----	
CYCLOPENTANE.....	0.2	-----	0.1	-----		0.5	-----	
HEXANES PLUS.....	0.5	-----	0.2	-----		2.0	-----	
NITROGEN.....	0.0	-----	2.3	-----		4.9	-----	
OXYGEN.....	0.0	-----	0.1	-----		TRACE	-----	
ARGON.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.5	-----	
HELIUM.....	0.11	-----	0.15	-----		0.20	-----	
HEATING VALUE.....	1135	-----	1135	-----		1235	-----	
SPECIFIC GRAVITY.....	0.647	-----	0.671	-----		0.751	-----	
INDEX 7066 SAMPLE 7714			INDEX 7067 SAMPLE 7826			INDEX 7068 SAMPLE 7829		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	HOOKER SW		HOOKER SW			HOOKER SW		
WELL NAME.....	BALZER NO. 1-9		LUNDGRIN NO. 1-13			FINROCK NO. 1-13		
LOCATION.....	SEC. 9, T3N, R17ECM		SEC. 19, T4N, R17ECM			SEC. 13, T4N, R16ECM		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	04/09/60		06/03/60			10/21/60		
SAMPLED.....	10/08/60		01/23/61			01/28/61		
FORMATION.....	PENN-KEYES		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6453		6197			6196		
WELLHEAD PRESSURE, PSIG.....	1800		1450			1525		
OPEN FLOW, MCFD.....	15000		20000			14500		
COMPONENT, MOLE PCT								
METHANE.....	94.7	-----	83.9	-----		83.6	-----	
ETHANE.....	2.5	-----	6.1	-----		6.2	-----	
PROPANE.....	0.9	-----	3.8	-----		4.0	-----	
N-BUTANE.....	0.2	-----	1.0	-----		1.1	-----	
ISOBUTANE.....	0.2	-----	0.7	-----		0.6	-----	
N-PENTANE.....	0.1	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.2	-----	
NITROGEN.....	0.8	-----	3.3	-----		3.3	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.1	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.4	-----		0.3	-----	
HELIUM.....	0.10	-----	0.10	-----		0.20	-----	
HEATING VALUE.....	1083	-----	1146	-----		1150	-----	
SPECIFIC GRAVITY.....	0.598	-----	0.680	-----		0.682	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7069			INDEX 7070			INDEX 7071		
SAMPLE 7880			SAMPLE 7881			SAMPLE 7882		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	HOOKER SW		HOOKER SW			HOOKER SW		
WELL NAME.....	SCHAEFFLER NO. 1-23		SCHAEFFLER NO. 1-23			FINFROCK NO. 1-18		
LOCATION.....	SEC. 23, T5N, R16ECM		SEC. 23, T5N, R16ECM			SEC. 18, T4N, R17ECM		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	08/28/60		08/28/60			08/27/60		
SAMPLED.....	02/22/61		02/22/61			02/22/61		
FORMATION.....	PENN-MORROW U		PENN-KEYES			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6116		6452			6190		
WELLHEAD PRESSURE, PSIG.....	1424		1327			1409		
OPEN FLOW, MCFD.....	14700		2724			20600		
COMPONENT, MOLE PCT								
METHANE.....	83.7		92.0			84.0		
ETHANE.....	6.4		3.5			6.2		
PROPANE.....	4.1		1.3			3.9		
N-BUTANE.....	1.1		0.5			1.2		
ISOBUTANE.....	0.7		0.3			0.6		
N-PENTANE.....	0.3		0.1			0.4		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.3		
NITROGEN.....	3.0		1.6			3.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.2		
HELIUM.....	0.10		0.1			0.20		
HEATING VALUE.....	1157		1069			1164		
SPECIFIC GRAVITY.....	0.682		0.612			0.685		
INDEX 7072			INDEX 7073			INDEX 7074		
SAMPLE 8406			SAMPLE 8446			SAMPLE 8448		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	HOOKER SW		HOOKER SW			HOOKER SW		
WELL NAME.....	MATTER NO. 1-14		AVA M. BLACKWELDER NO. 1-30			AVA M. BLACKWELDER NO. 1-30		
LOCATION.....	SEC. 14, T5N, R16ECM		SEC. 30, T5N, R17ECM			SEC. 30, T5N, R17ECM		
OWNER.....	SHELL OIL CO.		HAMILTON BROS., INC.			HAMILTON BROS., INC.		
COMPLETED.....	03/25/61		02/03/62			02/03/62		
SAMPLED.....	02/08/62		03/03/62			03/03/62		
FORMATION.....	PENN-MORROW		PENN-KEYES			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6102		6482			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1579			1429		
OPEN FLOW, MCFD.....	136200		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.2		88.0			83.9		
ETHANE.....	6.0		4.8			5.9		
PROPANE.....	3.9		2.2			3.9		
N-BUTANE.....	1.0		0.6			1.1		
ISOBUTANE.....	0.4		0.2			0.5		
N-PENTANE.....	0.2		0.1			0.3		
ISOPENTANE.....	0.3		0.1			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.3		
NITROGEN.....	3.2		3.4			3.3		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	0.15		0.11			0.15		
HEATING VALUE.....	1139		1053			1156		
SPECIFIC GRAVITY.....	0.673		0.640			0.684		
INDEX 7075			INDEX 7076			INDEX 7077		
SAMPLE 8614			SAMPLE 8621			SAMPLE 8698		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	HOOKER SW		HOOKER SW			HOOKER SW		
WELL NAME.....	AVA M. BLACKWELDER NO. 1-30		AVA M. BLACKWELDER			MAXINE B. GROUNDS		
LOCATION.....	SEC. 30, T5N, R17ECM		SEC. 30, T5N, R17ECM			SEC. 29, T5N, R17ECM		
OWNER.....	HAMILTON BROS., INC.		HAMILTON BROS., INC.			HAMILTON BROS., INC.		
COMPLETED.....	02/10/62		02/10/62			07/19/62		
SAMPLED.....	02/25/62		07/25/62			10/08/62		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6468		6163			6214		
WELLHEAD PRESSURE, PSIG.....	1425		1400			1465		
OPEN FLOW, MCFD.....	2000		3000			21299		
COMPONENT, MOLE PCT								
METHANE.....	88.2		84.5			83.6		
ETHANE.....	4.7		6.0			6.0		
PROPANE.....	3.2		3.8			4.1		
N-BUTANE.....	0.6		1.0			1.2		
ISOBUTANE.....	0.1		0.5			0.5		
N-PENTANE.....	0.1		0.2			0.3		
ISOPENTANE.....	0.1		0.3			0.3		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	2.7		3.2			3.4		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.3		
HELIUM.....	0.12		0.14			0.14		
HEATING VALUE.....	1098		1139			1149		
SPECIFIC GRAVITY.....	0.637		0.673			0.681		
INDEX 7078			INDEX 7079			INDEX 7080		
SAMPLE 9723			SAMPLE 11164			SAMPLE 11165		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	HOOKER SW		HOOKER SW			HOOKER SW		
WELL NAME.....	SHELL UNIT 1-21		OKLAHOMA STATE K NO. 1			OKLAHOMA STATE K NO. 1		
LOCATION.....	SEC. 21, T3N, R17ECM		SEC. 21, T3N, R17ECM			SEC. 21, T3N, R17ECM		
OWNER.....	SHELL OIL CO.		CAROT CORP.			CAROT CORP.		
COMPLETED.....	12/07/64		07/07/66			07/07/66		
SAMPLED.....	02/09/65		10/12/67			10/12/67		
FORMATION.....	PENN-KEYES		PENN-TORONTO			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6448		4253			6469		
WELLHEAD PRESSURE, PSIG.....	1725		1086			1009		
OPEN FLOW, MCFD.....	2310		10000			1500		
COMPONENT, MOLE PCT								
METHANE.....	94.3		94.4			66.1		
ETHANE.....	2.4		0.8			5.3		
PROPANE.....	0.9		0.8			3.1		
N-BUTANE.....	0.3		0.4			1.1		
ISOBUTANE.....	0.2		0.1			0.6		
N-PENTANE.....	0.1		0.1			0.3		
ISOPENTANE.....	TRACE		0.1			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	1.2		0.3			0.2		
NITROGEN.....	0.0		1.1			22.4		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.09		0.09			0.1		
HELIUM.....	1057		939			0.38		
HEATING VALUE.....	0.598		0.602			939		
SPECIFIC GRAVITY.....						0.746		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7081 SAMPLE 12382			INDEX 7082 SAMPLE 12384			INDEX 7083 SAMPLE 12385		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	HOOKER SW		HOOKER SW			HOOKER SW		
WELL NAME.....	SYLVESTER NO. 1-32		BALZER NO. 1-9			MAYER NO. 1-16		
LOCATION.....	SEC. 32, T4N, R17ECM		SEC. 2, T3N, R17ECM			SEC. 16, T3N, R17ECM		
OWNER.....	GRAHAM-MICHAELIS DRILLING CO		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	12/18/64		06/--/60			10/--/62		
SAMPLED.....	08/21/70		08/25/70			08/25/70		
FORMATION.....	PENN-MORROW		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6424		6419			6416		
WELLHEAD PRESSURE, PSIG.....	1066		1347			1350		
OPEN FLOW, MCFD.....	17886		2500			3225		
COMPONENT, MOLE PCT								
METHANE.....	84.4		94.8			94.4		
ETHANE.....	5.4		0.3			2.2		
PROPANE.....	4.2		0.9			0.9		
N-BUTANE.....	1.2		0.3			0.2		
ISOBUTANE.....	0.2		0.1			0.2		
N-PENTANE.....	0.3		0.1			0.0		
ISOPENTANE.....	0.2		TRACE			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			TRACE		
NITROGEN.....	3.0		0.9			1.4		
OXYGEN.....	0.1		0.0			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.15		0.09			0.09		
HEATING VALUE.....	1154		1053			1041		
SPECIFIC GRAVITY.....	0.680		0.592			0.592		
INDEX 7084 SAMPLE 12426			INDEX 7085 SAMPLE 15612			INDEX 7086 SAMPLE 5602		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	HOOKER SW		HOOKER SW			KEYES GAS AREA		
WELL NAME.....	FRICK UNIT NO. 1		FISCHER NO. 1			ELLA HAMILTON NO. 1		
LOCATION.....	SEC. 3, T3N, R17ECM		SEC. 27, T5N, R16ECM			SEC. 6, T5N, R10ECM		
OWNER.....	SAMEDAN OIL CORP.		CABOT CORP.			UNITED PRODUCING CO., INC.		
COMPLETED.....	12/18/64		08/15/78			12/10/53		
SAMPLED.....	09/28/70		04/30/79			03/22/54		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6420		6484			4617		
WELLHEAD PRESSURE, PSIG.....	1525		1338			875		
OPEN FLOW, MCFD.....	13360		9855			14100		
COMPONENT, MOLE PCT								
METHANE.....	94.9		94.2			73.3		
ETHANE.....	2.2		0.0			3.8		
PROPANE.....	0.9		0.9			2.4		
N-BUTANE.....	0.2		0.3			0.7		
ISOBUTANE.....	0.2		0.1			0.3		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	1.0		1.1			16.2		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		0.0			0.1		
HYDROGEN.....	0.1		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.8		
HELIUM.....	0.09		0.09			1.80		
HEATING VALUE.....	1056		1058			925		
SPECIFIC GRAVITY.....	0.595		0.598			0.688		
INDEX 7087 SAMPLE 5826			INDEX 7088 SAMPLE 5831			INDEX 7089 SAMPLE 5844		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	W. A. SPARKMAN NO. 1		HERD NO. 1			HANARY NO. A-1		
LOCATION.....	SEC. 7, T5N, R10ECM		SEC. 18, T5N, R10ECM			SEC. 31, T6N, R10ECM		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	06/--/54		06/--/54			03/19/53		
SAMPLED.....	04/26/55		04/26/55			05/02/55		
FORMATION.....	PENN-KEYES		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4528		4589			4582		
WELLHEAD PRESSURE, PSIG.....	836		831			840		
OPEN FLOW, MCFD.....	1900		22500			5573		
COMPONENT, MOLE PCT								
METHANE.....	71.2		64.1			76.6		
ETHANE.....	3.5		3.1			3.3		
PROPANE.....	2.1		0.7			1.7		
N-BUTANE.....	0.7		0.7			0.8		
ISOBUTANE.....	0.4		0.4			0.6		
N-PENTANE.....	0.2		0.2			0.7		
ISOPENTANE.....	0.2		0.1			0.4		
CYCLOPENTANE.....	0.1		0.1			0.2		
HEXANES PLUS.....	0.2		0.2			0.8		
NITROGEN.....	18.7		25.8			12.8		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		1.0			0.5		
HELIUM.....	1.87		2.14			1.44		
HEATING VALUE.....	1007		822			1022		
SPECIFIC GRAVITY.....	0.701		0.728			0.706		
INDEX 7090 SAMPLE 5990			INDEX 7091 SAMPLE 6123			INDEX 7092 SAMPLE 6126		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
WELL NAME.....	DEER CREEK		STATE OF OKLAHOMA NO. 2-C			GOODARD NO. 1-19		
LOCATION.....	SEC. 32, T3N, R10ECM		SEC. 30, T5N, R10ECM			SEC. 19, T5N, R10ECM		
OWNER.....	PHILLIPS PETROLEUM CO.		CABOT CORP.			PANHANDLE EASTERN PIPELINE C		
COMPLETED.....	11/32/55		06/30/55			12/01/54		
SAMPLED.....	01/05/56		08/03/56			08/15/56		
FORMATION.....	PENN-CHEROKEE		PENN-KEYES			PENN-KEYES		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4528		4580			4590		
WELLHEAD PRESSURE, PSIG.....	795		750			816		
OPEN FLOW, MCFD.....	671		1500			23183		
COMPONENT, MOLE PCT								
METHANE.....	71.8		63.0			55.0		
ETHANE.....	7.3		3.1			2.6		
PROPANE.....	3.9		2.0			1.5		
N-BUTANE.....	0.7		0.7			0.7		
ISOBUTANE.....	0.1		0.4			0.4		
N-PENTANE.....	0.3		0.2			0.1		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	15.2		26.5			34.0		
OXYGEN.....	0.0		0.0			2.3		
ARGON.....	TRACE		0.1			0.2		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		1.1			1.2		
HELIUM.....	0.40		2.26			1.58		
HEATING VALUE.....	1014		822			707		
SPECIFIC GRAVITY.....	0.715		0.732			0.772		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7093 6388			INDEX SAMPLE	7094 6406			INDEX SAMPLE	7095 6436
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	TEXAS			TEXAS				TEXAS			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	PIKE NO. 1			STATE WILLIAMS NO. 1				OKLAHOMA STATE NO. C-2			
LOCATION.....	SEC. 5, T5N, R10ECM			SEC. 30, T5N, R10ECM				SEC. 30, T5N, R10ECM			
OWNER.....	H. F. SAUNDERS			CABOT CARBON CO.				CABOT CARBON CO.			
COMPLETED.....	08/27/50			06/27/54				06/30/55			
SAMPLED.....	08/20/57			09/27/57				11/06/57			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	4554			4550				4580			
WELLHEAD PRESSURE, PSIG.....	894			815				940			
OPEN FLOW, MCFD.....	92000			48500				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	73.2			62.9				63.0			
ETHANE.....	3.8			3.0				3.1			
PROPANE.....	2.3			1.7				2.3			
N-BUTANE.....	0.7			0.5				0.8			
ISOBUTANE.....	0.4			0.8				0.5			
N-PENTANE.....	0.2			0.2				0.1			
ISOPENTANE.....	0.2			0.0				0.3			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	0.2			0.1				0.2			
NITROGEN.....	16.4			27.0				20.2			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				TRACE			
HYDROGEN SULFIDE.....	1.0			0.0				0.0			
CARBON DIOXIDE.....	0.6			1.3				1.2			
HELIUM.....	1.91			2.20				2.20			
HEATING VALUE.....	934			792				828			
SPECIFIC GRAVITY.....	0.692			0.727				0.739			
		INDEX SAMPLE	7096 7166			INDEX SAMPLE	7097 7185			INDEX SAMPLE	7098 7246
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	TEXAS			TEXAS				TEXAS			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	OKLAHOMA STATE D-1			W. A. SPARKMAN NO. 1				FINCHAM NO. 1			
LOCATION.....	SEC. 31, T5N, R10ECM			SEC. 7, T5N, R10ECM				SEC. 27, T6N, R10ECM			
OWNER.....	PANHANDLE EASTERN PIPELINE C			SHELL OIL CO.				GRAHAM-MICHAELIS DRILLING CO			
COMPLETED.....	09/16/57			06/11/58				08/11/58			
SAMPLED.....	08/07/59			10/16/59				10/16/59			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-PURDY			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	4526			4528				4442			
WELLHEAD PRESSURE, PSIG.....	753			745				1117			
OPEN FLOW, MCFD.....	2256			1900				50000			
COMPONENT, MOLE PCT											
METHANE.....	54.4			80.5				73.9			
ETHANE.....	2.6			4.1				3.4			
PROPANE.....	2.7			2.8				3.4			
N-BUTANE.....	0.6			0.7				0.7			
ISOBUTANE.....	0.3			0.5				0.4			
N-PENTANE.....	0.1			0.2				TRACE			
ISOPENTANE.....	0.3			0.3				0.5			
CYCLOPENTANE.....	0.1			0.1				TRACE			
HEXANES PLUS.....	0.4			0.2				0.1			
NITROGEN.....	33.3			8.1				14.6			
OXYGEN.....	2.4			0.0				TRACE			
ARGON.....	0.2			0.1				TRACE			
HYDROGEN.....	0.0			0.0				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.7			0.5				0.1			
HELIUM.....	1.90			1.90				0.70			
HEATING VALUE.....	739			1037				997			
SPECIFIC GRAVITY.....	0.779			0.669				0.701			
		INDEX SAMPLE	7099 7269			INDEX SAMPLE	7100 7270			INDEX SAMPLE	7101 7282
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	TEXAS			TEXAS				TEXAS			
FIELD.....	KEYES GAS AREA			KEYES GAS AREA				KEYES GAS AREA			
WELL NAME.....	GODDARD NO. 1-19			SAUNDERS PIKE NO. 1				HAMILTON NO. 1			
LOCATION.....	SEC. 19, T5N, R10ECM			SEC. 5, T5N, R10ECM				SEC. 6, T5N, R10ECM			
OWNER.....	PANHANDLE EASTERN PIPELINE C			H. F. SAUNDERS				UNITED PRODUCING CO., INC.			
COMPLETED.....	12/02/54			11/17/59				01/05/54			
SAMPLED.....	11/03/59			11/03/59				11/17/59			
FORMATION.....	PENN-KEYES			PENN-KEYES				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	4584			NOT GIVEN				4631			
WELLHEAD PRESSURE, PSIG.....	753			746				749			
OPEN FLOW, MCFD.....	20351			NOT GIVEN				14100			
COMPONENT, MOLE PCT											
METHANE.....	62.8			72.6				71.6			
ETHANE.....	3.0			3.7				3.7			
PROPANE.....	1.5			1.3				1.3			
N-BUTANE.....	0.6			0.7				0.7			
ISOBUTANE.....	0.5			0.3				0.2			
N-PENTANE.....	0.1			0.2				0.2			
ISOPENTANE.....	0.5			0.2				0.2			
CYCLOPENTANE.....	0.1			0.1				TRACE			
HEXANES PLUS.....	0.2			0.2				0.1			
NITROGEN.....	27.2			16.4				17.9			
OXYGEN.....	TRACE			TRACE				0.0			
ARGON.....	0.1			TRACE				TRACE			
HYDROGEN.....	0.0			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.4			2.5				0.4			
HELIUM.....	2.10			1.80				1.40			
HEATING VALUE.....	808			952				950			
SPECIFIC GRAVITY.....	0.739			0.700				0.700			
		INDEX SAMPLE	7102 7285			INDEX SAMPLE	7103 9765			INDEX SAMPLE	7104 14500
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	TEXAS			TEXAS				TEXAS			
FIELD.....	KEYES GAS AREA			LIBERAL SW				LIBERAL SW			
WELL NAME.....	MARY			DELLA HADELL				BLASER NO. 1			
LOCATION.....	SEC. 31, T6N, R10ECM			SEC. 13, T6N, R19ECM				SEC. 13, T6N, R19ECM			
OWNER.....	CITIES SERVICE OIL CO.			MOBIL OIL CORP.				BASIN PETROLEUM CORP.			
COMPLETED.....	04/21/53			05/30/64				04/30/75			
SAMPLED.....	11/13/59			02/25/65				10/21/75			
FORMATION.....	PENN-KEYES			PENN-MORROW				PENN-KEYES			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	4572			6312				6400			
WELLHEAD PRESSURE, PSIG.....	760			1030				1170			
OPEN FLOW, MCFD.....	3125			1040				10902			
COMPONENT, MOLE PCT											
METHANE.....	75.4			80.6				89.6			
ETHANE.....	3.6			4.1				4.0			
PROPANE.....	3.5			2.9				2.1			
N-BUTANE.....	0.6			0.9				0.6			
ISOBUTANE.....	0.6			0.6				0.4			
N-PENTANE.....	0.3			0.2				0.1			
ISOPENTANE.....	0.0			0.2				0.3			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	0.2			0.2				0.2			
NITROGEN.....	13.6			2.6				2.3			
OXYGEN.....	TRACE			0.1				TRACE			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.1			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.3			0.3				0.3			
HELIUM.....	1.70			0.24				0.35			
HEATING VALUE.....	983			1093				1099			
SPECIFIC GRAVITY.....	0.687			0.681				0.638			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7105 6510	INDEX SAMPLE	7106 6584	INDEX SAMPLE	7107 7447
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	MOUSER			MOUSER		MOUSER	
WELL NAME.....	MURDOCK A NO. 2			MURDOCK NO. A-1		NORDBERG TRUSTEE NO. 1-M	
LOCATION.....	SEC. 3, T4N, R15ECM			SEC. 10, T5N, R15ECM		SEC. 27, T6N, R15ECM	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		REPUBLIC NATURAL GAS CO.	
COMPLETED.....	10/02/57			04/03/58		03/12/60	
SAMPLED.....	02/17/58			05/14/58		03/16/60	
FORMATION.....	PENN-MORROW			PENN-KEYES		PENN-MORROW BASAL	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6032			6380		6568	
WELLHEAD PRESSURE, PSIG.....	1634			1624		1715	
OPEN FLOW, MCFD.....	168000			2255		4587	
COMPONENT, MOLE PCT							
METHANE.....	82.7	-----		81.3	-----	92.7	-----
ETHANE.....	6.5	-----		3.0	-----	2.7	-----
PROPANE.....	4.0	-----		3.2	-----	1.2	-----
N-BUTANE.....	1.1	-----		1.2	-----	0.3	-----
ISOBUTANE.....	0.4	-----		0.1	-----	0.1	-----
N-PENTANE.....	0.3	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	0.3	-----		0.4	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.3	-----		0.1	-----	0.1	-----
NITROGEN.....	4.0	-----		6.9	-----	1.7	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.9	-----
HELIUM.....	0.10	-----		0.20	-----	0.10	-----
HEATING VALUE.....	1153	-----		1100	-----	1041	-----
SPECIFIC GRAVITY.....	0.690	-----		0.688	-----	0.605	-----
		INDEX SAMPLE	7108 7590	INDEX SAMPLE	7109 8659	INDEX SAMPLE	7110 13726
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	MOUSER			MOUSER		MOUSER	
WELL NAME.....	HIER NO. A-1			WILSON E NO. 4		MURDOCK A-12	
LOCATION.....	SEC. 21, T5N, R15ECM			SEC. 23, T5N, R15ECM		SEC. 15, T4N, R15ECM	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE GAS CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	04/29/60			07/16/62		06/04/73	
SAMPLED.....	06/23/60			08/30/62		08/16/73	
FORMATION.....	PENN-MORROW U			PENN-KEYES		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6128			6526		6083	
WELLHEAD PRESSURE, PSIG.....	1434			1688		643	
OPEN FLOW, MCFD.....	52000			12200		11000	
COMPONENT, MOLE PCT							
METHANE.....	63.6	-----		93.1	-----	79.9	-----
ETHANE.....	6.1	-----		2.9	-----	6.7	-----
PROPANE.....	6.9	-----		0.1	-----	0.0	-----
N-BUTANE.....	6.5	-----		0.2	-----	1.1	-----
ISOBUTANE.....	TRACE	-----		0.2	-----	0.6	-----
N-PENTANE.....	5.2	-----		0.1	-----	0.2	-----
ISOPENTANE.....	1.0	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	4.2	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	1.5	-----		1.8	-----	5.9	-----
NITROGEN.....	TRACE	-----		TRACE	-----	0.0	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.2	-----	0.1	-----
HELIUM.....	0.10	-----		0.26	-----	0.17	-----
HEATING VALUE.....	1819	-----		1054	-----	1141	-----
SPECIFIC GRAVITY.....	1.069	-----		0.603	-----	0.700	-----
		INDEX SAMPLE	7111 6509	INDEX SAMPLE	7112 14863	INDEX SAMPLE	7113 6466
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	MOUSER SW			MOUSER W		ONA NW	
WELL NAME.....	HAMPTON A NO. 2			HAMPTON A NO. 2		DENCKER NO. 1	
LOCATION.....	SEC. 11, T4N, R14ECM			SEC. 23, T5N, R17ECM		SEC. 8, T4N, R10ECM	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		EXCELSIOR OIL CORP.	
COMPLETED.....	02/24/57			09/10/76		12/20/57	
SAMPLED.....	02/17/58			02/10/76		07/10/59	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6160			6120		3134	
WELLHEAD PRESSURE, PSIG.....	1422			1191		437	
OPEN FLOW, MCFD.....	32000			89625		5400	
COMPONENT, MOLE PCT							
METHANE.....	77.8	-----		82.7	-----	76.8	-----
ETHANE.....	7.3	-----		6.4	-----	5.7	-----
PROPANE.....	5.4	-----		4.3	-----	3.4	-----
N-BUTANE.....	2.7	-----		1.1	-----	1.1	-----
ISOBUTANE.....	1.0	-----		0.4	-----	0.5	-----
N-PENTANE.....	0.7	-----		0.2	-----	0.3	-----
ISOPENTANE.....	0.9	-----		0.3	-----	0.2	-----
CYCLOPENTANE.....	0.2	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.7	-----		0.2	-----	0.2	-----
NITROGEN.....	2.9	-----		4.0	-----	10.9	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.3	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.1	-----
HELIUM.....	0.20	-----		0.17	-----	0.60	-----
HEATING VALUE.....	1296	-----		1150	-----	1054	-----
SPECIFIC GRAVITY.....	0.767	-----		0.688	-----	0.701	-----
		INDEX SAMPLE	7114 6977	INDEX SAMPLE	7115 7110	INDEX SAMPLE	7116 7139
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	ONA NW			ONA NW		ONA NW	
WELL NAME.....	ADDIE VOILES UNIT NO. 1			E. BRUMLEY NO. 1		DENCKER NO. 1	
LOCATION.....	SEC. 18, T4N, R10ECM			SEC. 8, T4N, R10ECM		SEC. 8, T4N, R10ECM	
OWNER.....	TEXACO INC.			PICO DRILLING CO.		EXCELSIOR OIL CORP.	
COMPLETED.....	12/08/58			--/--/00		12/07/57	
SAMPLED.....	02/17/59			06/22/59		07/10/59	
FORMATION.....	PENN-TOPEKA			PENN-TOPEKA		PENN-TOPEKA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3141			3110		3134	
WELLHEAD PRESSURE, PSIG.....	1884			430		435	
OPEN FLOW, MCFD.....				NOT GIVEN		6000	
COMPONENT, MOLE PCT							
METHANE.....	76.9	-----		77.7	-----	75.8	-----
ETHANE.....	6.0	-----		3.1	-----	6.1	-----
PROPANE.....	3.4	-----		3.2	-----	3.3	-----
N-BUTANE.....	1.2	-----		1.0	-----	1.2	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.5	-----
N-PENTANE.....	0.3	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.1	-----
NITROGEN.....	10.7	-----		10.9	-----	11.7	-----
OXYGEN.....	TRACE	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.1	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.1	-----	0.1	-----
HELIUM.....	0.20	-----		0.80	-----	0.60	-----
HEATING VALUE.....	1067	-----		1030	-----	1046	-----
SPECIFIC GRAVITY.....	0.708	-----		0.685	-----	0.702	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7117 SAMPLE 7141			INDEX 7118 SAMPLE 7149			INDEX 7119 SAMPLE 7113		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	ONA NW		ONA NW			ONA W		
WELL NAME.....	E. BRUMLEY NO. 1		E. BRUMLEY NO. 1			NO. 1		
LOCATION.....	SEC. 7, T4N, R10E4M		SEC. 7, T4N, R10E4M			SEC. 19, T4N, R10E4M		
OWNER.....	PTCO DRILLING CO.		PTCO DRILLING CO.			ASHLAND OIL & REFINING CO.		
COMPLETED.....	--/--/00		07/25/59			08/12/60		
SAMPLED.....	07/14/59		07/25/59			10/06/60		
FORMATION.....	PENN-PURDY L		PENN-PURDY M			PENN-TOPEKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4470		4425			3156		
WELLHEAD PRESSURE, PSIG.....	950		866			329		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	59.1		69.0			75.0		
ETHANE.....	3.2		3.7			6.3		
PROpane.....	1.1		1.3			4.0		
N-BUTANE.....	0.3		0.0			1.2		
ISOBUTANE.....	0.3		0.7			0.6		
N-PENTANE.....	TRACE		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.0			0.1		
NITROGEN.....	31.8		23.7			11.6		
OXYGEN.....	2.7		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.3		
HELIUM.....	1.00		1.20			0.70		
HEATING VALUE.....	714		831			1055		
SPECIFIC GRAVITY.....	0.739		0.693			0.710		
INDEX 7120 SAMPLE 6703			INDEX 7121 SAMPLE 6918			INDEX 7122 SAMPLE 6982		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	POSTLE		POSTLE			POSTLE		
WELL NAME.....	EASTWOOD NO. 2		BEATTY NO. 2-33			WELCH NO. 2		
LOCATION.....	SEC. 11, T4N, R13E4M		SEC. 33, T6N, R13E4M			SEC. 13, T5N, R13E4M		
OWNER.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C			REPUBLIC NATURAL GAS CO.		
COMPLETED.....	12/23/57		11/13/58			02/22/59		
SAMPLED.....	07/10/58		01/06/59			02/22/59		
FORMATION.....	PENN-MORROW BASAL		PENN-MORROW G			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6400		6447			6171		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1670		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	65.1		71.5			77.5		
ETHANE.....	8.7		9.7			6.3		
PROpane.....	8.4		8.9			5.7		
N-BUTANE.....	4.6		2.6			0.7		
ISOBUTANE.....	2.1		0.9			0.9		
N-PENTANE.....	1.4		0.6			0.4		
ISOPENTANE.....	1.3		0.8			0.4		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.9		0.5			0.4		
NITROGEN.....	6.9		3.2			6.1		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.4		
HELIUM.....	0.04		0.02			0.10		
HEATING VALUE.....	1428		1357			1188		
SPECIFIC GRAVITY.....	0.892		0.810			0.738		
INDEX 7123 SAMPLE 7331			INDEX 7124 SAMPLE 8005			INDEX 7125 SAMPLE 8189		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	POSTLE		POSTLE			POSTLE		
WELL NAME.....	G. W. FERGUSON NO. 1-M		JULIAN NO. 8			HAAR NO. 2		
LOCATION.....	SEC. 13, T5N, R13E4M		SEC. 3, T5N, R13E4M			SEC. 32, T6N, R13E4M		
OWNER.....	REPUBLIC NATURAL GAS CO.		REPUBLIC NATURAL GAS CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	--/--/00		--/--/00			10/03/60		
SAMPLED.....	01/05/60		06/01/61			09/11/61		
FORMATION.....	PENN-KEYES		PENN-MORROW U			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6560		5980			6067		
WELLHEAD PRESSURE, PSIG.....	1985		NOT GIVEN			1353		
OPEN FLOW, MCFD.....	6640		1670			50946		
COMPONENT, MOLE PCT.....								
METHANE.....	80.0		80.8			81.2		
ETHANE.....	4.1		6.3			7.0		
PROpane.....	2.8		0.9			0.3		
N-BUTANE.....	0.8		1.2			1.1		
ISOBUTANE.....	0.6		0.7			0.6		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.3		0.1			0.4		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.3		0.1			0.2		
NITROGEN.....	10.4		5.8			4.3		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.3		
HELIUM.....	0.20		0.10			0.13		
HEATING VALUE.....	1049		1128			1196		
SPECIFIC GRAVITY.....	0.689		0.692			0.697		
INDEX 7126 SAMPLE 8750			INDEX 7127 SAMPLE 15580			INDEX 7128 SAMPLE 7974		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TEXAS		TEXAS			TEXAS		
FIELD.....	POSTLE		RICE SW			RICHLAND CENTER N		
WELL NAME.....	H. C. ROESLER B 1-29		SEC. N. TREECE "B" NO. 2			WOODWARD B 01		
LOCATION.....	SEC. 19, T6N, R13E4M		SEC. 7, T2N, R10E4M			SEC. 9, T5N, R12E4M		
OWNER.....	HAMILTON BROS., INC.		TEXACO INC.			ANADARKO PRODUCTION CO.		
COMPLETED.....	--/--/00		10/17/77			01/22/60		
SAMPLED.....	11/01/62		03/14/78			05/19/61		
FORMATION.....	PENN-KEYES		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6511		4556			5742		
WELLHEAD PRESSURE, PSIG.....	1442		937			487		
OPEN FLOW, MCFD.....	10172		6376			4074		
COMPONENT, MOLE PCT.....								
METHANE.....	79.9		85.5			59.4		
ETHANE.....	4.5		6.0			5.4		
PROpane.....	2.8		3.0			3.3		
N-BUTANE.....	0.5		0.9			0.8		
ISOBUTANE.....	0.5		0.3			0.5		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.1		0.3			TRACE		
HEXANES PLUS.....	0.2		0.3			0.1		
NITROGEN.....	10.0		3.0			29.7		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		0.1			0.0		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.1		
CARBON DIOXIDE.....	0.4		0.1			0.1		
HELIUM.....	0.17		0.19			0.20		
HEATING VALUE.....	1050		1137			850		
SPECIFIC GRAVITY.....	0.689		0.666			0.766		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 7129 14426	INDEX SAMPLE 7130 14427	INDEX SAMPLE 7131 14567
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	RICHLAND CENTER S		RICHLAND CENTER S	TEXHOMA H
WELL NAME.....	ECKSTEIN A-2		ECKSTEIN A-2	HEWITT NO. 2
LOCATION.....	SEC. 27, T5N, R12ECM		SEC. 27, T5N, R12ECM	SEC. 29, T2N, R12ECM
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	PHILLIPS PETROLEUM CO.
COMPLETED.....	07/08/75		07/08/75	07/30/75
SAMPLED.....	08/06/75		08/06/75	01/23/76
FORMATION.....	PENN-CHEROKEE		PENN-KEYES	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	5078		5870	6080
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	572
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	4190
COMPONENT, MOLE PCT				
METHANE.....	80.5	75.0	89.0	
ETHANE.....	8.1	5.8	5.3	
PROpane.....	4.0	3.6	2.3	
N-BUTANE.....	1.0	0.9	0.6	
ISOBUTANE.....	0.4	0.6	0.3	
N-PENTANE.....	0.2	0.2	0.2	
ISOPENTANE.....	0.2	0.2	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	5.2	13.5	1.6	
OXYGEN.....	0.1	0.0	TRACE	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.2	
HELIUM.....	0.15	0.32	0.10	
HEATING VALUE.....	1104	1104	1104	
SPECIFIC GRAVITY.....	0.687	0.708	0.633	
		INDEX SAMPLE 7132 9849	INDEX SAMPLE 7133 12269	INDEX SAMPLE 7134 14495
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	TRACY SE		TRACY SE	TRACY SE
WELL NAME.....	SEC. 1, T3N, R12ECM		WEBB A NO. 2	STONEBRAKER P NO. 2
LOCATION.....	ANADARKO PRODUCTION CO.		SEC. 35, T4N, R12ECM	SEC. 2, T3N, R12ECM
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	CITIES SERVICE OIL CO.
COMPLETED.....	12/31/64		04/11/70	09/05/75
SAMPLED.....	04/22/75		04/22/75	10/17/75
FORMATION.....	PENN-MORROW		PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	6417		6026	5993
WELLHEAD PRESSURE, PSIG.....	1288		1354	1340
OPEN FLOW, MCFD.....	1020		2200	4844
COMPONENT, MOLE PCT				
METHANE.....	80.4	82.7	87.4	
ETHANE.....	6.7	7.1	5.9	
PROpane.....	3.5	4.7	2.9	
N-BUTANE.....	1.0	1.0	0.7	
ISOBUTANE.....	0.6	0.4	0.3	
N-PENTANE.....	0.3	0.2	0.2	
ISOPENTANE.....	0.2	0.4	0.2	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.2	0.2	0.1	
NITROGEN.....	6.5	3.0	2.0	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	TRACE	0.0	
CARBON DIOXIDE.....	0.3	TRACE	0.2	
HELIUM.....	0.32	0.12	0.13	
HEATING VALUE.....	1111	1174	1122	
SPECIFIC GRAVITY.....	0.690	0.688	0.648	
		INDEX SAMPLE 7135 7229	INDEX SAMPLE 7136 12703	INDEX SAMPLE 7137 11685
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	TRIUMPH S		TRIUMPH SW	TYRONE
WELL NAME.....	STEINKUEHLER NO. 1		INTERSTATE CATTLE&LOAN NO. 1	RUBY HARRISON NO. 1
LOCATION.....	SEC. 15, T5N, R11ECM		SEC. 29, T5N, R11ECM	SEC. 8, T5N, R19ECM
OWNER.....	PETROLEUM, INC.		SHEANODAH OIL CORP.	TEXACO INC. & SUN OIL CO.
COMPLETED.....	10/31/58		07/04/69	03/30/68
SAMPLED.....	10/01/59		03/04/71	11/26/68
FORMATION.....	PENN-CHEROKEE		PENN-KEYES	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	4548		4753	6417
WELLHEAD PRESSURE, PSIG.....	8000		873	1463
OPEN FLOW, MCFD.....	8000		1187	14600
COMPONENT, MOLE PCT				
METHANE.....	77.7	69.6	88.4	
ETHANE.....	7.0	3.2	4.3	
PROpane.....	3.8	0.8	2.2	
N-BUTANE.....	0.9	0.8	0.8	
ISOBUTANE.....	0.3	0.5	0.2	
N-PENTANE.....	TRACE	0.3	0.4	
ISOPENTANE.....	0.5	0.1	0.1	
CYCLOPENTANE.....	TRACE	0.1	0.1	
HEXANES PLUS.....	TRACE	1.2	0.1	
NITROGEN.....	9.4	20.0	2.7	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.2	0.2	
HELIUM.....	0.30	0.70	0.16	
HEATING VALUE.....	1073	942	1104	
SPECIFIC GRAVITY.....	0.694	0.725	0.645	
		INDEX SAMPLE 7138 16680	INDEX SAMPLE 7139 17131	INDEX SAMPLE 7140 17132
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS		TEXAS	TEXAS
FIELD.....	TYRONE		TYRONE	TYRONE
WELL NAME.....	HOOD NO. 1		HOOD NO. B-1	APSLEY NO. B1
LOCATION.....	SEC. 2, T5N, R19ECM		SEC. 25, T6N, R19ECM	SEC. 24, T6N, R19ECM
OWNER.....	FUNK EXPLORATION CO.		ANADARKO PRODUCTION CO.	ANADARKO PRODUCTION CO.
COMPLETED.....	08/28/82		11/02/83	11/02/83
SAMPLED.....	10/05/82		11/02/83	11/02/83
FORMATION.....	PENN-MORROW & MISS-CHESTER		MISS-CHESTER	MISS-CHESTER
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	6413		6680	6694
WELLHEAD PRESSURE, PSIG.....	1600		1816	1809
OPEN FLOW, MCFD.....	4000		9349	7109
COMPONENT, MOLE PCT				
METHANE.....	59.1	81.0	80.7	
ETHANE.....	3.9	6.8	6.8	
PROpane.....	2.6	1.3	3.3	
N-BUTANE.....	0.8	0.6	1.3	
ISOBUTANE.....	0.4	0.6	0.4	
N-PENTANE.....	0.2	0.4	0.3	
ISOPENTANE.....	0.4	0.1	0.1	
CYCLOPENTANE.....	0.2	0.2	0.2	
HEXANES PLUS.....	32.0	5.6	5.7	
NITROGEN.....	0.0	TRACE	0.1	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.4	0.4	
CARBON DIOXIDE.....	0.2	0.11	0.10	
HELIUM.....	0.11	1140	1133	
HEATING VALUE.....	825	1140	1133	
SPECIFIC GRAVITY.....	0.775	0.698	0.698	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7141 SAMPLE 10569			INDEX 7142 SAMPLE 11051			INDEX 7143 SAMPLE 12424		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TYRONE NE		TYRONE NW			TYRONE NW		
FIELD.....	PEDIGO NO. 1-16		RIFE NO. 1-26			OKLAHOMA STATE H NO. 1		
LOCATION.....	SEC. 16, T6N, R18ECM		SEC. 26, T6N, R18ECM			SEC. 1, T3N, R13ECM		
OWNER.....	MESA PETROLEUM CO.		HUMBLE OIL & REFINING CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	03/27/66		--/--/70			07/28/69		
SAMPLED.....	05/20/66		08/06/67			09/25/70		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW U		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6306		6380			6212		
WELLHEAD PRESSURE, PSIG.....	1635		1778			1390		
OPEN FLOW, MCFD.....	22400		4261			1133		
COMPONENT, MOLE PCT								
METHANE.....	84.8		88.9			87.1		
ETHANE.....	4.5		4.5			5.7		
PROPANE.....	2.2		0.1			3.1		
N-BUTANE.....	0.1		0.1			0.8		
ISOBUTANE.....	1.4		0.4			0.4		
N-PENTANE.....	0.8		0.1			0.2		
ISOPENTANE.....	TRACE		0.3			0.2		
CYCLOPENTANE.....	0.4		0.1			TRACE		
HEXANES PLUS.....	1.4		0.2			0.1		
NITROGEN.....	3.7		2.0			2.0		
OXYGEN.....	0.3		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.1		
HELIUM.....	0.16		0.16			0.14		
HEATING VALUE.....	1168		1106			1128		
SPECIFIC GRAVITY.....	0.696		0.642			0.650		

INDEX 7144 SAMPLE 6329			INDEX 7145 SAMPLE 6330			INDEX 7146 SAMPLE 7324		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TYRONE NE		TYRONE NW			TYRONE NW		
FIELD.....	UNIT N		UNIT N			UNIT N		
LOCATION.....	WILSON NO. 01		WILSON NO. 01			MARTHA SIXKILLER		
OWNER.....	SEC. 23, T4N, R13ECM		SEC. 23, T4N, R13ECM			SEC. 29, T21N, R14E		
COMPLETED.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C			C. R. COLPITT & OTHERS		
SAMPLED.....	02/12/57		02/12/57			--/--/26		
FORMATION.....	05/22/57		05/22/57			04/23/42		
GEOLOGIC PROVINCE CODE.....	PENN-KEYES		PENN-TORONTO			PENN-BARTLESVILLE		
DEPTH, FEET.....	360		360			355		
WELLHEAD PRESSURE, PSIG.....	6441		4248			860		
OPEN FLOW, MCFD.....	1600		936			210		
COMPONENT, MOLE PCT	NOT GIVEN		11008			350		
METHANE.....	73.3		72.2			93.4		
ETHANE.....	1.7		1.2			5.0		
PROPANE.....	2.6		3.4			---		
N-BUTANE.....	1.0		1.3			---		
ISOBUTANE.....	0.6		0.7			---		
N-PENTANE.....	0.3		0.4			---		
ISOPENTANE.....	0.1		0.0			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.2		0.3			---		
NITROGEN.....	17.6		15.9			1.0		
OXYGEN.....	TRACE		TRACE			0.3		
ARGON.....	TRACE		0.0			---		
HYDROGEN.....	TRACE		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	0.31		0.31			TRACE		
HEATING VALUE.....	961		1021			1036		
SPECIFIC GRAVITY.....	0.712		0.729			0.588		

INDEX 7147 SAMPLE 3315			INDEX 7148 SAMPLE 17883			INDEX 7149 SAMPLE 16093		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	TULSA DISTRICT		BROKEN ARROW DIST.			WASHINGTON		
FIELD.....	SEC. 36, T19N, R12E		SEC. 4, T17N, R15E			HOGSHOOTER		
LOCATION.....	A. C. RAMSEY		SHIELDS, COOPER			REYNOLDS NO. 1		
OWNER.....	11/15/42		10/01/83			SEC. 20, T25N, R14E		
COMPLETED.....	04/22/42		--/--/70			ECC OIL CO.		
SAMPLED.....	NOT GIVEN		PENN-DUTCHER			08/17/78		
FORMATION.....	NOT GIVEN		355			10/08/80		
GEOLOGIC PROVINCE CODE.....	355		355			PENN-SKINNER		
DEPTH, FEET.....	1123		1180			355		
WELLHEAD PRESSURE, PSIG.....	230		NOT GIVEN			780		
OPEN FLOW, MCFD.....	228		400			325		
COMPONENT, MOLE PCT						2000		
METHANE.....	65.4		67.9			86.3		
ETHANE.....	23.1		10.7			2.3		
PROPANE.....	---		8.0			2.6		
N-BUTANE.....	---		0.0			0.9		
ISOBUTANE.....	---		0.6			0.6		
N-PENTANE.....	---		1.1			0.2		
ISOPENTANE.....	---		0.6			0.1		
CYCLOPENTANE.....	---		0.4			0.1		
HEXANES PLUS.....	---		0.8			0.3		
NITROGEN.....	10.2		6.7			6.0		
OXYGEN.....	1.0		TRACE			0.2		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		TRACE			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.07		0.11			0.07		
HEATING VALUE.....	1076		1337			1070		
SPECIFIC GRAVITY.....	0.718		0.832			0.659		

INDEX 7150 SAMPLE 17247			INDEX 7151 SAMPLE 17078			INDEX 7152 SAMPLE 17079		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WASHINGTON		WASHINGTON			WASHINGTON		
FIELD.....	OCHELATA N		BESSIE N			BESSIE N		
LOCATION.....	ANTHIS NO. 1		STEHR NO. 1			HOEFFNER NO. 1		
OWNER.....	SEC. 25, T25N, R12E		SEC. 16, T11N, R17W			SEC. 31, T11N, R17W		
COMPLETED.....	DEWEER EXPLORATION, INC.		ROBINSON BROS. DRUG. CO.			ROBINSON BROS. DRUG. CO.		
SAMPLED.....	07/--/83		11/--/82			11/--/82		
FORMATION.....	04/10/84		08/22/83			08/27/83		
GEOLOGIC PROVINCE CODE.....	PENN-OSWEGO		PENN-MORROW			PENN-DES MOINES		
DEPTH, FEET.....	355		360			360		
WELLHEAD PRESSURE, PSIG.....	905		16432			12630		
OPEN FLOW, MCFD.....	NOT GIVEN		950			5700		
COMPONENT, MOLE PCT	285		NOT GIVEN			NOT GIVEN		
METHANE.....	91.4		76.4			75.9		
ETHANE.....	1.1		1.3			9.5		
PROPANE.....	0.7		0.2			5.6		
N-BUTANE.....	0.3		0.0			2.2		
ISOBUTANE.....	0.3		0.0			1.0		
N-PENTANE.....	0.2		0.0			0.4		
ISOPENTANE.....	TRACE		0.0			1.8		
CYCLOPENTANE.....	0.4		0.0			0.3		
HEXANES PLUS.....	0.4		0.0			0.7		
NITROGEN.....	3.0		0.5			1.7		
OXYGEN.....	0.1		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.3			0.3		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.3		
HELIUM.....	0.04		0.02			0.04		
HEATING VALUE.....	1028		1096			1334		
SPECIFIC GRAVITY.....	0.629		0.576			0.779		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7153 SAMPLE 17674		INDEX 7154 SAMPLE 16970		INDEX 7155 SAMPLE 17562	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	WASHITA	WASHITA	WASHITA	WASHITA	WASHITA
FIELD.....	BRATHWAITE	BRATHWAITE NW	BRATHWAITE NW	BURNS FLAT	BURNS FLAT
WELL NAME.....	MURRAY NO. 1-19	WALTON NO. 1-10	WALTON NO. 1-10	JUANITA NO. 1-34	JUANITA NO. 1-34
LOCATION.....	SEC. 19, T11N, R18W	SEC. 10, T11N, R18W	SEC. 10, T11N, R18W	SEC. 34, T10N, R18W	SEC. 34, T10N, R18W
OWNER.....	AN-SON CORP.	AN-SON CORP.	AN-SON CORP.	AN-SON CORP.	AN-SON CORP.
COMPLETED.....	02/08/85	06/20/82	06/20/82	05/09/84	05/09/84
SAMPLED.....	05/17/85	06/02/83	06/02/83	01/08/85	01/08/85
FORMATION.....	PENN-GRANITE WASH	PENN-MORROW	PENN-MORROW	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	12454	16455	16455	15485	15485
WELLHEAD PRESSURE, PSIG.....	5800	9329	9329	5300	5300
OPEN FLOW, MCFD.....	2360	4465	4465	2170	2170
COMPONENT, MOLE PCT					
METHANE.....	81.5	96.8	96.8	96.1	96.1
ETHANE.....	9.9	0.9	0.9	2.2	2.2
PROPANE.....	4.5	0.1	0.1	0.4	0.4
N-BUTANE.....	1.3	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.4	0.0	0.0	0.0	0.0
N-PENTANE.....	0.3	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.4	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.1	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.3	0.0	0.0	0.0	0.0
NITROGEN.....	0.9	0.3	0.3	0.3	0.3
OXYGEN.....	TRACE	TRACE	TRACE	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.3	0.3	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	1.5	1.5	0.9	0.9
HELIUM.....	0.01	0.03	0.03	0.02	0.02
HEATING VALUE.....	1236	1000	1000	1023	1023
SPECIFIC GRAVITY.....	0.705	0.574	0.574	0.579	0.579

INDEX 7156 SAMPLE 16415		INDEX 7157 SAMPLE 16658		INDEX 7158 SAMPLE 8655	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	WASHITA	WASHITA	WASHITA	WASHITA	WASHITA
FIELD.....	BURNS FLAT E	BURNS FLAT SW	BURNS FLAT SW	CANUTE N	CANUTE N
WELL NAME.....	OGLE NO. 1-15	MAUDE O. BIRCKETT NO. 2	MAUDE O. BIRCKETT NO. 2	A. H. SPIEKER NO. 1	A. H. SPIEKER NO. 1
LOCATION.....	SEC. 15, T11N, R18W	SEC. 26, T11N, R19W	SEC. 26, T11N, R19W	SEC. 12, T11N, R20W	SEC. 12, T11N, R20W
OWNER.....	AN-SON CORP.	ENSERCH EXPLORATION, INC.	ENSERCH EXPLORATION, INC.	UNION OIL CO. OF CALIF.	UNION OIL CO. OF CALIF.
COMPLETED.....	06/22/81	03/22/82	03/22/82	08/24/62	08/24/62
SAMPLED.....	01/24/82	03/22/82	03/22/82	08/24/62	08/24/62
FORMATION.....	PENN-MORROW	PENN-GRANITE WASH	PENN-GRANITE WASH	PENN-ATOKA	PENN-ATOKA
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	16593	12000	12000	14932	14932
WELLHEAD PRESSURE, PSIG.....	12400	5000	5000	10300	10300
OPEN FLOW, MCFD.....	3820	1500	1500	4500	4500
COMPONENT, MOLE PCT					
METHANE.....	97.3	89.7	89.7	94.1	94.1
ETHANE.....	0.9	5.0	5.0	3.3	3.3
PROPANE.....	0.1	2.5	2.5	0.8	0.8
N-BUTANE.....	0.0	0.8	0.8	0.1	0.1
ISOBUTANE.....	0.0	0.4	0.4	0.2	0.2
N-PENTANE.....	TRACE	0.2	0.2	0.1	0.1
ISOPENTANE.....	0.0	0.3	0.3	0.1	0.1
CYCLOPENTANE.....	TRACE	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.2	0.2	0.1	0.1
NITROGEN.....	0.4	0.5	0.5	0.2	0.2
OXYGEN.....	0.0	0.0	0.0	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE	0.0	0.0
HYDROGEN.....	0.0	0.1	0.1	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.2	0.4	0.4	1.0	1.0
HELIUM.....	0.02	0.02	0.02	0.02	0.02
HEATING VALUE.....	1004	1139	1139	1057	1057
SPECIFIC GRAVITY.....	0.573	0.645	0.645	0.600	0.600

INDEX 7159 SAMPLE 10527		INDEX 7160 SAMPLE 16393		INDEX 7161 SAMPLE 16546	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
FIELD.....	CANUTE N	CANUTE N	CANUTE N	COLONY NW	COLONY NW
WELL NAME.....	MARIK NO. 1-11	ALLISON NO. 1-3	ALLISON NO. 1-3	VOGT NO. 1-10	VOGT NO. 1-10
LOCATION.....	SEC. 11, T11N, R20W	SEC. 3, T11N, R20W	SEC. 3, T11N, R20W	SEC. 10, T11N, R15W	SEC. 10, T11N, R15W
OWNER.....	LOVER KENNEDY OIL CO	OKM GAS CORP.	OKM GAS CORP.	HELMERICH & PAYNE, INC.	HELMERICH & PAYNE, INC.
COMPLETED.....	7/1/80	12/09/81	12/09/81	01/26/82	01/26/82
SAMPLED.....	04/19/86	12/09/81	12/09/81	06/15/82	06/15/82
FORMATION.....	PENN-DES MOINES	PENN-ATOKA	PENN-ATOKA	PENN-SPRINGR	PENN-SPRINGR
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	13650	14955	14955	15300	15300
WELLHEAD PRESSURE, PSIG.....	8700	9000	9000	8200	8200
OPEN FLOW, MCFD.....	6400	6300	6300	17219	17219
COMPONENT, MOLE PCT					
METHANE.....	85.9	96.0	96.0	96.9	96.9
ETHANE.....	2.9	0.3	0.3	1.1	1.1
PROPANE.....	2.9	0.1	0.1	0.2	0.2
N-BUTANE.....	0.6	TRACE	TRACE	0.0	0.0
ISOBUTANE.....	0.4	TRACE	TRACE	0.0	0.0
N-PENTANE.....	0.1	TRACE	TRACE	0.0	0.0
ISOPENTANE.....	0.1	TRACE	TRACE	0.0	0.0
CYCLOPENTANE.....	0.3	TRACE	TRACE	0.0	0.0
HEXANES PLUS.....	0.5	0.1	0.1	0.0	0.0
NITROGEN.....	0.4	0.4	0.4	0.2	0.2
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	0.0	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.9	1.0	1.0	1.5	1.5
HELIUM.....	0.03	0.02	0.02	0.02	0.02
HEATING VALUE.....	1166	1025	1025	1007	1007
SPECIFIC GRAVITY.....	0.670	0.582	0.582	0.577	0.577

INDEX 7162 SAMPLE 16385		INDEX 7163 SAMPLE 16216		INDEX 7164 SAMPLE 16266	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	WASHITA	WASHITA	WASHITA	WASHITA	WASHITA
FIELD.....	FLAMING NO. 1-20	BROWN FOUNDATION NO. 1	BROWN FOUNDATION NO. 1	CORN NW	CORN NW
WELL NAME.....	FLAMING NO. 1-20	SEC. 14, T11N, R15W	SEC. 14, T11N, R15W	KATIE NO. 1	KATIE NO. 1
LOCATION.....	SEC. 20, T11N, R14W	HELMERICH & PAYNE, INC.	HELMERICH & PAYNE, INC.	SEC. 11, T11N, R15W	SEC. 11, T11N, R15W
OWNER.....	HELMERICH & PAYNE, INC.	HELMERICH & PAYNE, INC.	HELMERICH & PAYNE, INC.	AMERICAN QUASAR PET. CO.	AMERICAN QUASAR PET. CO.
COMPLETED.....	05/01/81	03/15/81	03/15/81	12/31/80	12/31/80
SAMPLED.....	11/17/81	03/15/81	03/15/81	05/18/81	05/18/81
FORMATION.....	PENN-SPRINGR	PENN-SPRINGR	PENN-SPRINGR	PENN-SPRINGR	PENN-SPRINGR
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	16002	15966	15966	15348	15348
WELLHEAD PRESSURE, PSIG.....	11400	10900	10900	11200	11200
OPEN FLOW, MCFD.....	8196	NOT GIVEN	NOT GIVEN	7000	7000
COMPONENT, MOLE PCT					
METHANE.....	96.9	97.1	97.1	96.6	96.6
ETHANE.....	0.6	0.6	0.6	1.1	1.1
PROPANE.....	0.1	0.1	0.1	0.2	0.2
N-BUTANE.....	0.0	0.0	0.0	TRACE	TRACE
ISOBUTANE.....	0.0	0.0	0.0	TRACE	TRACE
N-PENTANE.....	0.0	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	TRACE	TRACE
CYCLOPENTANE.....	0.0	0.0	0.0	TRACE	TRACE
HEXANES PLUS.....	0.0	0.0	0.0	0.1	0.1
NITROGEN.....	0.4	0.5	0.5	0.5	0.5
OXYGEN.....	0.1	0.1	0.1	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.9	1.6	1.6	1.2	1.2
HELIUM.....	0.02	0.02	0.02	0.02	0.02
HEATING VALUE.....	995	997	997	1009	1009
SPECIFIC GRAVITY.....	0.579	0.577	0.577	0.577	0.577

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7165 16633			INDEX SAMPLE	7166 4783			INDEX SAMPLE	7167 10570
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	WASHITA			WASHITA				WASHITA			
FIELD.....	DILL CITY W			ELK CITY				ELK CITY			
WELL NAME.....	HICKLIN NO. 1-9			LAMBERT NO. 1				FINNELL NO. 1-34			
LOCATION.....	SEC. 9, T9N, R19W			SEC. 18, T10N, R20W				SEC. 34, T10N, R20W			
OWNER.....	PIONEER PRODUCTION CORP.			E. CONSTANTIN, JR.				GLOVER HEFNER KENNEDY OIL CO			
COMPLETED.....	04/20/82			07/-/49				05/01/66			
SAMPLED.....	08/30/82			09/22/49				05/19/66			
FORMATION.....	PERM-GRANITE WASH			NOT GIVEN				PENN-DES MOINES			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	11112			9849				12628			
WELLHEAD PRESSURE, PSIG.....	5840			1500				7300			
OPEN FLOW, MCFD.....	22326			NOT GIVEN				1750			
COMPONENT, MOLE PCT											
METHANE.....	90.4	-----		70.5	-----			90.1	-----		
ETHANE.....	4.8	-----		12.1	-----			5.0	-----		
PROPANE.....	1.8	-----		8.9	-----			1.9	-----		
N-BUTANE.....	0.4	-----		2.5	-----			0.6	-----		
ISOBUTANE.....	0.4	-----		1.2	-----			0.3	-----		
N-PENTANE.....	0.2	-----		0.6	-----			0.1	-----		
ISOPENTANE.....	0.2	-----		0.1	-----			0.3	-----		
CYCLOPENTANE.....	0.1	-----		0.1	-----			0.1	-----		
HEXANES PLUS.....	0.7	-----		0.5	-----			0.4	-----		
NITROGEN.....	0.2	-----		3.4	-----			0.6	-----		
OXYGEN.....	TRACE	-----		0.0	-----			0.1	-----		
ARGON.....	0.0	-----		0.0	-----			TRACE	-----		
HYDROGEN.....	0.1	-----		0.0	-----			0.0	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	0.4	-----		0.1	-----			0.0	-----		
HELIUM.....	0.03	-----		0.04	-----			0.02	-----		
HEATING VALUE.....	1140	-----		1123	-----			1123	-----		
SPECIFIC GRAVITY.....	0.642	-----		0.803	-----			0.639	-----		
		INDEX SAMPLE	7168 14303			INDEX SAMPLE	7169 14884			INDEX SAMPLE	7170 15644
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	WASHITA			WASHITA				WASHITA			
FIELD.....	ELK CITY			ELK CITY				ELK CITY			
WELL NAME.....	SPRADLIN NO. 1			WILLIE PIERCE NO. 1-A				FLOYD NIECE NO. 1			
LOCATION.....	SEC. 35, T10N, R20W			SEC. 36, T10N, R20W				SEC. 27, T10N, R20W			
OWNER.....	EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.				EL PASO NATURAL GAS CO.			
COMPLETED.....	11/11/74			06/15/75				05/02/77			
SAMPLED.....	03/19/75			01/12/77				06/15/79			
FORMATION.....	PENN-ATOKA			PENN-MORROW				PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	13458			14824				19178			
WELLHEAD PRESSURE, PSIG.....	7600			11568				NOT GIVEN			
OPEN FLOW, MCFD.....	11514			11149				20000			
COMPONENT, MOLE PCT											
METHANE.....	95.6	-----		95.4	-----			95.9	-----		
ETHANE.....	1.3	-----		0.2	-----			1.8	-----		
PROPANE.....	0.4	-----		0.6	-----			0.8	-----		
N-BUTANE.....	0.0	-----		TRACE	-----			0.1	-----		
ISOBUTANE.....	0.0	-----		TRACE	-----			0.0	-----		
N-PENTANE.....	0.0	-----		TRACE	-----			0.5	-----		
ISOPENTANE.....	0.0	-----		0.1	-----			0.1	-----		
CYCLOPENTANE.....	0.0	-----		TRACE	-----			TRACE	-----		
HEXANES PLUS.....	0.0	-----		TRACE	-----			TRACE	-----		
NITROGEN.....	0.4	-----		TRACE	-----			0.3	-----		
OXYGEN.....	0.0	-----		0.2	-----			0.0	-----		
ARGON.....	TRACE	-----		TRACE	-----			TRACE	-----		
HYDROGEN.....	0.0	-----		0.0	-----			0.0	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	0.7	-----		0.7	-----			1.3	-----		
HELIUM.....	0.02	-----		0.02	-----			1.02	-----		
HEATING VALUE.....	1023	-----		1022	-----			1022	-----		
SPECIFIC GRAVITY.....	0.576	-----		0.581	-----			0.584	-----		
		INDEX SAMPLE	7171 5417			INDEX SAMPLE	7172 9614			INDEX SAMPLE	7173 16908
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	WASHITA			WASHITA				WASHITA			
FIELD.....	ELK CITY SE			NOT GIVEN				RAINEY NE			
WELL NAME.....	DAKS NO. 1			ANNIE A NO. 1				BACCHUS NO. 1-8			
LOCATION.....	SEC. 6, T9N, R19W			SEC. 26, T9N, R17W				SEC. 8, T8N, R16W			
OWNER.....	SHELL OIL CO.			CITIES SERVICE OIL CO.				HELMERICH & PAYNE, INC.			
COMPLETED.....	12/14/52			-/-/00				10/04/82			
SAMPLED.....	03/18/53			10/25/64				04/28/83			
FORMATION.....	PENN-DES MOINES U			PERM-DUNCAN A				PENN-MORROW			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	11056			1342				12380			
WELLHEAD PRESSURE, PSIG.....	4385			500				1793			
OPEN FLOW, MCFD.....	2000			40				2268			
COMPONENT, MOLE PCT											
METHANE.....	91.5	-----		95.3	-----			87.2	-----		
ETHANE.....	4.4	-----		2.0	-----			5.7	-----		
PROPANE.....	1.8	-----		0.5	-----			3.6	-----		
N-BUTANE.....	0.5	-----		0.5	-----			1.0	-----		
ISOBUTANE.....	0.2	-----		TRACE	-----			0.4	-----		
N-PENTANE.....	0.2	-----		TRACE	-----			0.2	-----		
ISOPENTANE.....	0.1	-----		TRACE	-----			0.4	-----		
CYCLOPENTANE.....	0.1	-----		TRACE	-----			0.1	-----		
HEXANES PLUS.....	0.2	-----		0.1	-----			0.2	-----		
NITROGEN.....	0.6	-----		1.3	-----			0.7	-----		
OXYGEN.....	0.1	-----		0.0	-----			0.0	-----		
ARGON.....	TRACE	-----		TRACE	-----			TRACE	-----		
HYDROGEN.....	TRACE	-----		0.0	-----			0.2	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	0.3	-----		0.5	-----			0.4	-----		
HELIUM.....	0.03	-----		0.06	-----			0.03	-----		
HEATING VALUE.....	1103	-----		1023	-----			1166	-----		
SPECIFIC GRAVITY.....	0.623	-----		0.582	-----			0.665	-----		
		INDEX SAMPLE	7174 6704			INDEX SAMPLE	7175 6705			INDEX SAMPLE	7176 4196
STATE.....	OKLAHOMA			OKLAHOMA				OKLAHOMA			
COUNTY.....	WASHITA			WASHITA				WASHITA			
FIELD.....	RAINEY S			RAINEY S				ROCKY			
WELL NAME.....	SCHOOL TRACT 34 NO. 1			ANNIE SCHMIDT NO. 1				HILL NO. 1			
LOCATION.....	SEC. 36, T8N, R17W			SEC. 35, T8N, R17W				SEC. 25, T8N, R18W			
OWNER.....	MOSBY OIL CORP.			MOSBY OIL CORP.				ATLANTIC RICHFIELD CO.			
COMPLETED.....	03/21/58			04/14/57				03/13/46			
SAMPLED.....	07/03/58			07/03/58				11/13/46			
FORMATION.....	PENN-SPRINGER			PENN-SPRINGER				PENN-			
GEOLOGIC PROVINCE CODE.....	360			360				360			
DEPTH, FEET.....	6500			6500				6150			
WELLHEAD PRESSURE, PSIG.....	1112			1862				2430			
OPEN FLOW, MCFD.....	19600			17759				17500			
COMPONENT, MOLE PCT											
METHANE.....	93.4	-----		94.1	-----			96.1	-----		
ETHANE.....	3.8	-----		3.3	-----			3.4	-----		
PROPANE.....	1.1	-----		1.1	-----			---	-----		
N-BUTANE.....	0.4	-----		0.3	-----			---	-----		
ISOBUTANE.....	0.2	-----		0.2	-----			---	-----		
N-PENTANE.....	0.1	-----		0.1	-----			---	-----		
ISOPENTANE.....	0.2	-----		0.1	-----			---	-----		
CYCLOPENTANE.....	0.1	-----		TRACE	-----			---	-----		
HEXANES PLUS.....	0.1	-----		0.1	-----			---	-----		
NITROGEN.....	0.4	-----		0.4	-----			0.0	-----		
OXYGEN.....	TRACE	-----		TRACE	-----			0.1	-----		
ARGON.....	TRACE	-----		TRACE	-----			---	-----		
HYDROGEN.....	0.0	-----		0.0	-----			---	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			---	-----		
CARBON DIOXIDE.....	0.2	-----		0.2	-----			0.3	-----		
HELIUM.....	0.10	-----		0.10	-----			0.05	-----		
HEATING VALUE.....	1085	-----		1071	-----			1036	-----		
SPECIFIC GRAVITY.....	0.607	-----		0.599	-----			0.575	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	7177 16290		INDEX SAMPLE	7178 17379		INDEX SAMPLE	7179 9550
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	WASHITA		WASHITA		WASHITA		WASHITA	
FIELD.....	SEGER		SENTINEL		WILDCAT		WILDCAT	
WELL NAME.....	SEGER INDIAN SCHOOL NO. 1		KING NO. 9-1		KNIE NO. 1		KNIE NO. 1	
LOCATION.....	SEC. 23, T10N, R14E		SEC. 9, T9N, R19W		SEC. 26, T9N, R17W		SEC. 26, T9N, R17W	
OWNER.....	HAMILTON BROTHERS OIL CO.		CHOCOI, INC.		CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	12/28/83		12/28/83		12/28/83		12/28/83	
SAMPLED.....	07/07/81		08/08/84		08/21/64		08/21/64	
FORMATION.....	PENN-RED FORK		PENN-SPRINGER		PERM-GRANITE WASH		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	360		360		360		360	
DEPTH, FEET.....	NOT GIVEN		12516		6400		6400	
WELLHEAD PRESSURE, PSIG.....	8400		5700		NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	4000		4000		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	88.8	-----	95.9	-----	98.1	-----	98.1	-----
ETHANE.....	6.5	-----	2.4	-----	0.9	-----	0.9	-----
PROpane.....	2.2	-----	0.3	-----	0.2	-----	0.2	-----
N-BUTANE.....	0.3	-----	0.1	-----	TRACE	-----	TRACE	-----
ISOBUTANE.....	0.3	-----	0.0	-----	TRACE	-----	TRACE	-----
N-PENTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
ISOPENTANE.....	0.2	-----	0.1	-----	TRACE	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----	TRACE	-----	0.1	-----	0.1	-----
NITROGEN.....	0.7	-----	0.3	-----	0.4	-----	0.4	-----
OXYGEN.....	0.0	-----	0.1	-----	TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.6	-----	0.7	-----	0.2	-----	0.2	-----
HELIUM.....	0.03	-----	0.03	-----	0.03	-----	0.03	-----
HEATING VALUE.....	1107	-----	1020	-----	1020	-----	1020	-----
SPECIFIC GRAVITY.....	0.631	-----	0.581	-----	0.566	-----	0.566	-----

	INDEX SAMPLE	7180 9560		INDEX SAMPLE	7181 9630		INDEX SAMPLE	7182 16223
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	WASHITA		WASHITA		WASHITA		WASHITA	
FIELD.....	WILDCAT		WILDCAT		WILDCAT		WILDCAT	
WELL NAME.....	KNIE A NO. 1		KNIE A NO. 1		IRA JOHNSON NO. 1		IRA JOHNSON NO. 1	
LOCATION.....	SEC. 26, T9N, R17W		SEC. 10, T9N, R19W		SEC. 10, T9N, R19W		SEC. 10, T9N, R19W	
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.		EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	10/16/80		11/11/84		04/06/81		04/06/81	
SAMPLED.....	09/09/64		11/11/84		04/06/81		04/06/81	
FORMATION.....	PENN-DES MOINES		PERM-WICHITA-ALBANY		PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360		360		360		360	
DEPTH, FEET.....	7889		1164		16798		16798	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		490		9522		9522	
OPEN FLOW, MCFD.....	NOT GIVEN		10		6180		6180	
COMPONENT, MOLE PCT								
METHANE.....	98.0	-----	95.8	-----	96.8	-----	96.8	-----
ETHANE.....	1.0	-----	1.9	-----	1.4	-----	1.4	-----
PROpane.....	0.2	-----	0.6	-----	0.2	-----	0.2	-----
N-BUTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
ISOBUTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
N-PENTANE.....	TRACE	-----	0.1	-----	0.0	-----	0.0	-----
ISOPENTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----	0.1	-----	TRACE	-----	TRACE	-----
NITROGEN.....	0.5	-----	1.2	-----	0.4	-----	0.4	-----
OXYGEN.....	TRACE	-----	0.0	-----	0.0	-----	0.0	-----
ARGON.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----	TRACE	-----	1.0	-----	1.0	-----
HELIUM.....	0.03	-----	0.05	-----	0.02	-----	0.02	-----
HEATING VALUE.....	1016	-----	1036	-----	1011	-----	1011	-----
SPECIFIC GRAVITY.....	0.562	-----	0.582	-----	0.574	-----	0.574	-----

	INDEX SAMPLE	7183 16696		INDEX SAMPLE	7184 10358		INDEX SAMPLE	7185 10364
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	WASHITA		WASHITA		WOODS		WOODS	
FIELD.....	WILDCAT		ALVA SE		ALVA SE		ALVA SE	
WELL NAME.....	TERRY FARRIS NO. 1-17		BROWN NO. 1		SCHMITT HEIRS NO. 1		SCHMITT HEIRS NO. 1	
LOCATION.....	SEC. 7, T8N, R19W		SEC. 27, T26N, R13W		SEC. 26, T26N, R13W		SEC. 26, T26N, R13W	
OWNER.....	GULF OIL EXPL. & PROD. CO.		CALVERT EXPLORATION CO.		SUN OIL CO.		SUN OIL CO.	
COMPLETED.....	07/25/81		05/06/65		10/25/65		10/25/65	
SAMPLED.....	10/21/82		01/13/66		01/14/66		01/14/66	
FORMATION.....	PENN-PONTOTOC		DEVON-HUNTON		DEVON-HUNTON		DEVON-HUNTON	
GEOLOGIC PROVINCE CODE.....	360		360		360		360	
DEPTH, FEET.....	4480		6416		6432		6432	
WELLHEAD PRESSURE, PSIG.....	1725		2278		2142		2142	
OPEN FLOW, MCFD.....	33000		70000		2500		2500	
COMPONENT, MOLE PCT								
METHANE.....	84.2	-----	85.3	-----	95.4	-----	95.4	-----
ETHANE.....	3.7	-----	7.0	-----	7.0	-----	7.0	-----
PROpane.....	1.9	-----	2.6	-----	2.5	-----	2.5	-----
N-BUTANE.....	0.7	-----	1.0	-----	1.0	-----	1.0	-----
ISOBUTANE.....	0.3	-----	0.4	-----	0.3	-----	0.3	-----
N-PENTANE.....	0.3	-----	0.4	-----	0.7	-----	0.7	-----
ISOPENTANE.....	0.6	-----	0.1	-----	TRACE	-----	TRACE	-----
CYCLOPENTANE.....	0.2	-----	0.3	-----	0.3	-----	0.3	-----
HEXANES PLUS.....	0.7	-----	0.7	-----	0.7	-----	0.7	-----
NITROGEN.....	6.7	-----	2.1	-----	1.9	-----	1.9	-----
OXYGEN.....	0.1	-----	0.0	-----	0.0	-----	0.0	-----
ARGON.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN.....	0.1	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----	0.1	-----	0.1	-----	0.1	-----
HELIUM.....	0.16	-----	0.02	-----	0.07	-----	0.07	-----
HEATING VALUE.....	1091	-----	1173	-----	1176	-----	1176	-----
SPECIFIC GRAVITY.....	0.674	-----	0.578	-----	0.678	-----	0.678	-----

	INDEX SAMPLE	7186 6447		INDEX SAMPLE	7187 7332		INDEX SAMPLE	7188 9409
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS		WOODS		WOODS		WOODS	
FIELD.....	AVARD NW		AVARD NW		AVARD NW		AVARD NW	
WELL NAME.....	AVARD NO. 1		RODRIUE		GARDNER NO. 1		GARDNER NO. 1	
LOCATION.....	SEC. 9, T26N, R15W		SEC. 31, T27N, R15W		SEC. 35, T27N, R16W		SEC. 35, T27N, R16W	
OWNER.....	PHILLIPS PETROLEUM CO., ET A		CALVERT PETROLEUM CO.		SHELL OIL CO.		SHELL OIL CO.	
COMPLETED.....	10/7-76		12/26/57		04/10/64		04/10/64	
SAMPLED.....	12/26/57		01/07/60		06/18/64		06/18/64	
FORMATION.....	PERM-NEVA		PENN-TONKAWA		PENN-TONKAWA		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360		360		360		360	
DEPTH, FEET.....	4785		4883		4917		4917	
WELLHEAD PRESSURE, PSIG.....	1195		1800		1574		1574	
OPEN FLOW, MCFD.....	3280		14000		5100		5100	
COMPONENT, MOLE PCT								
METHANE.....	88.0	-----	88.1	-----	87.3	-----	87.3	-----
ETHANE.....	3.0	-----	3.8	-----	3.6	-----	3.6	-----
PROpane.....	2.1	-----	3.2	-----	2.2	-----	2.2	-----
N-BUTANE.....	0.6	-----	0.7	-----	0.9	-----	0.9	-----
ISOBUTANE.....	0.3	-----	0.5	-----	0.3	-----	0.3	-----
N-PENTANE.....	0.2	-----	0.3	-----	0.3	-----	0.3	-----
ISOPENTANE.....	0.2	-----	0.3	-----	0.3	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----	0.2	-----	0.2	-----	0.2	-----
HEXANES PLUS.....	0.3	-----	0.3	-----	0.3	-----	0.3	-----
NITROGEN.....	5.2	-----	3.4	-----	4.3	-----	4.3	-----
OXYGEN.....	0.0	-----	0.0	-----	TRACE	-----	TRACE	-----
ARGON.....	0.0	-----	TRACE	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----	0.2	-----	0.1	-----	0.1	-----
HELIUM.....	AVARD 20	-----	1100	-----	0.18	-----	0.18	-----
HEATING VALUE.....	1061	-----	1100	-----	1095	-----	1095	-----
SPECIFIC GRAVITY.....	0.640	-----	0.648	-----	0.653	-----	0.653	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7189			INDEX 7190			INDEX 7191		
SAMPLE 11207			SAMPLE 11814			SAMPLE 11968		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODS		WOODS			WOODS		
FIELD.....	AVARD NW		AVARD NW			AVARD NW		
WELL NAME.....	PORTER NO. 1		WADKINS NO. 1-30			FULTON NO. 1-A		
LOCATION.....	SEC. 22, T27N, R15W		SEC. 30, T27N, R16W			SEC. 27, T27N, R17W		
OWNER.....	CALVERT EXPLORATION CO.		CLEARLY PETROLEUM CORP.			FLAG OIL CORP.		
COMPLETED.....	11/05/67		12/03/68			05/31/68		
SAMPLED.....	11/05/67		04/07/69			--/--/00		
FORMATION.....	DEVON-HUNTON		PENN-OSWEGO			PENN-OSWEGO		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6225		5568			5544		
WELLHEAD PRESSURE, PSIG.....	1932		1934			NOT GIVEN		
OPEN FLOW, MCFD.....	32869		5400			4057		
COMPONENT, MOLE PCT.....								
METHANE.....	81.9		89.0			89.5		
ETHANE.....	4.0		4.6			4.4		
PROPANE.....	1.5		2.5			2.5		
N-BUTANE.....	0.7		0.9			0.8		
ISOBUTANE.....	0.2		0.2			0.2		
N-PENTANE.....	0.4		0.4			0.3		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.4		0.4			0.2		
NITROGEN.....	8.7		1.2			1.6		
OXYGEN.....	1.7		0.0			0.0		
ARGON.....	0.1		0.0			TRACE		
HYDROGEN.....	TRACE		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.06		0.05			0.05		
HEATING VALUE.....	1016		1146			1120		
SPECIFIC GRAVITY.....	0.671		0.652			0.639		

INDEX 7192			INDEX 7193			INDEX 7194		
SAMPLE 12103			SAMPLE 12504			SAMPLE 14324		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODS		WOODS			WOODS		
FIELD.....	AVARD NW		AVARD NW			AVARD NW		
WELL NAME.....	GENE ERNEST NO. 1		SNODDY NO. 1-21			ROLAND NO. 1		
LOCATION.....	SEC. 1, T26N, R17W		SEC. 21, T27N, R16W			SEC. 29, T26N, R16W		
OWNER.....	AUBREY C. BLACK		GRAHAM-MICHAELIS DRILLING CO			TUTHILL & BARBEE		
COMPLETED.....	--/--/00		04/17/70			09/16/77		
SAMPLED.....	11/06/69		11/05/70			05/06/75		
FORMATION.....	PENN-TONKAWA		DEVON-HUNTON			PENN-RED FORK		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		6568			5903		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2045			1890		
OPEN FLOW, MCFD.....	NOT GIVEN		35000			6878		
COMPONENT, MOLE PCT.....								
METHANE.....	86.0		87.8			90.7		
ETHANE.....	3.0		5.6			3.9		
PROPANE.....	1.8		0.7			1.7		
N-BUTANE.....	0.6		0.7			0.6		
ISOBUTANE.....	0.1		0.4			0.4		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.1		TRACE			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	7.2		2.3			2.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.26		0.07			0.09		
HEATING VALUE.....	1027		1119			1094		
SPECIFIC GRAVITY.....	0.641		0.647			0.628		

INDEX 7195			INDEX 7196			INDEX 7197		
SAMPLE 14848			SAMPLE 15211			SAMPLE 16695		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODS		WOODS			WOODS		
FIELD.....	AVARD NW		AVARD NW			CAMP HOUSTON		
WELL NAME.....	MCGILL NO. 1-16		SNAPP "A" NO. 1			KAMAS RANCH NO. 1		
LOCATION.....	SEC. 16, T26N, R17W		SEC. 12, T26N, R18W			SEC. 6, T28N, R17W		
OWNER.....	TUTHILL & BARBEE		AMOCO PRODUCTION CO.			JACK CO.		
COMPLETED.....	--/--/00		12/15/77			07/16/82		
SAMPLED.....	11/04/76		02/22/78			10/15/82		
FORMATION.....	PENN-RED FORK		MISS-ST. GENEVIEVE			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		5654			5434		
WELLHEAD PRESSURE, PSIG.....	2000		1948			1668		
OPEN FLOW, MCFD.....	4000		5955			5000		
COMPONENT, MOLE PCT.....								
METHANE.....	90.0		94.0			92.5		
ETHANE.....	3.1		3.1			3.4		
PROPANE.....	1.1		1.1			1.3		
N-BUTANE.....	0.3		0.4			0.4		
ISOBUTANE.....	0.2		0.4			0.3		
N-PENTANE.....	TRACE		0.2			0.1		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.2		
HEXANES PLUS.....	TRACE		0.2			0.3		
NITROGEN.....	3.8		0.4			0.9		
OXYGEN.....	0.7		0.0			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.2			TRACE		
HELIUM.....	0.05		0.05			0.06		
HEATING VALUE.....	1017		1088			1091		
SPECIFIC GRAVITY.....	0.615		0.608			0.614		

INDEX 7198			INDEX 7199			INDEX 7200		
SAMPLE 15332			SAMPLE 14523			SAMPLE 14524		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODS		WOODS			WOODS		
FIELD.....	CHEYENNE VALLEY		DACOMA NE			DACOMA NW		
WELL NAME.....	HEPNER NO. 3		SCHICK NO. 25A			WHITE NO. 3A		
LOCATION.....	SEC. 34, T23N, R14W		SEC. 25, T26N, R13W			SEC. 3, T25N, R13W		
OWNER.....	KIRKPATRICK OIL CO.		RAN RICKS, JR.			RAN RICKS, JR.		
COMPLETED.....	04/06/78		--/--/00			--/--/00		
SAMPLED.....	07/28/78		10/99/75			10/99/75		
FORMATION.....	PENN-RED FORK		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6454		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1700		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	1976		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	88.2		87.2			89.4		
ETHANE.....	5.2		5.4			5.3		
PROPANE.....	2.7		2.9			2.9		
N-BUTANE.....	0.7		0.8			0.7		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	1.6		0.1			0.1		
NITROGEN.....	0.1		1.0			1.3		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.08		0.04			0.04		
HEATING VALUE.....	1125		1125			1118		
SPECIFIC GRAVITY.....	0.646		0.638			0.637		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7201 11364	INDEX SAMPLE	7202 17666	INDEX SAMPLE	7203 10381
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	DACOMA S			FREEDOM N		FREEDOM NW	
WELL NAME.....	4-4, HORSE UNIT NO. 1			GERLOFF NO. 2		CLIFTON UNIT NO.1	
LOCATION.....	SEC. 25, T25N, R13W			SEC. 13, T27N, R18W		SEC. 35, T27N, R18W	
OWNER.....	MESS CORP.			TXO PRODUCTION CORP.		APACHE CORP.	
COMPLETED.....	11/17/57			01/28/85		12/22/65	
SAMPLED.....	03/08/68			05/12/85		02/04/66	
FORMATION.....	PENN-LAYTON			PENN-& MISS COMMINGLED		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5313			4786		4780	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1645		2035	
OPEN FLOW, MCFD.....	NOT GIVEN			3580		10800	
COMPONENT, MOLE PCT							
METHANE.....	90.1	-----		85.8	-----	90.7	-----
ETHANE.....	4.7	-----		4.5	-----	3.3	-----
PROPANE.....	2.0	-----		3.1	-----	1.2	-----
N-BUTANE.....	0.8	-----		1.3	-----	0.8	-----
ISOBUTANE.....	0.1	-----		0.5	-----	0.2	-----
N-PENTANE.....	0.4	-----		0.2	-----	0.4	-----
ISOPENTANE.....	0.1	-----		19.2	-----	0.4	-----
CYCLOPENTANE.....	0.1	-----		0.3	-----	0.7	-----
HEXANES PLUS.....	0.3	-----		0.5	-----	1.0	-----
NITROGEN.....	0.1	-----		2.3	-----	1.0	-----
OXYGEN.....	0.0	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----	0.2	-----
HELIUM.....	0.06	-----		0.11	-----	0.07	-----
HEATING VALUE.....	1120	-----		1160	-----	1155	-----
SPECIFIC GRAVITY.....	0.636	-----		0.681	-----	0.656	-----
		INDEX SAMPLE	7204 15876	INDEX SAMPLE	7205 13095	INDEX SAMPLE	7206 15200
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	FREEDOM NW			GALENA S		GREENSBURG SW	
WELL NAME.....	DEVINE NO. 1			HEPNER NO. 1-34		MCCRAT NO. 1	
LOCATION.....	SEC. 34, T27N, R18W			SEC. 34, T23N, R14W		SEC. 16, T24N, R14W	
OWNER.....	TEXAS OIL & GAS CORP.			KIRKPATRICK OIL CO.		TEXAS OIL & GAS CORP.	
COMPLETED.....	--/2/80			06/21/77		09/26/77	
SAMPLED.....	01/15/89			10/19/71		01/25/78	
FORMATION.....	NOT GIVEN			DEVON-HUNTON		PENN-RED FORK	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			7016		6325	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2300		2060	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		3200	
COMPONENT, MOLE PCT							
METHANE.....	93.7	-----		88.7	-----	89.3	-----
ETHANE.....	3.2	-----		5.4	-----	5.7	-----
PROPANE.....	1.1	-----		2.3	-----	1.9	-----
N-BUTANE.....	0.3	-----		0.8	-----	0.4	-----
ISOBUTANE.....	0.2	-----		0.4	-----	0.1	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.2	-----
NITROGEN.....	0.8	-----		1.2	-----	1.6	-----
OXYGEN.....	0.1	-----		0.3	-----	0.6	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.3	-----	0.3	-----
HELIUM.....	0.05	-----		0.04	-----	0.09	-----
HEATING VALUE.....	1066	-----		1118	-----	1160	-----
SPECIFIC GRAVITY.....	0.599	-----		0.642	-----	0.631	-----
		INDEX SAMPLE	7207 11297	INDEX SAMPLE	7208 11301	INDEX SAMPLE	7209 15959
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	HOPETON N			HOPETON N		LOOKOUT NE	
WELL NAME.....	MCGILL NO. 1-23			TOWNSEND NO. 1-15		PARKER NO. 1-24	
LOCATION.....	SEC. 23, T26N, R14W			SEC. 15, T26N, R14W		SEC. 24, T29N, R19W	
OWNER.....	CLEARLY PETROLEUM, INC.			CLEARLY PETROLEUM, INC.		BGSWELL ENERGY CORP.	
COMPLETED.....	01/03/57			--/--/00		03/14/80	
SAMPLED.....	02/19/68			02/15/67		05/08/80	
FORMATION.....	DEVON-HUNTON			DEVON-HUNTON		WISS---	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6495			5454		5709	
WELLHEAD PRESSURE, PSIG.....	2293			21293		1820	
OPEN FLOW, MCFD.....	20430			340721		1000	
COMPONENT, MOLE PCT							
METHANE.....	86.4	-----		86.9	-----	91.5	-----
ETHANE.....	2.7	-----		4.6	-----	3.7	-----
PROPANE.....	2.3	-----		2.2	-----	1.3	-----
N-BUTANE.....	0.8	-----		1.0	-----	0.4	-----
ISOBUTANE.....	0.3	-----		0.2	-----	0.5	-----
N-PENTANE.....	0.5	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.2	-----		0.3	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.2	-----
NITROGEN.....	2.5	-----		2.1	-----	2.1	-----
OXYGEN.....	0.2	-----		0.6	-----	6.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----	0.2	-----
HELIUM.....	0.07	-----		0.07	-----	0.10	-----
HEATING VALUE.....	1124	-----		1127	-----	1068	-----
SPECIFIC GRAVITY.....	0.555	-----		0.652	-----	0.615	-----
		INDEX SAMPLE	7210 10769	INDEX SAMPLE	7211 9685	INDEX SAMPLE	7212 15520
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	LOVEDALE NE			LOVEDALE NW		NOEL SW	
WELL NAME.....	WILSON NO. 2-10			GLEN NO. 1		MALLORY NO. 1	
LOCATION.....	SEC. 10, T28N, R20W			SEC. 31, T23N, R20W		SEC. 5, T26N, R14W	
OWNER.....	WILSON'S PETROLEUM			GULF OIL CO.- U.S.		SOUTHLAND ROYALTY CO.	
COMPLETED.....	11/27/55			10/27/64		04/06/78	
SAMPLED.....	11/26/56			01/08/66		11/13/78	
FORMATION.....	MISS-CHESTER			PENN-MORROW		DEVON-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5674			5386		6352	
WELLHEAD PRESSURE, PSIG.....	1800			1770		2200	
OPEN FLOW, MCFD.....	16000			17300		3048	
COMPONENT, MOLE PCT							
METHANE.....	93.4	-----		94.6	-----	87.9	-----
ETHANE.....	2.7	-----		2.0	-----	3.7	-----
PROPANE.....	2.9	-----		1.7	-----	1.7	-----
N-BUTANE.....	0.2	-----		0.3	-----	0.9	-----
ISOBUTANE.....	0.3	-----		0.1	-----	0.6	-----
N-PENTANE.....	0.0	-----		0.2	-----	0.7	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.7	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.4	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	1.3	-----
NITROGEN.....	1.8	-----		0.7	-----	2.3	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----	TRACE	-----
HELIUM.....	0.09	-----		0.09	-----	0.05	-----
HEATING VALUE.....	1053	-----		1042	-----	1183	-----
SPECIFIC GRAVITY.....	0.636	-----		0.594	-----	0.687	-----

* CALCULATED GROSS BTU PER CU. FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7213 2665	INDEX SAMPLE	7214 5920	INDEX SAMPLE	7215 7861
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	NOT GIVEN			OKADALE		OKADALE	
WELL NAME.....	SALT SPRING			W. H. FARRIS NO. 1		SHALLOW NO. 1	
LOCATION.....	EDITH, OKLA.			SEC. 21, T24N, R13W		SEC. 18, T24N, R13W	
OWNER.....	SANTA FE SALT CO.			AMERADA HESS CORP.		ASHLAND OIL & REFINING CO.	
COMPLETED.....	--/--/00			08/19/55		10/29/60	
SAMPLED.....	02/17/34			08/19/55		02/16/61	
FORMATION.....	NOT GIVEN			0400-SIMPSON		PENN-CHEROKEE	
GEOLOGIC PROVINCE CODE.....	360			350		360	
DEPTH, FEET.....	NOT GIVEN			7390		6053	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2200		2300	
OPEN FLOW, MCFD.....	NOT GIVEN			2000		9600	
COMPONENT, MOLE PCT							
METHANE.....	0.0			68.1		89.3	
ETHANE.....	34.8			9.4		5.3	
PROpane.....	---			7.9		2.1	
N-BUTANE.....	---			2.8		0.8	
ISOBUTANE.....	---			0.4		0.3	
N-PENTANE.....	---			0.4		0.3	
ISOPENTANE.....	---			0.8		0.2	
CYCLOPENTANE.....	---			0.1		0.1	
HEXANES PLUS.....	---			0.2		0.3	
NITROGEN.....	93.7			8.6		0.8	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	---			TRACE		0.0	
HYDROGEN.....	---			TRACE		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.4		0.1	
HELIUM.....	0.21			0.09		0.20	
HEATING VALUE.....	68			1260		1138	
SPECIFIC GRAVITY.....	0.970			0.808		0.544	

		INDEX SAMPLE	7216 9894	INDEX SAMPLE	7217 9895	INDEX SAMPLE	7218 9941
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	OKADALE			OKADALE		OKADALE	
WELL NAME.....	TED GOODENO UNIT NO. 1			TED GOODENO UNIT NO. 1		WILT A-1	
LOCATION.....	SEC. 9, T23N, R13W			SEC. 9, T23N, R13W		SEC. 19, T25N, R13W	
OWNER.....	TEXACO INC.			TEXACO INC.		CITIES SERVICE OIL CO.	
COMPLETED.....	02/07/65			02/07/65		01/09/65	
SAMPLED.....	05/13/65			05/13/65		06/19/65	
FORMATION.....	MISS-CHESTER			MISS-CHESTER		MISS-CHESTER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	508			5422		5948	
WELLHEAD PRESSURE, PSIG.....	1875			1925		2091	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		1920	
COMPONENT, MOLE PCT							
METHANE.....	87.3			88.2		87.9	
ETHANE.....	5.0			5.9		3.5	
PROpane.....	2.9			0.8		0.9	
N-BUTANE.....	0.4			0.3		0.4	
ISOBUTANE.....	0.1			0.3		0.3	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.1			0.2		0.1	
CYCLOPENTANE.....	0.2			0.5		0.5	
HEXANES PLUS.....	1.2			0.2		1.5	
NITROGEN.....	0.0			0.0		0.0	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.3		0.2	
CARBON DIOXIDE.....	0.07			0.06		0.07	
HELIUM.....	11.37			11.95		11.6	
HEATING VALUE.....	1137			1145		1146	
SPECIFIC GRAVITY.....	0.657			0.635		0.657	

		INDEX SAMPLE	7219 9942	INDEX SAMPLE	7220 9943	INDEX SAMPLE	7221 10761
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	OKADALE			OKADALE		OKADALE	
WELL NAME.....	TRUEBLOOD A-1			VAN METER A-1		HOFEN NO. 1	
LOCATION.....	SEC. 18, T25N, R13W			SEC. 20, T25N, R13W		SEC. 12, T25N, R14W	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		EARLSBORO OIL & GAS CO., INC	
COMPLETED.....	05/26/65			06/22/65		08/29/65	
SAMPLED.....	06/19/65			06/19/65		10/26/66	
FORMATION.....	PENN-RED FORK			PENN-RED FORK		PENN-RED FORK	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5880			5914		5600	
WELLHEAD PRESSURE, PSIG.....	2190			2078		1950	
OPEN FLOW, MCFD.....	7330			513		1750	
COMPONENT, MOLE PCT							
METHANE.....	84.5			88.5		87.4	
ETHANE.....	5.2			2.2		5.3	
PROpane.....	2.0			0.8		2.7	
N-BUTANE.....	0.6			0.3		0.9	
ISOBUTANE.....	0.2			0.3		0.3	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.2			0.3		0.2	
CYCLOPENTANE.....	0.2			0.3		0.1	
HEXANES PLUS.....	0.4			0.3		0.3	
NITROGEN.....	2.0			1.5		2.1	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.2		0.2	
HELIUM.....	0.08			0.05		0.02	
HEATING VALUE.....	1117			1128		1131	
SPECIFIC GRAVITY.....	0.646			0.651		0.658	

		INDEX SAMPLE	7222 17927	INDEX SAMPLE	7223 6294	INDEX SAMPLE	7224 6561
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	FARMERS ROYALTY NO. A-1			WAYNOKA NE		WAYNOKA NE	
WELL NAME.....	SEC. 10, T22N, R13W			SHADE NO. 1		H. BARKER GAS UNIT NO. 1	
LOCATION.....	ANADARKO PETROLEUM CORP.			SEC. 31, T25N, R14W		SEC. 29, T25N, R15W	
OWNER.....	08/15/85			GUANO OIL CORP.		TEXACO INC.	
COMPLETED.....	12/09/85			01/14/57		10/30/57	
SAMPLED.....	12/09/85			03/28/57		04/17/58	
FORMATION.....	MISS-MERAMEC			DEVO-MISENER & HUNTON		PENN-COTTAGE GROVE	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7160			7118		5557	
WELLHEAD PRESSURE, PSIG.....	2050			1660		600	
OPEN FLOW, MCFD.....	1250			154		5370	
COMPONENT, MOLE PCT							
METHANE.....	83.5			92.1		86.1	
ETHANE.....	6.3			3.2		3.4	
PROpane.....	3.3			0.5		1.4	
N-BUTANE.....	1.4			0.5		0.6	
ISOBUTANE.....	0.4			0.2		0.3	
N-PENTANE.....	1.0			0.1		0.3	
ISOPENTANE.....	0.2			0.3		0.1	
CYCLOPENTANE.....	0.6			0.1		TRACE	
HEXANES PLUS.....	1.4			0.2		0.1	
NITROGEN.....	1.1			1.8		6.2	
OXYGEN.....	0.1			0.0		1.2	
ARGON.....	0.0			0.0		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.04			0.06		0.10	
HEATING VALUE.....	1261			1082		1022	
SPECIFIC GRAVITY.....	0.725			0.619		0.639	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7225 7496	INDEX SAMPLE	7226 12118	INDEX SAMPLE	7227 13677
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	WAYNOKA NE			WAYNOKA NE		WAYNOKA NE	
WELL NAME.....	WHIPPLE G.U. NO. 1			RAUCH NO. 1-11		ABATA-BOLAND NO. 1	
LOCATION.....	SEC. 31, T25N, R15W			SEC. 11, T25N, R16W		SEC. 30, T25N, R16W	
OWNER.....	TEXOMA PRODUCTION CO.			KING RESOURCES CO.		CARL E. GUNGOLL	
COMPLETED.....	01/13/60			01/27/69		--/--/00	
SAMPLED.....	04/11/60			11/23/69		08/14/73	
FORMATION.....	PENN-COTTAGE GROVE			PENN-TONKAWA		PENN-OSWEGO	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5586			4992		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1842			1701		1651	
OPEN FLOW, MCFD.....	5400			3443		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	89.8	-----		86.3	-----	90.9	-----
ETHANE.....	4.0	-----		3.2	-----	3.2	-----
PROPANE.....	1.9	-----		1.6	-----	1.6	-----
N-BUTANE.....	0.7	-----		0.7	-----	0.5	-----
ISOBUTANE.....	0.4	-----		0.3	-----	0.4	-----
N-PENTANE.....	0.2	-----		0.4	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.0	-----	0.4	-----
CYCLOPENTANE.....	0.1	-----		0.3	-----	0.2	-----
HEXANES PLUS.....	0.3	-----		0.6	-----	0.3	-----
NITROGEN.....	0.1	-----		0.9	-----	2.0	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.1	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.1	-----
HELIUM.....	0.10	-----		0.16	-----	0.09	-----
HEATING VALUE.....	1100	-----		1077	-----	1098	-----
SPECIFIC GRAVITY.....	0.635	-----		0.658	-----	0.632	-----
		INDEX SAMPLE	7228 17567	INDEX SAMPLE	7229 8260	INDEX SAMPLE	7230 11994
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODS	
FIELD.....	WAYNOKA SE			WINCHESTER NE		WOLGAMOTT	
WELL NAME.....	JOHN RULL NO. 2			CLINE NO. 1		BOND-HOFER NO. 1	
LOCATION.....	SEC. 35, T24N, R15W			SEC. 19, T29N, R14W		SEC. 22, T29N, R15W	
OWNER.....	MAGIC CIRCLE ENERGY CORP.			YOUNGBLOOD & YOUNGBLOOD		CHAMPLIN PETROLEUM CO.	
COMPLETED.....	08/17/63			--/--/00		07/21/69	
SAMPLED.....	01/13/82			10/24/61		08/19/69	
FORMATION.....	PENN-& MISS			MISS-		PENN-CHEROKEE & MISS-	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6670			4956		4839	
WELLHEAD PRESSURE, PSIG.....	1610			NOT GIVEN		1635	
OPEN FLOW, MCFD.....	7400			2310		8744	
COMPONENT, MOLE PCT.....							
METHANE.....	92.3	-----		91.7	-----	91.9	-----
ETHANE.....	3.3	-----		3.9	-----	3.6	-----
PROPANE.....	1.3	-----		1.4	-----	1.5	-----
N-BUTANE.....	0.5	-----		0.5	-----	0.5	-----
ISOBUTANE.....	0.2	-----		0.3	-----	0.1	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.1	-----	0.2	-----
NITROGEN.....	1.3	-----		0.7	-----	1.3	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		TRACE	-----	0.1	-----
HELIUM.....	0.05	-----		0.08	-----	0.06	-----
HEATING VALUE.....	1088	-----		1080	-----	1086	-----
SPECIFIC GRAVITY.....	0.621	-----		0.615	-----	0.618	-----
		INDEX SAMPLE	7231 11367	INDEX SAMPLE	7232 11414	INDEX SAMPLE	7233 11965
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODS			WOODS		WOODWARD	
FIELD.....	YELLOWSTONE			YELLOWSTONE		BOILING SPRINGS N	
WELL NAME.....	H. DIAMOND NO. 1			MURDOCK NO. 2		LEHMAN NO. 1	
LOCATION.....	SEC. 17, T29N, R17W			SEC. 16, T29N, R17W		SEC. 13, T24N, R20W	
OWNER.....	CHAMPLIN PETROLEUM CO.			JAMES F. SMITH		MIDWEST OIL CORP.	
COMPLETED.....	07/21/63			--/--/00		06/08/69	
SAMPLED.....	03/11/68			03/27/68		07/15/69	
FORMATION.....	PENN-KAMATON			ORO-SIMPSON		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4921			5812		7320	
WELLHEAD PRESSURE, PSIG.....	755			1803		2770	
OPEN FLOW, MCFD.....	1022			9234		1650	
COMPONENT, MOLE PCT.....							
METHANE.....	89.5	-----		84.4	-----	91.3	-----
ETHANE.....	4.6	-----		5.1	-----	3.9	-----
PROPANE.....	2.2	-----		2.7	-----	1.6	-----
N-BUTANE.....	1.0	-----		1.0	-----	0.3	-----
ISOBUTANE.....	0.1	-----		0.3	-----	0.1	-----
N-PENTANE.....	0.1	-----		0.3	-----	TRACE	-----
ISOPENTANE.....	0.4	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	1.6	-----		4.3	-----	1.0	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.2	-----	0.2	-----
HELIUM.....	0.08	-----		0.17	-----	0.08	-----
HEATING VALUE.....	1114	-----		1119	-----	1083	-----
SPECIFIC GRAVITY.....	0.637	-----		0.668	-----	0.613	-----
		INDEX SAMPLE	7234 6459	INDEX SAMPLE	7235 6616	INDEX SAMPLE	7236 6626
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODWARD			WOODWARD		WOODWARD	
FIELD.....	CEDARDALE NE			CEDARDALE NE		CEDARDALE NE	
WELL NAME.....	I. GARVIE NO. 1-B			STATE NO. 1-24		L. E. DERR NO. 1-25	
LOCATION.....	SEC. 23, T22N, R17W			SEC. 24, T22N, R17W		SEC. 25, T22N, R17W	
OWNER.....	SHELL OIL CO.			SHELL OIL CO.		SHELL OIL CO.	
COMPLETED.....	10/09/57			01/28/58		04/24/58	
SAMPLED.....	12/15/57			05/26/58		06/10/58	
FORMATION.....	MISS-CHESTER			PENN-MUSSELEH		PENN-MUSSELEH	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7137			6310		6410	
WELLHEAD PRESSURE, PSIG.....	1922			2195		2067	
OPEN FLOW, MCFD.....	13000			6200		1378	
COMPONENT, MOLE PCT.....							
METHANE.....	94.6	-----		95.3	-----	91.2	-----
ETHANE.....	2.7	-----		2.6	-----	3.8	-----
PROPANE.....	0.7	-----		0.5	-----	1.8	-----
N-BUTANE.....	0.1	-----		0.2	-----	0.6	-----
ISOBUTANE.....	0.2	-----		0.2	-----	0.4	-----
N-PENTANE.....	0.0	-----		TRACE	-----	0.1	-----
ISOPENTANE.....	0.2	-----		TRACE	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	0.2	-----		0.2	-----	1.4	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.8	-----		0.5	-----	0.2	-----
HELIUM.....	0.10	-----		0.08	-----	0.10	-----
HEATING VALUE.....	1058	-----		1094	-----	1091	-----
SPECIFIC GRAVITY.....	0.598	-----		0.590	-----	0.622	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7237 SAMPLE 8636			INDEX 7238 SAMPLE 8637			INDEX 7239 SAMPLE 9926		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	CEDARDALE NE		CEDARDALE NE			CEDARDALE NE		
WELL NAME.....	KATHRYN KEE NO. 1		KATHRYN KEE NO. 1			BARANSY NO. 1		
LOCATION.....	SEC. 13, T23N, R18W		SEC. 13, T23N, R18W			SEC. 1, T24N, R19W		
OWNER.....	GENE GOFF		GENE GOFF			SAKEDAN OIL CORP.		
COMPLETED.....	03/25/62		03/25/62			12/20/64		
SAMPLED.....	07/10/62		07/10/62			06/17/65		
FORMATION.....	PENN-COTTAGE GROVE		MISS-CHESTER			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6143		6837			6650		
WELLHEAD PRESSURE, PSIG.....	2275		2425			2183		
OPEN FLOW, MCFD.....	705		98000			4500		
COMPONENT, MOLE PCT.....								
METHANE.....	94.8		93.6			93.6		
ETHANE.....	2.6		2.6			3.2		
PROPANE.....	0.8		1.5			1.1		
N-BUTANE.....	0.2		0.3			0.4		
ISOBUTANE.....	0.2		0.1			TRACE		
N-PENTANE.....	TRACE		0.2			0.2		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	0.1		0.2			TRACE		
HEXANES PLUS.....	0.2		0.6			0.1		
NITROGEN.....	0.3		0.0			0.6		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.5			0.2		
HELIUM.....	TRACE		0.05			0.06		
HEATING VALUE.....	1059		1102			1071		
SPECIFIC GRAVITY.....	0.595		0.618			0.601		
INDEX 7240 SAMPLE 9928			INDEX 7241 SAMPLE 11296			INDEX 7242 SAMPLE 11743		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	CEDARDALE NE		CEDARDALE NE			CEDARDALE NE		
WELL NAME.....	BINGHAM UNIT		BUTLER NO. 1-20			MCFADDEN NO. 1		
LOCATION.....	SEC. 11, T24N, R18W		SEC. 20, T22N, R16W			SEC. 11, T22N, R17W		
OWNER.....	OKLAHOMA NATURAL GAS CO.		SHELL OIL CO.			MIDWEST OIL CORP.		
COMPLETED.....	05/07/65		04/28/59			11/21/68		
SAMPLED.....	06/17/65		02/16/68			01/28/69		
FORMATION.....	PENN-CHEROKEE		PENN-MUSSELEM			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6308		6217			7002		
WELLHEAD PRESSURE, PSIG.....	2708		1517			2571		
OPEN FLOW, MCFD.....	22815		3799			4200		
COMPONENT, MOLE PCT.....								
METHANE.....	93.7		92.6			93.6		
ETHANE.....	3.6		3.5			2.6		
PROPANE.....	0.6		1.3			0.8		
N-BUTANE.....	0.1		0.4			0.5		
ISOBUTANE.....	TRACE		0.3			TRACE		
N-PENTANE.....	TRACE		0.1			0.2		
ISOPENTANE.....	TRACE		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	TRACE		0.2			0.4		
NITROGEN.....	1.4		0.0			0.8		
OXYGEN.....	0.2		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.5		
HELIUM.....	0.05		0.06			0.05		
HEATING VALUE.....	1033		1081			1074		
SPECIFIC GRAVITY.....	0.588		0.611			0.610		
INDEX 7243 SAMPLE 12625			INDEX 7244 SAMPLE 12689			INDEX 7245 SAMPLE 13107		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	CEDARDALE NE		CEDARDALE NE			CEDARDALE NE		
WELL NAME.....	BLAKSLEY NO. 1-9		JDHNS NO. 1-16			BLAKSLEY NO. 1		
LOCATION.....	SEC. 9, T22N, R17W		SEC. 16, T22N, R17W			SEC. 9, T22N, R17W		
OWNER.....	UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.		
COMPLETED.....	11/30/70		02/10/71			11/30/71		
SAMPLED.....	01/12/71		02/17/71			11/30/71		
FORMATION.....	PENN-COTTAGE GROVE		MISS-CHESTER			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6281		7180			7085		
WELLHEAD PRESSURE, PSIG.....	2115		2075			2289		
OPEN FLOW, MCFD.....	3000		1300			7400		
COMPONENT, MOLE PCT.....								
METHANE.....	93.4		93.2			94.0		
ETHANE.....	3.1		2.5			2.5		
PROPANE.....	0.3		1.0			1.0		
N-BUTANE.....	0.4		0.3			0.3		
ISOBUTANE.....	0.3		0.3			0.2		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.3			0.1		
NITROGEN.....	0.6		1.1			1.1		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.4		
HELIUM.....	0.05		0.07			0.08		
HEATING VALUE.....	1087		1053			1053		
SPECIFIC GRAVITY.....	0.610		0.612			0.598		
INDEX 7246 SAMPLE 14254			INDEX 7247 SAMPLE 9567			INDEX 7248 SAMPLE 10710		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	CEDARDALE NE		CEDARDALE NW			CEDARDALE NW		
WELL NAME.....	DEPLAND NO. 24-1		REDENOUR NO. 1			OTTO ROBERTS NO. 1		
LOCATION.....	SEC. 24, T24N, R18W		SEC. 24, T24N, R18W			SEC. 20, T22N, R18W		
OWNER.....	JONES & PELLOW OIL CO.		ASHLAND OIL & REFINING CO.			ASHLAND OIL & REFINING CO.		
COMPLETED.....	11/19/74		04/28/64			07/12/66		
SAMPLED.....	01/19/75		09/24/65			09/08/66		
FORMATION.....	MISS-CHESTER		PENN-COTTAGE GROVE			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6510		6534			7632		
WELLHEAD PRESSURE, PSIG.....	2775		2075			2774		
OPEN FLOW, MCFD.....	3084		550			48462		
COMPONENT, MOLE PCT.....								
METHANE.....	92.7		92.0			94.0		
ETHANE.....	3.5		3.6			2.2		
PROPANE.....	1.5		1.5			0.8		
N-BUTANE.....	0.4		0.3			0.3		
ISOBUTANE.....	0.4		0.3			0.2		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	TRACE		0.2			0.2		
HEXANES PLUS.....	0.1		0.3			0.3		
NITROGEN.....	0.5		0.8			1.5		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.0			0.3		
HELIUM.....	0.04		0.08			0.06		
HEATING VALUE.....	1086		1106			1061		
SPECIFIC GRAVITY.....	0.610		0.624			0.600		

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30. INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7249 SAMPLE 7860			INDEX 7250 SAMPLE 10771			INDEX 7251 SAMPLE 11981		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	CHESTER W		CHESTER W			CHESTER W		
WELL NAME.....	WETSTONE NO. 1		WETSTONE UNIT NO. 2			WETTEL NO. 1		
LOCATION.....	SEC. 35, T21N, R17W		SEC. 36, T21N, R17W			SEC. 21, T21N, R17W		
OWNER.....	ASHLAND OIL & REFINING CO.		AMOCO PRODUCTION CO.			JOHN H. HILL		
COMPLETED.....	08/23/69		09/02/69			--/700		
SAMPLED.....	02/17/68		11/17/68			07/22/69		
FORMATION.....	MISS-CHESTER		MISS-CHESTER			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7922		7868			7835		
WELLHEAD PRESSURE, PSIG.....	2900		2550			2600		
OPEN FLOW, MCFD.....	24751		NOT GIVEN			6400		
COMPONENT, MOLE PCT.....								
METHANE.....	95.4		95.3			94.1		
ETHANE.....	2.4		2.3			2.3		
PROPANE.....	0.5		0.7			0.8		
N-BUTANE.....	0.1		0.1			0.2		
ISOBUTANE.....	0.2		0.1			0.2		
N-PENTANE.....	TRACE		0.1			0.2		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.1		0.1			0.6		
NITROGEN.....	0.3		0.3			0.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.8			0.6		
HELIUM.....	0.02		0.04			0.04		
HEATING VALUE.....	10380		104			1080		
SPECIFIC GRAVITY.....	0.588		0.588			0.612		
INDEX 7252 SAMPLE 12345			INDEX 7253 SAMPLE 7638			INDEX 7254 SAMPLE 13100		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	CHESTER W		EDITH S			GILBERT WALKER UNIT NO. 1		
WELL NAME.....	DUER NO. 1-18		SELMAN-MORRIS UNIT NO. 1			SEC. 8, T26N, R19W		
LOCATION.....	SEC. 18, T21N, R17W		SEC. 32, T27N, R18W			SUN OIL CO.		
OWNER.....	GRAHAM-MICHAELIS DRILLING CO		UNION OIL CO. OF CALIF.					
COMPLETED.....	--/700		11/7-759			09/22/71		
SAMPLED.....	--/700		08/08/60			11/03/71		
FORMATION.....	NOT GIVEN		PENN-TONKAWA			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		5044			5962		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1710			2705		
OPEN FLOW, MCFD.....	NOT GIVEN		1300			20600		
COMPONENT, MOLE PCT.....								
METHANE.....	90.2		82.7			94.6		
ETHANE.....	4.7		5.6			1.5		
PROPANE.....	2.1		3.5			0.3		
N-BUTANE.....	0.5		1.2			0.1		
ISOBUTANE.....	0.4		0.3			0.1		
N-PENTANE.....	0.2		0.3			TRACE		
ISOPENTANE.....	TRACE		0.4			TRACE		
CYCLOPENTANE.....	0.1		0.3			TRACE		
HEXANES PLUS.....	0.4		0.3			0.1		
NITROGEN.....	0.5		4.9			2.9		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.3			0.3		
HELIUM.....	0.02		0.20			0.07		
HEATING VALUE.....	1116		1129			1005		
SPECIFIC GRAVITY.....	0.636		0.684			0.585		
INDEX 7255 SAMPLE 11992			INDEX 7256 SAMPLE 15804			INDEX 7257 SAMPLE 11587		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	FREEDOM SUPPLY SE		FREEDOM NW			HARMON		
WELL NAME.....	M. C. TUNE NO. 1		OKLAHOMA NO. 1-32			CHANCE-SHAHAN NO. 1		
LOCATION.....	SEC. 31, T24N, R22W		SEC. 32, T27N, R18W			SEC. 27, T20N, R22W		
OWNER.....	ASHLAND OIL & REFINING CO.		SOUTHLAND ROYALTY CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	04/20/69		01/17/79			11/21/63		
SAMPLED.....	08/13/69		10/03/79			07/16/68		
FORMATION.....	PENN-MORROW		MISS-CHESTER			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7853		5600			10404		
WELLHEAD PRESSURE, PSIG.....	2250		1900			1456		
OPEN FLOW, MCFD.....	2988		4100			827		
COMPONENT, MOLE PCT.....								
METHANE.....	86.6		92.6			77.6		
ETHANE.....	5.3		3.3			8.3		
PROPANE.....	1.3		1.2			4.3		
N-BUTANE.....	1.0		0.3			1.3		
ISOBUTANE.....	0.6		0.2			0.8		
N-PENTANE.....	0.4		0.1			0.6		
ISOPENTANE.....	0.3		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.4		0.2			0.3		
NITROGEN.....	1.2		0.5			4.3		
OXYGEN.....	0.1		0.0			0.9		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.5			1.1		
HELIUM.....	0.0		0.06			0.05		
HEATING VALUE.....	1166		1064			1160		
SPECIFIC GRAVITY.....	0.674		0.609			0.733		
INDEX 7258 SAMPLE 11585			INDEX 7259 SAMPLE 15681			INDEX 7260 SAMPLE 11593		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	HARMON E		HARMON E			KEENAN E		
WELL NAME.....	KARNE NO. 1		STATE OF OKLAHOMA NO. 1			FRITZLER NO. 1		
LOCATION.....	SEC. 35, T20N, R22W		SEC. 16, T20N, R22W			SEC. 27, T21N, R22W		
OWNER.....	AMOCO PRODUCTION CO.		ALAMO PETROLEUM CO.			J. M. HUBER CORP.		
COMPLETED.....	04/27/66		10/28/166			04/27/68		
SAMPLED.....	07/16/68		06/26/79			07/23/68		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10571		10064			9630		
WELLHEAD PRESSURE, PSIG.....	1686		3400			3257		
OPEN FLOW, MCFD.....	421		37000			15000		
COMPONENT, MOLE PCT.....								
METHANE.....	85.3		83.6			83.1		
ETHANE.....	7.4		8.4			9.1		
PROPANE.....	3.0		0.8			3.4		
N-BUTANE.....	0.7		0.9			0.6		
ISOBUTANE.....	0.6		0.8			0.5		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	0.0		0.5			1.7		
OXYGEN.....	0.0		0.0			0.4		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		1.1			0.9		
HELIUM.....	0.04		0.04			0.06		
HEATING VALUE.....	1165		1165			1152		
SPECIFIC GRAVITY.....	0.676		0.691			0.678		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7261 SAMPLE 12390			INDEX 7262 SAMPLE 7039			INDEX 7263 SAMPLE 13097		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	LOVEDALE		LOVEDALE			LOVEDALE		
WELL NAME.....	MCCASLIN NO. 1		G. D. DOTTER NO. 1			LUCAS NO. 1		
LOCATION.....	SEC. 24, T21N, R22W		SEC. 31, T26N, R19W			SEC. 7, T26N, R19W		
OWNER.....	SOHIO PETROLEUM CO.		ATLANTIC RICHFIELD CO.			SUN OIL CO.		
COMPLETED.....	06/-/70		03/09/59			02/09/71		
SAMPLED.....	08/18/70		04/25/59			10/28/71		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9500		6388			5950		
WELLHEAD PRESSURE, PSIG.....	3250		2726			2673		
OPEN FLOW, MCFD.....	3200		16500			17376		
COMPONENT, MOLE PCT								
METHANE.....	86.0		92.2			94.4		
ETHANE.....	7.9		3.4			3.1		
PROPANE.....	3.2		1.0			1.0		
N-BUTANE.....	0.6		0.6			0.2		
ISOBUTANE.....	0.5		0.0			0.2		
N-PENTANE.....	0.1		1.2			TRACE		
ISOPENTANE.....	0.1		0.0			0.1		
CYCLOPENTANE.....	TRACE		0.3			TRACE		
HEXANES PLUS.....	0.1		0.4			0.6		
NITROGEN.....	0.5		0.4			0.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		0.10			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.3			0.3		
HELIUM.....	0.05		0.0			0.07		
HEATING VALUE.....	1147		1134			1061		
SPECIFIC GRAVITY.....	0.657		0.638			0.596		

INDEX 7264 SAMPLE 13098			INDEX 7265 SAMPLE 13295			INDEX 7266 SAMPLE 16863		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	LOVEDALE		LOVEDALE			MOORELAND		
WELL NAME.....	WALKER NO. 1		DOTTER NO. 1			HINES NO. 1-29		
LOCATION.....	SEC. 8, T26N, R19W		SEC. 30, T26N, R19W			SEC. 29, T23N, R19W		
OWNER.....	SUN OIL CO.		PETROLEUM, INC.			OLD DOMINION OIL CORP.		
COMPLETED.....	09/27/71		05/-/72			08/12/82		
SAMPLED.....	10/28/71		06/28/72			04/05/83		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5960		6320			7609		
WELLHEAD PRESSURE, PSIG.....	2705		2405			2876		
OPEN FLOW, MCFD.....	16224		8963			2620		
COMPONENT, MOLE PCT								
METHANE.....	94.4		93.8			90.8		
ETHANE.....	3.3		3.3			4.1		
PROPANE.....	0.9		1.2			1.8		
N-BUTANE.....	0.3		0.2			0.6		
ISOBUTANE.....	0.1		0.2			0.3		
N-PENTANE.....	0.0		0.1			0.1		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	TRACE		0.1			0.3		
NITROGEN.....	0.4		0.5			0.7		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.6		
HELIUM.....	0.06		0.07			0.08		
HEATING VALUE.....	1061		1071			1111		
SPECIFIC GRAVITY.....	0.594		0.602			0.632		

INDEX 7267 SAMPLE 11273			INDEX 7268 SAMPLE 16373			INDEX 7269 SAMPLE 16374		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	MUTUAL SE		MUTUAL W			MUTUAL W		
WELL NAME.....	BARNEY NO. 1		MATHEWS NO. 1			BORDEN NO. 1		
LOCATION.....	SEC. 29, T20N, R18W		SEC. 21, T20N, R19W			SEC. 26, T20N, R19W		
OWNER.....	ASHLAND OIL & REFINING CO.		ANKR PRODUCTION CO.			ANKR PRODUCTION CO.		
COMPLETED.....	06/20/63		09/08/80			04/28/80		
SAMPLED.....	02/07/68		11/04/81			11/04/81		
FORMATION.....	PENN-MORROW		PENN-MORROW			MISS-MERAMEC		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9165		3082			10287		
WELLHEAD PRESSURE, PSIG.....	715		3150			3050		
OPEN FLOW, MCFD.....	500		10000			1000		
COMPONENT, MOLE PCT								
METHANE.....	94.3		92.9			94.2		
ETHANE.....	2.1		2.1			2.3		
PROPANE.....	0.7		1.3			1.1		
N-BUTANE.....	0.1		0.4			0.5		
ISOBUTANE.....	0.2		0.2			0.2		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.0		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	1.7		0.6			0.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.6			0.3		
HELIUM.....	0.07		0.07			0.03		
HEATING VALUE.....	1039		1093			1079		
SPECIFIC GRAVITY.....	0.599		0.615			0.607		

INDEX 7270 SAMPLE 14387			INDEX 7271 SAMPLE 17584			INDEX 7272 SAMPLE 9719		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	QUINLAN		QUINLAN			QUINLAN NW		
FIELD.....	QUINLAN		QUINLAN			HOLLOWAY NO. 1		
WELL NAME.....	SEC. 31, T25N, R17W		SEC. 10, T24N, R18W			SEC. 1, T24N, R18W		
LOCATION.....	WALTER DUNCAN		SHAR-ALAN OIL CO.			OKLAHOMA NATURAL GAS CO.		
OWNER.....	WALTER DUNCAN		SHAR-ALAN OIL CO.			OKLAHOMA NATURAL GAS CO.		
COMPLETED.....	06/17/75		05/30/84			10/22/64		
SAMPLED.....	06/17/75		02/05/85			02/06/85		
FORMATION.....	MISS-CHESTER		MISS-CHESTER			MISS-CHESTER		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	4178		6694			6268		
WELLHEAD PRESSURE, PSIG.....	1750		1150			2200		
OPEN FLOW, MCFD.....	900		100			700		
COMPONENT, MOLE PCT								
METHANE.....	92.8		92.3			93.8		
ETHANE.....	4.0		2.9			3.2		
PROPANE.....	1.3		1.0			1.0		
N-BUTANE.....	0.4		0.0			0.0		
ISOBUTANE.....	0.2		0.2			0.2		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	0.8		0.4			0.6		
OXYGEN.....	0.0		0.4			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.4			0.3		
HELIUM.....	0.05		0.05			0.05		
HEATING VALUE.....	1079		1047			1073		
SPECIFIC GRAVITY.....	0.608		0.610			0.603		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7273 11268	INDEX SAMPLE	7274 16149	INDEX SAMPLE	7275 9892
STAFF.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODWARD			WOODWARD		WOODWARD	
FIELD.....	RICHMOND			RICHMOND NW		SEILING NE	
WELL NAME.....	L 14M A NO. 1			WYMAN 4" NO. 1-33		GADEN NO. 1-A	
LOCATION.....	SEC. 22, T20N, R18W			SEC. 33, T21N, R18W		SEC. 35, T20N, R17W	
OWNER.....	CONTINENTAL OIL CO.			ANADARKO PRODUCTION CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	02/01/66			08/21/80		01/30/65	
SAMPLED.....	02/01/68			12/11/80		05/12/65	
FORMATION.....	MISS-CHESTER			PENN-MORROW & MISS-CHESTER		PENN-LAYTON	
GEOLOGIC PROVINCE CODE.....	360			350		360	
DEPTH, FEET.....	8802			8242		7079	
WELLHEAD PRESSURE, PSIG.....	3222			2903		2100	
OPEN FLOW, MCFD.....	2980			29643		8659	
COMPONENT, MOLE PCT							
METHANE.....	95.0			88.5		78.7	
ETHANE.....	2.4			2.7		5.3	
PROPANE.....	0.6			0.6		4.9	
N-BUTANE.....	0.2			0.7		1.6	
ISOBUTANE.....	TRACE			0.9		0.7	
N-PENTANE.....	0.2			0.8		0.4	
ISOPENTANE.....	0.0			1.2		0.3	
CYCLOPENTANE.....	TRACE			0.3		0.3	
HEXANES PLUS.....	0.1			1.3		0.7	
NITROGEN.....	0.3			0.1		2.1	
OXYGEN.....	TRACE			0.2		0.1	
ARGON.....	0.2			0.0		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.8			0.4		0.5	
HELIUM.....	0.04			0.07		0.12	
HEATING VALUE.....	1842			1203		1255	
SPECIFIC GRAVITY.....	0.591			0.674		0.740	
		INDEX SAMPLE	7276 10004	INDEX SAMPLE	7277 13112	INDEX SAMPLE	7278 14680
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODWARD			WOODWARD		WOODWARD	
FIELD.....	SEILING NE			SEILING NE		SHARON N	
WELL NAME.....	JACUITH NO. 1			JOHN F. GADEN NO. 1-26		CLARK NO. 1	
LOCATION.....	SEC. 34, T20N, R17W			SEC. 26, T20N, R17W		SEC. 13, T21N, R20W	
OWNER.....	AMOCO PRODUCTION CO.			MAY PETROLEUM, INC.		PAN EASTERN EXPLORATION CO.	
COMPLETED.....	06/30/64			05/18/69		05/21/75	
SAMPLED.....	07/24/67			15/7-71		05/21/76	
FORMATION.....	MISS-CHESTER			PENN-COTTAGE GROVE		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8950			7042		9042	
WELLHEAD PRESSURE, PSIG.....	3285			1843		3218	
OPEN FLOW, MCFD.....	7000			28394		4813	
COMPONENT, MOLE PCT							
METHANE.....	92.5			79.7		85.3	
ETHANE.....	3.9			9.7		3.1	
PROPANE.....	1.5			5.7		1.1	
N-BUTANE.....	0.4			0.4		0.3	
ISOBUTANE.....	0.2			0.9		0.2	
N-PENTANE.....	0.1			0.5		TRACE	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.3			0.3		0.1	
NITROGEN.....	0.1			1.3		7.3	
OXYGEN.....	0.0			0.0		1.8	
ARGON.....	TRACE			0.0		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.7		0.7	
HELIUM.....	0.04			0.13		0.05	
HEATING VALUE.....	1098			1251		974	
SPECIFIC GRAVITY.....	0.620			0.721		0.641	
		INDEX SAMPLE	7279 15011	INDEX SAMPLE	7280 13715	INDEX SAMPLE	7281 13915
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODWARD			WOODWARD		WOODWARD	
FIELD.....	SHARON SW			SHARON SW		SHARON SW	
WELL NAME.....	WEBER NO. 1			AUSTIN NO. 1		WREATH NO. 1	
LOCATION.....	SEC. 24, T21N, R20W			SEC. 8, T20N, R21W		SEC. 17, T20N, R21W	
OWNER.....	DESSA NATURAL, INC.			DESSA NATURAL CORP.		MAY PETROLEUM, INC.	
COMPLETED.....	12/09/76			07/26/73		12/14/73	
SAMPLED.....	05/27/77			08/15/73		02/12/74	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	9200			9978		10020	
WELLHEAD PRESSURE, PSIG.....	2941			3270		2190	
OPEN FLOW, MCFD.....	1299			1984		2287	
COMPONENT, MOLE PCT							
METHANE.....	91.4			86.6		88.0	
ETHANE.....	4.0			7.1		6.2	
PROPANE.....	1.9			2.3		1.7	
N-BUTANE.....	0.6			0.5		0.5	
ISOBUTANE.....	0.2			0.5		0.5	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.2			0.2		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.4		0.2	
NITROGEN.....	0.8			0.7		0.5	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.9		0.9	
HELIUM.....	0.07			0.05		0.05	
HEATING VALUE.....	1105			1146		1130	
SPECIFIC GRAVITY.....	0.629			0.660		0.648	
		INDEX SAMPLE	7282 12290	INDEX SAMPLE	7283 12896	INDEX SAMPLE	7284 14035
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	WOODWARD			WOODWARD		WOODWARD	
FIELD.....	SHARON W			SHARON W		SHARON W	
WELL NAME.....	PHILLIPS NO. 1			PHILLIPS NO. 7-1		STATE NO. 1-36	
LOCATION.....	SEC. 1, T21N, R21W			SEC. 7, T21N, R20W		SEC. 36, T22N, R22W	
OWNER.....	EASON OIL CO.			LEGEN OIL CORP.		MAY PETROLEUM, INC.	
COMPLETED.....	04/01/70			11/24/69		09/20/73	
SAMPLED.....	06/12/70			07/12/71		06/30/74	
FORMATION.....	PENN-MORROW U			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8900			8990		9257	
WELLHEAD PRESSURE, PSIG.....	3200			1300		2963	
OPEN FLOW, MCFD.....	7500			1850		7750	
COMPONENT, MOLE PCT							
METHANE.....	84.3			84.7		90.4	
ETHANE.....	6.3			6.9		5.2	
PROPANE.....	3.9			1.9		1.7	
N-BUTANE.....	0.7			0.8		0.4	
ISOBUTANE.....	0.8			0.8		0.3	
N-PENTANE.....	TRACE			0.0		TRACE	
ISOPENTANE.....	0.9			0.0		0.3	
CYCLOPENTANE.....	0.3			TRACE		TRACE	
HEXANES PLUS.....	1.0			0.1		0.1	
NITROGEN.....	1.0			0.2		0.5	
OXYGEN.....	TRACE			0.2		0.1	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.3		0.9	
HELIUM.....	0.06			0.104		0.06	
HEATING VALUE.....	1129			1154		1095	
SPECIFIC GRAVITY.....	0.702			0.671		0.627	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7285			INDEX 7286			INDEX 7287		
SAMPLE 8422			SAMPLE 11295			SAMPLE 11444		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	TANGIER		TANGIER			TANGIER		
WELL NAME.....	WEIIONER		BIESEL NO. 1-7			EZRA HOHWELER NO. 1		
LOCATION.....	SEC. 22, T22N, R22W		SEC. 7, T22N, R22W			SEC. 18, T22N, R22W		
OWNER.....	AMOCO PRODUCTION CO.		SHELL OIL CO.			SUN OIL CO.		
COMPLETED.....	01/02/62		01/07/66			06/08/68		
SAMPLED.....	03/03/62		02/15/68			04/09/68		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8820		8406			8584		
WELLHEAD PRESSURE, PSIG.....	3075		2408			2725		
OPEN FLOW, MCFD.....	1060		23966			66194		
COMPONENT, MOLE PCT.....								
METHANE.....	90.9	-----	89.4	-----		84.9	-----	
ETHANE.....	4.9	-----	5.0	-----		3.5	-----	
PROPANE.....	2.1	-----	1.8	-----		1.4	-----	
N-BUTANE.....	0.4	-----	0.6	-----		0.4	-----	
ISOBUTANE.....	0.2	-----	0.3	-----		0.2	-----	
N-PENTANE.....	0.1	-----	0.2	-----		0.1	-----	
ISOPENTANE.....	0.2	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.4	-----	
HEXANES PLUS.....	0.1	-----	0.3	-----		6.5	-----	
NITROGEN.....	0.3	-----	1.1	-----		1.4	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.1	-----	
ARGON.....	0.0	-----	TRACE	-----		0.1	-----	
HYDROGEN.....	TRACE	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.7	-----	0.9	-----		0.7	-----	
HELIUM.....	0.07	-----	0.11	-----		0.09	-----	
HEATING VALUE.....	1105	-----	1108	-----		1020	-----	
SPECIFIC GRAVITY.....	0.627	-----	0.641	-----		0.656	-----	
INDEX 7288			INDEX 7289			INDEX 7290		
SAMPLE 12847			SAMPLE 12184			SAMPLE 13141		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	TANGIER		VICI			VICI		
WELL NAME.....	MOREHART NO. 1		GRIFFITH NO. 1			GRIFFITH NO. 1		
LOCATION.....	SEC. 31, T23N, R22W		SEC. 34, T20N, R20W			SEC. 34, T20N, R20W		
OWNER.....	SIDWELL O&G AND TEXSTAR EXP.		VIERSEN & COCHRAN			VIERSEN & COCHRAN		
COMPLETED.....	04/23/71		07/19/68			07/19/68		
SAMPLED.....	06/09/71		01/31/70			01/27/72		
FORMATION.....	PENN-MORROW L		DEVON-HUNTON			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8232		12590			11990		
WELLHEAD PRESSURE, PSIG.....	2500		3800			4052		
OPEN FLOW, MCFD.....	14000		36817			33930		
COMPONENT, MOLE PCT.....								
METHANE.....	93.0	-----	96.4	-----		96.8	-----	
ETHANE.....	3.5	-----	0.8	-----		1.2	-----	
PROPANE.....	1.0	-----	0.2	-----		0.4	-----	
N-BUTANE.....	0.2	-----	0.1	-----		0.3	-----	
ISOBUTANE.....	0.2	-----	0.0	-----		0.2	-----	
N-PENTANE.....	0.1	-----	0.0	-----		0.2	-----	
ISOPENTANE.....	0.1	-----	0.0	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.1	-----	
NITROGEN.....	0.7	-----	1.0	-----		0.8	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.1	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	1.0	-----	0.0	-----		0.2	-----	
HELIUM.....	0.05	-----	0.03	-----		0.03	-----	
HEATING VALUE.....	1058	-----	1009	-----		1043	-----	
SPECIFIC GRAVITY.....	0.606	-----	0.581	-----		0.581	-----	
INDEX 7291			INDEX 7292			INDEX 7293		
SAMPLE 9745			SAMPLE 10412			SAMPLE 7011		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	WAYNOKA NE		WAYNOKA NE			WOODWARD		
WELL NAME.....	CURTIS UNIT NO. 1		CURTIS NO. 1			WALSH NO. 1		
LOCATION.....	SEC. 35, T25N, R17W		SEC. 1, T24N, R17W			SEC. 2, T22N, R21W		
OWNER.....	AMOCO PRODUCTION CO.		ASHLAND OIL & REFINING CO.			ATLANTIC RICHFIELD CO.		
COMPLETED.....	12/08/64		05/12/65			11/23/58		
SAMPLED.....	02/18/65		02/23/66			03/23/59		
FORMATION.....	PENN-COTTAGE GROVE		PENN-OSWEGO			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5550		8750			8310		
WELLHEAD PRESSURE, PSIG.....	1824		1925			9950		
OPEN FLOW, MCFD.....	4250		1942			8174		
COMPONENT, MOLE PCT.....								
METHANE.....	89.1	-----	92.3	-----		86.2	-----	
ETHANE.....	3.9	-----	3.2	-----		6.4	-----	
PROPANE.....	2.3	-----	1.2	-----		2.9	-----	
N-BUTANE.....	0.7	-----	0.2	-----		1.0	-----	
ISOBUTANE.....	0.5	-----	0.2	-----		0.8	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.3	-----	
ISOPENTANE.....	0.2	-----	0.1	-----		0.3	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		0.3	-----	
HEXANES PLUS.....	0.2	-----	0.4	-----		0.7	-----	
NITROGEN.....	2.9	-----	1.5	-----		0.3	-----	
OXYGEN.....	0.0	-----	0.2	-----		TRACE	-----	
ARGON.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.0	-----		0.7	-----	
HELIUM.....	0.11	-----	0.07	-----		TRACE	-----	
HEATING VALUE.....	1089	-----	1084	-----		1193	-----	
SPECIFIC GRAVITY.....	0.636	-----	0.617	-----		0.682	-----	
INDEX 7294			INDEX 7295			INDEX 7296		
SAMPLE 11262			SAMPLE 11539			SAMPLE 14927		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	WOODWARD		WOODWARD			WOODWARD		
FIELD.....	CANFIELD NO. 1		BAKER UNIT NO. 1			PHILLIPS-DUNCAN NO. 1		
WELL NAME.....	SEC. 61, T22N, R20W		SEC. 13, T23N, R21W			SEC. 29, T23N, R21W		
LOCATION.....	UNION OIL CO. OF CALIF.		APACHE CORP.			HILLIARD OIL & GAS, INC.		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	11/29/59		11/07/66			12/18/75		
SAMPLED.....	01/29/68		06/77/68			02/28/77		
FORMATION.....	PENN-MORROW		PENN-MORROW			OROS-BROMIDE		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8185		7711			10863		
WELLHEAD PRESSURE, PSIG.....	321		2143			3523		
OPEN FLOW, MCFD.....	NOT GIVEN		524			14091		
COMPONENT, MOLE PCT.....								
METHANE.....	89.7	-----	90.9	-----		90.2	-----	
ETHANE.....	2.0	-----	1.0	-----		3.1	-----	
PROPANE.....	0.6	-----	1.8	-----		3.2	-----	
N-BUTANE.....	0.4	-----	0.7	-----		0.4	-----	
ISOBUTANE.....	0.4	-----	0.3	-----		0.4	-----	
N-PENTANE.....	0.1	-----	0.2	-----		0.3	-----	
ISOPENTANE.....	0.3	-----	0.1	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.2	-----	
NITROGEN.....	0.6	-----	1.1	-----		3.2	-----	
OXYGEN.....	0.0	-----	0.2	-----		0.2	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.5	-----	0.4	-----		0.7	-----	
HELIUM.....	0.07	-----	0.05	-----		0.09	-----	
HEATING VALUE.....	1115	-----	1100	-----		1055	-----	
SPECIFIC GRAVITY.....	0.635	-----	0.630	-----		0.628	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7297 SAMPLE 15991		INDEX 7298 SAMPLE 11261		INDEX 7299 SAMPLE 11365	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	WOODWARD	COUNTY.....	WOODWARD	COUNTY.....	WOODWARD
FIELD.....	WOODWARD N	FIELD.....	WOODWARD NE	FIELD.....	WOODWARD NE
WELL NAME.....	PHILLIPS-DUNCAN NO.1	WELL NAME.....	MCCORMICK NO. 1	WELL NAME.....	C. W. WITHGOTT NO. 1
LOCATION.....	SEC. 29, T23N, R21W	LOCATION.....	SEC. 19, T22N, R20W	LOCATION.....	SEC. 2, T23N, R20W
OWNER.....	HILLIARD OIL & GAS, INC.	OWNER.....	UNION OIL CO. OF CALIF.	OWNER.....	ATLANTIC RICHFIELD CO.
COMPLETED.....	12/12/75	COMPLETED.....	04/01/61	COMPLETED.....	01/02/58
SAMPLED.....	06/18/80	SAMPLED.....	01/29/68	SAMPLED.....	03/13/68
FORMATION.....	DEVO-HUNTON	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	10336	DEPTH, FEET.....	8234	DEPTH, FEET.....	7595
WELLHEAD PRESSURE, PSIG.....	3055	WELLHEAD PRESSURE, PSIG.....	1838	WELLHEAD PRESSURE, PSIG.....	304
OPEN FLOW, MCFD.....	2067	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	754
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.8	METHANE.....	93.6	METHANE.....	86.0
ETHANE.....	2.7	ETHANE.....	3.3	ETHANE.....	4.6
PROPANE.....	0.8	PROPANE.....	1.0	PROPANE.....	1.4
N-BUTANE.....	0.3	N-BUTANE.....	0.2	N-BUTANE.....	1.2
ISOBUTANE.....	0.2	ISOBUTANE.....	0.2	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3
NITROGEN.....	2.3	NITROGEN.....	0.7	NITROGEN.....	4.1
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	1.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.6
HELIUM.....	9.08	HELIUM.....	0.07	HELIUM.....	0.06
HEATING VALUE.....	1045	HEATING VALUE.....	1069	HEATING VALUE.....	1067
SPECIFIC GRAVITY.....	0.607	SPECIFIC GRAVITY.....	0.605	SPECIFIC GRAVITY.....	0.655

INDEX 7300 SAMPLE 11413		INDEX 7301 SAMPLE 16496		INDEX 7302 SAMPLE 10580	
STATE.....	OKLAHOMA	STATE.....	OKLAHOMA	STATE.....	OKLAHOMA
COUNTY.....	WOODWARD	COUNTY.....	WOODWARD	COUNTY.....	WOODWARD
FIELD.....	WOODWARD NE	FIELD.....	WOODWARD NE	FIELD.....	WOODWARD S
WELL NAME.....	FRANK HARRISON NO. 1	WELL NAME.....	RULEIDGE NO. 1	WELL NAME.....	COLLIER NO. 1
LOCATION.....	SEC. 5, T23N, R20W	LOCATION.....	SEC. 25, T24N, R20W	LOCATION.....	SEC. 27, T22N, R21W
OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	H & O OPERATING CO.	OWNER.....	J. N. CHAMPLIN
COMPLETED.....	05/16/68	COMPLETED.....	05/28/81	COMPLETED.....	03/01/66
SAMPLED.....	03/28/68	SAMPLED.....	04/15/82	SAMPLED.....	06/02/64
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7642	DEPTH, FEET.....	7466	DEPTH, FEET.....	8788
WELLHEAD PRESSURE, PSIG.....	3080	WELLHEAD PRESSURE, PSIG.....	3200	WELLHEAD PRESSURE, PSIG.....	3000
OPEN FLOW, MCFD.....	1000	OPEN FLOW, MCFD.....	2036	OPEN FLOW, MCFD.....	1500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.7	METHANE.....	93.7	METHANE.....	77.5
ETHANE.....	1.0	ETHANE.....	1.1	ETHANE.....	2.3
PROPANE.....	1.7	PROPANE.....	1.1	PROPANE.....	2.2
N-BUTANE.....	0.4	N-BUTANE.....	0.3	N-BUTANE.....	0.6
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	0.8	NITROGEN.....	0.8	NITROGEN.....	6.2
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	6.6
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.08	HELIUM.....	0.09	HELIUM.....	0.12
HEATING VALUE.....	1095	HEATING VALUE.....	1068	HEATING VALUE.....	1032
SPECIFIC GRAVITY.....	0.620	SPECIFIC GRAVITY.....	0.603	SPECIFIC GRAVITY.....	0.631

INDEX 7303 SAMPLE 16347		INDEX 7304 SAMPLE 16348		INDEX 7305 SAMPLE 16349	
STATE.....	OREGON	STATE.....	OREGON	STATE.....	OREGON
COUNTY.....	COLUMBIA	COUNTY.....	COLUMBIA	COUNTY.....	COLUMBIA
FIELD.....	COLUMBIA	FIELD.....	MIST	FIELD.....	MIST
WELL NAME.....	COLUMBIA CO. NO. 1, RD NO. 1	WELL NAME.....	COLUMBIA CO. NO. 3, RD NO. 1	WELL NAME.....	COLUMBIA CO. NO. 4
LOCATION.....	SEC. 11, T6N, R5W	LOCATION.....	SEC. 10, T6N, R5W	LOCATION.....	SEC. 15, T6N, R5W
OWNER.....	REICHOLD ENERGY CORP.	OWNER.....	REICHOLD ENERGY CORP.	OWNER.....	REICHOLD ENERGY CORP.
COMPLETED.....	06/12/80	COMPLETED.....	06/12/80	COMPLETED.....	06/12/80
SAMPLED.....	--/--/81	SAMPLED.....	--/--/81	SAMPLED.....	--/--/81
FORMATION.....	EOCE-CLARK & WILSON	FORMATION.....	EOCE-CLARK & WILSON	FORMATION.....	EOCE-CLARK & WILSON
GEOLOGIC PROVINCE CODE.....	710	GEOLOGIC PROVINCE CODE.....	710	GEOLOGIC PROVINCE CODE.....	710
DEPTH, FEET.....	2445	DEPTH, FEET.....	2267	DEPTH, FEET.....	2315
WELLHEAD PRESSURE, PSIG.....	971	WELLHEAD PRESSURE, PSIG.....	966	WELLHEAD PRESSURE, PSIG.....	970
OPEN FLOW, MCFD.....	9200	OPEN FLOW, MCFD.....	32000	OPEN FLOW, MCFD.....	1600
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.0	METHANE.....	88.7	METHANE.....	89.2
ETHANE.....	0.1	ETHANE.....	0.1	ETHANE.....	0.0
PROPANE.....	0.1	PROPANE.....	TRACE	PROPANE.....	0.0
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	10.5	NITROGEN.....	10.8	NITROGEN.....	10.5
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	906	HEATING VALUE.....	906	HEATING VALUE.....	904
SPECIFIC GRAVITY.....	0.602	SPECIFIC GRAVITY.....	0.602	SPECIFIC GRAVITY.....	0.599

INDEX 7306 SAMPLE 1729		INDEX 7307 SAMPLE 79		INDEX 7308 SAMPLE 810	
STATE.....	OREGON	STATE.....	OREGON	STATE.....	OREGON
COUNTY.....	JACKSON	COUNTY.....	TILLAMOOK	COUNTY.....	TILLAMOOK
FIELD.....	JACKSON	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
WELL NAME.....	GAS SEEP	WELL NAME.....	NOT GIVEN	WELL NAME.....	NOT GIVEN
LOCATION.....	NOT GIVEN	LOCATION.....	SEC. 10, T2S, R9W	LOCATION.....	SEC. 10, T2S, R9W
OWNER.....	MRS. C. W. MCGREW	OWNER.....	HANANKRAFT	OWNER.....	HARNSENKRAT & AUSTIN
COMPLETED.....	--/--/00	COMPLETED.....	--/--/16	COMPLETED.....	--/--/00
SAMPLED.....	03/09/19	SAMPLED.....	03/09/19	SAMPLED.....	--/--/00
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	715	GEOLOGIC PROVINCE CODE.....	710	GEOLOGIC PROVINCE CODE.....	710
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	700	DEPTH, FEET.....	3000
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	0.4	METHANE.....	2.4	METHANE.....	0.0
ETHANE.....	0.0	ETHANE.....	0.0	ETHANE.....	4.4
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	11.0	NITROGEN.....	97.4	NITROGEN.....	95.1
OXYGEN.....	1.1	OXYGEN.....	0.0	OXYGEN.....	0.2
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	87.5	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.00	HELIUM.....	0.24	HELIUM.....	0.12
HEATING VALUE.....	1.459	HEATING VALUE.....	0.956	HEATING VALUE.....	0.968
SPECIFIC GRAVITY.....	---	SPECIFIC GRAVITY.....	---	SPECIFIC GRAVITY.....	---

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 10273	INDEX SAMPLE 10437	INDEX SAMPLE 10440
STATE.....	PENNSYLVANIA		PENNSYLVANIA	PENNSYLVANIA
COUNTY.....	ALLEGHENY		ALLEGHENY	ALLEGHENY
FIELD.....	ELIZABETH		FORWARD	FORWARD
WELL NAME.....	BICKERTON NO. 124		B-38-WALL	3544-FINLEY
LOCATION.....	JEFFERSON BORO		BROWN TWP.	BROWN TWP.
OWNER.....	CARNEGIE NATURAL GAS CO.		EQUITABLE GAS CO.	EQUITABLE GAS CO.
COMPLETED.....	10/17/36		12/20/48	01/01/28
SAMPLED.....	11/04/65		01/21/66	01/21/66
FORMATION.....	DEVO-ELIZABETH		DEVO-BAYARD	DEVO-GANTZ
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	2637		2843	2260
WELLHEAD PRESSURE, PSIG.....	52		80	230
OPEN FLOW, MCFD.....	25830		5	18
COMPONENT, MOLE PCT				
METHANE.....	88.3	93.8	93.0	
ETHANE.....	6.2	3.5	4.5	
PROPANE.....	1.9	0.6	0.8	
N-BUTANE.....	0.8	0.1	0.3	
ISOBUTANE.....	0.5	0.1	0.0	
N-PENTANE.....	0.2	0.1	0.0	
ISOPENTANE.....	0.2	TRACE	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	0.3	0.1	0.0	
NITROGEN.....	1.4	1.4	1.1	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.2	0.1	
HELIUM.....	0.09	0.07	0.12	
HEATING VALUE.....	1131	1045	1054	
SPECIFIC GRAVITY.....	0.645	0.592	0.594	
		INDEX SAMPLE 10444	INDEX SAMPLE 10450	INDEX SAMPLE 10451
STATE.....	PENNSYLVANIA		PENNSYLVANIA	PENNSYLVANIA
COUNTY.....	ALLEGHENY		ALLEGHENY	ALLEGHENY
FIELD.....	FORWARD		FORWARD	FORWARD
WELL NAME.....	B-31-MANOWN		F-48-CICCI, S.	F-48-CICCI, S.
LOCATION.....	BROWN TWP.		BROWN TWP.	BROWN TWP.
OWNER.....	EQUITABLE GAS CO.		EQUITABLE GAS CO.	EQUITABLE GAS CO.
COMPLETED.....	01/01/42		05/29/28	05/29/28
SAMPLED.....	01/21/66		01/21/66	01/21/66
FORMATION.....	DEVO-FIFTY FOOT SAND		MISS-BIG INJUN	DEVO-SPEECHLEY
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	2258	1547	3548	
WELLHEAD PRESSURE, PSIG.....	20	5	80	
OPEN FLOW, MCFD.....	61	10	11	
COMPONENT, MOLE PCT				
METHANE.....	91.9	92.7	92.8	
ETHANE.....	4.0	4.7	3.0	
PROPANE.....	1.0	0.9	0.9	
N-BUTANE.....	0.4	0.2	0.2	
ISOBUTANE.....	0.4	0.2	0.3	
N-PENTANE.....	0.1	0.1	0.1	
ISOPENTANE.....	0.1	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.4	0.1	0.2	
NITROGEN.....	1.4	0.8	2.2	
OXYGEN.....	0.1	0.0	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.0	
HELIUM.....	0.11	0.10	0.12	
HEATING VALUE.....	1085	1074	1049	
SPECIFIC GRAVITY.....	0.617	0.603	0.601	
		INDEX SAMPLE 10592	INDEX SAMPLE 10603	INDEX SAMPLE 9730
STATE.....	PENNSYLVANIA		PENNSYLVANIA	PENNSYLVANIA
COUNTY.....	ALLEGHENY		ALLEGHENY	ALLEGHENY
FIELD.....	MIFFLIN		MIFFLIN	MONROEVILLE
WELL NAME.....	O.W.10085-R.W.&B.S.PAUL NO.2		O.W.10075-R.W.PAUL NO. 1	H. T. BURKE, PNG NO. 4424
LOCATION.....	PITTSBURGH SUMMERLEA INC.		PITTSBURGH SUMMERLEA INC.	MONROEVILLE BOROUGH
OWNER.....	SUMMERLEA INC.		SUMMERLEA INC.	PEOPLES NATURAL GAS CO.
COMPLETED.....	02/04/55		09/09/54	11/25/64
SAMPLED.....	03/01/66		03/01/66	11/25/64
FORMATION.....	DEVO-ELIZABETH		DEVO-SPEECHLEY	DEVO-THIRTY FOOT & SPEECHLEY
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	2307	3250	2052	
WELLHEAD PRESSURE, PSIG.....	290	300	650	
OPEN FLOW, MCFD.....	297	42	59	
COMPONENT, MOLE PCT				
METHANE.....	93.1	92.7	94.0	
ETHANE.....	3.5	4.1	3.7	
PROPANE.....	0.8	0.9	0.8	
N-BUTANE.....	0.2	0.4	0.2	
ISOBUTANE.....	0.3	0.2	0.2	
N-PENTANE.....	0.2	0.2	0.1	
ISOPENTANE.....	TRACE	0.2	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.1	0.1	
NITROGEN.....	1.6	2.0	0.8	
OXYGEN.....	0.0	0.1	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.0	
HELIUM.....	0.13	0.13	0.09	
HEATING VALUE.....	1062	1056	1058	
SPECIFIC GRAVITY.....	0.604	0.606	0.592	
		INDEX SAMPLE 10608	INDEX SAMPLE 10443	INDEX SAMPLE 10597
STATE.....	PENNSYLVANIA		PENNSYLVANIA	PENNSYLVANIA
COUNTY.....	ALLEGHENY		ALLEGHENY	ARMSTRONG
FIELD.....	RENNERDALE		RODFIELD	ARMSTRONG
WELL NAME.....	SMITH NO. 3324		I. BUCAR - F-77	NO. 196 EARHART
LOCATION.....	CARNEGIE NW		PITTSBURGH TWP.	R. V. SE
OWNER.....	EQUITABLE GAS CO.		EQUITABLE GAS CO.	EQUITABLE GAS CO.
COMPLETED.....	04/19/13		03/22/43	03/25/09
SAMPLED.....	05/24/66		01/21/66	05/25/66
FORMATION.....	DEVO-GORDON		DEVO-BAYARD & SPEECHLEY	-SAND
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	2077	2440	1380	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	268	20	
OPEN FLOW, MCFD.....	NOT GIVEN	10	25	
COMPONENT, MOLE PCT				
METHANE.....	80.1	93.3	94.3	
ETHANE.....	10.9	4.3	3.0	
PROPANE.....	3.9	0.8	0.2	
N-BUTANE.....	1.3	0.2	0.2	
ISOBUTANE.....	1.0	0.2	0.1	
N-PENTANE.....	0.8	TRACE	0.1	
ISOPENTANE.....	0.1	TRACE	TRACE	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.8	0.1	0.1	
NITROGEN.....	0.8	0.1	1.5	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	
HELIUM.....	0.10	0.10	0.05	
HEATING VALUE.....	1246	1042	1042	
SPECIFIC GRAVITY.....	0.725	0.598	0.590	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7321 SAMPLE 9777			INDEX 7322 SAMPLE 9773			INDEX 7323 SAMPLE 10282		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	ARMSTRONG		ARMSTRONG			ARMSTRONG		
FIELD.....	BAUM STATION		ARMSTRONG			GOHEENVILLE		
WELL NAME.....	N. D. MOORE NO. 1		JOHN N. RALSTON NO. 1			JOHN HOUSER NO. 104		
LOCATION.....	BOGGS TWP.		PLUNKREK TWP.			LEECHBURG		
OWNER.....	PEOPLES NATURAL GAS CO.		PEOPLES NATURAL GAS CO.			APOLLO GAS CO.		
COMPLETED.....	10/09/64		11/04/64			04/24/29		
SAMPLED.....	--/--/00		--/--/00			11/03/65		
FORMATION.....	DEVO-BALLTOWN		DEVO-BALLTOWN			PENN-KANE & MISS-MURRYSVILLE		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2830		2887			1140		
WELLHEAD PRESSURE, PSIG.....	835		90			13		
OPEN FLOW, MCFD.....	354		623			915		
COMPONENT, MOLE PCT								
METHANE.....	93.3		94.6			91.8		
ETHANE.....	4.4		3.3			3.6		
PROPANE.....	0.6		0.6			1.2		
N-BUTANE.....	0.1		0.2			0.3		
ISOBUTANE.....	0.1		0.1			0.1		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		0.1			0.1		
NITROGEN.....	1.1		0.8			0.4		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.0		
HELIUM.....	0.00		0.09			0.08		
HEATING VALUE.....	1051		1053			1089		
SPECIFIC GRAVITY.....	0.591		0.588			0.609		
INDEX 7324 SAMPLE 10600			INDEX 7325 SAMPLE 10606			INDEX 7326 SAMPLE 6930		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	ARMSTRONG		ARMSTRONG			ARMSTRONG		
FIELD.....	JOHNETTA		JOHNETTA			NOT GIVEN		
WELL NAME.....	PA. E. SIDE LAND CO.-NO.3309		MATHEWS-NO. 3314			MARGARET RUPERT NO. 1		
LOCATION.....	FREEDPORT NE		FREEDPORT NE			NOT GIVEN		
OWNER.....	EQUITABLE GAS CO.		EQUITABLE GAS CO.			COLUMBIAN CARBON CO.		
COMPLETED.....	03/03/44		02/14/45			--/--/00		
SAMPLED.....	03/02/66		03/02/66			01/23/59		
FORMATION.....	MISS-MURRYSVILLE		MISS-MURRYSVILLE			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1084		1094			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	31		142			NOT GIVEN		
OPEN FLOW, MCFD.....	2		4			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	95.3		94.0			96.6		
ETHANE.....	4.4		3.5			2.7		
PROPANE.....	0.4		0.7			0.2		
N-BUTANE.....	0.0		0.3			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	1.6		1.3			0.4		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.1		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.15		0.12			0.17		
HEATING VALUE.....	1019		1043			1032		
SPECIFIC GRAVITY.....	0.577		0.589			0.573		
INDEX 7327 SAMPLE 10591			INDEX 7328 SAMPLE 10593			INDEX 7329 SAMPLE 10594		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	ARMSTRONG		ARMSTRONG			ARMSTRONG		
FIELD.....	PLUNKVILLE		PLUNKVILLE			PLUNKVILLE		
WELL NAME.....	NO. 3114-WILSON		NO. 3226-RUMMEL			NO. 3239-ALLSHOUSE		
LOCATION.....	SMICK SW		SMICK SW			SMICK SW		
OWNER.....	EQUITABLE GAS CO.		EQUITABLE GAS CO.			EQUITABLE GAS CO.		
COMPLETED.....	12/05/17		02/09/29			10/16/38		
SAMPLED.....	03/02/66		03/02/66			03/02/66		
FORMATION.....	MISS-MURRYSVILLE		DEVO-TIONA			DEVO-SPEECHLEY & BRADFORD		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1280		2952			2773		
WELLHEAD PRESSURE, PSIG.....	60		285			160		
OPEN FLOW, MCFD.....	10		17			8		
COMPONENT, MOLE PCT								
METHANE.....	94.5		94.9			95.4		
ETHANE.....	3.2		3.4			3.1		
PROPANE.....	NO. 3		NO. 3			0.7		
N-BUTANE.....	0.3		0.3			0.3		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	1.2		0.5			0.5		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.10		0.03			0.03		
HEATING VALUE.....	1043		1056			1050		
SPECIFIC GRAVITY.....	0.586		0.587			0.583		
INDEX 7330 SAMPLE 10601			INDEX 7331 SAMPLE 13358			INDEX 7332 SAMPLE 13359		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	ARMSTRONG		ARMSTRONG			ARMSTRONG		
FIELD.....	PLUNKVILLE		ROARING RUN			ROARING RUN		
WELL NAME.....	NO. 3239-MCLAIN		CANTERBURY COAL NO. RR-1			ACES UNIT 25200540 NO. 1		
LOCATION.....	SMICK SW		SEC. D, ELDERS RIDGE QUAD.			SEC. A, WISKIMINITAS QUAD.		
OWNER.....	EQUITABLE GAS CO.		PENNZOIL UNITED, INC.			PENNZOIL UNITED, INC.		
COMPLETED.....	07/23/38		12/14/70			09/11/71		
SAMPLED.....	03/02/66		03/02/66			08/16/72		
FORMATION.....	DEVO-BRADFORD		DEVO-ORISKANY			DEVO-CHEST & ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	7239		7134			7300		
WELLHEAD PRESSURE, PSIG.....	95		3980			3950		
OPEN FLOW, MCFD.....	8		2170			2600		
COMPONENT, MOLE PCT								
METHANE.....	95.6		94.2			95.3		
ETHANE.....	3.3		3.0			2.8		
PROPANE.....	0.4		0.2			0.2		
N-BUTANE.....	0.0		0.0			TRACE		
ISOBUTANE.....	0.0		0.0			TRACE		
N-PENTANE.....	0.0		0.0			TRACE		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			TRACE		
NITROGEN.....	0.5		0.4			1.4		
ARGON.....	0.0		0.0			0.2		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.11		0.02			0.02		
HEATING VALUE.....	1033		1033			1021		
SPECIFIC GRAVITY.....	0.577		0.573			0.574		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ASSURPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7333 SAMPLE 10294			INDEX 7334 SAMPLE 9775			INDEX 7335 SAMPLE 9215		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	BEDFORD		ARMSTRONG			BEDFORD		
FIELD.....	SLATE LICK		VALLEY			ARTIMUS		
WELL NAME.....	W. W. FRANTZ NO. 793		W. J. SMAIL NO. 1			MARSHALL DIEHL NO. 2		
LOCATION.....	LEITCHBURG		COWANSHANNOCK TWP.			NOT GIVEN		
OWNER.....	APOLLO GAS CO.		PEOPLES NATURAL GAS CO.			NEW YORK STATE NAT. GAS CORP		
COMPLETED.....	10/18/06		12/04/64			09/22/63		
SAMPLED.....	11/23/65		--/--/00			01/06/64		
FORMATION.....	DEVCO-SPEECHLEY		DEVCO-BRADFORD			DEVCO-ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2728		3308			4772		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		772			1778		
OPEN FLOW, MCFD.....	NOT GIVEN		1516			24915		
COMPONENT, MOLE PCT								
METHANE.....	88.0		95.0			98.4		
ETHANE.....	6.9		3.5			0.4		
PROPANE.....	2.4		0.4			TRACE		
N-BUTANE.....	0.6		0.1			0.0		
ISOBUTANE.....	0.5		0.1			0.0		
N-PENTANE.....	0.2		TRACE			0.0		
ISOPENTANE.....	0.2		TRACE			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.2		0.1			0.0		
NITROGEN.....	0.8		0.6			1.0		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	0.08		0.08			0.10		
HEATING VALUE.....	1142		1047			1004		
SPECIFIC GRAVITY.....	0.646		0.553			0.560		
INDEX 7336 SAMPLE 9726			INDEX 7337 SAMPLE 8661			INDEX 7338 SAMPLE 5036		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	BEDFORD		BEDFORD			BEDFORD		
FIELD.....	BIG MOUNTAIN		FIVE FORKS			NOT GIVEN		
WELL NAME.....	ALDEN T. SMITH NO. 1		W. C. DAVIS N-845			JESSE MILLER NO. 1		
LOCATION.....	MANN TWP.		NOT GIVEN			NAPIER TWP.		
OWNER.....	FELMONT OIL CORP.		NEW YORK STATE NAT. GAS CORP			SOUTH PENN OIL CO.		
COMPLETED.....	12/07/64		06/16/62			--/--/00		
SAMPLED.....	02/08/65		08/30/62			02/05/51		
FORMATION.....	DEVCO-ORISKANY		DEVCO-ORISKANY			ORDO-L		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	5397		5697			8872		
WELLHEAD PRESSURE, PSIG.....	1822		2070			NOT GIVEN		
OPEN FLOW, MCFD.....	12000		13504			50		
COMPONENT, MOLE PCT								
METHANE.....	98.5		98.5			60.1		
ETHANE.....	0.4		0.0			0.1		
PROPANE.....	0.0		TRACE			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		TRACE			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		TRACE			TRACE		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.0		0.7			38.5		
OXYGEN.....	TRACE		0.0			0.2		
ARGON.....	0.0		TRACE			0.2		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.6		
HELIUM.....	0.11		0.10			0.29		
HEATING VALUE.....	1005		1009			611		
SPECIFIC GRAVITY.....	0.560		0.359			0.721		
INDEX 7339 SAMPLE 10373			INDEX 7340 SAMPLE 10374			INDEX 7341 SAMPLE 7938		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	BEDFORD		BEDFORD			BLAIR		
FIELD.....	PENNLAND POOL		PURCELL			BLUE KNOB		
WELL NAME.....	LAMASTER ET UX. NO. N-944		HERBERT P. AKERS ET AL. NO. 1			PENN-TH-26-A NO. 1		
LOCATION.....	MANN TWP.		MONROE TWP.			GREENFIELD		
OWNER.....	CONSOLIDATED GAS SUPPLY CORP		CONSOLIDATED GAS SUPPLY CORP			PHILLIPS PETROLEUM CO.		
COMPLETED.....	08/27/64		09/09/62			--/--/00		
SAMPLED.....	01/26/66		01/26/66			04/21/61		
FORMATION.....	DEVCO-ORISKANY		DEVCO-ORISKANY			DEVCO-ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	4631		4732			6859		
WELLHEAD PRESSURE, PSIG.....	1400		1757			3185		
OPEN FLOW, MCFD.....	4050		605			1440		
COMPONENT, MOLE PCT								
METHANE.....	98.4		96.1			97.3		
ETHANE.....	0.3		0.4			1.7		
PROPANE.....	0.0		0.1			0.0		
N-BUTANE.....	0.0		0.3			TRACE		
ISOBUTANE.....	0.0		TRACE			0.0		
N-PENTANE.....	0.0		0.1			0.0		
ISOPENTANE.....	0.0		0.7			TRACE		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.1			0.0		
NITROGEN.....	1.2		0.9			0.7		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.1		
HELIUM.....	0.10		0.18			0.04		
HEATING VALUE.....	1002		1067			1017		
SPECIFIC GRAVITY.....	0.560		0.597			0.566		
INDEX 7342 SAMPLE 4787			INDEX 7343 SAMPLE 11784			INDEX 7344 SAMPLE 12002		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	CAMBRIA		CAMBRIA			CAMBRIA		
FIELD.....	NOT GIVEN		PATTON			PINDLTON		
WELL NAME.....	CLEARFIELD COAL CO. NO. 1		BURLEY NO. 1			ALBERT KUBAT NO. 1		
LOCATION.....	NOT GIVEN		WEST CARROLL TWP.			BLACKLICK TWP.		
OWNER.....	PEOPLES NATURAL GAS CO.		KEWANEE OIL CO.			PEOPLES NATURAL GAS CO.		
COMPLETED.....	03/31/49		01/16/69			07/02/69		
SAMPLED.....	06/09/49		02/25/69			08/11/69		
FORMATION.....	DEVCO-U		DEVCO-ORISKANY			DEVCO-ONONDAGA & ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3201		8496			8494		
WELLHEAD PRESSURE, PSIG.....	1360		4130			3854		
OPEN FLOW, MCFD.....	33		2100			4750		
COMPONENT, MOLE PCT								
METHANE.....	96.0		97.3			97.2		
ETHANE.....	2.4		0.1			1.6		
PROPANE.....	0.2		0.0			0.2		
N-BUTANE.....	0.2		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.1		0.0			0.0		
NITROGEN.....	0.8		0.6			0.7		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		TRACE			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			TRACE		
HELIUM.....	0.09		0.02			0.02		
HEATING VALUE.....	1032		1015			1019		
SPECIFIC GRAVITY.....	0.580		0.570			0.567		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7345 SAMPLE 17650		INDEX 7346 SAMPLE 10470		INDEX 7347 SAMPLE 10124	
STATE.....	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	
COUNTY.....	CAMBRIA	CAMBRIA	CAMBRION	CAMBRION	
FIELD.....	POT RIDGE PROSPECT	RAGER MOUNTAIN	DRIFTWOOD	DRIFTWOOD	
WELL NAME.....	CAMBRIA MINING NO. 1	GEORGE L. READE NO. 1	WELL NO. 337	WELL NO. 337	
LOCATION.....	OSG 1TON QUAD ADAMS TWP.	SEC. 04, JACKSON TWP.	GIBSON TWP.	GIBSON TWP.	
OWNER.....	DAMSON OIL CO.	PEOPLES NATURAL GAS CO.	SYLVANIA CORP.	SYLVANIA CORP.	
COMPLETED.....	--/--/00	--/--/00	10/03/51	10/03/51	
SAMPLED.....	04/21/85	03/08/85	09/17/85	09/17/85	
FORMATION.....	DEVO-ORISKANY	DEVO-CHELT & ORISKANY	DEVO-ORISKANY	DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	9800	9899	5922	5922	
WELLHEAD PRESSURE, PSIG.....	3300	1196	166	166	
OPEN FLOW, MCFD.....	2300	8245	13	13	
COMPONENT, MOLE PCT					
METHANE.....	97.8	98.0	97.1	97.1	
ETHANE.....	1.2	1.2	2.0	2.0	
PROPANE.....	0.1	0.0	0.1	0.1	
N-BUTANE.....	0.0	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	0.0	
NITROGEN.....	0.7	0.6	0.5	0.5	
OXYGEN.....	0.1	0.0	0.1	0.1	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.2	0.1	0.1	
HELIUM.....	0.03	0.03	0.02	0.02	
HEATING VALUE.....	1015	1014	1022	1022	
SPECIFIC GRAVITY.....	0.564	0.565	0.569	0.569	

INDEX 7348 SAMPLE 10371		INDEX 7349 SAMPLE 13275		INDEX 7350 SAMPLE 8224	
STATE.....	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	
COUNTY.....	CAMBRION	CAMBRION	CAMBRION	CAMBRION	
FIELD.....	DRIFTWOOD	EMPORIUM E	WHIPPOORWILL TWP.	WHIPPOORWILL TWP.	
WELL NAME.....	SAMUEL C. EATON, JR. NO. 6	WN NO. 1185	N-813 PARDEE ESTATE NO. 3	N-813 PARDEE ESTATE NO. 3	
LOCATION.....	GIBSON TWP.	SEC. H, PORTAGE QUAD.	NOT GIVEN	NOT GIVEN	
OWNER.....	CONSOLIDATED GAS SUPPLY CORP	CONSOLIDATED GAS SUPPLY CORP	NEW YORK STATE NAT. GAS CORP	NEW YORK STATE NAT. GAS CORP	
COMPLETED.....	10/13/52	10/21/71	--/--/00	--/--/00	
SAMPLED.....	01/21/66	06/20/72	10/06/61	10/06/61	
FORMATION.....	DEVO-ORISKANY	DEVO-ORISKANY	DEVO-ORISKANY	DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	5983	6554	6771	6771	
WELLHEAD PRESSURE, PSIG.....	3340	3715	3800	3800	
OPEN FLOW, MCFD.....	3449	15138	6039	6039	
COMPONENT, MOLE PCT					
METHANE.....	96.9	96.1	97.1	97.1	
ETHANE.....	2.1	2.1	2.0	2.0	
PROPANE.....	0.2	0.1	0.1	0.1	
N-BUTANE.....	TRACE	0.0	TRACE	TRACE	
ISOBUTANE.....	TRACE	0.0	0.0	0.0	
N-PENTANE.....	TRACE	0.0	0.0	0.0	
ISOPENTANE.....	TRACE	0.0	0.0	0.0	
CYCLOPENTANE.....	0.1	0.0	0.0	0.0	
HEXANES PLUS.....	0.1	0.0	0.0	0.0	
NITROGEN.....	0.4	1.6	0.5	0.5	
OXYGEN.....	0.0	0.1	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.2	0.2	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	0.1	
HELIUM.....	0.03	0.02	0.02	0.02	
HEATING VALUE.....	1033	1014	1023	1023	
SPECIFIC GRAVITY.....	0.573	0.574	0.567	0.567	

INDEX 7351 SAMPLE 17173		INDEX 7352 SAMPLE 16477		INDEX 7353 SAMPLE 4672	
STATE.....	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	
COUNTY.....	CENTRE	CENTRE	CLARION	CLARION	
FIELD.....	COUNCIL RUN	WILDCAT	APPALACHIAN	APPALACHIAN	
WELL NAME.....	COMM. OF PA. NO.1 TRACT 231	FELLEN GRIFFITH NO. 1A	FINNEFROCK NO. 3784	FINNEFROCK NO. 3784	
LOCATION.....	BOGGS TWP.	BELLFONTE QUAD., BOGGS TWP.	MONROE TWP.	MONROE TWP.	
OWNER.....	EASTERN STATES EXPL. CO.	AMOCO PRODUCTION CO.	PEOPLES NATURAL GAS CO.	PEOPLES NATURAL GAS CO.	
COMPLETED.....	02/08/84	06/27/82	05/11/48	05/11/48	
SAMPLED.....	02/08/84	03/31/82	02/08/49	02/08/49	
FORMATION.....	DEVO-ELK	SILU-TUSCARORA	DEVO	DEVO	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	4650	8136	2611	2611	
WELLHEAD PRESSURE, PSIG.....	1740	3200	810	810	
OPEN FLOW, MCFD.....	1958	1250	57	57	
COMPONENT, MOLE PCT					
METHANE.....	95.1	85.8	88.0	88.0	
ETHANE.....	2.5	2.3	6.4	6.4	
PROPANE.....	0.1	0.2	2.3	2.3	
N-BUTANE.....	0.1	0.0	0.8	0.8	
ISOBUTANE.....	TRACE	0.0	0.4	0.4	
N-PENTANE.....	0.1	0.0	0.1	0.1	
ISOPENTANE.....	0.1	0.0	0.4	0.4	
CYCLOPENTANE.....	0.1	0.0	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.0	0.0	0.0	
NITROGEN.....	1.2	11.4	1.3	1.3	
OXYGEN.....	0.1	TRACE	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	TRACE	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.1	0.1	0.1	
HELIUM.....	0.15	0.22	0.11	0.11	
HEATING VALUE.....	1038	1038	1127	1127	
SPECIFIC GRAVITY.....	0.584	0.615	0.642	0.642	

INDEX 7354 SAMPLE 10151		INDEX 7355 SAMPLE 10152		INDEX 7356 SAMPLE 10153	
STATE.....	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	
COUNTY.....	CLARION	CLARION	CLARION	CLARION	
FIELD.....	CLARION	CLARION	CLARION	CLARION	
WELL NAME.....	NO. 3653	NO. 3660	NO. 3652	NO. 3652	
LOCATION.....	HIGHLAND TWP.	HILLCREEK TWP.	HIGHLAND TWP.	HIGHLAND TWP.	
OWNER.....	UNITED NATURAL GAS CO.	UNITED NATURAL GAS CO.	UNITED NATURAL GAS CO.	UNITED NATURAL GAS CO.	
COMPLETED.....	10/31/30	10/31/24	04/09/28	04/09/28	
SAMPLED.....	09/20/65	09/20/65	09/20/65	09/20/65	
FORMATION.....	DEVO-SPEECHLEY	DEVO-TIONA	DEVO-SHEFFIELD	DEVO-SHEFFIELD	
GEOLOGIC PROVINCE CODE.....	160	160	160	160	
DEPTH, FEET.....	2109	2160	2342	2342	
WELLHEAD PRESSURE, PSIG.....	80	148	225	225	
OPEN FLOW, MCFD.....	4	4	7	7	
COMPONENT, MOLE PCT					
METHANE.....	87.0	89.0	84.4	84.4	
ETHANE.....	7.8	6.4	11.1	11.1	
PROPANE.....	2.5	1.7	2.5	2.5	
N-BUTANE.....	0.7	0.5	0.4	0.4	
ISOBUTANE.....	0.3	0.3	0.5	0.5	
N-PENTANE.....	0.1	0.1	TRACE	TRACE	
ISOPENTANE.....	0.2	0.2	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	0.1	
NITROGEN.....	1.0	1.5	0.7	0.7	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	0.1	
HELIUM.....	0.08	0.12	0.08	0.08	
HEATING VALUE.....	1138	1108	1158	1158	
SPECIFIC GRAVITY.....	0.646	0.650	0.656	0.656	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7357 10396	INDEX SAMPLE	7358 14234	INDEX SAMPLE	7359 16855
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	CLEARFIELD			CLEARFIELD		CLEARFIELD	
FIELD.....	BOONE MOUNTAIN			DECATUR		LE COMTES MILLS	
WELL NAME.....	A. J. PALUMBO NO. 3 N-684			GENERAL REFACTORIES NO. 1		COMMONWEALTH OF PA. 324 NO.1	
LOCATION.....	HUSTON TWP.			SEC. C, HOUTZDALE QUAD.		SEC. H, KNOBS QUAD.	
OWNER.....	CONSOLIDATED GAS SUPPLY CORP			TEXACO INC.		ADDORE OIL & GAS CORP.	
COMPLETED.....	12/04/58			03/30/73		01/13/83	
SAMPLED.....	02/08/66			11/19/74		04/02/83	
FORMATION.....	DEVO-ORISKANY			DEVO-ORISKANY		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	7133			7995		7210	
WELLHEAD PRESSURE, PSIG.....	3915			4250		3550	
OPEN FLOW, MCFD.....	5305			2196		5735	
COMPONENT, MOLE PCT							
METHANE.....	96.0			97.7		96.9	
ETHANE.....	1.9			1.5		2.0	
PROPANE.....	0.2			0.1		0.1	
N-BUTANE.....	0.0			0.0		TRACE	
ISOBUTANE.....	0.0			0.0		TRACE	
N-PENTANE.....	0.0			0.0		0.1	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		TRACE	
HEXANES PLUS.....	0.0			0.0		0.1	
NITROGEN.....	1.5			0.5		0.4	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.1		0.1	
HELIUM.....	0.03			0.0		0.02	
HEATING VALUE.....	1012			1019		1030	
SPECIFIC GRAVITY.....	0.576			0.565		0.571	
		INDEX SAMPLE	7360 10398	INDEX SAMPLE	7361 10296	INDEX SAMPLE	7362 10200
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	CLEARFIELD			CLEARFIELD		CLEARFIELD	
FIELD.....	LUTHERSBURG			REED-DEEMER		ROCKTON	
WELL NAME.....	MERLE MARSHALL NO. 1 N-864			FEC A NO. 86		4474	
LOCATION.....	BRADY TWP.			BELL TWP.		SHAW PROPERTY	
OWNER.....	CONSOLIDATED GAS SUPPLY CORP			KIEWIT OIL CO.		MANUFACTURERS LT. & HEAT CO.	
COMPLETED.....	10/27/62			09/15/65		09/12/57	
SAMPLED.....	02/08/66			11/26/65		10/07/55	
FORMATION.....	DEVO-ORISKANY			DEVO-		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	7344			3290		7151	
WELLHEAD PRESSURE, PSIG.....	2437			1185		480	
OPEN FLOW, MCFD.....	696			1384		117	
COMPONENT, MOLE PCT							
METHANE.....	97.1			94.1		97.0	
ETHANE.....	2.0			3.0		2.2	
PROPANE.....	0.1			0.4		0.1	
N-BUTANE.....	0.0			0.2		0.0	
ISOBUTANE.....	0.0			TRACE		0.0	
N-PENTANE.....	0.0			0.2		0.0	
ISOPENTANE.....	0.0			TRACE		0.0	
CYCLOPENTANE.....	0.0			0.3		0.0	
HEXANES PLUS.....	0.0			0.6		0.0	
NITROGEN.....	0.5			0.9		0.6	
OXYGEN.....	0.1			0.1		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.02			0.07		0.02	
HEATING VALUE.....	1022			1075		1025	
SPECIFIC GRAVITY.....	0.570			0.605		0.570	
		INDEX SAMPLE	7363 16428	INDEX SAMPLE	7364 16279	INDEX SAMPLE	7365 10123
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	CRAWFORD			CRAWFORD		CRAWFORD	
FIELD.....	ATHENS			ATHENS PROSPECT		INDIAN SPRINGS	
WELL NAME.....	HERBERT VANDERHOFF NO. 1			JAMES K. ANDERSON NO. 2		NO. 401	
LOCATION.....	ROME POOL TITUSVILLE QUAD.			ON ROUTE 167		SUMMERHILL	
OWNER.....	WAINCO OIL & GAS CO.			WAINCO OIL & GAS CO.		SYLVANIA CORP.	
COMPLETED.....	06/09/79			03/21/79		12/03/63	
SAMPLED.....	02/16/82			06/05/81		09/15/55	
FORMATION.....	SILU-MEDINA			SILU-MEDINA		SILU-MEDINA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	5200			4850		3766	
WELLHEAD PRESSURE, PSIG.....	1335			1350		1020	
OPEN FLOW, MCFD.....	3364			7898		345	
COMPONENT, MOLE PCT							
METHANE.....	93.0			93.1		87.9	
ETHANE.....	5.4			4.1		8.7	
PROPANE.....	0.5			0.4		1.3	
N-BUTANE.....	0.1			0.2		0.3	
ISOBUTANE.....	TRACE			TRACE		0.3	
N-PENTANE.....	0.1			TRACE		0.1	
ISOPENTANE.....	TRACE			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	0.7			0.7		0.9	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			TRACE		0.1	
HELIUM.....	0.07			0.08		0.16	
HEATING VALUE.....	1029			1027		1042	
SPECIFIC GRAVITY.....	0.593			0.592		0.626	
		INDEX SAMPLE	7366 11124	INDEX SAMPLE	7367 9727	INDEX SAMPLE	7368 452
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	CRAWFORD			CRAWFORD		ELK	
FIELD.....	INDIAN SPRINGS			PALMER		BEAVER MEADOW	
WELL NAME.....	STEPHEN BURNHAM NO. 3			STEPHEN SZALAY NO. 1		SHIM-GRANT NO. 2	
LOCATION.....	SPRING TWP.			CONNEAUT TWP.		4 MI. N RIDGWAY	
OWNER.....	JAMES DRILLING CORP.			FELMONT OIL CORP.		RIDGWAY LIGHT & HEAT CO.	
COMPLETED.....	07/07/56			11/05/64		-/-/15	
SAMPLED.....	09/11/67			02/08/65		09/18/20	
FORMATION.....	SILU-MEDINA			SILU-MEDINA		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3880			3740		2585	
WELLHEAD PRESSURE, PSIG.....	920			1125		120	
OPEN FLOW, MCFD.....	8			1600		350	
COMPONENT, MOLE PCT							
METHANE.....	85.8			87.6		73.9	
ETHANE.....	4.7			4.1		22.0	
PROPANE.....	1.3			1.1		---	
N-BUTANE.....	0.3			0.3		---	
ISOBUTANE.....	0.2			0.2		---	
N-PENTANE.....	0.1			TRACE		---	
ISOPENTANE.....	0.2			TRACE		---	
CYCLOPENTANE.....	TRACE			TRACE		---	
HEXANES PLUS.....	0.1			TRACE		---	
NITROGEN.....	6.5			3.3		0.0	
OXYGEN.....	0.3			TRACE		0.0	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	TRACE			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.1			TRACE		0.2	
HELIUM.....	0.16			0.16		0.00	
HEATING VALUE.....	1019			1011		1163	
SPECIFIC GRAVITY.....	0.638			0.620		0.650	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7369			INDEX 7370			INDEX 7371		
SAMPLE 453			SAMPLE 10370			SAMPLE 10397		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	ELK		ELK			ELK		
FIELD.....	BEAVER MEADOW		BENEZETTE			BOONE MOUNTAIN		
WELL NAME.....	O. B. GRANT NO. 1		PA. DEPT. F&W NO. 4 TRACT 33			LOGAN BOND NO. 1 N-507		
LOCATION.....	3 MI. N RIDGWAY		BENEZETTE TWP.			NORTON TWP.		
OWNER.....	RIDGWAY LIGHT & HEAT CO.		CONSOLIDATED GAS SUPPLY CORP			CONSOLIDATED GAS SUPPLY CORP		
COMPLETED.....	--/--/02		04/03/54			03/25/57		
SAMPLED.....	09/18/20		01/21/66			02/08/66		
FORMATION.....	NOT GIVEN		DEVO-ORISKANY			DEVO-ELK		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2100		6178			2333		
WELLHEAD PRESSURE, PSIG.....	220		350			870		
OPEN FLOW, MCFD.....	35		4845			539		
COMPONENT, MOLE PCT								
METHANE.....	88.4	---	97.2	---	---	95.4	---	---
ETHANE.....	11.0	---	2.1	---	---	3.0	---	---
PROPANE.....	---	---	0.2	---	---	0.5	---	---
N-BUTANE.....	---	---	0.0	---	---	0.1	---	---
ISOBUTANE.....	---	---	0.0	---	---	TRACE	---	---
N-PENTANE.....	---	---	0.0	---	---	TRACE	---	---
ISOPENTANE.....	---	---	0.0	---	---	TRACE	---	---
CYCLOPENTANE.....	---	---	0.0	---	---	TRACE	---	---
HEXANES PLUS.....	---	---	0.0	---	---	0.1	---	---
NITROGEN.....	0.0	---	0.5	---	---	0.4	---	---
OXYGEN.....	0.0	---	0.0	---	---	0.0	---	---
ARGON.....	---	---	0.0	---	---	TRACE	---	---
HYDROGEN.....	---	---	0.0	---	---	0.0	---	---
HYDROGEN SULFIDE.....	---	---	0.0	---	---	0.0	---	---
CARBON DIOXIDE.....	0.0	---	TRACE	---	---	0.3	---	---
HELIUM.....	0.00	---	0.03	---	---	0.09	---	---
HEATING VALUE.....	1093	---	1027	---	---	1042	---	---
SPECIFIC GRAVITY.....	0.606	---	0.569	---	---	0.562	---	---

INDEX 7372			INDEX 7373			INDEX 7374		
SAMPLE 10198			SAMPLE 10199			SAMPLE 10163		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	ELK		ELK			ELK		
FIELD.....	KANE		KANE			MILLSTONE		
WELL NAME.....	WELL NO. 1524		1370			NO. 300		
LOCATION.....	JONES TWP.		JONES TWP.			MILLSTONE TWP.		
OWNER.....	UNITED NATURAL GAS CO.		UNITED NATURAL GAS CO.			UNITED NATURAL GAS CO.		
COMPLETED.....	09/20/07		11/12/03			11/10/91		
SAMPLED.....	10/06/65		10/06/65			09/21/65		
FORMATION.....	DEVO-SPEECHLEY		DEVO-ELK			DEVO-SHEFFIELD		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1628		2360			2313		
WELLHEAD PRESSURE, PSIG.....	170		48			115		
OPEN FLOW, MCFD.....	23		7			8		
COMPONENT, MOLE PCT								
METHANE.....	87.1	---	73.6	---	---	78.2	---	---
ETHANE.....	7.4	---	13.5	---	---	13.1	---	---
PROPANE.....	2.4	---	2.4	---	---	4.8	---	---
N-BUTANE.....	0.6	---	2.1	---	---	1.1	---	---
ISOBUTANE.....	0.4	---	1.1	---	---	1.0	---	---
N-PENTANE.....	0.1	---	0.3	---	---	0.2	---	---
ISOPENTANE.....	0.2	---	0.9	---	---	0.2	---	---
CYCLOPENTANE.....	TRACE	---	0.1	---	---	TRACE	---	---
HEXANES PLUS.....	0.1	---	0.4	---	---	0.1	---	---
NITROGEN.....	1.5	---	1.3	---	---	1.1	---	---
OXYGEN.....	0.0	---	0.0	---	---	0.0	---	---
ARGON.....	0.1	---	TRACE	---	---	0.0	---	---
HYDROGEN.....	0.1	---	---	---	---	0.0	---	---
HYDROGEN SULFIDE.....	0.0	---	0.0	---	---	0.0	---	---
CARBON DIOXIDE.....	TRACE	---	0.1	---	---	0.1	---	---
HELIUM.....	0.12	---	0.12	---	---	0.06	---	---
HEATING VALUE.....	1129	---	1339	---	---	1244	---	---
SPECIFIC GRAVITY.....	0.644	---	0.775	---	---	0.714	---	---

INDEX 7375			INDEX 7376			INDEX 7377		
SAMPLE 9728			SAMPLE 10325			SAMPLE 10869		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	ERIE		ERIE			ERIE		
FIELD.....	CONNEAUT		CONNEAUT			CONNEAUT		
WELL NAME.....	KRAUSE FARM NO. 1608		CHASE WELL NO. 1613			W & K FROMBACH NO. 1		
LOCATION.....	ELK CREEK TWP.		CONNEAUT TWP.			SEC. E, GIRARD QUAD.		
OWNER.....	PENNSYLVANIA GAS CO.		PENNSYLVANIA GAS CO.			PENNSYLVANIA GAS CO.		
COMPLETED.....	02/11/65		10/13/65			04/15/65		
SAMPLED.....	02/11/65		12/13/65			02/14/67		
FORMATION.....	SILU-MEDINA		SILU-MEDINA			SILU-MEDINA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3348		3143			3127		
WELLHEAD PRESSURE, PSIG.....	930		1020			950		
OPEN FLOW, MCFD.....	499		3144			400		
COMPONENT, MOLE PCT								
METHANE.....	91.0	---	89.9	---	---	90.6	---	---
ETHANE.....	4.0	---	4.0	---	---	4.0	---	---
PROPANE.....	0.7	---	0.8	---	---	1.0	---	---
N-BUTANE.....	0.2	---	0.3	---	---	0.3	---	---
ISOBUTANE.....	0.2	---	0.1	---	---	0.1	---	---
N-PENTANE.....	TRACE	---	TRACE	---	---	0.1	---	---
ISOPENTANE.....	TRACE	---	TRACE	---	---	0.0	---	---
CYCLOPENTANE.....	TRACE	---	TRACE	---	---	TRACE	---	---
HEXANES PLUS.....	0.1	---	0.2	---	---	0.1	---	---
NITROGEN.....	3.5	---	4.2	---	---	3.7	---	---
OXYGEN.....	0.0	---	0.0	---	---	0.0	---	---
ARGON.....	TRACE	---	TRACE	---	---	TRACE	---	---
HYDROGEN.....	0.0	---	0.0	---	---	0.0	---	---
HYDROGEN SULFIDE.....	0.0	---	0.0	---	---	0.0	---	---
CARBON DIOXIDE.....	TRACE	---	0.1	---	---	TRACE	---	---
HELIUM.....	0.12	---	0.10	---	---	0.14	---	---
HEATING VALUE.....	1035	---	1035	---	---	1038	---	---
SPECIFIC GRAVITY.....	0.605	---	0.614	---	---	0.610	---	---

INDEX 7378			INDEX 7379			INDEX 7380		
SAMPLE 17469			SAMPLE 17506			SAMPLE 17661		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	ERIE		ERIE			ERIE		
FIELD.....	DRUMLIN		ERIE			ERIE		
WELL NAME.....	RUTKOWSKI NO. 2		CLIFFORD TROYER NO. 1			MITCHELL NO. 1		
LOCATION.....	SEC. 6, CAMBRIDGE SPRNGS, NE QD		SEC. 6, CAMBRIDGE SPRNGS, NE QD			SEC. 6, CAMBRIDGE SPRNGS, NE QD		
OWNER.....	VINEYARD OIL & GAS CO.		NRM PETROLEUM CORP.			NRM PETROLEUM CORP.		
COMPLETED.....	07/17/84		03/12/83			10/11/83		
SAMPLED.....	07/01/84		10/26/84			05/01/85		
FORMATION.....	DEVO-ORISKANY & SILU-SALINA		SILU-MEDINA			DEVO-ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2990		3473			2380		
WELLHEAD PRESSURE, PSIG.....	900		1075			650		
OPEN FLOW, MCFD.....	3000		2316			4108		
COMPONENT, MOLE PCT								
METHANE.....	78.7	---	90.5	---	---	78.1	---	---
ETHANE.....	12.6	---	9.2	---	---	10.2	---	---
PROPANE.....	4.3	---	0.4	---	---	4.2	---	---
N-BUTANE.....	1.1	---	0.2	---	---	1.6	---	---
ISOBUTANE.....	0.4	---	0.0	---	---	0.0	---	---
N-PENTANE.....	0.3	---	0.1	---	---	0.6	---	---
ISOPENTANE.....	0.1	---	0.0	---	---	0.0	---	---
CYCLOPENTANE.....	0.1	---	TRACE	---	---	0.2	---	---
HEXANES PLUS.....	0.2	---	0.2	---	---	0.5	---	---
NITROGEN.....	2.0	---	5.1	---	---	4.0	---	---
OXYGEN.....	TRACE	---	0.0	---	---	0.0	---	---
ARGON.....	TRACE	---	TRACE	---	---	TRACE	---	---
HYDROGEN.....	TRACE	---	0.1	---	---	0.2	---	---
HYDROGEN SULFIDE.....	0.0	---	0.0	---	---	0.0	---	---
CARBON DIOXIDE.....	TRACE	---	0.0	---	---	0.0	---	---
HELIUM.....	0.20	---	0.14	---	---	0.21	---	---
HEATING VALUE.....	1215	---	1006	---	---	1196	---	---
SPECIFIC GRAVITY.....	0.705	---	0.605	---	---	0.712	---	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7381 8474	INDEX SAMPLE	7382 8514	INDEX SAMPLE	7383 14045
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	ERIE			ERIE		ERIE	
FIELD.....	ERIE COUNTY			ERIE COUNTY		ERIE COUNTY	
WELL NAME.....	NO. 1597			ROSSITER NO. 1		MCLAUGHLIN NO. 1	
LOCATION.....	MILLER PROPERTY, ELK CR.TWP.			NOT GIVEN		MCKEAN TWP.	
OWNER.....	PENNSYLVANIA GAS CO.			PENNSYLVANIA GAS CO.		NATIONAL FUEL GAS SUP. CORP.	
COMPLETED.....	11/10/61			10/25/61		01/17/73	
SAMPLED.....	03/13/62			05/01/62		07/10/74	
FORMATION.....	SILU---			SILU---		DEVVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3427			3118		2175	
WELLHEAD PRESSURE, PSIG.....	1020			1050		808	
OPEN FLOW, MCFD.....	3000			3000		15000	
COMPONENT, MOLE PCT							
METHANE.....	90.4			90.5		77.3	
ETHANE.....	4.4			4.1		2.9	
PROPANE.....	0.8			1.0		2.4	
N-BUTANE.....	0.2			0.2		0.6	
ISOBUTANE.....	0.1			0.2		0.3	
N-PENTANE.....	0.1			TRACE		0.1	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	3.9			3.7		11.7	
OXYGEN.....	0.1			TRACE		2.1	
ARGON.....	0.0			0.0		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		0.1	
HELIUM.....	0.14			0.14		0.22	
HEATING VALUE.....	1034			1039		985	
SPECIFIC GRAVITY.....	0.611			0.610		0.688	
		INDEX SAMPLE	7384 16653	INDEX SAMPLE	7385 9907	INDEX SAMPLE	7386 10750
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	ERIE			ERIE		ERIE	
FIELD.....	ERIE COUNTY			LEXINGTON		SPRINGFIELD	
WELL NAME.....	S. H. MCGUIRE NO. 6225			CRIST NO. 1		N. MESSITT NO. 1	
LOCATION.....	GREENFIELD TWP.			CONNEAUT TWP.		CONNEAUT TWP.	
OWNER.....	NATIONAL FUEL GAS SUP. CORP.			WORLD WIDE PETROLEUM CORP.		CAYMAN CORP.	
COMPLETED.....	02/08/80			04/30/65		08/27/65	
SAMPLED.....	09/14/82			05/29/65		10/06/66	
FORMATION.....	DEVVO-ORISKANY			SILU-MEDINA		SILU-MEDINA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2382			3200		2716	
WELLHEAD PRESSURE, PSIG.....	775			1100		920	
OPEN FLOW, MCFD.....	4347			9000		3800	
COMPONENT, MOLE PCT							
METHANE.....	80.1			91.0		90.7	
ETHANE.....	11.3			4.0		3.8	
PROPANE.....	3.7			0.8		0.9	
N-BUTANE.....	0.8			0.2		0.3	
ISOBUTANE.....	0.3			0.2		0.1	
N-PENTANE.....	0.1			TRACE		0.1	
ISOPENTANE.....	0.1			TRACE		0.0	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			TRACE		0.1	
NITROGEN.....	2.9			3.5		3.9	
OXYGEN.....	0.2			0.0		0.1	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		0.0	
HELIUM.....	0.20			0.10		0.17	
HEATING VALUE.....	1165			1032		1033	
SPECIFIC GRAVITY.....	0.683			0.604		0.610	
		INDEX SAMPLE	7387 8567	INDEX SAMPLE	7388 11703	INDEX SAMPLE	7389 12214
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	FAYETTE			FAYETTE		FAYETTE	
FIELD.....	CHALK HILL			ELLISVILLE		NOT GIVEN	
WELL NAME.....	P. N. G. NO. 4271			FRANK WHITE NO. 1		RYAN NO. 2D	
LOCATION.....	STEWART TWP.			WHARTON TWP.		WHARTON TWP.	
OWNER.....	PEOPLES NATURAL GAS CO., ET			ZENITH EXPLORATION CO.		ZENITH EXPLORATION CO.	
COMPLETED.....	10/-/61			10/09/68		10/31/69	
SAMPLED.....	05/11/62			12/11/68		03/05/70	
FORMATION.....	DEVVO-CHERT & ORISKANY			DEVVO-SPEECHLEY		DEVVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	7611			2820		7657	
WELLHEAD PRESSURE, PSIG.....	3413			1100		3400	
OPEN FLOW, MCFD.....	3110			1000		2600	
COMPONENT, MOLE PCT							
METHANE.....	97.5			95.6		97.2	
ETHANE.....	1.6			2.7		1.6	
PROPANE.....	TRACE			0.1		0.1	
N-BUTANE.....	0.0			0.1		0.0	
ISOBUTANE.....	TRACE			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	TRACE			0.0		0.0	
CYCLOPENTANE.....	0.0			0.1		0.0	
HEXANES PLUS.....	0.0			0.1		0.0	
NITROGEN.....	0.5			0.5		0.7	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			TRACE		0.2	
HELIUM.....	1.10			0.10		0.03	
HEATING VALUE.....	1016			1040		1016	
SPECIFIC GRAVITY.....	0.565			0.577		0.568	
		INDEX SAMPLE	7390 10249	INDEX SAMPLE	7391 13257	INDEX SAMPLE	7392 10247
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	FAYETTE			FAYETTE		FAYETTE	
FIELD.....	OHIOPLY			SPRUILL		SUMMIT	
WELL NAME.....	B. C. & E. M. MUELLER NO. 45			E. C. & ABBEY NO. 1		W. R. BARTON NO. G-960	
LOCATION.....	HENRY CLAY TWP.			STEWART TWP.		GEORGES TWP.	
OWNER.....	MANUFACTURERS LT. & HEAT CO.			SNE & EBERLY		MANUFACTURERS LT. & HEAT CO.	
COMPLETED.....	10/23/59			12/09/71		01/27/44	
SAMPLED.....	10/20/65			05/07/72		10/20/65	
FORMATION.....	DEVVO-CHERT & ORISKANY			DEVVO-CHERT & ORISKANY		DEVVO-CHERT & ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	4490			1578		7012	
WELLHEAD PRESSURE, PSIG.....	3320			3086		492	
OPEN FLOW, MCFD.....	317000			3500		231214	
COMPONENT, MOLE PCT							
METHANE.....	97.5			97.6		97.7	
ETHANE.....	1.7			1.6		1.5	
PROPANE.....	0.1			0.1		0.1	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.6			0.4		0.6	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.1	
HELIUM.....	0.03			0.20		0.02	
HEATING VALUE.....	1021			1020		1019	
SPECIFIC GRAVITY.....	0.567			0.566		0.566	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7393 SAMPLE 10250		INDEX 7394 SAMPLE 10227		INDEX 7395 SAMPLE 10318	
STATE.....	PENNSYLVANIA	STATE.....	PENNSYLVANIA	STATE.....	PENNSYLVANIA
COUNTY.....	FAYETTE	COUNTY.....	FOREST	COUNTY.....	FOREST
FIELD.....	SUMMIT	FIELD.....	GUITONVILLE	FIELD.....	MARIENVILLE
WELL NAME.....	NO. 2346	WELL NAME.....	NO. 2346	WELL NAME.....	CROASHAN 42C
LOCATION.....	GEORGE TWP.	LOCATION.....	GREEN TWP.	LOCATION.....	5 MI. SW MARIENVILLE
OWNER.....	MANUFACTURERS LT. & HEAT CO.	OWNER.....	UNITED NATURAL GAS CO.	OWNER.....	NORTH PENN GAS CO.
COMPLETED.....	06/21/47	COMPLETED.....	10/01/06	COMPLETED.....	10/01/53
SAMPLED.....	10/20/65	SAMPLED.....	10/06/65	SAMPLED.....	10/13/65
FORMATION.....	DEVO-CHERT	FORMATION.....	DEVO-VENANGO	FORMATION.....	PENN-CLARION 3RD SAND
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	150	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	6873	DEPTH, FEET.....	947	DEPTH, FEET.....	986
WELLHEAD PRESSURE, PSIG.....	365	WELLHEAD PRESSURE, PSIG.....	14	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	121430	OPEN FLOW, MCFD.....	31	OPEN FLOW, MCFD.....	150
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.6	METHANE.....	76.2	METHANE.....	90.6
ETHANE.....	1.5	ETHANE.....	9.8	ETHANE.....	4.5
PROpane.....	0.1	PROpane.....	6.3	PROpane.....	1.3
N-BUTANE.....	0.0	N-BUTANE.....	2.7	N-BUTANE.....	0.5
ISOBUTANE.....	0.0	ISOBUTANE.....	1.5	ISOBUTANE.....	0.2
N-PENTANE.....	0.0	N-PENTANE.....	0.7	N-PENTANE.....	0.2
ISOPENTANE.....	0.0	ISOPENTANE.....	0.8	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.2
NITROGEN.....	0.7	NITROGEN.....	1.1	NITROGEN.....	2.1
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.02	HELIUM.....	0.09	HELIUM.....	0.14
HEATING VALUE.....	1018	HEATING VALUE.....	1351	HEATING VALUE.....	1083
SPECIFIC GRAVITY.....	0.567	SPECIFIC GRAVITY.....	0.779	SPECIFIC GRAVITY.....	0.621

INDEX 7396 SAMPLE 10203		INDEX 7397 SAMPLE 2490		INDEX 7398 SAMPLE 10265	
STATE.....	PENNSYLVANIA	STATE.....	PENNSYLVANIA	STATE.....	PENNSYLVANIA
COUNTY.....	QUEEN	COUNTY.....	APPALACHIAN	COUNTY.....	GREENE
FIELD.....	QUEEN	FIELD.....	APPALACHIAN	FIELD.....	CARMICHAELS
WELL NAME.....	3137	WELL NAME.....	NO. 2998	WELL NAME.....	WILLIAM FLENNIKEN NO. 3-372
LOCATION.....	HICKORY TWP.	LOCATION.....	A. S. WADE FARM, TERRY TWP.	LOCATION.....	CUMBERLAND TWP.
OWNER.....	UNITED NATURAL GAS CO.	OWNER.....	EQUITABLE GAS CO.	OWNER.....	CARNEGIE NATURAL GAS CO.
COMPLETED.....	10/22/18	COMPLETED.....	01/15/32	COMPLETED.....	05/04/22
SAMPLED.....	10/06/65	SAMPLED.....	04/08/32	SAMPLED.....	11/03/65
FORMATION.....	DEVM-QUEEN	FORMATION.....	DEVM-GANTZ	FORMATION.....	DEVO-ELIZABETH
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	1133	DEPTH, FEET.....	2966	DEPTH, FEET.....	3091
WELLHEAD PRESSURE, PSIG.....	209	WELLHEAD PRESSURE, PSIG.....	685	WELLHEAD PRESSURE, PSIG.....	16
OPEN FLOW, MCFD.....	52	OPEN FLOW, MCFD.....	6181	OPEN FLOW, MCFD.....	1
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	80.8	METHANE.....	90.5	METHANE.....	88.2
ETHANE.....	11.7	ETHANE.....	7.9	ETHANE.....	6.6
PROpane.....	3.8	PROpane.....	2.2	PROpane.....	2.2
N-BUTANE.....	0.8	N-BUTANE.....	0.7	N-BUTANE.....	0.7
ISOBUTANE.....	0.1	ISOBUTANE.....	0.4	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	1.9	NITROGEN.....	3.8	NITROGEN.....	1.1
OXYGEN.....	0.0	OXYGEN.....	0.6	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1
HELIUM.....	0.17	HELIUM.....	0.20	HELIUM.....	0.08
HEATING VALUE.....	1182	HEATING VALUE.....	1005	HEATING VALUE.....	1133
SPECIFIC GRAVITY.....	0.683	SPECIFIC GRAVITY.....	0.597	SPECIFIC GRAVITY.....	0.643

INDEX 7399 SAMPLE 10267		INDEX 7400 SAMPLE 15992		INDEX 7401 SAMPLE 10438	
STATE.....	PENNSYLVANIA	STATE.....	PENNSYLVANIA	STATE.....	PENNSYLVANIA
COUNTY.....	GREENE	COUNTY.....	GREENE	COUNTY.....	GREENE
FIELD.....	GREENE	FIELD.....	GREENE	FIELD.....	GARRISON
WELL NAME.....	THOMAS BREWER NO. 1-809	WELL NAME.....	HEADLEY NO. 5453	WELL NAME.....	F. RENNER-O. W. NO. 9332
LOCATION.....	CUMBERLAND TWP.	LOCATION.....	SEC. F, GARADS FORT QUAD.	LOCATION.....	MANNINGTON TWP.
OWNER.....	CARNEGIE NATURAL GAS CO.	OWNER.....	PEOPLES NATURAL GAS CO.	OWNER.....	BROWN & ALLEN
COMPLETED.....	12/31/38	COMPLETED.....	02/24/48	COMPLETED.....	09/24/48
SAMPLED.....	11/03/65	SAMPLED.....	06/25/80	SAMPLED.....	01/12/66
FORMATION.....	DEVO-BAYARD	FORMATION.....	MISS-BIG INJUN	FORMATION.....	MISS-MAXTON
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	3226	DEPTH, FEET.....	1590	DEPTH, FEET.....	2294
WELLHEAD PRESSURE, PSIG.....	280	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	12
OPEN FLOW, MCFD.....	12	OPEN FLOW, MCFD.....	7500	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.3	METHANE.....	88.5	METHANE.....	80.6
ETHANE.....	5.2	ETHANE.....	6.3	ETHANE.....	10.9
PROpane.....	1.1	PROpane.....	2.2	PROpane.....	3.9
N-BUTANE.....	0.2	N-BUTANE.....	0.5	N-BUTANE.....	1.3
ISOBUTANE.....	0.2	ISOBUTANE.....	0.4	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.5
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.5
NITROGEN.....	1.0	NITROGEN.....	1.4	NITROGEN.....	1.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.2
HELIUM.....	0.09	HELIUM.....	0.11	HELIUM.....	0.09
HEATING VALUE.....	1076	HEATING VALUE.....	1230	HEATING VALUE.....	1230
SPECIFIC GRAVITY.....	0.606	SPECIFIC GRAVITY.....	0.637	SPECIFIC GRAVITY.....	0.708

INDEX 7402 SAMPLE 10445		INDEX 7403 SAMPLE 10449		INDEX 7404 SAMPLE 10268	
STATE.....	PENNSYLVANIA	STATE.....	PENNSYLVANIA	STATE.....	PENNSYLVANIA
COUNTY.....	GREENE	COUNTY.....	GREENE	COUNTY.....	GREENE
FIELD.....	GARRISON	FIELD.....	GARRISON	FIELD.....	GUMP
WELL NAME.....	WELL NO. 2673 - TAYLOR	WELL NAME.....	A. H. SNYDER-O. W. NO. 5035	WELL NAME.....	C. M. DULANEY 949
LOCATION.....	MANNINGTON TWP.	LOCATION.....	MANNINGTON TWP.	LOCATION.....	WHITELEY TWP.
OWNER.....	EQUITABLE GAS CO.	OWNER.....	T. SMITH	OWNER.....	CARNEGIE NATURAL GAS CO.
COMPLETED.....	11/27/17	COMPLETED.....	12/23/54	COMPLETED.....	08/11/44
SAMPLED.....	01/12/66	SAMPLED.....	01/12/66	SAMPLED.....	11/03/65
FORMATION.....	MISS-MAXTON & BIG INJUN	FORMATION.....	DEVO-BAYARD	FORMATION.....	MISS-BIG INJUN
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2318	DEPTH, FEET.....	3645	DEPTH, FEET.....	2103
WELLHEAD PRESSURE, PSIG.....	14	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	25
OPEN FLOW, MCFD.....	1	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	8
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.7	METHANE.....	56.3	METHANE.....	87.1
ETHANE.....	14.6	ETHANE.....	21.3	ETHANE.....	5.1
PROpane.....	5.9	PROpane.....	12.5	PROpane.....	2.0
N-BUTANE.....	1.7	N-BUTANE.....	3.6	N-BUTANE.....	0.9
ISOBUTANE.....	1.4	ISOBUTANE.....	2.3	ISOBUTANE.....	0.5
N-PENTANE.....	0.4	N-PENTANE.....	0.7	N-PENTANE.....	0.4
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.9	HEXANES PLUS.....	0.5
NITROGEN.....	0.9	NITROGEN.....	0.8	NITROGEN.....	2.7
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.04	HELIUM.....	0.05	HELIUM.....	0.16
HEATING VALUE.....	1118	HEATING VALUE.....	1513	HEATING VALUE.....	1129
SPECIFIC GRAVITY.....	0.771	SPECIFIC GRAVITY.....	0.513	SPECIFIC GRAVITY.....	0.657

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7405 10439			INDEX SAMPLE	7406 10455			INDEX SAMPLE	7407 10456
STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA		
COUNTY.....	GREENE			COUNTY.....	GREENE			COUNTY.....	GREENE		
FIELD.....	JEFFERSON			FIELD.....	JEFFERSON			FIELD.....	JEFFERSON		
WELL NAME.....	R-375 - HILL			WELL NAME.....	VAN KIRK - NO. 1553			WELL NAME.....	MOLESBY - NO. 1492		
LOCATION.....	WAYNESBURG TWP.			LOCATION.....	WAYNESBURG TWP.			LOCATION.....	WAYNESBURG TWP.		
OWNER.....	EQUITABLE GAS CO.			OWNER.....	EQUITABLE GAS CO.			OWNER.....	H. D. FREELAND		
COMPLETED.....	05/21/19			COMPLETED.....	07/18/04			COMPLETED.....	10/16/02		
SAMPLED.....	01/12/66			SAMPLED.....	01/12/66			SAMPLED.....	01/12/66		
FORMATION.....	DEVO-BAYARD			FORMATION.....	DEVO-BAYARD			FORMATION.....	DEVO-ELIZABETH		
GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160		
DEPTH, FEET.....	2360			DEPTH, FEET.....	2865			DEPTH, FEET.....	3125		
WELLHEAD PRESSURE, PSIG.....	53			WELLHEAD PRESSURE, PSIG.....	94			WELLHEAD PRESSURE, PSIG.....	80		
OPEN FLOW, MCFD.....	11			OPEN FLOW, MCFD.....	9			OPEN FLOW, MCFD.....	36		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	92.3			METHANE.....	92.0			METHANE.....	90.2		
ETHANE.....	3.1			ETHANE.....	3.9			ETHANE.....	5.2		
PROPANE.....	0.5			PROPANE.....	0.7			PROPANE.....	1.5		
N-BUTANE.....	0.2			N-BUTANE.....	0.3			N-BUTANE.....	0.6		
ISOBUTANE.....	0.2			ISOBUTANE.....	0.2			ISOBUTANE.....	0.4		
N-PENTANE.....	TRACE			N-PENTANE.....	0.1			N-PENTANE.....	0.1		
ISOPENTANE.....	TRACE			ISOPENTANE.....	0.1			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.3		
NITROGEN.....	3.0			NITROGEN.....	2.2			NITROGEN.....	1.2		
OXYGEN.....	0.3			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	TRACE			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	0.0			HYDROGEN.....	TRACE			HYDROGEN.....	0.1		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.1		
HELIUM.....	0.12			HELIUM.....	0.15			HELIUM.....	0.10		
HEATING VALUE.....	1022			HEATING VALUE.....	1056			HEATING VALUE.....	1108		
SPECIFIC GRAVITY.....	0.597			SPECIFIC GRAVITY.....	0.606			SPECIFIC GRAVITY.....	0.628		
		INDEX SAMPLE	7408 10266			INDEX SAMPLE	7409 340			INDEX SAMPLE	7410 341
STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA		
COUNTY.....	GREENE			COUNTY.....	GREENE			COUNTY.....	GREENE		
FIELD.....	MCCRACKEN			FIELD.....	WAYNESBURG			FIELD.....	WAYNESBURG		
WELL NAME.....	G. E. HOUSTON NO. 186			WELL NAME.....	JOHN MILLER NO. 779			WELL NAME.....	C. L. HAYNES NO. 2203		
LOCATION.....	ALEPPO & RICHILL TWP.			LOCATION.....	FRANKLIN TWP.			LOCATION.....	3 MI. E FRANKLIN		
OWNER.....	CARNegie NATURAL GAS CO.			OWNER.....	MANUFACTURERS LT. & HEAT CO.			OWNER.....	MANUFACTURERS LT. & HEAT CO.		
COMPLETED.....	09/07/18			COMPLETED.....	06/10/20			COMPLETED.....	06/10/20		
SAMPLED.....	11/03/65			SAMPLED.....	06/10/20			SAMPLED.....	06/10/20		
FORMATION.....	DEVO-FIFTY FOOT SAND			FORMATION.....	DEVO-BAYARD			FORMATION.....	PENN-GAS		
GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160		
DEPTH, FEET.....	2578			DEPTH, FEET.....	2807			DEPTH, FEET.....	1275		
WELLHEAD PRESSURE, PSIG.....	37			WELLHEAD PRESSURE, PSIG.....	17			WELLHEAD PRESSURE, PSIG.....	18		
OPEN FLOW, MCFD.....	21			OPEN FLOW, MCFD.....	30			OPEN FLOW, MCFD.....	35		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	75.4			METHANE.....	82.8			METHANE.....	85.8		
ETHANE.....	11.1			ETHANE.....	14.4			ETHANE.....	11.3		
PROPANE.....	2.5			PROPANE.....	---			PROPANE.....	---		
N-BUTANE.....	2.3			N-BUTANE.....	---			N-BUTANE.....	---		
ISOBUTANE.....	1.2			ISOBUTANE.....	---			ISOBUTANE.....	---		
N-PENTANE.....	0.6			N-PENTANE.....	---			N-PENTANE.....	---		
ISOPENTANE.....	0.9			ISOPENTANE.....	---			ISOPENTANE.....	---		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	---			CYCLOPENTANE.....	---		
HEXANES PLUS.....	0.7			HEXANES PLUS.....	---			HEXANES PLUS.....	---		
NITROGEN.....	1.8			NITROGEN.....	1.7			NITROGEN.....	2.2		
OXYGEN.....	0.0			OXYGEN.....	0.9			OXYGEN.....	0.3		
ARGON.....	TRACE			ARGON.....	---			ARGON.....	---		
HYDROGEN.....	0.0			HYDROGEN.....	---			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.0			CARBON DIOXIDE.....	0.2		
HELIUM.....	0.10			HELIUM.....	0.10			HELIUM.....	0.13		
HEATING VALUE.....	1330			HEATING VALUE.....	1097			HEATING VALUE.....	1072		
SPECIFIC GRAVITY.....	0.775			SPECIFIC GRAVITY.....	0.637			SPECIFIC GRAVITY.....	0.622		
		INDEX SAMPLE	7411 920			INDEX SAMPLE	7412 10599			INDEX SAMPLE	7413 10390
STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA		
COUNTY.....	GREENE			COUNTY.....	GREENE			COUNTY.....	INDIANA		
FIELD.....	WAYNESBURG			FIELD.....	WAYNESBURG			FIELD.....	ARMAGH		
WELL NAME.....	NO. 2902			WELL NAME.....	O. M. NO. 10752 ALLISON			WELL NAME.....	BEULAH STILES, ET AL. NO. 1		
LOCATION.....	KORRIS TWP.			LOCATION.....	HOBBS, SW			LOCATION.....	BUFFINGTON TWP.		
OWNER.....	MANUFACTURERS LT. & HEAT CO.			OWNER.....	J. T. GALEY			OWNER.....	CONSOLIDATED GAS SUPPLY CORP		
COMPLETED.....	11/10/00			COMPLETED.....	01/12/63			COMPLETED.....	07/08/58		
SAMPLED.....	09/15/28			SAMPLED.....	05/24/66			SAMPLED.....	02/08/66		
FORMATION.....	NOT GIVEN			FORMATION.....	DEVO-BRADFORD			FORMATION.....	DEVO-CHERT & ORISKANY		
GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160		
DEPTH, FEET.....	3048			DEPTH, FEET.....	3890			DEPTH, FEET.....	8257		
WELLHEAD PRESSURE, PSIG.....	470			WELLHEAD PRESSURE, PSIG.....	1215			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		
OPEN FLOW, MCFD.....	1565			OPEN FLOW, MCFD.....	250			OPEN FLOW, MCFD.....	444		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	74.8			METHANE.....	89.5			METHANE.....	97.5		
ETHANE.....	23.4			ETHANE.....	6.6			ETHANE.....	1.7		
PROPANE.....	---			PROPANE.....	2.0			PROPANE.....	0.0		
N-BUTANE.....	---			N-BUTANE.....	0.5			N-BUTANE.....	0.0		
ISOBUTANE.....	---			ISOBUTANE.....	0.3			ISOBUTANE.....	0.0		
N-PENTANE.....	---			N-PENTANE.....	0.1			N-PENTANE.....	0.0		
ISOPENTANE.....	---			ISOPENTANE.....	0.1			ISOPENTANE.....	0.0		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.0		
HEXANES PLUS.....	---			HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.0		
NITROGEN.....	1.4			NITROGEN.....	0.5			NITROGEN.....	0.5		
OXYGEN.....	0.2			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	---			ARGON.....	TRACE			ARGON.....	0.0		
HYDROGEN.....	---			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.10			CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.3		
HELIUM.....	0.10			HELIUM.....	0.03			HELIUM.....	0.03		
HEATING VALUE.....	1177			HEATING VALUE.....	1123			HEATING VALUE.....	1018		
SPECIFIC GRAVITY.....	0.676			SPECIFIC GRAVITY.....	0.630			SPECIFIC GRAVITY.....	0.568		
		INDEX SAMPLE	7414 9833			INDEX SAMPLE	7415 8891			INDEX SAMPLE	7416 10532
STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA		
COUNTY.....	INDIANA			COUNTY.....	INDIANA			COUNTY.....	INDIANA		
FIELD.....	BIG RUN			FIELD.....	CHERRY HILL			FIELD.....	CHERRY HILL		
WELL NAME.....	H. C. BONNER NO. 1			WELL NAME.....	A. B. CRICHTON NO. 1			WELL NAME.....	O. M. GIBSON		
LOCATION.....	BANKS TWP.			LOCATION.....	NOT GIVEN			LOCATION.....	CHERRY HILL TWP.		
OWNER.....	FAIRMAN DRILLING CO.			OWNER.....	MANUFACTURERS LT. & HEAT CO.			OWNER.....	DELTA DRILLING CO.		
COMPLETED.....	10/12/64			COMPLETED.....	01/07/64			COMPLETED.....	02/24/66		
SAMPLED.....	04/01/65			SAMPLED.....	03/18/63			SAMPLED.....	04/19/66		
FORMATION.....	DEVO			FORMATION.....	DEVO-HUNTERSVILLE			FORMATION.....	DEVO-ONONDAGA		
GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160		
DEPTH, FEET.....	2465			DEPTH, FEET.....	7565			DEPTH, FEET.....	7854		
WELLHEAD PRESSURE, PSIG.....	1170			WELLHEAD PRESSURE, PSIG.....	4033			WELLHEAD PRESSURE, PSIG.....	4150		
OPEN FLOW, MCFD.....	1061			OPEN FLOW, MCFD.....	7710			OPEN FLOW, MCFD.....	2000		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	96.0			METHANE.....	97.7			METHANE.....	96.7		
ETHANE.....	2.6			ETHANE.....	1.6			ETHANE.....	1.7		
PROPANE.....	0.6			PROPANE.....	---			PROPANE.....	0.1		
N-BUTANE.....	0.2			N-BUTANE.....	TRACE			N-BUTANE.....	0.0		
ISOBUTANE.....	0.0			ISOBUTANE.....	0.0			ISOBUTANE.....	0.0		
N-PENTANE.....	0.0			N-PENTANE.....	0.0			N-PENTANE.....	0.0		
ISOPENTANE.....	0.0			ISOPENTANE.....	0.0			ISOPENTANE.....	0.0		
CYCLOPENTANE.....	0.0			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.0		
HEXANES PLUS.....	0.0			HEXANES PLUS.....	TRACE			HEXANES PLUS.....	0.0		
NITROGEN.....	0.5			NITROGEN.....	0.4			NITROGEN.....	0.1		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	0.2		
ARGON.....	TRACE			ARGON.....	0.0			ARGON.....	TRACE		
HYDROGEN.....	TRACE			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.0			CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.2		
HELIUM.....	0.07			HELIUM.....	0.02			HELIUM.....	0.02		
HEATING VALUE.....	1041			HEATING VALUE.....	1021			HEATING VALUE.....	1013		
SPECIFIC GRAVITY.....	0.578			SPECIFIC GRAVITY.....	0.567			SPECIFIC GRAVITY.....	0.571		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7417 12568	INDEX SAMPLE	7418 12251	INDEX SAMPLE	7419 12252
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	INDIANA			INDIANA		INDIANA	
FIELD.....	CREEKSIDE			CRETE		CRETE	
WELL NAME.....	INVESTMENT NO. 3			F. M. KINTER NO.2PNG NO.4596		FRED A. BOWMAN NO.1,PNG 4589	
LOCATION.....	WASHINGTON TWP.			SEC. A, CENTER TWP.		SEC. A, CENTER TWP.	
OWNER.....	PEOPLES NATURAL GAS CO.			PEOPLES NATURAL GAS CO.		PEOPLES NATURAL GAS CO.	
COMPLETED.....	07/08/70			10/08/69		08/25/69	
SAMPLED.....	11/-/70			04/05/70		04/09/70	
FORMATION.....	DEVO-BALLTOWN & BRADFORD			DEVO-BALLTOWN (B&C)		DEVO-BALLTOWN & BRADFORD	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3369			3047		3141	
WELLHEAD PRESSURE,PSIG.....	1225			520		1200	
OPEN FLOW, MCFD.....	2800			1000		6000	
COMPONENT, MOLE PCT							
METHANE.....	93.4	-----		94.5	-----	95.7	-----
ETHANE.....	3.6	-----		2.8	-----	2.8	-----
PROPANE.....	1.1	-----		0.6	-----	0.4	-----
N-BUTANE.....	0.2	-----		0.1	-----	0.0	-----
ISOBUTANE.....	0.2	-----		0.1	-----	0.0	-----
N-PENTANE.....	TRACE	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.0	-----
NITROGEN.....	1.0	-----		1.1	-----	0.9	-----
OXYGEN.....	0.0	-----		0.1	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.2	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.08	-----		TRACE	-----	TRACE	-----
HELIUM.....	0.08	-----		0.07	-----	0.08	-----
HEATING VALUE.....	1062	-----		1051	-----	1030	-----
SPECIFIC GRAVITY.....	0.596	-----		0.591	-----	0.575	-----
		INDEX SAMPLE	7420 12839	INDEX SAMPLE	7421 9774	INDEX SAMPLE	7422 10205
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	INDIANA			INDIANA		INDIANA	
FIELD.....	CLAREFIELD COAL CORP. NO. 1			M. W. SIMPSON NO. 1		JACKSONVILLE	
LOCATION.....	SEC. A, BARNESBORO QUAD.			WHITE TWP.		STEWART NO. 1, CO. NO. 4336	
OWNER.....	FELMONT OIL CORP.			PEOPLES NATURAL GAS CO.		YOUNG TWP.	
COMPLETED.....	07/29/70			12/10/69		MANUFACTURERS LT. & HEAT CO.	
SAMPLED.....	05/21/71			--/-/70		--/-/70	
FORMATION.....	DEVO-ORISKANY			DEVO-BRADFORD & BALLTOWN		DEVO-CHERT & ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	7964			3015		7384	
WELLHEAD PRESSURE,PSIG.....	4261			1300		1442	
OPEN FLOW, MCFD.....	10250			1300		40	
COMPONENT, MOLE PCT							
METHANE.....	97.3	-----		94.7	-----	97.2	-----
ETHANE.....	1.8	-----		3.1	-----	2.0	-----
PROPANE.....	0.6	-----		0.6	-----	0.2	-----
N-BUTANE.....	0.0	-----		0.2	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.1	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.1	-----	0.0	-----
ISOPENTANE.....	0.0	-----		TRACE	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.1	-----	0.0	-----
NITROGEN.....	0.6	-----		0.9	-----	0.4	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		TRACE	-----	0.2	-----
HELIUM.....	0.02	-----		0.08	-----	0.02	-----
HEATING VALUE.....	1020	-----		1050	-----	1026	-----
SPECIFIC GRAVITY.....	0.570	-----		0.587	-----	0.570	-----
		INDEX SAMPLE	7423 9776	INDEX SAMPLE	7424 8100	INDEX SAMPLE	7425 12221
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	INDIANA			INDIANA		INDIANA	
FIELD.....	LEWISVILLE			NOT GIVEN		PINETON	
LOCATION.....	J. A. DIXON NO. 3			SHUMAKER		RICHARD HANWELL NO. 1	
OWNER.....	CONEAUGH TWP.			Y. BURRELL		GREEN TWP.	
COMPLETED.....	11/25/64			JAMES DRILLING CO.		FELMONT OIL CORP.	
SAMPLED.....	06/18/61			11/19/60		12/20/69	
FORMATION.....	DEVO-BALLTOWN			06/18/61		03/05/70	
GEOLOGIC PROVINCE CODE.....	160			DEVO-BALLTOWN		DEVO-ORISKANY	
DEPTH, FEET.....	2916			160		160	
WELLHEAD PRESSURE,PSIG.....	1250			3100		8139	
OPEN FLOW, MCFD.....	407			1320		4261	
COMPONENT, MOLE PCT				850		6154	
METHANE.....	94.6	-----		92.5	-----	96.6	-----
ETHANE.....	3.0	-----		4.1	-----	1.6	-----
PROPANE.....	0.5	-----		1.2	-----	0.1	-----
N-BUTANE.....	0.3	-----		0.3	-----	0.0	-----
ISOBUTANE.....	0.2	-----		0.5	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.0	-----
NITROGEN.....	1.0	-----		0.7	-----	1.2	-----
OXYGEN.....	TRACE	-----		0.3	-----	0.2	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.1	-----	0.0	-----
HELIUM.....	0.07	-----		0.10	-----	0.02	-----
HEATING VALUE.....	1047	-----		1083	-----	1010	-----
SPECIFIC GRAVITY.....	0.587	-----		0.608	-----	0.571	-----
		INDEX SAMPLE	7426 12464	INDEX SAMPLE	7427 17433	INDEX SAMPLE	7428 12633
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	PINETON			INDIANA		INDIANA	
FIELD.....	CLAREFIELD COAL CORP. NO. 1			PINETON TWP		ROCHESTER MILLS	
LOCATION.....	FELMONT OIL CORP.			GEORGE RICKARD NO. 1		VERNER M. WACHOB NO. 2	
OWNER.....	FELMONT OIL CORP.			SEC. A, BARNESBORO QUAD, GREENE		MARCHAND TWP.	
COMPLETED.....	07/31/70			CONSOLIDATED GAS TRANS. CORP		CONSOLIDATED GAS SUPPLY CORP	
SAMPLED.....	10/19/70			09/26/82		09/11/70	
FORMATION.....	DEVO-ORISKANY			DEVO-ORISKANY		01/18/71	
GEOLOGIC PROVINCE CODE.....	160			160		DEVO-SHEFFIELD & BRADFORD	
DEPTH, FEET.....	8053			8189		160	
WELLHEAD PRESSURE,PSIG.....	4210			4310		3252	
OPEN FLOW, MCFD.....	10500			1592		986	
COMPONENT, MOLE PCT						2477	
METHANE.....	97.6	-----		97.3	-----	95.7	-----
ETHANE.....	1.7	-----		1.9	-----	1.2	-----
PROPANE.....	0.1	-----		0.1	-----	0.5	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.0	-----
NITROGEN.....	0.4	-----		0.3	-----	0.5	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.03	-----		0.1	-----	0.1	-----
HELIUM.....	0.03	-----		0.02	-----	0.07	-----
HEATING VALUE.....	1022	-----		1022	-----	1040	-----
SPECIFIC GRAVITY.....	0.566	-----		0.568	-----	0.578	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7429 12089	INDEX SAMPLE	7430 9733	INDEX SAMPLE	7431 9832
STATE	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY	JEFFERSON			JEFFERSON		JEFFERSON	
FIELD	ROCHESTER MILLS POOL			BIG RUN		BIG RUN	
WELL NAME	D. J. SWANSON NO. 2			I. B. HILLER NO. 1		ROBERT MAINE NO. 1	
LOCATION	CANO TWP.			GASKILL TWP.		GASKILL TWP.	
OWNER	CONSOLIDATED GAS SUPPLY CORP			NEW YORK STATE NAT. GAS CORP		FAIRMAN DRILLING CO.	
COMPLETED	06/24/69			12/05/64		10/31/64	
SAMPLED	10/13/69			02/11/65		04/01/65	
FORMATION	DEVO-BRADFORD			DEVO---		DEVO---	
GEOLOGIC PROVINCE CODE	160			160		160	
DEPTH, FEET	3360			2892		2500	
WELLHEAD PRESSURE, PSIG	967			1306		1300	
OPEN FLOW, MCFD	2144			3033		670	
COMPONENT, MOLE PCT							
METHANE	94.9	-----		94.4	-----	95.4	-----
ETHANE	3.0	-----		2.8	-----	2.9	-----
PROpane	0.5	-----		0.5	-----	0.4	-----
N-BUTANE	0.2	-----		0.1	-----	0.1	-----
ISOBUTANE	0.0	-----		0.1	-----	TRACE	-----
N-PENTANE	0.0	-----		0.1	-----	0.1	-----
ISOPENTANE	0.0	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE	0.0	-----		TRACE	-----	TRACE	-----
HEXANES PLUS	0.0	-----		0.2	-----	0.1	-----
NITROGEN	0.9	-----		1.4	-----	0.7	-----
OXYGEN	TRACE	-----		0.2	-----	0.0	-----
ARGON	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN	0.3	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE*	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE	TRACE	-----		0.0	-----	TRACE	-----
HELIUM	0.07	-----		0.07	-----	0.09	-----
HEATING VALUE*	1036	-----		1041	-----	1042	-----
SPECIFIC GRAVITY	0.579	-----		0.589	-----	0.580	-----
		INDEX SAMPLE	7432 10389	INDEX SAMPLE	7433 10365	INDEX SAMPLE	7434 10388
STATE	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY	JEFFERSON			JEFFERSON		JEFFERSON	
FIELD	BIG RUN			ELK RUN		ELK RUN	
WELL NAME	B. WINEBERG, ET AL. N-978			R & P COAL CO. NO. 4		R & P COAL CO. N-982	
LOCATION	GASKILL			YOUNG TWP.		YOUNG	
OWNER	CONSOLIDATED GAS SUPPLY CORP			CONSOLIDATED GAS SUPPLY CORP		CONSOLIDATED GAS SUPPLY CORP	
COMPLETED	08/12/65			11/23/65		06/20/65	
SAMPLED	02/07/66			01/14/66		02/07/66	
FORMATION	NOT GIVEN			DEVO-ORISKANY		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE	160			160		160	
DEPTH, FEET	2992			7235		1710	
WELLHEAD PRESSURE, PSIG	1081			3865		3845	
OPEN FLOW, MCFD	1887			3499		2214	
COMPONENT, MOLE PCT							
METHANE	95.0	-----		97.1	-----	96.6	-----
ETHANE	2.9	-----		2.1	-----	1.9	-----
PROpane	0.7	-----		0.0	-----	0.1	-----
N-BUTANE	0.1	-----		0.0	-----	0.0	-----
ISOBUTANE	0.1	-----		0.0	-----	0.0	-----
N-PENTANE	0.1	-----		0.0	-----	0.0	-----
ISOPENTANE	TRACE	-----		0.0	-----	0.0	-----
CYCLOPENTANE	TRACE	-----		0.0	-----	0.0	-----
HEXANES PLUS	0.2	-----		0.0	-----	0.0	-----
NITROGEN	0.7	-----		0.6	-----	1.0	-----
OXYGEN	0.0	-----		0.0	-----	0.1	-----
ARGON	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE*	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE	TRACE	-----		0.2	-----	0.2	-----
HELIUM	0.07	-----		0.02	-----	0.02	-----
HEATING VALUE*	1054	-----		1021	-----	1015	-----
SPECIFIC GRAVITY	0.587	-----		0.569	-----	0.571	-----
		INDEX SAMPLE	7435 10164	INDEX SAMPLE	7436 10165	INDEX SAMPLE	7437 12034
STATE	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY	JEFFERSON			JEFFERSON		JEFFERSON	
FIELD	MILLSTONE			MILLSTONE		ROCHESTER MILLS POOL	
WELL NAME	NO. 3538			NO. 760		L. N. BLOSE NO. 1	
LOCATION	HEATH TWP.			HEATH TWP.		YOUNG TWP.	
OWNER	UNITED NATURAL GAS CO.			UNITED NATURAL GAS CO.		CONSOLIDATED GAS SUPPLY CORP	
COMPLETED	01/24/73			05/03/07		05/14/69	
SAMPLED	09/21/65			09/21/65		09/12/69	
FORMATION	DEVO-COOPER			DEVO-HASKELL		DEVO-BRADFORD & SHEFFIELD	
GEOLOGIC PROVINCE CODE	160			160		160	
DEPTH, FEET	2165			2950		3698	
WELLHEAD PRESSURE, PSIG	245			551		1205	
OPEN FLOW, MCFD	NOT GIVEN			66		3033	
COMPONENT, MOLE PCT							
METHANE	90.4	-----		88.9	-----	94.2	-----
ETHANE	1.3	-----		1.1	-----	3.3	-----
PROpane	1.3	-----		1.5	-----	0.6	-----
N-BUTANE	0.3	-----		0.5	-----	0.1	-----
ISOBUTANE	0.1	-----		0.1	-----	0.1	-----
N-PENTANE	0.1	-----		0.1	-----	0.1	-----
ISOPENTANE	0.1	-----		0.1	-----	0.0	-----
CYCLOPENTANE	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS	0.1	-----		0.1	-----	0.1	-----
NITROGEN	0.9	-----		2.3	-----	1.1	-----
OXYGEN	0.0	-----		0.0	-----	TRACE	-----
ARGON	0.0	-----		0.0	-----	0.0	-----
HYDROGEN	0.0	-----		0.1	-----	0.2	-----
HYDROGEN SULFIDE*	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE	0.1	-----		0.1	-----	0.0	-----
HELIUM	0.07	-----		0.10	-----	0.07	-----
HEATING VALUE*	1096	-----		1083	-----	1046	-----
SPECIFIC GRAVITY	0.618	-----		0.625	-----	0.587	-----
		INDEX SAMPLE	7438 10166	INDEX SAMPLE	7439 6136	INDEX SAMPLE	7440 11688
STATE	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY	JEFFERSON			LACKAWANNA		LACKAWANNA	
FIELD	SEIGEL			NEW		NOT GIVEN	
WELL NAME	NO. 4074			RICHARDS NO. 1		WATER WELL	
LOCATION	HEATH TWP.			1.3 MI. N RANSOM, PENN		DALTON QUAD.	
OWNER	UNITED NATURAL GAS CO.			TRANSCONTINENTAL PROD. CO.		EUGENE DECKER	
COMPLETED	09/24/65			7/7/60		--/7/55	
SAMPLED	09/22/65			04/11/56		11/14/68	
FORMATION	PENN-KANE			DEVO-SHALE		DEVO-CATSKILL	
GEOLOGIC PROVINCE CODE	160			160		160	
DEPTH, FEET	2402			2814		175	
WELLHEAD PRESSURE, PSIG	253			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN			267		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	85.6	-----		91.0	-----	67.6	-----
ETHANE	9.3	-----		2.5	-----	0.0	-----
PROpane	2.4	-----		0.3	-----	0.0	-----
N-BUTANE	0.5	-----		0.0	-----	0.0	-----
ISOBUTANE	0.3	-----		0.0	-----	0.0	-----
N-PENTANE	0.1	-----		0.0	-----	0.0	-----
ISOPENTANE	0.2	-----		0.0	-----	0.0	-----
CYCLOPENTANE	TRACE	-----		0.0	-----	0.0	-----
HEXANES PLUS	0.1	-----		0.0	-----	0.0	-----
NITROGEN	1.2	-----		5.5	-----	31.6	-----
OXYGEN	0.0	-----		0.1	-----	0.1	-----
ARGON	TRACE	-----		0.1	-----	0.4	-----
HYDROGEN	0.1	-----		0.9	-----	TRACE	-----
HYDROGEN SULFIDE*	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE	0.1	-----		0.12	-----	TRACE	-----
HELIUM	0.06	-----		0.12	-----	0.25	-----
HEATING VALUE*	1411	-----		976	-----	685	-----
SPECIFIC GRAVITY	0.650	-----		0.593	-----	0.687	-----

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7441 10214	INDEX SAMPLE	7442 14424	INDEX SAMPLE	7443 10179
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	MCKEAN			MCKEAN		MCKEAN	
FIELD.....	BRADFORD			BRADFORD		CLEARMONT	
WELL NAME.....	DILLENBECK NO. 1716			AMOCO-WITCO NO. 1		NO. 3450	
LOCATION.....	ANNIN TWP.			SEC. 1, BRADFORD QUAD.		NORWICH TWP.	
OWNER.....	NORTH PENN GAS CO.			AMOCO PRODUCTION CO.		UNITED NATURAL GAS CO.	
COMPLETED.....	01/01/20			07/30/74		08/13/33	
SAMPLED.....	10/14/65			08/01/75		09/30/65	
FORMATION.....	DEVON-BRADFORD			DEVON-ONONDAGA		DEVON-MASKELL	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1465			5184		2133	
WELLHEAD PRESSURE, PSIG.....	20			2250		97	
OPEN FLOW, MCFD.....	3000			3000		14	
COMPONENT, MOLE PCT							
METHANE.....	78.7	-----		82.1	-----	92.2	-----
ETHANE.....	12.6	-----		11.7	-----	4.3	-----
PROPANE.....	8.9	-----		13.6	-----	0.7	-----
N-BUTANE.....	1.3	-----		0.8	-----	0.2	-----
ISOBUTANE.....	0.9	-----		0.6	-----	0.1	-----
N-PENTANE.....	0.3	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.3	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.3	-----		0.2	-----	0.1	-----
NITROGEN.....	0.3	-----		0.6	-----	1.8	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.2	-----		0.0	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.0	-----	TRACE	-----
HELIUM.....	0.10	-----		0.02	-----	0.21	-----
HEATING VALUE.....	1266	-----		1205	-----	1054	-----
SPECIFIC GRAVITY.....	0.713	-----		0.682	-----	0.599	-----
		INDEX SAMPLE	7444 10181	INDEX SAMPLE	7445 5	INDEX SAMPLE	7446 441
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	MCKEAN			MCKEAN		POTTER	
FIELD.....	HAYSEY			MAIN GATHERING LINE		POTTER ALLEGANY	
WELL NAME.....	1101			LIBERTY KEATING & ANNIN TWP		554 COOPER NO. 1	
LOCATION.....	SERGEANT TWP.			NOT GIVEN		2 MI. N PORT ALLEGANY	
OWNER.....	UNITED NATURAL GAS CO.			POTTER GAS CO.		POTTER GAS CO.	
COMPLETED.....	01/01/20			01/01/20		01/01/20	
SAMPLED.....	09/29/65			05/03/19		09/17/20	
FORMATION.....	DEVON-BRADFORD			DEVON-THIRD SAND		PENN-KANE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1752			NOT GIVEN		1316	
WELLHEAD PRESSURE, PSIG.....	99			100		190	
OPEN FLOW, MCFD.....	2			10000		300	
COMPONENT, MOLE PCT							
METHANE.....	77.6	-----		77.8	-----	75.2	-----
ETHANE.....	13.4	-----		18.5	-----	24.2	-----
PROPANE.....	1.6	-----		---	-----	---	-----
N-BUTANE.....	1.2	-----		---	-----	---	-----
ISOBUTANE.....	0.7	-----		---	-----	---	-----
N-PENTANE.....	0.3	-----		---	-----	---	-----
ISOPENTANE.....	0.2	-----		---	-----	---	-----
CYCLOPENTANE.....	0.1	-----		---	-----	---	-----
HEXANES PLUS.....	0.4	-----		---	-----	---	-----
NITROGEN.....	1.2	-----		5.2	-----	0.0	-----
OXYGEN.....	0.0	-----		0.5	-----	0.3	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	0.1	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.0	-----	0.2	-----
HELIUM.....	0.07	-----		TRACE	-----	0.11	-----
HEATING VALUE.....	1256	-----		1120	-----	1195	-----
SPECIFIC GRAVITY.....	0.722	-----		0.652	-----	0.677	-----
		INDEX SAMPLE	7447 442	INDEX SAMPLE	7448 10180	INDEX SAMPLE	7449 10375
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	MCKEAN			MCKEAN		POTTER	
FIELD.....	POTTER ALLEGANY			RAINEY S		BROOKLAND	
WELL NAME.....	456 GALLOUP NO. 1			1186		J. TORAK	
LOCATION.....	3 MI. N PORT ALLEGANY			SERGEANT TWP.		ULYSSES TWP. GOLD	
OWNER.....	POTTER GAS CO.			UNITED NATURAL GAS CO.		CONSOLIDATED GAS SUPPLY CORP	
COMPLETED.....	08/12/10			02/05/00		01/26/66	
SAMPLED.....	09/17/20			09/29/65		01/26/66	
FORMATION.....	PENN-KANE			PENN-KANE		DEVON-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1385			2298		6238	
WELLHEAD PRESSURE, PSIG.....	150			51		NOT GIVEN	
OPEN FLOW, MCFD.....	200			10		50	
COMPONENT, MOLE PCT							
METHANE.....	70.5	-----		64.9	-----	96.7	-----
ETHANE.....	27.1	-----		17.8	-----	1.7	-----
PROPANE.....	---	-----		19.5	-----	0.2	-----
N-BUTANE.....	---	-----		2.5	-----	0.0	-----
ISOBUTANE.....	---	-----		2.5	-----	0.0	-----
N-PENTANE.....	---	-----		2.2	-----	0.0	-----
ISOPENTANE.....	---	-----		2.4	-----	0.0	-----
CYCLOPENTANE.....	---	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	---	-----		3.4	-----	0.0	-----
NITROGEN.....	1.3	-----		0.3	-----	1.2	-----
OXYGEN.....	0.7	-----		0.0	-----	0.2	-----
ARGON.....	---	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	---	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.0	-----	TRACE	-----
HELIUM.....	0.11	-----		0.05	-----	0.04	-----
HEATING VALUE.....	1200	-----		1483	-----	1013	-----
SPECIFIC GRAVITY.....	0.699	-----		0.935	-----	0.571	-----
		INDEX SAMPLE	7450 440	INDEX SAMPLE	7451 10218	INDEX SAMPLE	7452 10316
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	FISHING CREEK			FORK E		FORK E	
WELL NAME.....	CLARK NO. 1, WELL NO. 870			COSTELLO LANDS NO. 10-1699		GERALD LOGUE	
LOCATION.....	4 MI. NW ROULETTE			4 MI. NE OF WHARTON		4 MI. SW WHARTON	
OWNER.....	POTTER GAS CO.			NORTH PENN GAS CO.		MINER ASSOC.	
COMPLETED.....	09/05/17			07/20/40		01/01/52	
SAMPLED.....	09/17/20			10/14/65		12/09/65	
FORMATION.....	NOT GIVEN			NOT GIVEN		DEVON-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1053			893		5433	
WELLHEAD PRESSURE, PSIG.....	120			170		2450	
OPEN FLOW, MCFD.....	75			12000		3000	
COMPONENT, MOLE PCT							
METHANE.....	89.3	-----		94.9	-----	95.5	-----
ETHANE.....	---	-----		5.6	-----	2.9	-----
PROPANE.....	---	-----		0.5	-----	0.5	-----
N-BUTANE.....	---	-----		0.2	-----	0.0	-----
ISOBUTANE.....	---	-----		0.0	-----	TRACE	-----
N-PENTANE.....	---	-----		0.0	-----	0.1	-----
ISOPENTANE.....	---	-----		0.0	-----	TRACE	-----
CYCLOPENTANE.....	---	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	---	-----		0.0	-----	0.1	-----
NITROGEN.....	1.2	-----		1.3	-----	0.5	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	---	-----		TRACE	-----	0.0	-----
HYDROGEN.....	---	-----		0.2	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.0	-----	0.2	-----
HELIUM.....	0.14	-----		0.10	-----	0.01	-----
HEATING VALUE.....	1071	-----		1029	-----	1045	-----
SPECIFIC GRAVITY.....	0.404	-----		0.580	-----	0.583	-----

* CALCULATED 68000 BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 * DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	7453 2570	INDEX SAMPLE	7454 10212	INDEX SAMPLE	7455 10216
STATE.....	PENNSYLVANIA		PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	POTTER		POTTER		POTTER	
FIELD.....	POTTER		ROULETTE		SHARON	
WELL NAME.....	NUGENT NO. 1		L. G. POTTER 985		RATHBURN-DONOVAN	
LOCATION.....	HEBRON TWP.		3 MI. N OF COUDERSPORT		OSWAGO TWP.	
OWNER.....	WILLIAMSPORT NATURAL GAS CO.		NORTH PENN GAS CO.		NORTH PENN GAS CO.	
COMPLETED.....	06/25/32		11/01/26		09/18/39	
SAMPLED.....	11/03/32		10/14/65		10/14/65	
FORMATION.....	DEVO-ORISKANY		DEVO-CRANDALL HILL		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	4876		975		4997	
WELLHEAD PRESSURE, PSIG.....	2160		NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	16604		21		1600	
COMPONENT, MOLE PCT						
METHANE.....	79.2		89.4		94.8	
ETHANE.....	16.8		6.8		3.8	
PROPANE.....	---		1.7		0.2	
N-BUTANE.....	---		0.3		0.1	
ISOBUTANE.....	---		0.3		---	
N-PENTANE.....	---		0.1		---	
ISOPENTANE.....	---		0.1		0.1	
CYCLOPENTANE.....	---		TRACE		TRACE	
HEXANES PLUS.....	---		0.1		TRACE	
NITROGEN.....	3.5		0.7		0.8	
OXYGEN.....	0.4		0.0		0.1	
ARGON.....	---		TRACE		TRACE	
HYDROGEN.....	---		0.10		0.0	
HYDROGEN SULFIDE**.....	---		0.0		0.0	
CARBON DIOXIDE.....	0.1		TRACE		TRACE	
HELIUM.....	TRACE		0.3		0.03	
HEATING VALUE.....	1103		1106		1041	
SPECIFIC GRAVITY.....	0.655		0.621		0.582	

	INDEX SAMPLE	7456 10317	INDEX SAMPLE	7457 14521	INDEX SAMPLE	7458 14522
STATE.....	PENNSYLVANIA		PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	POTTER		SCHUYLKILL		SCHUYLKILL	
FIELD.....	ULYSSES		ANTHRACITE COALFIELD		ANTHRACITE COALFIELD	
WELL NAME.....	POTTER, W. D.		PARKER NO. 2		PARKER NO. 2	
LOCATION.....	3 MI. SW ULYSSES		SWATARA COAL TRACT		SWATARA COAL TRACT	
OWNER.....	FAIRMAN DRILLING CO.		PARKERS SWATARA COAL CO.		PARKERS SWATARA COAL CO.	
COMPLETED.....	09/22/62		09/16/75		10/19/75	
SAMPLED.....	12/09/65		09/27/75		10/30/75	
FORMATION.....	DEVO-ORISKANY		PENN-		-COAL SEAM	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	5260		602		602	
WELLHEAD PRESSURE, PSIG.....	1300		NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	65000		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	97.0		93.7		99.0	
ETHANE.....	2.0		0.1		TRACE	
PROPANE.....	0.2		TRACE		TRACE	
N-BUTANE.....	0.0		0.0		0.0	
ISOBUTANE.....	0.0		0.0		0.0	
N-PENTANE.....	0.0		0.0		0.0	
ISOPENTANE.....	0.0		0.0		0.0	
CYCLOPENTANE.....	0.0		0.0		0.0	
HEXANES PLUS.....	0.0		0.0		0.0	
NITROGEN.....	0.7		6.0		0.9	
OXYGEN.....	0.1		0.0		0.0	
ARGON.....	TRACE		0.1		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE**.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	TRACE		0.1		0.1	
HELIUM.....	0.03		TRACE		TRACE	
HEATING VALUE.....	1024		951		1093	
SPECIFIC GRAVITY.....	0.570		0.581		0.559	

	INDEX SAMPLE	7459 14526	INDEX SAMPLE	7460 8565	INDEX SAMPLE	7461 16189
STATE.....	PENNSYLVANIA		PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	SCHUYLKILL		SOMERSET		SOMERSET	
FIELD.....	SOUTHERN ANTHRACITE		FERRINGTON		NOT GIVEN	
WELL NAME.....	PARKER NO. 2		P. N. G. NO. 4295		DALE S. BARRON NO. 1	
LOCATION.....	NEAR MINERSVILLE PA.		QUENAHONING TWP.		BAKERSVILLE QUADRANGLE	
OWNER.....	PARKERS SWATARA COAL CO.		PEOPLES NATURAL GAS CO., ET		AMOCO PRODUCTION CO.	
COMPLETED.....	---/---/00		04/17/62		03/06/79	
SAMPLED.....	11/03/75		05/11/62		02/13/80	
FORMATION.....	PENN-		DEVO---		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	602		2756		8676	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		805		3425	
OPEN FLOW, MCFD.....	NOT GIVEN		810		3500	
COMPONENT, MOLE PCT						
METHANE.....	98.7		79.6		97.3	
ETHANE.....	0.1		0.0		1.1	
PROPANE.....	TRACE		0.1		0.1	
N-BUTANE.....	0.0		0.0		0.0	
ISOBUTANE.....	0.0		0.0		0.0	
N-PENTANE.....	0.0		0.0		0.0	
ISOPENTANE.....	0.0		0.0		0.0	
CYCLOPENTANE.....	0.0		0.0		0.0	
HEXANES PLUS.....	0.0		0.0		0.0	
NITROGEN.....	1.1		18.9		NO. 1	
OXYGEN.....	0.0		0.1		0.1	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE**.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	TRACE		0.1		0.2	
HELIUM.....	TRACE		0.70		0.03	
HEATING VALUE.....	1002		816		1008	
SPECIFIC GRAVITY.....	0.559		0.633		0.567	

	INDEX SAMPLE	7462 10248	INDEX SAMPLE	7463 15816	INDEX SAMPLE	7464 11139
STATE.....	PENNSYLVANIA		PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	SOMERSET		SOMERSET		SOMERSET	
FIELD.....	OHIOPILE		SOMERSET W		WILDCAT	
WELL NAME.....	STATE GAME LAND NO. 4562		STATE ENGLEKA JR. NO. 1		A. A. DUPRE NO. 1	
LOCATION.....	LOWER TURKEYFOOT TWP.		MURDOCK QUAD.		MIDDLE CREEK TWP.	
OWNER.....	MANUFACTURERS LT. & HEAT CO.		AMOCO PRODUCTION CO.		PEOPLES NATURAL GAS CO.	
COMPLETED.....	01/25/60		11/21/57		---/---/00	
SAMPLED.....	10/20/65		10/---/79		08/25/67	
FORMATION.....	DEVO-CHERT		DEVO-ORISKANY		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	8147		9086		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	3370		1000		NOT GIVEN	
OPEN FLOW, MCFD.....	1917		500		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	96.5		98.0		97.5	
ETHANE.....	1.5		1.1		1.3	
PROPANE.....	0.1		0.1		0.1	
N-BUTANE.....	0.0		0.0		0.0	
ISOBUTANE.....	TRACE		0.0		0.0	
N-PENTANE.....	TRACE		0.0		0.0	
ISOPENTANE.....	TRACE		0.0		0.0	
CYCLOPENTANE.....	TRACE		0.0		0.0	
HEXANES PLUS.....	0.1		0.0		0.0	
NITROGEN.....	1.6		0.6		0.8	
OXYGEN.....	0.0		0.0		0.1	
ARGON.....	TRACE		0.0		0.0	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE**.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.1		0.2		0.1	
HELIUM.....	0.03		0.04		0.03	
HEATING VALUE.....	1012		1015		1014	
SPECIFIC GRAVITY.....	0.572		0.565		0.566	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7465 SAMPLE 14154			INDEX 7466 SAMPLE 2353			INDEX 7467 SAMPLE 14106		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	SOMERSET		TIOGA			VENANGO		
FIELD.....	WILDCAT		TIOGA COUNTY			BARKEYVILLE		
WELL NAME.....	R. J. LAMBERT NO. 1		PALMER NO. 1			W. F. DUNCAN NO. 1		
LOCATION.....	STOR CREEK TWP.		FARMINGTON TWP.			SEC. 4, HILLARDS QUAD.		
OWNER.....	AMOCO PRODUCTION CO.		ALLEGANY GAS CO.			PEOPLES NATURAL GAS CO.		
COMPLETED.....	09/30/73		09/10/30			04/12/73		
SAMPLED.....	08/26/74		03/01/31			07/16/74		
FORMATION.....	DEVO-ORISKANY		DEVO-ORISKANY			SILU-MEDINA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	8636		4007			6535		
WELLHEAD PRESSURE, PSIG.....	3250		1665			1638		
OPEN FLOW, MCFD.....	1500		22000			5600		
COMPONENT, MOLE PCT								
METHANE.....	98.3	-----	98.9	-----		94.1	-----	
ETHANE.....	0.9	-----	0.0	-----		2.2	-----	
PROPANE.....	0.1	-----	---	-----		0.2	-----	
N-BUTANE.....	0.0	-----	---	-----		TRACE	-----	
ISOBUTANE.....	0.0	-----	---	-----		TRACE	-----	
N-PENTANE.....	0.0	-----	---	-----		TRACE	-----	
ISOPENTANE.....	0.0	-----	---	-----		TRACE	-----	
CYCLOPENTANE.....	0.0	-----	---	-----		TRACE	-----	
HEXANES PLUS.....	0.0	-----	---	-----		TRACE	-----	
NITROGEN.....	0.5	-----	0.6	-----		3.3	-----	
OXYGEN.....	0.0	-----	0.1	-----		TRACE	-----	
ARGON.....	TRACE	-----	---	-----		TRACE	-----	
HYDROGEN.....	TRACE	-----	---	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.4	-----		TRACE	-----	
HELIUM.....	0.03	-----	0.03	-----		0.09	-----	
HEATING VALUE.....	1014	-----	1002	-----		998	-----	
SPECIFIC GRAVITY.....	0.564	-----	0.561	-----		0.580	-----	
INDEX 7468 SAMPLE 10215			INDEX 7469 SAMPLE 10122			INDEX 7470 SAMPLE 17258		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	VENANGO		VENANGO			VENANGO		
FIELD.....	CLARION-VENANGO		HAMILTON			VENANTZ CORNERS		
WELL NAME.....	SHAWKEY W. W. NO. 857		NO. 325			W. GLASS SAND CO. NO. 1-S		
LOCATION.....	12 MI. SE OF OIL CITY		PINEGROVE TWP.			CANAL TWP.		
OWNER.....	NOR. PENN. GAS CO.		UNITED NATURAL GAS CO.			CABOT OIL & GAS CORP.		
COMPLETED.....	03/01/27		04/18/92			04/16/84		
SAMPLED.....	10/13/65		09/14/65			04/16/84		
FORMATION.....	PEN-CLARION		DEVO-SPEECHLEY			SILU-MEDINA		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	885		1976			5640		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		13			1282		
OPEN FLOW, MCFD.....	NOT GIVEN		8			530		
COMPONENT, MOLE PCT								
METHANE.....	87.1	-----	60.9	-----		91.6	-----	
ETHANE.....	5.1	-----	11.7	-----		4.1	-----	
PROPANE.....	1.8	-----	11.0	-----		0.6	-----	
N-BUTANE.....	0.8	-----	3.7	-----		0.2	-----	
ISOBUTANE.....	0.6	-----	2.1	-----		TRACE	-----	
N-PENTANE.....	0.6	-----	0.9	-----		0.1	-----	
ISOPENTANE.....	0.1	-----	0.5	-----		TRACE	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	1.0	-----	0.6	-----		0.1	-----	
NITROGEN.....	0.9	-----	2.1	-----		3.1	-----	
OXYGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.3	-----		TRACE	-----	
HELIUM.....	0.10	-----	0.06	-----		0.08	-----	
HEATING VALUE.....	1183	-----	1509	-----		1033	-----	
SPECIFIC GRAVITY.....	0.671	-----	0.895	-----		0.600	-----	
INDEX 7471 SAMPLE 14835			INDEX 7472 SAMPLE 14107			INDEX 7473 SAMPLE 17838		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	VENANGO		VENANGO			WARREN		
FIELD.....	VENANGO		WESLEY			COLORADO		
WELL NAME.....	SMITH NO. 4872		TASA CORP. NO. 1			RENSA STEPHENS NO. 1		
LOCATION.....	NOT GIVEN		SEC. A, HILLIARDS QUAD.			SOUTHWEST QUAD, 41D. 40N. 79D		
OWNER.....	PEOPLES NATURAL GAS CO.		PEOPLES NATURAL GAS CO.			QUAKER STATE OIL REF. CORP.		
COMPLETED.....	10/27/76		12/15/72			02/03/84		
SAMPLED.....	10/27/76		07/16/74			09/16/85		
FORMATION.....	SILU-CLINTON & MEDINA		SILU-MEDINA			SILU-MEDINA, WHIRLPOOL		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		6350			5692		
WELLHEAD PRESSURE, PSIG.....	490		1630			1450		
OPEN FLOW, MCFD.....	250		2740			1750		
COMPONENT, MOLE PCT								
METHANE.....	91.5	-----	88.5	-----		92.2	-----	
ETHANE.....	5.1	-----	6.6	-----		3.9	-----	
PROPANE.....	0.8	-----	1.3	-----		0.5	-----	
N-BUTANE.....	0.2	-----	0.3	-----		0.0	-----	
ISOBUTANE.....	0.2	-----	0.3	-----		0.0	-----	
N-PENTANE.....	TRACE	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	TRACE	-----	0.1	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.2	-----		0.1	-----	
NITROGEN.....	0.0	-----	0.4	-----		2.7	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.1	-----	
ARGON.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	TRACE	-----		0.0	-----	
CARBON DIOXIDE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HELIUM.....	0.07	-----	0.07	-----		0.01	-----	
HEATING VALUE.....	1058	-----	1058	-----		1033	-----	
SPECIFIC GRAVITY.....	0.604	-----	0.630	-----		0.597	-----	
INDEX 7474 SAMPLE 10346			INDEX 7475 SAMPLE 15036			INDEX 7476 SAMPLE 10264		
STATE.....	PENNSYLVANIA		PENNSYLVANIA			PENNSYLVANIA		
COUNTY.....	WASHINGTON		WASHINGTON			WASHINGTON		
FIELD.....	AMITY		BELLE VERNON			LINDEN		
WELL NAME.....	W. C. MCCOLLUM NO. 166		HALLIE E. TAYLOR NO. 1			W. A. DONALDSON NO. 1-961		
LOCATION.....	SEC. 4, CALIF. QUAD.		SEC. 4, CALIF. QUAD.			N. STRABANE TWP.		
OWNER.....	CARNEGIE NATURAL GAS CO.		PEOPLES NATURAL GAS CO.			CARNEGIE NATURAL GAS CO.		
COMPLETED.....	11/15/12		10/11/76			09/12/46		
SAMPLED.....	12/25/65		12/25/77			11/04/65		
FORMATION.....	DEVO-GANTZ		DEVO-GANTZ			MISS-BIG INJUN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2599		2323			1462		
WELLHEAD PRESSURE, PSIG.....	111		900			103		
OPEN FLOW, MCFD.....	NOT GIVEN		18600			8		
COMPONENT, MOLE PCT								
METHANE.....	83.8	-----	94.1	-----		92.0	-----	
ETHANE.....	7.5	-----	2.1	-----		4.8	-----	
PROPANE.....	3.2	-----	0.2	-----		1.1	-----	
N-BUTANE.....	0.9	-----	0.1	-----		0.4	-----	
ISOBUTANE.....	0.8	-----	TRACE	-----		0.3	-----	
N-PENTANE.....	0.3	-----	0.0	-----		0.1	-----	
ISOPENTANE.....	0.2	-----	TRACE	-----		TRACE	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.2	-----	
HEXANES PLUS.....	0.4	-----	TRACE	-----		0.2	-----	
NITROGEN.....	2.5	-----	3.0	-----		0.6	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.0	-----	
ARGON.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	TRACE	-----	0.0	-----		0.2	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	TRACE	-----		0.1	-----	
HELIUM.....	0.12	-----	0.20	-----		0.07	-----	
HEATING VALUE.....	1169	-----	999	-----		1090	-----	
SPECIFIC GRAVITY.....	0.682	-----	0.578	-----		0.611	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7477 10595	INDEX SAMPLE	7478 10446	INDEX SAMPLE	7479 10447
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	WASHINGTON			WASHINGTON		WASHINGTON	
FIELD.....	NOT GIVEN			RODFIELD		RODFIELD	
WELL NAME.....	J. LEWIS			DEWILSON - F44		R. GLASS-F-47	
LOCATION.....	WAYNESBURG NW			PITTSBURGH TWP.		PITTSBURGH TWP.	
OWNER.....	EQUITABLE GAS CO.			EQUITABLE GAS CO.		EQUITABLE GAS CO.	
COMPLETED.....	03/11/66			05/09/27		05/19/27	
SAMPLED.....	05/24/66			01/21/66		01/21/66	
FORMATION.....	PENN-LITTLE DUNKARD			DEVO-FIFTY FOOT SAND		DEVO-SPEECHLEY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1342			2305		3557	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			25		105	
OPEN FLOW, MCFD.....	NOT GIVEN			3		2	
COMPONENT, MOLE PCT							
METHANE.....	77.2	-----		93.8	-----	93.6	-----
ETHANE.....	5.1	-----		2.9	-----	4.2	-----
PROPANE.....	5.1	-----		0.4	-----	0.7	-----
N-BUTANE.....	3.3	-----		0.2	-----	0.1	-----
ISOBUTANE.....	2.2	-----		0.4	-----	0.2	-----
N-PENTANE.....	1.3	-----		0.5	-----	0.1	-----
ISOPENTANE.....	0.9	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	0.3	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	1.5	-----		0.3	-----	0.1	-----
NITROGEN.....	2.6	-----		1.2	-----	0.8	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.1	-----	0.1	-----
HELIUM.....	0.02	-----		0.15	-----	0.10	-----
HEATING VALUE.....	1373	-----		1069	-----	1061	-----
SPECIFIC GRAVITY.....	0.815	-----		0.604	-----	0.595	-----
		INDEX SAMPLE	7480 10452	INDEX SAMPLE	7481 10263	INDEX SAMPLE	7482 336
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	WASHINGTON			WASHINGTON		WASHINGTON	
FIELD.....	RODFIELD			SOMERSET		WASHINGTON	
WELL NAME.....	S. YANT-F-43			D. C. MCNARY - 1 - 733		W. K. LONG NO. 2041	
LOCATION.....	PITTSBURGH TWP.			SOMERSET TWP.		8 MI. E WASHINGTON	
OWNER.....	EQUITABLE GAS CO.			WAGNETIE NATURAL GAS CO.		MANUFACTURERS LT. & HEAT CO.	
COMPLETED.....	02/17/27			10/10/27		--/-/17	
SAMPLED.....	01/21/66			11/04/65		06/09/20	
FORMATION.....	DEVO-GANTZ			DEVO-FIFTY FOOT SAND		MISS-516 INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2400			2209		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	45			19		40	
OPEN FLOW, MCFD.....	140			29		10	
COMPONENT, MOLE PCT							
METHANE.....	92.1	-----		91.5	-----	86.7	-----
ETHANE.....	4.9	-----		4.3	-----	10.9	-----
PROPANE.....	1.2	-----		1.3	-----	---	-----
N-BUTANE.....	0.2	-----		0.4	-----	---	-----
ISOBUTANE.....	0.1	-----		0.2	-----	---	-----
N-PENTANE.....	0.1	-----		0.1	-----	---	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	---	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	---	-----
HEXANES PLUS.....	0.1	-----		0.4	-----	---	-----
NITROGEN.....	0.9	-----		1.3	-----	1.8	-----
OXYGEN.....	0.0	-----		0.0	-----	0.3	-----
ARGON.....	TRACE	-----		TRACE	-----	---	-----
HYDROGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.2	-----
HELIUM.....	0.07	-----		0.09	-----	0.10	-----
HEATING VALUE.....	1071	-----		1095	-----	1074	-----
SPECIFIC GRAVITY.....	0.604	-----		0.621	-----	0.619	-----
		INDEX SAMPLE	7483 337	INDEX SAMPLE	7484 4828	INDEX SAMPLE	7485 10448
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	WASHINGTON			WASHINGTON		WASHINGTON	
FIELD.....	NOT GIVEN			WASHINGTON		ZOLLARSVILLE	
WELL NAME.....	9 1/2 BARR NO. 453			NO. L-4040		NO. 1496 - H. H. RICHARDS	
LOCATION.....	9 1/2 MI. E WASHINGTON			AMWELL TWP.		AMITY TWP.	
OWNER.....	MANUFACTURERS LT. & HEAT CO.			MANUFACTURERS LT. & HEAT CO.		G. K. GRAY & SON	
COMPLETED.....	--/-/61			10/05/49		10/28/02	
SAMPLED.....	06/09/20			12/27/49		01/20/66	
FORMATION.....	DEVO-FIFTY			NOT GIVEN		DEVO-ELIZABETH & WARREN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3100			3077		3117	
WELLHEAD PRESSURE, PSIG.....	22			590		74	
OPEN FLOW, MCFD.....	50			1739		29000	
COMPONENT, MOLE PCT							
METHANE.....	86.6	-----		89.5	-----	91.0	-----
ETHANE.....	11.5	-----		6.0	-----	5.0	-----
PROPANE.....	---	-----		1.6	-----	1.1	-----
N-BUTANE.....	---	-----		0.4	-----	0.4	-----
ISOBUTANE.....	---	-----		0.2	-----	0.3	-----
N-PENTANE.....	---	-----		TRACE	-----	0.2	-----
ISOPENTANE.....	---	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	---	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	---	-----		0.0	-----	0.3	-----
NITROGEN.....	1.3	-----		1.7	-----	1.4	-----
OXYGEN.....	0.4	-----		0.1	-----	0.1	-----
ARGON.....	---	-----		0.0	-----	TRACE	-----
HYDROGEN.....	---	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.2	-----	0.1	-----
HELIUM.....	0.10	-----		0.11	-----	0.08	-----
HEATING VALUE.....	1083	-----		1087	-----	1087	-----
SPECIFIC GRAVITY.....	0.618	-----		0.622	-----	0.619	-----
		INDEX SAMPLE	7486 10454	INDEX SAMPLE	7487 4673	INDEX SAMPLE	7488 10283
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	WASHINGTON			WESTMORELAND		WESTMORELAND	
FIELD.....	ZOLLARSVILLE			APPALACHIAN		BAGDAD	
WELL NAME.....	NO. 2887-PIPER			HICKS COAL NO. 1		J. H. BURNS NO. 860	
LOCATION.....	AMITY TWP.			BELO TWP.		LEECBURG	
OWNER.....	EQUITABLE GAS CO.			PEQUITE NATURAL GAS CO.		APOLLO GAS CO.	
COMPLETED.....	11/04/24			02/25/43		04/28/48	
SAMPLED.....	01/20/66			02/08/49		11/03/65	
FORMATION.....	DEVO-FIFTY FOOT & BAYARD			---		DEVO-SPEECHLEY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2754			3455		2741	
WELLHEAD PRESSURE, PSIG.....	41			85		210	
OPEN FLOW, MCFD.....	26			368		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	92.2	-----		93.9	-----	92.3	-----
ETHANE.....	4.7	-----		3.4	-----	4.9	-----
PROPANE.....	0.8	-----		0.7	-----	1.2	-----
N-BUTANE.....	0.3	-----		0.2	-----	0.3	-----
ISOBUTANE.....	0.3	-----		0.1	-----	0.1	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.0	-----	0.1	-----
NITROGEN.....	1.2	-----		1.0	-----	0.8	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.0	-----	0.0	-----
HELIUM.....	0.09	-----		0.10	-----	0.11	-----
HEATING VALUE.....	1073	-----		1051	-----	1081	-----
SPECIFIC GRAVITY.....	0.607	-----		0.591	-----	0.606	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7489 9908	INDEX SAMPLE	7490 9079	INDEX SAMPLE	7491 9729
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	WESTMORELAND			WESTMORELAND		WESTMORELAND	
FIELD.....	BLAIR			BLAIRSVILLE		CRABTREE	
WELL NAME.....	PNG NO. 4441-J.S. BLAIR NO.4			NOT GIVEN		L. B. HUFF NO. 8 PNG 4442	
LOCATION.....	COOK TWP.			DERBY		UNITY TWP.	
OWNER.....	PEOPLES NATURAL GAS CO.			PEOPLES NATURAL GAS CO.		PEOPLES NATURAL GAS CO.	
COMPLETED.....	03/24/65			03/28/63		12/12/64	
SAMPLED.....	-7/00			09/04/63		-7/-/00	
FORMATION.....	DEVO-ORISKANY			DEVO-CHERT & ORISKANY		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	8442			7764		7745	
WELLHEAD PRESSURE, PSIG.....	2755			4133		3655	
OPEN FLOW, MCFD.....	11000			6300		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	97.7			97.8		96.6	
ETHANE.....	1.4			1.5		1.9	
PROPANE.....	0.0			0.1		0.3	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.7			0.3		0.5	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.7	
HELIUM.....	0.04			0.02		0.02	
HEATING VALUE.....	1015			1020		1020	
SPECIFIC GRAVITY.....	0.565			0.565		0.576	
		INDEX	7492	INDEX	7493	INDEX	7494
		SAMPLE	10609	SAMPLE	4767	SAMPLE	5239
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	WESTMORELAND			WESTMORELAND		WESTMORELAND	
FIELD.....	FOY-COEN-SLOAN			NOT GIVEN		FRED MUSNUG	
WELL NAME.....	O.W. NO.10897 DUQUESNE GAS 1			WILLIAM PIPER NO. 1		FRED MUSNUG NO. 1-3921	
LOCATION.....	GREENSBURG NW			UNITY TWP.		UNITY TWP.	
OWNER.....	PEOPLES NATURAL GAS CO.			PEOPLES NATURAL GAS CO.		PEOPLES NATURAL GAS CO.	
COMPLETED.....	08/17/65			08/17/49		06/30/51	
SAMPLED.....	05/25/66			10/27/49		04/25/52	
FORMATION.....	DEVO-CHERT & ORISKANY			DEVO-ONONDAGA		DEVO-ONONDAGA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	7490			8158		8004	
WELLHEAD PRESSURE, PSIG.....	3832			3875		3675	
OPEN FLOW, MCFD.....	1200			243		7194	
COMPONENT, MOLE PCT							
METHANE.....	96.6			96.2		97.1	
ETHANE.....	0.5			0.2		1.7	
PROPANE.....	0.2			0.4		0.1	
N-BUTANE.....	0.0			0.1		0.0	
ISOBUTANE.....	0.0			TRACE		0.0	
N-PENTANE.....	0.0			0.0		0.1	
ISOPENTANE.....	0.0			0.1		0.0	
CYCLOPENTANE.....	0.0			TRACE		TRACE	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.6			0.0		0.7	
OXYGEN.....	0.0			0.1		TRACE	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			TRACE		TRACE	
HYDROGEN SULFIDE**.....	0.0			---		---	
CARBON DIOXIDE.....	0.1			0.1		0.3	
HELIUM.....	0.02			0.03		0.03	
HEATING VALUE.....	1029			1033		1021	
SPECIFIC GRAVITY.....	0.572			0.577		0.572	
		INDEX	7495	INDEX	7496	INDEX	7497
		SAMPLE	9731	SAMPLE	9778	SAMPLE	17525
STATE.....	PENNSYLVANIA			PENNSYLVANIA		PENNSYLVANIA	
COUNTY.....	WESTMORELAND			WESTMORELAND		WESTMORELAND	
FIELD.....	SALTSBURG			SALTSBURG W		SEVEN SPRINGS	
WELL NAME.....	W. RUMMOND NO.2 PNG 4426			E. RUMMOND NO. 1		LEANOR G. MORRIS NO. 1	
LOCATION.....	LOYALHANNA TWP.			BELL TWP.		DONEGAL TOWNSHIP	
OWNER.....	PEOPLES NATURAL GAS CO.			PEOPLES NATURAL GAS CO.		PEOPLES NATURAL GAS CO.	
COMPLETED.....	10/15/60			11/27/66		08/03/82	
SAMPLED.....	-7/00			-7/00		-7/-/00	
FORMATION.....	DEVO-BRADFORD			DEVO-BALLTOWN		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3488			3540		7658	
WELLHEAD PRESSURE, PSIG.....	1190			1200		2240	
OPEN FLOW, MCFD.....	327			570		4000	
COMPONENT, MOLE PCT							
METHANE.....	95.5			93.4		97.5	
ETHANE.....	2.4			3.2		1.6	
PROPANE.....	0.2			0.8		0.1	
N-BUTANE.....	0.0			0.3		0.0	
ISOBUTANE.....	0.0			0.3		0.0	
N-PENTANE.....	0.0			0.1		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			TRACE		0.0	
HEXANES PLUS.....	0.0			0.2		0.0	
NITROGEN.....	1.5			1.4		0.6	
OXYGEN.....	0.3			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			TRACE		0.0	
CARBON DIOXIDE.....	0.09			0.11		0.1	
HELIUM.....	1016			1063		0.03	
HEATING VALUE.....	0.576			0.601		1019	
SPECIFIC GRAVITY.....						0.566	
		INDEX	7498	INDEX	7499	INDEX	7500
		SAMPLE	12047	SAMPLE	17526	SAMPLE	17291
STATE.....	PENNSYLVANIA			PENNSYLVANIA		SOUTH DAKOTA	
COUNTY.....	WESTMORELAND			WESTMORELAND		HARDING	
FIELD.....	WILDCAT			WILPEN		CADY CREEK	
WELL NAME.....	E. D. EVANS NO. 1			ARNOLD F. FREDERICK NO. 1		HARRISON-BECK NO. 2-9	
LOCATION.....	E. HUNTINGTON TWP.			LIGORIER		SEC. 9, T15N, R3E	
OWNER.....	SNEE & EBERLY, ET AL.			PEOPLES NATURAL GAS CO.		SAM G. HARRISON	
COMPLETED.....	08/20/69			02/22/82		06/-/793	
SAMPLED.....	09/15/69			-7/00		05/15/84	
FORMATION.....	MISS-MURRYSVILLE			DEVO-BALLTOWN & BRADFORD		CRET-SHANNON	
GEOLOGIC PROVINCE CODE.....	160			160		395	
DEPTH, FEET.....	2183			3923		1121	
WELLHEAD PRESSURE, PSIG.....	601			1300		185	
OPEN FLOW, MCFD.....	13000			411		84	
COMPONENT, MOLE PCT							
METHANE.....	93.7			94.9		92.5	
ETHANE.....	2.8			2.3		0.2	
PROPANE.....	0.7			0.1		TRACE	
N-BUTANE.....	0.2			0.1		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.1			TRACE		0.0	
ISOPENTANE.....	0.0			TRACE		0.0	
CYCLOPENTANE.....	TRACE			TRACE		0.0	
HEXANES PLUS.....	0.1			0.1		0.0	
NITROGEN.....	1.7			1.8		7.1	
ARGON.....	0.0			0.3		TRACE	
OXYGEN.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.3			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.15			0.10		0.02	
HEATING VALUE.....	1035			1014		941	
SPECIFIC GRAVITY.....	0.589			0.579		0.585	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7501 17298	INDEX SAMPLE	7502 17299	INDEX SAMPLE	7503 16988
STATE.....	SOUTH DAKOTA			SOUTH DAKOTA		TENNESSEE	
COUNTY.....	HARDING			HARDING		CAMPBELL	
FIELD.....	SHORT PINE HILLS W			SHORT PINE HILLS W		WILDCAT	
WELL NAME.....	FED. NO. 1-29			STATE NO. 2-5		KOPPERS NO. 8	
LOCATION.....	SEC. 29, T16N, R2E			SEC. 5, T16N, R2E		SEC. 9, T2S, R63E	
OWNER.....	SAM. C. HARRISON			JERRY MCCUTCHIN, JR.		PETROLEUM DEVELOPMENT CORP.	
COMPLETED.....	10/15/82			08/17/81		05/15/81	
SAMPLED.....	05/21/84			05/-/84		07/19/83	
FORMATION.....	CRET-SHANNON			CRET-SHANNON		MISS-MONTEAGLE	
GEOLOGIC PROVINCE CODE.....	395			395		160	
DEPTH, FEET.....	1246			1725		2265	
WELLHEAD PRESSURE, PSIG.....	220			225		120	
OPEN FLOW, MCFD.....	400			500		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	93.3			92.7		93.3	
ETHANE.....	0.2			0.2		0.2	
PROPANE.....	TRACE			TRACE		0.5	
N-BUTANE.....	0.0			0.0		0.2	
ISOBUTANE.....	0.0			0.0		0.1	
N-PENTANE.....	0.0			0.0		0.1	
ISOPENTANE.....	0.0			0.0		0.1	
CYCLOPENTANE.....	0.0			0.0		0.1	
HEXANES PLUS.....	0.0			0.0		0.1	
NITROGEN.....	6.3			6.9		2.5	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		9.4	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		TRACE	
HELIUM.....	0.02			0.02		1026	
HEATING VALUE.....	949			943		0.26	
SPECIFIC GRAVITY.....	0.582			0.584		0.591	
		INDEX SAMPLE	7504 17611	INDEX SAMPLE	7505 16485	INDEX SAMPLE	7506 17250
STATE.....	TENNESSEE			TENNESSEE		TENNESSEE	
COUNTY.....	CLAIBORNE			CLAIBORNE		FENTRESS	
FIELD.....	BUFFALO CREEK			WILDCAT		WILDCAT	
WELL NAME.....	SMITH-TEAGUE, ET AL NO. 1			J. HUBER CORP. AT NO. 2		PLATEAU PROPERTIES NO. 3	
LOCATION.....	SEC. 4, TAN, R67E			ROCKCREEK		SEC. 22, T3S, R55E	
OWNER.....	WISER OIL CO.			ALLEGHENY LAND & MINERAL CO.		CATAOUSA EXPLORATION CORP.	
COMPLETED.....	09/23/83			10/23/80		03/-/82	
SAMPLED.....	03/06/85			03/12/82		04/11/84	
FORMATION.....	MISS-MONTEAGLE			MISS-BIG LIME		MISS-FORT PAYNE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1836			2265		1297	
WELLHEAD PRESSURE, PSIG.....	721			NOT GIVEN		10	
OPEN FLOW, MCFD.....	523000			122		2	
COMPONENT, MOLE PCT							
METHANE.....	78.6			70.5		82.2	
ETHANE.....	10.5			8.3		7.1	
PROPANE.....	4.1			2.7		2.3	
N-BUTANE.....	1.1			0.6		0.7	
ISOBUTANE.....	0.4			0.2		0.3	
N-PENTANE.....	0.2			0.1		0.2	
ISOPENTANE.....	0.2			TRACE		0.1	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	4.2			15.9		5.3	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.4			0.2		1.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			1.4		TRACE	
HELIUM.....	0.10			0.09		0.34	
HEATING VALUE.....	1169			970		1079	
SPECIFIC GRAVITY.....	0.698			0.717		0.652	
		INDEX SAMPLE	7507 16523	INDEX SAMPLE	7508 17466	INDEX SAMPLE	7509 17840
STATE.....	TENNESSEE			TENNESSEE		TENNESSEE	
COUNTY.....	MORGAN			MORGAN		OVERTON	
FIELD.....	NOT GIVEN			PLEASANT RIDGE		FLAT ROCK	
WELL NAME.....	LEE GRIFFITH NO. 2			BROWN-PEMBERTON NO. 1		K & M POSTON NO. 1	
LOCATION.....	SEC. 21, T4S, R59E			SEC. 12, T3S, R58E		SEC. 21, T2S, R50E	
OWNER.....	TARTAN OIL CO.			B-J INC		POSTON & POSTON DRILLING CO.	
COMPLETED.....	10/07/81			10/05/81		-/-/80	
SAMPLED.....	04/22/82			10/01/84		09/25/85	
FORMATION.....	MISS-MONTEAGLE			MISS-MONTEAGLE		ORDO-SUNNYBROOK	
GEOLOGIC PROVINCE CODE.....	160			160		300	
DEPTH, FEET.....	1532			1220		800	
WELLHEAD PRESSURE, PSIG.....	530			285		NOT GIVEN	
OPEN FLOW, MCFD.....	850			442		50	
COMPONENT, MOLE PCT							
METHANE.....	79.2			73.8		79.6	
ETHANE.....	11.1			5.2		11.1	
PROPANE.....	4.2			1.9		4.1	
N-BUTANE.....	1.0			0.6		1.0	
ISOBUTANE.....	0.4			0.6		0.2	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.2			0.5		0.1	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.1			0.3		0.1	
NITROGEN.....	2.2			2.9		3.0	
OXYGEN.....	0.0			TRACE		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		0.1	
HELIUM.....	0.13			3.7		0.13	
HEATING VALUE.....	1187			1275		1174	
SPECIFIC GRAVITY.....	0.689			0.750		0.691	
		INDEX SAMPLE	7510 17837	INDEX SAMPLE	7511 17485	INDEX SAMPLE	7512 17659
STATE.....	TENNESSEE			TENNESSEE		TENNESSEE	
COUNTY.....	OVERTON			OVERTON		SCOTT	
FIELD.....	LIVINGSTON QUAD			WILDCAT		REUBEN HOLLOW	
WELL NAME.....	HOLMAN NO. 3-A			W. CROUCH NO. 1		LUTHE NO. 1	
LOCATION.....	SEC. 16, T1S, R51E			SEC. 11, A-S3E		SEC. 4, T3S, R60E	
OWNER.....	POSTON & POSTON DRILLING CO.			MILLER CONTRACT DRILG., INC.		BRADY ENERGY CORP.	
COMPLETED.....	09/-/84			-/-/84		03/02/81	
SAMPLED.....	09/-/85			10/05/84		05/03/85	
FORMATION.....	ORDO-TRENTON			ORDO-STONES RIVER		MISS-MONTEAGLE	
GEOLOGIC PROVINCE CODE.....	300			300		160	
DEPTH, FEET.....	400			1000		1549	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			100		50	
OPEN FLOW, MCFD.....	NOT GIVEN			200		30	
COMPONENT, MOLE PCT							
METHANE.....	69.2			79.5		68.1	
ETHANE.....	8.3			11.3		15.1	
PROPANE.....	4.2			3.4		8.8	
N-BUTANE.....	0.6			0.8		2.3	
ISOBUTANE.....	0.6			0.3		0.7	
N-PENTANE.....	0.5			0.2		0.5	
ISOPENTANE.....	0.3			1.2		0.3	
CYCLOPENTANE.....	0.2			TRACE		0.1	
HEXANES PLUS.....	0.5			0.1		0.2	
NITROGEN.....	12.1			3.7		3.1	
OXYGEN.....	0.1			0.2		0.1	
ARGON.....	0.1			TRACE		0.0	
HYDROGEN.....	0.1			0.1		0.5	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		0.1	
HELIUM.....	0.17			0.14		0.19	
HEATING VALUE.....	1105			1310		1310	
SPECIFIC GRAVITY.....	0.764			0.688		0.797	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7513 SAMPLE 16430		INDEX 7514 SAMPLE 16898		INDEX 7515 SAMPLE 12520	
STATE.....	TENNESSEE	STATE.....	TENNESSEE	STATE.....	TEXAS
COUNTY.....	SCOTT	COUNTY.....	SCOTT	COUNTY.....	ANDERSON
FIELD.....	WILCAT	FIELD.....	WILCAT	FIELD.....	BETHEL
WELL NAME.....	STONECIPHER, ET AL. NO. 2	WELL NAME.....	S. RR-COMEN NO. 1	WELL NAME.....	CUMMINGS GAS UNIT O/A NO. 1
LOCATION.....	SEC. 25, T3S, R60E	LOCATION.....	SEC. 20, T2S, R61E	LOCATION.....	NOT GIVEN
OWNER.....	PETROLEUM DEVELOPMENT CORP.	OWNER.....	TENNESSEE LAND & EXPL. CO.	OWNER.....	TEXACO INC.
COMPLETED.....	08/08/80	COMPLETED.....	08/01/79	COMPLETED.....	07/30/58
SAMPLED.....	02/17/82	SAMPLED.....	04/19/83	SAMPLED.....	11/04/70
FORMATION.....	MISS-FORT PAYNE	FORMATION.....	MISS-MONTEAGLE	FORMATION.....	CRET-RODESSA
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	2058	DEPTH, FEET.....	1730	DEPTH, FEET.....	8232
WELLHEAD PRESSURE, PSIG.....	920	WELLHEAD PRESSURE, PSIG.....	500	WELLHEAD PRESSURE, PSIG.....	2300
OPEN FLOW, MCFD.....	280	OPEN FLOW, MCFD.....	4000	OPEN FLOW, MCFD.....	18500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	79.3	METHANE.....	79.4	METHANE.....	85.0
ETHANE.....	11.1	ETHANE.....	9.3	ETHANE.....	6.8
PROPANE.....	3.7	PROPANE.....	3.0	PROPANE.....	2.8
N-BUTANE.....	0.9	N-BUTANE.....	1.0	N-BUTANE.....	0.8
ISOBUTANE.....	0.2	ISOBUTANE.....	0.3	ISOBUTANE.....	0.9
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	3.9	NITROGEN.....	4.7	NITROGEN.....	0.2
OXYGEN.....	0.1	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.2	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	2.4
HELIUM.....	0.16	HELIUM.....	0.35	HELIUM.....	TRACE
HEATING VALUE.....	1158	HEATING VALUE.....	1137	HEATING VALUE.....	1168
SPECIFIC GRAVITY.....	0.689	SPECIFIC GRAVITY.....	0.685	SPECIFIC GRAVITY.....	0.692
INDEX 7516 SAMPLE 12521		INDEX 7517 SAMPLE 12518		INDEX 7518 SAMPLE 12522	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ANDERSON	COUNTY.....	ANDERSON	COUNTY.....	ANDERSON
FIELD.....	BETHEL	FIELD.....	BETHEL DOME E	FIELD.....	BETHEL DOME E
WELL NAME.....	WATSON G.U. NO. 1-L	WELL NAME.....	DERDIN GAS UNIT O/A NO. 1-U	WELL NAME.....	DERDIN GAS UNIT O/A NO. 1-L
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN
OWNER.....	TEXACO INC.	OWNER.....	TEXACO INC.	OWNER.....	TEXACO INC.
COMPLETED.....	07/28/56	COMPLETED.....	12/28/56	COMPLETED.....	10/-/63
SAMPLED.....	11/04/70	SAMPLED.....	11/04/70	SAMPLED.....	11/04/70
FORMATION.....	CRET-PETTIT	FORMATION.....	CRET-RODESSA	FORMATION.....	CRET-PETTIT
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	8814	DEPTH, FEET.....	8190	DEPTH, FEET.....	8670
WELLHEAD PRESSURE, PSIG.....	1050	WELLHEAD PRESSURE, PSIG.....	1800	WELLHEAD PRESSURE, PSIG.....	1600
OPEN FLOW, MCFD.....	4400	OPEN FLOW, MCFD.....	2100	OPEN FLOW, MCFD.....	2600
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	94.9	METHANE.....	94.4	METHANE.....	95.2
ETHANE.....	2.2	ETHANE.....	2.3	ETHANE.....	2.0
PROPANE.....	0.6	PROPANE.....	0.6	PROPANE.....	0.6
N-BUTANE.....	0.1	N-BUTANE.....	0.2	N-BUTANE.....	0.1
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	0.3
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	0.6	NITROGEN.....	0.7	NITROGEN.....	0.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	0.9
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1039	HEATING VALUE.....	1041	HEATING VALUE.....	1035
SPECIFIC GRAVITY.....	0.592	SPECIFIC GRAVITY.....	0.597	SPECIFIC GRAVITY.....	0.569
INDEX 7519 SAMPLE 9981		INDEX 7520 SAMPLE 9982		INDEX 7521 SAMPLE 12474	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ANDERSON	COUNTY.....	ANDERSON	COUNTY.....	ANDERSON
FIELD.....	CAYUGA	FIELD.....	CAYUGA	FIELD.....	CAYUGA
WELL NAME.....	J. A. CAMPBELL 1-D	WELL NAME.....	J. A. CAMPBELL 1-D	WELL NAME.....	H. R. RAMPY NO. 1-D
LOCATION.....	JAMES WILSON SUR. A-793	LOCATION.....	JAMES WILSON SUR. A-793	LOCATION.....	JAMES WILSON SUR.
OWNER.....	TIDEWATER OIL CO.	OWNER.....	TIDEWATER OIL CO.	OWNER.....	GETTY OIL CO.
COMPLETED.....	10/26/64	COMPLETED.....	10/26/64	COMPLETED.....	04/01/65
SAMPLED.....	07/17/65	SAMPLED.....	07/17/65	SAMPLED.....	10/21/70
FORMATION.....	CRET-PETTIT	FORMATION.....	CRET-TRINITY & RODESSA	FORMATION.....	CRET-PETTIT
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	7878	DEPTH, FEET.....	7232	DEPTH, FEET.....	7852
WELLHEAD PRESSURE, PSIG.....	7090	WELLHEAD PRESSURE, PSIG.....	671	WELLHEAD PRESSURE, PSIG.....	745
OPEN FLOW, MCFD.....	11700	OPEN FLOW, MCFD.....	455	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.6	METHANE.....	84.8	METHANE.....	86.4
ETHANE.....	6.6	ETHANE.....	6.5	ETHANE.....	6.5
PROPANE.....	2.4	PROPANE.....	2.8	PROPANE.....	2.6
N-BUTANE.....	0.7	N-BUTANE.....	1.1	N-BUTANE.....	0.7
ISOBUTANE.....	0.3	ISOBUTANE.....	1.0	ISOBUTANE.....	0.8
N-PENTANE.....	0.2	N-PENTANE.....	0.5	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.9	HEXANES PLUS.....	0.5
NITROGEN.....	1.3	NITROGEN.....	0.8	NITROGEN.....	1.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	0.8
HELIUM.....	0.02	HELIUM.....	0.01	HELIUM.....	0.02
HEATING VALUE.....	1136	HEATING VALUE.....	1203	HEATING VALUE.....	1156
SPECIFIC GRAVITY.....	0.661	SPECIFIC GRAVITY.....	0.701	SPECIFIC GRAVITY.....	0.670
INDEX 7522 SAMPLE 12475		INDEX 7523 SAMPLE 10070		INDEX 7524 SAMPLE 16634	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ANDERSON	COUNTY.....	ANDERSON	COUNTY.....	ANDERSON
FIELD.....	CAYUGA	FIELD.....	CAYUGA	FIELD.....	HOLLY SPRINGS
WELL NAME.....	H. R. RAMPY NO. 1-D	WELL NAME.....	ELKHART DOME GAS UNIT NO. 11	WELL NAME.....	STAFFORD NO. 1-A
LOCATION.....	JAMES WILSON SUR.	LOCATION.....	ELKHART	LOCATION.....	POLLY SCRITCHFIELD, A-61
OWNER.....	GETTY OIL CO.	OWNER.....	GETTY OIL & REFINING CO.	OWNER.....	ENERGY SOURCES, INC.
COMPLETED.....	08/09/54	COMPLETED.....	08/18/65	COMPLETED.....	10/16/81
SAMPLED.....	10/21/70	SAMPLED.....	08/18/65	SAMPLED.....	09/-/82
FORMATION.....	CRET-TRINITY	FORMATION.....	CRET-PETTIT	FORMATION.....	CRET-RODESSA
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	7370	DEPTH, FEET.....	9917	DEPTH, FEET.....	8906
WELLHEAD PRESSURE, PSIG.....	923	WELLHEAD PRESSURE, PSIG.....	3428	WELLHEAD PRESSURE, PSIG.....	3579
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	1785	OPEN FLOW, MCFD.....	2100
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	84.2	METHANE.....	93.6	METHANE.....	84.5
ETHANE.....	7.0	ETHANE.....	7.2	ETHANE.....	5.6
PROPANE.....	2.5	PROPANE.....	0.7	PROPANE.....	2.3
N-BUTANE.....	0.9	N-BUTANE.....	0.3	N-BUTANE.....	0.6
ISOBUTANE.....	1.2	ISOBUTANE.....	0.3	ISOBUTANE.....	1.2
N-PENTANE.....	0.4	N-PENTANE.....	0.2	N-PENTANE.....	0.6
ISOPENTANE.....	0.3	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.5
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	1.9
NITROGEN.....	1.5	NITROGEN.....	0.5	NITROGEN.....	0.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.3	CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	1.8
HELIUM.....	0.02	HELIUM.....	0.01	HELIUM.....	0.02
HEATING VALUE.....	1168	HEATING VALUE.....	1059	HEATING VALUE.....	1219
SPECIFIC GRAVITY.....	0.689	SPECIFIC GRAVITY.....	0.615	SPECIFIC GRAVITY.....	0.719

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7525 SAMPLE 5147			INDEX 7526 SAMPLE 4754			INDEX 7527 SAMPLE 9684		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	ANDERSON		ANDERSON			ANDERSON		
FIELD.....	ISAAC LINDSEY		LONG LAKE			LONG LAKE		
WELL NAME.....	C. W. HANKS NO. L		J. O. MONNIG NO. 7			J. O. MONNIG NO. 1-D-UT		
LOCATION.....	ISAAC LINDSEY SUR.		SIMON SANCHEZ SUR. NO. 2-10			S. SANCHEZ SUR. A-60, NO. 1-11		
OWNER.....	TEXAS O.		TIDEWATER ASSOC.-SEABOARD			TIDEWATER OIL & TEXACO INC.		
COMPLETED.....	08/28/51		12/24/48			11/02/64		
SAMPLED.....	01/18/52		05/31/49			01/07/65		
FORMATION.....	CRET-JAMES		CRET-RODESSA			CRET-RODESSA		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	10094		8834			8725		
WELLHEAD PRESSURE, PSIG.....	5250		1350			3749		
OPEN FLOW, MCFD.....	8000		150			22000		
COMPONENT, MOLE PCT								
METHANE.....	82.8		92.8			96.9		
ETHANE.....	7.9		2.6			0.6		
PROpane.....	3.3		1.0			0.2		
N-BUTANE.....	0.9		0.4			0.0		
ISOBUTANE.....	0.7		0.3			0.0		
N-PENTANE.....	0.1		0.2			0.0		
ISOPENTANE.....	0.5		0.2			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.2		0.3			0.0		
NITROGEN.....	1.2		0.8			0.4		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.3		1.5			1.8		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	1157		1065			998		
SPECIFIC GRAVITY.....	0.695		0.621			0.578		

INDEX 7528 SAMPLE 11029			INDEX 7529 SAMPLE 11030			INDEX 7530 SAMPLE 9196		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	ANDERSON		ANDERSON			ANDERSON		
FIELD.....	LONG LAKE		LONG LAKE			MOUND PRAIRIE		
WELL NAME.....	LONG LAKE PR GAS UNIT NO. 1		LONG LAKE PR GAS UNIT NO. 1			C. H. VALENTINE NO. 1		
LOCATION.....	SIMON SANCHEZ SUR. A-60		SIMON SANCHEZ SUR. A-60			JOHN LITTLE SUR. A-37		
OWNER.....	HUNT OIL CO.		HUNT OIL CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	11/30/66		11/30/66			01/27/62		
SAMPLED.....	07/15/67		07/15/67			02/11/64		
FORMATION.....	CRET-RODESSA		CRET-PETITIT			CRET-PETITIT		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	9103		9765			10688		
WELLHEAD PRESSURE, PSIG.....	3165		4440			4925		
OPEN FLOW, MCFD.....	3300		9000			1800		
COMPONENT, MOLE PCT								
METHANE.....	95.5		94.7			80.8		
ETHANE.....	1.0		1.0			10.1		
PROpane.....	0.2		0.1			2.9		
N-BUTANE.....	0.1		0.1			1.2		
ISOBUTANE.....	0.0		TRACE			0.1		
N-PENTANE.....	0.2		TRACE			0.6		
ISOPENTANE.....	0.1		0.0			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.8		
NITROGEN.....	1.5		2.3			0.6		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		1.4			1.6		
HELIUM.....	0.02		0.02			0.01		
HEATING VALUE.....	1012		988			1231		
SPECIFIC GRAVITY.....	0.590		0.587			0.723		

INDEX 7531 SAMPLE 11952			INDEX 7532 SAMPLE 5071			INDEX 7533 SAMPLE 4844		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	ANDERSON		ANDERSON			ANDERSON		
FIELD.....	NEVINS		PRAIRIE LAKE			TENNESSEE COLONY		
WELL NAME.....	WALTER B. BROWN NO. 1		FRANK H. CARROLL NO. 1			ROYAL NATIONAL BANK NO. 1-T		
LOCATION.....	G.V. LUSK SUR. A-476		JUAN IGNACIO AGUILERA SUR.			A. G. MONROE SUR.		
OWNER.....	STANDARD OIL CO. OF TEXAS		CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		
COMPLETED.....	08/05/68		03/19/51			--/7/00		
SAMPLED.....	07/02/69		08/01/51			02/10/50		
FORMATION.....	CRET-RODESSA		CRET-L			CRET-L		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	8074		8814			8865		
WELLHEAD PRESSURE, PSIG.....	3250		4667			4640		
OPEN FLOW, MCFD.....	9600		100000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	87.1		91.0			83.0		
ETHANE.....	4.6		3.5			7.4		
PROpane.....	2.5		0.5			4.0		
N-BUTANE.....	0.7		0.6			1.5		
ISOBUTANE.....	0.8		0.2			1.2		
N-PENTANE.....	0.0		0.3			0.4		
ISOPENTANE.....	0.0		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.5		0.3			0.3		
NITROGEN.....	1.7		1.1			0.4		
OXYGEN.....	TRACE		0.1			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.2		0.0			--		
HYDROGEN SULFIDE.....	0.0		0.0			--		
CARBON DIOXIDE.....	1.1		1.2			1.0		
HELIUM.....	0.04		0.02			0.01		
HEATING VALUE.....	1116		1133			1225		
SPECIFIC GRAVITY.....	0.664		0.630			0.713		

INDEX 7534 SAMPLE 4847			INDEX 7535 SAMPLE 12526			INDEX 7536 SAMPLE 4721		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	ANDERSON		ANDERSON			ANDREWS		
FIELD.....	TENNESSEE COLONY		TENNESSEE COLONY			ANDREWS		
WELL NAME.....	ROYAL NATIONAL BANK NO. 1-C		J. R. WILLIAMS NCT-1 NO. 1-C			CHAMPLIN UNIV. NO. 1		
LOCATION.....	A. G. MONROE SUR.		A. G. MONROE SUR.			SEC. 27, UNIV. LAND		
OWNER.....	CONTINENTAL OIL CO.		TEXACO INC.			CHAMPLIN REFINING CO.		
COMPLETED.....	--/7/00		10/26/51			02/15/49		
SAMPLED.....	11/06/50		11/06/51			07/20/49		
FORMATION.....	CRET-L		CRET-RODESSA L			PERM-YATES		
GEOLOGIC PROVINCE CODE.....	260		260			430		
DEPTH, FEET.....	8942		8962			2830		
WELLHEAD PRESSURE, PSIG.....	4602		500			1950		
OPEN FLOW, MCFD.....	NOT GIVEN		300			1536		
COMPONENT, MOLE PCT								
METHANE.....	85.3		80.3			53.2		
ETHANE.....	6.8		6.6			7.8		
PROpane.....	2.6		4.2			3.0		
N-BUTANE.....	0.7		1.7			0.7		
ISOBUTANE.....	0.9		0.9			0.2		
N-PENTANE.....	0.1		1.1			0.2		
ISOPENTANE.....	0.3		0.1			0.0		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.0		1.3			0.3		
NITROGEN.....	0.9		0.7			34.6		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.2		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			--		
CARBON DIOXIDE.....	2.3		1.9			0.1		
HELIUM.....	0.02		0.02			0.03		
HEATING VALUE.....	1113		1288			815		
SPECIFIC GRAVITY.....	0.668		0.764			0.796		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7537 SAMPLE #6333			INDEX 7538 SAMPLE 4286			INDEX 7539 SAMPLE 6099		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	ANDREWS		ANDREWS			ANDREWS		
FIELD.....	BLK. 12		BLK. 12			EMMA		
WELL NAME.....	RATLIFF-BEDFORD		STATE OF TEXAS T NO. 2			UNIV. NO. 7-F		
LOCATION.....	SEC. 4, BLK. 73, PSL SUR.		SEC. 22, BLK. 12, UNIV. LAND			SEC. 42, BLK. 9, ULS SUR.		
OWNER.....	SHELL OIL CO.		TEXAS CO.			SHELL OIL CO.		
COMPLETED.....	1/04/46		1/04/46			02/23/56		
SAMPLED.....	06/01/57		12/16/46			07/05/56		
FORMATION.....	PERM-		PERM-			MISS-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2900		2950			10000		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1675			700		
OPEN FLOW, MCFD.....	NOT GIVEN		2215			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	0.9		48.8			43.6		
ETHANE.....	TRACE		18.0			18.3		
PROpane.....	0.0		---			14.2		
N-BUTANE.....	0.0		---			8.6		
ISOBUTANE.....	0.0		---			2.3		
N-PENTANE.....	0.0		---			3.3		
ISOPENTANE.....	0.0		---			0.9		
CYCLOPENTANE.....	0.0		---			2.0		
HEXANES PLUS.....	98.2		32.8			3.0		
NITROGEN.....	0.4		0.3			0.5		
OXYGEN.....	0.1		---			TRACE		
ARGON.....	0.2		---			0.0		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.1		---			0.5		
CARBON DIOXIDE.....	0.04		0.03			0.02		
HELIUM.....	9		817			1899		
HEATING VALUE.....	0.962		0.782			1.154		
SPECIFIC GRAVITY.....								
INDEX 7540 SAMPLE 12810			INDEX 7541 SAMPLE 12753			INDEX 7542 SAMPLE 2727		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	ANDREWS		ANDREWS			ANDREWS		
FIELD.....	FUHRMAN		FUHRMAN-MASCHO			MEANS		
WELL NAME.....	WEST FUHRMAN UNIT NO. 46		J. W. BONER B NO. 10			J. S. MEANS NO. 7		
LOCATION.....	SEC. 18, BLK. A-42, PSL SUR.		SEC. 25, BLK. A-43, PSL SUR.			SEC. 4, BLK. C-45, PSL SUR.		
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	09/02/44		05/10/44			06/02/36		
SAMPLED.....	05/03/71		04/03/71			07/01/36		
FORMATION.....	PERM-GRAYBURG		PERM-GRAYBURG			PERM-YATES		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	4270		4130			2565		
WELLHEAD PRESSURE, PSIG.....	40		50			1925		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			19040		
COMPONENT, MOLE PCT								
METHANE.....	75.5		12.4			1.7		
ETHANE.....	11.2		1.8			2.2		
PROpane.....	5.5		0.7			---		
N-BUTANE.....	1.5		0.2			---		
ISOBUTANE.....	0.7		0.1			---		
N-PENTANE.....	0.3		0.1			---		
ISOPENTANE.....	0.7		0.0			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.4		0.2			---		
NITROGEN.....	3.8		84.0			94.8		
OXYGEN.....	0.1		0.0			0.7		
ARGON.....	0.0		0.1			---		
HYDROGEN.....	0.0		0.2			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.1		0.1			0.5		
HELIUM.....	0.02		0.05			0.05		
HEATING VALUE.....	1253		205			57		
SPECIFIC GRAVITY.....	0.748		0.931			0.965		
INDEX 7543 SAMPLE 7806			INDEX 7544 SAMPLE 8885			INDEX 7545 SAMPLE 5771		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	ANDREWS		ANDREWS			ANDREWS		
FIELD.....	MEANS		MEANS			MIDLAND FARMS		
WELL NAME.....	MEAN LEASE NO. A-7		TRACT 25-4W			MIDLAND FARMS AB NO. 12		
LOCATION.....	SEC. 2, BLK. A35, PSL SUR.		SEC. 10, BLK. A-34			NOT GIVEN		
OWNER.....	SHELL OIL CO.		SHELL SERVICE OIL CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	01/28/61		03/06/63			---		
SAMPLED.....	12/29/60		03/09/63			01/17/55		
FORMATION.....	PERM-YATES		PERM-YATES			PERM-GRAYBURG		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2806		2670			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		135			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		20			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	1.4		1.9			42.6		
ETHANE.....	0.2		0.2			29.5		
PROpane.....	0.1		0.9			8.0		
N-BUTANE.....	0.2		0.5			2.1		
ISOBUTANE.....	0.1		0.1			2.3		
N-PENTANE.....	0.1		0.1			0.4		
ISOPENTANE.....	0.1		0.1			1.1		
CYCLOPENTANE.....	TRACE		TRACE			0.2		
HEXANES PLUS.....	97.2		95.1			1.7		
NITROGEN.....	0.1		0.0			0.0		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			0.6		
HYDROGEN.....	0.0		0.0			5.3		
HYDROGEN SULFIDE.....	0.2		0.1			8.7		
CARBON DIOXIDE.....	0.03		0.02			0.02		
HELIUM.....	44		91			1395		
HEATING VALUE.....	0.970		0.976			1.000		
SPECIFIC GRAVITY.....								
INDEX 7546 SAMPLE 5772			INDEX 7547 SAMPLE 5773			INDEX 7548 SAMPLE 5774		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	ANDREWS		ANDREWS			ANDREWS		
FIELD.....	MIDLAND FARMS		MIDLAND FARMS			MIDLAND FARMS		
WELL NAME.....	UNIV. BF NO. 5		MIDLAND FARMS F NO. 5			DAVID FASKEN D NO. 5		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	STANOLIND OIL & GAS CO.		STANOLIND OIL & GAS CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	---		---			---		
SAMPLED.....	01/17/55		01/17/55			01/18/55		
FORMATION.....	PERM-GRAYBURG		NOT GIVEN			ORDC-ELLENBURGER		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	33.4		51.1			58.4		
ETHANE.....	28.4		17.4			14.5		
PROpane.....	8.0		14.5			13.8		
N-BUTANE.....	1.7		5.9			5.0		
ISOBUTANE.....	2.1		3.0			1.9		
N-PENTANE.....	0.2		1.2			1.2		
ISOPENTANE.....	0.9		2.1			1.0		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.3			0.3		
NITROGEN.....	6.5		3.7			3.7		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	9.2		0.0			0.0		
CARBON DIOXIDE.....	9.2		0.2			0.1		
HELIUM.....	107		0.43			0.04		
HEATING VALUE.....	1308		1680			1555		
SPECIFIC GRAVITY.....	1.040		1.017			0.937		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7549 5775			INDEX SAMPLE	7550 12747			INDEX SAMPLE	7551 4097
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	ANDREWS			COUNTY.....	ANDREWS			COUNTY.....	ANDREWS		
FIELD.....	MIDLAND FARMS			FIELD.....	MIDLAND FARMS			FIELD.....	SHAFTER LAKE		
WELL NAME.....	DAVID FASKEN D NO. 5			WELL NAME.....	FASKEN N NO. 5			WELL NAME.....	NOT GIVEN		
LOCATION.....	NOT GIVEN			LOCATION.....	SEC. 41, BLK. 41, G&MB&A SUR.			LOCATION.....	SEC. 11, BLK. 14, UNIVERSITY		
OWNER.....	STANOLIND OIL & GAS CO.			OWNER.....	AMOCO PRODUCTION CO.			OWNER.....	ANDREWS PRODUCTION CO.		
COMPLETED.....	--/--/00			COMPLETED.....	04/25/60			COMPLETED.....	08/25/44		
SAMPLED.....	01/18/55			SAMPLED.....	04/01/71			SAMPLED.....	--/--/00		
FORMATION.....	PERM-NICHITA-ALBANY			FORMATION.....	DEVON			FORMATION.....	PERM-YATES		
GEOLOGIC PROVINCE CODE.....	430			GEOLOGIC PROVINCE CODE.....	430			GEOLOGIC PROVINCE CODE.....	430		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	11050			DEPTH, FEET.....	2964		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	1925		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	2520			OPEN FLOW, MCFD.....	12		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	32.5			METHANE.....	73.7			METHANE.....	55.5		
ETHANE.....	10.2			ETHANE.....	13.7			ETHANE.....	24.1		
PROPANE.....	8.0			PROPANE.....	6.0			PROPANE.....	---		
N-BUTANE.....	2.7			N-BUTANE.....	2.0			N-BUTANE.....	---		
ISOBUTANE.....	0.9			ISOBUTANE.....	0.7			ISOBUTANE.....	---		
N-PENTANE.....	0.4			N-PENTANE.....	0.5			N-PENTANE.....	---		
ISOPENTANE.....	0.7			ISOPENTANE.....	0.6			ISOPENTANE.....	---		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.2			CYCLOPENTANE.....	---		
HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.4			HEXANES PLUS.....	---		
NITROGEN.....	35.0			NITROGEN.....	1.3			NITROGEN.....	20.2		
OXYGEN.....	0.4			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	0.4			ARGON.....	0.0			ARGON.....	---		
HYDROGEN.....	TRACE			HYDROGEN.....	0.0			HYDROGEN.....	---		
HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	---		
CARBON DIOXIDE.....	0.5			CARBON DIOXIDE.....	0.8			CARBON DIOXIDE.....	0.2		
HELIUM.....	0.01			HELIUM.....	0.03			HELIUM.....	0.03		
HEATING VALUE*.....	902			HEATING VALUE*.....	1314			HEATING VALUE*.....	994		
SPECIFIC GRAVITY.....	0.967			SPECIFIC GRAVITY.....	0.771			SPECIFIC GRAVITY.....	0.759		
		INDEX SAMPLE	7552 4542			INDEX SAMPLE	7553 4543			INDEX SAMPLE	7554 15046
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	ANDREWS			COUNTY.....	ANDREWS			COUNTY.....	ANDREWS		
FIELD.....	SHAFTER LAKE			FIELD.....	SHAFTER LAKE			FIELD.....	THREE-BAR		
WELL NAME.....	J. STEVENSON NO. 1			WELL NAME.....	STATE SCHOOL BOARD NO. 1			WELL NAME.....	J. E. PARKER NO. 43		
LOCATION.....	SEC. 13, BLK. A-36			LOCATION.....	SEC. 14, BLK. A-36, PUB-SCHOOL			LOCATION.....	SEC. 2, BLK. A-54, PSL SUR.		
OWNER.....	STIC LAKE-PRAIRIE OIL CO.			OWNER.....	GOULF OIL CORP.			OWNER.....	EXXON CO., U.S.A.		
COMPLETED.....	08/15/48			COMPLETED.....	09/28/48			COMPLETED.....	11/05/75		
SAMPLED.....	12/21/48			SAMPLED.....	12/10/48			SAMPLED.....	06/--/77		
FORMATION.....	PERM-YATES			FORMATION.....	PERM-YATES			FORMATION.....	PERM-YATES		
GEOLOGIC PROVINCE CODE.....	430			GEOLOGIC PROVINCE CODE.....	430			GEOLOGIC PROVINCE CODE.....	430		
DEPTH, FEET.....	2945			DEPTH, FEET.....	2750			DEPTH, FEET.....	2884		
WELLHEAD PRESSURE, PSIG.....	2160			WELLHEAD PRESSURE, PSIG.....	1830			WELLHEAD PRESSURE, PSIG.....	1603		
OPEN FLOW, MCFD.....	1409			OPEN FLOW, MCFD.....	4500			OPEN FLOW, MCFD.....	8000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	52.4			METHANE.....	51.5			METHANE.....	50.6		
ETHANE.....	26.0			ETHANE.....	26.4			ETHANE.....	7.7		
PROPANE.....	---			PROPANE.....	---			PROPANE.....	0.6		
N-BUTANE.....	---			N-BUTANE.....	---			N-BUTANE.....	0.2		
ISOBUTANE.....	---			ISOBUTANE.....	---			ISOBUTANE.....	0.1		
N-PENTANE.....	---			N-PENTANE.....	---			N-PENTANE.....	0.1		
ISOPENTANE.....	---			ISOPENTANE.....	---			ISOPENTANE.....	TRACE		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	---			CYCLOPENTANE.....	0.1		
HEXANES PLUS.....	---			HEXANES PLUS.....	---			HEXANES PLUS.....	37.8		
NITROGEN.....	21.3			NITROGEN.....	21.4			NITROGEN.....	---		
OXYGEN.....	0.1			OXYGEN.....	0.5			OXYGEN.....	---		
ARGON.....	---			ARGON.....	---			ARGON.....	TRACE		
HYDROGEN.....	---			HYDROGEN.....	---			HYDROGEN.....	0.0		
HYDROGEN SULFIDE**.....	---			HYDROGEN SULFIDE**.....	---			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.1		
HELIUM.....	0.02			HELIUM.....	0.02			HELIUM.....	0.03		
HEATING VALUE*.....	997			HEATING VALUE*.....	995			HEATING VALUE*.....	761		
SPECIFIC GRAVITY.....	0.774			SPECIFIC GRAVITY.....	0.778			SPECIFIC GRAVITY.....	0.795		
		INDEX SAMPLE	7555 14853			INDEX SAMPLE	7556 16778			INDEX SAMPLE	7557 16779
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	ANGELINA			COUNTY.....	ANGELINA			COUNTY.....	ANGELINA		
FIELD.....	CAMERON-HAMILL			FIELD.....	CLAYTON			FIELD.....	CLAYTON		
WELL NAME.....	CAMERON MINERAL NO. B-2			WELL NAME.....	TEMPLE-EASTEX NO. 1, INLET			WELL NAME.....	TEMPLE-EASTEX NO. 1, OUTLET		
LOCATION.....	VICENT MICHELT SUR. A-29			LOCATION.....	JAMES G. CLAYTON, A-151			LOCATION.....	JAMES G. CLAYTON, A-151		
OWNER.....	CLAUD B. HAMILL			OWNER.....	GETTY OIL CO.			OWNER.....	GETTY OIL CO.		
COMPLETED.....	04/04/75			COMPLETED.....	05/10/82			COMPLETED.....	05/10/82		
SAMPLED.....	11/07/76			SAMPLED.....	02/23/83			SAMPLED.....	02/23/83		
FORMATION.....	CRET-GLEN ROSE			FORMATION.....	CRET-AUSTIN CHALK			FORMATION.....	CRET-AUSTIN CHALK		
GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260		
DEPTH, FEET.....	7481			DEPTH, FEET.....	8218			DEPTH, FEET.....	8218		
WELLHEAD PRESSURE, PSIG.....	1300			WELLHEAD PRESSURE, PSIG.....	3553			WELLHEAD PRESSURE, PSIG.....	3553		
OPEN FLOW, MCFD.....	3000			OPEN FLOW, MCFD.....	9000			OPEN FLOW, MCFD.....	9000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	94.4			METHANE.....	88.3			METHANE.....	88.6		
ETHANE.....	1.4			ETHANE.....	2.9			ETHANE.....	2.9		
PROPANE.....	0.6			PROPANE.....	1.4			PROPANE.....	1.4		
N-BUTANE.....	0.3			N-BUTANE.....	0.5			N-BUTANE.....	0.5		
ISOBUTANE.....	0.1			ISOBUTANE.....	0.2			ISOBUTANE.....	1.2		
N-PENTANE.....	0.2			N-PENTANE.....	0.1			N-PENTANE.....	0.1		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.2			ISOPENTANE.....	0.1		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1		
NITROGEN.....	2.1			NITROGEN.....	2.4			NITROGEN.....	0.0		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	TRACE			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	0.0			HYDROGEN.....	0.3			HYDROGEN.....	0.3		
HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	0.6			CARBON DIOXIDE.....	3.3			CARBON DIOXIDE.....	3.2		
HELIUM.....	0.02			HELIUM.....	0.03			HELIUM.....	0.03		
HEATING VALUE*.....	1037			HEATING VALUE*.....	1030			HEATING VALUE*.....	1028		
SPECIFIC GRAVITY.....	0.601			SPECIFIC GRAVITY.....	0.643			SPECIFIC GRAVITY.....	0.641		
		INDEX SAMPLE	7558 16300			INDEX SAMPLE	7559 15834			INDEX SAMPLE	7560 16063
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	ANGELINA			COUNTY.....	ANGELINA			COUNTY.....	ANGELINA		
FIELD.....	REDLANDS N			FIELD.....	WILCOT			FIELD.....	WILCOT		
WELL NAME.....	BROWN "C" NO. 1			WELL NAME.....	TUCKER NO. 1			WELL NAME.....	TUCKER NO. 1		
LOCATION.....	VINCENT MICHELT SUR. A-29			LOCATION.....	3 MI. E OF HUNTINGTON			LOCATION.....	SARAH ODELL SUR. A-494		
OWNER.....	COTTON PETROLEUM CORP.			OWNER.....	HNG OIL CO.			OWNER.....	HNG OIL CO.		
COMPLETED.....	--/--/00			COMPLETED.....	--/--/00			COMPLETED.....	--/--/00		
SAMPLED.....	07/31/81			SAMPLED.....	11/07/79			SAMPLED.....	09/08/80		
FORMATION.....	CRET-TRAVIS PEAK			FORMATION.....	CRET-JAMES			FORMATION.....	CRET-JAMES		
GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	9963			DEPTH, FEET.....	9836		
WELLHEAD PRESSURE, PSIG.....	5700			WELLHEAD PRESSURE, PSIG.....	5200			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		
OPEN FLOW, MCFD.....	8500			OPEN FLOW, MCFD.....	500			OPEN FLOW, MCFD.....	2858		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	97.3			METHANE.....	93.6			METHANE.....	93.9		
ETHANE.....	0.6			ETHANE.....	1.9			ETHANE.....	1.8		
PROPANE.....	0.1			PROPANE.....	0.9			PROPANE.....	0.9		
N-BUTANE.....	0.1			N-BUTANE.....	0.4			N-BUTANE.....	0.4		
ISOBUTANE.....	0.1			ISOBUTANE.....	0.3			ISOBUTANE.....	0.3		
N-PENTANE.....	0.1			N-PENTANE.....	0.2			N-PENTANE.....	0.2		
ISOPENTANE.....	0.0			ISOPENTANE.....	0.2			ISOPENTANE.....	0.1		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.1		
HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.4			HEXANES PLUS.....	0.3		
NITROGEN.....	0.3			NITROGEN.....	0.0			NITROGEN.....	0.3		
OXYGEN.....	TRACE			OXYGEN.....	0.0			OXYGEN.....	TRACE		
ARGON.....	TRACE			ARGON.....	0.0			ARGON.....	0.0		
HYDROGEN.....	0.0			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	1.1			CARBON DIOXIDE.....	1.7			CARBON DIOXIDE.....	1.7		
HELIUM.....	0.01			HELIUM.....	0.01			HELIUM.....	0.02		
HEATING VALUE*.....	1024			HEATING VALUE*.....	1068			HEATING VALUE*.....	1062		
SPECIFIC GRAVITY.....	0.582			SPECIFIC GRAVITY.....	0.620			SPECIFIC GRAVITY.....	0.616		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7561 13586			INDEX SAMPLE	7562 13587			INDEX SAMPLE	7563 10692
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	ARANSAS			ARANSAS				ARANSAS			
FIELD.....	BARTLELL PASS			BARTLELL PASS				COPANO BAY S			
WELL NAME.....	TEXAS STATE TRACT 118 NO. 1			TEXAS STATE TRACT 118 NO. 1				STATE TRACT 121 NO. 1			
LOCATION.....	ARANSAS BAY			ARANSAS BAY				STATE TRACT 121			
OWNER.....	GETTY OIL CO.			GETTY OIL CO.				ALUMINUM CO. OF AMERICA			
COMPLETED.....	07/06/70			07/06/70				03/13/66			
SAMPLED.....	04/24/73			04/24/73				08/08/66			
FORMATION.....	OLIG-FRIO			OLIG-FRIO				OLIG-FRIO L-2			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	9747			11204				8400			
WELLHEAD PRESSURE, PSIG.....	5659			7485				3497			
OPEN FLOW, MCFD.....	11800			19100				86000			
COMPONENT, MOLE PCT.....											
METHANE.....	88.5	-----		87.1	-----			91.1	-----		
ETHANE.....	5.7	-----		6.1	-----			4.7	-----		
PROPANE.....	2.3	-----		2.6	-----			2.0	-----		
N-BUTANE.....	0.4	-----		0.5	-----			0.5	-----		
ISOBUTANE.....	1.1	-----		1.6	-----			0.5	-----		
N-PENTANE.....	0.1	-----		0.2	-----			0.1	-----		
ISOPENTANE.....	0.3	-----		0.2	-----			0.2	-----		
CYCLOPENTANE.....	0.1	-----		TRACE	-----			0.1	-----		
HEXANES PLUS.....	0.3	-----		0.2	-----			0.2	-----		
NITROGEN.....	0.4	-----		0.4	-----			0.2	-----		
OXYGEN.....	0.0	-----		0.0	-----			0.0	-----		
ARGON.....	0.0	-----		0.0	-----			TRACE	-----		
HYDROGEN.....	0.0	-----		0.0	-----			0.4	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	0.8	-----		1.1	-----			0.4	-----		
HELIUM.....	TRACE	-----		TRACE	-----			0.01	-----		
HEATING VALUE.....	1145	-----		1157	-----			1120	-----		
SPECIFIC GRAVITY.....	0.655	-----		0.667	-----			0.630	-----		
		INDEX SAMPLE	7564 12757			INDEX SAMPLE	7565 11162			INDEX SAMPLE	7566 13128
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	ARANSAS			ARANSAS				ARANSAS			
FIELD.....	EASTER COVE			FULTON BEACH W				HEADQUARTERS			
WELL NAME.....	HEPORTH UNIT NO. 2			COPANO STATE NO. 75-2				ST. CHARLES NO. 50			
LOCATION.....	LOT 7, BLK. 246			STATE TRACT 75, COPANO BAY				ARANSAS CLS SUR. A-7			
OWNER.....	KELLY BELL			SUN OIL CO.				CONTINENTAL OIL CO.			
COMPLETED.....	03/24/69			03/24/69				04/13/70			
SAMPLED.....	04/09/73			10/12/67				12/-/-71			
FORMATION.....	OLIG-FRIO			OLIG-FRIO H				OLIG-FRIO J			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	8908			7636				9503			
WELLHEAD PRESSURE, PSIG.....	3527			365				5710			
OPEN FLOW, MCFD.....	11800			323				54000			
COMPONENT, MOLE PCT.....											
METHANE.....	87.7	-----		90.3	-----			89.6	-----		
ETHANE.....	5.5	-----		4.5	-----			5.0	-----		
PROPANE.....	2.4	-----		1.7	-----			2.0	-----		
N-BUTANE.....	0.6	-----		0.5	-----			0.5	-----		
ISOBUTANE.....	1.0	-----		0.6	-----			0.7	-----		
N-PENTANE.....	0.3	-----		0.2	-----			0.4	-----		
ISOPENTANE.....	0.1	-----		0.2	-----			0.1	-----		
CYCLOPENTANE.....	0.1	-----		0.1	-----			0.2	-----		
HEXANES PLUS.....	0.4	-----		0.4	-----			0.7	-----		
NITROGEN.....	0.4	-----		TRACE	-----			0.4	-----		
OXYGEN.....	0.0	-----		0.0	-----			0.0	-----		
ARGON.....	0.0	-----		0.0	-----			0.0	-----		
HYDROGEN.....	0.0	-----		0.1	-----			TRACE	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	0.6	-----		0.2	-----			0.5	-----		
HELIUM.....	0.01	-----		0.01	-----			TRACE	-----		
HEATING VALUE.....	1145	-----		1118	-----			1154	-----		
SPECIFIC GRAVITY.....	0.666	-----		0.635	-----			0.655	-----		
		INDEX SAMPLE	7567 15461			INDEX SAMPLE	7568 15462			INDEX SAMPLE	7569 5172
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	ARANSAS			ARANSAS				ARANSAS			
FIELD.....	NINE MILE POINT W			NINE MILE POINT W				NOT GIVEN			
WELL NAME.....	STATE TRACT 146 NO. 2			STATE TRACT 170 NO. 1				ST. CHARLES NO. 14			
LOCATION.....	ARANSAS BAY			BLK. 1, C.B. LUCAS SUR. A-239				ISAAC DOWERS SUR. NO. A-53			
OWNER.....	HOUSTON OIL & MINERALS CORP.			HOUSTON OIL & MINERALS CORP.				WESTERN NATURAL GAS CO.			
COMPLETED.....	05/08/77			10/09/77				-/-/-700			
SAMPLED.....	10/27/78			10/27/78				02/27/52			
FORMATION.....	OLIG-FRIO D-4			OLIG-FRIO M				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	8244			10934				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	3215			3215				NOT GIVEN			
OPEN FLOW, MCFD.....	11000			4200				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	88.5	-----		87.8	-----			91.7	-----		
ETHANE.....	5.7	-----		6.1	-----			3.7	-----		
PROPANE.....	2.5	-----		2.8	-----			1.2	-----		
N-BUTANE.....	0.6	-----		0.6	-----			0.4	-----		
ISOBUTANE.....	0.9	-----		0.5	-----			0.4	-----		
N-PENTANE.....	0.2	-----		0.2	-----			0.1	-----		
ISOPENTANE.....	0.3	-----		0.2	-----			0.2	-----		
CYCLOPENTANE.....	0.2	-----		TRACE	-----			TRACE	-----		
HEXANES PLUS.....	0.2	-----		0.1	-----			0.1	-----		
NITROGEN.....	0.5	-----		0.4	-----			0.6	-----		
OXYGEN.....	0.0	-----		TRACE	-----			0.1	-----		
ARGON.....	0.0	-----		TRACE	-----			TRACE	-----		
HYDROGEN.....	0.1	-----		0.1	-----			0.0	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			---	-----		
CARBON DIOXIDE.....	0.5	-----		0.2	-----			1.8	-----		
HELIUM.....	0.01	-----		TRACE	-----			TRACE	-----		
HEATING VALUE.....	1150	-----		1152	-----			1061	-----		
SPECIFIC GRAVITY.....	0.654	-----		0.650	-----			0.621	-----		
		INDEX SAMPLE	7570 15416			INDEX SAMPLE	7571 12433			INDEX SAMPLE	7572 5114
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	ARANSAS			ARANSAS				ARANSAS			
FIELD.....	RATTLESNAKE POINT			ROCKPORT W				ST. CHARLES			
WELL NAME.....	STATE LEASE 122 NO. A1			ZEPH-ROUQUETTE NO. 2				NO. 13			
LOCATION.....	STATE TRACT 122			BLK. 1, C.B. LUCAS SUR. A-239				NOT GIVEN			
OWNER.....	HOUSTON OIL & MINERALS CORP.			CITICORP SERVICE OIL CO.				WESTERN NATURAL GAS CO.			
COMPLETED.....	05/29/76			10/16/69				06/16/51			
SAMPLED.....	10/16/78			10/08/70				10/16/51			
FORMATION.....	OLIG-FRIO			OLIG-FRIO UPPER H				OLIG-FRIO			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	8744			8520				10260			
WELLHEAD PRESSURE, PSIG.....	750			2165				6850			
OPEN FLOW, MCFD.....	8700			3960				6300			
COMPONENT, MOLE PCT.....											
METHANE.....	85.5	-----		88.0	-----			91.1	-----		
ETHANE.....	5.0	-----		4.5	-----			4.5	-----		
PROPANE.....	3.6	-----		2.9	-----			1.5	-----		
N-BUTANE.....	1.0	-----		0.9	-----			0.0	-----		
ISOBUTANE.....	1.0	-----		1.3	-----			0.0	-----		
N-PENTANE.....	0.2	-----		0.3	-----			0.2	-----		
ISOPENTANE.....	0.3	-----		0.3	-----			0.2	-----		
CYCLOPENTANE.....	0.1	-----		0.1	-----			TRACE	-----		
HEXANES PLUS.....	0.1	-----		0.4	-----			0.2	-----		
NITROGEN.....	0.5	-----		0.8	-----			0.5	-----		
OXYGEN.....	0.0	-----		TRACE	-----			0.1	-----		
ARGON.....	0.0	-----		0.0	-----			TRACE	-----		
HYDROGEN.....	0.1	-----		0.1	-----			0.0	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			---	-----		
CARBON DIOXIDE.....	0.5	-----		0.2	-----			1.2	-----		
HELIUM.....	0.01	-----		0.01	-----			TRACE	-----		
HEATING VALUE.....	1189	-----		1184	-----			1087	-----		
SPECIFIC GRAVITY.....	0.683	-----		0.674	-----			0.626	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7573 13126	INDEX SAMPLE	7574 12010	INDEX SAMPLE	7575 12011
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	ARANSAS			ARANSAS		ARANSAS	
FIELD.....	ST. CHARLES			VIRGINIA		VIRGINIA	
WELL NAME.....	ST. CHARLES NO. 9			V. H. TATTON NO. 18		V. H. TATTON NO. 18	
LOCATION.....	R. D. BLASSMAN SUR. A-31			JOHN DURST SUR. A-51		JOHN DURST SUR. A-51	
OWNER.....	CONTINENTAL OIL CO.			UNION PRODUCING CO.		UNION PRODUCING CO.	
COMPLETED.....	05/20/70			12/06/68		12/06/68	
SAMPLED.....	12/-/71			08/26/69		08/26/69	
FORMATION.....	OLIG-FRIO P			OLIG-FRIO 9050		OLIG-FRIO 9700	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9994			9038		9680	
WELLHEAD PRESSURE, PSIG.....	6455			3156		3020	
OPEN FLOW, MCFD.....	145000			16200		9400	
COMPONENT, MOLE PCT							
METHANE.....	89.6	-----		45.3	-----	46.7	-----
ETHANE.....	5.0	-----		14.1	-----	16.4	-----
PROPANE.....	2.2	-----		15.9	-----	15.1	-----
N-BUTANE.....	7.6	-----		6.6	-----	6.0	-----
ISOBUTANE.....	0.8	-----		7.9	-----	6.4	-----
N-PENTANE.....	0.3	-----		3.0	-----	3.0	-----
ISOPENTANE.....	0.1	-----		2.2	-----	2.0	-----
CYCLOPENTANE.....	0.2	-----		0.5	-----	0.5	-----
HEXANES PLUS.....	0.5	-----		3.0	-----	3.2	-----
NITROGEN.....	0.3	-----		1.1	-----	0.5	-----
OXYGEN.....	0.0	-----		0.1	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.2	-----	0.2	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	1152	-----		2008	-----	1973	-----
SPECIFIC GRAVITY.....	0.651	-----		1.193	-----	1.163	-----
		INDEX SAMPLE	7576 4518	INDEX SAMPLE	7577 3705	INDEX SAMPLE	7578 4904
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	ARCHER			ARCHER		ARMSTRONG	
FIELD.....	HULF-SILK			SCOTLAND		NOT GIVEN	
WELL NAME.....	L. F. WILSON			W. M. COLEMAN NO. 8-1		BRUCE COBB B	
LOCATION.....	NOT GIVEN			SEC. 74, ATNCL SUR.		SEC. 10, BLK. 1, TWNG SUR.	
OWNER.....	HELMERICH & PAYNE, INC.			SHELL OIL CO.		C. C. COX	
COMPLETED.....	-/-/00			01/20/41		-/-/00	
SAMPLED.....	05/06/48			12/15/43		07/28/50	
FORMATION.....	PENN-STRAWN			PENN-CADDO		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	425			425		435	
DEPTH, FEET.....	3800			4976		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	175			1200		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			250		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	0.6	-----		56.8	-----	0.3	-----
ETHANE.....	95.0	-----		33.1	-----	---	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	3.2	-----		8.5	-----	99.0	-----
OXYGEN.....	0.4	-----		1.1	-----	0.6	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.8	-----		0.4	-----	0.1	-----
HELIUM.....	0.03	-----		0.10	-----	0.00	-----
HEATING VALUE.....	1708	-----		1159	-----	3	-----
SPECIFIC GRAVITY.....	1.048	-----		0.763	-----	0.967	-----
		INDEX SAMPLE	7579 4974	INDEX SAMPLE	7580 4114	INDEX SAMPLE	7581 12463
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	ARMSTRONG			ATASCOSA		ATASCOSA	
FIELD.....	NOT GIVEN			JOURDANTON		WILDCAT	
WELL NAME.....	BRUCE COBB NO. 1			HERNY SCHORSCH NO. 1		JOSEPH COURAND NO. 1	
LOCATION.....	SEC. 10, BLK. 1, TWNG SUR.			2 1/2 MI. SW OF JOURDANTON		NOAH SCOTT SUR. A-768	
OWNER.....	BRUCE COBB			HUMBLE OIL & REFINING CO.		W. EARL ROWE	
COMPLETED.....	-/-/00			12/23/45		11/22/69	
SAMPLED.....	12/12/50			10/03/46		10/20/70	
FORMATION.....	NOT GIVEN			CRET-EDWARDS		CRET-EDWARDS	
GEOLOGIC PROVINCE CODE.....	435			220		220	
DEPTH, FEET.....	NOT GIVEN			7260		7642	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			3380		2748	
OPEN FLOW, MCFD.....	18547			4400		4500	
COMPONENT, MOLE PCT							
METHANE.....	0.8	-----		80.4	-----	85.0	-----
ETHANE.....	0.1	-----		9.1	-----	2.7	-----
PROPANE.....	0.2	-----		---	-----	1.1	-----
N-BUTANE.....	0.1	-----		---	-----	0.6	-----
ISOBUTANE.....	0.0	-----		---	-----	0.3	-----
N-PENTANE.....	0.1	-----		---	-----	0.2	-----
ISOPENTANE.....	0.0	-----		---	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		---	-----	0.3	-----
NITROGEN.....	98.1	-----		1.8	-----	1.3	-----
OXYGEN.....	0.1	-----		0.6	-----	TRACE	-----
ARGON.....	TRACE	-----		---	-----	TRACE	-----
HYDROGEN.....	0.1	-----		---	-----	0.1	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	1.1	-----
CARBON DIOXIDE.....	0.1	-----		8.1	-----	7.1	-----
HELIUM.....	0.09	-----		0.01	-----	0.01	-----
HEATING VALUE.....	26	-----		997	-----	997	-----
SPECIFIC GRAVITY.....	0.968	-----		0.689	-----	0.686	-----
		INDEX SAMPLE	7582 11973	INDEX SAMPLE	7583 14560	INDEX SAMPLE	7584 14559
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	AUSTIN			AUSTIN		AUSTIN	
FIELD.....	NEILSONVILLE			NEILSONVILLE		NEILSONVILLE W	
WELL NAME.....	JOE MIKESKA NO. 1			FRANK SUROVIK NO. 1		LEONARD SCHROEDER NO. 1	
LOCATION.....	S. F. AUSTIN SUR. A-4			S. F. AUSTIN LEAGUE, A-4		STEPHEN F. AUSTIN GRANT, A-4	
OWNER.....	SUM OIL CO.			PRAIRIE PRODUCING CO.		PRAIRIE PRODUCING CO.	
COMPLETED.....	12/02/68			02/19/74		04/12/74	
SAMPLED.....	07/17/69			01/16/76		01/16/76	
FORMATION.....	-MOUDRY			ECCO-WILCOX		ECCO-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9830			9818		8392	
WELLHEAD PRESSURE, PSIG.....	2836			3200		261	
OPEN FLOW, MCFD.....	6704			15000		16750	
COMPONENT, MOLE PCT							
METHANE.....	78.6	-----		77.2	-----	80.6	-----
ETHANE.....	7.2	-----		7.6	-----	6.1	-----
PROPANE.....	6.2	-----		6.8	-----	6.0	-----
N-BUTANE.....	1.4	-----		1.9	-----	1.5	-----
ISOBUTANE.....	1.4	-----		1.5	-----	1.2	-----
N-PENTANE.....	0.4	-----		0.3	-----	0.0	-----
ISOPENTANE.....	0.2	-----		0.9	-----	0.9	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	0.0	-----
NITROGEN.....	1.1	-----		0.8	-----	1.1	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	3.1	-----		2.9	-----	1.8	-----
HELIUM.....	TRACE	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1220	-----		1274	-----	1234	-----
SPECIFIC GRAVITY.....	0.747	-----		0.774	-----	0.735	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 7585 SAMPLE 13886	INDEX 7586 SAMPLE 12462	INDEX 7587 SAMPLE 11323
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	AUSTIN		AUSTIN	AUSTIN
FIELD.....	NEW ULM SW		ORANGE HILL	RACCOON BEND
WELL NAME.....	ECCEY FORSTER UNIT NO. 1		MRS. D. C. HILLBOLDT NO. 1	MIocene GAS UNIT NO. 1
LOCATION.....	JAMES TYLER SUR. A-304		A. JORDAN SUR. A-251	Wm. L. WHITE SUR. A-101
OWNER.....	PRAIRIE PRODUCING CO.		ROBERT MOSBACHER	HUMBLE OIL & REFINING CO.
COMPLETED.....	10/04/72		06/21/69	7-700
SAMPLED.....	11/12/73		10/21/70	02/27/68
FORMATION.....	EOCE-WILCOX		EOCE-WILCOX	MIOC-
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	9366		9246	917
WELLHEAD PRESSURE, PSIG.....	2897		2300	390
OPEN FLOW, MCFD.....	9800		6650	8860
COMPONENT, MOLE PCT				
METHANE.....	49.6	86.3	93.0	
ETHANE.....	14.8	6.4	0.6	
PROPANE.....	18.5	2.8	0.4	
N-BUTANE.....	5.2	0.6	0.0	
ISOBUTANE.....	4.5	0.6	0.0	
N-PENTANE.....	1.0	TRACE	0.0	
ISOPENTANE.....	1.2	0.3	0.0	
CYCLOPENTANE.....	0.2	TRACE	0.0	
HEXANES PLUS.....	0.6	0.2	0.0	
NITROGEN.....	0.4	0.5	3.8	
OXYGEN.....	TRACE	0.0	0.5	
ARGON.....	0.0	0.0	0.1	
HYDROGEN.....	TRACE	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	3.2	2.7	1.7	
HELIUM.....	TRACE	0.01	0.01	
HEATING VALUE.....	1736	1125	963	
SPECIFIC GRAVITY.....	1.067	0.666	0.598	
		INDEX 7588 SAMPLE 15252	INDEX 7589 SAMPLE 15253	INDEX 7590 SAMPLE 3789
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	AUSTIN		AUSTIN	BEE
FIELD.....	SEALY W		SEALY W	BLANCONIA
WELL NAME.....	FENKE NO. 1		HINTZ "A" NO. 1	E. B. TUTTLE NO. 1
LOCATION.....	GEORGE T. ALLEN SUR. 180		GEORGE T. ALLEN SUR. 180	J. M. KEATING SUR.
OWNER.....	RANGER OIL CO.		RANGER OIL CO.	SUN OIL CO.
COMPLETED.....	07/16/77		08/26/75	12/30/43
SAMPLED.....	04/06/78		04/06/78	04/15/44
FORMATION.....	EOCE-WILCOX		EOCE-WILCOX	OLIG-
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	8860		10669	4086
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2770	1700
OPEN FLOW, MCFD.....	NOT GIVEN		12000	200000
COMPONENT, MOLE PCT				
METHANE.....	88.0	88.9	94.4	
ETHANE.....	0.4	4.1	0.0	
PROPANE.....	1.7	1.2		
N-BUTANE.....	0.5	0.4		
ISOBUTANE.....	0.1	0.2		
N-PENTANE.....	0.1	0.1		
ISOPENTANE.....	0.3	0.2		
CYCLOPENTANE.....	0.1	TRACE		
HEXANES PLUS.....	0.2	0.1		
NITROGEN.....	0.8	0.4	5.0	
OXYGEN.....	0.1	0.0	0.4	
ARGON.....	TRACE	TRACE		
HYDROGEN.....	0.0	0.0		
HYDROGEN SULFIDE.....	0.0	0.0		
CARBON DIOXIDE.....	3.6	4.4	0.2	
HELIUM.....	0.01	TRACE	0.00	
HEATING VALUE.....	1076	1043	956	
SPECIFIC GRAVITY.....	0.661	0.649	0.579	
		INDEX 7591 SAMPLE 4386	INDEX 7592 SAMPLE 4886	INDEX 7593 SAMPLE 4963
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	BEE		BEE	BEE
FIELD.....	BLANCONIA		BLANCONIA	BLANCONIA
WELL NAME.....	MICHAEL FOX B NO. 2		F. W. THOMAS NO. 1	FRED THOMAS NO. 2
LOCATION.....	J&M KEATING SUR. NO. A-33		JOHN KELLY SUR. NO. A-35	JOHN KELLY SUR. NO. A-35
OWNER.....	STANOLIND OIL & GAS CO.		BRIDWELL OIL CO.	BRIDWELL OIL CO.
COMPLETED.....	06/27/47		07/29/47	07/29/50
SAMPLED.....	12/04/47		05/17/50	11/01/50
FORMATION.....	TEIT-		OLIG-SINTON	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	4138		4137	4950
WELLHEAD PRESSURE, PSIG.....	1870		1715	1335
OPEN FLOW, MCFD.....	3000		9	1850
COMPONENT, MOLE PCT				
METHANE.....	97.4	97.6	91.9	
ETHANE.....	1.4	0.6	4.1	
PROPANE.....	0.2	0.1	0.8	
N-BUTANE.....	---	0.0	0.2	
ISOBUTANE.....	---	0.0	0.0	
N-PENTANE.....	---	0.1	0.1	
ISOPENTANE.....	---	TRACE	0.0	
CYCLOPENTANE.....	---	TRACE	TRACE	
HEXANES PLUS.....	---	0.0	0.2	
NITROGEN.....	0.4	0.5	1.8	
OXYGEN.....	0.4	0.1	0.3	
ARGON.....	---	TRACE	TRACE	
HYDROGEN.....	---	0.1	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.4	0.8	0.5	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1012	1010	1046	
SPECIFIC GRAVITY.....	0.569	0.570	0.606	
		INDEX 7594 SAMPLE 10116	INDEX 7595 SAMPLE 4438	INDEX 7596 SAMPLE 9565
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	BEE		BEE	BEE
FIELD.....	BLANCONIA		BLANCONIA S	BURK HOLLOW
WELL NAME.....	M. O. STATE NO. 3		CLARK WOOD NO. 1	LAURA D. THOMSON B-5
LOCATION.....	N. KEATING SUR. A-33		NOT GIVEN	JOHN ROACH SUR. A-60
OWNER.....	FLOURNOY PRODUCTION CO.		BRIDWELL OIL CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	07/09/65		08/30/46	02/23/64
SAMPLED.....	09/08/65		01/13/48	09/21/64
FORMATION.....	OLIG-SINTON		OLIG-SINTON	MIOC-CATAHOULA
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	4032		4360	2574
WELLHEAD PRESSURE, PSIG.....	1150		1870	998
OPEN FLOW, MCFD.....	972		57000	4050
COMPONENT, MOLE PCT				
METHANE.....	97.2	94.1	97.3	
ETHANE.....	1.7	3.4	0.1	
PROPANE.....	0.3	---	0.0	
N-BUTANE.....	0.1	---	0.0	
ISOBUTANE.....	0.0	---	0.0	
N-PENTANE.....	0.0	---	0.0	
ISOPENTANE.....	0.0	---	0.0	
CYCLOPENTANE.....	0.0	---	0.0	
HEXANES PLUS.....	0.0	---	0.0	
NITROGEN.....	0.5	0.8	2.1	
OXYGEN.....	0.0	0.5	0.3	
ARGON.....	TRACE	---	TRACE	
HYDROGEN.....	0.0	---	0.0	
HYDROGEN SULFIDE.....	0.0	---	0.0	
CARBON DIOXIDE.....	0.3	1.2	0.2	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1013	1013	1017	
SPECIFIC GRAVITY.....	0.571	0.589	0.567	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7597 SAMPLE 14280		INDEX 7598 SAMPLE 7132		INDEX 7599 SAMPLE 14379	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	BEE	COUNTY.....	BEE	COUNTY.....	BEE
FIELD.....	BURKE RIDGE	FIELD.....	BURNELL	FIELD.....	CADIZ
WELL NAME.....	SAMUEL DENVER CHESTNUT NO.1	WELL NAME.....	A. N. DAHL B. NO. 1	WELL NAME.....	R. R. LAWSON NO. 1
LOCATION.....	GARRETT ROACH SUR. A-59	LOCATION.....	NOT GIVEN	LOCATION.....	A. C. GILLET SUR. A-1203
OWNER.....	EXXON CO., U.S.A.	OWNER.....	TENNESSEE GAS TRANSMISSION C	OWNER.....	HARKINS & CO.
COMPLETED.....	06/20/73	COMPLETED.....	03/14/59	COMPLETED.....	07/04/73
SAMPLED.....	03/01/75	SAMPLED.....	06/24/59	SAMPLED.....	05/30/75
FORMATION.....	OLIG-MRETA	FORMATION.....	EOCE-WILCOX & SLICK	FORMATION.....	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	1914	DEPTH, FEET.....	6654	DEPTH, FEET.....	9006
WELLHEAD PRESSURE, PSIG.....	573	WELLHEAD PRESSURE, PSIG.....	1659	WELLHEAD PRESSURE, PSIG.....	3159
OPEN FLOW, MCFD.....	860	OPEN FLOW, MCFD.....	6250	OPEN FLOW, MCFD.....	9400
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.7	METHANE.....	85.0	METHANE.....	81.1
ETHANE.....	0.1	ETHANE.....	5.8	ETHANE.....	7.6
PROPANE.....	TRACE	PROPANE.....	2.3	PROPANE.....	4.2
N-BUTANE.....	0.0	N-BUTANE.....	0.7	N-BUTANE.....	1.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.7
N-PENTANE.....	0.0	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.5
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.7	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	1.4	HEXANES PLUS.....	0.2
NITROGEN.....	1.0	NITROGEN.....	0.1	NITROGEN.....	0.3
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	4.2
HELIUM.....	0.01	HELIUM.....	0.00	HELIUM.....	0.01
HEATING VALUE.....	1002	HEATING VALUE.....	1262	HEATING VALUE.....	1168
SPECIFIC GRAVITY.....	0.559	SPECIFIC GRAVITY.....	0.728	SPECIFIC GRAVITY.....	0.723

INDEX 7600 SAMPLE 5448		INDEX 7601 SAMPLE 4730		INDEX 7602 SAMPLE 12131	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	BEE	COUNTY.....	BEE	COUNTY.....	BEE
FIELD.....	CAESAR	FIELD.....	COSDEN W	FIELD.....	HOLZMARK
WELL NAME.....	R. E. MILLER NO. 1	WELL NAME.....	DUGAN C NO. 2	WELL NAME.....	HOLZMARK D NO. 1
LOCATION.....	NOT GIVEN	LOCATION.....	JAMES GRAY SUR.	LOCATION.....	10 1/2 MI. NW BEEVILLE
OWNER.....	SIZNOD OIL CORP.	OWNER.....	DIRKS BROTHERS	OWNER.....	SOUTH STATES OIL & GAS CO.
COMPLETED.....	04/11/53	COMPLETED.....	05/12/49	COMPLETED.....	07/09/69
SAMPLED.....	04/21/53	SAMPLED.....	05/12/49	SAMPLED.....	12/04/69
FORMATION.....	EOCE-HOCKLEY	FORMATION.....	EOCE-	FORMATION.....	OLIG-VICKSBURG
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	2280	DEPTH, FEET.....	7600	DEPTH, FEET.....	2766
WELLHEAD PRESSURE, PSIG.....	951	WELLHEAD PRESSURE, PSIG.....	3300	WELLHEAD PRESSURE, PSIG.....	1081
OPEN FLOW, MCFD.....	190	OPEN FLOW, MCFD.....	13000	OPEN FLOW, MCFD.....	5000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	99.2	METHANE.....	87.6	METHANE.....	99.0
ETHANE.....	TRACE	ETHANE.....	6.0	ETHANE.....	0.2
PROPANE.....	0.0	PROPANE.....	0.8	PROPANE.....	TRACE
N-BUTANE.....	0.0	N-BUTANE.....	0.3	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.3	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.3
NITROGEN.....	0.5	NITROGEN.....	0.1	NITROGEN.....	0.0
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	1.5	CARBON DIOXIDE.....	0.4
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1005	HEATING VALUE.....	1122	HEATING VALUE.....	1007
SPECIFIC GRAVITY.....	0.559	SPECIFIC GRAVITY.....	0.657	SPECIFIC GRAVITY.....	0.560

INDEX 7603 SAMPLE 12132		INDEX 7604 SAMPLE 13533		INDEX 7605 SAMPLE 3745	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	BEE	COUNTY.....	BEE	COUNTY.....	BEE
FIELD.....	HOLZMARK	FIELD.....	LAURA THOMPSON	FIELD.....	MINERAL
WELL NAME.....	HOLZMARK G NO. 1	WELL NAME.....	LAURA BARRON B NO. 25	WELL NAME.....	PAGE NO. 2
LOCATION.....	1 MI. NW OF BEEVILLE	LOCATION.....	MIQUEL DE LOS SANTOS SUR.	LOCATION.....	WILKINGTON SUR.
OWNER.....	SOUTH STATES OIL & GAS CO.	OWNER.....	EXXON CO., U.S.A.	OWNER.....	DIRKS BROTHERS
COMPLETED.....	07/08/55	COMPLETED.....	04/06/71	COMPLETED.....	03/-/43
SAMPLED.....	12/04/69	SAMPLED.....	02/13/73	SAMPLED.....	03/31/44
FORMATION.....	EOCE-WHITSETT	FORMATION.....	OLIG-FRIO	FORMATION.....	EOCE-CARRIZO & WILCOX
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	3198	DEPTH, FEET.....	4850	DEPTH, FEET.....	7460
WELLHEAD PRESSURE, PSIG.....	11900	WELLHEAD PRESSURE, PSIG.....	1703	WELLHEAD PRESSURE, PSIG.....	2475
OPEN FLOW, MCFD.....	560000	OPEN FLOW, MCFD.....	19600	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.6	METHANE.....	91.2	METHANE.....	77.6
ETHANE.....	0.6	ETHANE.....	2.5	ETHANE.....	19.8
PROPANE.....	0.1	PROPANE.....	1.3	PROPANE.....	---
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	---
ISOBUTANE.....	0.0	ISOBUTANE.....	0.7	ISOBUTANE.....	---
N-PENTANE.....	0.0	N-PENTANE.....	0.2	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	---
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	0.4	NITROGEN.....	0.4	NITROGEN.....	0.8
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.4
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	---
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	---
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	1.7
HEATING VALUE.....	1012	HEATING VALUE.....	1082	HEATING VALUE.....	0.00
SPECIFIC GRAVITY.....	0.560	SPECIFIC GRAVITY.....	0.602	SPECIFIC GRAVITY.....	1136

INDEX 7606 SAMPLE 5298		INDEX 7607 SAMPLE 4735		INDEX 7608 SAMPLE 9910	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	BEE	COUNTY.....	BEE	COUNTY.....	BEE
FIELD.....	WINDAK	FIELD.....	WINDAK N	FIELD.....	NORMANNA S
WELL NAME.....	J. H. ANDREWS NO. 1	WELL NAME.....	EHlers-WOLTERS UNIT NO. 1	WELL NAME.....	SUDIE SCOTT NO. 1-A
LOCATION.....	A. J. DAVIS & J. G. MORROW SUR.	LOCATION.....	A. B. & M. LEVI WRIGHT SUR.	LOCATION.....	JUAN MOLINA SUR. A-40
OWNER.....	STANOLIND OIL & GAS CO.	OWNER.....	SUR OIL CO.	OWNER.....	COASTAL STATES GAS PROD. CO.
COMPLETED.....	04/16/52	COMPLETED.....	01/08/49	COMPLETED.....	05/11/63
SAMPLED.....	09/-/52	SAMPLED.....	05/03/49	SAMPLED.....	05/10/65
FORMATION.....	EOCE-	FORMATION.....	EOCE-SLICK	FORMATION.....	OLIG-FRIO 2050
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7352	DEPTH, FEET.....	7537	DEPTH, FEET.....	2041
WELLHEAD PRESSURE, PSIG.....	2635	WELLHEAD PRESSURE, PSIG.....	3259	WELLHEAD PRESSURE, PSIG.....	840
OPEN FLOW, MCFD.....	11250	OPEN FLOW, MCFD.....	5300	OPEN FLOW, MCFD.....	4300
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.2	METHANE.....	89.2	METHANE.....	98.6
ETHANE.....	5.4	ETHANE.....	5.9	ETHANE.....	TRACE
PROPANE.....	2.4	PROPANE.....	2.3	PROPANE.....	0.0
N-BUTANE.....	0.6	N-BUTANE.....	0.5	N-BUTANE.....	0.0
ISOBUTANE.....	0.6	ISOBUTANE.....	0.4	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	0.4	ISOPENTANE.....	0.2	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0
NITROGEN.....	1.5	NITROGEN.....	1.0	NITROGEN.....	0.0
OXYGEN.....	0.2	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.2	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.1	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.0	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1123	HEATING VALUE.....	1129	HEATING VALUE.....	999
SPECIFIC GRAVITY.....	0.673	SPECIFIC GRAVITY.....	0.634	SPECIFIC GRAVITY.....	0.560

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7609 4773	INDEX SAMPLE	7610 8272	INDEX SAMPLE	7611 11935
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	BEE			BEE		BEE	
FIELD.....	NOT GIVEN			PAUNEE		PETTUS	
WELL NAME.....	MCCOY-MOSS NO. 1			F. THASEK ET AL. NO. 1		G. A. RAY NO. 85	
LOCATION.....	NOT GIVEN			SEC. 25, PLUMMER SUBD.		GEORGE A. KERR SUR. A-209	
OWNER.....	WARREN OIL CORP.			SHELL OIL CO.		UNION PRODUCING CO.	
COMPLETED.....	02/16/49			11/15/61		07/27/68	
SAMPLED.....	10/26/49			11/14/61		06/14/69	
FORMATION.....	NOT GIVEN			CRET-EDWARDS		OLIG-VICKSBURG	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	2518			13408		2900	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			4437		1170	
OPEN FLOW, MCFD.....	46000			6700		9500	
COMPONENT, MOLE PCT							
METHANE.....	98.4	-----		91.5	-----	94.9	-----
ETHANE.....	0.1	-----		0.2	-----	0.1	-----
PROPANE.....	0.1	-----		0.2	-----	TRACE	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.0	-----
NITROGEN.....	0.0	-----		0.4	-----	3.3	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.8	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.1	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.5	-----	0.7	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1000	-----		936	-----	963	-----
SPECIFIC GRAVITY.....	0.565	-----		0.632	-----	0.579	-----
		INDEX SAMPLE	7612 14951	INDEX SAMPLE	7613 4931	INDEX SAMPLE	7614 4932
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	BEE			BEE		BEE	
FIELD.....	PETTUS SE			PLUMMER		PLUMMER	
WELL NAME.....	J. E. MCKINNEY NO. 2			W. A. ROBERSON NO. 1-T		W. A. ROBERSON NO. 1-C	
LOCATION.....	L. C. RANDOLPH SUR. A-279			T. B. BARTON SUR.		T. B. BARTON SUR.	
OWNER.....	HUGHES & HUGHES OIL & GAS			MID-STATES OIL CORP.		MID-STATES OIL CORP.	
COMPLETED.....	06/18/75			02/14/50		02/14/50	
SAMPLED.....	03/30/77			08/03/50		10/20/50	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		EOCE-LULLING	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8750			7017		6759	
WELLHEAD PRESSURE, PSIG.....	4128			2442		2249	
OPEN FLOW, MCFD.....	90000			26000		36000	
COMPONENT, MOLE PCT							
METHANE.....	85.1	-----		89.3	-----	88.8	-----
ETHANE.....	6.4	-----		5.4	-----	5.5	-----
PROPANE.....	3.2	-----		2.5	-----	2.7	-----
N-BUTANE.....	0.8	-----		0.6	-----	0.7	-----
ISOBUTANE.....	0.4	-----		0.4	-----	0.4	-----
N-PENTANE.....	0.2	-----		0.3	-----	0.2	-----
ISOPENTANE.....	0.3	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.4	-----	0.2	-----
NITROGEN.....	0.2	-----		0.0	-----	TRACE	-----
OXYGEN.....	0.0	-----		0.1	-----	0.2	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.0	-----		---	-----	---	-----
HELIUM.....	TRACE	-----		1.2	-----	1.2	-----
HEATING VALUE.....	1130	-----		1122	-----	1127	-----
SPECIFIC GRAVITY.....	0.681	-----		0.644	-----	0.646	-----
		INDEX SAMPLE	7615 17908	INDEX SAMPLE	7616 12693	INDEX SAMPLE	7617 12632
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	BEE			BEE		BEE	
FIELD.....	SLIVA W			SLIVA W		STRAUCH	
WELL NAME.....	D. F. MEYER NO. 1			G. C. JIMPSON NO. 1		R. G. VELA NO. 1	
LOCATION.....	MARY CARROLL SUR. A-11			C. C. DITCH CO. SUR. A-356		OSCAR FARRIS SUR. A-161	
OWNER.....	ARCO OIL & GAS CO.			RHODES & HICKS, ET AL.		HILLS BENNETT ESTATE	
COMPLETED.....	04/7/85			03/22/70		12/10/68	
SAMPLED.....	11/11/85			02/23/71		01/12/71	
FORMATION.....	CAMB-REAGAN 1ST			OLIG-FRIO		EOCE-PETTUS	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	12173			2950		3997	
WELLHEAD PRESSURE, PSIG.....	6125			1075		962	
OPEN FLOW, MCFD.....	5351			4200		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.0	-----		98.5	-----	89.7	-----
ETHANE.....	8.0	-----		0.5	-----	4.9	-----
PROPANE.....	2.3	-----		0.1	-----	2.1	-----
N-BUTANE.....	0.6	-----		0.0	-----	0.7	-----
ISOBUTANE.....	0.5	-----		0.0	-----	0.5	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.0	-----	0.4	-----
CYCLOPENTANE.....	0.2	-----		0.0	-----	0.1	-----
HEXANES PLUS.....	0.7	-----		0.0	-----	0.2	-----
NITROGEN.....	TRACE	-----		0.6	-----	0.8	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	6.1	-----		0.3	-----	0.2	-----
HELIUM.....	TRACE	-----		0.03	-----	TRACE	-----
HEATING VALUE.....	1125	-----		1109	-----	1136	-----
SPECIFIC GRAVITY.....	0.723	-----		0.563	-----	0.643	-----
		INDEX SAMPLE	7618 10146	INDEX SAMPLE	7619 2554	INDEX SAMPLE	7620 13856
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	BEE			BEE		BEE	
FIELD.....	TELERANA			TULETA		TULETA N	
WELL NAME.....	R. C. WOOD WELDER NO. 5			NOT GIVEN		W. E. MCKINNEY NO. 2	
LOCATION.....	JAMES MCGEEHAN SUR. A-38			NOT GIVEN		L. C. RANDOLPH SUR. A-279	
OWNER.....	FLOURNOY PRODUCTION CO.			TEXAS CO.		HUGHES & HUGHES OIL & GAS	
COMPLETED.....	08/01/65			08/26/32		05/13/72	
SAMPLED.....	09/22/65			10/04/32		01/02/74	
FORMATION.....	OLIG-SINTON			EOCE-JACKSON		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4409			4074		8935	
WELLHEAD PRESSURE, PSIG.....	1400			1600		3905	
OPEN FLOW, MCFD.....	8000			NOT GIVEN		82520	
COMPONENT, MOLE PCT							
METHANE.....	97.1	-----		81.3	-----	86.1	-----
ETHANE.....	0.8	-----		17.6	-----	6.3	-----
PROPANE.....	0.4	-----		---	-----	2.6	-----
N-BUTANE.....	0.1	-----		---	-----	0.5	-----
ISOBUTANE.....	TRACE	-----		---	-----	0.5	-----
N-PENTANE.....	0.2	-----		---	-----	TRACE	-----
ISOPENTANE.....	0.1	-----		---	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		---	-----	TRACE	-----
HEXANES PLUS.....	0.4	-----		---	-----	0.1	-----
NITROGEN.....	0.8	-----		---	-----	0.2	-----
OXYGEN.....	0.0	-----		0.6	-----	0.0	-----
ARGON.....	0.0	-----		---	-----	0.0	-----
HYDROGEN.....	0.0	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.5	-----	3.3	-----
HELIUM.....	0.01	-----		0.00	-----	TRACE	-----
HEATING VALUE.....	1045	-----		1195	-----	1104	-----
SPECIFIC GRAVITY.....	0.584	-----		0.650	-----	0.667	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7621 7476			INDEX SAMPLE	7622 5023			INDEX SAMPLE	7623 5056
STATE	TEXAS			STATE	TEXAS			STATE	TEXAS		
COUNTY	BEE			COUNTY	BEE			COUNTY	BEE		
FIELD	TULETA V			FIELD	WILDCAT			FIELD	WILDCAT		
WELL NAME	ROT HARRIS			WELL NAME	J. S. HALL NO. 1			WELL NAME	SALLIE RAGSDALE NO. 1		
LOCATION	RAGLEY SUBD.			LOCATION	ANNA BURKE SUR. A-5			LOCATION	A. J. DAVIS SUR. A-155		
OWNER	DIRKS BROTHERS			OWNER	BRIDWELL OIL CO.			OWNER	TEXAS CO.		
COMPLETED	12/-/41			COMPLETED	11/20/50			COMPLETED	02/15/51		
SAMPLED	03/31/48			SAMPLED	03/22/51			SAMPLED	06/20/51		
FORMATION	EOCE-CARRIZO & WILCOX			FORMATION	OL16-VICKSBURG			FORMATION	EOCE-WILCOX		
GEOLOGIC PROVINCE CODE	220			GEOLOGIC PROVINCE CODE	220			GEOLOGIC PROVINCE CODE	220		
DEPTH, FEET	7480			DEPTH, FEET	3700			DEPTH, FEET	8058		
WELLHEAD PRESSURE, PSIG	2650			WELLHEAD PRESSURE, PSIG	NOT GIVEN			WELLHEAD PRESSURE, PSIG	3400		
OPEN FLOW, MCFD	42000			OPEN FLOW, MCFD	13800			OPEN FLOW, MCFD	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE	80.6			METHANE	98.5			METHANE	68.9		
ETHANE	18.1			ETHANE	0.3			ETHANE	6.3		
PROpane	---			PROpane	0.1			PROpane	6.1		
N-BUTANE	---			N-BUTANE	TRACE			N-BUTANE	4.6		
ISOBUTANE	---			ISOBUTANE	TRACE			ISOBUTANE	3.1		
N-PENTANE	---			N-PENTANE	0.0			N-PENTANE	3.0		
ISOPENTANE	---			ISOPENTANE	0.0			ISOPENTANE	0.8		
CYCLOPENTANE	---			CYCLOPENTANE	TRACE			CYCLOPENTANE	0.5		
HEXANES PLUS	---			HEXANES PLUS	0.1			HEXANES PLUS	3.5		
NITROGEN	0.8			NITROGEN	0.7			NITROGEN	0.6		
OXYGEN	0.3			OXYGEN	0.1			OXYGEN	0.2		
ARGON	---			ARGON	TRACE			ARGON	0.0		
HYDROGEN	---			HYDROGEN	0.0			HYDROGEN	0.1		
HYDROGEN SULFIDE**	---			HYDROGEN SULFIDE**	---			HYDROGEN SULFIDE**	---		
CARBON DIOXIDE	0.2			CARBON DIOXIDE	0.1			CARBON DIOXIDE	2.4		
HELIUM	0.00			HELIUM	0.01			HELIUM	TRACE		
HEATING VALUE*	1141			HEATING VALUE*	1013			HEATING VALUE*	1586		
SPECIFIC GRAVITY	0.651			SPECIFIC GRAVITY	0.563			SPECIFIC GRAVITY	0.959		
		INDEX SAMPLE	7624 5177			INDEX SAMPLE	7625 10117			INDEX SAMPLE	7626 16056
STATE	TEXAS			STATE	TEXAS			STATE	TEXAS		
COUNTY	BEE			COUNTY	BEE			COUNTY	YOWARD		
FIELD	WILDCAT			FIELD	WILDCAT			FIELD	YOWARD		
WELL NAME	MENGER NO. 1			WELL NAME	M. FOX ESTATE B NO. 1			WELL NAME	YOWARD NO. 2		
LOCATION	NOT GIVEN			LOCATION	NEAR BLANCONIA			LOCATION	3 MI. SW MINERAL		
OWNER	NEWMAN BROS. DRILLING CO.			OWNER	FLOURNOY PRODUCTION CO.			OWNER	TEXAS OIL & GAS CORP.		
COMPLETED	---/---/00			COMPLETED	07/19/65			COMPLETED	06/05/80		
SAMPLED	02/15/52			SAMPLED	09/08/65			SAMPLED	08/20/80		
FORMATION	NOT GIVEN			FORMATION	OL10-SINTON			FORMATION	EOCE-		
GEOLOGIC PROVINCE CODE	220			GEOLOGIC PROVINCE CODE	220			GEOLOGIC PROVINCE CODE	220		
DEPTH, FEET	NOT GIVEN			DEPTH, FEET	3992			DEPTH, FEET	8236		
WELLHEAD PRESSURE, PSIG	NOT GIVEN			WELLHEAD PRESSURE, PSIG	1300			WELLHEAD PRESSURE, PSIG	1950		
OPEN FLOW, MCFD	NOT GIVEN			OPEN FLOW, MCFD	748			OPEN FLOW, MCFD	1050		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE	92.9			METHANE	98.6			METHANE	87.6		
ETHANE	4.0			ETHANE	0.4			ETHANE	2.9		
PROpane	1.0			PROpane	0.1			PROpane	2.5		
N-BUTANE	0.1			N-BUTANE	0.0			N-BUTANE	0.7		
ISOBUTANE	0.0			ISOBUTANE	0.0			ISOBUTANE	0.5		
N-PENTANE	0.1			N-PENTANE	0.0			N-PENTANE	0.3		
ISOPENTANE	0.0			ISOPENTANE	0.0			ISOPENTANE	0.3		
CYCLOPENTANE	TRACE			CYCLOPENTANE	0.0			CYCLOPENTANE	0.1		
HEXANES PLUS	0.3			HEXANES PLUS	0.0			HEXANES PLUS	0.2		
NITROGEN	1.0			NITROGEN	0.5			NITROGEN	TRACE		
OXYGEN	0.2			OXYGEN	0.0			OXYGEN	0.0		
ARGON	0.0			ARGON	TRACE			ARGON	TRACE		
HYDROGEN	0.0			HYDROGEN	0.0			HYDROGEN	0.0		
HYDROGEN SULFIDE**	---			HYDROGEN SULFIDE**	---			HYDROGEN SULFIDE**	---		
CARBON DIOXIDE	0.4			CARBON DIOXIDE	0.0			CARBON DIOXIDE	0.0		
HELIUM	TRACE			HELIUM	0.01			HELIUM	2.0		
HEATING VALUE*	1062			HEATING VALUE*	1009			HEATING VALUE*	1134		
SPECIFIC GRAVITY	0.610			SPECIFIC GRAVITY	0.563			SPECIFIC GRAVITY	0.663		
		INDEX SAMPLE	7627 2663			INDEX SAMPLE	7628 11746			INDEX SAMPLE	7629 11747
STATE	TEXAS			STATE	TEXAS			STATE	TEXAS		
COUNTY	BEXAR			COUNTY	BOWIE			COUNTY	BOWIE		
FIELD	NOT GIVEN			FIELD	HAUD			FIELD	HAUD		
WELL NAME	NOT GIVEN			WELL NAME	J. S. OWENS NO. 1			WELL NAME	HELEN HUGHES NO. 1		
LOCATION	NOT GIVEN			LOCATION	J. S. HERRING SUR. A-263			LOCATION	MEPAP SUR. A-424		
OWNER	ROBERT A. REINARZ			OWNER	WESTLAND OIL DEV. CORP.			OWNER	WESTLAND OIL DEV. CORP.		
COMPLETED	---/---/00			COMPLETED	06/15/67			COMPLETED	07/27/67		
SAMPLED	01/03/38			SAMPLED	01/29/69			SAMPLED	01/29/69		
FORMATION	NOT GIVEN			FORMATION	JURA-SHACKOVER			FORMATION	JURA-SHACKOVER		
GEOLOGIC PROVINCE CODE	400			GEOLOGIC PROVINCE CODE	260			GEOLOGIC PROVINCE CODE	260		
DEPTH, FEET	265			DEPTH, FEET	8550			DEPTH, FEET	8699		
WELLHEAD PRESSURE, PSIG	NOT GIVEN			WELLHEAD PRESSURE, PSIG	3094			WELLHEAD PRESSURE, PSIG	2250		
OPEN FLOW, MCFD	NOT GIVEN			OPEN FLOW, MCFD	78000			OPEN FLOW, MCFD	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE	0.0			METHANE	47.1			METHANE	40.8		
ETHANE	4.1			ETHANE	0.1			ETHANE	4.9		
PROpane	---			PROpane	0.4			PROpane	4.3		
N-BUTANE	---			N-BUTANE	0.3			N-BUTANE	5.4		
ISOBUTANE	---			ISOBUTANE	0.8			ISOBUTANE	2.2		
N-PENTANE	---			N-PENTANE	1.3			N-PENTANE	1.9		
ISOPENTANE	---			ISOPENTANE	0.6			ISOPENTANE	0.6		
CYCLOPENTANE	---			CYCLOPENTANE	0.1			CYCLOPENTANE	0.5		
HEXANES PLUS	---			HEXANES PLUS	3.2			HEXANES PLUS	2.5		
NITROGEN	95.5			NITROGEN	39.5			NITROGEN	26.1		
OXYGEN	0.1			OXYGEN	TRACE			OXYGEN	0.0		
ARGON	---			ARGON	0.0			ARGON	0.0		
HYDROGEN	---			HYDROGEN	0.1			HYDROGEN	TRACE		
HYDROGEN SULFIDE**	---			HYDROGEN SULFIDE**	---			HYDROGEN SULFIDE**	---		
CARBON DIOXIDE	0.3			CARBON DIOXIDE	0.2			CARBON DIOXIDE	6.3		
HELIUM	0.00			HELIUM	0.10			HELIUM	6.3		
HEATING VALUE*	---			HEATING VALUE*	794			HEATING VALUE*	0.06		
SPECIFIC GRAVITY	0.972			SPECIFIC GRAVITY	0.923			SPECIFIC GRAVITY	1.033		
		INDEX SAMPLE	7630 3857			INDEX SAMPLE	7631 16201			INDEX SAMPLE	7632 15146
STATE	TEXAS			STATE	TEXAS			STATE	TEXAS		
COUNTY	BOWIE			COUNTY	BOWIE			COUNTY	BRAZORIA		
FIELD	NOT GIVEN			FIELD	SILLOAH			FIELD	ALLIGATOR POINT		
WELL NAME	HEILBRON NO. 2			WELL NAME	B. E. LEWIS NO. 1			WELL NAME	ALLIGATOR POINT UNIT 1		
LOCATION	SEC. 38, H. JAMES SUR. A-304			LOCATION	JOHN C. CARSON SUR. A-112			LOCATION	PIERCE MILLER SUR. A-348		
OWNER	BARNHART OIL CO.			OWNER	MCCORMACK OPERATING CO.			OWNER	GENERAL CRUDE OIL CO.		
COMPLETED	07/22/44			COMPLETED	10/21/78			COMPLETED	02/06/76		
SAMPLED	07/15/44			SAMPLED	03/03/81			SAMPLED	11/05/77		
FORMATION	JURA-SHACKOVER			FORMATION	JURA-SHACKOVER			FORMATION	OL10-FR10		
GEOLOGIC PROVINCE CODE	260			GEOLOGIC PROVINCE CODE	260			GEOLOGIC PROVINCE CODE	220		
DEPTH, FEET	7686			DEPTH, FEET	8580			DEPTH, FEET	11358		
WELLHEAD PRESSURE, PSIG	1300			WELLHEAD PRESSURE, PSIG	2925			WELLHEAD PRESSURE, PSIG	7350		
OPEN FLOW, MCFD	8050			OPEN FLOW, MCFD	6700			OPEN FLOW, MCFD	1250		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE	20.9			METHANE	42.6			METHANE	91.4		
ETHANE	13.4			ETHANE	1.9			ETHANE	4.4		
PROpane	---			PROpane	0.9			PROpane	1.3		
N-BUTANE	---			N-BUTANE	0.4			N-BUTANE	0.3		
ISOBUTANE	---			ISOBUTANE	0.2			ISOBUTANE	0.4		
N-PENTANE	---			N-PENTANE	0.2			N-PENTANE	0.1		
ISOPENTANE	---			ISOPENTANE	0.2			ISOPENTANE	0.1		
CYCLOPENTANE	---			CYCLOPENTANE	TRACE			CYCLOPENTANE	0.1		
HEXANES PLUS	---			HEXANES PLUS	0.1			HEXANES PLUS	0.2		
NITROGEN	63.6			NITROGEN	39.7			NITROGEN	0.3		
OXYGEN	0.5			OXYGEN	1.6			OXYGEN	0.0		
ARGON	---			ARGON	0.1			ARGON	TRACE		
HYDROGEN	---			HYDROGEN	0.0			HYDROGEN	0.0		
HYDROGEN SULFIDE**	---			HYDROGEN SULFIDE**	4.1			HYDROGEN SULFIDE**	0.0		
CARBON DIOXIDE	1.5			CARBON DIOXIDE	7.7			CARBON DIOXIDE	1.4		
HELIUM	0.14			HELIUM	0.09			HELIUM	TRACE		
HEATING VALUE*	452			HEATING VALUE*	564			HEATING VALUE*	1085		
SPECIFIC GRAVITY	0.900			SPECIFIC GRAVITY	0.869			SPECIFIC GRAVITY	0.625		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7633 15361	INDEX SAMPLE	7634 14869	INDEX SAMPLE	7635 15144
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	BRAZORIA			BRAZORIA		BRAZORIA	
FIELD	ALLIGATOR POINT W			ALVIN CITY		ALVIN CITY	
WELL NAME	STATE LEASE 66709 NO. 1			TRIANGLE MOORE NO. 1		M. C. BAIRD NO. 1	
LOCATION	BBB&C RR SUR. A-445			HOOPER & WADE SUR. A-422		HT&B RR SUR. A-228	
OWNER	GENERAL CRUDE OIL CO.			MCCORMICK OIL & GAS CORP.		CROWN CENTRAL PETROLEUM CORP	
COMPLETED	01/05/77			11/06/75		06/17/76	
SAMPLED	09/25/78			12/--/76		11/11/77	
FORMATION	OLIG-FRIO			OLIG-FRIO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	12214			9983		9995	
WELLHEAD PRESSURE, PSIG	7635			3333		2475	
OPEN FLOW, MCFD	18457			11928		6800	
COMPONENT, MOLE PCT							
METHANE	85.3			95.2		95.5	
ETHANE	6.8			2.4		2.4	
PROPANE	3.0			0.7		0.7	
N-BUTANE	0.7			0.2		0.2	
ISOBUTANE	1.2			0.1		0.1	
N-PENTANE	0.2			TRACE		0.1	
ISOPENTANE	0.5			0.1		0.1	
CYCLOPENTANE	0.1			TRACE		0.1	
HEXANES PLUS	0.5			0.1		0.1	
NITROGEN	0.3			0.3		0.1	
OXYGEN	0.0			0.0		0.0	
ARGON	0.0			TRACE		TRACE	
HYDROGEN	0.1			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	1.3			0.8		0.6	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE	1187			1045		1056	
SPECIFIC GRAVITY	0.688			0.591		0.592	
		INDEX SAMPLE	7636 15470	INDEX SAMPLE	7637 15471	INDEX SAMPLE	7638 9601
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	BRAZORIA			BRAZORIA		BRAZORIA	
FIELD	ALVIN N			ALVIN S		LOCKHART BANK UNIT NO. 1	
WELL NAME	REESE G.U. NO. 1			REESE G.U. NO. 1		MYLES O'DONNELL SUR. A-488	
LOCATION	HT&B RR SUR. 19, A-229			HT&B RR SUR. 19, A-229		SUPERIOR OIL CO.	
OWNER	BUTTES RESOURCES CO.			BUTTES RESOURCES CO.			
COMPLETED	11/29/76			11/29/76		03/26/63	
SAMPLED	10/06/78			10/06/78		10/16/64	
FORMATION	OLIG-FRIO			OLIG-FRIO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	8108			8534		10490	
WELLHEAD PRESSURE, PSIG	2832			3010		5375	
OPEN FLOW, MCFD	11162			33782		75000	
COMPONENT, MOLE PCT							
METHANE	92.5			93.1		90.8	
ETHANE	3.5			3.4		3.7	
PROPANE	0.6			0.4		1.8	
N-BUTANE	0.4			0.4		0.7	
ISOBUTANE	0.5			0.3		0.3	
N-PENTANE	0.1			0.1		0.2	
ISOPENTANE	0.2			0.1		0.6	
CYCLOPENTANE	TRACE			0.1		0.3	
HEXANES PLUS	0.1			0.1		0.6	
NITROGEN	0.6			0.6		TRACE	
OXYGEN	0.0			0.0		TRACE	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.1			0.1		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.2			0.3		0.9	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE	1090			1086		1143	
SPECIFIC GRAVITY	0.612			0.611		0.650	
		INDEX SAMPLE	7639 10983	INDEX SAMPLE	7640 15409	INDEX SAMPLE	7641 5157
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	BRAZORIA			BRAZORIA		BRAZORIA	
FIELD	ANGLETON			ANGLETON		BASTROP BAY	
WELL NAME	BLACKWELL GAS UNIT NO. 1			D. M. MOODY, TRUSTEE NO. 1		STATE A NO. 1	
LOCATION	VALERIE SUR. A-380			VALERIE SUR. A-160		STATE TRACT NO. 13	
OWNER	MONSANTO CO.			GOLDKING PRODUCTION CO.		CHAMPLIN REFINING CO.	
COMPLETED	01/20/67			12/03/76		09/12/51	
SAMPLED	06/07/67			01/02/78		02/20/52	
FORMATION	MISS-			OLIG-FRIO		MIOC-	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	11000			10250		5772	
WELLHEAD PRESSURE, PSIG	9852			3065		2660	
OPEN FLOW, MCFD	96000			3800		60000	
COMPONENT, MOLE PCT							
METHANE	91.6			92.9		95.6	
ETHANE	4.7			2.7		1.9	
PROPANE	1.3			1.1		0.5	
N-BUTANE	0.3			0.3		0.2	
ISOBUTANE	0.4			0.3		0.0	
N-PENTANE	TRACE			0.1		0.1	
ISOPENTANE	0.1			0.2		0.1	
CYCLOPENTANE	0.1			0.1		TRACE	
HEXANES PLUS	0.1			0.2		0.0	
NITROGEN	0.7			0.6		0.2	
OXYGEN	0.0			0.0		TRACE	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.1			0.1		0.2	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.4		1.2	
HELIUM	0.01			0.01		0.01	
HEATING VALUE	1075			1065		1032	
SPECIFIC GRAVITY	0.616			0.616		0.587	
		INDEX SAMPLE	7642 15412	INDEX SAMPLE	7643 14226	INDEX SAMPLE	7644 14227
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	BRAZORIA			BRAZORIA		BRAZORIA	
FIELD	BELL LAKE			BRAZOS BLK. 386-S		BRAZOS BLK. 386-S	
WELL NAME	BALWIN NASH YOUNG NO. 1			NO. 3		NO. 3	
LOCATION	J. E. A. PHELPS SUR. A-117			BLK. 307-L OFFSHORE		BLK. 307-L OFFSHORE	
OWNER	GEOLOGICAL RESEARCH CORP.			MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED	02/15/77			08/04/72		08/04/72	
SAMPLED	10/12/78			11/18/74		11/18/74	
FORMATION	OLIG-FRIO			OLIG-FRIO		MIOC-	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	9818			6895		6895	
WELLHEAD PRESSURE, PSIG	9775			2055		2055	
OPEN FLOW, MCFD	11700			24000		24000	
COMPONENT, MOLE PCT							
METHANE	94.5			96.6		96.6	
ETHANE	2.7			1.9		1.9	
PROPANE	0.8			0.5		0.6	
N-BUTANE	0.2			0.1		0.1	
ISOBUTANE	0.2			0.2		0.2	
N-PENTANE	0.1			TRACE		TRACE	
ISOPENTANE	0.2			0.1		0.1	
CYCLOPENTANE	0.1			TRACE		0.1	
HEXANES PLUS	0.1			0.1		0.1	
NITROGEN	0.3			0.4		0.4	
OXYGEN	TRACE			0.0		0.0	
ARGON	TRACE			0.0		0.0	
HYDROGEN	0.1			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.1		0.1	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE	1067			1045		1048	
SPECIFIC GRAVITY	0.601			0.580		0.582	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7645 SAMPLE 12676			INDEX 7646 SAMPLE 4738			INDEX 7647 SAMPLE 13382		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	BRAZORIA		BRAZORIA			BRAZORIA		
FIELD.....	BUFFALO CAMP		CHOCOLATE BAYOU			CHOCOLATE BAYOU		
WELL NAME.....	J. R. SMITH ET AL. NO. 1		HOUSTON H. NO. 1			HOUSTON H. NO. 1		
LOCATION.....	S. F. AUSTIN SUR. A-19		BLK. 23, E. ANDREWS SUR.			PERRY & AUSTIN SUR. A-110		
OWNER.....	MOBIL OIL CORP.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	08/18/70		10/18/48			12/08/70		
SAMPLED.....	02/11/71		04/27/49			09/06/72		
FORMATION.....	OLIG-FRIO F-9		OLIG-M			OLIG-FRIO P		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10716		11020			11000		
WELLHEAD PRESSURE, PSIG.....	3882		6380			1817		
OPEN FLOW, MCFD.....	142000		5000			60000		
COMPONENT, MOLE PCT								
METHANE.....	91.7		89.5			88.8		
ETHANE.....	3.1		5.3			5.8		
PROPANE.....	1.5		2.0			2.5		
N-BUTANE.....	0.4		0.5			0.6		
ISOBUTANE.....	0.6		0.5			0.6		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.0		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.4		0.2			0.2		
NITROGEN.....	0.1		1.0			0.5		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.7			0.9		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1090		1105			1136		
SPECIFIC GRAVITY.....	0.629		0.639			0.649		

INDEX 7648 SAMPLE 15413			INDEX 7649 SAMPLE 12684			INDEX 7650 SAMPLE 12685		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	BRAZORIA		BRAZORIA			BRAZORIA		
FIELD.....	CHOCOLATE BAYOU		CLEMENS N			CLEMENS N		
WELL NAME.....	GRACE MCILVAINE GU NO. 1		STATE TRACT 5 NO. 2			STATE TRACT 5 NO. 2		
LOCATION.....	ASA BRIGHAM SUR. A47		WM. CUMMINGS SUR. A-59			WM. CUMMINGS SUR. A-59		
OWNER.....	SUPERIOR OIL CO.		P. R. RUTHERFORD			P. R. RUTHERFORD		
COMPLETED.....	10/10/76		07/26/69			07/26/69		
SAMPLED.....	10/16/78		02/15/71			02/15/71		
FORMATION.....	OLIG-FRIO		OLIG-FRIO C			OLIG-FRIO B		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	13566		10800			10486		
WELLHEAD PRESSURE, PSIG.....	9928		3818			2344		
OPEN FLOW, MCFD.....	5530		14000			18515		
COMPONENT, MOLE PCT								
METHANE.....	89.0		83.2			83.5		
ETHANE.....	5.1		8.3			8.2		
PROPANE.....	1.7		3.7			3.8		
N-BUTANE.....	0.4		1.0			0.8		
ISOBUTANE.....	0.4		1.6			1.6		
N-PENTANE.....	0.1		0.4			0.5		
ISOPENTANE.....	0.3		0.2			TRACE		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.4			0.5		
NITROGEN.....	0.3		0.3			0.2		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.4		1.0			0.9		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1095		1223			1223		
SPECIFIC GRAVITY.....	0.648		0.705			0.703		

INDEX 7651 SAMPLE 13924			INDEX 7652 SAMPLE 13925			INDEX 7653 SAMPLE 5004		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	BRAZORIA		BRAZORIA			BRAZORIA		
FIELD.....	CLEMENS SW		CLEMENS SW			COLLINS LAKE		
WELL NAME.....	M. MCCARTHY NO. 1		M. MCCARTHY NO. 1			M. J. JAMISON ESTATE NO. 1		
LOCATION.....	T. B. BELL SUR. A-41		T. B. BELL SUR. A-41			C. SMITH LEAGUE		
OWNER.....	DOW CHEMICAL CO. U.S.A.		DOW CHEMICAL CO. U.S.A.			MCCARTHY OIL & GAS CORP.		
COMPLETED.....	10/23/72		10/23/72			10/30/50		
SAMPLED.....	02/14/74		02/14/74			02/15/51		
FORMATION.....	OLIG-FRIO		OLIG-FRIO			OLIG-HACKBERRY		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	11352		12692			11424		
WELLHEAD PRESSURE, PSIG.....	2780		7770			5950		
OPEN FLOW, MCFD.....	14300		706			90687		
COMPONENT, MOLE PCT								
METHANE.....	94.0		92.8			88.5		
ETHANE.....	2.8		3.1			5.5		
PROPANE.....	0.9		1.1			2.7		
N-BUTANE.....	0.2		0.2			0.6		
ISOBUTANE.....	0.3		0.4			1.0		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	0.5		0.4			0.2		
OXYGEN.....	TRACE		0.1			0.1		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		1.6			1.1		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1056		1058			1136		
SPECIFIC GRAVITY.....	0.601		0.614			0.657		

INDEX 7654 SAMPLE 5165			INDEX 7655 SAMPLE 4693			INDEX 7656 SAMPLE 3759		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	BRAZORIA		BRAZORIA			BRAZORIA		
FIELD.....	COWTRAP		DANON MOUND			DANBURY		
WELL NAME.....	NO. 4368		CONOCO FEE NO. 1			TEXAS RICE PROD. CO. NO. 1		
LOCATION.....	ABSTRACT NO. 4368		NOT GIVEN			NOT GIVEN		
OWNER.....	BRAZOS OIL & GAS CO.		TEXAS CO.			HUMBLE		
COMPLETED.....	09/02/51		12/21/48			--/--/00		
SAMPLED.....	01/27/52		03/12/49			04/01/48		
FORMATION.....	OLIG-FRIO		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3067		3966			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1196		1396			2500		
OPEN FLOW, MCFD.....	11000		13200			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	97.7		98.1			89.2		
ETHANE.....	0.6		0.6			8.8		
PROPANE.....	0.1		0.2			---		
N-BUTANE.....	0.0		TRACE			---		
ISOBUTANE.....	0.0		0.1			---		
N-PENTANE.....	0.1		0.0			---		
ISOPENTANE.....	TRACE		0.0			---		
CYCLOPENTANE.....	TRACE		TRACE			---		
HEXANES PLUS.....	0.0		---			---		
NITROGEN.....	1.2		0.7			1.0		
OXYGEN.....	0.1		0.1			0.4		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	TRACE		0.0			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.4			0.6		
HELIUM.....	0.01		0.01			0.60		
HEATING VALUE.....	1008		1015			1061		
SPECIFIC GRAVITY.....	0.568		0.570			0.610		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7657 4663			INDEX SAMPLE	7658 4664			INDEX SAMPLE	7659 4665
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	BRAZORIA			BRAZORIA				BRAZORIA			
FIELD.....	DANBURY			DANBURY				DANBURY			
WELL NAME.....	BENNETT OIL & GAS CO. NO. 6			ROBERSON ESTATE NO. 1				JOHN CHOWANEC, JR., NO. 1			
LOCATION.....	HT&B RR SUR. A-265			HENRY AUSTIN SUR. A-13				HENRY AUSTIN SUR. A-13			
OWNER.....	HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.				HUMBLE OIL & REFINING CO.			
COMPLETED.....	02/24/49			05/02/48				10/20/48			
SAMPLED.....	03/01/49			03/10/49				03/10/49			
FORMATION.....	OLIG-FRIO			OLIG-FRIO				OLIG-FRIO			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	8378			7545				8310			
WELLHEAD PRESSURE, PSIG.....	3895			3450				3625			
OPEN FLOW, MCFD.....	36000			38000				38000			
COMPONENT, MOLE PCT											
METHANE.....	90.6			94.3				92.0			
ETHANE.....	4.9			2.7				3.2			
PROPANE.....	1.6			0.9				1.4			
N-BUTANE.....	0.4			0.3				0.5			
ISOBUTANE.....	0.3			0.1				0.1			
N-PENTANE.....	0.2			0.1				0.2			
ISOPENTANE.....	0.1			0.0				0.2			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	0.2			0.2				0.3			
NITROGEN.....	1.2			0.6				0.6			
OXYGEN.....	0.1			0.1				0.1			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.4			0.7				1.2			
HELIUM.....	TRACE			0.01				TRACE			
HEATING VALUE.....	1091			1057				1083			
SPECIFIC GRAVITY.....	0.625			0.600				0.624			
		INDEX SAMPLE	7660 4964			INDEX SAMPLE	7661 16182			INDEX SAMPLE	7662 10886
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	BRAZORIA			BRAZORIA				BRAZORIA			
FIELD.....	HASTINGS			DANBURY NW				HASTINGS			
WELL NAME.....	DANBURY GAS UNIT NO. 1			ADA SHARPE NO. 1				EMIL GROTE NO. 14			
LOCATION.....	M. AUSTIN LEA. SUR. NO. A-13			G. M. PATRICK SUR. 3, A-105				ACH&B SUR. 2, A-462			
OWNER.....	HUMBLE OIL & REFINING CO.			ANSCHUTZ CORP.				PAN AMERICAN PETROLEUM CORP.			
COMPLETED.....	08/23/50			02/22/57				02/22/57			
SAMPLED.....	11/28/50			02/01/81				03/07/67			
FORMATION.....	OLIG-FRIO			OLIG-FRIO				MIOC-			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	9275			13661				3918			
WELLHEAD PRESSURE, PSIG.....	4325			3650				1608			
OPEN FLOW, MCFD.....	5750			4296				50800			
COMPONENT, MOLE PCT											
METHANE.....	92.4			89.0				98.3			
ETHANE.....	3.2			5.0				0.3			
PROPANE.....	0.1			0.6				TRACE			
N-BUTANE.....	0.4			0.4				0.0			
ISOBUTANE.....	0.1			0.4				0.0			
N-PENTANE.....	0.1			0.2				0.0			
ISOPENTANE.....	0.2			0.2				0.0			
CYCLOPENTANE.....	TRACE			TRACE				0.0			
HEXANES PLUS.....	0.2			0.1				0.0			
NITROGEN.....	0.9			1.2				1.0			
OXYGEN.....	0.2			0.0				0.2			
ARGON.....	TRACE			TRACE				0.0			
HYDROGEN.....	---			0.0				0.0			
HYDROGEN SULFIDE.....	---			0.0				0.0			
CARBON DIOXIDE.....	1.3			1.6				0.2			
HELIUM.....	0.01			0.01				0.01			
HEATING VALUE.....	1061			1063				1001			
SPECIFIC GRAVITY.....	0.618			0.637				0.563			
		INDEX SAMPLE	7663 13049			INDEX SAMPLE	7664 13048			INDEX SAMPLE	7665 12335
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	BRAZORIA			BRAZORIA				BRAZORIA			
FIELD.....	HASTINGS			HASTINGS E				HASTINGS W			
WELL NAME.....	WILLIAMS NO. 5			BB&C SUR. A-160				EMIL GROTE NO. 14			
LOCATION.....	ACH&B SUR. NO.1, A-416			AMOCO PRODUCTION CO.				NOT GIVEN			
OWNER.....	AMOCO PRODUCTION CO.			02/21/70				AMOCO PETROLEUM CORP.			
COMPLETED.....	03/17/70			06/01/73				07/13/70			
SAMPLED.....	10/01/71			10/01/71				11/05/75			
FORMATION.....	MIOC-HASTINGS M-6			MIOC-HASTINGS M-12				MIOC-HASTINGS			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	3301			4570				3690			
WELLHEAD PRESSURE, PSIG.....	2074			1536				1512			
OPEN FLOW, MCFD.....	210000			28000				16500			
COMPONENT, MOLE PCT											
METHANE.....	99.1			97.7				97.3			
ETHANE.....	0.1			0.9				0.4			
PROPANE.....	0.1			0.1				0.1			
N-BUTANE.....	0.0			TRACE				0.0			
ISOBUTANE.....	0.0			TRACE				0.0			
N-PENTANE.....	0.0			TRACE				0.0			
ISOPENTANE.....	0.0			TRACE				0.0			
CYCLOPENTANE.....	0.0			TRACE				0.0			
HEXANES PLUS.....	0.0			0.1				0.0			
NITROGEN.....	0.4			0.5				0.3			
OXYGEN.....	0.0			0.0				TRACE			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.0			0.0				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				TRACE			
CARBON DIOXIDE.....	0.3			0.7				1.8			
HELIUM.....	0.01			TRACE				0.01			
HEATING VALUE.....	1008			1014				995			
SPECIFIC GRAVITY.....	0.560			0.571				0.576			
		INDEX SAMPLE	7666 3697			INDEX SAMPLE	7667 13631			INDEX SAMPLE	7668 14532
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	BRAZORIA			BRAZORIA				BRAZORIA			
FIELD.....	LOCHRIDGE			MARTIN RANCH				MARTIN RANCH			
WELL NAME.....	RAMSEY B NO. 1			T. MARTIN FEE NO. 1				T. MARTIN NO. 4			
LOCATION.....	J. M. HALL SUR.			PERRY & AUSTIN SUR. A-106				PERRY & MARTIN SUR. A-106			
OWNER.....	SHELL OIL CO.			GENERAL CRUDE OIL CO.				GENERAL CRUDE OIL CO.			
COMPLETED.....	09/02/37			01/08/73				02/14/74			
SAMPLED.....	10/31/43			06/01/73				11/05/75			
FORMATION.....	OLIG-FRIO			OLIG-FRIO				OLIG-FRIO			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	6360			14600				14888			
WELLHEAD PRESSURE, PSIG.....	2757			10901				3450			
OPEN FLOW, MCFD.....	1000			56000				13645			
COMPONENT, MOLE PCT											
METHANE.....	83.0			88.6				91.6			
ETHANE.....	16.0			1.0				3.6			
PROPANE.....	---			0.1				0.9			
N-BUTANE.....	---			0.2				0.2			
ISOBUTANE.....	---			TRACE				0.2			
N-PENTANE.....	---			TRACE				TRACE			
ISOPENTANE.....	---			0.1				0.1			
CYCLOPENTANE.....	---			TRACE				TRACE			
HEXANES PLUS.....	---			TRACE				TRACE			
NITROGEN.....	0.1			3.1				0.4			
OXYGEN.....	0.2			0.7				0.0			
ARGON.....	---			TRACE				TRACE			
HYDROGEN.....	---			0.0				0.0			
HYDROGEN SULFIDE.....	---			0.0				0.0			
CARBON DIOXIDE.....	0.7			0.4				2.9			
HELIUM.....	0.00			0.01				TRACE			
HEATING VALUE.....	1128			1002				1034			
SPECIFIC GRAVITY.....	0.642			0.628				0.619			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 7669 SAMPLE 13827	INDEX 7670 SAMPLE 13828	INDEX 7671 SAMPLE 13829
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	BRAZORIA		BRAZORIA	BRAZORIA
FIELD.....	OLD OCEAN		OLD OCEAN	OLD OCEAN
WELL NAME.....	OLD OCEAN UNIT NO. 27		OLD OCEAN UNIT NO. 148L	OLD OCEAN NO. 171
LOCATION.....	BATTLE, BERRY & WILLIAMS SUR		CHARLES BREEN LEAGUE	DAVID MCCORMICK LEAGUE
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.
COMPLETED.....	11/22/60		11/20/47	11/10/60
SAMPLED.....	11/26/73		11/26/73	11/26/73
FORMATION.....	OLIG-F-8		OLIG-LARSON	OLIG-F-7
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	9538		10755	9342
WELLHEAD PRESSURE, PSIG.....	2600		1050	1500
OPEN FLOW, MCFD.....	2550		95000	10500
COMPONENT, MOLE PCT.....				
METHANE.....	90.5	90.5	89.9	89.9
ETHANE.....	3.4	4.1	5.2	5.2
PROPANE.....	0.9	1.7	2.1	2.1
N-BUTANE.....	0.2	0.3	0.5	0.5
ISOBUTANE.....	0.3	0.6	0.5	0.5
N-PENTANE.....	0.1	0.1	0.1	0.1
ISOPENTANE.....	0.1	0.2	0.3	0.3
CYCLOPENTANE.....	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.3	0.3	0.3	0.3
NITROGEN.....	2.5	0.9	0.4	0.4
OXYGEN.....	0.3	0.1	0.0	0.0
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.3	1.4	0.5	0.5
HELIUM.....	TRACE	TRACE	TRACE	TRACE
HEATING VALUE.....	1046	1092	1128	1128
SPECIFIC GRAVITY.....	0.625	0.638	0.639	0.639
		INDEX 7672 SAMPLE 13830	INDEX 7673 SAMPLE 13831	INDEX 7674 SAMPLE 13832
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	BRAZORIA		BRAZORIA	BRAZORIA
FIELD.....	OLD OCEAN		OLD OCEAN	OLD OCEAN
WELL NAME.....	OLD OCEAN UNIT NO. 105		OLD OCEAN UNIT NO. 223	OLD OCEAN UNIT NO. 110U
LOCATION.....	CHARLES BREEN LEAGUE		OLIVER JONES LEAGUE	CHARLES BREEN LEAGUE
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.
COMPLETED.....	07/31/63		08/09/67	05/01/71
SAMPLED.....	11/26/73		11/26/73	11/26/73
FORMATION.....	OLIG-F-13		OLIG-HELLMUTH	OLIG-F-9 SAND
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	10170	12473	9629	9629
WELLHEAD PRESSURE, PSIG.....	2712	2760	1850	1850
OPEN FLOW, MCFD.....	7200	36400	10500	10500
COMPONENT, MOLE PCT.....				
METHANE.....	93.3	95.1	87.2	87.2
ETHANE.....	3.4	2.1	3.7	3.7
PROPANE.....	0.7	0.7	1.1	1.1
N-BUTANE.....	0.1	0.1	0.1	0.1
ISOBUTANE.....	0.1	0.2	0.3	0.3
N-PENTANE.....	0.1	TRACE	TRACE	TRACE
ISOPENTANE.....	0.1	TRACE	0.1	0.1
CYCLOPENTANE.....	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.1	0.1	0.1
NITROGEN.....	0.8	0.3	4.9	4.9
OXYGEN.....	0.1	0.0	1.2	1.2
ARGON.....	0.0	0.0	TRACE	TRACE
HYDROGEN.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.1	1.1	0.0	0.0
HELIUM.....	TRACE	TRACE	TRACE	TRACE
HEATING VALUE.....	1053	1038	1005	1005
SPECIFIC GRAVITY.....	0.607	0.591	0.631	0.631
		INDEX 7675 SAMPLE 13833	INDEX 7676 SAMPLE 15175	INDEX 7677 SAMPLE 15238
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	BRAZORIA		BRAZORIA	BRAZORIA
FIELD.....	OLD OCEAN		OYSTER CREEK	PEACH POINT
WELL NAME.....	OLD OCEAN UNIT NO. 127-T		SUN-FEE NO. 1	AUSTIN COLLEGE NO. 1
LOCATION.....	OLIVER JONES LEAGUE		JOHN MARTIN SUR. A-33	STEPHEN F. AUSTIN SUR. A-27
OWNER.....	AMOCO PRODUCTION CO.		HILLIARD OIL & GAS, INC.	MONSANTO CO.
COMPLETED.....	08/12/64		02/03/75	06/17/76
SAMPLED.....	11/26/73		12/27/77	03/17/78
FORMATION.....	OLIG-CAMPBELL		OLIG-FR10	OLIG-FR10 A
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	10477	7000	11250	11250
WELLHEAD PRESSURE, PSIG.....	1625	3300	7380	7380
OPEN FLOW, MCFD.....	7000	64000	92045	92045
COMPONENT, MOLE PCT.....				
METHANE.....	93.1	96.2	94.4	94.4
ETHANE.....	3.6	0.1	3.0	3.0
PROPANE.....	1.0	0.5	0.8	0.8
N-BUTANE.....	0.1	0.2	0.2	0.2
ISOBUTANE.....	0.2	0.1	0.2	0.2
N-PENTANE.....	0.0	0.1	0.1	0.1
ISOPENTANE.....	0.1	0.1	0.1	0.1
CYCLOPENTANE.....	0.1	TRACE	0.1	0.1
HEXANES PLUS.....	0.1	0.1	0.1	0.1
NITROGEN.....	0.4	0.4	0.2	0.2
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	0.0	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.3	0.1	0.0	0.0
HELIUM.....	TRACE	TRACE	TRACE	TRACE
HEATING VALUE.....	1057	1049	1058	1058
SPECIFIC GRAVITY.....	0.607	0.583	0.601	0.601
		INDEX 7678 SAMPLE 16101	INDEX 7679 SAMPLE 15237	INDEX 7680 SAMPLE 8908
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	BRAZORIA		BRAZORIA	BRAZORIA
FIELD.....	PEACH POINT		PEACH POINT S	PERRY LANDING
WELL NAME.....	AUSTIN COLLEGE NO. 2		AUSTIN COLLEGE NO. 2	ST. OF TEXAS, TR.49016 NO. 1
LOCATION.....	STEPHEN F. AUSTIN SUR. A-27		STEPHEN F. AUSTIN SUR. A-27	TR. 49016
OWNER.....	MONSANTO CO.		MONSANTO CO.	MOBIL OIL CO.
COMPLETED.....	08/17/77		11/26/77	11/23/62
SAMPLED.....	10/15/80		11/26/77	03/27/63
FORMATION.....	OLIG-FR10		OLIG-FR10 A	OLIG-FR10
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	11216	11350	10382	10382
WELLHEAD PRESSURE, PSIG.....	5255	4835	4666	4666
OPEN FLOW, MCFD.....	5730	28455	34000	34000
COMPONENT, MOLE PCT.....				
METHANE.....	93.8	94.3	94.5	94.5
ETHANE.....	3.4	2.8	2.9	2.9
PROPANE.....	0.9	0.8	0.8	0.8
N-BUTANE.....	0.2	0.3	0.2	0.2
ISOBUTANE.....	0.2	0.3	0.3	0.3
N-PENTANE.....	0.1	0.1	TRACE	TRACE
ISOPENTANE.....	0.1	0.1	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.2	0.4	0.4
NITROGEN.....	0.2	0.2	0.0	0.0
OXYGEN.....	TRACE	0.0	TRACE	TRACE
ARGON.....	0.0	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.9	0.9	0.5	0.5
HELIUM.....	TRACE	TRACE	0.01	0.01
HEATING VALUE.....	1010	1062	1066	1066
SPECIFIC GRAVITY.....	0.607	0.602	0.600	0.600

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7681 SAMPLE 3758		INDEX 7682 SAMPLE 15180		INDEX 7683 SAMPLE 14516	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	BRAZORIA	COUNTY.....	BRAZORIA	COUNTY.....	BRAZORIA
FIELD.....	PLESNER	FIELD.....	PLESNER	FIELD.....	RATTLESNAKE MOUND
WELL NAME.....	HUNT NO. 2	WELL NAME.....	T. L. SMITH NO. 8	WELL NAME.....	SWEET NO. 1-A
LOCATION.....	NOT GIVEN	LOCATION.....	GRAY & MOORE SUR. A-65	LOCATION.....	ALFRED SWINGLE SUR. A-369
OWNER.....	DANCIGER OIL & REFINING CO.	OWNER.....	EXXON CO., U.S.A.	OWNER.....	GENERAL CRUDE OIL CO.
COMPLETED.....	04/02/44	COMPLETED.....	08/04/76	COMPLETED.....	03/27/75
SAMPLED.....	04/02/44	SAMPLED.....	01/04/78	SAMPLED.....	10/22/75
FORMATION.....	OLIG-FRIO	FORMATION.....	MIOC-	FORMATION.....	MIOC-
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	6752	DEPTH, FEET.....	4806	DEPTH, FEET.....	7017
WELLHEAD PRESSURE, PSIG.....	3600	WELLHEAD PRESSURE, PSIG.....	1941	WELLHEAD PRESSURE, PSIG.....	2975
OPEN FLOW, MCFD.....	25000	OPEN FLOW, MCFD.....	490000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.0	METHANE.....	94.8	METHANE.....	93.0
ETHANE.....	7.2	ETHANE.....	2.7	ETHANE.....	3.4
PROpane.....	---	PROpane.....	0.9	PROpane.....	1.4
N-BUTANE.....	---	N-BUTANE.....	0.3	N-BUTANE.....	0.3
ISOBUTANE.....	---	ISOBUTANE.....	0.2	ISOBUTANE.....	0.6
N-PENTANE.....	---	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	---	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	---	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	0.4	NITROGEN.....	0.4	NITROGEN.....	0.5
OXYGEN.....	0.2	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2
HELIUM.....	0.00	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1061	HEATING VALUE.....	1071	HEATING VALUE.....	1088
SPECIFIC GRAVITY.....	0.595	SPECIFIC GRAVITY.....	0.600	SPECIFIC GRAVITY.....	0.611
INDEX 7684 SAMPLE 15149		INDEX 7685 SAMPLE 14870		INDEX 7686 SAMPLE 15177	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	BRAZORIA	COUNTY.....	BRAZORIA	COUNTY.....	BRAZORIA
FIELD.....	RATTLESNAKE MOUND	FIELD.....	RATTLESNAKE MOUND W	FIELD.....	SWEENEY
WELL NAME.....	E. A. SWEET NO. 2-A	WELL NAME.....	SHELL POINT UNIT NO. 1	WELL NAME.....	BERNARD RIVER LD. DEV. NO. 1
LOCATION.....	A. SWINGLE SUR. A-369	LOCATION.....	PERRY & AUSTIN SUR. A-106	LOCATION.....	OLIVER JONES SUR. A-78
OWNER.....	GENERAL CRUDE OIL CO.	OWNER.....	GENERAL CRUDE OIL CO.	OWNER.....	AMOCO PRODUCTION CO.
COMPLETED.....	02/03/76	COMPLETED.....	12/12/74	COMPLETED.....	06/27/76
SAMPLED.....	11/05/77	SAMPLED.....	12/14/76	SAMPLED.....	12/29/77
FORMATION.....	MIOC-	FORMATION.....	OLIG-FRIO SCHENCK	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	5288	DEPTH, FEET.....	14128	DEPTH, FEET.....	1670
WELLHEAD PRESSURE, PSIG.....	2000	WELLHEAD PRESSURE, PSIG.....	6500	WELLHEAD PRESSURE, PSIG.....	4375
OPEN FLOW, MCFD.....	15000	OPEN FLOW, MCFD.....	6092	OPEN FLOW, MCFD.....	2490
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.8	METHANE.....	84.0	METHANE.....	93.8
ETHANE.....	1.0	ETHANE.....	7.2	ETHANE.....	3.1
PROpane.....	0.2	PROpane.....	0.7	PROpane.....	0.7
N-BUTANE.....	TRACE	N-BUTANE.....	0.4	N-BUTANE.....	0.2
ISOBUTANE.....	TRACE	ISOBUTANE.....	0.4	ISOBUTANE.....	0.1
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	0.7	NITROGEN.....	0.7	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	2.6	CARBON DIOXIDE.....	1.4
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1019	HEATING VALUE.....	1117	HEATING VALUE.....	1048
SPECIFIC GRAVITY.....	0.567	SPECIFIC GRAVITY.....	0.672	SPECIFIC GRAVITY.....	0.603
INDEX 7687 SAMPLE 4768		INDEX 7688 SAMPLE 17203		INDEX 7689 SAMPLE 17204	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	BRAZORIA	COUNTY.....	BRAZOS	COUNTY.....	BRAZOS
FIELD.....	WILDCAT	FIELD.....	BRYAN	FIELD.....	BRYAN
WELL NAME.....	BLACKWELL NO. 1	WELL NAME.....	HARPER NO. 1	WELL NAME.....	AUSTIN HIGH SCHOOL NO. 1
LOCATION.....	18th SUR. NO. 27 A622-B	LOCATION.....	F. AUSTIN SUR. A-62	LOCATION.....	F. AUSTIN SUR. A-62
OWNER.....	ROWAN & TEXAS GULF	OWNER.....	MC MURREY PETROLEUM CO., INC.	OWNER.....	MC MURREY PETROLEUM CO., INC.
COMPLETED.....	06/7-/49	COMPLETED.....	05/7-/83	COMPLETED.....	05/7-/83
SAMPLED.....	06/19/49	SAMPLED.....	02/10/84	SAMPLED.....	02/10/84
FORMATION.....	OLIG-FRIO	FORMATION.....	CRET-WOODBINE	FORMATION.....	CRET-WOODBINE
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	10554	DEPTH, FEET.....	8300	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	4390	WELLHEAD PRESSURE, PSIG.....	850	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	2	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	95.6	METHANE.....	74.0	METHANE.....	71.2
ETHANE.....	2.1	ETHANE.....	12.0	ETHANE.....	12.9
PROpane.....	0.7	PROpane.....	7.1	PROpane.....	7.9
N-BUTANE.....	0.2	N-BUTANE.....	1.9	N-BUTANE.....	2.1
ISOBUTANE.....	0.1	ISOBUTANE.....	0.7	ISOBUTANE.....	0.7
N-PENTANE.....	0.0	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.3	ISOPENTANE.....	0.4	ISOPENTANE.....	0.5
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	0.3	NITROGEN.....	0.9	NITROGEN.....	1.5
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.2
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	2.5	CARBON DIOXIDE.....	2.4
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1052	HEATING VALUE.....	1275	HEATING VALUE.....	1300
SPECIFIC GRAVITY.....	0.591	SPECIFIC GRAVITY.....	0.770	SPECIFIC GRAVITY.....	0.793
INDEX 7690 SAMPLE 3880		INDEX 7691 SAMPLE 6295		INDEX 7692 SAMPLE 9716	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	BRAZOS	COUNTY.....	BRISCOE	COUNTY.....	BROOKS
FIELD.....	MILICAN	FIELD.....	NOT GIVEN	FIELD.....	ALTA MESA
WELL NAME.....	WHARTON WEEMS NO. 1	WELL NAME.....	RITCHIE NO. 2	WELL NAME.....	GARCIA NO. 1-20
LOCATION.....	J. M. BARRERA SUR.	LOCATION.....	SEC. 34, BLK. 5, G&A SUR.	LOCATION.....	NOT GIVEN
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	J. F. SMITH & J. W. COLLINS	OWNER.....	STANDARD OIL CO. OF TEXAS
COMPLETED.....	04/02/44	COMPLETED.....	7/7-/00	COMPLETED.....	04/30/63
SAMPLED.....	09/17/44	SAMPLED.....	04/02/57	SAMPLED.....	01/29/65
FORMATION.....	COCE-WILCOX U	FORMATION.....	NOT GIVEN	FORMATION.....	OLIG-VICKSBURG
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	3096	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	7300
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	4300
OPEN FLOW, MCFD.....	5800	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	8680
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.9	METHANE.....	89.3	METHANE.....	90.6
ETHANE.....	1.0	ETHANE.....	1.0	ETHANE.....	5.1
PROpane.....	---	PROpane.....	0.0	PROpane.....	1.8
N-BUTANE.....	---	N-BUTANE.....	0.0	N-BUTANE.....	0.5
ISOBUTANE.....	---	ISOBUTANE.....	0.0	ISOBUTANE.....	0.6
N-PENTANE.....	---	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	---	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	---	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.3
NITROGEN.....	1.2	NITROGEN.....	8.2	NITROGEN.....	0.5
OXYGEN.....	0.1	OXYGEN.....	2.2	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	---	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.2
HELIUM.....	0.02	HELIUM.....	905	HELIUM.....	TRACE
HEATING VALUE.....	1000	HEATING VALUE.....	905	HEATING VALUE.....	1125
SPECIFIC GRAVITY.....	0.573	SPECIFIC GRAVITY.....	0.602	SPECIFIC GRAVITY.....	0.633

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7693 15527	INDEX SAMPLE	7694 12175	INDEX SAMPLE	7695 15214
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	BROOKS			BROOKS		BROOKS	
FIELD.....	ALTA MESA E			BOEDECKER M		CARL PETERS	
WELL NAME.....	PEREZ G.U. NO. 1			ED RACHAL FOUNDATION NO. 1		D. J. SULLIVAN "F" NO. 6	
LOCATION.....	LA ENCANTADA GRANT, A-97			JOSE NAVAZ SUR. 660, A-420		S. A. DEL ENCINAL 6T, A-370	
OWNER.....	SAMEDAN OIL CORP.			FOREST OIL CORP.		EXXON CO., U.S.A.	
COMPLETED.....	04/13/76			09/01/69		12/03/71	
SAMPLED.....	11/29/78			07/--/70		02/17/78	
FORMATION.....	EOCE-LOMA BLANCA			OLIG-FRIO		MIOC-	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8717			7566		7014	
WELLHEAD PRESSURE, PSIG.....	6217			2722		2370	
OPEN FLOW, MCFD.....	5800			4600		3400	
COMPONENT, MOLE PCT							
METHANE.....	91.3	-----		92.8	-----	93.7	-----
ETHANE.....	4.7	-----		3.5	-----	3.0	-----
PROpane.....	1.8	-----		1.2	-----	1.0	-----
N-BUTANE.....	0.4	-----		0.2	-----	0.3	-----
ISOBUTANE.....	0.4	-----		0.2	-----	0.3	-----
N-PENTANE.....	0.2	-----		TRACE	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.3	-----
NITROGEN.....	0.1	-----		1.5	-----	0.7	-----
OXYGEN.....	0.0	-----		0.2	-----	0.1	-----
ARGON.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.1	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		TRACE	-----	0.1	-----
HELIUM.....	TRACE	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1114	-----		1058	-----	1081	-----
SPECIFIC GRAVITY.....	0.627	-----		0.601	-----	0.607	-----

		INDEX SAMPLE	7696 9596	INDEX SAMPLE	7697 12573	INDEX SAMPLE	7698 14622
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	BROOKS			BROOKS		BROOKS	
FIELD.....	ENCINITAS			ENCINITAS E		FLOWELLA	
WELL NAME.....	BRAULIA DE GARCIA NO. 23			HECTOR LOPEZ NO. 1		NEWMONT NO. 1	
LOCATION.....	R. G. SALINAS SUR. A-480			LA RUICA GRANT A-481		SEC. 14, LOMA BLANCO GNT.	
OWNER.....	STANDARD OIL CO. OF TEXAS			COASTAL STATES GAS PROD. CO.		CROWN CENTRAL PETROLEUM CORP	
COMPLETED.....	--/--/63			03/10/70		05/17/74	
SAMPLED.....	10/02/64			12/08/70		03/20/76	
FORMATION.....	OLIG-SALINAS			OLIG-VICKSBURG		OLIG-VICKSBURG	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9970			9100		10220	
WELLHEAD PRESSURE, PSIG.....	3500			3500		5889	
OPEN FLOW, MCFD.....	1240			37000		10000	
COMPONENT, MOLE PCT							
METHANE.....	89.9	-----		88.5	-----	88.5	-----
ETHANE.....	5.4	-----		5.6	-----	6.1	-----
PROpane.....	1.9	-----		2.4	-----	2.3	-----
N-BUTANE.....	0.7	-----		0.5	-----	0.4	-----
ISOBUTANE.....	0.5	-----		0.3	-----	0.7	-----
N-PENTANE.....	0.3	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.3	-----	0.1	-----
CYCLOPENTANE.....	0.2	-----		0.2	-----	TRACE	-----
HEXANES PLUS.....	0.6	-----		0.5	-----	0.2	-----
NITROGEN.....	TRACE	-----		0.9	-----	0.5	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----	1.0	-----
HELIUM.....	TRACE	-----		0.01	-----	TRACE	-----
HEATING VALUE.....	1157	-----		1157	-----	1126	-----
SPECIFIC GRAVITY.....	0.648	-----		0.657	-----	0.647	-----

		INDEX SAMPLE	7699 10649	INDEX SAMPLE	7700 13900	INDEX SAMPLE	7701 10186
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	BROOKS			BROOKS		BROOKS	
FIELD.....	KELSEY DEEP			KELSEY DEEP		LA ENCANTADA	
WELL NAME.....	MCGILL BROS. NO. 350			MCGILL BROS. NO. 203 T		"F" MANGEL NO. 1	
LOCATION.....	SAN ANTONIO GRANT A-214			LA BLANCO GRANT		LA ENCANTADA GRANT, TRACT 4	
OWNER.....	HUMBLE OIL & REFINING CO.			EXXON CO., U.S.A.		BIRDWELL & BRADY	
COMPLETED.....	07/07/66			09/03/72		04/14/62	
SAMPLED.....	11/21/63			01/30/74		09/30/65	
FORMATION.....	OLIG-VICKSBURG 26-A			OLIG-FRIO 19-K-NW		OLIG-VICKSBURG	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7835			5906		9268	
WELLHEAD PRESSURE, PSIG.....	2995			1910		6315	
OPEN FLOW, MCFD.....	29000			8857		6100	
COMPONENT, MOLE PCT							
METHANE.....	89.7	-----		92.8	-----	91.6	-----
ETHANE.....	4.2	-----		3.9	-----	4.6	-----
PROpane.....	2.1	-----		1.7	-----	1.7	-----
N-BUTANE.....	0.8	-----		0.4	-----	0.5	-----
ISOBUTANE.....	0.6	-----		0.4	-----	0.4	-----
N-PENTANE.....	0.4	-----		TRACE	-----	0.1	-----
ISOPENTANE.....	0.4	-----		0.1	-----	0.3	-----
CYCLOPENTANE.....	0.4	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	1.1	-----		0.1	-----	0.2	-----
NITROGEN.....	0.3	-----		0.3	-----	0.3	-----
OXYGEN.....	0.0	-----		0.1	-----	0.0	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.3	-----
HELIUM.....	0.01	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1187	-----		1187	-----	1112	-----
SPECIFIC GRAVITY.....	0.670	-----		0.614	-----	0.625	-----

		INDEX SAMPLE	7702 10114	INDEX SAMPLE	7703 4385	INDEX SAMPLE	7704 10257
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	BROOKS			BROOKS		BROOKS	
FIELD.....	LA GLORIA			MARIPOSA		MARIPOSA	
WELL NAME.....	LAGLORIA GAS UNIT 49-T			D. J. SULLIVAN C-4		D. J. SULLIVAN NO. 2	
LOCATION.....	BLK. 8, JACOB SUBD.			TW R. CO. SUR. 151		KINGSVILLE DIST. FLOYD SUR.	
OWNER.....	SOCONY MOBIL OIL CO., INC.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	11/21/63			04/19/46		08/16/51	
SAMPLED.....	09/08/65			11/17/47		10/29/65	
FORMATION.....	OLIG-ONEIL			OLIG-FRIO		OLIG-VICKSBURG M-10	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6924			7502		8834	
WELLHEAD PRESSURE, PSIG.....	1640			3535		3560	
OPEN FLOW, MCFD.....	4400			22000		7220	
COMPONENT, MOLE PCT							
METHANE.....	91.9	-----		87.2	-----	94.4	-----
ETHANE.....	4.1	-----		11.5	-----	3.3	-----
PROpane.....	1.8	-----		---	-----	0.9	-----
N-BUTANE.....	0.4	-----		---	-----	0.3	-----
ISOBUTANE.....	0.4	-----		---	-----	0.3	-----
N-PENTANE.....	0.1	-----		---	-----	0.1	-----
ISOPENTANE.....	0.2	-----		---	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		---	-----	TRACE	-----
HEXANES PLUS.....	0.3	-----		---	-----	0.1	-----
NITROGEN.....	0.5	-----		0.6	-----	0.4	-----
OXYGEN.....	0.2	-----		0.4	-----	0.0	-----
ARGON.....	TRACE	-----		---	-----	TRACE	-----
HYDROGEN.....	0.0	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.3	-----	0.1	-----
HELIUM.....	TRACE	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1110	-----		1089	-----	1073	-----
SPECIFIC GRAVITY.....	0.623	-----		0.619	-----	0.598	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7705 SAMPLE 13839			INDEX 7706 SAMPLE 13536			INDEX 7707 SAMPLE 15907		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	BROOKS		BROOKS			BROOKS		
FIELD.....	WILL BENNETT		WILL BENNETT			RUCIAS N		
WELL NAME.....	MILLS BENNETT FEE NO. 34		D. J. SULLIVAN NO. 8-29F			CARTER RANCH NO. 1		
LOCATION.....	PALO BLANCO GRANT A-258		SAN ANTONIO DE ENCINAL GRANT			LA RUCIO GRANT A-481		
OWNER.....	MILLS BENNETT ESTATE		EXXON CO., U.S.A.			McCORMICK OIL & GAS CORP.		
COMPLETED.....	07/27/73		09/-/70			02/21/80		
SAMPLED.....	12/21/73		02/15/73			02/17/80		
FORMATION.....	OLIG-FRIO-L-3, SEG. 3		OLIG-FRIO			OLIG-VICKSBURG		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5706		8254			10314		
WELLHEAD PRESSURE, PSIG.....	1738		2975			7646		
OPEN FLOW, MCFD.....	7170		33			18000		
COMPONENT, MOLE PCT								
METHANE.....	89.6		93.6			85.4		
ETHANE.....	4.5		3.6			7.8		
PROPANE.....	2.9		1.2			3.9		
N-BUTANE.....	0.6		0.2			0.7		
ISOBUTANE.....	0.7		0.4			0.9		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.5		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.4			0.2		
NITROGEN.....	1.7		0.5			0.3		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.8		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	1117		1078			1179		
SPECIFIC GRAVITY.....	0.640		0.601			0.675		
INDEX 7708 SAMPLE 15986			INDEX 7709 SAMPLE 16099			INDEX 7710 SAMPLE 15524		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	BROOKS		BROOKS			BROOKS		
FIELD.....	RUCIAS N		RUCIAS N			SANTA FE E		
WELL NAME.....	BARBARA LIPS "C" NO. 1		BARBARA LIPS "C" NO. 1			SANTA FE NO. 33-D		
LOCATION.....	9 MI. SW RACHAL		VARGAS GRANT A-192			SAN SALVADOR DEL TULE GRANT		
OWNER.....	HILLIARD OIL & GAS, INC.		HILLIARD OIL & GAS, INC.			EXXON CO., U.S.A.		
COMPLETED.....	10/16/79		10/16/79			04/19/77		
SAMPLED.....	06/18/80		10/14/80			11/14/78		
FORMATION.....	OLIG-VICKSBURG		OLIG-VICKSBURG			OLIG-MASSIVE		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10470		10470			9150		
WELLHEAD PRESSURE, PSIG.....	8360		8500			1200		
OPEN FLOW, MCFD.....	43000		3000			1700		
COMPONENT, MOLE PCT								
METHANE.....	71.8		67.8			94.0		
ETHANE.....	9.0		10.2			3.5		
PROPANE.....	6.7		7.9			0.9		
N-BUTANE.....	3.2		1.6			0.2		
ISOBUTANE.....	3.2		3.7			0.3		
N-PENTANE.....	1.3		1.5			0.1		
ISOPENTANE.....	0.1		0.3			0.1		
CYCLOPENTANE.....	0.2		0.3			TRACE		
HEXANES PLUS.....	1.5		1.9			0.2		
NITROGEN.....	0.1		0.0			0.5		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		1.2			0.2		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1499		1579			1074		
SPECIFIC GRAVITY.....	0.878		0.928			0.601		
INDEX 7711 SAMPLE 3834			INDEX 7712 SAMPLE 10184			INDEX 7713 SAMPLE 15212		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	BROOKS		BROOKS			BROOKS		
FIELD.....	SCOTT & HOPPER		SKIPPER			TIO AYOLA		
WELL NAME.....	SCOTT & HOPPER NO. 1		SKIPPER G.U. 1 WELL NO. 1			R. J. KLEBERG, JR. NO. 17		
LOCATION.....	SEC. 107, ACHAB SUB		LA ENCANTADA GRANT, A-97			TIO AYOLA GRANT A-389		
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & TEXAS CO.			EXXON CO., U.S.A.		
COMPLETED.....	--/--/00		06/22/65			01/21/75		
SAMPLED.....	05/04/44		10/01/65			02/15/78		
FORMATION.....	OLIG-FRIO		OLIG-FRIO 1-2M			MIOC-B-25		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	6536		8219			1258		
WELLHEAD PRESSURE, PSIG.....	1700		4360			485		
OPEN FLOW, MCFD.....	NOT GIVEN		54000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.4		90.0			98.2		
ETHANE.....	11.3		4.7			0.2		
PROPANE.....	---		1.8			TRACE		
N-BUTANE.....	---		0.5			0.0		
ISOBUTANE.....	---		0.2			0.0		
N-PENTANE.....	---		0.1			0.0		
ISOPENTANE.....	---		0.2			0.0		
CYCLOPENTANE.....	---		TRACE			0.0		
HEXANES PLUS.....	---		0.2			0.0		
NITROGEN.....	4.0		0.1			1.5		
OXYGEN.....	0.2		0.0			0.2		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			TRACE		
HELIUM.....	TRACE		0.02			0.01		
HEATING VALUE.....	1057		1105			998		
SPECIFIC GRAVITY.....	0.629		0.614			0.561		
INDEX 7714 SAMPLE 11594			INDEX 7715 SAMPLE 7959			INDEX 7716 SAMPLE 7963		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	BROOKS		BROWN			BROWN		
FIELD.....	LOS MUERTOS PASTURE NO. 9D		BROOKESMITH			BROOKESMITH		
WELL NAME.....	EL LUZERO GRANT A-199		LEWIS HENDERSON NO. 1-A			LEWIS & EMMA HENDERSON NO. 1		
LOCATION.....	HUMBLE OIL & REFINING CO.		LEECO GAS & OIL CO.			NOT GIVEN		
OWNER.....	---		---			LEECO GAS & OIL CO.		
COMPLETED.....	05/23/67		05/16/61			---		
SAMPLED.....	07/29/68		PENN-MARBLE FALLS			05/16/61		
FORMATION.....	OLIG-FRIO I-12		425			PENN-MARBLE FALLS		
GEOLOGIC PROVINCE CODE.....	220		425			425		
DEPTH, FEET.....	7850		1214			1155		
WELLHEAD PRESSURE, PSIG.....	2500		500			565		
OPEN FLOW, MCFD.....	89000		250			3000		
COMPONENT, MOLE PCT								
METHANE.....	78.1		80.7			81.2		
ETHANE.....	3.9		2.8			1.9		
PROPANE.....	0.5		0.6			0.8		
N-BUTANE.....	0.3		0.6			0.2		
ISOBUTANE.....	0.5		0.2			0.1		
N-PENTANE.....	0.1		0.1			TRACE		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	12.2		0.0			TRACE		
NITROGEN.....	2.9		0.0			15.0		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.6			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.2		
HELIUM.....	0.01		0.00			0.40		
HEATING VALUE.....	949		949			892		
SPECIFIC GRAVITY.....	0.678		0.651			0.641		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7717 7965			INDEX SAMPLE	7718 7958			INDEX SAMPLE	7719 7960
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	BROWN			BROWN				BROWN			
FIELD.....	BROOKESMITH			BROOKESMITH E				BROOKESMITH E			
WELL NAME.....	CORNAVAY NO. 1			MCNURLEN & KIRKPATRICK NO. 1				MCNURLEN & KIRKPATRICK NO. 6			
LOCATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OWNER.....	LEECO GAS & OIL CO.			LEECO GAS & OIL CO.				LEECO GAS & OIL CO.			
COMPLETED.....	05/16/61			06/17/59				02/17/60			
SAMPLED.....	05/16/61			05/16/61				05/16/61			
FORMATION.....	PENN-MARBLE FALLS			PENN-MARBLE FALLS				PENN-MARBLE FALLS			
GEOLOGIC PROVINCE CODE.....	425			425				425			
DEPTH, FEET.....	1112			1262				1102			
WELLHEAD PRESSURE, PSIG.....	575			613				635			
OPEN FLOW, MCFD.....	2200			1100				4200			
COMPONENT, MOLE PCT											
METHANE.....	81.6			77.0				79.6			
ETHANE.....	1.7			3.7				4.4			
PROPANE.....	0.6			1.7				1.9			
N-BUTANE.....	0.1			0.1				0.4			
ISOBUTANE.....	TRACE			0.3				0.2			
N-PENTANE.....	TRACE			TRACE				0.1			
ISOPENTANE.....	0.1			TRACE				0.1			
CYCLOPENTANE.....	0.0			TRACE				0.1			
HEXANES PLUS.....	TRACE			TRACE				TRACE			
NITROGEN.....	14.9			19.1				12.6			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			TRACE				0.1			
HYDROGEN SULFIDE.....	0.0			0.2				0.0			
CARBON DIOXIDE.....	0.40			0.50				0.2			
HELIUM.....	880			914				0.40			
HEATING VALUE.....	0.635			0.566				964			
SPECIFIC GRAVITY.....								0.560			
		INDEX SAMPLE	7720 7961			INDEX SAMPLE	7721 7962			INDEX SAMPLE	7722 7967
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	BROWN			BROWN				BROWN			
FIELD.....	BROOKESMITH E			BROOKESMITH E				BROOKESMITH E			
WELL NAME.....	BAXTER & KIRKPATRICK NO. 1			ZELMA FRY NO. 1-A				GRELLE-KIRKPATRICK NO. 1			
LOCATION.....	NOT GIVEN			W. GUTHRIE SUR.				NOT GIVEN			
OWNER.....	LEECO GAS & OIL CO.			LEECO GAS & OIL CO.				LEECO GAS & OIL CO.			
COMPLETED.....	01/17/60			10/24/60				10/24/60			
SAMPLED.....	05/16/61			05/16/61				05/16/61			
FORMATION.....	PENN-MARBLE FALLS			PENN-MARBLE FALLS				PENN-MARBLE FALLS			
GEOLOGIC PROVINCE CODE.....	425			425				425			
DEPTH, FEET.....	1286			1286				1223			
WELLHEAD PRESSURE, PSIG.....	600			625				613			
OPEN FLOW, MCFD.....	480			900				840			
COMPONENT, MOLE PCT											
METHANE.....	77.3			77.0				78.1			
ETHANE.....	3.7			5.0				3.5			
PROPANE.....	1.6			1.7				1.6			
N-BUTANE.....	0.4			0.5				0.3			
ISOBUTANE.....	0.3			0.2				0.3			
N-PENTANE.....	TRACE			0.1				TRACE			
ISOPENTANE.....	0.1			TRACE				0.1			
CYCLOPENTANE.....	0.0			TRACE				0.0			
HEXANES PLUS.....	TRACE			0.1				TRACE			
NITROGEN.....	15.6			15.8				14.9			
OXYGEN.....	0.0			TRACE				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.1			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.4			0.50				0.0			
HELIUM.....	919			929				0.50			
HEATING VALUE.....	0.667			0.674				927			
SPECIFIC GRAVITY.....								0.662			
		INDEX SAMPLE	7723 4935			INDEX SAMPLE	7724 4937			INDEX SAMPLE	7725 10895
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	BROWN			BROWN				BROWN			
FIELD.....	BROWN COUNTY REGULAR			BROWN COUNTY REGULAR				BROWN COUNTY REGULAR			
WELL NAME.....	MOORE HEILS NO. 1			6. H. WILLIAMS NO. 1-A				6. H. WILLIAMS NO. 1-A			
LOCATION.....	J. C. BAILEY SUR. NO. 137			JOHN BECK SUR. NO. 792				JOHN BECK SUR. NO. 792			
OWNER.....	HICKOK & REYNOLDS ROYALTY CO			HICKOK & REYNOLDS ROYALTY CO				KIRK & NEEB			
COMPLETED.....	08/21/50			04/30/50				02/21/67			
SAMPLED.....	08/21/50			08/21/50				05/16/61			
FORMATION.....	PENN-MARBLE FALLS			PENN-MARBLE FALLS				PENN-MARBLE FALLS			
GEOLOGIC PROVINCE CODE.....	425			425				425			
DEPTH, FEET.....	2714			1473				2732			
WELLHEAD PRESSURE, PSIG.....	700			600				NOT GIVEN			
OPEN FLOW, MCFD.....	4000			8500				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	76.3			77.7				69.2			
ETHANE.....	10.3			5.2				12.4			
PROPANE.....	4.5			2.3				8.0			
N-BUTANE.....	1.0			1.9				1.9			
ISOBUTANE.....	0.3			0.1				0.9			
N-PENTANE.....	0.2			0.2				0.5			
ISOPENTANE.....	TRACE			TRACE				0.2			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	0.2			0.2				0.3			
NITROGEN.....	6.6			12.8				6.5			
OXYGEN.....	0.2			0.1				0.0			
ARGON.....	TRACE			TRACE				0.0			
HYDROGEN.....	---			TRACE				0.0			
HYDROGEN SULFIDE.....	---			---				0.0			
CARBON DIOXIDE.....	0.3			0.2				0.1			
HELIUM.....	0.14			0.41				0.10			
HEATING VALUE.....	1136			986				1274			
SPECIFIC GRAVITY.....	0.712			0.677				0.788			
		INDEX SAMPLE	7726 863			INDEX SAMPLE	7727 7964			INDEX SAMPLE	7728 7966
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	BROWN			BROWN				BROWN			
FIELD.....	BROWNWOOD			BROWNWOOD S				BROWNWOOD S			
WELL NAME.....	CAPPS			THOMPSON NO. 1				E. J. BALL NO. 1			
LOCATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OWNER.....	H. G. LUCAS			LEECO GAS & OIL CO.				LEECO GAS & OIL CO.			
COMPLETED.....	10/29/59			10/29/59				09/18/58			
SAMPLED.....	04/20/24			05/16/61				05/16/61			
FORMATION.....	PENN-CADDO U			PENN-MARBLE FALLS				PENN-MARBLE FALLS			
GEOLOGIC PROVINCE CODE.....	425			425				425			
DEPTH, FEET.....	1450			1141				1336			
WELLHEAD PRESSURE, PSIG.....	1275			608				517			
OPEN FLOW, MCFD.....	1500			3650				600			
COMPONENT, MOLE PCT											
METHANE.....	91.1			82.1				74.3			
ETHANE.....	2.8			2.2				3.2			
PROPANE.....	---			2.3				1.3			
N-BUTANE.....	---			0.6				0.3			
ISOBUTANE.....	---			0.1				0.2			
N-PENTANE.....	---			0.1				TRACE			
ISOPENTANE.....	---			0.1				0.1			
CYCLOPENTANE.....	---			TRACE				TRACE			
HEXANES PLUS.....	---			---				TRACE			
NITROGEN.....	4.7			8.4				19.8			
OXYGEN.....	0.8			0.0				0.0			
ARGON.....	---			TRACE				0.1			
HYDROGEN.....	---			---				TRACE			
HYDROGEN SULFIDE.....	---			0.0				0.0			
CARBON DIOXIDE.....	0.3			0.5				0.1			
HELIUM.....	0.30			0.50				0.60			
HEATING VALUE.....	973			1029				865			
SPECIFIC GRAVITY.....	0.594			0.662				0.674			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7729 7046	INDEX SAMPLE	7730 15408	INDEX SAMPLE	7731 12494
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	BROWN			BURLESON		CALHOUN	
FIELD.....	MAY W			CLAY NE		APPLING SE	
WELL NAME.....	L. GARNETT & J. CLARK NO. 1			JESSE MOORE ESTATE NO. 2		TRULL MEIRS NO. 1	
LOCATION.....	J. DDO SUR. NO. 16			J. B. CHANCE SUR. A-9		JAMES HUGHSON SUR. A-23	
OWNER.....	CHAPMAN OIL CO.			HILL PRODUCTION CO.		HARKINS & CO.	
COMPLETED.....	09/21/58			11/27/76		07/10/69	
SAMPLED.....	04/20/59			10/10/78		10/02/70	
FORMATION.....	PENN-MARBLE FALLS			CRET-AUSTIN CHALK		OLIG-MASSIVE	
GEOLOGIC PROVINCE CODE.....	425			220		220	
DEPTH, FEET.....	2552			11436		8320	
WELLHEAD PRESSURE, PSIG.....	1020			4842		4650	
OPEN FLOW, MCFD.....	150			30500		9800	
COMPONENT, MOLE PCT							
METHANE.....	77.7	---	---	80.8	---	87.8	---
ETHANE.....	9.5	---	---	8.2	---	4.2	---
PROPANE.....	4.3	---	---	2.3	---	1.6	---
N-BUTANE.....	1.1	---	---	0.7	---	0.4	---
ISOBUTANE.....	0.5	---	---	0.5	---	0.7	---
N-PENTANE.....	0.1	---	---	0.2	---	0.3	---
ISOPENTANE.....	0.3	---	---	0.3	---	TRACE	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.3	---	0.4	---
NITROGEN.....	5.3	---	---	0.2	---	3.4	---
OXYGEN.....	0.0	---	---	0.0	---	0.7	---
ARGON.....	TRACE	---	---	0.0	---	TRACE	---
HYDROGEN.....	TRACE	---	---	0.1	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.7	---	---	0.2	---	0.3	---
HELIUM.....	0.20	---	---	TRACE	---	0.01	---
HEATING VALUE.....	1154	---	---	1124	---	1081	---
SPECIFIC GRAVITY.....	0.711	---	---	0.710	---	0.646	---
		INDEX SAMPLE	7732 13866	INDEX SAMPLE	7733 16738	INDEX SAMPLE	7734 9223
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CALHOUN			CALHOUN		CALHOUN	
FIELD.....	APPLING SE			CAVALLO		GREEN LAKE W	
WELL NAME.....	FLORENCE H. TRULL NO. 1			B-8		NO. 1-LT	
LOCATION.....	JAMES HUGHSON SUR. A-23			ST. TRACT 526-L		MUELLER G. U.	
OWNER.....	ROBERT MOSBACHER			TENNECO OIL EXPL. & PROD. CO		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	12/02/71			--/7/79		12/--/61	
SAMPLED.....	01/17/74			12/18/82		01/15/64	
FORMATION.....	OLIG-MELBOURNE			OLIG-DISCORBIS		OLIG-FRIO & SHERIFF	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8237			10400		9115	
WELLHEAD PRESSURE, PSIG.....	4812			1690		2300	
OPEN FLOW, MCFD.....	12400			9		7322	
COMPONENT, MOLE PCT							
METHANE.....	88.9	---	---	93.7	---	90.1	---
ETHANE.....	4.1	---	---	2.9	---	5.3	---
PROPANE.....	0.7	---	---	0.9	---	2.0	---
N-BUTANE.....	0.3	---	---	0.3	---	0.7	---
ISOBUTANE.....	0.8	---	---	0.3	---	0.3	---
N-PENTANE.....	0.1	---	---	0.1	---	0.1	---
ISOPENTANE.....	0.2	---	---	0.2	---	0.4	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.3	---	0.2	---
NITROGEN.....	3.0	---	---	0.4	---	0.3	---
OXYGEN.....	0.0	---	---	TRACE	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	TRACE	---	---	0.2	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.7	---	---	0.7	---	0.5	---
HELIUM.....	TRACE	---	---	TRACE	---	0.01	---
HEATING VALUE.....	1078	---	---	1077	---	1129	---
SPECIFIC GRAVITY.....	0.638	---	---	0.610	---	0.638	---
		INDEX SAMPLE	7735 12745	INDEX SAMPLE	7736 12746	INDEX SAMPLE	7737 13129
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CALHOUN			CALHOUN		CALHOUN	
FIELD.....	HEYSER			HEYSER		KELLER'S BAY	
WELL NAME.....	H. T. MARSHALL NO. 11F			H. T. MARSHALL NO. 11D		STATE G.U. NO. 18	
LOCATION.....	AGATON SISNEROS SUR. A-36			AGATON SISNEROS SUR. A-36		STATE TRACT 55, LAVACA BAY	
OWNER.....	HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	--/--/70			--/--/70		02/10/70	
SAMPLED.....	03/31/71			03/31/71		12/27/71	
FORMATION.....	MICO-3500 FT SD.			MICO-3700 FT SD.		OLIG-MELBOURNE	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3500			3700		8258	
WELLHEAD PRESSURE, PSIG.....	1400			1405		600	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		1900	
COMPONENT, MOLE PCT							
METHANE.....	99.2	---	---	99.3	---	91.9	---
ETHANE.....	0.1	---	---	0.1	---	4.0	---
PROPANE.....	TRACE	---	---	TRACE	---	1.6	---
N-BUTANE.....	0.0	---	---	0.0	---	0.5	---
ISOBUTANE.....	0.0	---	---	0.0	---	0.5	---
N-PENTANE.....	0.0	---	---	0.0	---	0.3	---
ISOPENTANE.....	0.0	---	---	0.0	---	0.1	---
CYCLOPENTANE.....	0.0	---	---	0.0	---	0.1	---
HEXANES PLUS.....	0.0	---	---	0.0	---	0.3	---
NITROGEN.....	0.5	---	---	0.4	---	0.6	---
OXYGEN.....	TRACE	---	---	0.0	---	0.0	---
ARGON.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.4	---
HELIUM.....	0.01	---	---	0.01	---	0.01	---
HEATING VALUE.....	1007	---	---	1008	---	1114	---
SPECIFIC GRAVITY.....	0.557	---	---	0.557	---	0.630	---
		INDEX SAMPLE	7738 13130	INDEX SAMPLE	7739 13522	INDEX SAMPLE	7740 9599
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CALHOUN			CALHOUN		CALHOUN	
FIELD.....	KELLER'S BAY			KELLER'S CREEK		LAVACA BAY	
WELL NAME.....	STATE G.U. NO. 18			L. B. GRIFFITH NO. 1		STATE TRACT 23 NO. 1-LT	
LOCATION.....	STATE TRACT 55, LAVACA BAY			SAMUEL HOUSTON SUR. A-22		NOT GIVEN	
OWNER.....	HUMBLE OIL & REFINING CO.			COTTON PETROLEUM CORP.		ALUMINUM CO. OF AMERICA	
COMPLETED.....	02/10/70			06/17/71		05/23/64	
SAMPLED.....	12/27/71			02/06/73		09/--/64	
FORMATION.....	-FOESTER			-GRIFFITH		OLIG-FRIO L	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8727			8787		9763	
WELLHEAD PRESSURE, PSIG.....	600			3320		4430	
OPEN FLOW, MCFD.....	34000			9000		13000	
COMPONENT, MOLE PCT							
METHANE.....	91.9	---	---	85.2	---	88.8	---
ETHANE.....	5.8	---	---	7.4	---	5.8	---
PROPANE.....	1.6	---	---	3.2	---	2.4	---
N-BUTANE.....	0.4	---	---	0.7	---	0.8	---
ISOBUTANE.....	0.6	---	---	0.9	---	0.6	---
N-PENTANE.....	0.1	---	---	0.2	---	0.2	---
ISOPENTANE.....	0.2	---	---	0.3	---	0.2	---
CYCLOPENTANE.....	0.1	---	---	TRACE	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.2	---	0.2	---
NITROGEN.....	0.7	---	---	1.3	---	0.3	---
OXYGEN.....	0.0	---	---	0.1	---	TRACE	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.4	---	---	0.5	---	0.5	---
HELIUM.....	TRACE	---	---	TRACE	---	0.01	---
HEATING VALUE.....	1101	---	---	1164	---	1144	---
SPECIFIC GRAVITY.....	0.624	---	---	0.673	---	0.648	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7741 9600	INDEX SAMPLE	7742 10173	INDEX SAMPLE	7743 11155
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CALHOUN			CALHOUN		CALHOUN	
FIELD.....	LAVACA BAY			LAVACA BAY		LAVACA BAY	
WELL NAME.....	STATE TRACT 23 NO. 1-UT			STATE TRACT 7A NO. 1		STATE TRACT 26 NO. 3	
LOCATION.....	NOT GIVEN			STATE TRACT 7A		LAVACA BAY	
OWNER.....	ALUMINUM CO. OF AMERICA			CITIES SERVICE OIL CO.		ALUMINUM CO. OF AMERICA	
COMPLETED.....	05/23/64			11/03/64		04/23/66	
SAMPLED.....	09/30/64			09/30/65		10/10/67	
FORMATION.....	OLIG-FRIO L			OLIG-FRIO		OLIG-FRIO F-33	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9588			8920		9538	
WELLHEAD PRESSURE, PSIG.....	4226			3007		4604	
OPEN FLOW, MCFD.....	15000			17200		63000	
COMPONENT, MOLE PCT							
METHANE.....	89.1	-----		91.9	-----	88.4	-----
ETHANE.....	5.7	-----		3.7	-----	5.4	-----
PROPANE.....	2.4	-----		1.5	-----	2.3	-----
N-BUTANE.....	0.7	-----		0.2	-----	0.6	-----
ISOBUTANE.....	0.6	-----		0.5	-----	0.8	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.2	-----		0.1	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.2	-----
NITROGEN.....	0.1	-----		1.1	-----	1.0	-----
OXYGEN.....	0.0	-----		0.2	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.6	-----		0.5	-----	0.7	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.03	-----
HEATING VALUE.....	1142	-----		1077	-----	1126	-----
SPECIFIC GRAVITY.....	0.647	-----		0.617	-----	0.652	-----
		INDEX SAMPLE	7744 11156	INDEX SAMPLE	7745 17844	INDEX SAMPLE	7746 5037
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CALHOUN			CALHOUN		CALHOUN	
FIELD.....	LAVACA BAY			LAVACA BAY		LONG MOTT	
WELL NAME.....	STATE TRACT 26 NO. 3			STATE TRACT 39 NO. 3		JAMIE HYNES NO. 1	
LOCATION.....	NOT GIVEN			STATE TRACT 39		J. F. DE LA FUENTES SUR.	
OWNER.....	ALUMINUM CO. OF AMERICA			NEUMIN PRODUCTION CO.		QUINTANA PETROLEUM CORP.	
COMPLETED.....	04/23/66			11/25/84		12/07/50	
SAMPLED.....	10/10/67			09/24/85		04/01/51	
FORMATION.....	OLIG-FRIO F-33			OLIG-FRIO F-4DA		OLIG-FRIO U	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9538			10400		7788	
WELLHEAD PRESSURE, PSIG.....	4610			3900		4864	
OPEN FLOW, MCFD.....	63000			3250		10200	
COMPONENT, MOLE PCT							
METHANE.....	89.0	-----		87.3	-----	90.3	-----
ETHANE.....	5.3	-----		6.1	-----	5.1	-----
PROPANE.....	2.5	-----		2.7	-----	2.1	-----
N-BUTANE.....	0.6	-----		0.7	-----	0.6	-----
ISOBUTANE.....	0.6	-----		0.7	-----	0.5	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.3	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.0	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	0.2	-----
NITROGEN.....	0.4	-----		0.4	-----	0.2	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.1	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.7	-----		1.2	-----	0.6	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	1128	-----		1147	-----	1.11	-----
SPECIFIC GRAVITY.....	0.644	-----		0.662	-----	0.635	-----
		INDEX SAMPLE	7747 4339	INDEX SAMPLE	7748 13117	INDEX SAMPLE	7749 13118
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CALHOUN			CALHOUN		CALHOUN	
FIELD.....	MATAGORDA BAY			MAUDE B.		MAUDE B.	
WELL NAME.....	STATE OF TEXAS NO. 1 TR. 118			STATE OF TEXAS NO. 5		TRAYLOR NO. 3	
LOCATION.....	TRACT 118, MATAGORDA BAY			PHILLIP DIMMIT SUR. A-11		PHILLIP DIMMIT SUR. A-11	
OWNER.....	TEXAS CO.			SUPERIOR OIL CO.		SUPERIOR OIL CO.	
COMPLETED.....	7/7/00			09/22/70		09/14/70	
SAMPLED.....	08/12/47			12/16/71		12/16/71	
FORMATION.....	MIOC-			OLIG-FRIO 35A		OLIG-FRIO 85	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4716			8714		9957	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			4712		5932	
OPEN FLOW, MCFD.....	40000			7000		54000	
COMPONENT, MOLE PCT							
METHANE.....	98.8	-----		89.0	-----	87.5	-----
ETHANE.....	0.6	-----		5.4	-----	6.9	-----
PROPANE.....	---	-----		2.4	-----	2.7	-----
N-BUTANE.....	---	-----		0.5	-----	0.8	-----
ISOBUTANE.....	---	-----		0.8	-----	0.4	-----
N-PENTANE.....	---	-----		0.2	-----	0.3	-----
ISOPENTANE.....	---	-----		0.1	-----	0.3	-----
CYCLOPENTANE.....	---	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	---	-----		0.3	-----	0.3	-----
NITROGEN.....	0.2	-----		0.6	-----	0.2	-----
OXYGEN.....	0.2	-----		0.0	-----	0.0	-----
ARGON.....	---	-----		0.0	-----	0.0	-----
HYDROGEN.....	---	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.5	-----	0.7	-----
HELIUM.....	0.01	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1012	-----		1136	-----	1165	-----
SPECIFIC GRAVITY.....	0.561	-----		0.647	-----	0.663	-----
		INDEX SAMPLE	7750 12041	INDEX SAMPLE	7751 4861	INDEX SAMPLE	7752 12513
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CALHOUN			CALHOUN		CALHOUN	
FIELD.....	PANTHER REEF SW			POWDERHORN		POWDERHORN	
WELL NAME.....	STATE TRACT 9D NO. 3			POWDER HORN NO. 2		STATE OF TEXAS NO. 15-C	
LOCATION.....	STATE TRACT 9D			SEC. 4, BLK. J, JUAN CANO SUR.		STATE OF TEXAS TRACT NO. 49	
OWNER.....	SUN OIL CO.			BRADLEY OIL & GAS CO.		DOW CHEMICAL CO.	
COMPLETED.....	08/26/68			08/05/50		05/16/69	
SAMPLED.....	09/17/69			04/07/50		10/21/70	
FORMATION.....	OLIG-FRIO			MIOC-		MIOC-2-A SAND	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8706			4640		4815	
WELLHEAD PRESSURE, PSIG.....	5152			2000		1050	
OPEN FLOW, MCFD.....	15000			23		14800	
COMPONENT, MOLE PCT							
METHANE.....	87.9	-----		93.8	-----	95.2	-----
ETHANE.....	0.0	-----		4.6	-----	3.0	-----
PROPANE.....	2.8	-----		0.3	-----	0.1	-----
N-BUTANE.....	0.6	-----		0.1	-----	0.0	-----
ISOBUTANE.....	1.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.3	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.2	-----		0.0	-----	0.0	-----
NITROGEN.....	0.8	-----		0.6	-----	1.2	-----
OXYGEN.....	0.0	-----		0.2	-----	0.2	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.1	-----		TRACE	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.1	-----
HELIUM.....	TRACE	-----		0.0	-----	0.01	-----
HEATING VALUE.....	1152	-----		1051	-----	1021	-----
SPECIFIC GRAVITY.....	0.654	-----		0.589	-----	0.576	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7753 SAMPLE 10528			INDEX 7754 SAMPLE 5159			INDEX 7755 SAMPLE 14989		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CALHOUN		CALHOUN			CALHOUN		
FIELD.....	POWDERHORN RANCH		STEAMBOAT PASS			STEAMBOAT PASS		
WELL NAME.....	STOFER-ETBAND NO. 1		STATE LEASE 35951 NO. 172-1			STATE TRACT 184 NO. 1		
LOCATION.....	JUAN CANO SUR. A-5		SAN ANTONIO BAY ST TRACT 172			ESPRITU SANTO BAY		
OWNER.....	VIKING DRILLING CO.		ALCOA MINING CO.			HOUSTON OIL & MINERALS CORP.		
COMPLETED.....	11/11/65		06/03/51			10/05/75		
SAMPLED.....	04/19/66		05/07/52			05/01/77		
FORMATION.....	MIOC-OAKVILLE		MIOC-OAKVILLE			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			954		
DEPTH, FEET.....	3498		2630			1700		
WELLHEAD PRESSURE, PSIG.....	1498		1155			700		
OPEN FLOW, MCFD.....	6500		5900			1200		
COMPONENT, MOLE PCT								
METHANE.....	96.9		97.9			97.0		
ETHANE.....	0.8		0.1			0.1		
PROPANE.....	0.2		0.1			TRACE		
N-BUTANE.....	TRACE		0.1			0.0		
ISOBUTANE.....	TRACE		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.2		0.1			0.0		
NITROGEN.....	1.7		1.4			2.8		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.2			0.1		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1015		1002			984		
SPECIFIC GRAVITY.....	0.574		0.568			0.567		
INDEX 7756 SAMPLE 12109			INDEX 7757 SAMPLE 10078			INDEX 7758 SAMPLE 16629		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CALHOUN		CALLAHAN			CALLAHAN		
FIELD.....	STOFER		CALLAHAN COUNTY REGULAR			CALLAHAN NE		
WELL NAME.....	MARY A. STOFER NO. 1		OSCAR ROSE NO. 1			DYER 2988 NO.2		
LOCATION.....	WM. P. LEWIS SUR. A-100		SEC. 8, BLK 8, SPRR SUR.			SEC. 2988, TE&L SUR., A-464		
OWNER.....	MAYFAIR MINERALS, INC.		DIXON DRILLING CO.			JONES CO.		
COMPLETED.....	03/24/69		07/25/64			09/18/81		
SAMPLED.....	11/09/69		08/01/65			08/30/82		
FORMATION.....	OLIG-BRAUN		PENN-MORRIS			PENN-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	220		425			425		
DEPTH, FEET.....	8090		3397			3870		
WELLHEAD PRESSURE, PSIG.....	2907		1254			1311		
OPEN FLOW, MCFD.....	4500		9200			4600		
COMPONENT, MOLE PCT								
METHANE.....	90.2		70.0			52.7		
ETHANE.....	1.2		4.4			16.8		
PROPANE.....	1.9		4.7			12.1		
N-BUTANE.....	0.5		1.3			4.6		
ISOBUTANE.....	0.6		0.6			2.3		
N-PENTANE.....	0.2		0.3			1.6		
ISOPENTANE.....	0.4		0.3			1.0		
CYCLOPENTANE.....	0.1		0.1			0.7		
HEXANES PLUS.....	0.2		0.2			1.6		
NITROGEN.....	1.1		13.6			6.0		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.2		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.2			0.6		
HELIUM.....	0.01		0.34			0.05		
HEATING VALUE.....	1116		1085			1601		
SPECIFIC GRAVITY.....	0.635		0.747			0.998		
INDEX 7759 SAMPLE 8152			INDEX 7760 SAMPLE 16933			INDEX 7761 SAMPLE 12629		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CALLAHAN		CALLAHAN			CALLAHAN		
FIELD.....	HUTCHINSON		LAURA MAE HILL			MYERS		
WELL NAME.....	R. D. HUTCHINSON NO. 1		WINDHAM NO. 3			MAGGIE SHAFFRINA		
LOCATION.....	BB&C SUR. SEC. 119		GEORGE HANCOCK SUR. 342, A-245			BB&C RR CO. SUR.		
OWNER.....	FULWILLER, WATKINS & FRALEY		LE CLAIR OPERATING CO., INC.			DIXON OIL CO.		
COMPLETED.....	05/17/65		05/17/65			05/17/60		
SAMPLED.....	08/10/61		05/13/71			01/13/71		
FORMATION.....	PENN-BEND CONGLOMERATE		ORDO-ELLENBURGER			CRET-GARDNER		
GEOLOGIC PROVINCE CODE.....	425		425			425		
DEPTH, FEET.....	4112		4370			3600		
WELLHEAD PRESSURE, PSIG.....	1080		1425			500		
OPEN FLOW, MCFD.....	1100		15100			895		
COMPONENT, MOLE PCT								
METHANE.....	71.0		68.4			75.9		
ETHANE.....	11.8		9.0			6.2		
PROPANE.....	4.2		1.4			0.7		
N-BUTANE.....	1.2		1.4			0.1		
ISOBUTANE.....	0.7		0.5			0.4		
N-PENTANE.....	0.2		0.4			0.1		
ISOPENTANE.....	0.3		0.4			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.4		
NITROGEN.....	9.0		12.5			12.5		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.2		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		1.4			0.2		
HELIUM.....	0.30		0.47			0.34		
HEATING VALUE.....	1195		0.99			1030		
SPECIFIC GRAVITY.....	0.743		0.763			0.701		
INDEX 7762 SAMPLE 4749			INDEX 7763 SAMPLE 14756			INDEX 7764 SAMPLE 8957		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CALLAHAN		CALLAHAN			CALLAHAN		
FIELD.....	NOT GIVEN		PUTNAM			WILDCAT		
WELL NAME.....	MYRTLE WILSON NO. 1		YARBROUGH NO. 1			BRUNN NO. 1		
LOCATION.....	BLK. 1, SUR. NO. 6		SEC. 3197, TE&L SUR. A508			SEC. 80, BAYLAND ASYLUM SUR.		
OWNER.....	SKELLY OIL CO.		DALLAS PRODUCTION, INC.			W. C. CUMMINGS & T. STEWART		
COMPLETED.....	12/7-748		03/16/75			04/10/63		
SAMPLED.....	05/27/49		05/14/76			05/09/63		
FORMATION.....	NOT GIVEN		PENN-CONGLOMERATE			CRET-GARDNER		
GEOLOGIC PROVINCE CODE.....	425		425			425		
DEPTH, FEET.....	NOT GIVEN		3952			2614		
WELLHEAD PRESSURE, PSIG.....	1380		1535			1070		
OPEN FLOW, MCFD.....	2190		2700			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.5		72.1			77.7		
ETHANE.....	8.6		10.1			3.4		
PROPANE.....	3.1		4.4			1.4		
N-BUTANE.....	1.2		0.9			0.3		
ISOBUTANE.....	0.2		0.4			TRACE		
N-PENTANE.....	0.3		0.3			TRACE		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.6			TRACE		
NITROGEN.....	13.6		18.6			16.1		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.3		
HELIUM.....	0.49		0.34			0.50		
HEATING VALUE.....	1030		0.731			903		
SPECIFIC GRAVITY.....	0.717					0.660		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7765 9072	INDEX SAMPLE	7766 10894	INDEX SAMPLE	7767 14371
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CALLAHAN			CALLAHAN		CAMERON	
FIELD.....	WILDCAT			WILDCAT		HOLLY BEACH	
WELL NAME.....	NO. 2A			MYRTLE WILSON NO. 1		STATE TRACT 713 NO. 2-L	
LOCATION.....	SEC. 79, BOA SUR.			LAVACA CO. SCHOOL LAND SEC.		LAGUNA MADRE BLK. 713	
OWNER.....	SLIP, INC.			SKELLY OIL CO.		TEXACO INC.	
COMPLETED.....	08/15/63			--/--/00		11/09/73	
SAMPLED.....	08/28/63			02/22/67		05/13/75	
FORMATION.....	CRET-GARDNER			PENN-DUFFER		MIOC-LM-8	
GEOLOGIC PROVINCE CODE.....	425			425		220	
DEPTH, FEET.....	2620			3798		7495	
WELLHEAD PRESSURE, PSIG.....	1270			1265		2900	
OPEN FLOW, MCFD.....	8			3000		8711	
COMPONENT, MOLE PCT							
METHANE.....	78.1	-----		72.0	-----	95.8	-----
ETHANE.....	3.5	-----		8.9	-----	2.1	-----
PROPANE.....	1.4	-----		3.6	-----	0.3	-----
N-BUTANE.....	0.2	-----		1.0	-----	0.0	-----
ISOBUTANE.....	0.1	-----		0.2	-----	0.0	-----
N-PENTANE.....	TRACE	-----		0.2	-----	0.0	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	TRACE	-----		0.1	-----	0.0	-----
NITROGEN.....	15.7	-----		13.0	-----	1.5	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----	0.2	-----
HELIUM.....	0.52	-----		0.50	-----	0.01	-----
HEATING VALUE.....	909	-----		1045	-----	1016	-----
SPECIFIC GRAVITY.....	0.658	-----		0.716	-----	0.575	-----
		INDEX SAMPLE	7768 10702	INDEX SAMPLE	7769 10747	INDEX SAMPLE	7770 14589
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CAMERON			CAMERON		CAMERON	
FIELD.....	SAN MARTIN			SAN MARTIN		VISTA DEL MAR	
WELL NAME.....	GATEWOOD NEWBERRY NO. 1-L			GATEWOOD NEWBERRY NO. 1		BROWNSVILLE N.D. NO. 1	
LOCATION.....	SAN MARTIN GRANT			H. M. SKELTON SUR. A-269		SAN MARTIN GRANT, A-6	
OWNER.....	SKELLY OIL CO.			SKELLY OIL CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	03/03/65			03/03/65		12/01/73	
SAMPLED.....	08/26/66			10/13/66		02/20/76	
FORMATION.....	MIOC-			MIOC-		MIOC-	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9385			8943		7212	
WELLHEAD PRESSURE, PSIG.....	4634			3657		1200	
OPEN FLOW, MCFD.....	8600			19500		11300	
COMPONENT, MOLE PCT							
METHANE.....	95.9	-----		96.0	-----	96.1	-----
ETHANE.....	1.9	-----		1.7	-----	1.8	-----
PROPANE.....	0.4	-----		0.3	-----	0.3	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.0	-----
NITROGEN.....	1.6	-----		1.5	-----	1.5	-----
OXYGEN.....	0.0	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.4	-----	0.2	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1016	-----		1011	-----	1014	-----
SPECIFIC GRAVITY.....	0.580	-----		0.576	-----	0.574	-----
		INDEX SAMPLE	7771 7375	INDEX SAMPLE	7772 7426	INDEX SAMPLE	7773 8013
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	BOBBITT			BOBBITT		BOBBITT	
WELL NAME.....	BOBBITT NO. 1			BOBBITT NO. 1		VANCE NO. 1	
LOCATION.....	SEC. 95, TTRR SUR.			SEC. 95, BLK. 2, TTRR SUR.		SEC. 41, BLK. T, W&NE SUR.	
OWNER.....	TEXAS GULF PRODUCING CO.			TEXAS GULF PRODUCING CO.		TEXAS GULF PRODUCING CO.	
COMPLETED.....	02/06/60			--/--/00		--/--/00	
SAMPLED.....	02/06/60			03/01/60		06/11/61	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3306			3247		3235	
WELLHEAD PRESSURE, PSIG.....	250			497		530	
OPEN FLOW, MCFD.....	450			9500		4400	
COMPONENT, MOLE PCT							
METHANE.....	57.4	-----		59.7	-----	59.1	-----
ETHANE.....	2.0	-----		2.0	-----	2.0	-----
PROPANE.....	0.7	-----		0.7	-----	0.5	-----
N-BUTANE.....	0.1	-----		0.0	-----	0.1	-----
ISOBUTANE.....	TRACE	-----		0.0	-----	0.1	-----
N-PENTANE.....	0.0	-----		0.0	-----	TRACE	-----
ISOPENTANE.....	0.0	-----		0.0	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----		0.0	-----	TRACE	-----
NITROGEN.....	34.1	-----		35.2	-----	34.6	-----
OXYGEN.....	0.0	-----		0.0	-----	0.1	-----
ARGON.....	0.1	-----		0.1	-----	0.1	-----
HYDROGEN.....	0.1	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	3.4	-----		0.0	-----	0.8	-----
HELIUM.....	2.00	-----		2.00	-----	2.20	-----
HEATING VALUE.....	659	-----		664	-----	661	-----
SPECIFIC GRAVITY.....	0.738	-----		0.711	-----	0.717	-----
		INDEX SAMPLE	7774 11662	INDEX SAMPLE	7775 11663	INDEX SAMPLE	7776 11667
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	BOBBITT			BOBBITT		BOBBITT	
WELL NAME.....	BOBBITT NO. 1			BOBBITT NO. 1		MARTIN L. VANCE NO. 1	
LOCATION.....	SEC. 95, BLK. 2, TTRR SUR.			SEC. 95, BLK. 2, TTRR SUR.		MARTIN BLK. T, W&NE SUR.	
OWNER.....	SINCLAIR OIL & GAS CO.			SINCLAIR OIL & GAS CO.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	03/01/60			03/01/60		06/19/61	
SAMPLED.....	10/10/68			10/09/68		10/11/68	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3239			3239		3367	
WELLHEAD PRESSURE, PSIG.....	524			524		533	
OPEN FLOW, MCFD.....	9600			9600		9600	
COMPONENT, MOLE PCT							
METHANE.....	60.4	-----		59.3	-----	59.9	-----
ETHANE.....	2.1	-----		2.2	-----	2.4	-----
PROPANE.....	0.6	-----		0.6	-----	0.6	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.0	-----
NITROGEN.....	34.6	-----		35.5	-----	34.8	-----
OXYGEN.....	0.1	-----		0.2	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	0.2	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	TRACE	-----
HELIUM.....	1.90	-----		1.93	-----	2.11	-----
HEATING VALUE.....	665	-----		656	-----	665	-----
SPECIFIC GRAVITY.....	0.709	-----		0.715	-----	0.709	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7777 13764	INDEX SAMPLE	7778 13779	INDEX SAMPLE	7779 6863
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	BOBBITT			BOBBITT		NOT GIVEN	
WELL NAME.....	LOOTEN NO. 1			LOOTEN NO. 1		MAUDIE NO. 1	
LOCATION.....	SEC. 86, BLK. 2, TTRR SUR.			SEC. 86, BLK. 2, TTRR SUR.		SEC. 30, BLK. 2	
OWNER.....	HUNTER OIL CORP.			HUNTER OIL CORP.		NAVAJO NATURAL GAS CORP.	
COMPLETED.....	10/23/73			10/23/73		--/--/80	
SAMPLED.....	10/23/73			10/23/73		--/--/58	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3342			3304		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	487			475		NOT GIVEN	
OPEN FLOW, MCFD.....	100			250		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	55.3			59.1		47.1	
ETHANE.....	1.9			2.0		16.3	
PROPANE.....	0.5			0.5		16.2	
N-BUTANE.....	0.0			0.0		6.7	
ISOBUTANE.....	0.0			0.0		3.5	
N-PENTANE.....	0.0			0.0		2.2	
ISOPENTANE.....	0.0			0.0		0.4	
CYCLOPENTANE.....	0.0			0.0		1.2	
HEXANES PLUS.....	0.0			0.0		4.0	
NITROGEN.....	32.6			33.9		0.1	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	TRACE			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	7.9			2.6		0.1	
HELIUM.....	1.67			1.74		0.20	
HEATING VALUE.....	1507			1547		1787	
SPECIFIC GRAVITY.....	0.774			0.728		1.086	
		INDEX SAMPLE	7780 8014	INDEX SAMPLE	7781 6555	INDEX SAMPLE	7782 11215
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	NOT GIVEN			PANHANDLE		PANHANDLE	
WELL NAME.....	MCDONELL NO. 1			MCCRAY NO. 4		MCCONNELL NO. 6	
LOCATION.....	SEC. 12, BLK. 7, I&GN SUR.			SEC. 2, BLK. 2, TT&RR SUR.		SEC. 67, BLK. 4, I&GN SUR.	
OWNER.....	CONSOLIDATED GAS & EQUIP. CO			CONSOLIDATED GAS & EQUIP. CO		R. L. TRIPPLEHORN	
COMPLETED.....	10/24/50			10/23/56		10/10/63	
SAMPLED.....	06/23/61			05/20/58		11/10/67	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2912			3252		3204	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		70	
OPEN FLOW, MCFD.....	NOT GIVEN			768		50	
COMPONENT, MOLE PCT							
METHANE.....	62.5			66.4		68.9	
ETHANE.....	5.0			4.6		8.6	
PROPANE.....	3.4			2.9		6.9	
N-BUTANE.....	0.9			1.1		3.5	
ISOBUTANE.....	0.6			0.9		1.9	
N-PENTANE.....	0.2			0.3		0.9	
ISOPENTANE.....	0.1			0.3		1.7	
CYCLOPENTANE.....	TRACE			0.1		0.4	
HEXANES PLUS.....	0.1			0.2		1.0	
NITROGEN.....	25.9			20.3		5.7	
OXYGEN.....	0.0			0.2		0.0	
ARGON.....	0.1			0.2		TRACE	
HYDROGEN.....	TRACE			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.0		0.3	
HELIUM.....	1.30			0.30		0.19	
HEATING VALUE.....	879			927		1391	
SPECIFIC GRAVITY.....	0.747			0.753		0.856	
		INDEX SAMPLE	7783 11216	INDEX SAMPLE	7784 11217	INDEX SAMPLE	7785 11218
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE			PANHANDLE		PANHANDLE	
WELL NAME.....	MCCONNELL A NO. 5			MCCONNELL A NO. 4		MCCONNELL A NO. 8	
LOCATION.....	SEC. 67, BLK. 4, I&GN SUR.			SEC. 67, BLK. 4, I&GN SUR.		SEC. 67, BLK. 4, I&GN SUR.	
OWNER.....	R. L. TRIPPLEHORN			R. L. TRIPPLEHORN		R. L. TRIPPLEHORN	
COMPLETED.....	07/12/66			11/25/65		10/01/66	
SAMPLED.....	11/10/67			11/10/67		11/10/67	
FORMATION.....	PENN-ARKOSIC & GRANITE WASH			PENN-ARKOSIC & GRANITE WASH		PENN-ARKOSIC & GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3078			NOT GIVEN		3204	
WELLHEAD PRESSURE, PSIG.....	70			NOT GIVEN		70	
OPEN FLOW, MCFD.....	100			NOT GIVEN		50	
COMPONENT, MOLE PCT							
METHANE.....	48.8			60.7		62.3	
ETHANE.....	18.2			11.7		14.7	
PROPANE.....	16.1			11.2		11.2	
N-BUTANE.....	5.9			4.7		3.6	
ISOBUTANE.....	2.8			2.4		1.8	
N-PENTANE.....	1.8			1.5		0.6	
ISOPENTANE.....	1.6			1.1		1.1	
CYCLOPENTANE.....	0.3			0.1		0.3	
HEXANES PLUS.....	0.3			0.3		0.5	
NITROGEN.....	3.5			4.6		3.5	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.4		0.5	
HELIUM.....	0.03			1.1		0.07	
HEATING VALUE.....	1718			1538		1477	
SPECIFIC GRAVITY.....	1.044			0.939		0.890	
		INDEX SAMPLE	7786 11219	INDEX SAMPLE	7787 11220	INDEX SAMPLE	7788 837
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE			PANHANDLE		PANHANDLE	
WELL NAME.....	MCCONNELL A NO. 1			MCCONNELL A NO. 5		TEXAS CO. NO. 2	
LOCATION.....	SEC. 67, BLK. 4, I&GN SUR.			SEC. 67, BLK. 4, I&GN SUR.		SEC. 92, BLK. 5	
OWNER.....	R. L. TRIPPLEHORN			R. L. TRIPPLEHORN		TEXAS CO.	
COMPLETED.....	07/12/66			07/12/66		--/--/80	
SAMPLED.....	11/10/67			11/10/67		--/--/80	
FORMATION.....	PERM-GRANITE WASH			PERM-GRANITE WASH		PERM-	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3228			3268		2000	
WELLHEAD PRESSURE, PSIG.....	70			70		430	
OPEN FLOW, MCFD.....	350			100		17000	
COMPONENT, MOLE PCT							
METHANE.....	72.7			62.2		74.6	
ETHANE.....	7.9			13.4		18.0	
PROPANE.....	6.2			11.0		12.8	
N-BUTANE.....	2.2			1.9		---	
ISOBUTANE.....	1.2			1.8		---	
N-PENTANE.....	0.8			0.7		---	
ISOPENTANE.....	0.8			0.7		---	
CYCLOPENTANE.....	0.2			0.3		---	
HEXANES PLUS.....	0.6			0.8		---	
NITROGEN.....	6.6			3.9		6.7	
OXYGEN.....	0.2			TRACE		0.1	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.0			TRACE		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.2			0.5		0.4	
HELIUM.....	0.19			0.10		0.33	
HEATING VALUE.....	1270			1270		1073	
SPECIFIC GRAVITY.....	0.791			0.904		0.675	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7789 839	INDEX SAMPLE	7790 980	INDEX SAMPLE	7791 981
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	TEXAS CO. NO. 1			W. C. BURNETT NO. 1		S. B. BURNETT NO. 4	
LOCATION.....	SEC. 114, BLK. 5			SEC. 90 BLK. 5, I&GN SUR.		SEC. 114, BLK. 5, I&GN SUR.	
OWNER.....	TEXAS CO.			TEXAS CO.		TEXAS CO.	
COMPLETED.....	--/--/00			08/--/24		09/--/24	
SAMPLED.....	--/--/00			01/25/25		01/20/25	
FORMATION.....	PERM-			PERM-		PERM-	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2000			2535		2760	
WELLHEAD PRESSURE, PSIG.....	380			100		445	
OPEN FLOW, MCFD.....	25000					29000	
COMPONENT, MOLE PCT							
METHANE.....	72.9			71.0		73.6	
ETHANE.....	18.9			19.9		17.8	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	7.4			8.2		7.4	
OXYGEN.....	0.2			0.4		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.3			0.4		0.5	
HELIUM.....	0.38			0.33		0.36	
HEATING VALUE*.....	1077			1076		1065	
SPECIFIC GRAVITY.....	0.681			0.693		0.679	

		INDEX SAMPLE	7792 982	INDEX SAMPLE	7793 1013	INDEX SAMPLE	7794 1014
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	S. B. BURNETT NO. 3			BURNETT ESTATE NO. 1		S. B. BURNETT NO. 1	
LOCATION.....	SEC. 108, BLK. 5, I&GN SUR.			SEC. 91, BLK. 5, I&GN SUR.		SEC. 118, BLK. 5, I&GN SUR.	
OWNER.....	TEXAS CO.			GULF PRODUCTION CO.		GULF PRODUCTION CO.	
COMPLETED.....	06/--/24			09/--/24		--/--/20	
SAMPLED.....	01/19/25			03/22/25		03/22/25	
FORMATION.....	PERM-			PERM-		PERM-	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3031			2335		2410	
WELLHEAD PRESSURE, PSIG.....	450			450		450	
OPEN FLOW, MCFD.....	30000			15000		80000	
COMPONENT, MOLE PCT							
METHANE.....	71.0			70.3		66.7	
ETHANE.....	19.9			19.7		18.9	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	7.7			9.5		13.1	
OXYGEN.....	0.4			0.2		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.6			0.2		0.6	
HELIUM.....	0.35			0.29		0.38	
HEATING VALUE*.....	1076			1065		1014	
SPECIFIC GRAVITY.....	0.691			0.694		0.709	

		INDEX SAMPLE	7795 1015	INDEX SAMPLE	7796 1181	INDEX SAMPLE	7797 1304
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	S. B. BURNETT NO. 2			NO. 2 MARLAND		BIVINS B-3	
LOCATION.....	SEC. 106 BLK. 5			SEC. 15, BLK. 5, I&GN SUR.		SEC. 15, BLK. Y2, 68&CNG SUR	
OWNER.....	GULF PRODUCTION CO.			MARLAND OIL CO. OF TEXAS		AMARILLO OIL CO.	
COMPLETED.....	--/--/20			--/--/00		04/26/26	
SAMPLED.....	03/22/25			11/10/25		09/24/26	
FORMATION.....	PERM-			PERM-		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2525			2955		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	400			430		430	
OPEN FLOW, MCFD.....	20000			NOT GIVEN		30000	
COMPONENT, MOLE PCT							
METHANE.....	69.8			70.5		66.7	
ETHANE.....	19.1			20.8		21.7	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	10.0			7.1		9.7	
OXYGEN.....	0.4			0.4		1.0	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.4			0.8		0.5	
HELIUM.....	0.34			0.33		0.45	
HEATING VALUE*.....	1049			1087		1065	
SPECIFIC GRAVITY.....	0.695			0.695		0.711	

		INDEX SAMPLE	7798 1643	INDEX SAMPLE	7799 1644	INDEX SAMPLE	7800 1645
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	S. B. BURNETT 8-1			S. B. BURNETT A-5		S. B. BURNETT J-1	
LOCATION.....	SEC. 101, BLK. 4, I&GN SUR.			SEC. 116, BLK. 5, I&GN SUR.		SEC. 121, BLK. 5, I&GN SUR.	
OWNER.....	KAY COUNTY GAS CO.			KAY COUNTY GAS CO.		KAY COUNTY GAS CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	05/25/28			05/25/28		05/25/28	
FORMATION.....	PERM-			PERM-		PERM-	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.2			68.5		71.0	
ETHANE.....	19.2			21.5		19.7	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	7.0			9.1		8.5	
OXYGEN.....	0.2			0.2		0.2	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.3		0.2	
HELIUM.....	0.27			0.37		0.44	
HEATING VALUE*.....	1086			1079		1072	
SPECIFIC GRAVITY.....	0.681			0.701		0.688	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	TEXAS	INDEX SAMPLE	7801 2079	TEXAS	INDEX SAMPLE	7802 2080	TEXAS	INDEX SAMPLE	7803 2284
COUNTY	CARSON			CARSON			CARSON		
FIELD	PANHANDLE W			PANHANDLE W			PANHANDLE W		
WELL NAME	S. B. BURNETT B-1			S. B. BURNETT C-3			BIVINS A-1		
LOCATION	SEC. 10, BLK. 4, I&GN SUR.			SEC. 105, BLK. 5, I&GN SUR.			SEC. 42, BLK. M-20, G&M SUR.		
OWNER	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.			RED RIVER GAS CO.		
COMPLETED	05/25/26			10/19/26			04/28/26		
SAMPLED	06/25/30			06/25/30			02/09/31		
FORMATION	PERM-			PERM-			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE	440			440			440		
DEPTH, FEET	2935			2880			2000		
WELLHEAD PRESSURE, PSIG	330			345			424		
OPEN FLOW, MCFD	14000			24000			13680		
COMPONENT, MOLE PCT									
METHANE	71.0			69.7			74.0		
ETHANE	19.4			22.0			17.1		
PROPANE	---			---			---		
N-BUTANE	---			---			---		
ISOBUTANE	---			---			---		
N-PENTANE	---			---			---		
ISOPENTANE	---			---			---		
CYCLOPENTANE	---			---			---		
HEXANES PLUS	---			---			---		
NITROGEN	8.4			7.5			8.2		
OXYGEN	0.5			0.2			0.1		
ARGON	---			---			---		
HYDROGEN	---			---			---		
HYDROGEN SULFIDE**	---			---			---		
CARBON DIOXIDE	0.5			0.3			0.1		
HELIUM	0.45			0.3			0.48		
HEATING VALUE*	1067			1100			1056		
SPECIFIC GRAVITY	0.692			0.697			0.672		

STATE	TEXAS	INDEX SAMPLE	7804 2287	TEXAS	INDEX SAMPLE	7805 2289	TEXAS	INDEX SAMPLE	7806 3379
COUNTY	CARSON			CARSON			CARSON		
FIELD	PANHANDLE W			PANHANDLE W			PANHANDLE W		
WELL NAME	BIVINS A-4			DEAHL A-1			POLING NO. A-1		
LOCATION	SEC. 44, BLK. M-20, G&M SUR.			SEC. 5, BLK. 5, B&B SUR.			SEC. 23, BLK. S, H&GN SUR.		
OWNER	RED RIVER GAS CO.			RED RIVER GAS CO.			CANADIAN RIVER GAS CO.		
COMPLETED	09/04/30			12/27/26			---/---/00		
SAMPLED	02/09/31			02/09/31			---/---/00		
FORMATION	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE	440			440			440		
DEPTH, FEET	2265			2200			NOT GIVEN		
WELLHEAD PRESSURE, PSIG	424			424			NOT GIVEN		
OPEN FLOW, MCFD	19000			15000			NOT GIVEN		
COMPONENT, MOLE PCT									
METHANE	74.6			74.5			70.0		
ETHANE	16.3			16.5			19.5		
PROPANE	---			---			---		
N-BUTANE	---			---			---		
ISOBUTANE	---			---			---		
N-PENTANE	---			---			---		
ISOPENTANE	---			---			---		
CYCLOPENTANE	---			---			---		
HEXANES PLUS	---			---			---		
NITROGEN	8.4			8.1			9.4		
OXYGEN	0.1			0.2			0.4		
ARGON	---			---			---		
HYDROGEN	---			---			---		
HYDROGEN SULFIDE	---			---			---		
CARBON DIOXIDE	0.1			0.2			0.2		
HELIUM	0.52			0.53			0.51		
HEATING VALUE*	1048			1050			1059		
SPECIFIC GRAVITY	0.669			0.671			0.692		

STATE	TEXAS	INDEX SAMPLE	7807 3380	TEXAS	INDEX SAMPLE	7808 3386	TEXAS	INDEX SAMPLE	7809 3612
COUNTY	CARSON			CARSON			CARSON		
FIELD	PANHANDLE W			PANHANDLE W			PANHANDLE W		
WELL NAME	BOST NO. D-1			BOST NO. C-2			MARTIN NO. 1		
LOCATION	SEC. 1, BLK. Y-2, TTRR SUR.			SEC. 10, BLK. Y-2, TTRR SUR.			SEC. 88, BLK. 7, I&GN SUR.		
OWNER	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.			NORTHERN NATURAL GAS CO.		
COMPLETED	---/---/00			---/---/00			---/---/00		
SAMPLED	---/---/00			---/---/00			03/01/43		
FORMATION	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE	440			440			440		
DEPTH, FEET	NOT GIVEN			NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT									
METHANE	70.6			70.4			69.1		
ETHANE	19.7			19.1			21.5		
PROPANE	---			---			---		
N-BUTANE	---			---			---		
ISOBUTANE	---			---			---		
N-PENTANE	---			---			---		
ISOPENTANE	---			---			---		
CYCLOPENTANE	---			---			---		
HEXANES PLUS	---			---			---		
NITROGEN	8.7			9.4			8.6		
OXYGEN	0.3			0.4			0.3		
ARGON	---			---			---		
HYDROGEN	---			---			---		
HYDROGEN SULFIDE	---			---			---		
CARBON DIOXIDE	0.2			0.2			0.1		
HELIUM	0.49			0.52			0.35		
HEATING VALUE*	1068			1055			1085		
SPECIFIC GRAVITY	0.689			0.690			0.697		

STATE	TEXAS	INDEX SAMPLE	7810 3613	TEXAS	INDEX SAMPLE	7811 3614	TEXAS	INDEX SAMPLE	7812 3615
COUNTY	CARSON			CARSON			CARSON		
FIELD	PANHANDLE W			PANHANDLE W			PANHANDLE W		
WELL NAME	OSBORNE NO. 1			YICARS NO. 1			THOMPSON NO. 1		
LOCATION	SEC. 68, BLK. 7, I&GN SUR.			SEC. 234, BLK. B-2, H&GN SUR			SEC. 247, BLK. B-2, H&GN SUR		
OWNER	H&G, HARRINGTON & WARSH			NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		
COMPLETED	06/30/39			---/---/00			---/---/00		
SAMPLED	03/01/43			03/01/43			03/01/43		
FORMATION	PERM-CHASE GROUP			PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE	440			440			440		
DEPTH, FEET	2955			NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG	386			NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD	20800			NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT									
METHANE	60.1			70.0			69.8		
ETHANE	17.1			17.7			19.9		
PROPANE	---			---			---		
N-BUTANE	---			---			---		
ISOBUTANE	---			---			---		
N-PENTANE	---			---			---		
ISOPENTANE	---			---			---		
CYCLOPENTANE	---			---			---		
HEXANES PLUS	---			---			---		
NITROGEN	19.9			9.2			9.6		
OXYGEN	0.1			0.7			0.2		
ARGON	---			---			---		
HYDROGEN	---			---			---		
HYDROGEN SULFIDE**	---			---			---		
CARBON DIOXIDE	0.0			---			---		
HELIUM	0.79			0.32			0.31		
HEATING VALUE*	951			1062			1064		
SPECIFIC GRAVITY	0.728			0.693			0.693		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7813 SAMPLE 3616			INDEX 7814 SAMPLE 3617			INDEX 7815 SAMPLE 3619		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CARSON		CARSON			CARSON		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	SHOOT NO. 1		HODGES NO. 1			HODGE NO. 1		
LOCATION.....	SEC. 87, BLK. 7, I&GN SUR.		SEC. 67, BLK. 7, I&GN SUR.			SEC. 112, BLK. 7, I&GN SUR.		
OWNER.....	NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.			HAGY, HARRINGTON & MARSH		
COMPLETED.....	--/--/00		--/--/00			06/07/40		
SAMPLED.....	03/01/43		03/01/43			03/01/43		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			2575		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			387		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			2650		
COMPONENT, MOLE PCT								
METHANE.....	70.6		69.0			61.3		
ETHANE.....	19.2		18.6			17.7		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	9.6		11.5			19.8		
OXYGEN.....	0.2		0.3			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.30		0.49			1.03		
HEATING VALUE.....	1059		1032			938		
SPECIFIC GRAVITY.....	0.690		0.694			0.721		
INDEX 7816 SAMPLE 3621			INDEX 7817 SAMPLE 3622			INDEX 7818 SAMPLE 3623		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CARSON		CARSON			CARSON		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	URBANCZYK NO. 2		HODGES NO. 2			HEAP NO. 1		
LOCATION.....	SEC. 91, BLK. 7, I&GN SUR.		SEC. 250, BLK. B-2, H&GN SUR			SEC. 231, BLK. B-2, H&GN SUR		
OWNER.....	HAGY, HARRINGTON & MARSH		NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		
COMPLETED.....	10/02/39		--/--/00			--/--/00		
SAMPLED.....	03/01/43		03/01/43			03/01/43		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2960		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	378		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	11400		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	63.5		74.5			74.5		
ETHANE.....	17.2		18.0			18.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	18.0		6.7			6.0		
OXYGEN.....	0.3		0.4			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.0		0.1			0.0		
HELIUM.....	1.01		0.31			0.23		
HEATING VALUE.....	951		1077			1093		
SPECIFIC GRAVITY.....	0.711		0.673			0.674		
INDEX 7819 SAMPLE 3624			INDEX 7820 SAMPLE 3625			INDEX 7821 SAMPLE 3974		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CARSON		CARSON			CARSON		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	MARTIN NO. 1		FIELDS NO. 1			MOORE NO. 1-T		
LOCATION.....	SEC. 90, BLK. 7, I&GN SUR.		SEC. 89, BLK. 7, I&GN SUR.			SEC. 21, BLK. 7, I&GN SUR.		
OWNER.....	HAGY, HARRINGTON & MARSH		NORTHERN NATURAL GAS CO.			TEXOMA NATURAL GAS CO.		
COMPLETED.....	10/02/30		--/--/00			08/14/32		
SAMPLED.....	03/01/43		03/01/43			12/21/44		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2775		NOT GIVEN			2574		
WELLHEAD PRESSURE, PSIG.....	367		NOT GIVEN			293		
OPEN FLOW, MCFD.....	17200		NOT GIVEN			8280		
COMPONENT, MOLE PCT								
METHANE.....	65.6		68.4			74.0		
ETHANE.....	17.7		21.6			14.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	15.8		9.5			10.4		
OXYGEN.....	0.1		0.2			0.0		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.0		0.0			1.0		
HELIUM.....	0.75		0.31			0.22		
HEATING VALUE.....	982		1080			1008		
SPECIFIC GRAVITY.....	0.704		0.700			0.678		
INDEX 7822 SAMPLE 3975			INDEX 7823 SAMPLE 4539			INDEX 7824 SAMPLE 4544		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CARSON		CARSON			CARSON		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BURNETT NO. 1-P		SIMMS NO. 1			WIGHAM NO. 1		
LOCATION.....	SEC. 54, BLK. 4, I&GN SUR.		NOT GIVEN			SEC. 1, BLK. 2, IT&RR SUR.		
OWNER.....	TEXOMA NATURAL GAS CO.		J. M. HUBER CORP.			BURNETT & CORNELIUS		
COMPLETED.....	02/29/32		--/--/00			07/15/48		
SAMPLED.....	12/21/44		08/--/48			08/17/48		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2415		NOT GIVEN			2735		
WELLHEAD PRESSURE, PSIG.....	297		NOT GIVEN			298		
OPEN FLOW, MCFD.....	11200		NOT GIVEN			16000		
COMPONENT, MOLE PCT								
METHANE.....	78.0		62.6			67.9		
ETHANE.....	15.0		26.0			19.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	5.3		10.2			11.2		
OXYGEN.....	0.0		0.2			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	1.6		0.5			0.3		
HELIUM.....	0.24		0.48			0.31		
HEATING VALUE.....	1059		1100			1044		
SPECIFIC GRAVITY.....	0.666		0.729			0.703		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7825 SAMPLE 5232		INDEX 7826 SAMPLE 5235		INDEX 7827 SAMPLE 5383	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	GUTRICK NO. 1	WELL NAME.....	HODGES NO. 1	WELL NAME.....	BURNETT NO. 7
LOCATION.....	SEC. 108, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 112, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 127, BLK. 5, H&GN SUR.
OWNER.....	PANOMA CORP.	OWNER.....	PANOMA CORP.	OWNER.....	J. GORDON BURCH
COMPLETED.....	04/25/46	COMPLETED.....	09/21/39	COMPLETED.....	11/01/52
SAMPLED.....	06/11/52	SAMPLED.....	06/11/52	SAMPLED.....	02/03/53
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2970	DEPTH, FEET.....	2885	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	257	WELLHEAD PRESSURE, PSIG.....	335	WELLHEAD PRESSURE, PSIG.....	169
OPEN FLOW, MCFD.....	4200	OPEN FLOW, MCFD.....	1750	OPEN FLOW, MCFD.....	2000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	68.1	METHANE.....	69.9	METHANE.....	77.1
ETHANE.....	4.2	ETHANE.....	4.2	ETHANE.....	6.3
PROpane.....	2.5	PROpane.....	2.8	PROpane.....	4.2
N-BUTANE.....	0.9	N-BUTANE.....	0.7	N-BUTANE.....	1.4
ISOBUTANE.....	0.5	ISOBUTANE.....	0.3	ISOBUTANE.....	0.7
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.4
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	21.7	NITROGEN.....	20.4	NITROGEN.....	8.4
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.1	HYDROGEN SULFIDE.....	0.1	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.4
HELIUM.....	1.07	HELIUM.....	1.03	HELIUM.....	0.37
HEATING VALUE.....	906	HEATING VALUE.....	901	HEATING VALUE.....	1113
SPECIFIC GRAVITY.....	0.721	SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.714
INDEX 7828 SAMPLE 5393		INDEX 7829 SAMPLE 6143		INDEX 7830 SAMPLE 6151	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	ANANAS NO. 1	WELL NAME.....	PERCOK ESTATE NO. 1	WELL NAME.....	MONTGOMERY NO. 1
LOCATION.....	SEC. 227, BLK. B2, H&GN SUR.	LOCATION.....	SEC. 93, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 113, BLK. 7, I&GN SUR.
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	J. F. SMITH & J. W. COLLINS	OWNER.....	CABOT CARBON CO.
COMPLETED.....	01/15/51	COMPLETED.....	07/-/56	COMPLETED.....	-/-/45
SAMPLED.....	02/03/53	SAMPLED.....	09/19/56	SAMPLED.....	09/28/56
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2810	DEPTH, FEET.....	2920	DEPTH, FEET.....	2852
WELLHEAD PRESSURE, PSIG.....	330	WELLHEAD PRESSURE, PSIG.....	382	WELLHEAD PRESSURE, PSIG.....	289
OPEN FLOW, MCFD.....	3320	OPEN FLOW, MCFD.....	1000	OPEN FLOW, MCFD.....	1243
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	67.7	METHANE.....	59.6	METHANE.....	65.9
ETHANE.....	4.2	ETHANE.....	4.6	ETHANE.....	4.2
PROpane.....	3.2	PROpane.....	3.2	PROpane.....	2.7
N-BUTANE.....	1.0	N-BUTANE.....	0.9	N-BUTANE.....	1.0
ISOBUTANE.....	0.4	ISOBUTANE.....	0.6	ISOBUTANE.....	0.3
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.4
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.4
NITROGEN.....	21.7	NITROGEN.....	28.7	NITROGEN.....	23.0
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.77	HELIUM.....	1.72	HELIUM.....	1.27
HEATING VALUE.....	922	HEATING VALUE.....	841	HEATING VALUE.....	915
SPECIFIC GRAVITY.....	0.731	SPECIFIC GRAVITY.....	0.756	SPECIFIC GRAVITY.....	0.740
INDEX 7831 SAMPLE 6152		INDEX 7832 SAMPLE 6153		INDEX 7833 SAMPLE 6157	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	ROBBINS NO. 1	WELL NAME.....	NEIGHBORS NO. 1	WELL NAME.....	RAMMING
LOCATION.....	SEC. 130, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 92, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 253, BLK. B-2, H&GN SUR
OWNER.....	CABOT CARBON CO.	OWNER.....	CABOT CARBON CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	01/11/53	COMPLETED.....	04/19/50	COMPLETED.....	06/19/45
SAMPLED.....	09/28/56	SAMPLED.....	09/28/56	SAMPLED.....	10/08/56
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2825	DEPTH, FEET.....	2880	DEPTH, FEET.....	2769
WELLHEAD PRESSURE, PSIG.....	330	WELLHEAD PRESSURE, PSIG.....	240	WELLHEAD PRESSURE, PSIG.....	281
OPEN FLOW, MCFD.....	1123	OPEN FLOW, MCFD.....	141	OPEN FLOW, MCFD.....	1393
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	64.9	METHANE.....	63.9	METHANE.....	69.7
ETHANE.....	4.2	ETHANE.....	4.3	ETHANE.....	4.5
PROpane.....	2.5	PROpane.....	3.0	PROpane.....	3.5
N-BUTANE.....	0.8	N-BUTANE.....	0.9	N-BUTANE.....	1.0
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	25.3	NITROGEN.....	25.0	NITROGEN.....	19.1
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	1.24	HELIUM.....	1.26	HELIUM.....	0.78
HEATING VALUE.....	863	HEATING VALUE.....	891	HEATING VALUE.....	961
SPECIFIC GRAVITY.....	0.732	SPECIFIC GRAVITY.....	0.746	SPECIFIC GRAVITY.....	0.726
INDEX 7834 SAMPLE 6158		INDEX 7835 SAMPLE 6183		INDEX 7836 SAMPLE 6241	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	Laurie NO. 1	WELL NAME.....	J. W. KNORPP NO. 1	WELL NAME.....	BURNETT NO. 97-A
LOCATION.....	SEC. 228, BLK. B-2, H&GN SUR	LOCATION.....	SEC. 135, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 5, BLK. 5, I&GN SUR.
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	CITIES SERVICE GAS CO.
COMPLETED.....	05/28/45	COMPLETED.....	09/01/56	COMPLETED.....	09/21/56
SAMPLED.....	10/08/56	SAMPLED.....	11/16/56	SAMPLED.....	01/14/57
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2807	DEPTH, FEET.....	2869	DEPTH, FEET.....	2614
WELLHEAD PRESSURE, PSIG.....	259	WELLHEAD PRESSURE, PSIG.....	417	WELLHEAD PRESSURE, PSIG.....	225
OPEN FLOW, MCFD.....	2301	OPEN FLOW, MCFD.....	2879	OPEN FLOW, MCFD.....	5364
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.9	METHANE.....	60.7	METHANE.....	78.6
ETHANE.....	5.2	ETHANE.....	3.9	ETHANE.....	5.8
PROpane.....	2.9	PROpane.....	1.9	PROpane.....	3.1
N-BUTANE.....	0.9	N-BUTANE.....	1.2	N-BUTANE.....	1.1
ISOBUTANE.....	1.1	ISOBUTANE.....	0.0	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.7	N-PENTANE.....	0.2
ISOPENTANE.....	0.7	ISOPENTANE.....	0.2	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	15.6	NITROGEN.....	29.1	NITROGEN.....	9.6
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.2	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.1
HELIUM.....	1.57	HELIUM.....	1.37	HELIUM.....	0.41
HEATING VALUE.....	976	HEATING VALUE.....	819	HEATING VALUE.....	1070
SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.750	SPECIFIC GRAVITY.....	0.693

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7837 6242	INDEX SAMPLE	7838 6467	INDEX SAMPLE	7839 6548
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BURNETT NO. 96-A			CRUMSPACKER NO. 1		BURGIN NO. 1	
LOCATION.....	SEC. 16, BLK. 5, I&GN SUR.			SEC. 84, BLK. 7, I&GN SUR.		SEC. 132, BLK. 7, I&GN SUR.	
OWNER.....	CITIES SERVICE GAS CO.			SMITH & COLLINS		DORCHESTER CORP.	
COMPLETED.....	10/25/56			02/03/58		07/11/48	
SAMPLED.....	01/14/57			02/03/58		04/08/58	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2791			NOT GIVEN		3000	
WELLHEAD PRESSURE, PSIG.....	222			NOT GIVEN		252	
OPEN FLOW, MCFD.....	20000			19700		785	
COMPONENT, MOLE PCT							
METHANE.....	77.7	-----		61.8	-----	72.4	-----
ETHANE.....	5.8	-----		4.0	-----	4.8	-----
PROPANE.....	2.9	-----		2.9	-----	3.1	-----
N-BUTANE.....	1.0	-----		0.9	-----	1.0	-----
ISOBUTANE.....	0.6	-----		0.6	-----	0.6	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.3	-----
NITROGEN.....	10.7	-----		27.7	-----	16.4	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		0.1	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.1	-----	TRACE	-----
HELIUM.....	0.56	-----		1.40	-----	0.70	-----
HEATING VALUE*.....	1051	-----		846	-----	990	-----
SPECIFIC GRAVITY.....	0.694	-----		0.747	-----	0.715	-----
		INDEX SAMPLE	7840 6549	INDEX SAMPLE	7841 6569	INDEX SAMPLE	7842 6570
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MCBRAYER NO. 1			BRITTEN A NO. 1		JOHNSON V NO. 1	
LOCATION.....	SEC. 69, BLK. 7, I&GN SUR.			SEC. 254, BLK. B-2, H&GN SUR		SEC. 133, BLK. 7, I&GN SUR.	
OWNER.....	DORCHESTER CORP.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	11/10/45			10/02/52		03/31/52	
SAMPLED.....	04/08/58			04/25/58		04/25/58	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3000			2773		2860	
WELLHEAD PRESSURE, PSIG.....	274			252		270	
OPEN FLOW, MCFD.....	1620			1296		1195	
COMPONENT, MOLE PCT							
METHANE.....	69.8	-----		64.5	-----	66.2	-----
ETHANE.....	4.5	-----		2.0	-----	4.2	-----
PROPANE.....	2.9	-----		2.8	-----	2.8	-----
N-BUTANE.....	0.9	-----		1.0	-----	0.9	-----
ISOBUTANE.....	0.6	-----		0.6	-----	1.0	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	19.2	-----		25.5	-----	23.7	-----
OXYGEN.....	0.0	-----		TRACE	-----	TRACE	-----
ARGON.....	0.1	-----		0.1	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.1	-----	0.1	-----
HELIUM.....	0.80	-----		0.90	-----	0.90	-----
HEATING VALUE*.....	941	-----		879	-----	905	-----
SPECIFIC GRAVITY.....	0.719	-----		0.741	-----	0.740	-----
		INDEX SAMPLE	7843 6578	INDEX SAMPLE	7844 6579	INDEX SAMPLE	7845 6580
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	GIL MORROW NO. 1			GILLEY NO. 1		LUCKER NO. 1	
LOCATION.....	SEC. 153, BLK. 7, I&GN SUR.			SEC. 134, BLK. 7, I&GN SUR.		SEC. 166, BLK. 7, I&GN SUR.	
OWNER.....	ADA OIL CO.			ADA OIL CO.		ADA OIL CO.	
COMPLETED.....	01/14/53			02/03/53		01/21/53	
SAMPLED.....	05/12/58			05/12/58		05/12/58	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2860			2799		2805	
WELLHEAD PRESSURE, PSIG.....	325			308		330	
OPEN FLOW, MCFD.....	705			1522		908	
COMPONENT, MOLE PCT							
METHANE.....	60.9	-----		64.6	-----	61.1	-----
ETHANE.....	3.9	-----		4.0	-----	3.5	-----
PROPANE.....	2.6	-----		2.7	-----	2.6	-----
N-BUTANE.....	0.8	-----		0.8	-----	0.9	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.5	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	29.2	-----		25.3	-----	29.6	-----
OXYGEN.....	0.2	-----		0.1	-----	TRACE	-----
ARGON.....	0.1	-----		0.1	-----	0.1	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		TRACE	-----	0.1	-----
HELIUM.....	1.30	-----		1.00	-----	1.00	-----
HEATING VALUE*.....	816	-----		822	-----	822	-----
SPECIFIC GRAVITY.....	0.746	-----		0.733	-----	0.751	-----
		INDEX SAMPLE	7846 6581	INDEX SAMPLE	7847 6582	INDEX SAMPLE	7848 6604
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	JIR WALL NO. 1			JACKSON-MCCASLAND NO. 1		MCCRAY NO. 6, RRC NO. 9	
LOCATION.....	SEC. 226, BLK. B-2, I&GN SUR			SEC. 154, BLK. 7, I&GN SUR.		SEC. 2, BLK. 2, TYLER RR SUR	
OWNER.....	ADA OIL CO.			ADA OIL CO.		CONSOLIDATED GAS & EQUIP. CO	
COMPLETED.....	01/21/53			01/14/53		06/15/56	
SAMPLED.....	05/12/58			05/12/58		05/20/58	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2765			2825		3348	
WELLHEAD PRESSURE, PSIG.....	320			248		NOT GIVEN	
OPEN FLOW, MCFD.....	941			634			
COMPONENT, MOLE PCT							
METHANE.....	63.8	-----		61.3	-----	77.7	-----
ETHANE.....	3.9	-----		3.9	-----	5.4	-----
PROPANE.....	2.9	-----		2.6	-----	3.3	-----
N-BUTANE.....	0.9	-----		0.9	-----	1.3	-----
ISOBUTANE.....	0.5	-----		0.6	-----	0.7	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.3	-----		0.2	-----	0.5	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.2	-----
NITROGEN.....	26.4	-----		29.0	-----	10.2	-----
OXYGEN.....	TRACE	-----		0.4	-----	TRACE	-----
ARGON.....	0.1	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		TRACE	-----	0.1	-----
HELIUM.....	0.90	-----		1.00	-----	0.30	-----
HEATING VALUE*.....	861	-----		828	-----	1081	-----
SPECIFIC GRAVITY.....	0.740	-----		0.751	-----	0.707	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7849 SAMPLE 6631		INDEX 7850 SAMPLE 6707		INDEX 7851 SAMPLE 6861	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	CAVIN NO. 1	WELL NAME.....	CRUMPACKER NO. 2	WELL NAME.....	NAVAJO MAUDIE NO. 1
LOCATION.....	SEC. 86, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 15, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 30, BLK. 2, TTRR SUR.
OWNER.....	NORTHERN NATURAL GAS PROD. CO.	OWNER.....	CITTS SERVICE OIL CO.	OWNER.....	POWER PETROLEUM CO.
COMPLETED.....	04/26/44	COMPLETED.....	03/03/58	COMPLETED.....	01/03/59
SAMPLED.....	06/13/58	SAMPLED.....	07/11/58	SAMPLED.....	11/14/58
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2785	DEPTH, FEET.....	3102	DEPTH, FEET.....	3103
WELLHEAD PRESSURE, PSIG.....	3945	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	12088	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	50
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.2	METHANE.....	81.8	METHANE.....	79.0
ETHANE.....	5.0	ETHANE.....	5.8	ETHANE.....	6.0
PROPANE.....	3.0	PROPANE.....	2.8	PROPANE.....	3.3
N-BUTANE.....	1.1	N-BUTANE.....	0.8	N-BUTANE.....	1.0
ISOBUTANE.....	0.6	ISOBUTANE.....	0.4	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.5	ISOPENTANE.....	0.4	ISOPENTANE.....	0.5
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	15.6	NITROGEN.....	7.5	NITROGEN.....	8.4
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.9	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.0	HELIUM.....	0.30	HELIUM.....	0.32
HEATING VALUE.....	1002	HEATING VALUE.....	1076	HEATING VALUE.....	1096
SPECIFIC GRAVITY.....	0.714	SPECIFIC GRAVITY.....	0.675	SPECIFIC GRAVITY.....	0.697

INDEX 7852 SAMPLE 6875		INDEX 7853 SAMPLE 6937		INDEX 7854 SAMPLE 6938	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MCOWELL NO. 1	WELL NAME.....	BOONE WELL NO. 1	WELL NAME.....	SEVERTSON NO. 1
LOCATION.....	SEC. 72, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 115, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 137, BLK. 7, I&GN SUR.
OWNER.....	HARVEST QUEEN MILL & ELEVATOR	OWNER.....	SMITH & COLLINS	OWNER.....	SMITH & COLLINS
COMPLETED.....	04/27/58	COMPLETED.....	02/09/59	COMPLETED.....	02/09/59
SAMPLED.....	11/23/58	SAMPLED.....	02/13/59	SAMPLED.....	02/13/59
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	3075	DEPTH, FEET.....	2846	DEPTH, FEET.....	2892
WELLHEAD PRESSURE, PSIG.....	420	WELLHEAD PRESSURE, PSIG.....	371	WELLHEAD PRESSURE, PSIG.....	402
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	10100	OPEN FLOW, MCFD.....	3400
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	61.5	METHANE.....	59.1	METHANE.....	68.4
ETHANE.....	4.8	ETHANE.....	3.1	ETHANE.....	1.3
PROPANE.....	3.6	PROPANE.....	0.3	PROPANE.....	1.0
N-BUTANE.....	1.1	N-BUTANE.....	0.4	N-BUTANE.....	0.4
ISOBUTANE.....	0.8	ISOBUTANE.....	0.5	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	0.1
ISOPENTANE.....	0.4	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	25.4	NITROGEN.....	31.1	NITROGEN.....	26.9
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0
HELIUM.....	1.30	HELIUM.....	1.90	HELIUM.....	1.40
HEATING VALUE.....	1073	HEATING VALUE.....	1074	HEATING VALUE.....	1069
SPECIFIC GRAVITY.....	0.763	SPECIFIC GRAVITY.....	0.747	SPECIFIC GRAVITY.....	0.689

INDEX 7855 SAMPLE 6979		INDEX 7856 SAMPLE 7048		INDEX 7857 SAMPLE 7135	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	LLOYD RIGGINS NO. 1	WELL NAME.....	CLARK NO. 1	WELL NAME.....	WITTER NO. 1
LOCATION.....	SEC. 15, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 15, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 1, BLK. 7, I&GN SUR.
OWNER.....	CABOT CARBON CO.	OWNER.....	NORTHERN NATURAL GAS PROD. CO.	OWNER.....	DORCHESTER CORP.
COMPLETED.....	10/06/57	COMPLETED.....	12/-/-59	COMPLETED.....	02/26/53
SAMPLED.....	02/21/59	SAMPLED.....	05/01/59	SAMPLED.....	06/26/59
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2782	DEPTH, FEET.....	2685	DEPTH, FEET.....	2468
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	12027	WELLHEAD PRESSURE, PSIG.....	134
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	12027	OPEN FLOW, MCFD.....	6810
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	62.6	METHANE.....	80.2	METHANE.....	80.1
ETHANE.....	3.7	ETHANE.....	6.5	ETHANE.....	6.4
PROPANE.....	2.4	PROPANE.....	3.5	PROPANE.....	3.3
N-BUTANE.....	0.6	N-BUTANE.....	1.2	N-BUTANE.....	1.2
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.4	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	27.7	NITROGEN.....	6.7	NITROGEN.....	7.0
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2
HELIUM.....	1.59	HELIUM.....	0.20	HELIUM.....	0.20
HEATING VALUE.....	818	HEATING VALUE.....	1109	HEATING VALUE.....	1109
SPECIFIC GRAVITY.....	0.731	SPECIFIC GRAVITY.....	0.695	SPECIFIC GRAVITY.....	0.692

INDEX 7858 SAMPLE 7136		INDEX 7859 SAMPLE 7258		INDEX 7860 SAMPLE 7259	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MCILROY NO. 1	WELL NAME.....	SIMMONS NO. 1	WELL NAME.....	HAIDUK NO. 1
LOCATION.....	SEC. 18, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 70, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 89, BLK. 7, I&GN RR SUR
OWNER.....	DORCHESTER CORP.	OWNER.....	SMITH & COLLINS, ET AL.	OWNER.....	SMITH & COLLINS
COMPLETED.....	09/09/58	COMPLETED.....	10/-/-59	COMPLETED.....	10/-/-59
SAMPLED.....	06/26/59	SAMPLED.....	10/22/59	SAMPLED.....	10/22/59
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2610	DEPTH, FEET.....	2930	DEPTH, FEET.....	2900
WELLHEAD PRESSURE, PSIG.....	160	WELLHEAD PRESSURE, PSIG.....	320	WELLHEAD PRESSURE, PSIG.....	330
OPEN FLOW, MCFD.....	2706	OPEN FLOW, MCFD.....	6000	OPEN FLOW, MCFD.....	9000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	80.4	METHANE.....	68.6	METHANE.....	62.9
ETHANE.....	6.2	ETHANE.....	4.4	ETHANE.....	3.8
PROPANE.....	3.1	PROPANE.....	2.9	PROPANE.....	3.0
N-BUTANE.....	0.0	N-BUTANE.....	0.8	N-BUTANE.....	0.7
ISOBUTANE.....	1.6	ISOBUTANE.....	0.4	ISOBUTANE.....	0.4
N-PENTANE.....	0.3	N-PENTANE.....	0.4	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.4	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	21.4	HEXANES PLUS.....	0.1
NITROGEN.....	7.7	NITROGEN.....	TRACE	NITROGEN.....	27.0
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.2
HELIUM.....	0.20	HELIUM.....	0.20	HELIUM.....	1.30
HEATING VALUE.....	1080	HEATING VALUE.....	916	HEATING VALUE.....	842
SPECIFIC GRAVITY.....	0.681	SPECIFIC GRAVITY.....	0.722	SPECIFIC GRAVITY.....	0.738

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7861 7299			INDEX SAMPLE	7862 7498			INDEX SAMPLE	7863 7499
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	CARSON			CARSON				CARSON			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	VICARS A NO. 2			CRAWFORD NO. 1				URBANCZYK NO. 1			
LOCATION.....	SEC. 234, 8-2, I&GN SUR.			SEC. 73, BLK. 7, I&GN SUR.				SEC. 75, BLK. 7, I&GN SUR.			
OWNER.....	NORTHERN NATURAL GAS CO.			CONSOLIDATED GAS & EQUIP. CO				CONSOLIDATED GAS & EQUIP. CO			
COMPLETED.....	09/25/59			04/10/60				04/07/60			
SAMPLED.....	12/08/59			04/16/60				04/16/60			
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2720			3008				2982			
WELLHEAD PRESSURE, PSIG.....	235			411				406			
OPEN FLOW, MCFD.....	3290			1800				10200			
COMPONENT, MOLE PCT											
METHANE.....	79.4			63.7				64.1			
ETHANE.....	5.6			2.3				1.5			
PROPANE.....	3.6			1.9				0.3			
N-BUTANE.....	1.3			0.6				0.1			
ISOBUTANE.....	0.6			0.4				TRACE			
N-PENTANE.....	0.4			0.1				0.0			
ISOPENTANE.....	0.2			0.1				0.0			
CYCLOPENTANE.....	TRACE			TRACE				0.0			
HEXANES PLUS.....	0.2			TRACE				0.0			
NITROGEN.....	8.2			28.5				32.2			
OXYGEN.....	TRACE			0.2				0.2			
ARGON.....	TRACE			0.1				0.1			
HYDROGEN.....	0.1			0.6				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.2				0.1			
HELIUM.....	0.30			1.50				1.40			
HEATING VALUE.....	1098			780				687			
SPECIFIC GRAVITY.....	0.697			0.717				0.696			
		INDEX SAMPLE	7864 7630			INDEX SAMPLE	7865 7631			INDEX SAMPLE	7866 7632
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	CARSON			CARSON				CARSON			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	CAREY NO. 1			BURNS NO. 1-A				BROADWAY NO. 1			
LOCATION.....	SEC. 46, BLK. 7, I&GN SUR.			SEC. 106, BLK. 7, I&GN SUR.				SEC. 94, BLK. 7, I&GN SUR.			
OWNER.....	SMITH & COLLINS			SMITH & COLLINS				SMITH & COLLINS			
COMPLETED.....	01/30/60			04/06/60				04/23/60			
SAMPLED.....	08/01/60			08/01/60				08/01/60			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2852			2900				2859			
WELLHEAD PRESSURE, PSIG.....	273			372				352			
OPEN FLOW, MCFD.....	2650			3100				9400			
COMPONENT, MOLE PCT											
METHANE.....	72.6			56.9				61.9			
ETHANE.....	6.1			4.0				3.4			
PROPANE.....	3.9			0.7				3.0			
N-BUTANE.....	3.2			0.7				1.0			
ISOBUTANE.....	0.4			0.3				0.3			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	0.3			0.2				0.2			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			TRACE				0.1			
NITROGEN.....	14.3			32.5				28.0			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	0.1			0.2				0.1			
HYDROGEN.....	0.2			0.1				0.2			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.1				TRACE			
HELIUM.....	0.60			2.10				1.50			
HEATING VALUE.....	1023			0.770				0.831			
SPECIFIC GRAVITY.....	0.716			0.752				0.739			
		INDEX SAMPLE	7867 7651			INDEX SAMPLE	7868 7652			INDEX SAMPLE	7869 7655
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	CARSON			CARSON				CARSON			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	BIGGS HORN B NO. 1			J. B. RICE GAS UNIT NO. 1				BIGGS HORN UNIT NO. 1			
LOCATION.....	SEC. 136, BLK. 7, I&GN SUR.			SEC. 136, BLK. 7, I&GN SUR.				SEC. 129, BLK. 7, I&GN SUR.			
OWNER.....	TEXACO INC.			TEXACO INC.				TEXACO INC.			
COMPLETED.....	04/07/60			06/16/60				04/06/60			
SAMPLED.....	08/23/60			08/23/60				08/23/60			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2813			2881				2830			
WELLHEAD PRESSURE, PSIG.....	593			379				368			
OPEN FLOW, MCFD.....	20000			3700				14200			
COMPONENT, MOLE PCT											
METHANE.....	61.5			60.8				59.6			
ETHANE.....	2.9			3.7				2.8			
PROPANE.....	2.2			2.6				1.9			
N-BUTANE.....	0.6			0.7				0.6			
ISOBUTANE.....	0.5			0.4				0.4			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	0.2			0.0				0.1			
CYCLOPENTANE.....	0.2			TRACE				TRACE			
HEXANES PLUS.....	0.2			0.1				0.1			
NITROGEN.....	30.1			29.9				32.3			
OXYGEN.....	0.0			TRACE				0.0			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	TRACE			TRACE				0.1			
HELIUM.....	1.50			1.40				1.50			
HEATING VALUE.....	800			800				751			
SPECIFIC GRAVITY.....	0.741			0.737				0.736			
		INDEX SAMPLE	7870 7658			INDEX SAMPLE	7871 7743			INDEX SAMPLE	7872 7839
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	CARSON			CARSON				CARSON			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	DEAHL NO. B-3			DEAHL B-3-R				MERRITT NO. 1			
LOCATION.....	SEC. 5, BLK. 5, B&B SUR.			SEC. 5, B&B SUR.				SEC. 12, BLK. Y-2, AB&M SUR.			
OWNER.....	AMARILLO OIL CO.			AMARILLO OIL CO.				H. N. BURNETT			
COMPLETED.....	07/20/60			09/06/60				09/03/60			
SAMPLED.....	08/30/60			10/27/60				02/03/61			
FORMATION.....	PERM-TUBB			PERM-TUBB				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	1437			1430				2450			
WELLHEAD PRESSURE, PSIG.....	530			539				176			
OPEN FLOW, MCFD.....	NOT GIVEN			2950				9300			
COMPONENT, MOLE PCT											
METHANE.....	10.2			11.0				76.6			
ETHANE.....	1.9			1.9				6.5			
PROPANE.....	2.0			1.9				3.8			
N-BUTANE.....	0.9			0.7				1.3			
ISOBUTANE.....	0.1			0.3				0.7			
N-PENTANE.....	0.2			0.2				0.3			
ISOPENTANE.....	0.1			0.0				0.2			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.2			0.3				0.2			
NITROGEN.....	83.8			83.2				9.4			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	0.1			0.1				TRACE			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.1				0.2			
HELIUM.....	0.30			0.30				0.50			
HEATING VALUE.....	1046			1046				1054			
SPECIFIC GRAVITY.....	0.956			0.952				0.709			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7873 8205	INDEX SAMPLE	7874 8247	INDEX SAMPLE	7875 8258
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MCBRAYER			CRUMPACKER NO. 1		SAILOR NO. 2	
LOCATION.....	SEC. 63, BLK. 7, I&GN SUR.			SEC. 80, BLK. 7, I&GN SUR.		SEC. 64, BLK. 7, I&GN SUR.	
OWNER.....	CONSOLIDATED GAS & EQUIP. CO			CONSOLIDATED GAS & EQUIP. CO		F. SMITH & J. W. COLLINS	
COMPLETED.....	--/--/00			--/--/00		09/26/61	
SAMPLED.....	09/22/61			10/19/61		10/24/61	
FORMATION.....	PERM-			PERM-		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		2910	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		307	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		7000	
COMPONENT, MOLE PCT							
METHANE.....	57.4	-----		51.1	-----	62.0	-----
ETHANE.....	5.4	-----		1.7	-----	3.7	-----
PROPANE.....	4.7	-----		0.1	-----	2.7	-----
N-BUTANE.....	1.4	-----		0.5	-----	0.9	-----
ISOBUTANE.....	0.8	-----		0.6	-----	0.5	-----
N-PENTANE.....	0.3	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.4	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.2	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	0.1	-----
NITROGEN.....	26.8	-----		43.0	-----	28.1	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.3	-----		0.1	-----	0.1	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		TRACE	-----	0.1	-----
HELIUM.....	1.36	-----		1.49	-----	1.30	-----
HEATING VALUE.....	936	-----		632	-----	838	-----
SPECIFIC GRAVITY.....	0.794	-----		0.771	-----	0.745	-----
		INDEX SAMPLE	7876 8352	INDEX SAMPLE	7877 8393	INDEX SAMPLE	7878 8463
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	ORLANDO MEAKER C NO. 1			BOBE NO. 6		TRAYLOR NO. 2	
LOCATION.....	SEC. 62, BLK. 7, I&GN SUR.			SEC. 63, BLK. 7, I&GNRR SUR.		SEC. 74, BLK. 7, I&GN SUR.	
OWNER.....	CONSOLIDATED GAS & EQUIP. CO			CONSOLIDATED GAS & EQUIP. CO		CONSOLIDATED GAS & EQUIP. CO	
COMPLETED.....	12/2/61			--/--/00		10/24/61	
SAMPLED.....	12/23/61			02/07/62		04/04/62	
FORMATION.....	PERM-WICHITA-ALBANY			NOT GIVEN		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2980			6100		2986	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		392	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		7600	
COMPONENT, MOLE PCT							
METHANE.....	49.5	-----		35.2	-----	65.4	-----
ETHANE.....	2.2	-----		0.8	-----	1.6	-----
PROPANE.....	0.6	-----		0.1	-----	0.4	-----
N-BUTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
ISOBUTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----		0.1	-----	0.0	-----
NITROGEN.....	45.0	-----		56.4	-----	31.1	-----
OXYGEN.....	TRACE	-----		2.1	-----	TRACE	-----
ARGON.....	0.2	-----		0.6	-----	0.1	-----
HYDROGEN.....	TRACE	-----		2.7	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		TRACE	-----	TRACE	-----
HELIUM.....	2.20	-----		1.73	-----	1.32	-----
HEATING VALUE.....	596	-----		705	-----	705	-----
SPECIFIC GRAVITY.....	0.752	-----		0.791	-----	0.692	-----
		INDEX SAMPLE	7879 8468	INDEX SAMPLE	7880 8475	INDEX SAMPLE	7881 8476
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MCBRAYER NO. 1			NICHOLSON NO. 2		MEAKER C NO. 1	
LOCATION.....	SEC. 63, BLK. 7, I&GN SUR.			SEC. 62, BLK. 7, I&GN SUR.		SEC. 62, BLK. 7, I&GN SUR.	
OWNER.....	CONSOLIDATED GAS & EQUIP. CO			CONSOLIDATED GAS & EQUIP. CO		CONSOLIDATED GAS & EQUIP. CO	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	04/05/62			04/05/62		04/05/62	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3068			3098		2964	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	56.1	-----		62.4	-----	64.7	-----
ETHANE.....	5.7	-----		6.4	-----	9.0	-----
PROPANE.....	4.7	-----		4.6	-----	7.0	-----
N-BUTANE.....	1.6	-----		1.3	-----	2.0	-----
ISOBUTANE.....	0.8	-----		0.7	-----	1.1	-----
N-PENTANE.....	0.4	-----		0.2	-----	0.4	-----
ISOPENTANE.....	0.5	-----		0.3	-----	0.4	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.2	-----	0.3	-----
NITROGEN.....	27.7	-----		22.5	-----	14.2	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.5	-----		0.1	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		TRACE	-----	TRACE	-----
HELIUM.....	1.42	-----		1.12	-----	0.64	-----
HEATING VALUE.....	931	-----		969	-----	1156	-----
SPECIFIC GRAVITY.....	0.804	-----		0.768	-----	0.796	-----
		INDEX SAMPLE	7882 10753	INDEX SAMPLE	7883 10755	INDEX SAMPLE	7884 11809
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BOST NO. C-4			POLING NO. A-2		WARRICK A-7	
LOCATION.....	SEC. 10, BLK. Y-2, TTRR SUR.			SEC. 12, BLK. Y-2, TTRR SUR.		SEC. 12, BLK. Y-2, B&B SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	10/11/66			10/11/66		02/03/69	
SAMPLED.....	10/13/66			10/13/66		04/10/69	
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH			PERM-WICHITA-ALBANY&GR. WASH		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2352			2398		2368	
WELLHEAD PRESSURE, PSIG.....	140			140		126	
OPEN FLOW, MCFD.....	73000			22500		118000	
COMPONENT, MOLE PCT							
METHANE.....	74.7	-----		75.3	-----	76.4	-----
ETHANE.....	4.3	-----		4.5	-----	4.2	-----
PROPANE.....	4.1	-----		1.4	-----	1.3	-----
N-BUTANE.....	1.4	-----		0.6	-----	0.6	-----
ISOBUTANE.....	0.6	-----		0.5	-----	0.4	-----
N-PENTANE.....	0.3	-----		0.2	-----	0.4	-----
ISOPENTANE.....	0.3	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.3	-----	0.3	-----
HEXANES PLUS.....	0.2	-----		0.7	-----	9.3	-----
NITROGEN.....	10.8	-----		0.0	-----	0.1	-----
OXYGEN.....	0.3	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.3	-----	0.2	-----
HELIUM.....	0.49	-----		0.45	-----	0.47	-----
HEATING VALUE.....	1083	-----		1116	-----	1111	-----
SPECIFIC GRAVITY.....	0.722	-----		0.726	-----	0.719	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7885 1537			INDEX SAMPLE	7886 1538			INDEX SAMPLE	7887 1539
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	CARSON			CARSON				CARSON			
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE				PANHANDLE W/RED CAVE			
WELL NAME.....	LANE NO. 1			BURNETT NO. 2				BURNETT NO. 3			
LOCATION.....	SEC. 72, BLK. 4, I&GN SUR.			SEC. 23, BLK. 5, I&GN SUR.				SEC. 44, BLK. 5, I&GN SUR.			
OWNER.....	EMPIRE GAS & FUEL CO.			EMPIRE GAS & FUEL CO.				EMPIRE GAS & FUEL CO.			
COMPLETED.....	11/-/26			09/-/27				09/-/27			
SAMPLED.....	11/01/27			11/01/27				11/01/27			
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE				PERM-RED CAVE			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2300			2200				2200			
WELLHEAD PRESSURE, PSIG.....	425			435				435			
OPEN FLOW, MCFD.....	19000			19000				18000			
COMPONENT, MOLE PCT											
METHANE.....	72.5			71.3				68.7			
ETHANE.....	20.1			21.5				22.8			
PROPANE.....	---			---				---			
N-BUTANE.....	---			---				---			
ISOBUTANE.....	---			---				---			
N-PENTANE.....	---			---				---			
ISOPENTANE.....	---			---				---			
CYCLOPENTANE.....	---			---				---			
HEXANES PLUS.....	---			---				---			
NITROGEN.....	6.6			6.6				7.9			
OXYGEN.....	0.3			0.2				0.5			
ARGON.....	---			---				---			
HYDROGEN.....	---			---				---			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.3			0.9				0.0			
HELIUM.....	0.22			0.23				0.19			
HEATING VALUE.....	1095			1108				1105			
SPECIFIC GRAVITY.....	0.685			0.690				0.702			
		INDEX SAMPLE	7888 1540			INDEX SAMPLE	7889 1541			INDEX SAMPLE	7890 5277
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	CARSON			CARSON				CARSON			
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE				PANHANDLE W/RED CAVE			
WELL NAME.....	BURNETT NO. 7			BURNETT NO. 9				S. 8, BURNETT NO. 81-A			
LOCATION.....	SEC. 49, BLK. 5, I&GN SUR.			SEC. 50, BLK. 5, I&GN SUR.				SEC. 87, BLK. 5, I&GN SUR.			
OWNER.....	EMPIRE GAS & FUEL CO.			EMPIRE GAS & FUEL CO.				CITIES SERVICE GAS CO.			
COMPLETED.....	09/-/27			09/-/27				03/07/52			
SAMPLED.....	11/02/27			11/02/27				09/15/52			
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE				PERM-RED CAVE			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2200			2200				2347			
WELLHEAD PRESSURE, PSIG.....	435			435				169			
OPEN FLOW, MCFD.....	40000			27000				3102			
COMPONENT, MOLE PCT											
METHANE.....	70.4			69.0				79.6			
ETHANE.....	21.8			21.6				6.5			
PROPANE.....	---			---				3.6			
N-BUTANE.....	---			---				1.1			
ISOBUTANE.....	---			---				0.8			
N-PENTANE.....	---			---				0.3			
ISOPENTANE.....	---			---				0.2			
CYCLOPENTANE.....	---			---				0.1			
HEXANES PLUS.....	---			---				0.2			
NITROGEN.....	7.2			8.8				7.3			
OXYGEN.....	0.2			---				TRACE			
ARGON.....	---			---				TRACE			
HYDROGEN.....	---			---				0.0			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.1			0.2				0.1			
HELIUM.....	0.29			0.30				0.23			
HEATING VALUE.....	1104			1086				1116			
SPECIFIC GRAVITY.....	0.693			0.700				0.698			
		INDEX SAMPLE	7891 5283			INDEX SAMPLE	7892 7837			INDEX SAMPLE	7893 7917
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	CARSON			CARSON				CARSON			
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE				PANHANDLE W/RED CAVE			
WELL NAME.....	S. 8, BURNETT NO. 80-A			POLING R. NO. 1				G. W. DEARL NO. 2-R			
LOCATION.....	SEC. 97, BLK. 5, I&GN SUR.			SEC. 22, BLK. Y-2, AB&M SUR.				SEC. 25, BLK. Y-8, AB&M SUR.			
OWNER.....	CITIES SERVICE GAS CO.			H. N. BURNETT				CITIES SERVICE GAS CO.			
COMPLETED.....	04/10/52			--/--/00				01/17/61			
SAMPLED.....	09/15/52			02/03/61				03/30/61			
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE				PERM-RED CAVE			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2145			NOT GIVEN				1752			
WELLHEAD PRESSURE, PSIG.....	146			260				301			
OPEN FLOW, MCFD.....	3933			NOT GIVEN				825			
COMPONENT, MOLE PCT											
METHANE.....	78.9			80.7				80.9			
ETHANE.....	6.6			7.1				7.3			
PROPANE.....	3.8			2.9				2.9			
N-BUTANE.....	1.2			0.7				0.6			
ISOBUTANE.....	0.9			0.4				0.4			
N-PENTANE.....	0.2			0.1				0.1			
ISOPENTANE.....	0.3			0.1				0.1			
CYCLOPENTANE.....	0.1			TRACE				TRACE			
HEXANES PLUS.....	---			---				0.1			
NITROGEN.....	7.3			7.5				7.4			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	---			---				TRACE			
HYDROGEN.....	0.0			---				0.0			
HYDROGEN SULFIDE.....	---			---				0.0			
CARBON DIOXIDE.....	0.2			0.1				TRACE			
HELIUM.....	0.23			0.20				0.20			
HEATING VALUE.....	1127			1071				1073			
SPECIFIC GRAVITY.....	0.707			0.672				0.671			
		INDEX SAMPLE	7894 8198			INDEX SAMPLE	7895 8425			INDEX SAMPLE	7896 12821
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	CARSON			CARSON				CASS			
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE				BRYANS HILL			
WELL NAME.....	SEC. 12, BLK. Y-2, T&RR SUR			POLING NO. 1R				B. H. U. NO. 7			
LOCATION.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				PURE OIL CO.			
OWNER.....	---			---				NOT GIVEN			
COMPLETED.....	09/13/61			03/25/61				05/25/62			
SAMPLED.....	09/13/61			03/02/62				05/18/71			
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE				JURA-SHACKOVER			
GEOLOGIC PROVINCE CODE.....	440			440				260			
DEPTH, FEET.....	1715			1715				10142			
WELLHEAD PRESSURE, PSIG.....	336			336				1600			
OPEN FLOW, MCFD.....	2650			2650				1133			
COMPONENT, MOLE PCT											
METHANE.....	81.5			80.8				60.8			
ETHANE.....	6.5			6.8				7.2			
PROPANE.....	2.5			2.9				3.1			
N-BUTANE.....	0.6			0.8				3.0			
ISOBUTANE.....	0.3			0.3				0.9			
N-PENTANE.....	0.1			0.1				0.4			
ISOPENTANE.....	0.1			0.2				0.3			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	0.1			0.1				0.3			
NITROGEN.....	7.9			7.7				9.5			
OXYGEN.....	TRACE			TRACE				0.0			
ARGON.....	TRACE			TRACE				0.0			
HYDROGEN.....	TRACE			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				10.4			
CARBON DIOXIDE.....	0.1			TRACE				5.8			
HELIUM.....	0.15			0.15				0.03			
HEATING VALUE.....	1051			1071				1003			
SPECIFIC GRAVITY.....	0.664			0.672				0.833			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7897 16085	INDEX SAMPLE	7898 9593	INDEX SAMPLE	7899 14800
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CASS			CASS		CASS	
FIELD.....	HICKLARE			HICKLARE		RAMBO N	
WELL NAME.....	G. B. JOHNSON NO. 1			MARY O. AHERN NO. 1		RAMBO NO. 1	
LOCATION.....	JOHN M. WATSON SUR. A-1075			D&SERR SUR. A-1204		JESSE DINSON SUR. A-305	
OWNER.....	HILLIARD OIL & GAS, INC.			SHELL OIL CO.		SOUTHLAND ROYALTY CO.	
COMPLETED.....	10/01/80			04/16/64		06/01/75	
SAMPLED.....	10/01/80			10/07/64		10/08/76	
FORMATION.....	JURA-SHACKOVER			JURA-SHACKOVER		JURA-SHACKOVER	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	10661			9102		10300	
WELLHEAD PRESSURE, PSIG.....	5200			3200		4500	
OPEN FLOW, MCFD.....	2892			1075		3800	
COMPONENT, MOLE PCT							
METHANE.....	64.8			35.4		79.9	
ETHANE.....	4.1			5.2		3.4	
PROPANE.....	1.9			4.6		1.2	
N-BUTANE.....	0.8			1.1		0.6	
ISOBUTANE.....	1.0			0.7		0.5	
N-PENTANE.....	0.6			0.4		0.2	
ISOPENTANE.....	0.0			TRACE		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.5			0.2		0.2	
NITROGEN.....	24.7			47.6		12.2	
OXYGEN.....	0.1			0.1		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			4.6		1.5	
HELIUM.....	0.05			0.09		0.04	
HEATING VALUE.....	915			966		966	
SPECIFIC GRAVITY.....	0.767			0.908		0.677	
		INDEX SAMPLE	7900 3803	INDEX SAMPLE	7901 12317	INDEX SAMPLE	7902 12318
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CASS			CHAMBERS		CHAMBERS	
FIELD.....	WILDCAT			ANAHUAC		ANAHUAC	
WELL NAME.....	ADDE S. BALDWIN NO. 1			J. E. BROUSSARD NO. 20-H		J. E. BROUSSARD NO. 4	
LOCATION.....	JAMES TAYLOR SUR.			NOT GIVEN		NOT GIVEN	
OWNER.....	SKELLY OIL CO.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	03/08/44			10/06/69		09/25/57	
SAMPLED.....	04/19/44			07/08/70		07/08/70	
FORMATION.....	NOT GIVEN			TERT-MIOCENE 10		TERT-MIOCENE 21	
GEOLOGIC PROVINCE CODE.....	260			220		220	
DEPTH, FEET.....	5850			3090		4957	
WELLHEAD PRESSURE, PSIG.....	2210			1323		1883	
OPEN FLOW, MCFD.....	1400			10600		88000	
COMPONENT, MOLE PCT							
METHANE.....	80.7			99.2		98.3	
ETHANE.....	8.2			0.1		0.8	
PROPANE.....	---			TRACE		0.2	
N-BUTANE.....	---			0.0		0.0	
ISOBUTANE.....	---			0.0		0.0	
N-PENTANE.....	---			0.0		0.0	
ISOPENTANE.....	---			0.0		0.0	
CYCLOPENTANE.....	---			0.0		0.0	
HEXANES PLUS.....	---			0.0		0.0	
NITROGEN.....	10.3			0.6		0.5	
OXYGEN.....	0.6			TRACE		0.0	
ARGON.....	---			0.0		TRACE	
HYDROGEN.....	---			TRACE		TRACE	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.4			TRACE		0.2	
HELIUM.....	0.00			0.01		0.01	
HEATING VALUE.....	964			1007		1015	
SPECIFIC GRAVITY.....	0.644			0.557		0.564	
		INDEX SAMPLE	7903 12319	INDEX SAMPLE	7904 12320	INDEX SAMPLE	7905 12321
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHAMBERS			CHAMBERS		CHAMBERS	
FIELD.....	ANAHUAC			ANAHUAC		ANAHUAC	
WELL NAME.....	J. E. BROUSSARD NO. 20-F			J. E. BROUSSARD NO. 17		J. E. BROUSSARD NO. 14-F	
LOCATION.....	HUMBLE OIL & REFINING CO.			SEC. 63, H&T RR CO. SUR. A-136		SEC. 63, H&T RR CO. SUR. A-136	
OWNER.....	HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	04/23/69			03/27/69		11/26/69	
SAMPLED.....	07/08/70			07/08/70		07/08/70	
FORMATION.....	TERT-MIOCENE 20			TERT-MIOCENE 19		TERT-MIOCENE 13	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4911			4764		3460	
WELLHEAD PRESSURE, PSIG.....	2130			2130		1845	
OPEN FLOW, MCFD.....	40592			851000		8544	
COMPONENT, MOLE PCT							
METHANE.....	98.6			96.5		99.2	
ETHANE.....	0.5			0.1		0.1	
PROPANE.....	TRACE			TRACE		TRACE	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.5			2.6		0.5	
OXYGEN.....	0.0			0.5		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	TRACE			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1010			983		1007	
SPECIFIC GRAVITY.....	0.561			0.570		0.557	
		INDEX SAMPLE	7906 12322	INDEX SAMPLE	7907 3867	INDEX SAMPLE	7908 12355
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHAMBERS			CHAMBERS		CHAMBERS	
FIELD.....	ANAHUAC			ANAHUAC		ANGELINA	
WELL NAME.....	ANAHUAC GUS NO. 1-C			STATE NO. 1		OWEN H. ACOM NO. 2	
LOCATION.....	SEC. 50, H&T RR CO. SUR.			TRACT 21-D, GALVESTON BAY		J. W. ACOM SUR. A-612	
OWNER.....	HUMBLE OIL & REFINING CO.			STANDARD OIL CO. OF TEXAS		BELCO PETROLEUM CORP.	
COMPLETED.....	11/05/58			05/07/44		06/08/69	
SAMPLED.....	07/08/70			09/21/44		08/11/70	
FORMATION.....	OLIG-DISCORBI-1			OLIG-FRIO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	5980			7565		12061	
WELLHEAD PRESSURE, PSIG.....	2141			NOT GIVEN		3600	
OPEN FLOW, MCFD.....	130000			41		550	
COMPONENT, MOLE PCT							
METHANE.....	93.6			90.9		89.0	
ETHANE.....	3.3			7.3		4.2	
PROPANE.....	1.2			---		2.0	
N-BUTANE.....	0.3			---		0.6	
ISOBUTANE.....	0.3			---		0.5	
N-PENTANE.....	0.1			---		0.3	
ISOPENTANE.....	0.1			---		0.1	
CYCLOPENTANE.....	0.1			---		TRACE	
HEXANES PLUS.....	0.2			---		0.2	
NITROGEN.....	1.6			1.6		1.8	
OXYGEN.....	TRACE			0.1		0.1	
ARGON.....	0.0			---		TRACE	
HYDROGEN.....	TRACE			---		0.1	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.2			0.1		1.1	
HELIUM.....	0.01			TRACE		TRACE	
HEATING VALUE.....	1081			1052		1093	
SPECIFIC GRAVITY.....	0.606			0.599		0.643	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7909 17662	INDEX SAMPLE	7910 14891	INDEX SAMPLE	7911 13805
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHAMBERS			CHAMBERS		CHAMBERS	
FIELD.....	BAY ROAD			DEVILLIER		FIG RIDGE	
WELL NAME.....	U.S. STEEL NO. B-1			EARL COOPER NO. 2		DOORNBOS NO. 1	
LOCATION.....	JOHN STEELE SUR. A-227			WILLIAM GODFREY SUR. A-511		T&NO RR CO. SUR.	
OWNER.....	MICHEL T. HALBOUTY ENERGY CO			GULF ENERGY & MINERALS CO.		TEXAS CRUDE, INC.	
COMPLETED.....	11/20/83			12/05/75		09/29/72	
SAMPLED.....	05/05/85			01/24/77		11/10/73	
FORMATION.....	OLIG-VICKSBURG L			OLIG-VICKSBURG		OLIG-MARGINULINA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	10784			10782		7870	
WELLHEAD PRESSURE, PSIG.....	5500			7440		NOT GIVEN	
OPEN FLOW, MCFD.....	27000			50000		17000	
COMPONENT, MOLE PCT							
METHANE.....	86.0	-----		91.5	-----	92.2	-----
ETHANE.....	6.7	-----		3.9	-----	3.9	-----
PROPANE.....	3.9	-----		1.1	-----	1.5	-----
N-BUTANE.....	0.9	-----		0.3	-----	0.3	-----
ISOBUTANE.....	0.6	-----		0.2	-----	0.5	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.2	-----
NITROGEN.....	0.5	-----		1.4	-----	0.7	-----
OXYGEN.....	0.1	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.9	-----		0.8	-----	0.2	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	1161	-----		1093	-----	1093	-----
SPECIFIC GRAVITY.....	0.669	-----		0.615	-----	0.615	-----
		INDEX SAMPLE	7912 10625	INDEX SAMPLE	7913 4925	INDEX SAMPLE	7914 3736
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHAMBERS			CHAMBERS		CHAMBERS	
FIELD.....	FIG RIDGE NW			FISHERS REEF N		JACKSON PASTURE	
WELL NAME.....	C. DOORNBOS NO. 2			GALVESTON BAY STATE NO. 1		J. E. JACKSON NO. 1	
LOCATION.....	SEC. 83, T&NORR SUR. A-252			NOT GIVEN		NOT GIVEN	
OWNER.....	SUN OIL CO.			HUMBLE OIL & REFINING CO.		WYNN CROSBY DRILLING CO.	
COMPLETED.....	10/30/64			05/27/50		07/02/43	
SAMPLED.....	06/21/66			09/13/50		03/29/44	
FORMATION.....	OLIG-FRIO F-1			OLIG-FRIO		OLIG-MARGINULINA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8112			8790		8090	
WELLHEAD PRESSURE, PSIG.....	2200			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	17000			NOT GIVEN		25000	
COMPONENT, MOLE PCT							
METHANE.....	94.3	-----		90.8	-----	70.2	-----
ETHANE.....	2.9	-----		3.9	-----	28.9	-----
PROPANE.....	1.0	-----		0.1	-----	---	-----
N-BUTANE.....	0.3	-----		0.7	-----	---	-----
ISOBUTANE.....	0.2	-----		0.6	-----	---	-----
N-PENTANE.....	0.1	-----		0.3	-----	---	-----
ISOPENTANE.....	0.2	-----		0.0	-----	---	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	---	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	---	-----
NITROGEN.....	0.5	-----		0.6	-----	0.5	-----
OXYGEN.....	0.0	-----		0.2	-----	0.4	-----
ARGON.....	TRACE	-----		TRACE	-----	---	-----
HYDROGEN.....	0.0	-----		0.2	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.3	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.01	-----	0.00	-----
HELIUM.....	0.01	-----		1.20	-----	12.09	-----
HEATING VALUE.....	1077	-----		0.636	-----	0.702	-----
SPECIFIC GRAVITY.....	0.603	-----					
		INDEX SAMPLE	7915 3743	INDEX SAMPLE	7916 4830	INDEX SAMPLE	7917 7995
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHAMBERS			CHAMBERS		CHAMBERS	
FIELD.....	JACKSON PASTURE			JACKSON PASTURE		LAKE STEPHENSON	
WELL NAME.....	JAYES NO. 1			J. E. JACKSON NO. 4		ROY DAWSON NO. 1	
LOCATION.....	ROBERT OLIVER SUR.			NOT GIVEN		J. T. WHITE A-415 SUR.	
OWNER.....	WYNN CROSBY DRILLING CO.			MCCARTHY OIL & GAS CORP.		TEXAS NATIONAL PETROLEUM CO.	
COMPLETED.....	12/23/43			11/08/46		03/09/61	
SAMPLED.....	03/25/44			01/28/50		05/25/61	
FORMATION.....	OLIG-FRIO			OLIG-FRIO		OLIG-FRIO MASSIVE	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8075			8088		9430	
WELLHEAD PRESSURE, PSIG.....	2950			1945		3000	
OPEN FLOW, MCFD.....	25000			41000		19000	
COMPONENT, MOLE PCT							
METHANE.....	73.8	-----		71.8	-----	90.6	-----
ETHANE.....	25.2	-----		7.5	-----	4.9	-----
PROPANE.....	---	-----		6.7	-----	2.1	-----
N-BUTANE.....	---	-----		3.1	-----	0.4	-----
ISOBUTANE.....	---	-----		3.5	-----	0.7	-----
N-PENTANE.....	---	-----		1.8	-----	0.1	-----
ISOPENTANE.....	---	-----		0.3	-----	0.1	-----
CYCLOPENTANE.....	---	-----		0.3	-----	TRACE	-----
HEXANES PLUS.....	---	-----		2.5	-----	0.2	-----
NITROGEN.....	0.7	-----		1.2	-----	0.7	-----
OXYGEN.....	0.2	-----		0.1	-----	0.0	-----
ARGON.....	---	-----		0.0	-----	0.0	-----
HYDROGEN.....	---	-----		---	-----	TRACE	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		1.2	-----	0.1	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	1199	-----		1488	-----	1116	-----
SPECIFIC GRAVITY.....	0.684	-----		0.883	-----	0.628	-----
		INDEX SAMPLE	7918 4924	INDEX SAMPLE	7919 10072	INDEX SAMPLE	7920 10246
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHAMBERS			CHAMBERS		CHAMBERS	
FIELD.....	OYSTER BAYOU			OYSTER BAYOU		OYSTER BAYOU	
WELL NAME.....	FELIX JACKSON NO. 31			FELIX JACKSON NO. 51		FELIX JACKSON NO. 51	
LOCATION.....	SEC. 124, T&ND SUR. NO. 419			ANASTACIO YBARBO A-30		ANASTACIO YBARBO SUR. A-30	
OWNER.....	SUN OIL CO.			SUN OIL CO.		SUN OIL CO.	
COMPLETED.....	07/18/50			02/02/64		02/12/64	
SAMPLED.....	09/13/50			08/19/65		10/25/65	
FORMATION.....	OLIG-FRIO			OLIG-HACKBERRY A		OLIG-HACKBERRY	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8402			9264		9264	
WELLHEAD PRESSURE, PSIG.....	3906			4940		4200	
OPEN FLOW, MCFD.....	35000			100		100000	
COMPONENT, MOLE PCT							
METHANE.....	93.2	-----		93.8	-----	93.9	-----
ETHANE.....	3.4	-----		3.2	-----	3.2	-----
PROPANE.....	1.3	-----		0.9	-----	1.0	-----
N-BUTANE.....	0.4	-----		0.3	-----	0.3	-----
ISOBUTANE.....	0.3	-----		0.2	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.0	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.0	-----	0.2	-----
NITROGEN.....	0.4	-----		0.8	-----	0.7	-----
OXYGEN.....	0.2	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	---	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.3	-----
HELIUM.....	0.01	-----		0.05	-----	0.3	-----
HEATING VALUE.....	1088	-----		---	-----	1070	-----
SPECIFIC GRAVITY.....	0.614	-----		0.599	-----	0.602	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7921 14198	INDEX SAMPLE	7922 9587	INDEX SAMPLE	7923 3996
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHAMBERS			CHAMBERS		CHAMBERS	
FIELD.....	RED FISH REEF N			RED FISH REEF SW		SEABREEZE	
WELL NAME.....	STATE TRACT 131 NO. 2			NO. 8		F. C. THOMPSON NO. 1	
LOCATION.....	GALVESTON BAY			STATE TRACT 307		T&NO 133	
OWNER.....	SUN OIL CO.			SUN OIL CO.		SUN OIL CO.	
COMPLETED.....	12/27/72			01/17/74		05/12/74	
SAMPLED.....	10/31/74			10/07/64		10/07/64	
FORMATION.....	OLIG-FRIO F-7			OLIG-FRIO F-17		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8379			11184		9454	
WELLHEAD PRESSURE, PSIG.....	2985			2150		3815	
OPEN FLOW, MCFD.....	29056			3800		20500	
COMPONENT, MOLE PCT							
METHANE.....	92.3			91.7		89.0	
ETHANE.....	3.9			3.7		10.5	
PROPANE.....	1.6			1.6		---	
N-BUTANE.....	0.4			0.4		---	
ISOBUTANE.....	0.5			0.5		---	
N-PENTANE.....	0.1			0.2		---	
ISOPENTANE.....	0.2			TRACE		---	
CYCLOPENTANE.....	TRACE			0.1		---	
HEXANES PLUS.....	0.1			0.5		---	
NITROGEN.....	0.4			0.2		0.0	
OXYGEN.....	TRACE			0.0		0.2	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.3			1.0		0.3	
HELIUM.....	TRACE			TRACE		0.00	
HEATING VALUE.....	1095			1105		1090	
SPECIFIC GRAVITY.....	0.615			0.630		0.610	
		INDEX SAMPLE	7924 16263	INDEX SAMPLE	7925 11964	INDEX SAMPLE	7926 13750
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHAMBERS			CHAMBERS		CHAMBERS	
FIELD.....	SHIP CHANNEL S			STOWELL		UMBRELLA POINT	
WELL NAME.....	STATE TRACT 299 NO. 1			BETTIE C. GREEN NO. 2		STATE TRACT 87 NO. 3	
LOCATION.....	GALVESTON BAY			FRANCISCO VALMORE LEAGUEA-26		GALVESTON BAY	
OWNER.....	HOUSTON OIL & MINERALS CORP.			SUN OIL CO.		GETTY OIL CO.	
COMPLETED.....	05/-/80			06/18/68		12/20/71	
SAMPLED.....	05/22/80			07/15/69		09/27/73	
FORMATION.....	OLIG-FRIO			OLIG-MARGINULINA		OLIG-FRIO F-24	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	11000			7332		10679	
WELLHEAD PRESSURE, PSIG.....	8572			2775		6815	
OPEN FLOW, MCFD.....	7546			90639		134326	
COMPONENT, MOLE PCT							
METHANE.....	83.7			91.5		94.6	
ETHANE.....	6.6			3.7		2.6	
PROPANE.....	3.4			1.7		0.9	
N-BUTANE.....	1.0			0.4		0.1	
ISOBUTANE.....	1.0			0.2		0.2	
N-PENTANE.....	0.3			0.2		TRACE	
ISOPENTANE.....	0.3			0.1		0.1	
CYCLOPENTANE.....	0.3			0.1		0.1	
HEXANES PLUS.....	0.8			0.5		0.1	
NITROGEN.....	0.4			0.7		0.4	
OXYGEN.....	TRACE			0.1		0.1	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.1		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.4			0.2		0.7	
HELIUM.....	0.01			0.01		TRACE	
HEATING VALUE.....	1225			1117		1051	
SPECIFIC GRAVITY.....	0.714			0.631		0.596	
		INDEX SAMPLE	7927 3995	INDEX SAMPLE	7928 10610	INDEX SAMPLE	7929 10611
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHAMBERS			CHAMBERS		CHAMBERS	
FIELD.....	WINNIE N			WINNIE N		WINNIE N	
WELL NAME.....	ROSA ARENS NO. 1			JONES GAS UNIT NO. 1		JONES GAS UNIT NO. 1	
LOCATION.....	LOT 12, VALMORE LEAGUE			J.M. DURAN SUR. LOT 2, BLK. 69		J.M. DURAN SUR. LOT 2, BLK. 69	
OWNER.....	SUN OIL CO.			UNSET INTERNATL. PET. CORP.		UNSET INTERNATL. PET. CORP.	
COMPLETED.....	12/11/44			04/25/66		04/25/66	
SAMPLED.....	03/20/45			06/14/66		06/14/66	
FORMATION.....	OLIG-NODOSARIA			MIOC-		MIOC-	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9840			6603		6743	
WELLHEAD PRESSURE, PSIG.....	3750			2100		2650	
OPEN FLOW, MCFD.....	51000			26670		148000	
COMPONENT, MOLE PCT							
METHANE.....	92.4			92.8		93.4	
ETHANE.....	7.1			3.3		3.3	
PROPANE.....	---			1.3		1.0	
N-BUTANE.....	---			0.4		0.3	
ISOBUTANE.....	---			0.5		0.5	
N-PENTANE.....	---			0.1		0.1	
ISOPENTANE.....	---			0.1		0.1	
CYCLOPENTANE.....	---			0.1		0.1	
HEXANES PLUS.....	---			0.3		0.1	
NITROGEN.....	0.0			0.7		0.7	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			---		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.1		0.1	
HELIUM.....	TRACE			0.01		0.02	
HEATING VALUE.....	1063			1101		1090	
SPECIFIC GRAVITY.....	0.594			0.619		0.612	
		INDEX SAMPLE	7930 4605	INDEX SAMPLE	7931 17716	INDEX SAMPLE	7932 10052
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CHEROKEE			CHEROKEE		CHEROKEE	
FIELD.....	NOT GIVEN			OVERTON		REKLAW	
WELL NAME.....	NEW BRIMMINGHAM NO. 1			NEW BRUCKER NO. 1		REKLAW G. U. NO. 2, 1-C	
LOCATION.....	G. E. LOONEY SUR. ABST. 509			WILLIAM GEORGE SUR., A-295		THOMAS STANDFORD SUR.	
OWNER.....	STANDARD OIL CO. OF TEXAS			EXXON CO., U.S.A.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	10/17/48			07/07/47		06/20/55	
SAMPLED.....	03/20/45			06/14/85		08/05/65	
FORMATION.....	CRET-RODESSA			JURA-COTTON VALLEY		CRET-PETTIT	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	8608			10361		8486	
WELLHEAD PRESSURE, PSIG.....	3350			3400		1925	
OPEN FLOW, MCFD.....	147000			1220		315	
COMPONENT, MOLE PCT							
METHANE.....	94.4			92.6		94.6	
ETHANE.....	3.7			3.2		0.9	
PROPANE.....	---			1.1		0.5	
N-BUTANE.....	---			0.2		0.2	
ISOBUTANE.....	---			0.2		0.1	
N-PENTANE.....	---			0.2		0.1	
ISOPENTANE.....	---			0.0		0.1	
CYCLOPENTANE.....	---			0.1		0.1	
HEXANES PLUS.....	---			0.2		0.3	
NITROGEN.....	0.0			1.1		2.1	
OXYGEN.....	0.3			0.1		0.1	
ARGON.....	---			TRACE		0.0	
HYDROGEN.....	---			TRACE		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	1.6			1.4		0.0	
HELIUM.....	0.02			TRACE		0.02	
HEATING VALUE.....	1047			1047		1021	
SPECIFIC GRAVITY.....	0.590			0.611		0.598	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 7933 10053	INDEX SAMPLE 7934 12542	INDEX SAMPLE 7935 12548
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	CHEROKEE		CHEROKEE	CHEROKEE
FIELD.....	REKLAW		REKLAW	REKLAW
WELL NAME.....	REKLAW G. U. NO. 2, 1-T		REKLAW G. U. 2 NO. 1	REKLAW G. U. 2 NO. 1
LOCATION.....	THOMAS STANDFORD SUR.		RAYMOND SALES SUR.	RAYMOND SALES SUR.
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	09/22/64		06/20/55	09/22/64
SAMPLED.....	08/05/65		11/10/70	11/10/70
FORMATION.....	CRET-RODESSA		CRET-PETTIT	CRET-RODESSA
GEOLOGIC PROVINCE CODE.....	260		260	260
DEPTH, FEET.....	7813		8486	7814
WELLHEAD PRESSURE, PSIG.....	3400		3603	3403
OPEN FLOW, MCFD.....	9050		11800	9050
COMPONENT, MOLE PCT				
METHANE.....	92.7		83.3	93.1
ETHANE.....	0.7		0.6	0.7
PROPANE.....	0.3		0.2	0.3
N-BUTANE.....	0.0		0.0	0.0
ISOBUTANE.....	0.0		0.0	0.0
N-PENTANE.....	0.0		0.0	0.0
ISOPENTANE.....	0.0		0.0	0.0
CYCLOPENTANE.....	0.0		0.0	0.0
HEXANES PLUS.....	0.0		0.0	0.0
NITROGEN.....	4.8		12.2	4.3
OXYGEN.....	0.0		1.7	0.0
ARGON.....	TRACE		0.1	0.0
HYDROGEN.....	0.0		0.1	0.1
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	1.5		1.7	1.5
HELIUM.....	0.959		0.03	0.04
HEATING VALUE.....	0.595		860	964
SPECIFIC GRAVITY.....	0.595		0.635	0.593

		INDEX SAMPLE 7936 15377	INDEX SAMPLE 7937 15378	INDEX SAMPLE 7938 11953
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	CHEROKEE		CHEROKEE	CHEROKEE
FIELD.....	WHITE OAK CREEK		WHITE OAK CREEK	WILLIAM WISE AREA
WELL NAME.....	ALVIE F. JONES NO. 1		ALVIE F. JONES NO. 1	SALLIE D. WHITEMAN NO. 1
LOCATION.....	G. RUDELL SUR. A-67		G. RUDELL SUR. A-67	J. H. ARMSTRONG SUR. A-69
OWNER.....	DAVIS OIL CO.		DAVIS OIL CO.	STANDARD OIL CO. OF TEXAS
COMPLETED.....	02/05/77		02/05/77	04/05/69
SAMPLED.....	09/13/78		09/13/78	07/02/69
FORMATION.....	CRET-RODESSA		CRET-PETTIT	CRET-TRAVIS PEAK
GEOLOGIC PROVINCE CODE.....	260		260	260
DEPTH, FEET.....	8522		9502	10650
WELLHEAD PRESSURE, PSIG.....	2550		2600	3417
OPEN FLOW, MCFD.....	14495		20384 0	2330
COMPONENT, MOLE PCT				
METHANE.....	94.7		95.1	97.5
ETHANE.....	1.7		1.4	0.3
PROPANE.....	0.7		0.5	0.1
N-BUTANE.....	0.3		0.2	0.0
ISOBUTANE.....	0.2		0.2	0.0
N-PENTANE.....	0.2		0.1	0.0
ISOPENTANE.....	TRACE		TRACE	0.0
CYCLOPENTANE.....	TRACE		TRACE	0.0
HEXANES PLUS.....	0.2		0.2	0.0
NITROGEN.....	0.6		0.8	0.6
OXYGEN.....	0.0		0.0	TRACE
ARGON.....	TRACE		TRACE	0.1
HYDROGEN.....	TRACE		TRACE	0.4
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	1.2		1.4	1.0
HELIUM.....	0.02		0.02	0.02
HEATING VALUE.....	1048		1059	997
SPECIFIC GRAVITY.....	0.602		0.598	0.568

		INDEX SAMPLE 7939 8339	INDEX SAMPLE 7940 3704	INDEX SAMPLE 7941 882
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	CHILDRESS		CLAY	CLAY
FIELD.....	KIRKLAND		ANTELOPE	CLAY COUNTY
WELL NAME.....	COATS B NO. 1		H. HENDERSON NO. 11	C. M. MORSHAM NO. 1
LOCATION.....	SEC. 389		SEC. 2605, BLK. A-464, TELL	SEC. 3, T&NO SUR.
OWNER.....	BRITISH AMERICAN OIL PROD. C		SHELL OIL CO.	GULF PRODUCTION CO.
COMPLETED.....	10/21/61		05/20/41	--/--/00
SAMPLED.....	12/14/61		12/15/43	06/08/24
FORMATION.....	PENN-CANYON		M-1	-TOP LIME
GEOLOGIC PROVINCE CODE.....	435		420	420
DEPTH, FEET.....	NOT GIVEN		3165	3386
WELLHEAD PRESSURE, PSIG.....	200		920	150
OPEN FLOW, MCFD.....	NOT GIVEN		15	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	55.3		17.3	3.9
ETHANE.....	11.1		74.0	87.0
PROPANE.....	9.2		---	---
N-BUTANE.....	5.0		---	---
ISOBUTANE.....	3.2		---	---
N-PENTANE.....	0.3		---	---
ISOPENTANE.....	2.6		---	---
CYCLOPENTANE.....	1.3		---	---
HEXANES PLUS.....	7.9		---	---
NITROGEN.....	7.4		8.2	8.2
OXYGEN.....	0.2		0.2	0.5
ARGON.....	0.0		---	---
HYDROGEN.....	0.2		---	---
HYDROGEN SULFIDE.....	0.0		---	---
CARBON DIOXIDE.....	1.0		0.2	0.2
HELIUM.....	0.08		0.06	0.06
HEATING VALUE.....	1600		1501	1599
SPECIFIC GRAVITY.....	1.018		0.957	1.022

		INDEX SAMPLE 7942 4778	INDEX SAMPLE 7943 11947	INDEX SAMPLE 7944 3710
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	CLAY		CLAY	CLAY
FIELD.....	CLAY COUNTY		DILLARD SU	NEW YORK CITY
WELL NAME.....	EDWINGTON NO. 1-A		HARVILL NO. 1	E. D. COLEMAN NO. A-3
LOCATION.....	NOT GIVEN		SEC. 76, WOOD CSL SUR. A705	BLK. 24, T. W. TYREE SUR.
OWNER.....	BRIDWELL OIL CO.		LONGHORN PRODUCTION CO.	SHELL OIL CO.
COMPLETED.....	10/17/49		06/24/48	12/17/41
SAMPLED.....	10/17/49		07/03/47	12/22/43
FORMATION.....	PENN-CISCO		PENN-HARBLE FALLS	MISS-CHAPPEL
GEOLOGIC PROVINCE CODE.....	420		420	420
DEPTH, FEET.....	1291		5782	6216
WELLHEAD PRESSURE, PSIG.....	550		800	2100
OPEN FLOW, MCFD.....	NOT GIVEN		1200	200
COMPONENT, MOLE PCT				
METHANE.....	56.8		67.4	43.1
ETHANE.....	1.7		12.8	54.8
PROPANE.....	0.5		2.6	---
N-BUTANE.....	0.2		1.0	---
ISOBUTANE.....	TRACE		0.6	---
N-PENTANE.....	0.1		0.2	---
ISOPENTANE.....	1.0		0.2	---
CYCLOPENTANE.....	0.0		0.2	---
HEXANES PLUS.....	0.2		0.2	---
NITROGEN.....	38.9		4.8	1.2
OXYGEN.....	TRACE		TRACE	0.2
ARGON.....	0.1		0.0	---
HYDROGEN.....	0.0		0.1	---
HYDROGEN SULFIDE.....	0.1		0.1	0.7
CARBON DIOXIDE.....	1.48		0.09	0.04
HELIUM.....	1.35		1.6	14.9
HEATING VALUE.....	0.734		0.823	0.839
SPECIFIC GRAVITY.....	0.734		0.823	0.839

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7945			INDEX 7946			INDEX 7947		
SAMPLE 90			SAMPLE 386			SAMPLE 752		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CLAY		CLAY			CLAY		
FIELD.....	PETROLIA		PETROLIA			PETROLIA		
WELL NAME.....	SKELLEY NO. 8		MARTIN NO. 11			MILLER NO. 8		
LOCATION.....	BLK 48 PARKER CO. SCL. LAND		BLK 13, BOSQUE CO.SCL.LAND			BLK 39 PARKER CO. SCH. LAND		
OWNER.....	LONE STAR GAS CO.		TEXAS CO.			LONE STAR GAS CO.		
COMPLETED.....	--/--/00		02/--/20			10/15/22		
SAMPLED.....	02/27/20		07/30/20			10/--/22		
FORMATION.....	PENN-CISCO		NOT GIVEN			PENN-CISCO		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	NOT GIVEN		1683			1399		
WELLHEAD PRESSURE,PSIG.....	NOT GIVEN		300			450		
OPEN FLOW, MCFD.....	NOT GIVEN		4000			620		
COMPONENT, MOLE PCT								
METHANE.....	56.8		71.0			49.8		
ETHANE.....	10.3		0.0			9.1		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	31.1		26.6			39.4		
OXYGEN.....	0.5		1.1			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.0			0.1		
HELIUM.....	0.90		1.24			1.11		
HEATING VALUE.....	760		719			668		
SPECIFIC GRAVITY.....	0.735		0.665			0.760		
INDEX 7948			INDEX 7949			INDEX 7950		
SAMPLE 1157			SAMPLE 1159			SAMPLE 12841		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CLAY		CLAY			COCHRAN		
FIELD.....	PETROLIA		PANHANDLE			LEVELLAND		
WELL NAME.....	MILLER NO. 11		PANHANDLE NO. 3			D. S. WRIGHT & NO. 2		
LOCATION.....	NOT GIVEN		NOT GIVEN			LABOR 26, LEAGUE 95, CSL SUR		
OWNER.....	LONE STAR GAS CO.		LONE STAR GAS CO.			ARD DRILLING CO.		
COMPLETED.....	--/--/00		--/--/00			05/16/58		
SAMPLED.....	09/24/25		09/25/25			06/01/71		
FORMATION.....	PENN-CISCO		PENN-CISCO			PERM-SAN ANDRES		
GEOLOGIC PROVINCE CODE.....	420		420			430		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			4838		
WELLHEAD PRESSURE,PSIG.....	NOT GIVEN		NOT GIVEN			50		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			64		
COMPONENT, MOLE PCT								
METHANE.....	39.6		32.0			74.2		
ETHANE.....	13.3		40.0			7.1		
PROPANE.....	---		---			3.1		
N-BUTANE.....	---		---			0.5		
ISOBUTANE.....	---		---			0.4		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			TRACE		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	43.7		26.1			11.5		
OXYGEN.....	2.1		0.9			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.4		0.4			3.0		
HELIUM.....	0.85		0.62			0.02		
HEATING VALUE.....	639		1041			999		
SPECIFIC GRAVITY.....	0.812		0.867			0.715		
INDEX 7951			INDEX 7952			INDEX 7953		
SAMPLE 11611			SAMPLE 4106			SAMPLE 12657		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COCHRAN		COCHRAN			COKE		
FIELD.....	MONCRIEF-HASTEN		SLAUGHTER			BRONTE		
WELL NAME.....	F. O. HASTEN NO. 1		G. B. SMITH NO. 34			BRONTE GARDNER UNIT NO. 5		
LOCATION.....	ARMSTRONG CSL SUR.		OLDHAM CO. SCHOOL LAND			SEC. 453, BLK. 1A, H&TC SUR.		
OWNER.....	W. A. MONCRIEF, JR.		HONOLULU OIL CORP.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	08/02/68		02/19/42			12/20/67		
SAMPLED.....	08/02/68		06/--/46			02/05/71		
FORMATION.....	DEVON		PERM-SAN ANDRES			CRET-GARDNER		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	10067		4931			5102		
WELLHEAD PRESSURE,PSIG.....	2106		375			1970		
OPEN FLOW, MCFD.....	6500		504			18100		
COMPONENT, MOLE PCT								
METHANE.....	72.0		61.1			70.1		
ETHANE.....	9.7		16.9			9.2		
PROPANE.....	1.3		---			7.3		
N-BUTANE.....	1.8		---			2.3		
ISOBUTANE.....	0.5		---			0.8		
N-PENTANE.....	0.5		---			0.4		
ISOPENTANE.....	0.2		---			0.4		
CYCLOPENTANE.....	0.1		---			0.1		
HEXANES PLUS.....	0.3		---			0.3		
NITROGEN.....	14.9		14.9			8.2		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	2.9		6.9			0.6		
HELIUM.....	0.01		0.11			0.25		
HEATING VALUE.....	1154		0.767			1222		
SPECIFIC GRAVITY.....	0.765		0.767			0.783		
INDEX 7954			INDEX 7955			INDEX 7956		
SAMPLE 12266			SAMPLE 4961			SAMPLE 4962		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COKE		COKE			COKE		
FIELD.....	FRANK PEARSON		JAMESON			JAMESON		
WELL NAME.....	CAMP NO. 2		R. B. WALKER NO. 4			R. B. WALKER NO. 3		
LOCATION.....	SEC. 126, BLK. 2, H&TC SUR.		CARL BRODKHUYSEN SUR.NO.A-31			SNYDER&VON ROSENBERG,JR. SUR		
OWNER.....	PEARSON-SIBERT OIL CO.		SUN OIL CO.			SUN OIL CO.		
COMPLETED.....	08/18/69		10/26/50			10/27/50		
SAMPLED.....	05/15/70		11/13/70			11/09/50		
FORMATION.....	PENN-STRAWN REEF		PENN-STRAWN			PENN-STRAWN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	6068		5770			5730		
WELLHEAD PRESSURE,PSIG.....	1225		1275			1700		
OPEN FLOW, MCFD.....	24000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.5		71.9			72.5		
ETHANE.....	10.3		13.9			13.1		
PROPANE.....	6.0		6.6			5.9		
N-BUTANE.....	1.3		0.6			1.2		
ISOBUTANE.....	0.4		0.5			0.3		
N-PENTANE.....	0.2		0.4			0.2		
ISOPENTANE.....	0.1		---			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	7.5		3.9			5.4		
OXYGEN.....	0.0		0.1			0.2		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.6			0.8		
HELIUM.....	0.13		0.11			0.11		
HEATING VALUE.....	1253		1253			1194		
SPECIFIC GRAVITY.....	0.743		0.757			0.740		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	7957 12805	INDEX SAMPLE	7958 12807	INDEX SAMPLE	7959 7053
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COKE			COKE		COLEMAN	
FIELD.....	JAMESON			MILLICAN		CAMP COLORADO	
WELL NAME.....	J. S. S. U. NO. 6-35			M. R. U. NO. 3-E		O. H. TERRY NO. 1	
LOCATION.....	NOT GIVEN			NOT GIVEN		H. KIGAN SUR. NO. 498	
OWNER.....	SUN OIL CO.			SUN OIL CO.		CHAPMAN OIL CO.	
COMPLETED.....	10/13/53			11/21/53		12/31/58	
SAMPLED.....	04/27/71			04/27/71		04/29/59	
FORMATION.....	PERM-JAMESON			PENN-STRAWN		PENN-MARBLE FALLS	
GEOLOGIC PROVINCE CODE.....	430			430		425	
DEPTH, FEET.....	5840			5850		2628	
WELLHEAD PRESSURE, PSIG.....	600			220		983	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		5400	
COMPONENT, MOLE PCT							
METHANE.....	63.1			58.2		72.2	
ETHANE.....	16.0			17.6		0.1	
PROpane.....	9.0			11.9		0.0	
N-BUTANE.....	2.5			3.2		0.0	
ISOBUTANE.....	0.2			1.8		0.1	
N-PENTANE.....	0.7			0.6		0.1	
ISOPENTANE.....	0.3			1.2		0.0	
CYCLOPENTANE.....	0.2			0.5		0.1	
HEXANES PLUS.....	0.5			0.8		0.2	
NITROGEN.....	6.1			3.7		26.1	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.5		0.0	
HELIUM.....	0.08			0.05		1.00	
HEATING VALUE.....	1360			1519		755	
SPECIFIC GRAVITY.....	0.843			0.920		0.670	
		INDEX SAMPLE	7960 10893	INDEX SAMPLE	7961 10890	INDEX SAMPLE	7962 11031
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLEMAN			COLEMAN		COLEMAN	
FIELD.....	CAMP COLORADO			CAMP COLORADO N		CAMP COLORADO N	
WELL NAME.....	DELLA TERRY NO. A-1			NELLE BAILEY NO. 1		NELLE BAILEY NO. 1	
LOCATION.....	DAVID MOSES SUR. NO. 499			SEC. 15, BLK. 3, H&T8 SUR.		SEC. 15, BLK. 3, HT&8 SUR.	
OWNER.....	CHAPMAN OIL CO.			DAVIS & DAVIS, INC.		DAVIS & DAVIS, INC.	
COMPLETED.....	02/21/67			02/21/67		07/15/67	
SAMPLED.....	02/21/67			02/21/67		07/15/67	
FORMATION.....	PENN-MARBLE FALLS			CRET-GARDNER		CRET-GARDNER	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	2579			2134		2150	
WELLHEAD PRESSURE, PSIG.....	903			872		825	
OPEN FLOW, MCFD.....	NOT GIVEN			16000		15980	
COMPONENT, MOLE PCT							
METHANE.....	71.2			72.4		72.0	
ETHANE.....	10.2			6.9		6.9	
PROpane.....	5.7			4.2		3.9	
N-BUTANE.....	1.5			1.2		1.2	
ISOBUTANE.....	0.7			0.4		0.6	
N-PENTANE.....	0.4			0.3		0.2	
ISOPENTANE.....	0.3			0.2		0.3	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	9.2			13.5		13.8	
OXYGEN.....	TRACE			TRACE		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.2	
HELIUM.....	0.28			0.45		0.44	
HEATING VALUE.....	1170			1055		1051	
SPECIFIC GRAVITY.....	0.754			0.726		0.729	
		INDEX SAMPLE	7963 1817	INDEX SAMPLE	7964 7403	INDEX SAMPLE	7965 7404
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLEMAN			COLEMAN		COLEMAN	
FIELD.....	COLEMAN COUNTY REGULAR			FISK		FISK	
WELL NAME.....	VANCE NO. 1			STOBAUGH NO. 1		A. C. SPARKS NO. 1	
LOCATION.....	E. T. R. R. SUR.			SEC. 95, BLK. 1, GH&HRR SUR.		SEC. 88, BLK. 1, GH&HRR SUR.	
OWNER.....	EDLO-TEXAS CO.			EDLO-TEXAS CORP.		EDLO-TEXAS CORP.	
COMPLETED.....	06/01/28			--/--/00		03/--/59	
SAMPLED.....	07/16/29			02/22/60		02/22/60	
FORMATION.....	NOT GIVEN			EOCE-JENNINGS		EOCE-JENNINGS	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	2010			2455		2381	
WELLHEAD PRESSURE, PSIG.....	800			990		1033	
OPEN FLOW, MCFD.....	1500			25800		11400	
COMPONENT, MOLE PCT							
METHANE.....	80.0			74.5		74.3	
ETHANE.....	5.3			8.0		8.2	
PROpane.....	---			0.0		4.2	
N-BUTANE.....	---			0.9		1.1	
ISOBUTANE.....	---			0.6		0.6	
N-PENTANE.....	---			0.1		0.1	
ISOPENTANE.....	---			0.2		0.2	
CYCLOPENTANE.....	---			TRACE		TRACE	
HEXANES PLUS.....	---			0.1		0.2	
NITROGEN.....	13.7			10.8		10.5	
OXYGEN.....	0.2			0.0		0.0	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			TRACE		TRACE	
HYDROGEN SULFIDE**.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.1		0.1	
HELIUM.....	0.57			0.50		0.40	
HEATING VALUE.....	905			1070		1089	
SPECIFIC GRAVITY.....	0.639			0.707		0.716	
		INDEX SAMPLE	7966 7405	INDEX SAMPLE	7967 7406	INDEX SAMPLE	7968 7407
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLEMAN			COLEMAN		COLEMAN	
FIELD.....	FISK			FISK		FISK	
WELL NAME.....	SCOTT B NO. 1			STOBAUGH NO. 1		R. C. ADRIAN NO. 1	
LOCATION.....	SEC. 91, BLK. 1, GH&HRR SUR.			SEC. 70, BLK. 1, GH&HRR SUR.		SEC. 88, BLK. 1, GH&HRR SUR.	
OWNER.....	KATZ OIL CO.			KATZ OIL CO.		EDLO-TEXAS CORP.	
COMPLETED.....	02/10/58			03/10/58		--/--/00	
SAMPLED.....	02/22/60			02/22/60		02/22/60	
FORMATION.....	EOCE-JENNINGS			EOCE-JENNINGS		EOCE-JENNINGS	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	2496			2466		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	940			940		NOT GIVEN	
OPEN FLOW, MCFD.....	1300			7000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.1			73.0		74.6	
ETHANE.....	7.8			7.9		7.8	
PROpane.....	3.9			3.9		4.2	
N-BUTANE.....	0.9			0.9		1.0	
ISOBUTANE.....	0.6			0.6		0.5	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			12.5		0.2	
NITROGEN.....	12.7			TRACE		TRACE	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0			0.1		0.1	
CARBON DIOXIDE.....	0.1			0.1		0.40	
HELIUM.....	0.50			0.50		1082	
HEATING VALUE.....	1059			0.718		0.715	
SPECIFIC GRAVITY.....	0.720						

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7969 SAMPLE 11071		INDEX 7970 SAMPLE 3763		INDEX 7971 SAMPLE 8162	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	COLEMAN	COLEMAN	COLEMAN	COLEMAN	
FIELD.....	FISK	GRAVES	GRAVES	HUDSON	
WELL NAME.....	A. C. SPARKS	MOSE THOMPSON NO. 1	MOSE THOMPSON NO. 1	HUDSON A-1	
LOCATION.....	FISC, TEXAS	SEC. 2, BLK. 1, HT&B SUR.	SEC. 2, BLK. 1, HT&B SUR.	SEC. 74, BLK. 2, GH&R SUR.	
OWNER.....	BRADY MUNICIPAL GAS CORP.	WOODLEY PETROLEUM CO.	WOODLEY PETROLEUM CO.	LONE STAR GAS CO.	
COMPLETED.....	--/--/00	07/06/42	07/06/42	09/16/57	
SAMPLED.....	08/18/67	03/30/44	03/30/44	08/12/61	
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	PENN-MORRIS	
GEOLOGIC PROVINCE CODE.....	425	425	425	425	
DEPTH, FEET.....	NOT GIVEN	2807	2807	3251	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1000	1000	815	
OPEN FLOW, MCFD.....	NOT GIVEN	2950	2950	798	
COMPONENT, MOLE PCT					
METHANE.....	73.5	66.0	66.0	70.9	
ETHANE.....	8.6	22.4	22.4	10.1	
PROPANE.....	4.5	---	---	5.2	
N-BUTANE.....	1.3	---	---	1.3	
ISOBUTANE.....	0.6	---	---	0.5	
N-PENTANE.....	0.2	---	---	0.2	
ISOPENTANE.....	0.3	---	---	0.2	
CYCLOPENTANE.....	0.1	---	---	0.1	
HEXANES PLUS.....	0.2	---	---	0.1	
NITROGEN.....	9.9	10.7	10.7	10.9	
OXYGEN.....	TRACE	0.4	0.4	TRACE	
ARGON.....	TRACE	---	---	TRACE	
HYDROGEN.....	TRACE	---	---	0.0	
HYDROGEN SULFIDE.....	0.0	---	---	0.0	
CARBON DIOXIDE.....	0.2	---	---	0.1	
HELIUM.....	0.42	0.41	0.41	0.35	
HEATING VALUE.....	1115	1070	1070	1124	
SPECIFIC GRAVITY.....	0.727	0.711	0.711	0.742	

INDEX 7972 SAMPLE 8163		INDEX 7973 SAMPLE 8563		INDEX 7974 SAMPLE 8564	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	COLEMAN	COLEMAN	COLEMAN	COLEMAN	
FIELD.....	HUDSON	JUNCTION	JUNCTION	JUNCTION	
WELL NAME.....	HUDSON NO. 1	T. M. HAYES NO. 2	T. M. HAYES NO. 3	T. M. HAYES NO. 3	
LOCATION.....	SEC. 74, BLK. 2, GH&R SUR.	BOND & SANDERS SUR. NO. 92	BOND & SANDERS SUR. NO. 92	BOND & SANDERS SUR. NO. 92	
OWNER.....	LOUIS FRANKLIN & SON	BIG D DRILLING CO.	BIG D DRILLING CO.	BIG D DRILLING CO.	
COMPLETED.....	12/05/58	--/--/56	--/--/58	--/--/58	
SAMPLED.....	08/12/61	05/22/62	05/22/62	05/22/62	
FORMATION.....	PENN-GRAY	PENN-BRENECKE	PENN-BRENECKE	PENN-BRENECKE	
GEOLOGIC PROVINCE CODE.....	425	425	425	425	
DEPTH, FEET.....	3597	1114	1096	1096	
WELLHEAD PRESSURE, PSIG.....	705	46	54	54	
OPEN FLOW, MCFD.....	2605	1560	1800	1800	
COMPONENT, MOLE PCT					
METHANE.....	70.7	80.0	81.0	81.0	
ETHANE.....	11.2	3.6	4.0	4.0	
PROPANE.....	5.5	3.1	2.9	2.9	
N-BUTANE.....	1.4	3.1	1.7	1.7	
ISOBUTANE.....	0.8	1.7	0.8	0.8	
N-PENTANE.....	0.3	0.9	0.6	0.6	
ISOPENTANE.....	0.4	0.4	0.3	0.3	
CYCLOPENTANE.....	TRACE	0.1	0.7	0.7	
HEXANES PLUS.....	0.1	1.6	2.4	2.4	
NITROGEN.....	0.0	TRACE	TRACE	TRACE	
OXYGEN.....	TRACE	0.0	TRACE	TRACE	
ARGON.....	0.0	0.1	0.0	0.0	
HYDROGEN.....	0.0	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.1	0.1	0.1	
CARBON DIOXIDE.....	0.1	0.1	0.13	0.13	
HELIUM.....	0.20	1326	1297	1297	
HEATING VALUE.....	1171	0.779	0.760	0.760	
SPECIFIC GRAVITY.....	0.751				

INDEX 7975 SAMPLE 17929		INDEX 7976 SAMPLE 1442		INDEX 7977 SAMPLE 2075	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	COLEMAN	COLEMAN	COLEMAN	COLEMAN	
FIELD.....	LAKI NOVICE	NOT GIVEN	NOT GIVEN	NOT GIVEN	
WELL NAME.....	SEC. 31, BLK. 2, T&NO SUR.,	SEC. 19, 2 MI N VALERA	SEC. 59, BLK. 1, GH&M SUR.	SEC. 59, BLK. 1, GH&M SUR.	
LOCATION.....	HRUBETZ OIL CO.	ROTH & FAUROT	SUNRAY OIL CORP.	SUNRAY OIL CORP.	
OWNER.....	HRUBETZ OIL CO.	ROTH & FAUROT	SUNRAY OIL CORP.	SUNRAY OIL CORP.	
COMPLETED.....	12/12/83	--/--/00	--/--/00	--/--/00	
SAMPLED.....	12/17/85	08/24/27	06/20/30	06/20/30	
FORMATION.....	CRET-GARDNER	PENN-	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	425	425	425	425	
DEPTH, FEET.....	3687	2580	NOT GIVEN	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	200	700	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	2601	10000	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	67.6	56.3	60.7	60.7	
ETHANE.....	8.9	30.1	25.0	25.0	
PROPANE.....	6.6	---	---	---	
N-BUTANE.....	2.7	---	---	---	
ISOBUTANE.....	0.7	---	---	---	
N-PENTANE.....	1.2	---	---	---	
ISOPENTANE.....	0.6	---	---	---	
CYCLOPENTANE.....	0.4	---	---	---	
HEXANES PLUS.....	1.0	---	---	---	
NITROGEN.....	9.7	12.4	13.3	13.3	
OXYGEN.....	TRACE	0.3	---	---	
ARGON.....	TRACE	---	---	---	
HYDROGEN.....	0.0	---	---	---	
HYDROGEN SULFIDE.....	0.0	---	---	---	
CARBON DIOXIDE.....	0.3	0.6	0.6	0.6	
HELIUM.....	0.29	0.31	0.34	0.34	
HEATING VALUE.....	1123	1110	1063	1063	
SPECIFIC GRAVITY.....	0.625	0.761	0.738	0.738	

INDEX 7978 SAMPLE 17262		INDEX 7979 SAMPLE 8164		INDEX 7980 SAMPLE 11037	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	COLEMAN	COLEMAN	COLEMAN	COLEMAN	
FIELD.....	REEVES	SANTA ANNA	SANTA ANNA	TALPA	
WELL NAME.....	ERNEST REEVES NO. 1	LUCAS NO. 2	LUCAS NO. 2	CHARLES PRICE NO. 2	
LOCATION.....	SEC. 13, BLK. 2, T&NO SUR., A-662	SEC. 13, BLK. 2, MARTINEZ NO. 751	SEC. 13, BLK. 2, MARTINEZ NO. 751	SEC. 67, BLK. 2, BB&C SUR.	
OWNER.....	HRUBETZ OIL CO.	LONE STAR GAS CO.	LONE STAR GAS CO.	G. W. STRAKE	
COMPLETED.....	05/17/83	05/04/51	05/04/51	02/04/67	
SAMPLED.....	08/12/84	08/12/81	08/12/81	07/24/67	
FORMATION.....	ORDO-ELLENBURGER	PENN-MARBLE FALLS	PENN-MARBLE FALLS	PENN-SERRATT	
GEOLOGIC PROVINCE CODE.....	425	425	425	425	
DEPTH, FEET.....	4553	2112	2116	2116	
WELLHEAD PRESSURE, PSIG.....	300	520	775	775	
OPEN FLOW, MCFD.....	58	1784	4200	4200	
COMPONENT, MOLE PCT					
METHANE.....	68.8	80.8	68.5	68.5	
ETHANE.....	10.6	5.9	8.3	8.3	
PROPANE.....	5.1	1.2	3.7	3.7	
N-BUTANE.....	1.5	0.2	1.0	1.0	
ISOBUTANE.....	0.6	0.2	0.6	0.6	
N-PENTANE.....	0.3	TRACE	0.1	0.1	
ISOPENTANE.....	0.2	0.1	0.3	0.3	
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	
HEXANES PLUS.....	0.2	TRACE	0.2	0.2	
NITROGEN.....	11.5	10.9	19.3	19.3	
OXYGEN.....	0.1	TRACE	0.2	0.2	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.5	0.1	0.2	0.2	
HELIUM.....	0.39	0.38	0.53	0.53	
HEATING VALUE.....	1125	980	970	970	
SPECIFIC GRAVITY.....	0.757	0.651	0.737	0.737	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 7981			INDEX 7982			INDEX 7983		
SAMPLE 5615			SAMPLE 6285			SAMPLE 7306		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLLINGSWORTH		COLLINGSWORTH			COLLINGSWORTH		
FIELD.....	PANHANDLE E		PANHANDLE E			PANHANDLE E		
WELL NAME.....	D. J. BETENBOUGH NO. 4-1		WATTENBARGER NO. 4-A			LAYCOCK 6-A		
LOCATION.....	SEC. 10, BLK. 16, H&GN SUR.		SEC. 92, BLK. 12, H&GN SUR.			SEC. 96, BLK. 12, H&GN SUR.		
OWNER.....	PANOMA CORP.		EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		
COMPLETED.....	04/07/54		02/25/57			09/20/59		
SAMPLED.....	04/30/54		03/22/57			12/11/59		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	1898		1741			1942		
WELLHEAD PRESSURE, PSIG.....	412		414			1395		
OPEN FLOW, MCFD.....	NOT GIVEN		6500			2275		
COMPONENT, MOLE PCT.....								
METHANE.....	88.4		90.3			91.8		
ETHANE.....	3.1		3.0			3.1		
PROPANE.....	1.5		1.4			1.3		
N-BUTANE.....	0.4		0.4			0.3		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	0.1		0.2			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	5.6		4.2			2.8		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.1		0.0			0.0		
CARBON DIOXIDE.....	0.17		0.15			0.2		
HEATING VALUE.....	1023		1042			1049		
SPECIFIC GRAVITY.....	0.622		0.617			0.607		
INDEX 7984			INDEX 7985			INDEX 7986		
SAMPLE 5429			SAMPLE 4911			SAMPLE 4914		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLLINGSWORTH		COLLADO			COLLADO		
FIELD.....	WILCOX		BUCK SNAG			BUCK SNAG		
WELL NAME.....	COLEMAN NO. 1		C. R. SCHIURRING NO. 1			CLAUD B. HAMILL NO. 1-A		
LOCATION.....	SEC. 87, BLK. 16, H&GN SUR.		SEC. 6			SEC. 6		
OWNER.....	PANOMA CORP.		CLAUD B. HAMILL			CLAUD B. HAMILL		
COMPLETED.....	03/-/53		05/15/49			07/07/49		
SAMPLED.....	03/27/53		05/18/50			05/18/50		
FORMATION.....	PERM-WICHITA-ALBANY		EOCE-YEGUA			EOCE-YEGUA		
GEOLOGIC PROVINCE CODE.....	435		220			220		
DEPTH, FEET.....	1895		6134			6652		
WELLHEAD PRESSURE, PSIG.....	399		2570			2133		
OPEN FLOW, MCFD.....	1100		3600			12500		
COMPONENT, MOLE PCT.....								
METHANE.....	86.4		89.7			86.2		
ETHANE.....	3.5		5.5			4.2		
PROPANE.....	1.6		0.7			1.0		
N-BUTANE.....	0.4		0.3			0.9		
ISOBUTANE.....	0.4		0.3			0.3		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.1		TRACE			TRACE		
CYCLOPENTANE.....	0.1		0.2			0.2		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	7.0		0.4			0.2		
OXYGEN.....	0.0		0.2			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		0.2			0.5		
HEATING VALUE.....	1021		0.01			0.01		
SPECIFIC GRAVITY.....	0.640		0.636			0.675		
INDEX 7987			INDEX 7988			INDEX 7989		
SAMPLE 14890			SAMPLE 10098			SAMPLE 10099		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	CECIL NOBLE		COLUMBUS			COLUMBUS		
WELL NAME.....	FORD WEGENHOFT NO. 1		COLUMBUS FIELD UNIT 10-15-UT			COLUMBUS FIELD UNIT 10-15-MT		
LOCATION.....	EL J. TUMLINSON SUR. A-44		J. TUMLINSON SUR. A-46			J. TUMLINSON SUR. A-46		
OWNER.....	PRAIRIE PRODUCING CO.		CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	07/28/75		11/24/63			12/27/63		
SAMPLED.....	01/20/77		09/02/65			09/02/65		
FORMATION.....	EOCE-WILCOX		EOCE-WILCOX			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8842		9160			9428		
WELLHEAD PRESSURE, PSIG.....	1749		1136			146		
OPEN FLOW, MCFD.....	4600		4249			890		
COMPONENT, MOLE PCT.....								
METHANE.....	86.6		85.8			83.4		
ETHANE.....	5.5		5.7			5.7		
PROPANE.....	3.0		3.1			4.1		
N-BUTANE.....	0.8		0.7			1.2		
ISOBUTANE.....	0.5		0.4			0.8		
N-PENTANE.....	0.2		0.3			0.3		
ISOPENTANE.....	0.4		0.3			0.6		
CYCLOPENTANE.....	0.1		0.1			0.2		
HEXANES PLUS.....	0.2		0.4			0.6		
NITROGEN.....	0.5		0.6			0.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.4		2.6			2.6		
HEATING VALUE.....	0.01		0.01			0.01		
SPECIFIC GRAVITY.....	0.676		0.681			0.717		
INDEX 7990			INDEX 7991			INDEX 7992		
SAMPLE 10100			SAMPLE 11669			SAMPLE 15374		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	COLUMBUS		COLUMBUS			COLUMBUS		
WELL NAME.....	COLUMBUS FIELD UNIT 10-15-LT		UNIT NO. 10-14			SCHOENEBERG A NO. 1		
LOCATION.....	J. TUMLINSON SUR. A-46		J. TUMLINSON SUR. A-46			JESSE BURNHAM SUR. A-9		
OWNER.....	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	11/26/63		03/07/68			06/04/77		
SAMPLED.....	09/02/65		10/14/68			09/12/78		
FORMATION.....	EOCE-WILCOX		EOCE-WILCOX			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10110		7252			9165		
WELLHEAD PRESSURE, PSIG.....	2371		3175			2220		
OPEN FLOW, MCFD.....	22630		64000			3300		
COMPONENT, MOLE PCT.....								
METHANE.....	86.1		82.6			81.9		
ETHANE.....	3.6		2.8			6.2		
PROPANE.....	3.0		2.8			5.1		
N-BUTANE.....	0.8		0.7			1.2		
ISOBUTANE.....	0.4		0.6			0.8		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.3		0.3			0.3		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.4		0.2			0.1		
NITROGEN.....	0.4		5.2			0.8		
OXYGEN.....	0.0		1.1			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.5		1.3			2.8		
HEATING VALUE.....	0.01		0.02			0.01		
SPECIFIC GRAVITY.....	0.581		0.683			0.712		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX		7993	INDEX		7994	INDEX		7995
SAMPLE		12122	SAMPLE		14200	SAMPLE		3876
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	ENGLEHART		ENGLEHART			FRELSBURG		
WELL NAME.....	M. F. JOHNSON NO. 2		HAROLD JOHNSON NO. 8-1			THOMPSON NO. 1		
LOCATION.....	JOHNSON-STAFFORD SUR. A-729		SA&MG SUR. 17, A-539			CHAS. FRIDSHIE SUR. A-199		
OWNER.....	ROBERT MOSBACHER		TEXAS OIL & GAS CORP.			SINCLAIR-PRAIRIE OIL CO.		
COMPLETED.....	04/14/68		07/20/73			06/15/44		
SAMPLED.....	11/20/69		10/30/74			08/29/44		
FORMATION.....	EOCE-YEGUA		EOCE-WILCOX C			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	6230		8818			6800		
WELLHEAD PRESSURE, PSIG.....	2238		2440			NOT GIVEN		
OPEN FLOW, MCFD.....	5300		750			26100		
COMPONENT, MOLE PCT								
METHANE.....	89.7	-----	89.4	-----		78.9	-----	
ETHANE.....	4.0	-----	4.6	-----		18.8	-----	
PROPANE.....	1.7	-----	2.1	-----		---	-----	
N-BUTANE.....	0.5	-----	0.5	-----		---	-----	
ISOBUTANE.....	0.2	-----	0.5	-----		---	-----	
N-PENTANE.....	0.4	-----	TRACE	-----		---	-----	
ISOPENTANE.....	0.2	-----	0.3	-----		---	-----	
CYCLOPENTANE.....	0.2	-----	TRACE	-----		---	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		---	-----	
NITROGEN.....	0.2	-----	0.2	-----		0.0	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.2	-----	
ARGON.....	0.0	-----	0.0	-----		---	-----	
HYDROGEN.....	0.1	-----	0.0	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		---	-----	
CARBON DIOXIDE.....	2.4	-----	2.2	-----		2.1	-----	
HELIUM.....	TRACE	-----	TRACE	-----		0.01	-----	
HEATING VALUE.....	1087	-----	1094	-----		1136	-----	
SPECIFIC GRAVITY.....	0.645	-----	0.643	-----		0.669	-----	
INDEX		7996	INDEX		7997	INDEX		7998
SAMPLE		5301	SAMPLE		9098	SAMPLE		14965
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	GLIDDEN		GARWOOD			GARWOOD SE		
WELL NAME.....	R. A. JOHNSON NO. 1		C. F. KALLINA			MCCLANE TRUST "B" NO. 1C		
LOCATION.....	ED. RUHMAN SUR. NO. A-479		IGN RR SUR. NO. 44 A-295			BLK 42, I&GNRR SUR. A-293		
OWNER.....	ANDERSON-PRICHARD OIL CORP.		CRESCENT OIL & GAS CORP.			GOLDKING PRODUCTION CO.		
COMPLETED.....	06/20/52		12/02/60			01/15/75		
SAMPLED.....	10/17/52		09/17/65			04/13/77		
FORMATION.....	EOCE-WILCOX		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	9652		3942			3202		
WELLHEAD PRESSURE, PSIG.....	2908		1625			1465		
OPEN FLOW, MCFD.....	2725		8600			5000		
COMPONENT, MOLE PCT								
METHANE.....	73.8	-----	98.9	-----		98.6	-----	
ETHANE.....	6.4	-----	0.2	-----		0.2	-----	
PROPANE.....	6.7	-----	TRACE	-----		TRACE	-----	
N-BUTANE.....	3.3	-----	0.0	-----		0.0	-----	
ISOBUTANE.....	2.0	-----	0.0	-----		0.0	-----	
N-PENTANE.....	1.1	-----	0.0	-----		0.0	-----	
ISOPENTANE.....	1.5	-----	0.0	-----		0.0	-----	
CYCLOPENTANE.....	0.2	-----	0.0	-----		0.0	-----	
HEXANES PLUS.....	0.8	-----	0.0	-----		0.0	-----	
NITROGEN.....	0.9	-----	0.5	-----		0.3	-----	
OXYGEN.....	0.1	-----	0.1	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	3.0	-----	0.2	-----		0.8	-----	
HELIUM.....	0.01	-----	0.01	-----		0.01	-----	
HEATING VALUE.....	1375	-----	1005	-----		1002	-----	
SPECIFIC GRAVITY.....	0.840	-----	0.559	-----		0.564	-----	
INDEX		7999	INDEX		8000	INDEX		8001
SAMPLE		14195	SAMPLE		13458	SAMPLE		13822
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	GLIDDEN		HAMEL E			HAMEL E		
WELL NAME.....	J. T. JOHNSON NO. 1		CLARA HOYO RODGERS NO. 1			G. J. MILLER II B NO. 10		
LOCATION.....	DANIEL GILLENDA SUR. A-26		RICHARD DOWDY SUR. A-163			RICHARD DOWDY SUR. A-163		
OWNER.....	SUPERIOR OIL CO.		PETRO-LEWIS CORP.			EXXON CO., U.S.A.		
COMPLETED.....	04/23/73		06/02/71			09/22/72		
SAMPLED.....	10/25/74		10/20/72			09/27/73		
FORMATION.....	EOCE-WILCOX		EOCE-WILCOX			EOCE-WILCOX & HAMEL		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10297		9607			9900		
WELLHEAD PRESSURE, PSIG.....	4680		2884			2715		
OPEN FLOW, MCFD.....	12950		5900			460		
COMPONENT, MOLE PCT								
METHANE.....	87.8	-----	78.6	-----		68.4	-----	
ETHANE.....	4.6	-----	6.4	-----		7.9	-----	
PROPANE.....	2.2	-----	6.0	-----		10.4	-----	
N-BUTANE.....	0.5	-----	1.9	-----		4.0	-----	
ISOBUTANE.....	0.6	-----	1.7	-----		3.0	-----	
N-PENTANE.....	10.72	-----	0.6	-----		1.2	-----	
ISOPENTANE.....	0.4	-----	0.4	-----		1.6	-----	
CYCLOPENTANE.....	0.1	-----	0.2	-----		0.4	-----	
HEXANES PLUS.....	0.5	-----	0.2	-----		1.0	-----	
NITROGEN.....	0.2	-----	0.9	-----		0.4	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.1	-----	
ARGON.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	3.1	-----	2.7	-----		1.8	-----	
HELIUM.....	0.01	-----	TRACE	-----		TRACE	-----	
HEATING VALUE.....	1106	-----	1269	-----		1526	-----	
SPECIFIC GRAVITY.....	0.665	-----	0.769	-----		0.911	-----	
INDEX		8002	INDEX		8003	INDEX		8004
SAMPLE		13823	SAMPLE		15000	SAMPLE		10862
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	GLIDDEN		KAINER			HARMA DUKE BATON		
WELL NAME.....	G. J. MILLER IIB NO. 11		KAINER & JOHNSON NO. 1			M. E. BINGAMAN NO. 1		
LOCATION.....	RICHARD DOWDY SUR. A-163		B. RATCLIFF SUR. A-894			HARMA DUKE BATON SUR. A-105		
OWNER.....	EXXON CO., U.S.A.		PETRO-LEWIS CORP.			LOVE STAR PRODUCING CO.		
COMPLETED.....	01/17/74		01/17/74			01/17/74		
SAMPLED.....	11/27/73		05/10/77			--/--/00		
FORMATION.....	EOCE-WILCOX		EOCE-YEGUA			EOCE-YEGUA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10000		6165			4949		
WELLHEAD PRESSURE, PSIG.....	3110		2310			1829		
OPEN FLOW, MCFD.....	460		6600			10200		
COMPONENT, MOLE PCT								
METHANE.....	71.3	-----	88.7	-----		93.4	-----	
ETHANE.....	6.9	-----	6.0	-----		3.9	-----	
PROPANE.....	7.3	-----	0.9	-----		0.5	-----	
N-BUTANE.....	3.3	-----	0.6	-----		0.1	-----	
ISOBUTANE.....	2.7	-----	0.5	-----		0.4	-----	
N-PENTANE.....	1.2	-----	0.3	-----		TRACE	-----	
ISOPENTANE.....	1.9	-----	0.1	-----		0.1	-----	
CYCLOPENTANE.....	0.5	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	1.5	-----	0.2	-----		0.1	-----	
NITROGEN.....	0.4	-----	0.5	-----		1.2	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.2	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	2.9	-----	0.4	-----		0.2	-----	
HELIUM.....	0.01	-----	0.01	-----		0.01	-----	
HEATING VALUE.....	1470	-----	1141	-----		1055	-----	
SPECIFIC GRAVITY.....	0.890	-----	0.647	-----		0.599	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8005 10863	INDEX SAMPLE	8006 12250	INDEX SAMPLE	8007 15018
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLORADO			COLORADO		COLORADO	
FIELD.....	MARMADUKE			MOHAI		MUSTANG CREEK	
WELL NAME.....	M. E. BINGAMAN NO. 1			D. WINTERMANN NO. 1A		LEHRER NO. 1	
LOCATION.....	MARMADUKE BATON SUR. A-105			THOMAS CLARK SUR. A-682		IBGNRR SUR. 27 A-275	
OWNER.....	LONE STAR PRODUCING CO.			CICO OIL & GAS CO.		TEAL PETROLEUM CO.	
COMPLETED.....	01/17/66			02/12/69		12/30/74	
SAMPLED.....	--/--/00			04/30/70		05/30/77	
FORMATION.....	OLIG-FRIO			EOCE-WILCOX		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	2854			8564		5570	
WELLHEAD PRESSURE, PSIG.....	1201			2976		1225	
OPEN FLOW, MCFD.....	3700			12000		6000	
COMPONENT, MOLE PCT.....							
METHANE.....	96.7			62.1		95.0	
ETHANE.....	0.0			11.9		2.8	
PROpane.....	TRACE			10.4		0.7	
N-BUTANE.....	0.0			3.7		0.1	
ISOBUTANE.....	0.0			2.8		0.1	
N-PENTANE.....	0.0			0.4		0.0	
ISOPENTANE.....	0.0			3.3		0.1	
CYCLOPENTANE.....	0.0			0.5		TRACE	
HEXANES PLUS.....	0.0			1.2		TRACE	
NITROGEN.....	2.5			1.8		0.8	
OXYGEN.....	0.4			TRACE		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			2.0		0.4	
HELIUM.....	0.01			TRACE		0.01	
HEATING VALUE.....	6.80			1567		1042	
SPECIFIC GRAVITY.....	0.571			0.954		0.587	
		INDEX SAMPLE	8008 15019	INDEX SAMPLE	8009 15065	INDEX SAMPLE	8010 11792
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLORADO			COLORADO		COLORADO	
FIELD.....	MUSTANG CREEK			MUSTANG CREEK		MUSTANG CREEK W	
WELL NAME.....	LEHRER NO. A-1			ALTON ALLEN NO. 2		LEHRER A NO. 1	
LOCATION.....	IBGNRR SUR. 27 A-274			SA&MG SUR. A-876		F. G. MAHON SUR. A-747	
OWNER.....	TEAL PETROLEUM CO.			DUER WAGNER & CO.		ANADARKO PRODUCTION CO.	
COMPLETED.....	03/26/75			02/04/75		11/13/67	
SAMPLED.....	05/30/77			07/29/77		03/18/69	
FORMATION.....	MIOC			MIOC		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3344			2019		5838	
WELLHEAD PRESSURE, PSIG.....	325			990		2192	
OPEN FLOW, MCFD.....	9000			350		74000	
COMPONENT, MOLE PCT.....							
METHANE.....	95.5			99.3		91.2	
ETHANE.....	0.7			TRACE		4.1	
PROpane.....	0.6			TRACE		1.8	
N-BUTANE.....	0.1			0.0		0.5	
ISOBUTANE.....	0.1			0.0		0.5	
N-PENTANE.....	TRACE			0.0		0.2	
ISOPENTANE.....	0.1			0.0		0.2	
CYCLOPENTANE.....	TRACE			0.0		0.2	
HEXANES PLUS.....	TRACE			0.0		0.6	
NITROGEN.....	0.5			0.5		0.3	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			TRACE		0.4	
HELIUM.....	0.01			TRACE		0.01	
HEATING VALUE.....	1042			1008		1133	
SPECIFIC GRAVITY.....	0.583			0.556		0.639	
		INDEX SAMPLE	8011 12323	INDEX SAMPLE	8012 10543	INDEX SAMPLE	8013 13884
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLORADO			COLORADO		COLORADO	
FIELD.....	NADA			NADA SE		NEW ULM SW	
WELL NAME.....	MCDERMOTT NO. 1			GUY STOVALL NO. 1		ARCO-FEE NO. 1-C	
LOCATION.....	JOHNSON & STAFFORD SUR. A-270			SEC. 3, SA&MGRRCO., SUR. A-531		JAMES NELSON SUR. A-434	
OWNER.....	WADSWORTH OIL CO.			SHELL OIL CO.		PRAIRIE PRODUCING CO.	
COMPLETED.....	10/20/69			01/14/66		12/16/71	
SAMPLED.....	07/12/70			04/28/66		11/12/73	
FORMATION.....	MIOC			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	2010			15695		9414	
WELLHEAD PRESSURE, PSIG.....	1050			11779		3107	
OPEN FLOW, MCFD.....	12000			13500		5200	
COMPONENT, MOLE PCT.....							
METHANE.....	96.2			89.1		58.8	
ETHANE.....	0.1			0.1		13.0	
PROpane.....	0.1			0.0		13.9	
N-BUTANE.....	0.0			0.0		4.0	
ISOBUTANE.....	0.0			0.0		3.4	
N-PENTANE.....	0.0			0.0		0.7	
ISOPENTANE.....	0.0			0.0		1.8	
CYCLOPENTANE.....	0.0			0.0		0.2	
HEXANES PLUS.....	0.0			0.0		0.6	
NITROGEN.....	2.9			0.5		0.4	
OXYGEN.....	0.6			0.0		TRACE	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			10.3		4.2	
HELIUM.....	0.01			0.01		TRACE	
HEATING VALUE.....	979			904		1584	
SPECIFIC GRAVITY.....	0.572			0.657		0.970	
		INDEX SAMPLE	8014 13885	INDEX SAMPLE	8015 13887	INDEX SAMPLE	8016 2542
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLORADO			COLORADO		COLORADO	
FIELD.....	NEW ULM SW			NEW ULM SW		NOT GIVEN	
WELL NAME.....	ARCO-FEE NO. 2UT			JOHN M. GAY NO. 1		NELSON NO. 1	
LOCATION.....	JAMES NELSON SUR. A-434			JAMES TYLER SUR. A-550		IBGN RR SUR. 43	
OWNER.....	PRAIRIE PRODUCING CO.			PRAIRIE PRODUCING CO.		COYLE-CONCORD OIL CO.	
COMPLETED.....	08/31/72			08/12/72		--/--/00	
SAMPLED.....	11/12/73			11/12/73		08/25/32	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9156			9382		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	2300			3007		NOT GIVEN	
OPEN FLOW, MCFD.....	2500			5900		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	41.6			74.4		99.4	
ETHANE.....	0.0			0.9		0.0	
PROpane.....	27.0			4.3		---	
N-BUTANE.....	7.1			1.0		---	
ISOBUTANE.....	6.5			0.0		---	
N-PENTANE.....	0.4			0.2		---	
ISOPENTANE.....	0.7			0.5		---	
CYCLOPENTANE.....	0.1			0.1		---	
HEXANES PLUS.....	0.4			0.2		---	
NITROGEN.....	0.2			7.7		0.0	
OXYGEN.....	TRACE			1.7		0.3	
ARGON.....	0.0			---		---	
HYDROGEN.....	TRACE			TRACE		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	2.9			2.9		0.3	
HELIUM.....	TRACE			0.01		0.00	
HEATING VALUE.....	1909			1082		1007	
SPECIFIC GRAVITY.....	1.171			0.748		0.559	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8017 14263	INDEX SAMPLE	8018 13824	INDEX SAMPLE	8019 12450
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLORADO			COLORADO		COLORADO	
FIELD.....	PRAIRIE BELL			RABEL		RAMSEY E	
WELL NAME.....	JOE HASTEDY NO. 1			HATTIE RABEL NO. 1		ADA W. WINTERMANN NO. 1	
LOCATION.....	BENJAMIN PARKER SUR. A-450			JOHN H. DABNEY SUR. A-17		PETER K. BARTLESON SUR. A-84	
OWNER.....	PRAIRIE PRODUCING CO.			EXXON CO., U.S.A.		NATURAL RESOURCES CORP.	
COMPLETED.....	03/09/75			06/19/72		11/30/69	
SAMPLED.....	02/-/75			11/27/73		10/13/70	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	11012			7650		10692	
WELLHEAD PRESSURE, PSIG.....	4320			2634		3614	
OPEN FLOW, MCFD.....	8700			25000		10800	
COMPONENT, MOLE PCT.....							
METHANE.....	82.2			80.8		88.1	
ETHANE.....	7.8			5.6		5.6	
PROPANE.....	3.7			4.3		2.0	
N-BUTANE.....	0.9			1.7		0.4	
ISOBUTANE.....	0.7			1.7		0.5	
N-PENTANE.....	0.2			0.8		0.1	
ISOPENTANE.....	0.3			1.0		0.1	
CYCLOPENTANE.....	TRACE			0.4		TRACE	
HEXANES PLUS.....	0.1			1.1		0.2	
NITROGEN.....	0.5			0.8		0.6	
OXYGEN.....	TRACE			0.1		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.1		0.0	
CARBON DIOXIDE.....	3.7			1.4		2.4	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	0.703			1303		1094	
SPECIFIC GRAVITY.....	0.703			0.767		0.650	

		INDEX SAMPLE	8020 12451	INDEX SAMPLE	8021 12452	INDEX SAMPLE	8022 12453
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLORADO			COLORADO		COLORADO	
FIELD.....	RAMSEY E			RAMSEY E		RAMSEY E	
WELL NAME.....	METTIE POOL ET AL. NO. 1			LOREASE PRESMEYER NO. 1		METTIE POOL ET AL. NO. 1	
LOCATION.....	PETER K. BARTLESON SUR. A-84			PETER K. BARTLESON SUR. A-84		PETER K. BARTLESON SUR. A-84	
OWNER.....	NATURAL RESOURCES CORP.			NATURAL RESOURCES CORP.		NATURAL RESOURCES CORP.	
COMPLETED.....	08/22/69			09/17/69		08/22/69	
SAMPLED.....	10/13/70			10/13/70		10/13/70	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9334			8919		8908	
WELLHEAD PRESSURE, PSIG.....	10330			9900		2945	
OPEN FLOW, MCFD.....	10300			9000		15600	
COMPONENT, MOLE PCT.....							
METHANE.....	86.2			84.1		86.8	
ETHANE.....	5.7			4.0		5.9	
PROPANE.....	3.4			1.0		3.2	
N-BUTANE.....	0.7			0.7		0.7	
ISOBUTANE.....	0.7			0.4		0.2	
N-PENTANE.....	0.2			0.6		0.1	
ISOPENTANE.....	0.1			0.2		0.1	
CYCLOPENTANE.....	TRACE			0.2		0.2	
HEXANES PLUS.....	0.8			1.0		0.7	
NITROGEN.....	0.1			TRACE		0.0	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			1.5		1.6	
CARBON DIOXIDE.....	0.01			0.01		0.04	
HELIUM.....	1134			1198		1135	
HEATING VALUE.....	0.669			0.705		0.665	
SPECIFIC GRAVITY.....	0.669			0.705		0.665	

		INDEX SAMPLE	8023 12454	INDEX SAMPLE	8024 15239	INDEX SAMPLE	8025 4085
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLORADO			COLORADO		COLORADO	
FIELD.....	LOREASE PRESMEYER NO. 1			ROCK ISLAND		ROCK ISLAND	
WELL NAME.....	PETER K. BARTLESON SUR. A-28			HUNN NO. 1		FELIX FEHRENKAMP NO. 1	
LOCATION.....	NATURAL RESOURCES CORP.			16GN RR SUR. 11 A-297		NOT GIVEN	
OWNER.....	NATURAL RESOURCES CORP.			GUEST & WOLFSON CO.		SINCLAIR-PRAIRIE OIL CO.	
COMPLETED.....	02/17/69			02/17/69		04/18/45	
SAMPLED.....	10/13/70			03/-/78		06/18/45	
FORMATION.....	EOCE-WILCOX			OLIG-FRIO		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9115			3357		9681	
WELLHEAD PRESSURE, PSIG.....	2999			1344		3350	
OPEN FLOW, MCFD.....	11900			7000		6000	
COMPONENT, MOLE PCT.....							
METHANE.....	87.2			99.0		79.9	
ETHANE.....	5.6			0.1		16.5	
PROPANE.....	0.6			TRACE		---	
N-BUTANE.....	0.6			0.0		---	
ISOBUTANE.....	0.6			0.0		---	
N-PENTANE.....	0.2			0.0		---	
ISOPENTANE.....	0.2			0.0		---	
CYCLOPENTANE.....	TRACE			0.0		---	
HEXANES PLUS.....	0.1			0.0		---	
NITROGEN.....	0.9			0.0		0.7	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	1.8			0.2		2.9	
HELIUM.....	0.02			0.01		0.01	
HEATING VALUE.....	1.111			1.005		1.105	
SPECIFIC GRAVITY.....	0.655			0.560		0.667	

		INDEX SAMPLE	8026 5248	INDEX SAMPLE	8027 14748	INDEX SAMPLE	8028 14749
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLORADO			COLORADO		COLORADO	
FIELD.....	ROCK ISLAND			ROSS-BENNER		ROSS-BENNER	
WELL NAME.....	SEC. 53, TRACT A, IG&N SUR.			SA&MG SUR. 15, A-877		SA&MG SUR. 15, A-877	
LOCATION.....	SINCLAIR OIL & GAS CO.			PETRO-LEWIS CORP.		PETRO-LEWIS CORP.	
OWNER.....	03/13/52			02/19/73		02/19/73	
COMPLETED.....	06/20/52			05/24/76		05/24/76	
SAMPLED.....	MIOC			OLIG-FRIO		MIOC	
FORMATION.....	220			220		220	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	2573			3180		2100	
WELLHEAD PRESSURE, PSIG.....	1038			860		801	
OPEN FLOW, MCFD.....	50000			18000		3800	
COMPONENT, MOLE PCT.....							
METHANE.....	98.7			98.8		99.0	
ETHANE.....	0.1			0.1		0.1	
PROPANE.....	0.1			TRACE		TRACE	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.1			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	TRACE			0.0		0.0	
NITROGEN.....	0.9			1.0		0.8	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1.008			1.005		1.005	
SPECIFIC GRAVITY.....	0.563			0.560		0.559	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8029			INDEX 8030			INDEX 8031		
SAMPLE 14750			SAMPLE 3695			SAMPLE 4734		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	ROSS-BENNER		SHERIDAN			SHERIDAN		
WELL NAME.....	ROSS BENNER NO. 5		PLow REALTY NO. 3			HILL BANK & TRUST NO. 2		
LOCATION.....	S&MG SUR. 15. A-877		O. K. WINN SUR.			CHEETHAM SUR. TRACT NO. 6		
OWNER.....	PETRO-LEWIS CORP.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	06/25/74		04/23/41			01/07/49		
SAMPLED.....	05/24/76		10/28/43			05/02/49		
FORMATION.....	MIOC-CATAHOULA		EOCE-WILCOX			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	2100		9740			9366		
WELLHEAD PRESSURE, PSIG.....	801		3840			2646		
OPEN FLOW, MCFD.....	3800		9300			7600		
COMPONENT, MOLE PCT								
METHANE.....	98.3	-----	74.1	-----		81.8	-----	
ETHANE.....	0.1	-----	23.2	-----		6.8	-----	
PROPANE.....	TRACE	-----	---	-----		4.8	-----	
N-BUTANE.....	0.0	-----	---	-----		1.2	-----	
ISOBUTANE.....	0.0	-----	---	-----		1.0	-----	
N-PENTANE.....	0.0	-----	---	-----		0.4	-----	
ISOPENTANE.....	0.0	-----	---	-----		TRACE	-----	
CYCLOPENTANE.....	0.0	-----	---	-----		0.1	-----	
HEXANES PLUS.....	0.0	-----	---	-----		0.5	-----	
NITROGEN.....	1.3	-----	0.5	-----		0.9	-----	
OXYGEN.....	0.0	-----	0.2	-----		0.1	-----	
ARGON.....	TRACE	-----	---	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	---	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.3	-----	2.0	-----		2.4	-----	
HELIUM.....	0.01	-----	0.00	-----		0.01	-----	
HEATING VALUE.....	998	-----	1166	-----		1197	-----	
SPECIFIC GRAVITY.....	0.563	-----	0.692	-----		0.719	-----	

INDEX 8032			INDEX 8033			INDEX 8034		
SAMPLE 11998			SAMPLE 13821			SAMPLE 3967		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	SHERIDAN		SKULL CREEK			SHERIDAN		
WELL NAME.....	G.U. NO. 60		CARRIE STAFFORD NO. 1			D. L. UNDERWOOD NO. 1		
LOCATION.....	FRANCIS MAYHAR SUR. A-400		CHARLES WINFREE SUR. A-585			MULDON SUR. NO. 30		
OWNER.....	SHELL OIL CO.		TERRA RESOURCES, INC.			TIDEWATER ASSOC. OIL CO.		
COMPLETED.....	01/07/68		08/26/72			11/28/44		
SAMPLED.....	08/14/69		11/20/73			01/29/45		
FORMATION.....	EOCE-YEGUA Q		MIOC-			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5290		1740			9448		
WELLHEAD PRESSURE, PSIG.....	1990		842			940		
OPEN FLOW, MCFD.....	16500		5358			1440		
COMPONENT, MOLE PCT								
METHANE.....	92.5	-----	97.4	-----		80.6	-----	
ETHANE.....	4.1	-----	0.1	-----		14.7	-----	
PROPANE.....	1.6	-----	0.2	-----		---	-----	
N-BUTANE.....	0.3	-----	TRACE	-----		---	-----	
ISOBUTANE.....	0.3	-----	0.2	-----		---	-----	
N-PENTANE.....	TRACE	-----	0.2	-----		---	-----	
ISOPENTANE.....	0.2	-----	0.0	-----		---	-----	
CYCLOPENTANE.....	0.1	-----	0.2	-----		---	-----	
HEXANES PLUS.....	0.1	-----	0.3	-----		---	-----	
NITROGEN.....	0.6	-----	1.6	-----		0.1	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		---	-----	
HYDROGEN.....	0.2	-----	TRACE	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	TRACE	-----		---	-----	
CARBON DIOXIDE.....	0.2	-----	TRACE	-----		4.6	-----	
HELIUM.....	0.01	-----	0.01	-----		0.00	-----	
HEATING VALUE.....	1090	-----	1028	-----		1080	-----	
SPECIFIC GRAVITY.....	0.613	-----	0.580	-----		0.672	-----	

INDEX 8035			INDEX 8036			INDEX 8037		
SAMPLE 5223			SAMPLE 13550			SAMPLE 15163		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	TAIT		THIRD CREEK			THOMAS		
WELL NAME.....	TAIT NO. D-1		BOX ELDER "C" NO. 1			GARDNER DUNCAN NO. 1C		
LOCATION.....	NOT GIVEN		SEC. 11, T2S, R65W			JAMES ROSS SUR. A-39		
OWNER.....	SUPERIOR OIL CO.		KOCH EXPLORATION CO.			GAS PRODUCING ENTERPRISES		
COMPLETED.....	04/15/51		05/18/72			02/26/76		
SAMPLED.....	02/03/52		02/21/73			12/03/77		
FORMATION.....	EOCE-WILCOX L		CRET-J SAND			MIOC-THOMAS		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10715		8179			2170		
WELLHEAD PRESSURE, PSIG.....	4800		1400			750		
OPEN FLOW, MCFD.....	NOT GIVEN		500			1000		
COMPONENT, MOLE PCT								
METHANE.....	87.3	-----	66.7	-----		97.8	-----	
ETHANE.....	6.2	-----	12.5	-----		0.2	-----	
PROPANE.....	2.0	-----	8.5	-----		TRACE	-----	
N-BUTANE.....	0.4	-----	4.3	-----		0.0	-----	
ISOBUTANE.....	0.4	-----	0.1	-----		0.0	-----	
N-PENTANE.....	0.1	-----	1.5	-----		0.0	-----	
ISOPENTANE.....	0.3	-----	1.4	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		0.0	-----	
HEXANES PLUS.....	0.1	-----	0.5	-----		0.0	-----	
NITROGEN.....	0.6	-----	1.0	-----		1.9	-----	
OXYGEN.....	0.1	-----	0.1	-----		0.0	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	TRACE	-----	TRACE	-----		0.0	-----	
HYDROGEN SULFIDE.....	---	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	2.5	-----	---	-----		TRACE	-----	
HELIUM.....	TRACE	-----	0.03	-----		0.01	-----	
HEATING VALUE.....	1096	-----	1479	-----		995	-----	
SPECIFIC GRAVITY.....	0.655	-----	0.885	-----		0.568	-----	

INDEX 8038			INDEX 8039			INDEX 8040		
SAMPLE 15164			SAMPLE 15165			SAMPLE 3989		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COLORADO		COLORADO			COLORADO		
FIELD.....	THOMAS		THOMAS			WILCOAT		
WELL NAME.....	GARDNER DUNCAN NO. 2		GARDNER DUNCAN NO. 1T			C. G. GLASSCOCK NO. 2		
LOCATION.....	JAMES ROSS SUR. A-39		JAMES ROSS SUR. A-39			J. COLLIER SUR. A-148		
OWNER.....	GAS PRODUCING ENTERPRISES		GAS PRODUCING ENTERPRISES			INCLINER-PRAIRIE OIL CO.		
COMPLETED.....	03/28/76		02/26/76			11/29/44		
SAMPLED.....	12/03/77		12/03/77			03/11/45		
FORMATION.....	MIOC-THOMAS		MIOC-THOMAS			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	2296		2303			9177		
WELLHEAD PRESSURE, PSIG.....	850		966			875		
OPEN FLOW, MCFD.....	1000		31000			4900		
COMPONENT, MOLE PCT								
METHANE.....	88.1	-----	98.3	-----		73.7	-----	
ETHANE.....	0.1	-----	0.0	-----		23.6	-----	
PROPANE.....	TRACE	-----	TRACE	-----		---	-----	
N-BUTANE.....	0.0	-----	0.0	-----		---	-----	
ISOBUTANE.....	0.0	-----	0.0	-----		---	-----	
N-PENTANE.....	0.0	-----	0.0	-----		---	-----	
ISOPENTANE.....	0.0	-----	0.0	-----		---	-----	
CYCLOPENTANE.....	0.0	-----	0.0	-----		---	-----	
HEXANES PLUS.....	0.0	-----	0.0	-----		---	-----	
NITROGEN.....	9.3	-----	1.5	-----		0.0	-----	
OXYGEN.....	2.3	-----	0.0	-----		0.0	-----	
ARGON.....	0.1	-----	TRACE	-----		---	-----	
HYDROGEN.....	0.0	-----	0.0	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		---	-----	
CARBON DIOXIDE.....	0.1	-----	0.1	-----		2.7	-----	
HELIUM.....	TRACE	-----	0.11	-----		0.00	-----	
HEATING VALUE.....	894	-----	998	-----		1169	-----	
SPECIFIC GRAVITY.....	0.608	-----	0.567	-----		0.698	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8041 SAMPLE 8141			INDEX 8042 SAMPLE 9962			INDEX 8043 SAMPLE 12626		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COMANCHE		COMANCHE			COMANCHE		
FIELD.....	ENERGY		MITTIE			SIPE SPRINGS		
WELL NAME.....	C. L. RUDD NO. 2		B. L. BARNES NO. 1			F. B. WHITLOCK NO. 1		
LOCATION.....	BENJAMIN JOHNSON SUR.		SEC. 18, BLK 2, H&TCRR SUR.			5 MI. NW SIPE SPRING		
OWNER.....	TERRELL PETROLEUM CO.		COASTAL STATES GAS PROD. CO.			COASTAL STATES GAS PROD. CO.		
COMPLETED.....	08/07/57		01/14/64			01/14/64		
SAMPLED.....	08/09/61		06/28/63			01/13/71		
FORMATION.....	PENN-MARBLE FALLS		PENN-MARBLE FALLS			PENN-MARBLE FALLS		
GEOLOGIC PROVINCE CODE.....	425		425			425		
DEPTH, FEET.....	2635		2629			2720		
WELLHEAD PRESSURE, PSIG.....	1146		836			160		
OPEN FLOW, MCFD.....	39000		1509			250		
COMPONENT, MOLE PCT								
METHANE.....	87.6		77.2			62.8		
ETHANE.....	5.1		9.3			15.5		
PROPANE.....	1.3		4.5			10.0		
N-BUTANE.....	0.3		0.9			2.9		
ISOBUTANE.....	0.4		0.8			1.6		
N-PENTANE.....	TRACE		0.2			0.7		
ISOPENTANE.....	0.2		0.2			0.6		
CYCLOPENTANE.....	0.1		TRACE			0.3		
HEXANES PLUS.....	0.1		0.2			0.6		
NITROGEN.....	4.8		TRACE			4.6		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.4		
HELIUM.....	0.20		0.12			0.07		
HEATING VALUE.....	0.53		0.50			142.0		
SPECIFIC GRAVITY.....	0.632		0.711			0.869		

INDEX 8044 SAMPLE 4884			INDEX 8045 SAMPLE 16536			INDEX 8046 SAMPLE 8881		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	COMANCHE		CONCHO			CONCHO		
FIELD.....	SYDNEY		FUZZY CREEK			NOT GIVEN		
WELL NAME.....	W. D. CHAPMAN NO. 1		RANSBARGER NO. 1			CARTER NO. A-1		
LOCATION.....	SEC. 43, ETRR CO. SUR.		HEWITT 1, A-1087			SUR. 276, A-279		
OWNER.....	SOHIO PETROLEUM CO.		ROBERT KLABZUBA			SUNRAY OX OIL CO.		
COMPLETED.....	07/11/49		10/-/81			02/27/63		
SAMPLED.....	08/14/49		06/1-/82			02/27/63		
FORMATION.....	PENN-		PENN-GOEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	425		410			410		
DEPTH, FEET.....	2159		3346			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1952		1050			NOT GIVEN		
OPEN FLOW, MCFD.....	6600		3050			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	77.4		75.2			66.3		
ETHANE.....	6.6		7.2			11.1		
PROPANE.....	2.6		4.1			7.9		
N-BUTANE.....	0.6		1.3			3.1		
ISOBUTANE.....	0.1		0.7			1.8		
N-PENTANE.....	0.2		0.3			0.7		
ISOPENTANE.....	0.1		0.4			0.6		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.5		
NITROGEN.....	11.6		9.8			7.1		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.2			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.2		0.0			0.0		
CARBON DIOXIDE.....	0.32		0.2			1.1		
HELIUM.....	1018		0.33			0.30		
HEATING VALUE.....	0.684		1106			1306		
SPECIFIC GRAVITY.....	0.684		0.720			0.833		

INDEX 8047 SAMPLE 8880			INDEX 8048 SAMPLE 9969			INDEX 8049 SAMPLE 8879		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CONCHO		CONCHO			CONCHO		
FIELD.....	PAINT ROCK S		PAINT ROCK W			SPECK N		
WELL NAME.....	W. F. MEIXNER		C. E. NORMAN NO. 3			R. L. CARTER A-1		
LOCATION.....	SEC. 8, H.C. MCGLOSSON		SEC. 260, EIKEL SUR.			SUR. 276, A-729		
OWNER.....	SUNRAY OX OIL CO.		SUNRAY OX OIL CO.			SUNRAY OX OIL CO.		
COMPLETED.....	12/08/61		02/28/64			07/31/61		
SAMPLED.....	02/27/63		07/21/63			02/27/63		
FORMATION.....	PENN-CANYON		PENN-STRAWN			PENN-STRAWN		
GEOLOGIC PROVINCE CODE.....	410		410			410		
DEPTH, FEET.....	3146		3551			3573		
WELLHEAD PRESSURE, PSIG.....	1320		1325			NOT GIVEN		
OPEN FLOW, MCFD.....	4950		6260			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.5		74.1			51.6		
ETHANE.....	7.4		7.4			15.8		
PROPANE.....	2.9		3.9			14.4		
N-BUTANE.....	1.0		1.1			6.4		
ISOBUTANE.....	0.5		0.8			2.3		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.3		0.3			1.7		
CYCLOPENTANE.....	TRACE		TRACE			0.3		
HEXANES PLUS.....	11.8		11.0			0.8		
NITROGEN.....	0.0		0.1			3.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.4			1.7		
HELIUM.....	1055		0.35			0.10		
HEATING VALUE.....	0.709		1089			1645		
SPECIFIC GRAVITY.....	0.709		0.727			1.020		

INDEX 8050 SAMPLE 8877			INDEX 8051 SAMPLE 17849			INDEX 8052 SAMPLE 12827		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CONCHO		CONCHO			COOKE		
FIELD.....	PAINT ROCK S		VINSON GOEN			DELAWARE BEND		
WELL NAME.....	FLORENCE HALL NO. 1		C. VINSON NO. 1			YOUNG WILLIAMS NO. 1		
LOCATION.....	LOUISA ROBBINS SUR. NO. 1		SEC. 60, C. KIRCHNER SUR.			NOT GIVEN		
OWNER.....	SUNRAY OX OIL CO.		VINSON EXPLORATION, INC.			MAGNA OIL CORP.		
COMPLETED.....	02/22/62		12/05/64			05/17/71		
SAMPLED.....	02/27/63		09/23/63			05/17/71		
FORMATION.....	PENN-STRAWN C-1		PENN-GOEN			ORDO-OIL CREEK		
GEOLOGIC PROVINCE CODE.....	410		410			350		
DEPTH, FEET.....	3812		3778			14300		
WELLHEAD PRESSURE, PSIG.....	1500		1440			1200		
OPEN FLOW, MCFD.....	39000		3925			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.9		67.9			87.2		
ETHANE.....	4.7		8.5			6.4		
PROPANE.....	4.0		4.5			2.8		
N-BUTANE.....	1.3		1.4			1.0		
ISOBUTANE.....	0.8		0.6			0.4		
N-PENTANE.....	0.4		0.3			0.3		
ISOPENTANE.....	0.2		0.3			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.3		0.2			0.3		
NITROGEN.....	10.3		14.3			0.9		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		1.2			0.3		
HELIUM.....	1098		0.41			0.02		
HEATING VALUE.....	0.724		1071			1163		
SPECIFIC GRAVITY.....	0.724		0.761			0.663		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8053 4846	INDEX SAMPLE	8054 4944	INDEX SAMPLE	8055 5493
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COOKE			COOKE		COOKE	
FIELD.....	GATEWOOD			MEADORS		WILDCAT	
WELL NAME.....	THOMASON NO. 1			S. D. MEADORS NO. 3		C. E. GOTCHER	
LOCATION.....	T. D. BELL SUR. A-052			NOT GIVEN		J. J. ALBRITTON SUR. 160 AC.	
OWNER.....	R. B. HOLLANDSWORTH, ET AL.			MIDLAND OIL CO.		T. S. WHITIS	
COMPLETED.....	09/23/49			03/29/50		--/--/51	
SAMPLED.....	02/20/50			10/05/50		05/19/53	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	350			350		415	
DEPTH, FEET.....	2142			1500		1450	
WELLHEAD PRESSURE, PSIG.....	750			340		280	
OPEN FLOW, MCFD.....	1000			2190		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	59.7	-----		49.6	-----	88.0	-----
ETHANE.....	2.7	-----		3.6	-----	0.1	-----
PROPANE.....	1.2	-----		3.2	-----	0.0	-----
N-BUTANE.....	0.3	-----		0.9	-----	0.1	-----
ISOBUTANE.....	0.2	-----		0.3	-----	0.0	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.0	-----
ISOPENTANE.....	0.2	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.2	-----	0.0	-----
NITROGEN.....	34.6	-----		40.9	-----	10.3	-----
OXYGEN.....	0.1	-----		0.1	-----	0.6	-----
ARGON.....	0.1	-----		0.1	-----	0.1	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.2	-----	0.4	-----
HELIUM.....	0.1	-----		0.70	-----	0.42	-----
HEATING VALUE.....	712	-----		711	-----	897	-----
SPECIFIC GRAVITY.....	0.741	-----		0.805	-----	0.605	-----
		INDEX SAMPLE	8056 14029	INDEX SAMPLE	8057 14030	INDEX SAMPLE	8058 14667
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COTTLE			COTTLE		COTTLE	
FIELD.....	PROVIDENCE			PROVIDENCE		PROVIDENCE	
WELL NAME.....	J. J. GIBSON NO. 4			J. J. GIBSON NO. 3		J. J. BROWNING NO. 1	
LOCATION.....	SEC. 38, F. P. KNOTT SUR.			SEC. 34, F. P. KNOTT SUR.		SEC. 2, P. B. BROTHERS SUR.	
OWNER.....	GUS EDWARDS			GUS EDWARDS		JACK GRIMM	
COMPLETED.....	06/21/74			06/18/74		--/--/00	
SAMPLED.....	06/21/74			06/18/74		05/06/76	
FORMATION.....	PENN-ATOKA			PENN-ATOKA		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	6146	-----		6158	-----	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1900	-----		2059	-----	NOT GIVEN	
OPEN FLOW, MCFD.....	4600	-----		8500	-----	NOT GIVEN	
COMPONENT, MOLE PCT						NOT GIVEN	
METHANE.....	79.3	-----		80.8	-----	80.7	-----
ETHANE.....	9.6	-----		9.8	-----	10.2	-----
PROPANE.....	1.4	-----		4.5	-----	4.4	-----
N-BUTANE.....	1.0	-----		1.0	-----	1.0	-----
ISOBUTANE.....	0.8	-----		0.6	-----	0.6	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.6	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.3	-----		0.1	-----	0.1	-----
NITROGEN.....	3.1	-----		0.2	-----	2.2	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.2	-----	0.2	-----
HELIUM.....	0.10	-----		0.10	-----	0.09	-----
HEATING VALUE.....	1210	-----		1183	-----	1121	-----
SPECIFIC GRAVITY.....	0.715	-----		0.693	-----	0.693	-----
		INDEX SAMPLE	8059 14876	INDEX SAMPLE	8060 9919	INDEX SAMPLE	8061 15847
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COTTLE			COTTLE		COTTLE	
FIELD.....	STEELE			TIPPEN		TIPPEN SE	
WELL NAME.....	T. B. HAVINS NO. 1			PERKINS		GILBREATH NO. 1R	
LOCATION.....	C. M. HUFF SUR.			A. C. LANE SUR. NO. A-1567		MARY A. COOK SUR. A-65	
OWNER.....	BASS ENTERPRISES PROD. CO.			ROBINSON BROS. OIL PRODUCERS		HARKIN OIL & GAS, INC.	
COMPLETED.....	02/28/76			07/10/64		10/03/78	
SAMPLED.....	12/21/76			05/21/65		11/28/78	
FORMATION.....	PENN-ATOKA			PENN-HORROW		PENN-CONGLOMERATE	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	6188	-----		6732	-----	6922	-----
WELLHEAD PRESSURE, PSIG.....	1775	-----		2300	-----	2200	-----
OPEN FLOW, MCFD.....	5000	-----		22500	-----	4074	-----
COMPONENT, MOLE PCT							
METHANE.....	74.2	-----		84.8	-----	82.2	-----
ETHANE.....	10.0	-----		8.3	-----	10.0	-----
PROPANE.....	6.2	-----		2.8	-----	3.8	-----
N-BUTANE.....	2.0	-----		0.7	-----	0.9	-----
ISOBUTANE.....	0.9	-----		0.5	-----	0.4	-----
N-PENTANE.....	0.4	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.6	-----		0.4	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.1	-----
NITROGEN.....	5.3	-----		1.7	-----	1.7	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.3	-----	0.3	-----
HELIUM.....	0.13	-----		0.07	-----	0.12	-----
HEATING VALUE.....	1126	-----		1156	-----	1176	-----
SPECIFIC GRAVITY.....	0.759	-----		0.668	-----	0.681	-----
		INDEX SAMPLE	8062 9923	INDEX SAMPLE	8063 8673	INDEX SAMPLE	8064 8674
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CRANE			CRANE		CRANE	
FIELD.....	ABELL			ARMER		ARMER	
WELL NAME.....	MOBIL GLENN NO. 7			M. B. MCKNIGHT NO. 56		M. B. MCKNIGHT NO. 83	
LOCATION.....	SEC. 20, BLK. 1, H&TC SUR.			SEC. 15, BLK. B-17, PSL SUR.		SEC. 20, BLK. B-17, PSL SUR.	
OWNER.....	BELL PETROLEUM CO.			GULF OIL CORP.		GULF OIL CORP.	
COMPLETED.....	02/02/62			11/26/61		08/11/62	
SAMPLED.....	06/14/65			09/15/62		09/15/62	
FORMATION.....	ORDO-MONTOYA			PERM-		ORDO-MONTOYA	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	5135	-----		6090	-----	6243	-----
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	-----		500	-----	1180	-----
OPEN FLOW, MCFD.....	14000	-----		120	-----	170	-----
COMPONENT, MOLE PCT							
METHANE.....	89.5	-----		73.4	-----	84.8	-----
ETHANE.....	4.9	-----		11.3	-----	7.3	-----
PROPANE.....	0.7	-----		3.9	-----	3.3	-----
N-BUTANE.....	0.7	-----		3.0	-----	0.9	-----
ISOBUTANE.....	0.2	-----		1.1	-----	0.4	-----
N-PENTANE.....	0.1	-----		0.7	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.6	-----	0.5	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.3	-----	0.1	-----
NITROGEN.....	1.8	-----		1.4	-----	2.2	-----
OXYGEN.....	0.1	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.1	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.0	-----	0.5	-----
HELIUM.....	TRACE	-----		0.02	-----	0.05	-----
HEATING VALUE.....	1093	-----		1149	-----	1149	-----
SPECIFIC GRAVITY.....	0.632	-----		0.792	-----	0.669	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8065 12796	INDEX SAMPLE	8066 14161	INDEX SAMPLE	8067 2053
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CRANE			CRANE		CRANE	
FIELD.....	BLK. 27			BLK. 27		CRATER-MCELROY NO. 1	
WELL NAME.....	W. N. WADDELL ET AL. NO. 889			ELL LONG NO. 13		SEC. 198, CCSDRGNG SUR.	
LOCATION.....	SEC. 25, BLK. B-21, PSL SUR.			SEC. 25, BLK. 27, PSL SUR.		GULF PRODUCTION CO.	
OWNER.....	GULF OIL CO.- U.S.			AMOCO PRODUCTION CO.		10/25/26	
COMPLETED.....	03/7/65			03/08/75		06/17/30	
SAMPLED.....	04/27/71			10/03/74		NOT GIVEN	
FORMATION.....	ORDO-MCKEE			PERM-TUBB		430	
GEOLOGIC PROVINCE CODE.....	430			4200		2700	
DEPTH, FEET.....	5800			5		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			200		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN					NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	93.5			53.8		60.2	
ETHANE.....	2.9			27.8		26.7	
PROPANE.....	1.2			0.0		---	
N-BUTANE.....	0.6			4.1		---	
ISOBUTANE.....	0.1			3.2		---	
N-PENTANE.....	0.2			0.0		---	
ISOPENTANE.....	0.1			3.5		---	
CYCLOPENTANE.....	0.1			0.4		---	
HEXANES PLUS.....	0.2			1.5		---	
NITROGEN.....	1.0			0.0		7.2	
ARGON.....	TRACE			0.1		0.2	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.6		---	
CARBON DIOXIDE.....	0.1			2.4		5.8	
HELIUM.....	0.04			0.03		0.05	
HEATING VALUE.....	1081			1646		1088	
SPECIFIC GRAVITY.....	0.609			0.993		0.775	
		INDEX SAMPLE	8068 12795	INDEX SAMPLE	8069 12743	INDEX SAMPLE	8070 12798
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CRANE			CRANE		CRANE	
FIELD.....	CRANAW			SAND HILLS		SAND HILLS	
WELL NAME.....	J. B. TUBB N NO. 1			P. 1. LEA NO. 30		W. N. WADDELL ET AL. NO. 846-J	
LOCATION.....	SEC. 9, BLK. B-20, PSL SUR.			SEC. 9, BLK. 32, PSL SUR.		SEC. 27, BLK. B-26, PSL SUR.	
OWNER.....	GULF OIL CO.- U.S.			MOBIL OIL CORP.		GULF OIL CO.- U.S.	
COMPLETED.....	10/2/60			01/21/57		01/07/63	
SAMPLED.....	04/28/71			03/07/71		04/27/71	
FORMATION.....	DEVON			-MCKNIGHT		PERM-JUDKINS	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	6450			3332		2700	
WELLHEAD PRESSURE, PSIG.....	1151			900		900	
OPEN FLOW, MCFD.....	32000			NOT GIVEN		115000	
COMPONENT, MOLE PCT							
METHANE.....	90.0			84.9		84.6	
ETHANE.....	4.5			6.7		7.0	
PROPANE.....	1.6			2.0		2.9	
N-BUTANE.....	0.6			1.7		0.7	
ISOBUTANE.....	0.2			0.0		0.4	
N-PENTANE.....	0.1			0.0		0.2	
ISOPENTANE.....	0.2			0.0		0.1	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	1.0			1.3		1.8	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.5		0.3	
HELIUM.....	1.5			1.7		1.7	
HEATING VALUE.....	0.01			0.03		0.02	
SPECIFIC GRAVITY.....	0.636			1.136		1.115	
		INDEX SAMPLE	8071 14446	INDEX SAMPLE	8072 1831	INDEX SAMPLE	8073 12783
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CRANE			CRANE		CRANE	
FIELD.....	T. E. BARR			W. N. WADDELL		WADDELL	
WELL NAME.....	REED BUTLER NO. 1			W. N. WADDELL NO. 7		W. N. WADDELL NO. 899	
LOCATION.....	SEC. 10, BLK. A, H&C SUR.			SEC. 10, BLK. B-23		SEC. 9, BLK. B-23, PSL SUR.	
OWNER.....	TEXAS OIL & GAS CORP.			GULF PRODUCTION CO.		GULF OIL CO.- U.S.	
COMPLETED.....	04/01/74			07/18/29		11/05/64	
SAMPLED.....	08/29/75			08/05/29		04/23/71	
FORMATION.....	PERM-WICHITA-ALBANY			NOT GIVEN		PERM-GRAYBURG	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	5458			2972		3022	
WELLHEAD PRESSURE, PSIG.....	2368			1150		357	
OPEN FLOW, MCFD.....	8250			5000		2147	
COMPONENT, MOLE PCT							
METHANE.....	95.6			77.2		80.5	
ETHANE.....	2.4			19.2		9.1	
PROPANE.....	0.5			---		4.2	
N-BUTANE.....	0.1			---		1.0	
ISOBUTANE.....	0.1			---		0.6	
N-PENTANE.....	0.1			---		0.3	
ISOPENTANE.....	TRACE			---		0.1	
CYCLOPENTANE.....	TRACE			---		TRACE	
HEXANES PLUS.....	0.1			---		0.2	
NITROGEN.....	0.8			3.0		3.5	
ARGON.....	0.0			0.3		0.0	
HYDROGEN.....	TRACE			---		0.0	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.3			0.3		TRACE	
HELIUM.....	0.03			0.05		0.04	
HEATING VALUE.....	1041			1126		1174	
SPECIFIC GRAVITY.....	0.585			0.666		0.693	
		INDEX SAMPLE	8074 2098	INDEX SAMPLE	8075 8600	INDEX SAMPLE	8076 9641
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CRANE			CROCKETT		CROCKETT	
FIELD.....	WEST TEXAS			ANGUS		BAGGETT	
WELL NAME.....	J. B. TUBB NO. 1			T. E. GLASSCOCK		E. G. BAGGETT NO. 1	
LOCATION.....	SEC. 8, BLK. B-27, PS LAND			SEC. 9, BLK. H, GC&S SUR.		SEC. 29, BLK. F, GC&S SUR.	
OWNER.....	GULF PRODUCTION CO.			SUNRAY OIL CO.		SIGNAL OIL & JON L. CRAWFORD	
COMPLETED.....	03/15/62			07/02/62		04/02/64	
SAMPLED.....	08/21/30			07/02/62		11/23/64	
FORMATION.....	NOT GIVEN			PENN-STRAWN		PENN-CANYON	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	NOT GIVEN			8680		7570	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			3110		3850	
OPEN FLOW, MCFD.....	NOT GIVEN			4450		1600	
COMPONENT, MOLE PCT							
METHANE.....	83.3			91.9		91.8	
ETHANE.....	12.7			5.1		5.0	
PROPANE.....	---			1.2		1.2	
N-BUTANE.....	---			0.2		0.2	
ISOBUTANE.....	---			0.1		0.1	
N-PENTANE.....	---			TRACE		0.1	
ISOPENTANE.....	---			0.1		0.1	
CYCLOPENTANE.....	---			TRACE		TRACE	
HEXANES PLUS.....	---			TRACE		0.1	
NITROGEN.....	2.6			0.7		0.3	
ARGON.....	0.2			TRACE		0.1	
HYDROGEN.....	---			0.0		TRACE	
HYDROGEN SULFIDE.....	---			TRACE		0.0	
CARBON DIOXIDE.....	1.1			1.1		0.8	
HELIUM.....	0.10			0.05		0.02	
HEATING VALUE.....	1071			1057		1074	
SPECIFIC GRAVITY.....	0.639			0.608		0.611	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8077 5619	INDEX SAMPLE	8078 12226	INDEX SAMPLE	8079 4876
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CROCKETT			CROCKETT		CROCKETT	
FIELD.....	BLK. 56			BROWN-BASSETT		CLARA COUCH	
WELL NAME.....	UNIV. CROCKETT 127 NO. 1			MITCHELL NO. 1-111		OWENS C NO. 1	
LOCATION.....	SEC. 7, BLK. 56			SEC. 111, BLK. 1, 1&GN SUR.		SEC. 18, BLK. 66	
OWNER.....	SINGLAR OIL & GAS CO.			SHELL OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	04/01/54			11/28/67		10/22/49	
SAMPLED.....	05/09/54			03/16/70		04/19/50	
FORMATION.....	ORDO-ELLENBURGER			ORDO-BROMIDE		PERM-MICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	8236			12700		5825	
WELLHEAD PRESSURE, PSIG.....	3800			1413		2718	
OPEN FLOW, MCFD.....	2500			11000		35000	
COMPONENT, MOLE PCT							
METHANE.....	77.4	-----		96.3	-----	79.2	-----
ETHANE.....	11.2	-----		0.6	-----	9.8	-----
PROpane.....	5.2	-----		TRACE	-----	4.7	-----
N-BUTANE.....	1.3	-----		0.0	-----	1.5	-----
ISOBUTANE.....	0.3	-----		0.0	-----	0.8	-----
N-PENTANE.....	0.3	-----		0.0	-----	0.6	-----
ISOPENTANE.....	0.2	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.0	-----	0.5	-----
NITROGEN.....	3.1	-----		0.5	-----	1.9	-----
OXYGEN.....	0.0	-----		0.1	-----	0.1	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.1	-----	TRACE	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.4	-----		2.3	-----	0.8	-----
HELIUM.....	0.09	-----		0.02	-----	0.06	-----
HEATING VALUE.....	1216	-----		987	-----	1232	-----
SPECIFIC GRAVITY.....	0.722	-----		0.581	-----	0.727	-----
		INDEX SAMPLE	8080 5046	INDEX SAMPLE	8081 1278	INDEX SAMPLE	8082 13274
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CROCKETT			CROCKETT		CROCKETT	
FIELD.....	CLARA COUCH			CROCKETT COUNTY		DEWISON	
WELL NAME.....	OWENS D NO. 1			NOT GIVEN		H. M. HUDSPETH NO. 1	
LOCATION.....	SEC. 17, BLK. 17, GS&SF SUR.			SEC. 50, BLK. YZ, GC&SF SUR.		SEC. 6, J. W. ODEM SUR.	
OWNER.....	CITIES SERVICE OIL CO.			TEXAS CO.		TEXACO INC.	
COMPLETED.....	01/22/55			01/22/55		07/06/71	
SAMPLED.....	04/07/51			04/20/26		06/21/72	
FORMATION.....	PENN-CISCO			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	5920			1699		7655	
WELLHEAD PRESSURE, PSIG.....	2731			180		2100	
OPEN FLOW, MCFD.....	40000			1000		331	
COMPONENT, MOLE PCT							
METHANE.....	79.1	-----		67.3	-----	91.2	-----
ETHANE.....	9.6	-----		18.0	-----	5.1	-----
PROpane.....	4.2	-----		---	-----	1.5	-----
N-BUTANE.....	1.3	-----		---	-----	0.2	-----
ISOBUTANE.....	0.5	-----		---	-----	0.2	-----
N-PENTANE.....	0.5	-----		---	-----	TRACE	-----
ISOPENTANE.....	0.1	-----		---	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	TRACE	-----
HEXANES PLUS.....	0.4	-----		---	-----	0.1	-----
NITROGEN.....	2.0	-----		13.4	-----	0.9	-----
OXYGEN.....	TRACE	-----		0.4	-----	0.0	-----
ARGON.....	TRACE	-----		---	-----	0.0	-----
HYDROGEN.....	0.0	-----		---	-----	0.2	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	1.6	-----		0.7	-----	0.7	-----
HELIUM.....	0.05	-----		0.25	-----	0.07	-----
HEATING VALUE.....	1200	-----		1004	-----	1069	-----
SPECIFIC GRAVITY.....	0.722	-----		0.707	-----	0.609	-----
		INDEX SAMPLE	8083 10586	INDEX SAMPLE	8084 11235	INDEX SAMPLE	8085 2505
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CROCKETT			CROCKETT		CROCKETT	
FIELD.....	DEPAUL			DEPAUL		DONHAM	
WELL NAME.....	MCULLAN NO. 1			MEYERIN NO. 1		ROBERT MASSIE NO. 1	
LOCATION.....	SEC. 3, BLK. U, GC&SF SUR.			SEC. 3, BLK. KL, GC&SF SUR.		SEC. 47, BLK. LV	
OWNER.....	DELTA DRILLING CO.			DELTA DRILLING CO.		STANOLIND OIL & GAS CO., ET	
COMPLETED.....	12/14/65			12/01/65		05/30/32	
SAMPLED.....	06/03/66			12/02/67		06/15/32	
FORMATION.....	PENN-STRAWN			PENN-CANYON		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	10001			7844		1269	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2579		450	
OPEN FLOW, MCFD.....	6400			5300		18	
COMPONENT, MOLE PCT							
METHANE.....	90.3	-----		84.2	-----	71.8	-----
ETHANE.....	5.1	-----		8.9	-----	15.4	-----
PROpane.....	1.5	-----		2.7	-----	---	-----
N-BUTANE.....	0.3	-----		0.7	-----	---	-----
ISOBUTANE.....	TRACE	-----		0.4	-----	---	-----
N-PENTANE.....	0.1	-----		0.0	-----	---	-----
ISOPENTANE.....	TRACE	-----		0.5	-----	---	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	---	-----
HEXANES PLUS.....	0.1	-----		---	-----	---	-----
NITROGEN.....	0.7	-----		1.5	-----	10.5	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.7	-----
ARGON.....	0.0	-----		TRACE	-----	---	-----
HYDROGEN.....	0.0	-----		TRACE	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.8	-----		0.0	-----	0.9	-----
HELIUM.....	0.03	-----		0.04	-----	0.32	-----
HEATING VALUE.....	1082	-----		1146	-----	1010	-----
SPECIFIC GRAVITY.....	0.619	-----		0.659	-----	0.687	-----
		INDEX SAMPLE	8086 15380	INDEX SAMPLE	8087 11490	INDEX SAMPLE	8088 12741
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CROCKETT			CROCKETT		CROCKETT	
FIELD.....	ELKHORN			HOWARD DRAW		HUNT-BAGGETT	
WELL NAME.....	J. M. SHANNON A NO. 18			TODD RANCH NO. 1-A		BAGGETT NO. 8-1	
LOCATION.....	SEC. 21, BLK. U, VGC&SP SUR.			NOT GIVEN		SEC. 24, BLK. F	
OWNER.....	CONTINENTAL OIL CO.			MCGRATH & SMITH, INC., ET AL		AMERICAN PETROFINA CO. OF TE	
COMPLETED.....	12/06/76			12/7/67		05/18/60	
SAMPLED.....	09/19/78			05/10/68		03/24/71	
FORMATION.....	PERM-QUEEN			PERM-SAN ANDRES		PENN-STRAWN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	1110			1165		9040	
WELLHEAD PRESSURE, PSIG.....	326			409		1200	
OPEN FLOW, MCFD.....	4900			26500		1500	
COMPONENT, MOLE PCT							
METHANE.....	71.8	-----		77.6	-----	95.9	-----
ETHANE.....	11.5	-----		12.4	-----	1.4	-----
PROpane.....	2.3	-----		0.1	-----	0.1	-----
N-BUTANE.....	0.4	-----		TRACE	-----	0.0	-----
ISOBUTANE.....	0.5	-----		0.4	-----	TRACE	-----
N-PENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
ISOPENTANE.....	0.2	-----		0.4	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	9.9	-----		6.9	-----	1.0	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.1	-----		0.5	-----	0.0	-----
HYDROGEN SULFIDE**.....	3.0	-----		0.6	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.8	-----	1.3	-----
HELIUM.....	0.16	-----		10.8	-----	0.03	-----
HEATING VALUE.....	1061	-----		1063	-----	1004	-----
SPECIFIC GRAVITY.....	0.716	-----		0.674	-----	0.582	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8089 SAMPLE 12955		INDEX 8090 SAMPLE 10476		INDEX 8091 SAMPLE 9642	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CROCKETT	COUNTY.....	CROCKETT	COUNTY.....	CROCKETT
FIELD.....	INGHAM	FIELD.....	J M	FIELD.....	JOE T
WELL NAME.....	INGHAM NO. 1-A	WELL NAME.....	MITCHELL NO. 1	WELL NAME.....	E. G. BAGGETT NO. 1-T
LOCATION.....	SEC. 3, BLK. 3F, TCRR SUR.	LOCATION.....	SEC. 3, BLK. Q-6, TCRR SUR.	LOCATION.....	SEC. 29, BLK. F, GC&SF SUR.
OWNER.....	SOHO PETROLEUM CO.	OWNER.....	SHELL OIL CO.	OWNER.....	SIGNAL OIL & JON L. CRAWFORD
COMPLETED.....	11/--/60	COMPLETED.....	10/18/65	COMPLETED.....	04/14/64
SAMPLED.....	03/24/71	SAMPLED.....	03/24/66	SAMPLED.....	11/23/64
FORMATION.....	DEVO	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	7501	DEPTH, FEET.....	13700	DEPTH, FEET.....	9188
WELLHEAD PRESSURE, PSIG.....	646	WELLHEAD PRESSURE, PSIG.....	4800	WELLHEAD PRESSURE, PSIG.....	2672
OPEN FLOW, MCFD.....	21500	OPEN FLOW, MCFD.....	130000	OPEN FLOW, MCFD.....	11000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.1	METHANE.....	77.9	METHANE.....	95.6
ETHANE.....	5.1	ETHANE.....	1.3	ETHANE.....	1.9
PROPANE.....	1.7	PROPANE.....	0.0	PROPANE.....	0.3
N-BUTANE.....	0.5	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.2	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.0	NITROGEN.....	2.2	NITROGEN.....	0.7
OXYGEN.....	0.0	OXYGEN.....	0.2	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	20.3	CARBON DIOXIDE.....	1.4
HELIUM.....	0.04	HELIUM.....	0.02	HELIUM.....	0.04
HEATING VALUE.....	1090	HEATING VALUE.....	795	HEATING VALUE.....	1010
SPECIFIC GRAVITY.....	0.626	SPECIFIC GRAVITY.....	0.759	SPECIFIC GRAVITY.....	0.584

INDEX 8092 SAMPLE 12714		INDEX 8093 SAMPLE 12715		INDEX 8094 SAMPLE 12664	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CROCKETT	COUNTY.....	CROCKETT	COUNTY.....	CROCKETT
FIELD.....	JOE T	FIELD.....	LANCASTER HILL	FIELD.....	UNIV. LANDS E NO. 2
WELL NAME.....	SIGNAL-BAGGETT NO. 1-T	WELL NAME.....	SIGNAL-BAGGETT NO. 1-C	WELL NAME.....	SEC. 11, BLK. 29, UNIV. LD. SUR.
LOCATION.....	SEC. 29, BLK. F, GC&SF SUR.	LOCATION.....	SEC. 29, BLK. F, GC&SF SUR.	LOCATION.....	PHILLIPS PETROLEUM CO.
OWNER.....	TEX OIL CORP.	OWNER.....	TEX OIL CORP.	OWNER.....	--/--/00
COMPLETED.....	04/--/64	COMPLETED.....	06/--/64	COMPLETED.....	02/10/71
SAMPLED.....	03/16/71	SAMPLED.....	03/16/71	SAMPLED.....	PENN-STRAWN
FORMATION.....	PENN-STRAWN	FORMATION.....	PENN-CANYON	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	9246	DEPTH, FEET.....	7973	DEPTH, FEET.....	6869
WELLHEAD PRESSURE, PSIG.....	1150	WELLHEAD PRESSURE, PSIG.....	856	WELLHEAD PRESSURE, PSIG.....	1770
OPEN FLOW, MCFD.....	3050	OPEN FLOW, MCFD.....	387	OPEN FLOW, MCFD.....	19500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.4	METHANE.....	91.7	METHANE.....	85.4
ETHANE.....	2.0	ETHANE.....	4.5	ETHANE.....	6.4
PROPANE.....	0.2	PROPANE.....	0.1	PROPANE.....	2.6
N-BUTANE.....	0.0	N-BUTANE.....	0.1	N-BUTANE.....	0.7
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.4
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	0.4
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	4.9	NITROGEN.....	1.0	NITROGEN.....	2.0
OXYGEN.....	1.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.4	CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	1.6
HELIUM.....	0.03	HELIUM.....	0.02	HELIUM.....	0.05
HEATING VALUE.....	957	HEATING VALUE.....	1058	HEATING VALUE.....	1125
SPECIFIC GRAVITY.....	0.607	SPECIFIC GRAVITY.....	0.610	SPECIFIC GRAVITY.....	0.671

INDEX 8095 SAMPLE 15638		INDEX 8096 SAMPLE 12166		INDEX 8097 SAMPLE 10807	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CROCKETT	COUNTY.....	CROCKETT	COUNTY.....	CROCKETT
FIELD.....	LAURA HOOVER ESTATE	FIELD.....	M.P. 1	FIELD.....	MIDWAY LANE
WELL NAME.....	LAURA HOOVER NO. 1-2	WELL NAME.....	ENCO NO. 1	WELL NAME.....	CHAMBERS CSL NO. 1
LOCATION.....	SEC. 2, BLK. NNN, HOOVER SUR	LOCATION.....	SEC. 2, N. A. MILLER SUR.	LOCATION.....	LEAGUE 4, CHAMBERS CLS SUR.
OWNER.....	CANYON CO.	OWNER.....	MALLARD PETROLEUM, INC.	OWNER.....	ASHMUN & HILLIARD
COMPLETED.....	06/06/79	COMPLETED.....	11/23/68	COMPLETED.....	--/--/00
SAMPLED.....	06/06/79	SAMPLED.....	12/31/69	SAMPLED.....	12/03/66
FORMATION.....	PENN-CANYON	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	6469	DEPTH, FEET.....	8000	DEPTH, FEET.....	7384
WELLHEAD PRESSURE, PSIG.....	2400	WELLHEAD PRESSURE, PSIG.....	1800	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	4200	OPEN FLOW, MCFD.....	3800	OPEN FLOW, MCFD.....	15000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.0	METHANE.....	37.9	METHANE.....	74.4
ETHANE.....	11.7	ETHANE.....	29.7	ETHANE.....	10.6
PROPANE.....	1.7	PROPANE.....	21.6	PROPANE.....	5.5
N-BUTANE.....	0.4	N-BUTANE.....	1.4	N-BUTANE.....	0.4
ISOBUTANE.....	1.1	ISOBUTANE.....	1.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.5	N-PENTANE.....	0.5	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	1.1	NITROGEN.....	0.2	NITROGEN.....	0.4
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	2.2
HELIUM.....	0.04	HELIUM.....	0.01	HELIUM.....	0.06
HEATING VALUE.....	1331	HEATING VALUE.....	1785	HEATING VALUE.....	1185
SPECIFIC GRAVITY.....	0.776	SPECIFIC GRAVITY.....	1.056	SPECIFIC GRAVITY.....	0.747

INDEX 8098 SAMPLE 10074		INDEX 8099 SAMPLE 13574		INDEX 8100 SAMPLE 12687	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CROCKETT	COUNTY.....	CROCKETT	COUNTY.....	CROCKETT
FIELD.....	MILLER	FIELD.....	MILLER RANCH	FIELD.....	NOELKE NE
WELL NAME.....	MILLER RANCH GAS UNIT NO. 1	WELL NAME.....	MILLER RANCH NO. 1-10	WELL NAME.....	SHANNON ESTATE C NO. 1
LOCATION.....	SEC. 10, BLK. 000, E. JONES SUR.	LOCATION.....	SEC. 10, BLK. 000, GC&F SUR.	LOCATION.....	SUN OIL CO.
OWNER.....	PAN AMERICAN PETROLEUM CORP.	OWNER.....	HNG OIL CO.	OWNER.....	--/--/00
COMPLETED.....	03/23/64	COMPLETED.....	10/13/72	COMPLETED.....	02/18/71
SAMPLED.....	03/23/64	SAMPLED.....	04/01/73	SAMPLED.....	PERM-QUEEN
FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	PERM-QUEEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	11330	DEPTH, FEET.....	11744	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	20800	WELLHEAD PRESSURE, PSIG.....	8000	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....		OPEN FLOW, MCFD.....	455000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.1	METHANE.....	84.3	METHANE.....	73.3
ETHANE.....	0.7	ETHANE.....	0.7	ETHANE.....	10.8
PROPANE.....	0.1	PROPANE.....	0.0	PROPANE.....	6.1
N-BUTANE.....	0.0	N-BUTANE.....	0.1	N-BUTANE.....	2.3
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	1.1
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.6
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.8
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.4
NITROGEN.....	2.4	NITROGEN.....	7.6	NITROGEN.....	4.2
OXYGEN.....	0.2	OXYGEN.....	1.2	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	6.5	CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	0.1
HELIUM.....	0.09	HELIUM.....	0.08	HELIUM.....	0.04
HEATING VALUE.....	928	HEATING VALUE.....	870	HEATING VALUE.....	1297
SPECIFIC GRAVITY.....	0.631	SPECIFIC GRAVITY.....	0.655	SPECIFIC GRAVITY.....	0.779

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8101 8666	INDEX SAMPLE	8102 12770	INDEX SAMPLE	8103 12771
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CROCKETT			CROCKETT		CROCKETT	
FIELD.....	OZONA			OZONA		OZONA	
WELL NAME.....	KINCAID NO. 1			VADA BEAN NO. 1		MONTGOMERY NO. 14-1	
LOCATION.....	SEC. 6, BLK. MN, GC&SFRR SUR			10 MI. SW OF OZONA		18 MI. SW OF OZONA	
OWNER.....	DELTA DRILLING CO., ET AL.			ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	05/-/62			-/-/65		-/-/67	
SAMPLED.....	09/16/62			04/20/71		04/20/71	
FORMATION.....	ORDO-ELLENBURGER			PENN-CANYON		PENN-CANYON	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	8300			6229		6416	
WELLHEAD PRESSURE, PSIG.....	2600			1075		NOT GIVEN	
OPEN FLOW, MCFD.....	4500			244		317	
COMPONENT, MOLE PCT							
METHANE.....	85.5			78.8		80.9	
ETHANE.....	5.6			11.1		10.1	
PROPANE.....	2.0			5.6		4.7	
N-BUTANE.....	0.4			0.6		1.1	
ISOBUTANE.....	0.2			0.6		0.7	
N-PENTANE.....	0.1			0.3		0.2	
ISOPENTANE.....	0.1			0.2		0.3	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	3.1			1.6		1.4	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.4		0.4	
HELIUM.....	0.09			0.04		0.05	
HEATING VALUE.....	1053			1230		1210	
SPECIFIC GRAVITY.....	0.657			0.715		0.700	
		INDEX SAMPLE	8104 12772	INDEX SAMPLE	8105 12774	INDEX SAMPLE	8106 12775
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CROCKETT			CROCKETT		CROCKETT	
FIELD.....	OZONA			OZONA		OZONA	
WELL NAME.....	J. R. BAILEY NO. 1			MONTGOMERY NO. 15-1		ADDIE CLAYTON NO. 1	
LOCATION.....	20 MI. NE OF OZONA			18 MI. SW OF OZONA		20 MI. NE OF OZONA	
OWNER.....	ATLANTIC RICHFIELD CO.			ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	-/-/66			-/-/66		-/-/66	
SAMPLED.....	04/20/71			04/20/71		04/20/71	
FORMATION.....	PENN-CANYON			PENN-CANYON		PENN-CANYON	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	7698			6438		7455	
WELLHEAD PRESSURE, PSIG.....	150			NOT GIVEN		150	
OPEN FLOW, MCFD.....	25			209		495	
COMPONENT, MOLE PCT							
METHANE.....	71.9			81.3		78.0	
ETHANE.....	14.5			4.5		10.8	
PROPANE.....	2.8			1.0		5.3	
N-BUTANE.....	2.2			1.0		0.9	
ISOBUTANE.....	1.0			0.8		0.9	
N-PENTANE.....	0.4			0.1		0.3	
ISOPENTANE.....	TRACE			0.3		0.3	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	2.3			2.7		2.7	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.6			0.4		0.6	
HELIUM.....	0.04			0.04		0.07	
HEATING VALUE.....	1304			1322		1218	
SPECIFIC GRAVITY.....	0.774			0.696		0.722	
		INDEX SAMPLE	8107 12696	INDEX SAMPLE	8108 9608	INDEX SAMPLE	8109 11716
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CROCKETT			CROCKETT		CROCKETT	
FIELD.....	OZONA NE			OZONA SW		CROCKETT	
WELL NAME.....	ST. CLAIR CLAYTON NO. 1-11			ST. CLAIR NO. 1		PERNER RANCH	
LOCATION.....	NOT GIVEN			SEC. 28, BLK. OR, EL&RR SUR.		PERNER RANCH NO. 1	
OWNER.....	TOM BROWN DRILLING CO.			D. H. COBB & TEXAS AMER. OIL		SEC. 40, BLK. 2, I&GNRR SUR.	
COMPLETED.....	-/-/60			12/28/62		CHAMBERS & KENNEDY	
SAMPLED.....	02/21/71			10/10/64		01/25/68	
FORMATION.....	PENN-CANYON			PENN-		12/21/68	
GEOLOGIC PROVINCE CODE.....	430			430		ORDO-SIMPSON	
DEPTH, FEET.....	7370			6372		430	
WELLHEAD PRESSURE, PSIG.....	800			2000		9414	
OPEN FLOW, MCFD.....	350			3600		3500	
COMPONENT, MOLE PCT						13500	
METHANE.....	76.8			79.1		92.9	
ETHANE.....	10.7			9.3		2.1	
PROPANE.....	5.1			4.3		0.6	
N-BUTANE.....	1.2			0.3		0.2	
ISOBUTANE.....	0.6			0.3		0.0	
N-PENTANE.....	0.3			0.1		0.3	
ISOPENTANE.....	0.6			0.2		0.0	
CYCLOPENTANE.....	0.1			0.3		0.3	
HEXANES PLUS.....	0.4			0.2		0.2	
NITROGEN.....	3.5			2.4		0.0	
OXYGEN.....	0.2			0.0		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			1.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.6			1.9		0.8	
HELIUM.....	0.07			0.04		0.11	
HEATING VALUE.....	1229			1154		1036	
SPECIFIC GRAVITY.....	0.739			0.699		0.608	
		INDEX SAMPLE	8110 4372	INDEX SAMPLE	8111 11614	INDEX SAMPLE	8112 11615
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHANNON			CROCKETT		CROCKETT	
FIELD.....	SHANNON ESTATE B NO. 9			TIPPETT W		TIPPETT W	
WELL NAME.....	SEC. 22, BLK. 1, GC&SFRR SUR			TIPPETT NO. 36-1		TIPPETT NO. 36-1	
LOCATION.....	SUN OIL CO.			SEC. 36		SEC. 36	
OWNER.....	10/04/47			SUN OIL CO.		SUN OIL CO.	
COMPLETED.....	10/06/47			08/08/68		08/08/67	
SAMPLED.....	10/06/47			08/05/68		08/05/68	
FORMATION.....	PERM-SEVEN RIVERS			PERM-NICHITA-ALBANY		PERM-NICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	1690			5050		5050	
WELLHEAD PRESSURE, PSIG.....	700			2034		2034	
OPEN FLOW, MCFD.....	NOT GIVEN			9400		9400	
COMPONENT, MOLE PCT							
METHANE.....	0.9			79.0		79.1	
ETHANE.....	6.3			4.6		9.6	
PROPANE.....	---			1.5		4.7	
N-BUTANE.....	---			0.5		1.4	
ISOBUTANE.....	---			0.3		0.5	
N-PENTANE.....	---			0.2		0.9	
ISOPENTANE.....	---			0.2		0.2	
CYCLOPENTANE.....	---			0.1		0.1	
HEXANES PLUS.....	---			0.3		0.3	
NITROGEN.....	89.7			3.7		3.5	
OXYGEN.....	2.6			0.1		0.0	
ARGON.....	---			0.0		TRACE	
HYDROGEN.....	---			TRACE		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		TRACE	
HELIUM.....	0.27			0.08		0.09	
HEATING VALUE.....	122			1203		1207	
SPECIFIC GRAVITY.....	0.971			0.716		0.714	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8113 SAMPLE 14727		INDEX 8114 SAMPLE 13553		INDEX 8115 SAMPLE 15079	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CROCKETT	COUNTY.....	CROCKETT	COUNTY.....	CROCKETT
WELL NAME.....	UNIVERSITY 30-32	WELL NAME.....	WILDCAT	WELL NAME.....	WHITEHEAD
LOCATION.....	SEC. 5, BLK. 31, UNIV. LAND SUR.	LOCATION.....	SEC. 106 BLK. WC, N AGULAR SUR	LOCATION.....	JAKE BEASLEY NO. 1
OWNER.....	MEMORAN EXPLORATION CO.	OWNER.....	GULF OIL CO.- U.S.	OWNER.....	SEC. 6, BLK. G, GC&SFRR SUR.
COMPLETED.....	05/05/75	COMPLETED.....	10/23/72	COMPLETED.....	03/16/76
SAMPLED.....	07/01/77	SAMPLED.....	03/01/77	SAMPLED.....	08/24/77
FORMATION.....	SILU-FUSSELMAN	FORMATION.....	PERM-CLEARFORK	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	8174	DEPTH, FEET.....	2116	DEPTH, FEET.....	9401
WELLHEAD PRESSURE, PSIG.....	1190	WELLHEAD PRESSURE, PSIG.....	788	WELLHEAD PRESSURE, PSIG.....	2755
OPEN FLOW, MCFD.....	125	OPEN FLOW, MCFD.....	4400	OPEN FLOW, MCFD.....	7525
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.6	METHANE.....	81.8	METHANE.....	95.7
ETHANE.....	4.8	ETHANE.....	11.0	ETHANE.....	1.9
PROPANE.....	1.4	PROPANE.....	4.4	PROPANE.....	0.3
N-BUTANE.....	0.4	N-BUTANE.....	0.8	N-BUTANE.....	0.1
ISOBUTANE.....	0.2	ISOBUTANE.....	0.6	ISOBUTANE.....	TRACE
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	1.5	NITROGEN.....	0.6	NITROGEN.....	0.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.9
HELIUM.....	0.06	HELIUM.....	0.09	HELIUM.....	0.03
HEATING VALUE.....	1078	HEATING VALUE.....	1205	HEATING VALUE.....	1025
SPECIFIC GRAVITY.....	0.623	SPECIFIC GRAVITY.....	0.686	SPECIFIC GRAVITY.....	0.583
INDEX 8116 SAMPLE 4899		INDEX 8117 SAMPLE 5422		INDEX 8118 SAMPLE 16435	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CROCKETT	COUNTY.....	CROCKETT	COUNTY.....	CULBERSON
WELL NAME.....	WILDCAT	WELL NAME.....	WILDCAT	WELL NAME.....	COVE
LOCATION.....	SEC. 5, BLK. 0, CW BROWN SUR.	LOCATION.....	M. MITCHELL NO. 1	LOCATION.....	COVINGTON STATE NO. 1
OWNER.....	TEXAS CO.	OWNER.....	BLK. 1, T&N RR SUR.	OWNER.....	SEC. 4, BLK. 115, PSL SUR.
COMPLETED.....	07/25/49	COMPLETED.....	04/03/53	COMPLETED.....	02/25/82
SAMPLED.....	02/23/50	SAMPLED.....	02/24/53	SAMPLED.....	02/25/82
FORMATION.....	NOT GIVEN	FORMATION.....	PERM-CLEARFORK	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	11775	DEPTH, FEET.....	13750	DEPTH, FEET.....	11822
WELLHEAD PRESSURE, PSIG.....	3000	WELLHEAD PRESSURE, PSIG.....	3675	WELLHEAD PRESSURE, PSIG.....	4550
OPEN FLOW, MCFD.....	20000	OPEN FLOW, MCFD.....	11400	OPEN FLOW, MCFD.....	1800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.8	METHANE.....	58.4	METHANE.....	95.9
ETHANE.....	0.7	ETHANE.....	0.0	ETHANE.....	0.6
PROPANE.....	0.2	PROPANE.....	0.0	PROPANE.....	0.2
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.2
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	TRACE
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	3.1	NITROGEN.....	0.4	NITROGEN.....	1.0
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.2
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	5.8	CARBON DIOXIDE.....	40.9	CARBON DIOXIDE.....	1.7
HELIUM.....	0.10	HELIUM.....	0.02	HELIUM.....	0.03
HEATING VALUE.....	933	HEATING VALUE.....	597	HEATING VALUE.....	1004
SPECIFIC GRAVITY.....	0.631	SPECIFIC GRAVITY.....	0.956	SPECIFIC GRAVITY.....	0.589
INDEX 8119 SAMPLE 15198		INDEX 8120 SAMPLE 15199		INDEX 8121 SAMPLE 7609	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CULBERSON	COUNTY.....	CULBERSON	COUNTY.....	CULBERSON
WELL NAME.....	KING EDWARD	WELL NAME.....	KING EDWARD	WELL NAME.....	SIGNAL PEAK
LOCATION.....	BATEMAN STATE NO. 1-29	LOCATION.....	BATEMAN NO. 1-28	LOCATION.....	STATE BARRETT NO. 1
OWNER.....	SEC. 29, BLK. 45, PSL SUR.	OWNER.....	SEC. 28, BLK. 45, PSL SUR.	OWNER.....	SEC. 18, BLK. 2, T&P SUR.
COMPLETED.....	01/25/78	COMPLETED.....	01/25/78	COMPLETED.....	07/18/60
SAMPLED.....	01/25/78	SAMPLED.....	01/25/78	SAMPLED.....	07/18/60
FORMATION.....	SILU-	FORMATION.....	SILU-	FORMATION.....	PENN-
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	15397	DEPTH, FEET.....	15418	DEPTH, FEET.....	5798
WELLHEAD PRESSURE, PSIG.....	5150	WELLHEAD PRESSURE, PSIG.....	5113	WELLHEAD PRESSURE, PSIG.....	2012
OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	8000	OPEN FLOW, MCFD.....	13500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	94.5	METHANE.....	95.2	METHANE.....	95.5
ETHANE.....	0.4	ETHANE.....	0.5	ETHANE.....	2.0
PROPANE.....	0.0	PROPANE.....	0.0	PROPANE.....	0.2
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.1
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	2.2	NITROGEN.....	1.3	NITROGEN.....	0.1
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.2	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.1	HYDROGEN SULFIDE.....	0.2	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.6	CARBON DIOXIDE.....	2.6	CARBON DIOXIDE.....	0.4
HELIUM.....	0.4	HELIUM.....	0.04	HELIUM.....	0.02
HEATING VALUE.....	965	HEATING VALUE.....	975	HEATING VALUE.....	1020
SPECIFIC GRAVITY.....	0.591	SPECIFIC GRAVITY.....	0.588	SPECIFIC GRAVITY.....	0.581
INDEX 8122 SAMPLE 5514		INDEX 8123 SAMPLE 5730		INDEX 8124 SAMPLE 5870	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CULBERSON	COUNTY.....	DALLAM	COUNTY.....	DALLAM
WELL NAME.....	WILDCAT	WELL NAME.....	KERRICK	WELL NAME.....	KERRICK
LOCATION.....	SEC. 10, BLK. 60, T&P SUR.	LOCATION.....	SEC. 16, BLK. 50, H&CRR SUR	LOCATION.....	FOXWORTH-SKAER NO. 1
OWNER.....	GRISHAM-HUNTER CORP.	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	SEC. 29, BLK. 1-7, T&NO SUR.
COMPLETED.....	07/08/53	COMPLETED.....	03/19/54	COMPLETED.....	05/20/55
SAMPLED.....	07/08/53	SAMPLED.....	11/16/54	SAMPLED.....	06/30/55
FORMATION.....	PENN-	FORMATION.....	PENN-CISCO	FORMATION.....	PENN-CISCO
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	435
DEPTH, FEET.....	9040	DEPTH, FEET.....	3564	DEPTH, FEET.....	3460
WELLHEAD PRESSURE, PSIG.....	1280	WELLHEAD PRESSURE, PSIG.....	471	WELLHEAD PRESSURE, PSIG.....	476
OPEN FLOW, MCFD.....	9900	OPEN FLOW, MCFD.....	7500	OPEN FLOW, MCFD.....	4250
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.6	METHANE.....	71.6	METHANE.....	71.2
ETHANE.....	1.2	ETHANE.....	5.1	ETHANE.....	4.8
PROPANE.....	0.0	PROPANE.....	3.1	PROPANE.....	3.4
N-BUTANE.....	0.0	N-BUTANE.....	0.5	N-BUTANE.....	1.3
ISOBUTANE.....	TRACE	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.1	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	0.4	NITROGEN.....	12.9	NITROGEN.....	17.1
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.02	HELIUM.....	0.86	HELIUM.....	0.87
HEATING VALUE.....	1018	HEATING VALUE.....	975	HEATING VALUE.....	992
SPECIFIC GRAVITY.....	0.569	SPECIFIC GRAVITY.....	0.712	SPECIFIC GRAVITY.....	0.726

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8125 6017	INDEX SAMPLE	8126 6299	INDEX SAMPLE	8127 6456
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DALLAM			DALLAM		DALLAM	
FIELD.....	KERRICK			KERRICK		KERRICK	
WELL NAME.....	PRICE A NO. 1			MELLEN P. BELO NO. 3		DAVID P. MCBRYDE NO. 1	
LOCATION.....	SEC. 22, BLK. 47, H&TC SUR.			SEC. 17, BLK. 1, I&GN SUR.		SEC. 52, BLK. 1-T, T&NO SUR.	
OWNER.....	HARRINGTON, MARSH & WAGNER			MUMBLE OIL & REFINING CO.		SHAMROCK OIL & GAS CORP.	
COMPLETED.....	01/31/56			09/13/56		10/08/57	
SAMPLED.....	02/18/56			04/10/57		12/26/57	
FORMATION.....	PENN-CISCO			PENN-CISCO		PENN-VIRGIL	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	3500			3473		3519	
WELLHEAD PRESSURE, PSIG.....	464			444		480	
OPEN FLOW, MCFD.....	6550			1300		2000	
COMPONENT, MOLE PCT							
METHANE.....	70.6	---	---	72.5	---	71.6	---
ETHANE.....	4.8	---	---	5.1	---	5.0	---
PROpane.....	3.2	---	---	3.2	---	3.2	---
N-BUTANE.....	3.0	---	---	1.2	---	1.2	---
ISOBUTANE.....	0.0	---	---	0.0	---	0.0	---
N-PENTANE.....	0.4	---	---	0.3	---	0.2	---
ISOPENTANE.....	0.0	---	---	0.3	---	0.3	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.4	---	---	0.2	---	0.2	---
NITROGEN.....	16.3	---	---	15.5	---	16.6	---
OXYGEN.....	TRACE	---	---	0.0	---	TRACE	---
ARGON.....	TRACE	---	---	0.1	---	0.1	---
HYDROGEN.....	0.2	---	---	0.1	---	TRACE	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.1	---
HELIUM.....	0.88	---	---	0.86	---	0.90	---
HEATING VALUE.....	1028	---	---	1006	---	994	---
SPECIFIC GRAVITY.....	0.739	---	---	0.717	---	0.722	---
		INDEX SAMPLE	8128 6563	INDEX SAMPLE	8129 6564	INDEX SAMPLE	8130 7080
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DALLAM			DALLAM		DALLAM	
FIELD.....	KERRICK			KERRICK		KERRICK	
WELL NAME.....	H. P. BELO NO. 2			H. P. BELO NO. 4		FOXWORTH NO. 1	
LOCATION.....	SEC. 20, BLK. 1, I&GN SUR.			SEC. 19, BLK. 1, I&GN SUR.		SEC. 54, BLK. 1-T, T&NO SUR.	
OWNER.....	MUMBLE OIL & REFINING CO.			MUMBLE OIL & REFINING CO.		KERR-MCGEE OIL IND., INC.	
COMPLETED.....	11/16/54			08/17/57		--/700	
SAMPLED.....	04/21/58			04/21/58		05/25/59	
FORMATION.....	PENN-CISCO			PENN-CISCO		PENN-MASSIVE LIMESTONE	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	3510			3554		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	455			462		NOT GIVEN	
OPEN FLOW, MCFD.....	3000			2100		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	71.1	---	---	72.5	---	75.1	---
ETHANE.....	5.0	---	---	5.2	---	5.4	---
PROpane.....	3.1	---	---	3.1	---	3.1	---
N-BUTANE.....	1.2	---	---	1.2	---	1.1	---
ISOBUTANE.....	0.5	---	---	0.5	---	0.8	---
N-PENTANE.....	0.3	---	---	0.3	---	0.1	---
ISOPENTANE.....	0.2	---	---	0.2	---	0.2	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.1	---	---	0.1	---	0.0	---
NITROGEN.....	17.3	---	---	15.5	---	12.9	---
OXYGEN.....	TRACE	---	---	TRACE	---	TRACE	---
ARGON.....	0.1	---	---	0.1	---	0.1	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.2	---	0.2	---
HELIUM.....	0.90	---	---	0.80	---	0.60	---
HEATING VALUE.....	978	---	---	998	---	1029	---
SPECIFIC GRAVITY.....	0.720	---	---	0.716	---	0.707	---
		INDEX SAMPLE	8131 7222	INDEX SAMPLE	8132 7223	INDEX SAMPLE	8133 7224
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DALLAM			DALLAM		DALLAM	
FIELD.....	KERRICK			KERRICK		KERRICK	
WELL NAME.....	BELO NO. 1			MOON NO. 1		SCHRAETER NO. 1	
LOCATION.....	SEC. 18, BLK. 1, I&GN SUR.			SEC. 17, BLK. 1-T, T&NORR SUR		SEC. 84, BLK. 1-T, T&NORR SUR	
OWNER.....	RIP C. UNDERWOOD			RIP C. UNDERWOOD		RIP C. UNDERWOOD	
COMPLETED.....	--/700			11/25/57		01/29/58	
SAMPLED.....	09/29/59			09/29/59		09/29/59	
FORMATION.....	PENN-CISCO			PENN-CISCO		PENN-CISCO	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	3455			3442		3609	
WELLHEAD PRESSURE, PSIG.....	459			460		461	
OPEN FLOW, MCFD.....	700			6800		1350	
COMPONENT, MOLE PCT							
METHANE.....	67.3	---	---	69.5	---	72.5	---
ETHANE.....	4.8	---	---	5.0	---	5.2	---
PROpane.....	3.2	---	---	3.0	---	3.2	---
N-BUTANE.....	1.2	---	---	0.1	---	1.1	---
ISOBUTANE.....	0.5	---	---	0.1	---	0.1	---
N-PENTANE.....	TRACE	---	---	TRACE	---	0.1	---
ISOPENTANE.....	0.5	---	---	0.7	---	0.6	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.2	---	0.2	---
NITROGEN.....	20.8	---	---	18.5	---	15.7	---
OXYGEN.....	0.1	---	---	TRACE	---	TRACE	---
ARGON.....	0.1	---	---	0.1	---	0.1	---
HYDROGEN.....	0.0	---	---	TRACE	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	TRACE	---	---	0.1	---	TRACE	---
HELIUM.....	1.50	---	---	1.10	---	0.70	---
HEATING VALUE.....	940	---	---	973	---	1008	---
SPECIFIC GRAVITY.....	0.732	---	---	0.728	---	0.720	---
		INDEX SAMPLE	8134 7225	INDEX SAMPLE	8135 7291	INDEX SAMPLE	8136 7335
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DALLAM			DALLAM		DALLAM	
FIELD.....	KERRICK			KERRICK		KERRICK	
WELL NAME.....	PEELER NO. 1			DAVID MCBRYDE A NO. 1		MURDOCK NO. 1	
LOCATION.....	SEC. 49, BLK. 1-T, T&NORR SUR			SEC. 15, BLK. 50, H&TC SUR.		SEC. 5, F. H. DAVIS SUR.	
OWNER.....	RIP C. UNDERWOOD			SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.	
COMPLETED.....	11/25/57			08/04/59		11/04/59	
SAMPLED.....	09/29/59			11/20/59		01/12/60	
FORMATION.....	PENN-CISCO			PENN-CISCO		PENN-CISCO	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	2400			3517		3472	
WELLHEAD PRESSURE, PSIG.....	477			270		240	
OPEN FLOW, MCFD.....	27500			900		275	
COMPONENT, MOLE PCT							
METHANE.....	73.0	---	---	68.2	---	70.6	---
ETHANE.....	5.3	---	---	3.0	---	3.2	---
PROpane.....	3.2	---	---	3.5	---	3.1	---
N-BUTANE.....	1.1	---	---	1.3	---	1.1	---
ISOBUTANE.....	0.6	---	---	0.4	---	0.5	---
N-PENTANE.....	0.7	---	---	0.5	---	0.3	---
ISOPENTANE.....	0.1	---	---	0.3	---	0.3	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.1	---	---	0.3	---	0.2	---
NITROGEN.....	14.7	---	---	19.8	---	17.6	---
OXYGEN.....	0.2	---	---	TRACE	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.1	---
HELIUM.....	0.60	---	---	0.60	---	0.50	---
HEATING VALUE.....	1017	---	---	983	---	983	---
SPECIFIC GRAVITY.....	0.717	---	---	0.739	---	0.724	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8137 SAMPLE 6551			INDEX 8138 SAMPLE 6753			INDEX 8139 SAMPLE 6754		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	DALLAM		DALLAM			CALLAM		
FIELD.....	KERRICK-MALLETT		KERRICK-MALLETT			KERRICK-MALLETT		
WELL NAME.....	D. P. MCBRYDE 3 NO. 1		D. P. MCBRYDE 8 NO. 1			D. P. MCBRYDE 1 NO. 1		
LOCATION.....	SEC. 55, BLK. 1-T, T&NO SUR.		SEC. 55, BLK. 1-T, T&NO SUR.			SEC. 56, BLK. 1-T, T&NO SUR.		
OWNER.....	GULF OIL CORP.		GULF OIL CORP.			GULF OIL CORP.		
COMPLETED.....	05/05/58		05/05/58			05/08/58		
SAMPLED.....	08/18/58		08/18/58			07/18/58		
FORMATION.....	NOT GIVEN		PENN-CISCO			PENN-CISCO		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	NOT GIVEN		3394			3372		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		450			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	62.9		75.4			74.6		
ETHANE.....	4.5		5.5			5.4		
PROPANE.....	0.6		3.1			3.3		
N-BUTANE.....	0.9		0.6			1.3		
ISOBUTANE.....	0.5		0.2			0.5		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.2		0.1			0.5		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	24.0		12.7			11.3		
OXYGEN.....	3.2		0.0			TRACE		
ARGON.....	0.2		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.52		0.60			0.60		
HEATING VALUE.....	854		1029			1032		
SPECIFIC GRAVITY.....	0.751		0.703			0.710		
INDEX 8140 SAMPLE 14284			INDEX 8141 SAMPLE 14285			INDEX 8142 SAMPLE 13610		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	DE WITT		DE WITT			DE WITT		
FIELD.....	ARNECKEVILLE		ARNECKEVILLE			BALFOUR		
WELL NAME.....	FLORA PURCELL NO. 1-T		FLORA PURCELL NO. 1-C			MUSSELMAN CATTLE CO. NO. 1		
LOCATION.....	MUMFORD SUR. A-226		MUMFORD SUR. A-226			A-J HOUSE SUR. A-743		
OWNER.....	LONE STAR PRODUCING CO.		LONE STAR PRODUCING CO.			B.C.K. PRODUCTION CO.		
COMPLETED.....	01/02/73		01/02/73			11/08/70		
SAMPLED.....	03/05/75		03/05/75			05/24/73		
FORMATION.....	EOCE-YEGUA		EOCE-YEGUA			EOCE-YEGUA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5353		4867			5392		
WELLHEAD PRESSURE, PSIG.....	1647		1407			1325		
OPEN FLOW, MCFD.....	435		5600			2477		
COMPONENT, MOLE PCT								
METHANE.....	90.4		90.7			84.5		
ETHANE.....	5.0		5.0			5.5		
PROPANE.....	2.2		2.2			3.0		
N-BUTANE.....	0.5		0.4			0.7		
ISOBUTANE.....	0.6		0.1			0.7		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.3		0.3			0.4		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	0.7		0.3			0.7		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.3		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1125		1130			1146		
SPECIFIC GRAVITY.....	0.635		0.635			0.651		
INDEX 8143 SAMPLE 13611			INDEX 8144 SAMPLE 15742			INDEX 8145 SAMPLE 10202		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	DE WITT		DE WITT			DE WITT		
FIELD.....	BALFOUR		CHRISTMAS S			DANTELS RANCH		
WELL NAME.....	MUSSELMAN CATTLE CO. NO. 1		GREEN NO. 1			SIDNEY DANIELS, NO. 1		
LOCATION.....	A-J HOUSE SUR. A-743		DELORES ALDRETTE SUR. A-52			W.H. S. TOWNSEND SUR. A-457		
OWNER.....	B.C.K. PRODUCTION CO.		HILLIARD OIL & GAS, INC.			APACHE CORP.		
COMPLETED.....	11/08/70		12/13/77			04/12/64		
SAMPLED.....	05/24/73		09/-/79			10/08/65		
FORMATION.....	OLIG-VICKSBURG		EOCE-WILCOX			-FRIAR		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3320		10860			10117		
WELLHEAD PRESSURE, PSIG.....	940		7129			3130		
OPEN FLOW, MCFD.....	7799		7000			1660		
COMPONENT, MOLE PCT								
METHANE.....	99.2		87.2			84.9		
ETHANE.....	4.1		4.1			6.8		
PROPANE.....	TRACE		1.5			6.1		
N-BUTANE.....	0.0		0.4			0.6		
ISOBUTANE.....	0.0		0.5			0.5		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.0		0.5			0.3		
CYCLOPENTANE.....	0.0		0.1			0.1		
HEXANES PLUS.....	0.0		0.4			0.2		
NITROGEN.....	0.4		0.2			0.4		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.2			0.0		
CARBON DIOXIDE.....	0.2		4.2			3.0		
HELIUM.....	0.01		TRACE			0.01		
HEATING VALUE.....	1007		1098			1130		
SPECIFIC GRAVITY.....	0.558		0.671			0.681		
INDEX 8146 SAMPLE 17148			INDEX 8147 SAMPLE 14258			INDEX 8148 SAMPLE 12007		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	DE WITT		DE WITT			DE WITT		
FIELD.....	DRY HOLLOW		FRIAR RANCH W			GO WITT		
WELL NAME.....	COPENHAGEN NO. 1		STILES CATTLE CO. NO. 1			C. C. TIPS NO. 1		
LOCATION.....	NICHOLAS PECK SUR. A-383		JOHN DALEY SUR. A-11			CYRUS DONNELLY SUR. A-166		
OWNER.....	GULFSTREAM PETROLEUM CORP.		COASTAL STATES GAS PROD. CO.			LONE STAR PRODUCING CO.		
COMPLETED.....	12/-/83		02/27/73			03/14/69		
SAMPLED.....	12/-/83		02/10/75			08/22/69		
FORMATION.....	EOCE-WILCOX & PECK		EOCE-WILCOX			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	11024		9830			13071		
WELLHEAD PRESSURE, PSIG.....	5900		2394			9344		
OPEN FLOW, MCFD.....	6948		13100			13000		
COMPONENT, MOLE PCT								
METHANE.....	86.0		79.2			87.8		
ETHANE.....	6.5		6.8			4.7		
PROPANE.....	0.5		6.0			1.6		
N-BUTANE.....	0.3		0.5			6.4		
ISOBUTANE.....	0.3		1.2			0.2		
N-PENTANE.....	0.1		0.2			TRACE		
ISOPENTANE.....	0.3		TRACE			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.0		0.5			6.5		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.9		3.8			4.0		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE.....	1091		1091			1057		
SPECIFIC GRAVITY.....	0.667		0.743			0.652		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8149 8580	INDEX SAMPLE	8150 14896	INDEX SAMPLE	8151 14898
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DE WITT			DE WITT		DE WITT	
FIELD.....	HENZE			HOLLY		HOLLY	
WELL NAME.....	JIMMIE SPEED NO. 1			E. BOMBA NO. 1-A		E. BOMBA NO. 1-A	
LOCATION.....	JOE SANTOS LEAGUE A-420			JAMES DUFF SUR. A-153		JAMES DUFF SUR. A-153	
OWNER.....	SKELLY OIL CO.			HARKINS & CO.		HARKINS & CO.	
COMPLETED.....	03/22/61			08/08/74		08/08/74	
SAMPLED.....	06/14/62			02/07/77		02/07/77	
FORMATION.....	EOCE-WILCOX			NOT GIVEN		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	11291			NOT GIVEN		4802	
WELLHEAD PRESSURE, PSIG.....	7326			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	2600			2000		2000	
COMPONENT, MOLE PCT							
METHANE.....	84.7			89.6		88.1	
ETHANE.....	7.2			5.3		5.3	
PROpane.....	2.7			2.2		2.5	
N-BUTANE.....	0.6			0.6		1.0	
ISOBUTANE.....	0.6			0.5		0.8	
N-PENTANE.....	0.1			0.4		0.5	
ISOPENTANE.....	0.4			0.6		0.7	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.3		0.4	
NITROGEN.....	1.2			0.4		0.5	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.4			0.3		0.3	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1124			1146		1188	
SPECIFIC GRAVITY.....	0.677			0.647		0.674	
		INDEX SAMPLE	8152 10909	INDEX SAMPLE	8153 15025	INDEX SAMPLE	8154 5675
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DE WITT			DE WITT		DE WITT	
FIELD.....	PRIDGEN			REIFFERT		SALLY	
WELL NAME.....	ADA B. PRIDGEN NO. 1			REIFFERT-FRAIR NO. 1		AMELIA BOLDT NO. 1	
LOCATION.....	T & NO SUR. A-570			SAMGRR SUR. 9, A-442		F. RAGSDALE SUR. NO. 414	
OWNER.....	VIKING DRILLING CO.			BOK PRODUCTION CO., INC.		F. WILLIAM CARR	
COMPLETED.....	11/14/66			12/24/74		02/24/54	
SAMPLED.....	04/03/67			06/13/77		08/19/54	
FORMATION.....	EOCE-YEGUA			EOCE-YEGUA		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	5586			4933		4445	
WELLHEAD PRESSURE, PSIG.....	2150			1365		NOT GIVEN	
OPEN FLOW, MCFD.....	22500			3764		15000	
COMPONENT, MOLE PCT							
METHANE.....	90.2			94.2		90.4	
ETHANE.....	4.1			2.6		4.8	
PROpane.....	0.3			1.3		1.9	
N-BUTANE.....	0.7			0.4		0.4	
ISOBUTANE.....	0.6			0.3		0.6	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.4			0.1		0.3	
CYCLOPENTANE.....	0.2			TRACE		0.1	
HEXANES PLUS.....	0.4			0.1		0.3	
NITROGEN.....	0.7			0.6		0.7	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.2	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		TRACE	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1140			1076		1125	
SPECIFIC GRAVITY.....	0.643			0.604		0.633	
		INDEX SAMPLE	8155 11188	INDEX SAMPLE	8156 9162	INDEX SAMPLE	8157 12333
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DE WITT			DE WITT		DE WITT	
FIELD.....	SLICK N			TERRYVILLE SW		TERRYVILLE W	
WELL NAME.....	SINAST NO. 1			SW TERRYVILLE G.U. NO. 1		JOHN GARRETT NO. 1	
LOCATION.....	BRETON ODEW SUR. A-376			G. SWISHER SUR. A-421		JOHN R. FOSTER SUR. A-189	
OWNER.....	SAMEDAN OIL CORP.			HUMBLE OIL & REFINING CO.		KILROY CO. OF TEXAS, INC.	
COMPLETED.....	08/11/56			02/15/63		07/08/69	
SAMPLED.....	10/17/67			11/08/63		07/24/70	
FORMATION.....	EOCE-LULING			EOCE-WILCOX		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7545			11910		4889	
WELLHEAD PRESSURE, PSIG.....	24440			5810		1962	
OPEN FLOW, MCFD.....	27000			700		6700	
COMPONENT, MOLE PCT							
METHANE.....	80.6			85.2		89.6	
ETHANE.....	6.3			6.7		4.3	
PROpane.....	4.6			3.3		2.6	
N-BUTANE.....	1.6			0.7		0.6	
ISOBUTANE.....	0.6			0.3		0.7	
N-PENTANE.....	0.8			0.1		0.5	
ISOPENTANE.....	1.2			0.2		TRACE	
CYCLOPENTANE.....	0.3			TRACE		0.1	
HEXANES PLUS.....	0.7			0.0		0.3	
NITROGEN.....	1.0			0.0		0.8	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.6			3.1		0.1	
HELIUM.....	TRACE			0.04		0.01	
HEATING VALUE.....	1273			1120		1137	
SPECIFIC GRAVITY.....	0.753			0.676		0.643	
		INDEX SAMPLE	8158 12334	INDEX SAMPLE	8159 4041	INDEX SAMPLE	8160 4698
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DE WITT			DE WITT		DE WITT	
FIELD.....	TERRYVILLE W			THORASTON		WILDCAT	
WELL NAME.....	JOHN GARRETT NO. 1			PEL CONNELL NO. 1		ED ZINGERLE ET AL. NO. 1	
LOCATION.....	JOHN R. FOSTER SUR. A-189			LOCKHART		JAMES QUINN SUR. A-395	
OWNER.....	KILROY CO. OF TEXAS, INC.			ATLANTIC REFINING CO.		WESTERN NATURAL GAS CO.	
COMPLETED.....	07/08/69			10/24/48		10/24/48	
SAMPLED.....	07/24/70			05/29/45		03/12/49	
FORMATION.....	EOCE-YEGUA			EOCE-WILCOX		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4517			7855		8158	
WELLHEAD PRESSURE, PSIG.....	1797			2900		3437	
OPEN FLOW, MCFD.....	35000			33		16500	
COMPONENT, MOLE PCT							
METHANE.....	89.6			82.6		89.1	
ETHANE.....	4.8			10.2		5.3	
PROpane.....	2.5			---		2.3	
N-BUTANE.....	0.6			---		0.6	
ISOBUTANE.....	0.6			---		0.3	
N-PENTANE.....	0.3			---		0.2	
ISOPENTANE.....	0.1			---		0.1	
CYCLOPENTANE.....	0.1			---		0.1	
HEXANES PLUS.....	0.3			---		0.2	
NITROGEN.....	0.8			---		0.7	
OXYGEN.....	0.0			0.1		0.1	
ARGON.....	0.0			---		TRACE	
HYDROGEN.....	TRACE			---		0.1	
HYDROGEN SULFIDE**.....	0.0			---		---	
CARBON DIOXIDE.....	0.1			2.1		0.9	
HELIUM.....	0.01			TRACE		0.01	
HEATING VALUE.....	1349			1191		1117	
SPECIFIC GRAVITY.....	0.645			0.651		0.644	

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8161 SAMPLE 10680		INDEX 8162 SAMPLE 12009		INDEX 8163 SAMPLE 12032	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	DE WITT	DE WITT	DE WITT	DE WITT	
FIELD.....	YOKATOWN	YOKATOWN	YOKATOWN	YOKATOWN	
WELL NAME.....	ZULA E. BOYD NO. 1	WALTER FELLER NO. 2	L. W. CRISWELL SUR. A-116	E. N. BROUGHTON G. U. NO. 1	
LOCATION.....	JOHN WAY SUR. A-329			J. A. TINSLEY SUR. A-455	
OWNER.....	INDUSTRIAL GAS SUPPLY CORP.	MONSANTO CO.		TEXACO INC.	
COMPLETED.....	09/19/63	10/25/68		01/13/69	
SAMPLED.....	07/25/66	08/26/66		09/10/69	
FORMATION.....	CRET-EDWARDS	EDCF-WILCOX		EDCF-WILCOX	
GEOLOGIC PROVINCE CODE.....	220	220		220	
DEPTH, FEET.....	14124	10310		9613	
WELLHEAD PRESSURE, PSIG.....	4800	6679		3384	
OPEN FLOW, MCFD.....	3300	18000		2345	
COMPONENT, MOLE PCT					
METHANE.....	89.2	86.5	59.3		
ETHANE.....	1.4	0.4	16.8		
PROPANE.....	0.4	2.2	10.9		
N-BUTANE.....	0.2	0.5	2.8		
ISOBUTANE.....	0.1	0.4	1.9		
N-PENTANE.....	0.3	0.2	0.9		
ISOPENTANE.....	0.0	0.2	0.6		
CYCLOPENTANE.....	TRACE	0.1	0.2		
HEXANES PLUS.....	0.1	0.2	0.6		
NITROGEN.....	0.2	0.9	2.0		
OXYGEN.....	TRACE	0.0	TRACE		
ARGON.....	TRACE	0.0	TRACE		
HYDROGEN.....	0.0	0.1	TRACE		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	0.0	2.4	3.8		
HELIUM.....	TRACE	TRACE	TRACE		
HEATING VALUE.....	967	1110	1445		
SPECIFIC GRAVITY.....	0.660	0.663	0.910		

INDEX 8164 SAMPLE 12156		INDEX 8165 SAMPLE 13881		INDEX 8166 SAMPLE 11189	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	DE WITT	DE WITT	DE WITT	DENTON	
FIELD.....	YOKATOWN S	YOKATOWN S	YOKATOWN S	90LIVAR	
WELL NAME.....	OSCAR D. JOCHEN NO. 1	CLIFFORD F. SPIES NO. 1		HARRERSON	
LOCATION.....	G. H. WOOD SUR. 45, A482	J. T. TINSLEY SUR. A-455		NOT GIVEN	
OWNER.....	QUINTANA PETROLEUM CORP.	ROBERT MOSBACHER		BURK ROYALTY CO.	
COMPLETED.....	09/25/68	01/17/72		--/--/00	
SAMPLED.....	12/18/69	01/27/74		10/26/67	
FORMATION.....	EDCF-WILCOX	EDCF-WILCOX		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220	220		420	
DEPTH, FEET.....	9930	11100		1300	
WELLHEAD PRESSURE, PSIG.....	2863	6850		560	
OPEN FLOW, MCFD.....	3250	12500		750	
COMPONENT, MOLE PCT					
METHANE.....	85.5	62.8	43.6		
ETHANE.....	6.2	13.7	1.2		
PROPANE.....	0.9	0.9	0.3		
N-BUTANE.....	0.5	1.1	0.1		
ISOBUTANE.....	0.4	1.7	0.0		
N-PENTANE.....	0.1	0.2	0.1		
ISOPENTANE.....	0.2	0.9	0.1		
CYCLOPENTANE.....	TRACE	0.1	TRACE		
HEXANES PLUS.....	0.1	0.5	0.1		
NITROGEN.....	1.1	3.0	53.4		
OXYGEN.....	0.1	1.3	0.1		
ARGON.....	0.0	TRACE	0.1		
HYDROGEN.....	0.1	TRACE	0.2		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	3.1	6.7	TRACE		
HELIUM.....	0.05	TRACE	0.75		
HEATING VALUE.....	1088	1205	489		
SPECIFIC GRAVITY.....	0.665	0.852	0.789		

INDEX 8167 SAMPLE 4943		INDEX 8168 SAMPLE 7205		INDEX 8169 SAMPLE 10896	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	DENTON	DIMMIT	DIMMIT	DIMMIT	
FIELD.....	NOT GIVEN	CELESTINE-FAY	NELSON	NELSON	
WELL NAME.....	FORESTER NO. 1	SHOOK NO. 4	STRAUDER G. NELSON NO. 1	STRAUDER G. NELSON NO. 1	
LOCATION.....	W. WILSON SUR. A-1381	SEC. 29, I&GN RR, A903 SUR.	I. J. WEBB SUR. NO.4 A-1460	I. J. WEBB SUR. NO.4 A-1460	
OWNER.....	J. M. HICKEY & SONS	MICHEL T. HALROUTY, ET AL.	GULF OIL CORP.	GULF OIL CORP.	
COMPLETED.....	10/01/50	08/25/59	09/24/66	09/24/66	
SAMPLED.....	NOT GIVEN	09/01/59	09/07/67	09/07/67	
FORMATION.....	NOT GIVEN	CRET-OLMOS	CRET-OLMOS	CRET-OLMOS	
GEOLOGIC PROVINCE CODE.....	420	220	220	220	
DEPTH, FEET.....	NOT GIVEN	2947	3300	3300	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	920	1500	1500	
OPEN FLOW, MCFD.....	NOT GIVEN	1500	7350	7350	
COMPONENT, MOLE PCT					
METHANE.....	43.3	24.1	82.9		
ETHANE.....	1.6	3.7	8.9		
PROPANE.....	1.1	0.1	1.9		
N-BUTANE.....	0.3	0.1	0.7		
ISOBUTANE.....	0.1	0.2	0.2		
N-PENTANE.....	0.1	TRACE	0.4		
ISOPENTANE.....	0.0	TRACE	0.1		
CYCLOPENTANE.....	TRACE	0.1	0.1		
HEXANES PLUS.....	0.1	0.1	0.3		
NITROGEN.....	52.2	1.2	1.5		
OXYGEN.....	0.1	0.0	TRACE		
ARGON.....	0.1	0.0	TRACE		
HYDROGEN.....	---	TRACE	0.0		
HYDROGEN SULFIDE.....	---	0.0	0.0		
CARBON DIOXIDE.....	0.3	TRACE	TRACE		
HELIUM.....	0.77	0.02	0.02		
HEATING VALUE.....	1050	1052	1205		
SPECIFIC GRAVITY.....	0.801	0.333	0.692		

INDEX 8170 SAMPLE 13914		INDEX 8171 SAMPLE 17894		INDEX 8172 SAMPLE 15788	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	DIMMIT	DIMMIT	DIMMIT	DIMMIT	
FIELD.....	PENA CREEK	SHEPARD	STRAIT	STRAIT	
WELL NAME.....	L. STEWART NO. 1	SHENARD NO. 4	STRAIT G.U. NO. 1	STRAIT G.U. NO. 1	
LOCATION.....	WILSON SUR. 654, A-1452	WILSON SUR. 74, A-12	BLK. 1, HCN RR CO.	BLK. 1, HCN RR CO.	
OWNER.....	HUGHES & HUGHES OIL & GAS	HOME PETROLEUM CORP.	IKE LUCIELADY, INC.	IKE LUCIELADY, INC.	
COMPLETED.....	10/13/72	--/--/00	08/12/79	08/12/79	
SAMPLED.....	02/27/76	11/07/76	09/25/79	09/25/79	
FORMATION.....	CRET-OLMOS	CRET-OLMOS	CRET-EDWARDS	CRET-EDWARDS	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	2341	4596	7189	7189	
WELLHEAD PRESSURE, PSIG.....	775	NOT GIVEN	3000	3000	
OPEN FLOW, MCFD.....	3400	4250	89000	89000	
COMPONENT, MOLE PCT					
METHANE.....	94.3	73.6	93.6		
ETHANE.....	3.8	8.6	1.2		
PROPANE.....	0.1	3.6	3.4		
N-BUTANE.....	TRACE	0.1	0.2		
ISOBUTANE.....	0.1	0.2	0.2		
N-PENTANE.....	0.0	0.3	0.1		
ISOPENTANE.....	0.1	0.5	0.1		
CYCLOPENTANE.....	TRACE	0.1	TRACE		
HEXANES PLUS.....	TRACE	0.4	0.1		
NITROGEN.....	0.8	1.2	1.9		
OXYGEN.....	0.0	TRACE	TRACE		
ARGON.....	0.0	TRACE	TRACE		
HYDROGEN.....	0.0	TRACE	0.0		
HYDROGEN SULFIDE.....	0.0	0.0	0.6		
CARBON DIOXIDE.....	0.7	0.1	1.6		
HELIUM.....	0.01	0.02	0.01		
HEATING VALUE.....	1037	1278	1011		
SPECIFIC GRAVITY.....	0.589	0.739	0.604		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 50 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8173 7206	INDEX SAMPLE	8174 4867	INDEX SAMPLE	8175 3862
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DIMMIT			DIMMIT		DUVAL	
FIELD.....	WILCOAT			MINER GARDEN		AGUA PRIETA	
WELL NAME.....	SHOOK NO. 7			E. BACKNIGHT NO. 2		VALENTIN SEPULVEDA NO. 2-B	
LOCATION.....	SEC. 6, I&GN RR, A-830 SUR.			R. S. RIDDLE SUR. NO. A-1317		SEC. 15	
OWNER.....	MICHEL L. HALBOUTY, ET AL.			CONTINENTAL OIL CO.		TAYLOR REFINING CO.	
COMPLETED.....	07/29/59			02/01/50		02/28/44	
SAMPLED.....	09/01/59			04/05/50		06/01/44	
FORMATION.....	CRET-OLMOS			CRET-OLMOS		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	2892			2804		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	900			1293		NOT GIVEN	
OPEN FLOW, MCFD.....	2000			5100		36000	
COMPONENT, MOLE PCT							
METHANE.....	88.5	-----		92.7	-----	74.1	-----
ETHANE.....	3.5	-----		3.4	-----	21.3	-----
PROpane.....	2.0	-----		1.1	-----	---	-----
N-BUTANE.....	0.7	-----		0.7	-----	---	-----
ISOBUTANE.....	0.7	-----		0.3	-----	---	-----
N-PENTANE.....	TRACE	-----		0.2	-----	---	-----
ISOPENTANE.....	0.5	-----		0.1	-----	---	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	---	-----
HEXANES PLUS.....	0.3	-----		0.2	-----	---	-----
NITROGEN.....	3.3	-----		0.8	-----	0.0	-----
OXYGEN.....	0.3	-----		0.2	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	TRACE	-----		0.3	-----	0.5	-----
HELIUM.....	0.03	-----		0.02	-----	0.00	-----
HEATING VALUE.....	1103	-----		1088	-----	1173	-----
SPECIFIC GRAVITY.....	0.649	-----		0.615	-----	0.665	-----
		INDEX SAMPLE	8176 15086	INDEX SAMPLE	8177 4753	INDEX SAMPLE	8178 4885
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DUVAL			DUVAL		CHILTIPIN	
FIELD.....	BRELUM			CANTU		FLORENCIA GARCIA	
WELL NAME.....	DCRC NCT-23 NO. 7			CENORIO CANTU JR. NO. 1		M. G. PEREZ SUR. NO. 412	
LOCATION.....	J. POITEVENT SUR. A-447			SEC. 11, BENITO ROMOS SUR.		LULING OIL & GAS CO.	
OWNER.....	TEXACO INC.			TEXAS CO.		10/20/49	
COMPLETED.....	01/07/75			04/08/49		03/16/50	
SAMPLED.....	08/-/77			06/11/49		OLIG-FRTO	
FORMATION.....	EOCE-CHERNOSKY			EOCE		220	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	1526			4670		3268	
WELLHEAD PRESSURE, PSIG.....	660			1453		1068	
OPEN FLOW, MCFD.....	5600			375		2280	
COMPONENT, MOLE PCT							
METHANE.....	97.9	-----		88.3	-----	95.5	-----
ETHANE.....	0.1	-----		0.6	-----	3.6	-----
PROpane.....	0.1	-----		2.2	-----	0.1	-----
N-BUTANE.....	0.0	-----		0.6	-----	0.0	-----
ISOBUTANE.....	0.1	-----		0.3	-----	0.0	-----
N-PENTANE.....	TRACE	-----		0.2	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.2	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		0.3	-----	0.0	-----
NITROGEN.....	1.6	-----		2.7	-----	0.4	-----
OXYGEN.....	TRACE	-----		0.0	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.1	-----	0.2	-----
CARBON DIOXIDE.....	0.1	-----		0.03	-----	0.01	-----
HELIUM.....	0.01	-----		1104	-----	1036	-----
HEATING VALUE.....	1005	-----		0.544	-----	0.577	-----
SPECIFIC GRAVITY.....	0.567	-----					
		INDEX SAMPLE	8179 4153	INDEX SAMPLE	8180 10154	INDEX SAMPLE	8181 11649
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DUVAL			DUVAL		DUVAL	
FIELD.....	CONOCO-DRISCOLL			CONOCO-DRISCOLL		DR-79 UNIT 2 NO. 1	
WELL NAME.....	CLARA DRISCOLL NO. 4			ROBERT DRISCOLL NO. 112		SANTOS MONCAOS SUR. 262	
LOCATION.....	24 MI. N OF BENEVIDES			J.P. NELSON SUR. NO. 448-A9120		HUMBLE OIL & REFINING CO.	
OWNER.....	EDWIN B. COX & JAKE L. HAMON			CONTINENTAL OIL CO.		05/23/68	
COMPLETED.....	06/13/45			10/06/64		09/18/68	
SAMPLED.....	10/01/46			09/24/65		EOCE-WILCOX	
FORMATION.....	EOCE-LOMA NOVIO			EOCE-VEGUA		220	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3170			4007		7218	
WELLHEAD PRESSURE, PSIG.....	700			1265		2507	
OPEN FLOW, MCFD.....	6000			9400		3900	
COMPONENT, MOLE PCT							
METHANE.....	96.0	-----		89.7	-----	87.2	-----
ETHANE.....	1.6	-----		6.3	-----	5.5	-----
PROpane.....	---	-----		0.3	-----	2.7	-----
N-BUTANE.....	---	-----		0.3	-----	0.8	-----
ISOBUTANE.....	---	-----		0.6	-----	0.4	-----
N-PENTANE.....	---	-----		TRACE	-----	0.2	-----
ISOPENTANE.....	---	-----		0.5	-----	0.4	-----
CYCLOPENTANE.....	---	-----		0.1	-----	0.3	-----
HEXANES PLUS.....	---	-----		0.3	-----	0.6	-----
NITROGEN.....	0.0	-----		0.4	-----	0.3	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	---	-----		TRACE	-----	0.1	-----
HYDROGEN.....	---	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	2.4	-----		0.3	-----	1.6	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.02	-----
HEATING VALUE.....	1101	-----		0.638	-----	1160	-----
SPECIFIC GRAVITY.....	0.586	-----				0.676	-----
		INDEX SAMPLE	8182 2608	INDEX SAMPLE	8183 2276	INDEX SAMPLE	8184 4513
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DUVAL			DUVAL		DUVAL	
FIELD.....	FREER			GOVERNMENT WELLS		GOVERNMENT WELLS	
WELL NAME.....	JOHNSON NO. 5			J. O. WILSON NO. 1		H. WENDT NO. 1	
LOCATION.....	TEXAS CO.			SEC. 136		NOT GIVEN	
OWNER.....	TEXAS CO.			UNITED GAS CORP., ET AL.		RALPH E. FAIR, INC.	
COMPLETED.....	01/15/33			01/14/31		03/06/48	
SAMPLED.....	02/17/33			02/29/31		05/04/58	
FORMATION.....	NOT GIVEN			EOCE		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	2251			2244		7488	
WELLHEAD PRESSURE, PSIG.....	825			650		3840	
OPEN FLOW, MCFD.....	15000			NOT GIVEN		16000	
COMPONENT, MOLE PCT							
METHANE.....	98.6	-----		95.1	-----	81.0	-----
ETHANE.....	0.0	-----		0.0	-----	14.8	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	0.5	-----		3.6	-----	2.0	-----
OXYGEN.....	0.5	-----		1.0	-----	0.8	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.4	-----		0.3	-----	1.4	-----
HELIUM.....	TRACE	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	999	-----		963	-----	1086	-----
SPECIFIC GRAVITY.....	0.563	-----		0.578	-----	0.654	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8185 4593			INDEX SAMPLE	8186 16677			INDEX SAMPLE	8187 4655
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	DUVAL			DUVAL				DUVAL			
FIELD.....	GOVERNMENT WELLS S			GUERRA				HAGIST RANCH			
WELL NAME.....	J. O. WILSON NO. 21			G. GUERRA, ET AL. NO. 1				HAGIST RANCH NO. 1			
LOCATION.....	SEC. 136, WHITE SUR.			A-189, W. MEYER 146 SUR.				SEC. 267			
OWNER.....	MAGNOLIA PETROLEUM CO.			AMINOIL U.S.A., INC.				ATLANTIC REFINING CO.			
COMPLETED.....	06/--/48			--/--/79				10/06/48			
SAMPLED.....	10/12/48			10/04/82				01/19/49			
FORMATION.....	EOCE-COLE			EOCE-WILCOX				EOCE-WILCOX			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	1450			10500				7180			
WELLHEAD PRESSURE, PSIG.....	6705			6700				3120			
OPEN FLOW, MCFD.....	28000			10000				1600			
COMPONENT, MOLE PCT.....											
METHANE.....	98.0			90.7				87.9			
ETHANE.....	1.6			2.5				5.7			
PROpane.....	---			0.5				2.6			
N-BUTANE.....	---			0.1				0.8			
ISOBUTANE.....	---			0.1				0.2			
N-PENTANE.....	---			0.1				0.2			
ISOPENTANE.....	---			0.1				0.2			
CYCLOPENTANE.....	---			TRACE				0.1			
HEXANES PLUS.....	---			0.1				0.4			
NITROGEN.....	0.0			0.2				0.4			
OXYGEN.....	0.2			TRACE				0.1			
ARGON.....	---			TRACE				TRACE			
HYDROGEN.....	---			0.1				TRACE			
HYDROGEN SULFIDE**.....	---			0.0				0.0			
CARBON DIOXIDE.....	0.2			5.4				1.3			
HELIUM.....	TRACE			TRACE				0.01			
HEATING VALUE.....	1021			997				1139			
SPECIFIC GRAVITY.....	0.565			0.633				0.657			
		INDEX SAMPLE	8188 15643			INDEX SAMPLE	8189 4779			INDEX SAMPLE	8190 14002
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	DUVAL			DUVAL				DUVAL			
FIELD.....	HAGIST RANCH			HOFFMAN				HOFFMAN			
WELL NAME.....	J. R. FOSTER NO. 5			J. FLORES NO. 1				A. WEIL NO. B-2			
LOCATION.....	SUR. 270, A-1642			SEC. 118				S&M SUR. A-524			
OWNER.....	ARCO OIL & GAS CO.			BRIDWELL OIL CO.				KILLAM & HURD, LTD.			
COMPLETED.....	03/16/76			06/19/49				09/15/71			
SAMPLED.....	06/13/79			09/20/49				05/02/74			
FORMATION.....	EOCE-WILCOX			OLIG-				EOCE-JACKSON			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	9300			1938				1970			
WELLHEAD PRESSURE, PSIG.....	3185			670				600			
OPEN FLOW, MCFD.....	2450			2000				5600			
COMPONENT, MOLE PCT.....											
METHANE.....	89.0			97.7				98.4			
ETHANE.....	5.4			0.3				TRACE			
PROpane.....	1.8			0.1				TRACE			
N-BUTANE.....	0.4			0.1				0.0			
ISOBUTANE.....	0.3			0.0				0.0			
N-PENTANE.....	0.1			0.1				0.0			
ISOPENTANE.....	0.2			0.1				0.0			
CYCLOPENTANE.....	TRACE			TRACE				0.0			
HEXANES PLUS.....	0.1			0.0				0.0			
NITROGEN.....	0.2			1.4				1.4			
OXYGEN.....	0.0			0.1				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			0.0				TRACE			
HYDROGEN SULFIDE**.....	0.0			---				0.0			
CARBON DIOXIDE.....	2.4			0.1				0.1			
HELIUM.....	TRACE			0.01				0.01			
HEATING VALUE.....	1087			1011				997			
SPECIFIC GRAVITY.....	0.642			0.571				0.561			
		INDEX SAMPLE	8191 13530			INDEX SAMPLE	8192 4480			INDEX SAMPLE	8193 3861
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	DUVAL			DUVAL				DUVAL			
FIELD.....	KOHLER NE			LONGHORN S				MURALLA			
WELL NAME.....	V. KOHLER "A" NO. 89F			LEROY DENMAN A-1				SEC. M. SEPULVEDA NO. 1-A			
LOCATION.....	EXXON CO. U.S.A.			NOT GIVEN				SEC. 12			
OWNER.....	EXXON CO. U.S.A.			HIAATHA OIL & GAS CO.				TAYLOR REFINING CO.			
COMPLETED.....	08/13/70			01/31/48				12/17/43			
SAMPLED.....	02/08/73			03/31/48				06/01/44			
FORMATION.....	EOCE-YEGUA			OLIG-				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	3642			4842				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	1271			925				NOT GIVEN			
OPEN FLOW, MCFD.....	59000			NOT GIVEN				2700			
COMPONENT, MOLE PCT.....											
METHANE.....	89.6			83.3				85.6			
ETHANE.....	4.0			14.7				13.6			
PROpane.....	0.3			---				---			
N-BUTANE.....	0.5			---				---			
ISOBUTANE.....	0.0			---				---			
N-PENTANE.....	0.2			---				---			
ISOPENTANE.....	0.1			---				---			
CYCLOPENTANE.....	TRACE			---				---			
HEXANES PLUS.....	0.1			---				---			
NITROGEN.....	3.8			1.2				0.0			
OXYGEN.....	0.7			0.4				0.3			
ARGON.....	TRACE			---				---			
HYDROGEN.....	0.0			---				---			
HYDROGEN SULFIDE**.....	0.0			---				---			
CARBON DIOXIDE.....	0.7			0.4				0.5			
HELIUM.....	0.01			0.01				TRACE			
HEATING VALUE.....	1018			1107				1111			
SPECIFIC GRAVITY.....	0.617			0.638				0.528			
		INDEX SAMPLE	8194 4281			INDEX SAMPLE	8195 4678			INDEX SAMPLE	8196 9171
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	NOT GIVEN			DUVAL				DUVAL			
FIELD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELL NAME.....	J. F. WELDER MEARS NO. 8C			HAGIST NO. 2				ADLEE PARR A NO. 4			
LOCATION.....	SEC. 102, SAM. ALEXANDER SUR			BSE SUR.				ANDRES GARCIA SAN ANDRES GRT			
OWNER.....	HICKOK & REYNOLDS, INC.			DELPHI OIL CORP.				SUPERIOR OIL CO.			
COMPLETED.....	11/28/46			10/--/49				--/--/00			
SAMPLED.....	02/06/47			02/14/50				11/14/63			
FORMATION.....	EOCE-LOMA NOVIO			EOCE-WILCOX U				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	2520			7100				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	1005			2500				NOT GIVEN			
OPEN FLOW, MCFD.....	4000			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	99.2			87.2				90.7			
ETHANE.....	0.0			4.9				4.7			
PROpane.....	---			2.8				1.9			
N-BUTANE.....	---			0.8				0.6			
ISOBUTANE.....	---			0.1				0.6			
N-PENTANE.....	---			0.4				0.1			
ISOPENTANE.....	---			0.0				0.3			
CYCLOPENTANE.....	---			0.1				0.1			
HEXANES PLUS.....	---			0.2				0.2			
NITROGEN.....	0.1			0.6				0.6			
OXYGEN.....	0.4			0.1				0.6			
ARGON.....	---			TRACE				TRACE			
HYDROGEN.....	---			---				0.0			
HYDROGEN SULFIDE**.....	---			---				0.0			
CARBON DIOXIDE.....	0.3			1.4				0.2			
HELIUM.....	0.01			0.01				0.01			
HEATING VALUE.....	1005			1137				1124			
SPECIFIC GRAVITY.....	0.560			0.655				0.634			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8197 5918	INDEX SAMPLE	8198 16451	INDEX SAMPLE	8199 17590
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DUVAL			DUVAL		DUVAL	
FIELD.....	PETERS			RANCHO SOLO		REALITOS S	
WELL NAME.....	W. C. PETERS NO. 1			FROST NAT. BANK&TRUST NO. 1		BARBARA SHAFFER BEACH NO. 1	
LOCATION.....	T. A. CAVITT SUR. 34			G. J. RYNOLOS 32 SUR. A-1163		SANTOS GARGIA GRANT A-1985	
OWNER.....	MONTEREY OIL CO.			TERRA RESOURCES, INC.		UNION TEXAS PETROLEUM CORP.	
COMPLETED.....	04/13/55			03/04/82		02/07/85	
SAMPLED.....	08/17/55			03/04/82		01/31/85	
FORMATION.....	EOCE-WILCOX U			EOCE-WILCOX		EOCE-GUEN CITY	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8712			10253		9226	
WELLHEAD PRESSURE, PSIG.....	4772			6450		5500	
OPEN FLOW, MCFD.....	3600			1950		2000	
COMPONENT, MOLE PCT							
METHANE.....	89.1			88.5		85.4	
ETHANE.....	5.3			2.2		6.5	
PROPANE.....	1.8			0.2		2.8	
N-BUTANE.....	0.6			0.1		0.7	
ISOBUTANE.....	0.1			TRACE		0.5	
N-PENTANE.....	TRACE			0.0		0.2	
ISOPENTANE.....	0.2			0.2		0.3	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.3	
NITROGEN.....	0.2			0.4		0.3	
OXYGEN.....	TRACE			0.1		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.8			3.1		2.8	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	1075			952		1135	
SPECIFIC GRAVITY.....	0.640			0.559		0.681	
		INDEX SAMPLE	8200 9487	INDEX SAMPLE	8201 12515	INDEX SAMPLE	8202 12516
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DUVAL			DUVAL		DUVAL	
FIELD.....	ROSITA W			SEVEN SISTERS		SEVEN SISTERS	
WELL NAME.....	HOFFMAN NO. 1			WELDER G.U. NO. 4		WELDER G.U. NO. 4	
LOCATION.....	SEC. 90, CHAS. W. PETRIE SUR.			J. POITEVENT SUR. NO. 385		J. POITEVENT SUR. NO. 385	
OWNER.....	J. M. HUBER CORP. & SHELL OI			ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	11/26/63			12/28/68		12/28/68	
SAMPLED.....	07/09/64			11/05/70		11/05/70	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	10444			9524		9997	
WELLHEAD PRESSURE, PSIG.....	50500			5496		6346	
OPEN FLOW, MCFD.....	50500			15400		61000	
COMPONENT, MOLE PCT							
METHANE.....	84.3			88.8		84.1	
ETHANE.....	7.4			2.4		7.1	
PROPANE.....	0.3			1.0		2.4	
N-BUTANE.....	0.4			0.1		0.4	
ISOBUTANE.....	0.1			0.3		0.5	
N-PENTANE.....	0.1			0.0		0.2	
ISOPENTANE.....	TRACE			0.1		0.2	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.0			2.2		0.9	
NITROGEN.....	0.0			0.3		0.3	
OXYGEN.....	TRACE			0.1		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	4.2			3.7		3.7	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	1098			1010		1099	
SPECIFIC GRAVITY.....	0.678			0.635		0.681	
		INDEX SAMPLE	8203 4594	INDEX SAMPLE	8204 4642	INDEX SAMPLE	8205 4147
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DUVAL			DUVAL		DUVAL	
FIELD.....	SEVENTY-SIX			DUVAL		DUVAL	
WELL NAME.....	SEC. 76, CC SD&RG GN RR SUR.			SQUIRE		STRAKE	
LOCATION.....	MAGNOLIA PETROLEUM CO.			WELDER NO. E-2		JOHN O. YATES NO. 2-A	
OWNER.....	05/-/48			M. G. ANDROSS SUR. NO. 24		JESSIE HARRIS SUR. NO. 5	
COMPLETED.....	10/12/48			JOHN F. CAMP & SONS		SANTA CLARA OIL CO., ET AL	
SAMPLED.....	EOCE-MIRANDO			06/29/46		06/29/46	
FORMATION.....	220			12/08/48		10/08/46	
GEOLOGIC PROVINCE CODE.....	220			EOCE-YEGUA		OLIG-FRIO	
DEPTH, FEET.....	2100			220		220	
WELLHEAD PRESSURE, PSIG.....	738			3805		2248	
OPEN FLOW, MCFD.....	17000			1465		915	
COMPONENT, MOLE PCT				10500		3400	
METHANE.....	94.5			91.1		97.8	
ETHANE.....	4.3			6.9		0.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.6			1.5		1.8	
OXYGEN.....	0.3			0.3		0.2	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.3			0.2		0.2	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1034			1048		991	
SPECIFIC GRAVITY.....	0.583			0.598		0.565	
		INDEX SAMPLE	8206 13109	INDEX SAMPLE	8207 3895	INDEX SAMPLE	8208 13880
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	DUVAL			DUVAL		DUVAL	
FIELD.....	STRAKE N			THOMAS LOCKHART		VIGGO	
WELL NAME.....	DRISCOLL ESTATE NO. 2			ELIZABETH PARR B NO. 2		D. V. KOHLER A NO. 970	
LOCATION.....	SEC. 329, S&M SUR. A-581			8 MT. NW OF SAN DIEGO		B&S SUR. 481, A160	
OWNER.....	EDWIN L COX			PAN AMERICAN PRODUCTION CO.		EXXON CO., U.S.A.	
COMPLETED.....	12/18/59			---		08/02/72	
SAMPLED.....	12/10/71			---		01/30/74	
FORMATION.....	EOCE-COLE			---		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7489			4000		3218	
WELLHEAD PRESSURE, PSIG.....	800			NOT GIVEN		600	
OPEN FLOW, MCFD.....	800			48000		50000	
COMPONENT, MOLE PCT							
METHANE.....	98.7			96.3		94.0	
ETHANE.....	2.1			---		5.7	
PROPANE.....	TRACE			---		0.2	
N-BUTANE.....	0.0			---		0.0	
ISOBUTANE.....	0.0			---		0.0	
N-PENTANE.....	0.0			---		0.0	
ISOPENTANE.....	0.0			---		0.1	
CYCLOPENTANE.....	0.0			---		0.1	
HEXANES PLUS.....	0.0			---		TRACE	
NITROGEN.....	0.8			0.0		0.5	
OXYGEN.....	0.1			0.5		0.0	
ARGON.....	TRACE			---		TRACE	
HYDROGEN.....	0.0			---		0.0	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.2			---		0.7	
HELIUM.....	0.61			TRACE		TRACE	
HEATING VALUE.....	1002			1020		1053	
SPECIFIC GRAVITY.....	0.560			0.576		0.596	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	8209 5449	INDEX SAMPLE	8210 4945	INDEX SAMPLE	8211 4154
STATE.....	TEXAS		TEXAS		TEXAS	
COUNTY.....	DUVAL		DUVAL		DUVAL	
FIELD.....	VIGOR E		WATER WELL		WILDCAT	
WELL NAME.....	SK&K SUR. A-76		C. V. HAHN NO. 1		LEILA PETERS 1199A NO. 1	
LOCATION.....	SK&K SUR. 165		E. RODRIGUEZ SUR. NO. A-1881		24 MI. NW OF BENEVIDES	
OWNER.....	HUMBLE OIL & REFINING CO.		FAIR-WOODWARD		EDWIN B. COX & JAKE L. HAMON	
COMPLETED.....	12/14/52		05/23/50		07/17/46	
SAMPLED.....	04/18/53		10/17/50		10/01/46	
FORMATION.....	EOCE-YEGUA		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	220		220		220	
DEPTH, FEET.....	3244		7575		2613	
WELLHEAD PRESSURE, PSIG.....	1100		NOT GIVEN		790	
OPEN FLOW, MCFD.....	4200		11200		11500	
COMPONENT, MOLE PCT						
METHANE.....	93.3		87.7		99.3	
ETHANE.....	3.2		5.8		0.0	
PROPANE.....	0.0		2.3		---	
N-BUTANE.....	0.1		0.6		---	
ISOBUTANE.....	0.0		0.4		---	
N-PENTANE.....	0.1		0.3		---	
ISOPENTANE.....	0.0		0.0		---	
CYCLOPENTANE.....	TRACE		0.1		---	
HEXANES PLUS.....	0.2		0.3		---	
NITROGEN.....	2.9		TRACE		0.0	
OXYGEN.....	0.3		0.1		0.3	
ARGON.....	TRACE		0.0		---	
HYDROGEN.....	TRACE		---		---	
HYDROGEN SULFIDE.....	0.0		---		---	
CARBON DIOXIDE.....	0.2		2.4		0.4	
HELIUM.....	0.01		0.01		TRACE	
HEATING VALUE.....	1020		1118		1006	
SPECIFIC GRAVITY.....	0.593		0.660		0.560	

	INDEX SAMPLE	8212 4624	INDEX SAMPLE	8213 4625	INDEX SAMPLE	8214 4745
STATE.....	TEXAS		TEXAS		TEXAS	
COUNTY.....	DUVAL		DUVAL		DUVAL	
FIELD.....	WILDCAT		WILDCAT		WILDCAT	
WELL NAME.....	LEILA PETERS NO. 1		AGENT NO. 2		DUVAL RANCH NO. 6	
LOCATION.....	SEC. 159		SEC. 159, J. POITEVENT SUR.		SEC. 196	
OWNER.....	COX & HAMON		EDWIN B. COX, ET AL.		MAGNOLIA PETROLEUM CO.	
COMPLETED.....	12/31/47		01/06/48		03/03/49	
SAMPLED.....	11/25/48		10/14/48		05/18/49	
FORMATION.....	NOT GIVEN		EOCE-GOVERNMENT WELLS SAND		EOCE-JACKSON	
GEOLOGIC PROVINCE CODE.....	220		220		220	
DEPTH, FEET.....	2485		2490		1403	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		740		225	
OPEN FLOW, MCFD.....	NOT GIVEN		9500		17000	
COMPONENT, MOLE PCT						
METHANE.....	94.0		96.8		98.5	
ETHANE.....	4.8		2.5		0.1	
PROPANE.....	---		---		0.1	
N-BUTANE.....	---		---		TRACE	
ISOBUTANE.....	---		---		0.0	
N-PENTANE.....	---		---		0.1	
ISOPENTANE.....	---		---		0.0	
CYCLOPENTANE.....	---		---		0.0	
HEXANES PLUS.....	---		---		0.1	
NITROGEN.....	0.3		---		0.9	
OXYGEN.....	0.3		0.3		0.1	
ARGON.....	---		---		TRACE	
HYDROGEN.....	---		---		0.0	
HYDROGEN SULFIDE.....	---		---		---	
CARBON DIOXIDE.....	0.6		0.4		0.1	
HELIUM.....	0.01		0.01		0.01	
HEATING VALUE.....	1038		1025		1011	
SPECIFIC GRAVITY.....	0.587		0.572		0.566	

	INDEX SAMPLE	8215 5121	INDEX SAMPLE	8216 70	INDEX SAMPLE	8217 1780
STATE.....	TEXAS		TEXAS		TEXAS	
COUNTY.....	DUVAL		EASTLAND		EASTLAND	
FIELD.....	WILDCAT		CISCO		CISCO N	
WELL NAME.....	SINCLAIR HEIRS NO. 2		WARD NO. 1		WINCHELL NO. 1	
LOCATION.....	ARM SUR. NO. A-45		SEC. 151, HOKIE SUR.		SEC. 185	
OWNER.....	MAGNOLIA PETROLEUM CO.		GILMAN & SIMMONS		EASTLAND OIL CO.	
COMPLETED.....	06/29/51		12/07/19		01/30/29	
SAMPLED.....	10/29/51		02/23/20		05/18/29	
FORMATION.....	EOCE-TARANCAHAUS		NOT GIVEN		PENN-RANGER	
GEOLOGIC PROVINCE CODE.....	220		425		425	
DEPTH, FEET.....	2165		3326		3736	
WELLHEAD PRESSURE, PSIG.....	770		1100		1575	
OPEN FLOW, MCFD.....	7125		6000		1480	
COMPONENT, MOLE PCT						
METHANE.....	97.1		71.7		64.3	
ETHANE.....	0.3		14.9		27.0	
PROPANE.....	0.1		---		---	
N-BUTANE.....	0.2		---		---	
ISOBUTANE.....	0.0		---		---	
N-PENTANE.....	0.2		---		---	
ISOPENTANE.....	0.0		---		---	
CYCLOPENTANE.....	TRACE		---		---	
HEXANES PLUS.....	0.1		---		---	
NITROGEN.....	1.3		12.6		7.8	
OXYGEN.....	0.1		0.7		0.2	
ARGON.....	TRACE		---		---	
HYDROGEN.....	0.0		---		---	
HYDROGEN SULFIDE.....	---		---		---	
CARBON DIOXIDE.....	0.7		0.3		0.4	
HELIUM.....	0.01		0.19		0.25	
HEATING VALUE.....	1010		984		1135	
SPECIFIC GRAVITY.....	0.580		0.583		0.724	

	INDEX SAMPLE	8218 9592	INDEX SAMPLE	8219 72	INDEX SAMPLE	8220 89
STATE.....	TEXAS		TEXAS		TEXAS	
COUNTY.....	EASTLAND		EASTLAND		EASTLAND	
FIELD.....	WILDCAT		WILDCAT		WILDCAT	
WELL NAME.....	C. F. PIPPEN NO. 1		HOLCOMB NO. 2		I. C. HARRELL NO. 1	
LOCATION.....	SEC. 1E&L NO. 3171		M. E. HOLCOMB SUR.		NOT GIVEN	
OWNER.....	LOHL STAR PRODUCING CO.		COSDEN OIL & GAS CO.		DUQUESNE OIL CORP.	
COMPLETED.....	06/29/51		08/11/19		01/11/20	
SAMPLED.....	10/08/54		02/25/20		03/01/20	
FORMATION.....	PENN-CADDO		NOT GIVEN		PENN-STRAWN	
GEOLOGIC PROVINCE CODE.....	425		425		425	
DEPTH, FEET.....	3042		1580		1871	
WELLHEAD PRESSURE, PSIG.....	1070		320		700	
OPEN FLOW, MCFD.....	1320		NOT GIVEN		75000	
COMPONENT, MOLE PCT						
METHANE.....	71.9		89.5		90.0	
ETHANE.....	3.0		0.0		4.7	
PROPANE.....	0.8		---		---	
N-BUTANE.....	1.2		---		---	
ISOBUTANE.....	0.7		---		---	
N-PENTANE.....	0.3		---		---	
ISOPENTANE.....	0.3		---		---	
CYCLOPENTANE.....	0.1		---		---	
HEXANES PLUS.....	0.2		---		---	
NITROGEN.....	10.8		9.3		4.8	
OXYGEN.....	0.0		0.7		0.5	
ARGON.....	TRACE		---		---	
HYDROGEN.....	0.0		---		---	
HYDROGEN SULFIDE.....	0.0		---		---	
CARBON DIOXIDE.....	0.4		0.4		0.0	
HELIUM.....	0.25		TRACE		0.04	
HEATING VALUE.....	1118		907		996	
SPECIFIC GRAVITY.....	0.741		0.600		0.600	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8233 SAMPLE 15325		INDEX 8234 SAMPLE 8950		INDEX 8235 SAMPLE 9211	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	EASTLAND	COUNTY.....	EASTLAND	COUNTY.....	EASTLAND
WELL NAME.....	WILDCAT	WELL NAME.....	WILDCAT	WELL NAME.....	WILDCAT
LOCATION.....	NO. 2, TH&TC SUR.	LOCATION.....	NO. 2, TH&TC SUR.	LOCATION.....	NO. 2, TH&TC SUR.
OWNER.....	CHAPARRAL MINERALS, INC.	OWNER.....	JERRY CUMMINGS, ET AL.	OWNER.....	CUMCO OIL & GAS CORP.
COMPLETED.....	05/29/77	COMPLETED.....	03/15/63	COMPLETED.....	12/01/63
SAMPLED.....	07/29/78	SAMPLED.....	05/14/63	SAMPLED.....	12/16/63
FORMATION.....	PENN-LAKE	FORMATION.....	PENN-STRAWN	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	3601	DEPTH, FEET.....	991	DEPTH, FEET.....	1192
WELLHEAD PRESSURE, PSIG.....	1427	WELLHEAD PRESSURE, PSIG.....	300	WELLHEAD PRESSURE, PSIG.....	90
OPEN FLOW, MCFD.....	5600	OPEN FLOW, MCFD.....	7500	OPEN FLOW, MCFD.....	250
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.3	METHANE.....	86.4	METHANE.....	90.0
ETHANE.....	2.1	ETHANE.....	2.1	ETHANE.....	1.0
PROPANE.....	5.9	PROPANE.....	1.2	PROPANE.....	0.9
N-BUTANE.....	1.3	N-BUTANE.....	0.5	N-BUTANE.....	0.9
ISOBUTANE.....	0.7	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.3	ISOPENTANE.....	0.3	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3
NITROGEN.....	7.3	NITROGEN.....	7.0	NITROGEN.....	5.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3
HELIUM.....	0.8	HELIUM.....	0.0	HELIUM.....	0.0
HEATING VALUE.....	1174	HEATING VALUE.....	974	HEATING VALUE.....	1046
SPECIFIC GRAVITY.....	0.737	SPECIFIC GRAVITY.....	0.527	SPECIFIC GRAVITY.....	0.634

INDEX 8236 SAMPLE 15058		INDEX 8237 SAMPLE 2651		INDEX 8238 SAMPLE 1945	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	EASTLAND	COUNTY.....	ECTOR	COUNTY.....	ECTOR
WELL NAME.....	L. ABBOTT NO. 1	WELL NAME.....	J. M. COWDEN NO. 3	WELL NAME.....	UNIV. T-1
LOCATION.....	L. ABBOTT SUR. NO. A-2	LOCATION.....	SEC. 34, T1N, 9LK. 43	LOCATION.....	SEC. 3, BLK. 35, UNIV. LANDS
OWNER.....	TEXAS PACIFIC OIL CO., INC.	OWNER.....	STANOLIND OIL & GAS CO.	OWNER.....	LANDRETH PRODUCTION CORP.
COMPLETED.....	04/24/75	COMPLETED.....	10/17/33	COMPLETED.....	02/01/30
SAMPLED.....	07/25/77	SAMPLED.....	10/17/33	SAMPLED.....	03/07/30
FORMATION.....	PENN-MARBLE FALLS	FORMATION.....	-LIME	FORMATION.....	PERM-
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	3421	DEPTH, FEET.....	4025	DEPTH, FEET.....	3138
WELLHEAD PRESSURE, PSIG.....	1400	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	600
OPEN FLOW, MCFD.....	4726	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	5020
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	79.6	METHANE.....	72.3	METHANE.....	78.1
ETHANE.....	5.8	ETHANE.....	21.8	ETHANE.....	19.2
PROPANE.....	4.0	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	1.0	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	0.4	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	0.3	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	0.2	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.2	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	4.3	NITROGEN.....	5.3	NITROGEN.....	2.2
OXYGEN.....	0.0	OXYGEN.....	0.4	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	---	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.12	HELIUM.....	0.08	HELIUM.....	0.06
HEATING VALUE.....	1168	HEATING VALUE.....	1123	HEATING VALUE.....	1135
SPECIFIC GRAVITY.....	0.698	SPECIFIC GRAVITY.....	0.587	SPECIFIC GRAVITY.....	0.662

INDEX 8239 SAMPLE 13637		INDEX 8240 SAMPLE 12738		INDEX 8241 SAMPLE 12730	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ECTOR	COUNTY.....	ECTOR	COUNTY.....	ECTOR
WELL NAME.....	GOLDSMITH	WELL NAME.....	GOLDSMITH N	WELL NAME.....	HEADLEE
LOCATION.....	SEC. 31, BLK. 43, T&P RR SUR	LOCATION.....	SEC. 17, BLK. T1N, T&P SUR.	LOCATION.....	SEC. 7, BLK. 41, T-2 SUR.
OWNER.....	FOREST OIL CORP.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	GETTY OIL CO., ET AL.
COMPLETED.....	03/07/72	COMPLETED.....	06/03/64	COMPLETED.....	06/11/70
SAMPLED.....	07/06/73	SAMPLED.....	03/23/71	SAMPLED.....	03/23/71
FORMATION.....	PERM-CLEARFORK	FORMATION.....	PERM-SAN ANDRES	FORMATION.....	DEVON-
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	6400	DEPTH, FEET.....	3982	DEPTH, FEET.....	11974
WELLHEAD PRESSURE, PSIG.....	1817	WELLHEAD PRESSURE, PSIG.....	700	WELLHEAD PRESSURE, PSIG.....	4471
OPEN FLOW, MCFD.....	2000	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	9400
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	78.2	METHANE.....	77.5	METHANE.....	78.8
ETHANE.....	9.2	ETHANE.....	8.5	ETHANE.....	12.7
PROPANE.....	5.0	PROPANE.....	3.5	PROPANE.....	4.6
N-BUTANE.....	1.4	N-BUTANE.....	0.9	N-BUTANE.....	0.9
ISOBUTANE.....	0.6	ISOBUTANE.....	0.9	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	0.5	N-PENTANE.....	0.4
ISOPENTANE.....	0.4	ISOPENTANE.....	0.4	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	2.0	HEXANES PLUS.....	0.3
NITROGEN.....	4.3	NITROGEN.....	5.2	NITROGEN.....	1.0
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.7
HELIUM.....	0.07	HELIUM.....	0.05	HELIUM.....	0.02
HEATING VALUE.....	1189	HEATING VALUE.....	1232	HEATING VALUE.....	1230
SPECIFIC GRAVITY.....	0.719	SPECIFIC GRAVITY.....	0.751	SPECIFIC GRAVITY.....	0.714

INDEX 8242 SAMPLE 2056		INDEX 8243 SAMPLE 7527		INDEX 8244 SAMPLE 12779	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ECTOR	COUNTY.....	ECTOR	COUNTY.....	ECTOR
WELL NAME.....	PENWELL	WELL NAME.....	TXL	WELL NAME.....	TXL
LOCATION.....	UNIV. T NO. 2, OIL WELL	LOCATION.....	J. D. SLATOR NO. 1	LOCATION.....	TXL B NO. 7
OWNER.....	SEC. 3, BLK. 35, UNIV. LAND	OWNER.....	SEC. 3, BLK. 45, T&P SUR.	OWNER.....	NOT GIVEN
COMPLETED.....	03/20/30	COMPLETED.....	05/06/47	COMPLETED.....	ATLANTIC RICHFIELD CO.
SAMPLED.....	05/22/30	SAMPLED.....	04/26/60	SAMPLED.....	ATLANTIC RICHFIELD CO.
FORMATION.....	PERM-GRAYBURG	FORMATION.....	PERM-GRAYBURG	FORMATION.....	PERM-SAN ANDRES
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	3600	DEPTH, FEET.....	9282	DEPTH, FEET.....	4453
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	6.5	METHANE.....	70.9	METHANE.....	77.8
ETHANE.....	82.9	ETHANE.....	13.9	ETHANE.....	10.8
PROPANE.....	---	PROPANE.....	5.0	PROPANE.....	5.2
N-BUTANE.....	---	N-BUTANE.....	1.1	N-BUTANE.....	1.2
ISOBUTANE.....	---	ISOBUTANE.....	0.3	ISOBUTANE.....	0.7
N-PENTANE.....	---	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	---	ISOPENTANE.....	0.2	ISOPENTANE.....	0.5
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	---	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	7.8	NITROGEN.....	6.9	NITROGEN.....	2.9
OXYGEN.....	0.4	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	1.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.9	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	0.10	HELIUM.....	0.03
HEATING VALUE.....	1542	HEATING VALUE.....	1174	HEATING VALUE.....	1238
SPECIFIC GRAVITY.....	1.025	SPECIFIC GRAVITY.....	0.730	SPECIFIC GRAVITY.....	0.728

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8245 4087	INDEX SAMPLE	8246 14580	INDEX SAMPLE	8247 13159
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	EDWARDS			EDWARDS		EDWARDS	
FIELD.....	WILDCAT			COMPANERO F		LULA	
WELL NAME.....	SEC. 11 CUMMINS NO. 1			PHILLIPS NO. 2		JOE PETERSON NO. 1	
LOCATION.....				SEC. 3, BLK 16, GC&SFRR SUR.		HE&WTRR SURVEY	
OWNER.....	HUMBLE OIL & REFINING CO.			NORTH AMERICAN ROYALTIES INC		WAYNE PETROLEUM CO.	
COMPLETED.....	08/06/45			04/12/74		07/20/71	
SAMPLED.....	08/06/45			02/11/76		02/26/72	
FORMATION.....	PERM-YATES			PENN-CANYON		ORDO-ELLENBURGER	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	2650			3179		4100	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			680		1317	
OPEN FLOW, MCFD.....	NOT GIVEN			2800		6200	
COMPONENT, MOLE PCT							
METHANE.....	36.0			89.8		84.1	
ETHANE.....	19.7			2.8		4.6	
PROPANE.....	---			1.5		2.0	
N-BUTANE.....	---			0.3		0.4	
ISOBUTANE.....	---			0.4		0.3	
N-PENTANE.....	---			0.1		0.1	
ISOPENTANE.....	---			0.1		TRACE	
CYCLOPENTANE.....	---			TRACE		0.1	
HEXANES PLUS.....	---			0.1		0.2	
NITROGEN.....	43.3			4.6		8.0	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	1.0			0.2		0.1	
HELIUM.....	0.03			0.19		0.22	
HEATING VALUE.....	718			1036		1028	
SPECIFIC GRAVITY.....	0.840			0.621		0.650	
		INDEX SAMPLE	8248 14404	INDEX SAMPLE	8249 14304	INDEX SAMPLE	8250 646
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	EDWARDS			EDWARDS		ERATH	
FIELD.....	PAN GIL RANCH			ROY BAKER		GARNER	
WELL NAME.....	MORRIS NO. 13-1			ROY BAKER NO. 1		C. M. BARTON NO. 1	
LOCATION.....	SEC. 13, AB&H SUR.			SEC. 15, A-1352, WASH.CO. RR		NOT GIVEN	
OWNER.....	MITCHELL ENERGY CORP.			NORTH AMERICAN ROYALTIES INC		TEXAS PACIFIC COAL & OIL CO.	
COMPLETED.....	01/23/73			09/01/73		03/--/20	
SAMPLED.....	07/02/75			03/18/75		09/07/21	
FORMATION.....	PENN-CANYON			PENN-CANYON		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	430			430		415	
DEPTH, FEET.....	2262			3221		3226	
WELLHEAD PRESSURE, PSIG.....	580			450		420	
OPEN FLOW, MCFD.....	2200			3400		43	
COMPONENT, MOLE PCT							
METHANE.....	88.9			88.8		69.6	
ETHANE.....	5.3			2.2		29.6	
PROPANE.....	1.1			0.2		---	
N-BUTANE.....	0.3			0.2		---	
ISOBUTANE.....	0.2			0.3		---	
N-PENTANE.....	TRACE			TRACE		---	
ISOPENTANE.....	0.1			0.1		---	
CYCLOPENTANE.....	TRACE			TRACE		---	
HEXANES PLUS.....	0.1			TRACE		---	
NITROGEN.....	6.5			6.6		0.6	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.25		0.08	
HELIUM.....	0.51			991		1235	
HEATING VALUE.....	997			9613		0.702	
SPECIFIC GRAVITY.....	0.614						
		INDEX SAMPLE	8251 15337	INDEX SAMPLE	8252 4823	INDEX SAMPLE	8253 12624
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	ERATH			ERATH		ERATH	
FIELD.....	MINNIE			NOT GIVEN		X-RAY	
WELL NAME.....	A. LOWE NO. 1			C. H. PACK NO. 1		C. C. RUSSELL NO. 1	
LOCATION.....	JAMES MCCOY SUR. 29, A-563			G. WEST SUR. NO. A-808		N STEPHENVILLE	
OWNER.....	TEXAS PACIFIC OIL CO., INC.			CONTINENTAL OIL CO.		COASTAL STATES GAS PROD. CO.	
COMPLETED.....	05/13/65			01/07/49		--/--/00	
SAMPLED.....	08/01/78			12/28/49		01/11/71	
FORMATION.....	PENN-STRAWN			PENN-		PENN-MARBLE FALLS	
GEOLOGIC PROVINCE CODE.....	415			415		415	
DEPTH, FEET.....	1374			3604		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	645			1600		315	
OPEN FLOW, MCFD.....	6968			668		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	83.5			76.7		77.1	
ETHANE.....	6.5			9.5		11.0	
PROPANE.....	3.4			5.2		4.9	
N-BUTANE.....	0.8			0.2		1.4	
ISOBUTANE.....	0.5			0.4		0.8	
N-PENTANE.....	0.2			0.4		0.5	
ISOPENTANE.....	0.2			TRACE		0.4	
CYCLOPENTANE.....	0.1			0.1		0.4	
HEXANES PLUS.....	0.2			0.2		0.4	
NITROGEN.....	4.3			5.4		3.0	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.2			0.3		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.3		0.4	
HELIUM.....	0.18			0.12		0.06	
HEATING VALUE.....	1126			1171		1242	
SPECIFIC GRAVITY.....	0.673			0.716		0.737	
		INDEX SAMPLE	8254 13379	INDEX SAMPLE	8255 4348	INDEX SAMPLE	8256 8155
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	FALLS			FALLS		FISHER	
FIELD.....	DENNY			NOT GIVEN		ROUND TOP	
WELL NAME.....	EZEELL NO. 3			AUGUST PIETSCHE NO. 1		H. F. REDUS	
LOCATION.....	A. POWELL SUR. A-52			8 MI. N OF LAGRANGE		GBB&CRR SUR.	
OWNER.....	JAMES L HAMON			SEABOARD OIL CO.		SOJOURNER DRILLING CO.	
COMPLETED.....	04/26/71			01/18/47		09/10/60	
SAMPLED.....	09/08/72			08/--/47		08/11/61	
FORMATION.....	JURA-COTTON VALLEY			EOCC-		PENN-SHASTIKA L	
GEOLOGIC PROVINCE CODE.....	260			220		430	
DEPTH, FEET.....	9222			6521		3858	
WELLHEAD PRESSURE, PSIG.....	3225			NOT GIVEN		1100	
OPEN FLOW, MCFD.....	56000			2900		4250	
COMPONENT, MOLE PCT							
METHANE.....	87.1			38.4		73.9	
ETHANE.....	5.7			58.8		7.0	
PROPANE.....	1.6			---		4.7	
N-BUTANE.....	0.4			---		1.2	
ISOBUTANE.....	0.3			---		0.7	
N-PENTANE.....	0.2			---		0.4	
ISOPENTANE.....	0.1			---		0.3	
CYCLOPENTANE.....	TRACE			---		TRACE	
HEXANES PLUS.....	0.2			---		0.1	
NITROGEN.....	2.7			0.9		11.3	
OXYGEN.....	0.6			0.7		TRACE	
ARGON.....	---			---		TRACE	
HYDROGEN.....	0.0			---		0.0	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	1.2			1.3		0.1	
HELIUM.....	0.01			0.01		0.29	
HEATING VALUE.....	1073			1443		1082	
SPECIFIC GRAVITY.....	0.644			0.865		0.720	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8257 SAMPLE 8156			INDEX 8258 SAMPLE 5118			INDEX 8259 SAMPLE 10633		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FISHER		FISHER			FLOYD		
FIELD.....	ROUND TOP		ROYSTON			WILDCAT		
WELL NAME.....	SEC. D. STEPHENS NO. 1		J. L. SHARP NO. 1			R. M. BATTAY NO. 1		
LOCATION.....	SEC. 78, BLK. 1, B&C SUR.		SEC. 207, BLK. 1, B&B&C SUR.			J. M. BREWITT SUR. A-1372		
OWNER.....	A. POLLARD SIMONS		MOUSTRAY MOORE DRILLING CO.			ROY FURR		
COMPLETED.....	11/23/58		03/10/51			06/15/56		
SAMPLED.....	08/11/61		10/23/51			--/--/00		
FORMATION.....	PENN-CANYON		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			435		
DEPTH, FEET.....	4318		3814			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1200		1500			NOT GIVEN		
OPEN FLOW, MCFD.....	2800		3775			5000		
COMPONENT, MOLE PCT								
METHANE.....	69.3		56.4			0.3		
ETHANE.....	10.9		16.5			0.0		
PROPANE.....	7.8		15.5			0.0		
N-BUTANE.....	1.7		3.4			0.0		
ISOBUTANE.....	1.0		1.5			0.0		
N-PENTANE.....	0.2		0.6			0.0		
ISOPENTANE.....	0.4		0.7			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.1		0.3			0.0		
NITROGEN.....	8.2		4.0			99.3		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.4			TRACE		
HELIUM.....	0.20		0.02			0.12		
HEATING VALUE.....	1221		1525			4		
SPECIFIC GRAVITY.....	0.776		0.926			0.962		

INDEX 8260 SAMPLE 6544			INDEX 8261 SAMPLE 6539			INDEX 8262 SAMPLE 6540		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FOARD		FOARD			FOARD		
FIELD.....	FOARD COUNTY REGULAR		THALIA			THALIA		
WELL NAME.....	R. H. COOPER NO. 7		MATHEWS			NETTIE TARVER NO. 1		
LOCATION.....	SEC. 3, GC&SF SUR.		NOT GIVEN			GC&SF, RRCO SEC. 3		
OWNER.....	LANB & FORD DRILLING CO.		WELCH & WHITE DRILLING CO.			WELCH & WHITE DRILLING CO.		
COMPLETED.....	03/19/56		--/--/00			--/--/55		
SAMPLED.....	04/05/58		04/05/58			04/05/58		
FORMATION.....	PENN-CANYON		PERM-WICHITA FALLS			PENN-TANNEHILL		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	2007		900			800		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	65.6		57.3			56.3		
ETHANE.....	11.7		1.9			3.1		
PROPANE.....	6.7		0.8			1.5		
N-BUTANE.....	1.9		0.3			0.6		
ISOBUTANE.....	0.1		0.2			0.4		
N-PENTANE.....	0.4		0.4			0.4		
ISOPENTANE.....	0.4		0.1			0.1		
CYCLOPENTANE.....	0.2		0.2			0.4		
HEXANES PLUS.....	0.5		0.4			0.8		
NITROGEN.....	11.7		37.4			35.5		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.10		1.30			0.80		
HEATING VALUE.....	1206		636			776		
SPECIFIC GRAVITY.....	0.803		0.751			0.731		

INDEX 8263 SAMPLE 6541			INDEX 8264 SAMPLE 6543			INDEX 8265 SAMPLE 6609		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FOARD		FOARD			FOARD		
FIELD.....	THALIA		THALIA			THALIA		
WELL NAME.....	R. H. COOPER NO. 2		R. H. COOPER NO. 1			TARVER NO. A		
LOCATION.....	SEC. 3, GC&SF SUR.		SEC. 3, GC&SF SUR.			NOT GIVEN		
OWNER.....	LANB & FORD DRILLING CO.		WESTERN NATURAL GAS & MAGNOL			L. B. SCOTT		
COMPLETED.....	07/06/53		05/19/53			--/--/00		
SAMPLED.....	04/05/58		04/05/58			05/31/58		
FORMATION.....	PENN-CANYON		PENN-CANYON			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	2048		2018			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			275		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	58.2		60.3			57.5		
ETHANE.....	4.7		3.8			3.1		
PROPANE.....	1.4		1.3			1.1		
N-BUTANE.....	1.5		1.6			0.3		
ISOBUTANE.....	0.7		0.9			0.2		
N-PENTANE.....	0.5		0.5			0.1		
ISOPENTANE.....	0.5		0.4			0.1		
CYCLOPENTANE.....	0.2		0.2			0.1		
HEXANES PLUS.....	0.5		0.5			0.1		
NITROGEN.....	29.3		25.0			36.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	3.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.70		0.50			0.80		
HEATING VALUE.....	760		764			701		
SPECIFIC GRAVITY.....	0.793		0.795			0.745		

INDEX 8266 SAMPLE 6610			INDEX 8267 SAMPLE 6611			INDEX 8268 SAMPLE 6612		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FOARD		FOARD			FOARD		
FIELD.....	THALIA		THALIA			THALIA		
WELL NAME.....	NETTIE TARVER		MATHEWS			MATIS GAS WELL		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	L. B. SCOTT		L. B. SCOTT			L. B. SCOTT		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	05/31/58		05/31/58			05/31/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			PERM-WICHITA FALLS		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	800		300			800		
WELLHEAD PRESSURE, PSIG.....	325		300			300		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	62.5		61.5			61.4		
ETHANE.....	2.9		3.5			3.8		
PROPANE.....	1.3		1.6			1.7		
N-BUTANE.....	0.4		0.4			0.4		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.2		0.2			0.1		
CYCLOPENTANE.....	TPACE		TRACE			0.0		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	31.3		31.5			31.0		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.90		0.90			0.90		
HEATING VALUE.....	760		764			771		
SPECIFIC GRAVITY.....	0.726		0.73			0.732		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8269 SAMPLE 6613		INDEX 8270 SAMPLE 6614		INDEX 8271 SAMPLE 16566	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	FOARD	COUNTY.....	FOARD	COUNTY.....	FORT BEND
FIELD.....	THALIA	FIELD.....	THALIA	FIELD.....	BOOTH
WELL NAME.....	1-1 WARD	WELL NAME.....	NANNIE NO. 1	WELL NAME.....	GEORGE FOUNDATION NO. 2
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	WILEY MARTIN SUR., A-56
OWNER.....	L. B. SCOTT	OWNER.....	L. B. SCOTT	OWNER.....	ARCO OIL & GAS CO.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	07/09/82
SAMPLED.....	--/--/00	SAMPLED.....	05/31/58	SAMPLED.....	07/09/82
FORMATION.....	NOT GIVEN	FORMATION.....	PERM-MICHITA FALLS	FORMATION.....	EDCE-YEGUA
GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	800	DEPTH, FEET.....	10530
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	300	WELLHEAD PRESSURE, PSIG.....	7200
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	8000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	61.8	METHANE.....	57.7	METHANE.....	87.7
ETHANE.....	3.8	ETHANE.....	3.2	ETHANE.....	6.0
PROANE.....	1.8	PROANE.....	0.2	PROANE.....	0.9
N-BUTANE.....	0.9	N-BUTANE.....	0.4	N-BUTANE.....	0.8
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	30.6	NITROGEN.....	35.8	NITROGEN.....	0.3
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.8
HELIUM.....	0.90	HELIUM.....	0.80	HELIUM.....	TRACE
HEATING VALUE.....	778	HEATING VALUE.....	1158	HEATING VALUE.....	0.662
SPECIFIC GRAVITY.....	0.732	SPECIFIC GRAVITY.....	0.749	SPECIFIC GRAVITY.....	0.662

INDEX 8272 SAMPLE 11134		INDEX 8273 SAMPLE 13051		INDEX 8274 SAMPLE 9678	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	FORT BEND	COUNTY.....	FORT BEND	COUNTY.....	FORT BEND
FIELD.....	CLODINE	FIELD.....	FULSHEAR	FIELD.....	HUNGERFORD E
WELL NAME.....	J. R. FARMER EST. NO. 1	WELL NAME.....	ROBINSON UNIT NO. 1	WELL NAME.....	RAGSDALE UNIT NO. 1-T
LOCATION.....	SEC. 1, I&GNRR SUR. A353	LOCATION.....	G. H. CARTWRIGHT SUR., A-149	LOCATION.....	JOSEPH M. MCCORMICK SUR. A-57
OWNER.....	EDWIN L. COX	OWNER.....	PENNZOIL PRODUCING CO.	OWNER.....	SUN OIL CO.
COMPLETED.....	04/29/66	COMPLETED.....	05/28/70	COMPLETED.....	01/01/63
SAMPLED.....	09/26/67	SAMPLED.....	09/29/71	SAMPLED.....	12/27/64
FORMATION.....	NOT GIVEN	FORMATION.....	EDCE-1110 SAND	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7480	DEPTH, FEET.....	7421	DEPTH, FEET.....	5108
WELLHEAD PRESSURE, PSIG.....	15472	WELLHEAD PRESSURE, PSIG.....	15500	WELLHEAD PRESSURE, PSIG.....	1565
OPEN FLOW, MCFD.....	12500	OPEN FLOW, MCFD.....	968	OPEN FLOW, MCFD.....	47000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.1	METHANE.....	90.8	METHANE.....	97.0
ETHANE.....	4.6	ETHANE.....	4.6	ETHANE.....	1.6
PROANE.....	1.7	PROANE.....	2.1	PROANE.....	0.3
N-BUTANE.....	0.5	N-BUTANE.....	0.4	N-BUTANE.....	0.1
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	TRACE
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	TRACE
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	TRACE
NITROGEN.....	0.4	NITROGEN.....	0.4	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.5
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1107	HEATING VALUE.....	1116	HEATING VALUE.....	1022
SPECIFIC GRAVITY.....	0.626	SPECIFIC GRAVITY.....	0.633	SPECIFIC GRAVITY.....	0.573

INDEX 8275 SAMPLE 15268		INDEX 8276 SAMPLE 16927		INDEX 8277 SAMPLE 5884	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	FORT BEND	COUNTY.....	FORT BEND	COUNTY.....	FORT BEND
FIELD.....	HUNGERFORD E	FIELD.....	KATY	FIELD.....	LONG POINT
WELL NAME.....	GORDON UNIT NO. 1-X	WELL NAME.....	K. A. MORGAN NO. 1	WELL NAME.....	GULF FEE NO. 1
LOCATION.....	ISAAC MCGARY SUR. A-58	LOCATION.....	JAMES CONNER SUR., AB-157	LOCATION.....	F. F. WARD SUR. NO. 462
OWNER.....	CADD OIL CO., INC.	OWNER.....	AMAX PETROLEUM CORP.	OWNER.....	GOLDSTON OIL CORP.
COMPLETED.....	02/08/75	COMPLETED.....	02/27/81	COMPLETED.....	05/19/55
SAMPLED.....	04/19/78	SAMPLED.....	05/11/83	SAMPLED.....	07/26/55
FORMATION.....	MIOC-	FORMATION.....	EDCE-WILCOX 1ST	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	2542	DEPTH, FEET.....	10270	DEPTH, FEET.....	5196
WELLHEAD PRESSURE, PSIG.....	1057	WELLHEAD PRESSURE, PSIG.....	1400	WELLHEAD PRESSURE, PSIG.....	1972
OPEN FLOW, MCFD.....	2002	OPEN FLOW, MCFD.....	14500	OPEN FLOW, MCFD.....	12000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.9	METHANE.....	83.2	METHANE.....	96.0
ETHANE.....	0.1	ETHANE.....	3.8	ETHANE.....	2.5
PROANE.....	TRACE	PROANE.....	0.9	PROANE.....	0.5
N-BUTANE.....	0.0	N-BUTANE.....	0.2	N-BUTANE.....	0.2
ISOBUTANE.....	0.0	ISOBUTANE.....	1.5	ISOBUTANE.....	TRACE
N-PENTANE.....	0.0	N-PENTANE.....	0.2	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.8	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.5	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.9	HEXANES PLUS.....	0.1
NITROGEN.....	0.0	NITROGEN.....	0.4	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.2	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	2.8	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1004	HEATING VALUE.....	1201	HEATING VALUE.....	1050
SPECIFIC GRAVITY.....	0.559	SPECIFIC GRAVITY.....	0.723	SPECIFIC GRAVITY.....	0.584

INDEX 8278 SAMPLE 13443		INDEX 8279 SAMPLE 15154		INDEX 8280 SAMPLE 15155	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	FORT BEND	COUNTY.....	FORT BEND	COUNTY.....	FORT BEND
FIELD.....	MOORE'S ORCHARD	FIELD.....	NEEDVILLE	FIELD.....	NEEDVILLE
WELL NAME.....	J. M. MOORE ET AL. NO. 93	WELL NAME.....	NEEDWITTY NO. 1	WELL NAME.....	NEEDWITTY NO. 1
LOCATION.....	SMITH SUR. A-314	LOCATION.....	HUTCHER SUR. 39, A-224	LOCATION.....	HUTCHER SUR. 39, A-224
OWNER.....	GULF OIL CO.-U.S.	OWNER.....	GROVER J. GEISELMAN	OWNER.....	GROVER J. GEISELMAN
COMPLETED.....	12/22/70	COMPLETED.....	02/05/76	COMPLETED.....	02/05/76
SAMPLED.....	09/21/72	SAMPLED.....	11/01/77	SAMPLED.....	11/01/77
FORMATION.....	EDCE-YEGUA EY-2	FORMATION.....	MIOC-	FORMATION.....	MIOC-
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	6650	DEPTH, FEET.....	3903	DEPTH, FEET.....	3703
WELLHEAD PRESSURE, PSIG.....	1820	WELLHEAD PRESSURE, PSIG.....	900	WELLHEAD PRESSURE, PSIG.....	1000
OPEN FLOW, MCFD.....	28500	OPEN FLOW, MCFD.....	2000	OPEN FLOW, MCFD.....	6000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	84.6	METHANE.....	93.1	METHANE.....	99.4
ETHANE.....	0	ETHANE.....	0.1	ETHANE.....	0.1
PROANE.....	3.8	PROANE.....	TRACE	PROANE.....	TRACE
N-BUTANE.....	1.3	N-BUTANE.....	TRACE	N-BUTANE.....	0.0
ISOBUTANE.....	1.4	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.0
N-PENTANE.....	0.6	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	2.6	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.9	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.0
NITROGEN.....	0.3	NITROGEN.....	0.5	NITROGEN.....	0.4
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1263	HEATING VALUE.....	1006	HEATING VALUE.....	1009
SPECIFIC GRAVITY.....	0.717	SPECIFIC GRAVITY.....	0.555	SPECIFIC GRAVITY.....	0.556

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8281 SAMPLE 15946		INDEX 8282 SAMPLE 15954		INDEX 8283 SAMPLE 16126	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	FORT BEND	COUNTY.....	FORT BEND	COUNTY.....	FORT BEND
FIELD.....	PECAN GROVE	FIELD.....	PECAN GROVE	FIELD.....	PECAN GROVE
WELL NAME.....	PECAN GROVE G-U. NO. 1	WELL NAME.....	PECAN GROVE G-U. NO. 1	WELL NAME.....	PECAN GROVE G-U. NO. 1
LOCATION.....	RANDALL JONES SUR. A-42	LOCATION.....	RANDALL JONES SUR. A-42	LOCATION.....	RANDALL JONES SUR. A-42
OWNER.....	EXXON CO., U.S.A.	OWNER.....	EXXON CO., U.S.A.	OWNER.....	EXXON CO., U.S.A.
COMPLETED.....	09/05/79	COMPLETED.....	09/05/79	COMPLETED.....	11/08/79
SAMPLED.....	04/22/80	SAMPLED.....	04/22/80	SAMPLED.....	07/29/80
FORMATION.....	EOC-COOK MOUNTAIN	FORMATION.....	EOC-COOK MOUNTAIN	FORMATION.....	EOC-COOK MOUNTAIN
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8686	DEPTH, FEET.....	8686	DEPTH, FEET.....	8567
WELLHEAD PRESSURE, PSIG.....	5442	WELLHEAD PRESSURE, PSIG.....	5442	WELLHEAD PRESSURE, PSIG.....	5457
OPEN FLOW, MCFD.....	4998	OPEN FLOW, MCFD.....	4998	OPEN FLOW, MCFD.....	4998
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.5	METHANE.....	85.6	METHANE.....	88.3
ETHANE.....	5.0	ETHANE.....	4.9	ETHANE.....	5.6
PROPANE.....	1.8	PROPANE.....	1.8	PROPANE.....	2.3
N-BUTANE.....	0.4	N-BUTANE.....	0.5	N-BUTANE.....	1.0
ISOBUTANE.....	0.4	ISOBUTANE.....	0.4	ISOBUTANE.....	0.7
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.3	ISOPENTANE.....	0.3	ISOPENTANE.....	0.7
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.4
NITROGEN.....	0.5	NITROGEN.....	4.5	NITROGEN.....	0.3
OXYGEN.....	TRACE	OXYGEN.....	1.1	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1120	HEATING VALUE.....	1072	HEATING VALUE.....	1183
SPECIFIC GRAVITY.....	0.633	SPECIFIC GRAVITY.....	0.657	SPECIFIC GRAVITY.....	0.668

INDEX 8284 SAMPLE 10005		INDEX 8285 SAMPLE 13825		INDEX 8286 SAMPLE 15173	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	FORT BEND	COUNTY.....	FORT BEND	COUNTY.....	FORT BEND
FIELD.....	ROSEBERG N	FIELD.....	SUGARLAND	FIELD.....	SUGARLAND
WELL NAME.....	FOSTER FARMS NO. 1	WELL NAME.....	BANKERS MORTGAGE A NO. 2	WELL NAME.....	HAMMER FEE NO. 14
LOCATION.....	JOHN FOSTER LEAGUE A-25	LOCATION.....	WM. LITTLE SUR. A-54	LOCATION.....	WM. LITTLE SUR. A-54
OWNER.....	COFAL STATES GAS PROD. CO.	OWNER.....	EXXON CO., U.S.A.	OWNER.....	EXXON CO., U.S.A.
COMPLETED.....	01/27/63	COMPLETED.....	09/14/73	COMPLETED.....	03/11/76
SAMPLED.....	06/15/65	SAMPLED.....	11/21/73	SAMPLED.....	12/21/77
FORMATION.....	MIOC-3400 FT. SAND	FORMATION.....	MIOC-	FORMATION.....	MIOC-
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	3414	DEPTH, FEET.....	2800	DEPTH, FEET.....	1920
WELLHEAD PRESSURE, PSIG.....	1450	WELLHEAD PRESSURE, PSIG.....	1215	WELLHEAD PRESSURE, PSIG.....	185
OPEN FLOW, MCFD.....	47000	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	47185
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.9	METHANE.....	95.3	METHANE.....	98.7
ETHANE.....	0.2	ETHANE.....	0.4	ETHANE.....	0.1
PROPANE.....	0.1	PROPANE.....	0.3	PROPANE.....	TRACE
N-BUTANE.....	0.0	N-BUTANE.....	0.3	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.2	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.2	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.2	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.0
NITROGEN.....	0.7	NITROGEN.....	0.6	NITROGEN.....	0.6
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	1.7	CARBON DIOXIDE.....	0.5
HELIUM.....	0.11	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1008	HEATING VALUE.....	1045	HEATING VALUE.....	1002
SPECIFIC GRAVITY.....	0.560	SPECIFIC GRAVITY.....	0.609	SPECIFIC GRAVITY.....	0.562

INDEX 8287 SAMPLE 11982		INDEX 8288 SAMPLE 11983		INDEX 8289 SAMPLE 12049	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	FORT BEND	COUNTY.....	FORT BEND	COUNTY.....	FRANKLIN
FIELD.....	THOMPSONS	FIELD.....	THOMPSONS	FIELD.....	CHITSEY
WELL NAME.....	A. P. GEORGE NO. 11-F	WELL NAME.....	A. P. GEORGE NO. 11-H	WELL NAME.....	CHITSEY NO. 1
LOCATION.....	JOHN RABB SUR. A-73	LOCATION.....	JOHN RABB SUR. A-73	LOCATION.....	J. H. MILLIGAN SUR. A-309
OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	JAKE L. HAMON
COMPLETED.....	05/23/67	COMPLETED.....	07/05/67	COMPLETED.....	05/14/68
SAMPLED.....	07/23/69	SAMPLED.....	07/23/69	SAMPLED.....	09/23/69
FORMATION.....	MIOC-8 SEGMENT 6	FORMATION.....	MIOC-6 SEGMENT 6	FORMATION.....	JURA-SMACKOVER
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	3435	DEPTH, FEET.....	3191	DEPTH, FEET.....	13134
WELLHEAD PRESSURE, PSIG.....	1334	WELLHEAD PRESSURE, PSIG.....	1073	WELLHEAD PRESSURE, PSIG.....	3270
OPEN FLOW, MCFD.....	13300	OPEN FLOW, MCFD.....	32500	OPEN FLOW, MCFD.....	16000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.6	METHANE.....	98.6	METHANE.....	18.6
ETHANE.....	0.1	ETHANE.....	0.1	ETHANE.....	5.5
PROPANE.....	TRACE	PROPANE.....	TRACE	PROPANE.....	4.8
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	1.6
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	2.1
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.4
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.4
NITROGEN.....	1.2	NITROGEN.....	0.4	NITROGEN.....	62.5
OXYGEN.....	0.5	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	3.5
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	0.09
HEATING VALUE.....	991	HEATING VALUE.....	1000	HEATING VALUE.....	595
SPECIFIC GRAVITY.....	0.566	SPECIFIC GRAVITY.....	0.552	SPECIFIC GRAVITY.....	1.005

INDEX 8290 SAMPLE 12428		INDEX 8291 SAMPLE 6486		INDEX 8292 SAMPLE 6487	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN	COUNTY.....	FRANKLIN
FIELD.....	MONCRIEF	FIELD.....	NEW HOPE	FIELD.....	NEW HOPE
WELL NAME.....	MONCRIEF NO. 1	WELL NAME.....	DEEP UNIT NO. 2-1-D	WELL NAME.....	DEEP UNIT NO. 3-1-D
LOCATION.....	C. F. MCKENZIE SUR. A-308	LOCATION.....	C. F. MCKENZIE SUR.	LOCATION.....	C. F. MCKENZIE SUR.
OWNER.....	W. A. MONCRIEF, JR.	OWNER.....	TIDEWATER OIL CO.	OWNER.....	TIDEWATER OIL CO.
COMPLETED.....	07/11/64	COMPLETED.....	09/21/54	COMPLETED.....	10/17/55
SAMPLED.....	10/22/70	SAMPLED.....	01/28/58	SAMPLED.....	01/28/58
FORMATION.....	JURA-SMACKOVER	FORMATION.....	JURA-SMACKOVER	FORMATION.....	JURA-SMACKOVER
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	12300	DEPTH, FEET.....	11996	DEPTH, FEET.....	12125
WELLHEAD PRESSURE, PSIG.....	32000	WELLHEAD PRESSURE, PSIG.....	26200	WELLHEAD PRESSURE, PSIG.....	2372
OPEN FLOW, MCFD.....	9000	OPEN FLOW, MCFD.....	11900	OPEN FLOW, MCFD.....	6600
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	37.5	METHANE.....	44.0	METHANE.....	39.7
ETHANE.....	4.1	ETHANE.....	10.6	ETHANE.....	12.4
PROPANE.....	3.4	PROPANE.....	6.7	PROPANE.....	8.9
N-BUTANE.....	0.9	N-BUTANE.....	3.6	N-BUTANE.....	5.5
ISOBUTANE.....	1.0	ISOBUTANE.....	3.9	ISOBUTANE.....	4.4
N-PENTANE.....	0.3	N-PENTANE.....	1.6	N-PENTANE.....	2.4
ISOPENTANE.....	0.1	ISOPENTANE.....	1.4	ISOPENTANE.....	2.9
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.4
HEXANES PLUS.....	0.2	HEXANES PLUS.....	1.4	HEXANES PLUS.....	2.5
NITROGEN.....	46.6	NITROGEN.....	7.1	NITROGEN.....	6.5
OXYGEN.....	0.0	OXYGEN.....	0.2	OXYGEN.....	0.2
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	14.0	HYDROGEN SULFIDE.....	7.9
CARBON DIOXIDE.....	3.3	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	6.2
HELIUM.....	C.10	HELIUM.....	0.02	HELIUM.....	0.01
HEATING VALUE.....	672	HEATING VALUE.....	1326	HEATING VALUE.....	1609
SPECIFIC GRAVITY.....	0.888	SPECIFIC GRAVITY.....	1.049	SPECIFIC GRAVITY.....	1.164

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	INDEX	8293	INDEX	8294	INDEX	8295
COUNTY	SAMPLE	12662	SAMPLE	12663	SAMPLE	16412
TEXAS	FRANKLIN		TEXAS	FRANKLIN	TEXAS	FREESTONE
FIELD	W. A. MONCRIEF		FIELD	W. A. MONCRIEF	FIELD	BEST
WELL NAME	WESTLAND SMACKOVER UNIT NO.2		WELL NAME	WESTLAND SMACKOVER UNIT NO.1	WELL NAME	BEST NO. 1
LOCATION	S. S. PAYNE SUR. A-763		LOCATION	W. R. JORDAN SUR. A-581	LOCATION	T. LOGAN SUR., A-694
OWNER	WESTLAND OIL DEV. CORP.		OWNER	WESTLAND OIL DEV. CORP.	OWNER	TXO PRODUCTION CORP.
COMPLETED	05/11/68		COMPLETED	09/14/68	COMPLETED	03/06/81
SAMPLED	01/29/71		SAMPLED	01/29/71	SAMPLED	01/22/82
FORMATION	JURA-SMACKOVER		FORMATION	JURA-SMACKOVER	FORMATION	JURA-BOSSIER
GEOLOGIC PROVINCE CODE	260		GEOLOGIC PROVINCE CODE	260	GEOLOGIC PROVINCE CODE	260
DEPTH, FEET	12200		DEPTH, FEET	12200	DEPTH, FEET	14000
WELLHEAD PRESSURE, PSIG	2880		WELLHEAD PRESSURE, PSIG	2808	WELLHEAD PRESSURE, PSIG	1700
OPEN FLOW, MCFD	63000		OPEN FLOW, MCFD	15000	OPEN FLOW, MCFD	NOT GIVEN
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	34.3		METHANE	31.9	METHANE	96.3
ETHANE	4.3		ETHANE	5.8	ETHANE	0.3
PROPANE	3.7		PROPANE	0.6	PROPANE	0.1
N-BUTANE	1.5		N-BUTANE	1.3	N-BUTANE	0.1
ISOBUTANE	1.4		ISOBUTANE	1.3	ISOBUTANE	TRACE
N-PENTANE	0.5		N-PENTANE	0.5	N-PENTANE	TRACE
ISOPENTANE	0.5		ISOPENTANE	0.2	ISOPENTANE	0.0
CYCLOPENTANE	0.2		CYCLOPENTANE	0.1	CYCLOPENTANE	0.1
HEXANES PLUS	0.8		HEXANES PLUS	0.4	HEXANES PLUS	0.2
NITROGEN	47.4		NITROGEN	51.8	NITROGEN	0.1
OXYGEN	TRACE		OXYGEN	0.0	OXYGEN	0.0
ARGON	0.0		ARGON	TRACE	ARGON	0.0
HYDROGEN	0.0		HYDROGEN	0.0	HYDROGEN	TRACE
HYDROGEN SULFIDE**	0.0		HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	3.2		CARBON DIOXIDE	3.2	CARBON DIOXIDE	2.6
HELIUM	0.10		HELIUM	0.10	HELIUM	TRACE
HEATING VALUE	750		HEATING VALUE	652	HEATING VALUE	1001
SPECIFIC GRAVITY	0.938		SPECIFIC GRAVITY	0.929	SPECIFIC GRAVITY	0.590

STATE	INDEX	8296	INDEX	8297	INDEX	8298
COUNTY	SAMPLE	12267	SAMPLE	12942	SAMPLE	17553
TEXAS	FREESTONE		TEXAS	FREESTONE	TEXAS	FREESTONE
FIELD	CARTER-BLOXOM		FIELD	CARTER-BLOXOM	FIELD	DEW
WELL NAME	M. D. BLOXOM NO. 1		WELL NAME	M. D. BLOXOM NO. 1	WELL NAME	WILLIAM C. GLAZENER NO. 1
LOCATION	J. MATTHEWS SUR. A-418		LOCATION	J. MATTHEWS SUR. A-418	LOCATION	DURHAM AVANT SUR. A-3
OWNER	GETTY OIL CO.		OWNER	GETTY OIL CO.	OWNER	MAINCO OIL & GAS CO.
COMPLETED	05/18/70		COMPLETED	02/03/70	COMPLETED	12/-/82
SAMPLED	05/18/70		SAMPLED	7/-/70	SAMPLED	12/26/84
FORMATION	JURA-SMACKOVER		FORMATION	CRET-RODESSA	FORMATION	JURA-BOSSIER
GEOLOGIC PROVINCE CODE	260		GEOLOGIC PROVINCE CODE	260	GEOLOGIC PROVINCE CODE	260
DEPTH, FEET	11985		DEPTH, FEET	6541	DEPTH, FEET	12359
WELLHEAD PRESSURE, PSIG	3980		WELLHEAD PRESSURE, PSIG	2560	WELLHEAD PRESSURE, PSIG	3500
OPEN FLOW, MCFD	17500		OPEN FLOW, MCFD	6000	OPEN FLOW, MCFD	1827
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	59.3		METHANE	91.8	METHANE	95.3
ETHANE	3.1		ETHANE	2.5	ETHANE	1.6
PROPANE	1.2		PROPANE	0.8	PROPANE	0.2
N-BUTANE	0.1		N-BUTANE	0.1	N-BUTANE	0.1
ISOBUTANE	0.5		ISOBUTANE	0.1	ISOBUTANE	TRACE
N-PENTANE	0.1		N-PENTANE	0.1	N-PENTANE	0.1
ISOPENTANE	0.5		ISOPENTANE	TRACE	ISOPENTANE	0.0
CYCLOPENTANE	TRACE		CYCLOPENTANE	TRACE	CYCLOPENTANE	TRACE
HEXANES PLUS	0.2		HEXANES PLUS	0.1	HEXANES PLUS	0.1
NITROGEN	11.8		NITROGEN	1.1	NITROGEN	0.2
OXYGEN	0.0		OXYGEN	0.0	OXYGEN	0.0
ARGON	TRACE		ARGON	TRACE	ARGON	TRACE
HYDROGEN	0.0		HYDROGEN	3.2	HYDROGEN	0.0
HYDROGEN SULFIDE**	17.2		HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	3.5		CARBON DIOXIDE	0.0	CARBON DIOXIDE	2.4
HELIUM	0.03		HELIUM	0.06	HELIUM	TRACE
HEATING VALUE	871		HEATING VALUE	1022	HEATING VALUE	1012
SPECIFIC GRAVITY	0.827		SPECIFIC GRAVITY	0.570	SPECIFIC GRAVITY	0.594

STATE	INDEX	8299	INDEX	8300	INDEX	8301
COUNTY	SAMPLE	4118	SAMPLE	4120	SAMPLE	4999
TEXAS	FREESTONE		TEXAS	FREESTONE	TEXAS	FREESTONE
FIELD	FAIRFIELD		FIELD	FAIRFIELD	FIELD	FREESTONE
WELL NAME	NANCY HAM NO. 1		WELL NAME	A. L. MCKNIGHT NO. 1	WELL NAME	FREESTONE GAS UNIT NO. 1
LOCATION	6 MI. S OF FAIRFIELD		LOCATION	BETWEEN FAIRFIELD & TEAGUE	LOCATION	J. L. CHAVERT SUR. NO. A-10
OWNER	TEXAS CO.		OWNER	TEXAS CO.	OWNER	HUMBLE OIL & REFINING CO.
COMPLETED	09/21/45		COMPLETED	02/24/45	COMPLETED	09/13/50
SAMPLED	10/02/46		SAMPLED	10/02/46	SAMPLED	02/05/51
FORMATION	CRET-PETTIT		FORMATION	CRET-TRAVIS PEAK	FORMATION	CRET-PETTIT
GEOLOGIC PROVINCE CODE	260		GEOLOGIC PROVINCE CODE	260	GEOLOGIC PROVINCE CODE	260
DEPTH, FEET	7980		DEPTH, FEET	8330	DEPTH, FEET	8234
WELLHEAD PRESSURE, PSIG	3050		WELLHEAD PRESSURE, PSIG	3195	WELLHEAD PRESSURE, PSIG	3878
OPEN FLOW, MCFD	10000		OPEN FLOW, MCFD	14600	OPEN FLOW, MCFD	2100
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	87.6		METHANE	89.8	METHANE	96.0
ETHANE	10.8		ETHANE	7.4	ETHANE	1.8
PROPANE	---		PROPANE	---	PROPANE	0.4
N-BUTANE	---		N-BUTANE	---	N-BUTANE	0.1
ISOBUTANE	---		ISOBUTANE	---	ISOBUTANE	TRACE
N-PENTANE	---		N-PENTANE	---	N-PENTANE	0.0
ISOPENTANE	---		ISOPENTANE	---	ISOPENTANE	0.0
CYCLOPENTANE	---		CYCLOPENTANE	---	CYCLOPENTANE	TRACE
HEXANES PLUS	---		HEXANES PLUS	---	HEXANES PLUS	0.1
NITROGEN	0.0		NITROGEN	1.2	NITROGEN	0.6
OXYGEN	0.4		OXYGEN	0.8	OXYGEN	0.1
ARGON	---		ARGON	---	ARGON	TRACE
HYDROGEN	---		HYDROGEN	---	HYDROGEN	0.0
HYDROGEN SULFIDE**	---		HYDROGEN SULFIDE**	---	HYDROGEN SULFIDE**	---
CARBON DIOXIDE	1.2		CARBON DIOXIDE	0.8	CARBON DIOXIDE	0.8
HELIUM	0.01		HELIUM	0.02	HELIUM	0.01
HEATING VALUE	1081		HEATING VALUE	1042	HEATING VALUE	1027
SPECIFIC GRAVITY	0.622		SPECIFIC GRAVITY	0.608	SPECIFIC GRAVITY	0.582

STATE	INDEX	8302	INDEX	8303	INDEX	8304
COUNTY	SAMPLE	5003	SAMPLE	15094	SAMPLE	15095
TEXAS	FREESTONE		TEXAS	FREESTONE	TEXAS	FREESTONE
FIELD	FREESTONE		FIELD	FREESTONE	FIELD	FREESTONE
WELL NAME	G. LAMB & F. H. HOWELL SUR.		WELL NAME	C. A. NEWSOM NO. 1	WELL NAME	C. A. NEWSOM NO. 1
LOCATION	HUMBLE OIL & REFINING CO.		LOCATION	JOEL NEWSOM SUR. A-420	LOCATION	JOEL NEWSOM SUR. A-420
OWNER	HUMBLE OIL & REFINING CO.		OWNER	ENSERCH EXPLORATION, INC.	OWNER	ENSERCH EXPLORATION, INC.
COMPLETED	01/29/49		COMPLETED	03/19/76	COMPLETED	03/19/76
SAMPLED	02/03/51		SAMPLED	09/02/77	SAMPLED	09/02/77
FORMATION	CRET-PETTIT		FORMATION	JURA-BOSSIER	FORMATION	CRET-TRAVIS PEAK
GEOLOGIC PROVINCE CODE	260		GEOLOGIC PROVINCE CODE	260	GEOLOGIC PROVINCE CODE	260
DEPTH, FEET	8315		DEPTH, FEET	11849	DEPTH, FEET	9787
WELLHEAD PRESSURE, PSIG	3431		WELLHEAD PRESSURE, PSIG	5640	WELLHEAD PRESSURE, PSIG	3505
OPEN FLOW, MCFD	6500		OPEN FLOW, MCFD	5709	OPEN FLOW, MCFD	4686
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	94.0		METHANE	92.1	METHANE	97.1
ETHANE	2.5		ETHANE	4.0	ETHANE	0.8
PROPANE	1.1		PROPANE	0.9	PROPANE	0.1
N-BUTANE	0.2		N-BUTANE	0.2	N-BUTANE	0.0
ISOBUTANE	0.2		ISOBUTANE	0.2	ISOBUTANE	0.0
N-PENTANE	0.2		N-PENTANE	0.1	N-PENTANE	0.0
ISOPENTANE	TRACE		ISOPENTANE	TRACE	ISOPENTANE	0.0
CYCLOPENTANE	TRACE		CYCLOPENTANE	TRACE	CYCLOPENTANE	0.0
HEXANES PLUS	0.2		HEXANES PLUS	0.1	HEXANES PLUS	0.0
NITROGEN	0.3		NITROGEN	0.3	NITROGEN	0.8
OXYGEN	0.1		OXYGEN	0.0	OXYGEN	0.0
ARGON	TRACE		ARGON	TRACE	ARGON	TRACE
HYDROGEN	0.0		HYDROGEN	0.0	HYDROGEN	0.0
HYDROGEN SULFIDE**	---		HYDROGEN SULFIDE**	---	HYDROGEN SULFIDE**	---
CARBON DIOXIDE	0.9		CARBON DIOXIDE	2.0	CARBON DIOXIDE	1.2
HELIUM	0.01		HELIUM	0.01	HELIUM	0.01
HEATING VALUE	1067		HEATING VALUE	1055	HEATING VALUE	1001
SPECIFIC GRAVITY	0.606		SPECIFIC GRAVITY	0.616	SPECIFIC GRAVITY	0.574

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8305			INDEX 8306			INDEX 8307		
SAMPLE 17821			SAMPLE 17644			SAMPLE 15973		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FREESTONE		FREESTONE			FREESTONE		
FIELD.....	MICHAEL BIRCH		NAN-SU-GAIL			NEAL		
WELL NAME.....	W-16		HILL GAS UNIT No. 1			GLAYDENE NEAL No. 1		
LOCATION.....	J. H. EVANS SUR. A-220		M-R. PALACIOUS SUR. A-20			JOHN BRADLEY SUR. A-53		
OWNER.....	SAXTON PETROLEUM CORP.		EXXON CO., U.S.A.			GETTY OIL CO.		
COMPLETED.....	04/-/85		05/17/84			03/14/73		
SAMPLED.....	08/26/85		04/-/85			06/02/80		
FORMATION.....	CRET-RODESSA		JURA-BOSSIER			JURA-SMACKOVER		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	9334		12000			11599		
WELLHEAD PRESSURE, PSIG.....	3600		3250			3826		
OPEN FLOW, MCFD.....	20000		13000			13600		
COMPONENT, MOLE PCT.....								
METHANE.....	91.6		95.0			49.7		
ETHANE.....	2.9		1.9			8.0		
PROPANE.....	0.9		0.2			3.2		
N-BUTANE.....	0.4		0.1			1.2		
ISOBUTANE.....	0.3		TRACE			1.2		
N-PENTANE.....	0.2		TRACE			0.3		
ISOPENTANE.....	0.1		TRACE			0.5		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.3		0.1			0.2		
NITROGEN.....	1.0		0.3			1.7		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			28.9		
CARBON DIOXIDE.....	2.2		2.0			5.0		
HELIUM.....	0.02		TRACE			0.01		
HEATING VALUE.....	1059		1010			1040		
SPECIFIC GRAVITY.....	0.629		0.591			0.922		
INDEX 8308			INDEX 8309			INDEX 8310		
SAMPLE 15994			SAMPLE 3792			SAMPLE 10021		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FREESTONE		FREESTONE			FREESTONE		
FIELD.....	NEAL		NOT GIVEN			NOT GIVEN		
WELL NAME.....	GLAYDENE NEAL No. 1		M. L. STEWARD No. 1			M. C. BROWN No. 1		
LOCATION.....	JOHN BRADLEY SUR. A-53		JAS. LEAGUE SUR. A-5			G. BREWSTER SUR. No. A-5		
OWNER.....	GETTY OIL CO.		CARTER-GRAGG OIL CO.			CONTINENTAL OIL CO.		
COMPLETED.....	03/14/79		03/01/43			03/01/65		
SAMPLED.....	07/02/80		-/-/80			05/26/65		
FORMATION.....	JURA-SMACKOVER		CRET-WOODBINE			JURA-COTTON VALLEY		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	11599		4001			12000		
WELLHEAD PRESSURE, PSIG.....	3826		NOT GIVEN			5500		
OPEN FLOW, MCFD.....	13600		25000			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	38.4		88.0			96.7		
ETHANE.....	0.0		18.9			0.7		
PROPANE.....	2.7		---			0.2		
N-BUTANE.....	1.0		---			0.0		
ISOBUTANE.....	0.2		---			0.0		
N-PENTANE.....	0.2		---			0.0		
ISOPENTANE.....	0.4		---			0.0		
CYCLOPENTANE.....	TRACE		---			0.0		
HEXANES PLUS.....	0.1		---			0.0		
NITROGEN.....	0.4		2.5			0.3		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.1		---			0.0		
HYDROGEN SULFIDE.....	44.4		---			0.0		
CARBON DIOXIDE.....	0.3		0.5			2.0		
HELIUM.....	0.01		TRACE			0.01		
HEATING VALUE.....	964		1051			997		
SPECIFIC GRAVITY.....	0.984		0.614			0.582		
INDEX 8311			INDEX 8312			INDEX 8313		
SAMPLE 11619			SAMPLE 11620			SAMPLE 12519		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FREESTONE		FREESTONE			FREESTONE		
FIELD.....	REED		REED			REED		
WELL NAME.....	RUBY MIDDLETON No. 1		RUBY MIDDLETON No. 1			NORTHERN G.U. No. 1		
LOCATION.....	A. ANGLIN SUR. A-46		A. ANGLIN SUR. A-46			NOT GIVEN		
OWNER.....	TEXACO INC.		TEXACO INC.			TEXACO INC.		
COMPLETED.....	05/27/67		05/27/67			08/13/49		
SAMPLED.....	08/06/68		08/06/68			11/04/70		
FORMATION.....	CRET-RODESSA		JURA-HAYNESVILLE			CRET-TRAVIS PEAK		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	7255		11837			8208		
WELLHEAD PRESSURE, PSIG.....	1815		6000			800		
OPEN FLOW, MCFD.....	3355		1671			1500		
COMPONENT, MOLE PCT.....								
METHANE.....	89.9		94.5			95.2		
ETHANE.....	3.7		1.4			1.2		
PROPANE.....	0.9		0.4			0.4		
N-BUTANE.....	1.1		0.2			0.2		
ISOBUTANE.....	0.5		TRACE			0.3		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	0.3		0.4			1.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.0		2.4			0.6		
HELIUM.....	0.02		0.01			0.02		
HEATING VALUE.....	1161		1161			1027		
SPECIFIC GRAVITY.....	0.654		0.605			0.590		
INDEX 8314			INDEX 8315			INDEX 8316		
SAMPLE 16678			SAMPLE 12472			SAMPLE 12473		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FREESTONE		FREESTONE			FREESTONE		
FIELD.....	REED NW		RISCHER'S STORE			RISCHER'S STORE		
WELL NAME.....	HARRIETTE M. WHATLEY No. 1		A. W. JACOBS No. 1			A. W. JACOBS No. 1		
LOCATION.....	A-973; PULASKI NAVARRO SUR.		HENRY AWALT SUR. A-4			HENRY AWALT SUR. A-4		
OWNER.....	ESTATE OIL & GAS CORP.		GETTY OIL CO.			GETTY OIL CO.		
COMPLETED.....	08/22/81		10/14/69			10/14/69		
SAMPLED.....	10/31/82		10/21/70			10/21/70		
FORMATION.....	JURA-BOSSIER		CRET-PETTIT			CRET-RODESSA		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	11165		6904			6393		
WELLHEAD PRESSURE, PSIG.....	4415		2435			2394		
OPEN FLOW, MCFD.....	2600		7210			850		
COMPONENT, MOLE PCT.....								
METHANE.....	86.7		87.4			89.2		
ETHANE.....	7.3		5.6			5.6		
PROPANE.....	2.0		2.8			3.6		
N-BUTANE.....	0.4		0.4			3.0		
ISOBUTANE.....	0.4		0.6			0.0		
N-PENTANE.....	0.1		0.1			0.0		
ISOPENTANE.....	0.1		0.1			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.2		0.2			0.0		
NITROGEN.....	0.4		1.3			1.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.0		0.7			0.0		
HELIUM.....	TRACE		0.03			0.02		
HEATING VALUE.....	1499		1499			1971		
SPECIFIC GRAVITY.....	0.655		0.652			0.623		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8317 SAMPLE 5236			INDEX 8318 SAMPLE 11603			INDEX 8319 SAMPLE 12506		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FREESTONE		FREESTONE			FREESTONE		
FIELD.....	STEWARDS MILL NE		TEAGUE			TEAGUE		
WELL NAME.....	C. W. MARSTERS NO. 1		J. F. ROPER NO. 1			HAM GAS UNIT NO. 1-T		
LOCATION.....	NOT GIVEN		O. C. CANNON SUR. A-130			NOT GIVEN		
OWNER.....	HUMBLE OIL & REFINING CO.		NORTH CENTRAL OIL CORP.			TEXACO INC.		
COMPLETED.....	06/05/52		01/23/57			--/--/90		
SAMPLED.....	06/13/52		07/31/58			11/03/70		
FORMATION.....	CRET-PETTIT		JURA-COTTON VALLEY			CRET-RODESSA		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	7700		11965			7532		
WELLHEAD PRESSURE, PSIG.....	3629		15190			965		
OPEN FLOW, MCFD.....	3000		10500			3500		
COMPONENT, MOLE PCT								
METHANE.....	92.1		93.7			92.5		
ETHANE.....	3.4		1.0			1.8		
PROPANE.....	1.4		TRACE			0.5		
N-BUTANE.....	0.4		TRACE			0.1		
ISOBUTANE.....	0.2		TRACE			0.2		
N-PENTANE.....	0.1		0.1			0.0		
ISOPENTANE.....	0.1		0.0			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.3			0.1		
NITROGEN.....	1.3		0.4			2.5		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		0.0			0.1		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.8		0.0			1.4		
CARBON DIOXIDE.....	0.03		0.01			0.02		
HELIUM.....	1059		1014			1002		
HEATING VALUE.....			0.594			0.602		
SPECIFIC GRAVITY.....	0.612							
INDEX 8320 SAMPLE 15345			INDEX 8321 SAMPLE 12509			INDEX 8322 SAMPLE 12510		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FREESTONE		FREESTONE			FREESTONE		
FIELD.....	TEAGUE TOWNSITE		TEAGUE			TEAGUE		
WELL NAME.....	J. W. BROWN NO. 1		M. E. PRIETT NO. 1-C			J. A. WRIGHT NO. 1-T		
LOCATION.....	GEORGE BREWER SUR. A-5		15709			15721		
OWNER.....	HIGHLAND RESOURCES, INC.		UNION OIL CO. OF CALIF.			UNION OIL CO. OF CALIF.		
COMPLETED.....	10/25/76		02/03/60			01/22/52		
SAMPLED.....	08/17/78		10/30/70			10/30/70		
FORMATION.....	JURA-COTTON VALLEY		CRET-RODESSA			CRET-TRAVIS PEAK		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	11955		6664			7534		
WELLHEAD PRESSURE, PSIG.....	6500		680			1160		
OPEN FLOW, MCFD.....	11500		410			1330		
COMPONENT, MOLE PCT								
METHANE.....	95.6		94.7			96.1		
ETHANE.....	0.7		2.1			0.9		
PROPANE.....	0.1		0.7			0.5		
N-BUTANE.....	TRACE		0.2			0.0		
ISOBUTANE.....	0.1		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	TRACE		0.2			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.1		0.1			0.0		
NITROGEN.....	0.3		0.6			0.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.9		0.9			0.5		
HELIUM.....	TRACE		0.02			0.02		
HEATING VALUE.....	990		1043			1021		
SPECIFIC GRAVITY.....	0.591		0.594			0.576		
INDEX 8323 SAMPLE 14151			INDEX 8324 SAMPLE 4441			INDEX 8325 SAMPLE 4848		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FREESTONE		FREESTONE			FRIO		
FIELD.....	TEAS		WILDCAT			DIVOT		
WELL NAME.....	HENRY WILLIAMS NO. 1		E. L. TRVIN NO. 1			SID KATZ NO. 1		
LOCATION.....	CHARLES TEAS SUR. A-610		NOT GIVEN			D. O. HARRIGAN SUBD.		
OWNER.....	GETTY OIL CO.		TEXAS CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	03/24/73		09/03/47			02/11/50		
SAMPLED.....	09/20/74		01/14/48			02/21/50		
FORMATION.....	CRET-PETTIT		CRET-GLEN ROSE L			CRET-NAVARRO		
GEOLOGIC PROVINCE CODE.....	260		260			220		
DEPTH, FEET.....	6898		8055			4088		
WELLHEAD PRESSURE, PSIG.....	2334		3870			1629		
OPEN FLOW, MCFD.....	8400		23000			16000		
COMPONENT, MOLE PCT								
METHANE.....	88.5		89.6			90.4		
ETHANE.....	5.7		8.8			3.3		
PROPANE.....	2.0		---			1.6		
N-BUTANE.....	0.5		---			0.5		
ISOBUTANE.....	0.6		---			0.1		
N-PENTANE.....	0.1		---			0.1		
ISOPENTANE.....	0.3		---			0.1		
CYCLOPENTANE.....	TRACE		---			0.1		
HEXANES PLUS.....	0.2		---			0.3		
NITROGEN.....	1.2		0.0			2.9		
OXYGEN.....	TRACE		0.3			0.1		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.7		1.3			0.3		
HELIUM.....	0.03		0.01			0.03		
HEATING VALUE.....	1115		1065			1071		
SPECIFIC GRAVITY.....	0.643		0.612			0.627		
INDEX 8326 SAMPLE 4796			INDEX 8327 SAMPLE 5088			INDEX 8328 SAMPLE 4140		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	FRIO		FRIO			FRIO		
FIELD.....	DOERING RANCH		NOT GIVEN			PEARSALL		
WELL NAME.....	FRANK DOERING NO. 2		HUMSEL-MARRS MCLEAN B-1			HALFF & OPPENHEIMER NO. 12		
LOCATION.....	BBBCCR SUR. NO. 1041		BS&F SUR. A-116			J. H. GIBSON SUR. NO. 15		
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.			HIGHLAND OIL CO.		
COMPLETED.....	06/01/49		--/--/00			07/04/46		
SAMPLED.....	10/10/49		09/19/51			09/26/46		
FORMATION.....	CRET-U		CRET-OLMOS			CRET-U		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	4079		NOT GIVEN			4274		
WELLHEAD PRESSURE, PSIG.....	1823		NOT GIVEN			1875		
OPEN FLOW, MCFD.....	0000		NOT GIVEN			36000		
COMPONENT, MOLE PCT								
METHANE.....	90.5		90.2			84.2		
ETHANE.....	3.1		2.4			12.7		
PROPANE.....	1.0		0.4			---		
N-BUTANE.....	0.5		0.3			---		
ISOBUTANE.....	0.3		0.4			---		
N-PENTANE.....	0.2		0.2			---		
ISOPENTANE.....	0.0		TRACE			---		
CYCLOPENTANE.....	0.1		TRACE			---		
HEXANES PLUS.....	0.3		---			---		
NITROGEN.....	3.2		4.1			2.2		
OXYGEN.....	0.1		0.1			0.4		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	TRACE		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.1		0.0			0.5		
HELIUM.....	0.03		0.05			0.04		
HEATING VALUE.....	1067		---			1081		
SPECIFIC GRAVITY.....	0.624		0.621			0.633		

* CALCULATED CROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8329 2666	INDEX SAMPLE	8330 12093	INDEX SAMPLE	8331 8519
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	FRIIO			GAINES		GAINES	
FIELD.....	WILDCAT			BRUNLEY		FELNAC	
WELL NAME.....	F. DOERING NO. 1			MOORE ESTATE NO. 1		MERRITT NO. 1	
LOCATION.....	M. L. CARRANZA SUR. NO. 302			SEC. 12, BLK. A-12, PSL SUR.		SEC. 24, C&M SUR.	
OWNER.....	AMERADA PET. CORP., ET AL.			SELL PETROLEUM CO.		MCGRATH & SMITH, INC.	
COMPLETED.....	--/7/00			01/17/68		04/17/62	
SAMPLED.....	03/28/34			11/01/69		05/07/62	
FORMATION.....	CRET-L			PERM-DRINKARD		PERM-YATES	
GEOLOGIC PROVINCE CODE.....	220			430		430	
DEPTH, FEET.....	NOT GIVEN			7164		3337	
WELLHEAD PRESSURE, PSIG.....	2000			1879		2400	
OPEN FLOW, MCFD.....	1500			5100		2100	
COMPONENT, MOLE PCT.....							
METHANE.....	79.2			69.5		50.5	
ETHANE.....	8.8			6.8		7.5	
PROPANE.....	---			0.1		0.7	
N-BUTANE.....	---			4.7		0.7	
ISOBUTANE.....	---			1.8		0.2	
N-PENTANE.....	---			0.3		0.2	
ISOPENTANE.....	---			2.2		TRACE	
CYCLOPENTANE.....	---			0.7		TRACE	
HEXANES PLUS.....	---			2.6		0.2	
NITROGEN.....	5.1			0.0		37.8	
OXYGEN.....	0.3			TRACE		0.0	
ARGON.....	---			0.0		TRACE	
HYDROGEN.....	---			0.1		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	6.6			TRACE		0.1	
HELIUM.....	0.03			0.06		0.06	
HEATING VALUE.....	960			1589		765	
SPECIFIC GRAVITY.....	0.685			0.941		0.798	
		INDEX SAMPLE	8332 12698	INDEX SAMPLE	8333 6799	INDEX SAMPLE	8334 4046
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GAINES			GAINES		GAINES	
FIELD.....	G. H. K.			HOMANN S		SEMINOLE	
WELL NAME.....	O. D. C. C. NO. 1A			G. H. NELSON		RILEY C. NO. 3	
LOCATION.....	SEC. 65, BLK. 6			SEC. 47, BLK. G, WTRR SUR.		SEC. 249, BLK. G, WTRR SUR.	
OWNER.....	RESERVE OIL & GAS CO			TIDEWATER OIL CO.		ATLANTIC REFINING CO.	
COMPLETED.....	--/02/00			07/02/58		04/24/40	
SAMPLED.....	03/--/71			08/19/58		05/29/45	
FORMATION.....	PERM-YATES			NOT GIVEN		PERM-YATES	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	3475			3482		3190	
WELLHEAD PRESSURE, PSIG.....	500			2510		1575	
OPEN FLOW, MCFD.....	NOT GIVEN			3300		2008	
COMPONENT, MOLE PCT.....							
METHANE.....	53.0			55.5		54.4	
ETHANE.....	7.3			7.5		27.5	
PROPANE.....	2.6			2.3		---	
N-BUTANE.....	0.7			0.2		---	
ISOBUTANE.....	0.2			0.2		---	
N-PENTANE.....	0.3			0.2		---	
ISOPENTANE.....	0.0			0.1		---	
CYCLOPENTANE.....	TRACE			TRACE		---	
HEXANES PLUS.....	0.4			0.3		---	
NITROGEN.....	35.3			33.1		17.9	
OXYGEN.....	2.0			TRACE		0.1	
ARGON.....	0.1			TRACE		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.03			0.04		0.05	
HEATING VALUE.....	799			815		1044	
SPECIFIC GRAVITY.....	0.796			0.779		0.766	
		INDEX SAMPLE	8335 4165	INDEX SAMPLE	8336 4166	INDEX SAMPLE	8337 4167
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GAINES			GAINES		GAINES	
FIELD.....	SEMINOLE			SEMINOLE		SEMINOLE	
WELL NAME.....	RILEY C-3			TURLIN NO. 7		RILEY NO. 3	
LOCATION.....	NOT GIVEN			SEC. 218		SEC. 229	
OWNER.....	ATLANTIC REFINING CO.			AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.	
COMPLETED.....	--/7/00			--/7/00		--/7/00	
SAMPLED.....	12/10/46			12/12/46		12/10/46	
FORMATION.....	PERM-			PERM-		PERM-	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	3150			3150		3150	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1650		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	61.4			57.6		53.4	
ETHANE.....	17.5			23.1		22.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	20.6			18.6		24.0	
OXYGEN.....	0.2			0.6		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.3			0.1		0.2	
HELIUM.....	0.04			0.04		0.05	
HEATING VALUE.....	936			997		935	
SPECIFIC GRAVITY.....	0.730			0.750		0.765	
		INDEX SAMPLE	8338 4168	INDEX SAMPLE	8339 4169	INDEX SAMPLE	8340 4170
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GAINES			GAINES		GAINES	
FIELD.....	SEMINOLE			SEMINOLE		SEMINOLE	
WELL NAME.....	MANN NO. 3			MATTHEWS NO. 3		TIPPETT NO. 5	
LOCATION.....	SEC. 220			SEC. 231, BLK. G, WTRR SUR.		SEC. 250	
OWNER.....	AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.		OHIO OIL CO.	
COMPLETED.....	--/7/00			--/7/00		--/7/00	
SAMPLED.....	12/12/46			03/30/41		12/12/46	
FORMATION.....	PERM-			PERM-		PERM-	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	3150			3150		3150	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	55.1			56.7		51.4	
ETHANE.....	14.9			18.4		15.9	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	28.5			24.2		32.4	
OXYGEN.....	0.3			0.4		0.2	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	1.1			0.3		0.1	
HELIUM.....	0.05			0.04		0.04	
HEATING VALUE.....	825			904		806	
SPECIFIC GRAVITY.....	0.754			0.751		0.769	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8341 4200	INDEX SAMPLE	8342 4201	INDEX SAMPLE	8343 4204
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	GAINES			GAINES		GAINES	
FIELD	SEMINOLE			SEMINOLE		SEMINOLE	
WELL NAME	RILEY B No. 7			RILEY B No. 2		MATTHEWS A No. 4	
LOCATION	SEC. 229			SEC. 197		SEC. 231	
OWNER	ATLANTIC REFINING CO.			ATLANTIC REFINING CO.		AMERADA PETROLEUM CORP.	
COMPLETED	--/--/00			--/--/00		--/--/00	
SAMPLED	02/19/47			02/19/47		02/20/47	
FORMATION	PERM-SAN ANDRES			PERM-SAN ANDRES		PERM-SAN ANDRES	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	5110			5240		5132	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	75.7			29.9		66.0	
ETHANE	13.2			52.3		23.6	
PROpane	---			---		---	
N-BUTANE	---			---		---	
ISOBUTANE	---			---		---	
N-PENTANE	---			---		---	
ISOPENTANE	---			---		---	
CYCLOPENTANE	---			---		---	
HEXANES PLUS	---			---		---	
NITROGEN	0.6			0.3		1.8	
OXYGEN	0.0			0.6		0.3	
ARGON	---			---		---	
HYDROGEN	---			---		---	
HYDROGEN SULFIDE	---			---		---	
CARBON DIOXIDE	8.5			16.9		8.3	
HELIUM	0.01			0.00		TRACE	
HEATING VALUE	1039			1240		1091	
SPECIFIC GRAVITY	0.715			0.982		0.761	
		INDEX SAMPLE	8344 4205	INDEX SAMPLE	8345 4206	INDEX SAMPLE	8346 4208
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	GAINES			GAINES		GAINES	
FIELD	SEMINOLE			SEMINOLE		SEMINOLE	
WELL NAME	LAMB No. 3			TIPPETT No. 5		ROBERTSON No. 1	
LOCATION	SEC. 250			SEC. 250		SEC. 196	
OWNER	AMERADA PETROLEUM CORP.			OHIO OIL CO.		SKELLY OIL CO.	
COMPLETED	--/--/00			--/--/00		--/--/00	
SAMPLED	02/20/47			02/20/47		02/20/47	
FORMATION	PERM-SAN ANDRES			PERM-SAN ANDRES		PERM-SAN ANDRES	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	5121			5124		5155	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	55.8			73.3		67.0	
ETHANE	13.3			13.9		25.0	
PROpane	---			---		---	
N-BUTANE	---			---		---	
ISOBUTANE	---			---		---	
N-PENTANE	---			---		---	
ISOPENTANE	---			---		---	
CYCLOPENTANE	---			---		---	
HEXANES PLUS	---			---		---	
NITROGEN	2.1			4.1		1.1	
OXYGEN	0.2			0.3		0.3	
ARGON	---			---		---	
HYDROGEN	---			---		---	
HYDROGEN SULFIDE	---			---		---	
CARBON DIOXIDE	---			---		---	
HELIUM	TRACE			6.8		6.6	
HEATING VALUE	1091			1027		0.01	
SPECIFIC GRAVITY	0.755			0.714		1127	
		INDEX SAMPLE	8347 4212	INDEX SAMPLE	8348 4213	INDEX SAMPLE	8349 4214
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	GAINES			GAINES		GAINES	
FIELD	SEMINOLE			SEMINOLE		SEMINOLE	
WELL NAME	AUSTIN No. 1			WANN No. 5		WANN No. 3	
LOCATION	SEC. 194, BLK. G, WTRR SUR.			SEC. 220, BLK. G, WTRR SUR.		SEC. 220, BLK. G, WTRR SUR.	
OWNER	AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.	
COMPLETED	--/--/00			--/--/00		--/--/00	
SAMPLED	02/17/47			02/17/47		02/17/47	
FORMATION	PERM-SAN ANDRES			PERM-SAN ANDRES		PERM-SAN ANDRES	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	5100			5038		5064	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	73.1			73.6		73.4	
ETHANE	19.0			16.2		18.5	
PROpane	---			---		---	
N-BUTANE	---			---		---	
ISOBUTANE	---			---		---	
N-PENTANE	---			---		---	
ISOPENTANE	---			---		---	
CYCLOPENTANE	---			---		---	
HEXANES PLUS	---			---		---	
NITROGEN	2.9			5.9		2.9	
OXYGEN	0.0			0.1		0.2	
ARGON	---			---		---	
HYDROGEN	---			---		---	
HYDROGEN SULFIDE	---			---		---	
CARBON DIOXIDE	5.0			4.7		5.0	
HELIUM	0.02			0.03		0.01	
HEATING VALUE	1041			1075		1075	
SPECIFIC GRAVITY	0.703			0.703		0.708	
		INDEX SAMPLE	8350 4215	INDEX SAMPLE	8351 4216	INDEX SAMPLE	8352 4217
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	GAINES			GAINES		GAINES	
FIELD	SEMINOLE			SEMINOLE		SEMINOLE	
WELL NAME	AVEYITT No. A-1			COFFEY No. 2		COFFEY No. 4	
LOCATION	SEC. 226			SEC. 252		SEC. 252	
OWNER	AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.		AMERADA PETROLEUM CORP.	
COMPLETED	--/--/00			--/--/00		--/--/00	
SAMPLED	02/17/47			02/17/47		02/17/47	
FORMATION	PERM-SAN ANDRES			PERM-SAN ANDRES		PERM-SAN ANDRES	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	5187			5071		5166	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	69.8			71.1		64.9	
ETHANE	13.1			17.2		24.7	
PROpane	---			---		---	
N-BUTANE	---			---		---	
ISOBUTANE	---			---		---	
N-PENTANE	---			---		---	
ISOPENTANE	---			---		---	
CYCLOPENTANE	---			---		---	
HEXANES PLUS	---			---		---	
NITROGEN	3.9			3.7		1.7	
OXYGEN	0.3			0.0		0.0	
ARGON	---			---		---	
HYDROGEN	---			---		---	
HYDROGEN SULFIDE	---			---		---	
CARBON DIOXIDE	7.3			5.0		8.7	
HELIUM	0.02			0.03		0.01	
HEATING VALUE	1049			1028		1100	
SPECIFIC GRAVITY	0.736			0.733		0.769	

* CALCULATED CROSS HTL PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8353 4218			INDEX SAMPLE	8354 4219			INDEX SAMPLE	8355 4220
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	GAINES			GAINES				GAINES			
FIELD.....	SEMINOLE			SEMINOLE				SEMINOLE			
WELL NAME.....	MAH N. 2			TURLIN NO. 4				TURLIN NO. 9			
LOCATION.....	SEC. 230			SEC. 218				SEC. 218			
OWNER.....	AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.				AMERADA PETROLEUM CORP.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	02/17/47			02/17/47				02/17/47			
FORMATION.....	PERM-SAN ANDRES			PERM-SAN ANDRES				PERM-SAN ANDRES			
GEOLOGIC PROVINCE CODE.....	430			430				430			
DEPTH, FEET.....	5145			5124				5215			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	70.3	-----		67.7	-----			65.7	-----		
ETHANE.....	22.5	-----		23.6	-----			28.2	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	0.8	-----		2.6	-----			0.2	-----		
OXYGEN.....	0.2	-----		0.1	-----			0.0	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	5.2	-----		6.0	-----			5.9	-----		
HELIUM.....	0.01	-----		0.01	-----			0.01	-----		
HEATING VALUE.....	1115	-----		1109	-----			1171	-----		
SPECIFIC GRAVITY.....	0.731	-----		0.741	-----			0.752	-----		
		INDEX	8356			INDEX	8357			INDEX	8358
		SAMPLE	4229			SAMPLE	4230			SAMPLE	4231
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	GAINES			GAINES				GAINES			
FIELD.....	SEMINOLE			SEMINOLE				SEMINOLE			
WELL NAME.....	LAMB NO. 4			MATTHEWS A NO. 7				MATTHEWS A NO. 1			
LOCATION.....	SEC. 250			SEC. 231				SEC. 231			
OWNER.....	AMERADA PETROLEUM CORP.			AMERADA PETROLEUM CORP.				AMERADA PETROLEUM CORP.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	02/17/47			02/17/47				02/17/47			
FORMATION.....	PERM-SAN ANDRES			PERM-SAN ANDRES				PERM-SAN ANDRES			
GEOLOGIC PROVINCE CODE.....	430			430				430			
DEPTH, FEET.....	5122			5152				5132			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	62.0	-----		72.9	-----			71.4	-----		
ETHANE.....	26.5	-----		18.6	-----			20.3	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	5.3	-----		3.0	-----			3.2	-----		
OXYGEN.....	0.3	-----		0.3	-----			0.3	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	5.9	-----		5.2	-----			4.8	-----		
HELIUM.....	0.01	-----		0.02	-----			0.02	-----		
HEATING VALUE.....	1103	-----		1072	-----			1087	-----		
SPECIFIC GRAVITY.....	0.767	-----		0.711	-----			0.717	-----		
		INDEX	8359			INDEX	8360			INDEX	8361
		SAMPLE	4232			SAMPLE	4233			SAMPLE	4234
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	GAINES			GAINES				GAINES			
FIELD.....	SEMINOLE			SEMINOLE				SEMINOLE			
WELL NAME.....	SAWYER A NO. 1			BLAKEMORE NO. 7				BLAKEMORE NO. 3			
LOCATION.....	SEC. 248			SEC. 232				SEC. 232			
OWNER.....	AMERADA PETROLEUM CORP.			AMERADA PET. CORP. & HUMBLE				AMERADA PET. CORP. & HUMBLE			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	02/17/47			02/17/47				02/17/47			
FORMATION.....	PERM-SAN ANDRES			PERM-SAN ANDRES				PERM-SAN ANDRES			
GEOLOGIC PROVINCE CODE.....	430			430				430			
DEPTH, FEET.....	5246			5262				5140			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	64.1	-----		57.7	-----			65.0	-----		
ETHANE.....	26.8	-----		33.2	-----			27.9	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	2.0	-----		0.7	-----			1.4	-----		
OXYGEN.....	0.3	-----		0.2	-----			0.3	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	6.8	-----		8.2	-----			5.4	-----		
HELIUM.....	0.01	-----		0.01	-----			0.01	-----		
HEATING VALUE.....	1130	-----		1179	-----			1158	-----		
SPECIFIC GRAVITY.....	0.763	-----		0.803	-----			0.753	-----		
		INDEX	8362			INDEX	8363			INDEX	8364
		SAMPLE	4235			SAMPLE	4236			SAMPLE	4237
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	GAINES			GAINES				GAINES			
FIELD.....	SEMINOLE			SEMINOLE				SEMINOLE			
WELL NAME.....	ANDREWS NO. 1			AUSTIN B NO. 2				AVERITT NO. 1			
LOCATION.....	SEC. 222			SEC. 190				SEC. 228			
OWNER.....	BAY PETROLEUM CORP.			BAY PETROLEUM CORP.				OHIO OIL CO.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	02/17/47			02/17/47				02/17/47			
FORMATION.....	PERM-SAN ANDRES			PERM-SAN ANDRES				PERM-SAN ANDRES			
GEOLOGIC PROVINCE CODE.....	430			430				430			
DEPTH, FEET.....	5155			5201				5000			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	65.4	-----		17.1	-----			72.1	-----		
ETHANE.....	23.8	-----		74.4	-----			17.6	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	4.5	-----		2.4	-----			5.6	-----		
OXYGEN.....	0.4	-----		0.5	-----			0.1	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	5.9	-----		3.6	-----			4.6	-----		
HELIUM.....	0.02	-----		TRACE	-----			0.04	-----		
HEATING VALUE.....	1089	-----		1527	-----			1046	-----		
SPECIFIC GRAVITY.....	0.750	-----		0.970	-----			0.710	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8365 4238	INDEX SAMPLE	8366 4239	INDEX SAMPLE	8367 4267
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GAINES			GAINES		GAINES	
FIELD.....	SEMINOLE			SEMINOLE		SEMINOLE	
WELL NAME.....	TIPPETT NO. 8			GIBBS NO. 5		RILEY B NO. 3	
LOCATION.....	SEC. 250			SEC. 230		SEC. 229	
OWNER.....	OHIO OIL CO.			OHIO OIL CO.		ATLANTIC REFINING CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	02/17/47			02/17/47		02/19/47	
FORMATION.....	PERM-SAN ANDRES			PERM-SAN ANDRES		PERM-SAN ANDRES	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	5087			5160		5090	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	72.2			66.4		71.5	
ETHANE.....	19.1			22.9		18.4	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	3.3			4.3		3.7	
OXYGEN.....	0.3			0.2		0.1	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	5.1			6.2		6.3	
HELIUM.....	0.02			0.01		0.01	
HEATING VALUE.....	1074			1083		1054	
SPECIFIC GRAVITY.....	0.714			0.747		0.723	
		INDEX SAMPLE	8368 4268	INDEX SAMPLE	8369 4269	INDEX SAMPLE	8370 4320
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GAINES			GAINES		GAINES	
FIELD.....	SEMINOLE			SEMINOLE		SEMINOLE	
WELL NAME.....	TIPPETT B NO. 3			BRAND NO. 1		TIPPETT NO. A-2	
LOCATION.....	SEC. 266			SEC. 284		SEC. 266	
OWNER.....	GENERAL AMERICAN OIL CO.			GENERAL AMERICAN OIL CO.		GENERAL AMERICAN OIL CO.	
COMPLETED.....	--/--/00			--/--/00		10/19/35	
SAMPLED.....	02/19/47			02/19/47		05/21/47	
FORMATION.....	PERM-SAN ANDRES			PERM-SAN ANDRES		PERM-SAN ANDRES	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	5130			5120		5318	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1200	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		719	
COMPONENT, MOLE PCT							
METHANE.....	70.7			73.2		43.9	
ETHANE.....	21.9			17.1		15.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.8			4.2		40.5	
OXYGEN.....	0.1			0.1		0.5	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	6.5			5.4		0.1	
HELIUM.....	0.01			0.03		0.04	
HEATING VALUE.....	1109			1048		714	
SPECIFIC GRAVITY.....	0.730			0.710		0.800	
		INDEX SAMPLE	8371 7787	INDEX SAMPLE	8372 7788	INDEX SAMPLE	8373 3923
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GAINES			GAINES		GAINES	
FIELD.....	SEMINOLE			SEMINOLE		WILDCAT	
WELL NAME.....	S. F. MANN NO. 9			NO. 12		E. B. HOMANN NO. 1	
LOCATION.....	SEC. 220, BLK. G, WTRR SUR.			SEC. 251, WTRR SUR.		SEC. 96, BLK. G, WTRR	
OWNER.....	AMERADA PETROLEUM CORP.			MOHILL OIL CO.		HONOLULU OIL CORP.	
COMPLETED.....	12/17/51			12/01/60		04/07/44	
SAMPLED.....	12/06/60			12/06/60		06/13/44	
FORMATION.....	PERM-YATES			PERM-YATES		PERM-YATES	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	3110			3250		3330	
WELLHEAD PRESSURE, PSIG.....	1750			1606		2380	
OPEN FLOW, MCFD.....	1650			18000		5512	
COMPONENT, MOLE PCT							
METHANE.....	66.2			66.0		0.0	
ETHANE.....	8.9			3.1		94.0	
PROPANE.....	1.4			0.9		---	
N-BUTANE.....	1.0			0.3		---	
ISOBUTANE.....	0.4			0.3		---	
N-PENTANE.....	0.3			TRACE		---	
ISOPENTANE.....	0.1			TRACE		---	
CYCLOPENTANE.....	0.1			TRACE		---	
HEXANES PLUS.....	0.3			19.7		5.0	
NITROGEN.....	19.1			0.0		0.5	
OXYGEN.....	TRACE			TRACE		---	
ARGON.....	TRACE			0.0		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			TRACE		0.5	
HELIUM.....	0.05			0.03		TRACE	
HEATING VALUE.....	977			984		1684	
SPECIFIC GRAVITY.....	0.746			0.745		1.048	
		INDEX SAMPLE	8374 4662	INDEX SAMPLE	8375 5877	INDEX SAMPLE	8376 12298
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GAINES			GALVESTON		GALVESTON	
FIELD.....	WILDCAT			ALGOA		ALGOA	
WELL NAME.....	COOPER B UNIT NO. 1			IGEN UNIT NO. 1		ALLEN UNIT NO. 1	
LOCATION.....	SEC. 123			IGEN RR SUR. NO. 13 A-601		IGEN RR SUR. A-600	
OWNER.....	HONOLULU OIL CORP.			SUPERIOR OIL CO.		GOODALE, BERTMAN & CO., INC.	
COMPLETED.....	10/04/48			05/15/55		03/30/69	
SAMPLED.....	02/10/49			07/13/55		--/--/00	
FORMATION.....	PERM-YATES			OLIG-FRIO L		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	430			220		220	
DEPTH, FEET.....	3436			11514		10240	
WELLHEAD PRESSURE, PSIG.....	2200			8000		1600	
OPEN FLOW, MCFD.....	1774			12800		110000	
COMPONENT, MOLE PCT							
METHANE.....	53.3			91.1		93.7	
ETHANE.....	6.7			4.2		2.3	
PROPANE.....	1.8			2.0		0.7	
N-BUTANE.....	0.6			0.1		0.1	
ISOBUTANE.....	0.2			0.3		0.1	
N-PENTANE.....	TRACE			0.1		0.1	
ISOPENTANE.....	0.4			0.3		0.0	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.0			0.2		0.1	
NITROGEN.....	36.8			0.0		1.5	
OXYGEN.....	TRACE			TRACE		0.3	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	TRACE			0.0		0.1	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	---			---		0.9	
HELIUM.....	0.05			0.01		TRACE	
HEATING VALUE.....	1752			11.1		1025	
SPECIFIC GRAVITY.....	0.779			0.634		0.596	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8377 SAMPLE 13134			INDEX 8378 SAMPLE 14197			INDEX 8379 SAMPLE 15141		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GALVESTON		GALVESTON			GALVESTON		
FIELD.....	ALTO LOMA W		GREEN LAKE			CAPLEN		
WELL NAME.....	HORTON SAYKO ET AL. NO. 1		STATE TRACT 176-S NO. 3			ZINN & FOREMAN NO. 5		
LOCATION.....	SEC. 308, LEMUEL CRAWFORD A-47		OFFSHORE			S. F. HUGHES SUR. A-90		
OWNER.....	HASSIE HUNT TRUST		MITCHELL ENERGY CORP.			SUN OIL CO.		
COMPLETED.....	07/07/71		07/24/72			06/05/76		
SAMPLED.....	01/12/72		10/-/74			11/03/77		
FORMATION.....	ECCC-RYCADE		OLIG-FRIO L-1			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10466		8604			5798		
WELLHEAD PRESSURE, PSIG.....	1615		3115			2313		
OPEN FLOW, MCFD.....	19100		54000			13756		
COMPONENT, MOLE PCT								
METHANE.....	92.8		94.5			95.8		
ETHANE.....	3.2		3.3			1.4		
PROPANE.....	1.1		0.9			0.3		
N-BUTANE.....	0.3		0.2			0.2		
ISOBUTANE.....	0.5		0.3			0.2		
N-PENTANE.....	0.1		0.1			TRACE		
ISOPENTANE.....	0.1		0.1			TRACE		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	0.5		0.4			1.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.1		0.2			0.4		
HELIUM.....	1075		TRACE			0.01		
HEATING VALUE.....	1075		1070			1019		
SPECIFIC GRAVITY.....	0.617		0.598			0.581		

INDEX 8380 SAMPLE 17906			INDEX 8381 SAMPLE 13813			INDEX 8382 SAMPLE 15135		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GALVESTON		GALVESTON			GALVESTON		
FIELD.....	CLOUD		DICKINSON			DOLLAR POINT		
WELL NAME.....	USNR OF GALVESTON IST. NO. 1		BAYOU DEVELOPMENT CO. NO. 13			STATE EASE 115-A NO. 2		
LOCATION.....	ASA BRIGHAM SUR. A-5		JOHN SELLERS SUR. A-180			STATE TRACT 115A		
OWNER.....	DE NOVO OIL & GAS, INC.		EXXON CO., U.S.A.			HOUSTON OIL & MINERALS CORP.		
COMPLETED.....	08/04/85		07/21/77			08/02/77		
SAMPLED.....	11/13/85		07/21/75			11/02/77		
FORMATION.....	OLIG-FRIO		OLIG-FRIO			OLIG-FRIO A		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	14680		8611			3925		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1305			2290		
OPEN FLOW, MCFD.....	4939		5300			73000		
COMPONENT, MOLE PCT								
METHANE.....	56.4		90.1			81.0		
ETHANE.....	16.4		3.9			7.6		
PROPANE.....	13.8		1.9			4.3		
N-BUTANE.....	3.9		0.4			1.5		
ISOBUTANE.....	2.2		1.0			1.9		
N-PENTANE.....	1.1		0.3			0.7		
ISOPENTANE.....	1.0		0.2			0.7		
CYCLOPENTANE.....	0.3		0.2			0.1		
HEXANES PLUS.....	0.9		0.7			0.8		
NITROGEN.....	0.0		0.5			0.2		
OXYGEN.....	TRACE		0.1			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.8		0.8			1.2		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1578		1144			1287		
SPECIFIC GRAVITY.....	0.972		0.653			0.748		

INDEX 8383 SAMPLE 10084			INDEX 8384 SAMPLE 10150			INDEX 8385 SAMPLE 14985		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GALVESTON		GALVESTON			GALVESTON		
FIELD.....	GALVESTON BAY W		GALVESTON ISLAND			GALVESTON ISLAND		
WELL NAME.....	STATE TR. NO. 72, WELL NO. 1		WM. OSTERMEYER NO. 1			STATE OF TEXAS 70601 NO. 1		
LOCATION.....	STATE TRACT NO. 72		HALL & JONES SUR. A-121			SECT. 3, TRIMBLE & LINDSEY SUR.		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		HUMBLE OIL & REFINING CO.			CABOT CORP.		
COMPLETED.....	07/05/64		12/03/64			03/12/76		
SAMPLED.....	08/26/65		09/15/65			04/28/77		
FORMATION.....	MOC		OLIG-DISCORBIT			OLIG-DISCORBIT		
GEOLOGIC PROVINCE CODE.....	220		220			955		
DEPTH, FEET.....	7136		7762			7618		
WELLHEAD PRESSURE, PSIG.....	35100		35100			3082		
OPEN FLOW, MCFD.....	45700		14300			51000		
COMPONENT, MOLE PCT								
METHANE.....	92.9		96.1			95.0		
ETHANE.....	3.5		5.5			2.9		
PROPANE.....	1.1		0.1			0.7		
N-BUTANE.....	0.4		0.1			0.2		
ISOBUTANE.....	0.4		0.2			0.2		
N-PENTANE.....	0.3		0.1			TRACE		
ISOPENTANE.....	0.1		TRACE			0.2		
CYCLOPENTANE.....	0.2		0.1			TRACE		
HEXANES PLUS.....	1.1		0.1			0.0		
NITROGEN.....	0.3		0.4			0.5		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	1115		1051			1060		
SPECIFIC GRAVITY.....	0.624		0.584			0.592		

INDEX 8386 SAMPLE 11993			INDEX 8387 SAMPLE 15473			INDEX 8388 SAMPLE 4752		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GALVESTON		GALVESTON			GALVESTON		
FIELD.....	LOUIS CRAIG NO. 5		GREEN LAKE			HANNA REEF		
WELL NAME.....	W. K. WILSON SUR. A-28		CRESTON KING NO. 2			STATE-HANNA REEF NO. 1		
LOCATION.....	PAN AMERICAN PETROLEUM CORP.		WILLIAM SCOTT SUR. A-177			NOT GIVEN		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		WILLIAM SCOTT SUR. A-177			SUN OIL CO.		
COMPLETED.....	10/01/68		03/16/77			02/09/49		
SAMPLED.....	08/11/69		10/05/78			06/04/49		
FORMATION.....	MIOC-KEN BEN		MIOC			OLIG-NODOSARIA U		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8074		8958			10670		
WELLHEAD PRESSURE, PSIG.....	497		2612			5515		
OPEN FLOW, MCFD.....	5040		80000			6600		
COMPONENT, MOLE PCT								
METHANE.....	88.4		90.8			86.3		
ETHANE.....	4.0		4.2			7.8		
PROPANE.....	2.4		0.5			2.8		
N-BUTANE.....	0.8		0.5			0.6		
ISOBUTANE.....	1.1		0.7			0.6		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.4		0.3			TRACE		
CYCLOPENTANE.....	0.2		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.3		
NITROGEN.....	0.9		0.4			0.6		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.5		0.1			0.8		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1170		1134			1150		
SPECIFIC GRAVITY.....	0.670		0.636			0.662		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8389 14879	INDEX SAMPLE	8390 14880	INDEX SAMPLE	8391 14977
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	GALVESTON			GALVESTON		GALVESTON	
FIELD	HASTING SE			HASTING SE		HASTING SE	
WELL NAME	A. J. EASTHAM NO. 1			A. J. EASTHAM NO. 1		EMMA RUEGE NO. 1	
LOCATION	SEC. 5, I&GNRR SUR. A-622			SEC. 5, I&GNRR SUR. A-622		SEC. 5, BS&F SUR., A-625	
OWNER	SUPERIOR OIL CO.			SUPERIOR OIL CO.		CROWN CENTRAL PETROLEUM CORP	
COMPLETED	04/07/76			04/07/76		06/09/75	
SAMPLED	12/28/76			12/28/76		04/-/77	
FORMATION	OLIG-F-46, SEG. A			OLIG-F-47, SEG. A		OLI-F-RIIO	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	9702			9837		9266	
WELLHEAD PRESSURE, PSIG	3550			3150		3400	
OPEN FLOW, MCFD	8000			8407		12000	
COMPONENT, MOLE PCT							
METHANE	93.2			92.0		92.7	
ETHANE	4.1			4.3		3.9	
PROPANE	1.0			1.3		1.2	
N-BUTANE	0.3			0.3		0.3	
ISOBUTANE	0.2			0.2		0.3	
N-PENTANE	0.1			0.1		0.1	
ISOPENTANE	0.1			0.2		0.2	
CYCLOPENTANE	TRACE			TRACE		0.1	
HEXANES PLUS	0.1			0.1		0.2	
NITROGEN	0.1			0.2		0.4	
OXYGEN	0.0			TRACE		0.0	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.7			1.1		0.6	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE	1074			1077		1087	
SPECIFIC GRAVITY	0.605			0.615		0.615	
		INDEX SAMPLE	8392 12376	INDEX SAMPLE	8393 14204	INDEX SAMPLE	8394 13804
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	GALVESTON			GALVESTON		GALVESTON	
FIELD	HITCHCOCK			LAFITTES GOLD		POINT BOLIVAR N	
WELL NAME	W. H. COON NO. 1			GALVESTON TOWNSITE NO. 5		STATE TRACT 342 NO. 1	
LOCATION	THOMAS TOBY SUR. 16, A-194			BLK. 406 NB HEWARD SUR. A-628		STATE TRACT 342	
OWNER	WILLIAM F. FULLER			MITCHELL ENERGY CORP.		HOUSTON OIL & MINERALS CORP.	
COMPLETED	11/09/69			03/24/73		09/23/72	
SAMPLED	11/02/70			11/07/74		11/09/73	
FORMATION	MIOC-5300 FT. SAND			MIOC-L-2 SAND		OLI-G-FRIO	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	5321			9716		12514	
WELLHEAD PRESSURE, PSIG	2179			6215		7739	
OPEN FLOW, MCFD	6500			63000		15068	
COMPONENT, MOLE PCT							
METHANE	98.4			93.1		94.3	
ETHANE	0.5			4.2		3.0	
PROPANE	TRACE			1.3		0.8	
N-BUTANE	0.0			0.5		0.1	
ISOBUTANE	0.0			0.5		0.3	
N-PENTANE	0.0			0.1		TRACE	
ISOPENTANE	0.0			0.1		0.1	
CYCLOPENTANE	0.0			TRACE		TRACE	
HEXANES PLUS	0.0			0.2		0.1	
NITROGEN	0.9			0.1		0.2	
OXYGEN	TRACE			0.0		0.0	
ARGON	TRACE			0.0		0.0	
HYDROGEN	TRACE			0.0		0.2	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.2		0.9	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE	1006			1098		1053	
SPECIFIC GRAVITY	0.561			0.612		0.596	
		INDEX SAMPLE	8395 14279	INDEX SAMPLE	8396 15472	INDEX SAMPLE	8397 14895
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	GALVESTON			GALVESTON		GALVESTON	
FIELD	POINT BOLIVAR N			TEICHMAN POINT		TEXAS CITY	
WELL NAME	NPBFSU NO. 3			GALVESTON TOWNSITE NO. 16-1		STATE TRACT 114A NO. 1	
LOCATION	STATE TR. 342 GALVESTON BAY			LOT 10 BLK 523 GALVESTON TWP		HOUSTON BAY	
OWNER	HOUSTON OIL & MINERALS CORP.			BUTTES RESOURCES CO.		HOUSTON OIL & MINERALS CORP.	
COMPLETED	09/03/73			01/10/77		11/11/75	
SAMPLED	03/03/75			10/06/78		01/24/77	
FORMATION	OLIG-FRIO			MIOC-03		OLI-G-FRIO	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	12281			7583		10200	
WELLHEAD PRESSURE, PSIG	7470			2683		3100	
OPEN FLOW, MCFD	636074			26075		132000	
COMPONENT, MOLE PCT							
METHANE	83.3			94.6		88.8	
ETHANE	8.2			2.5		5.4	
PROPANE	3.6			1.0		2.2	
N-BUTANE	0.8			0.3		0.6	
ISOBUTANE	1.1			0.5		0.8	
N-PENTANE	0.2			0.1		0.2	
ISOPENTANE	0.2			0.2		0.4	
CYCLOPENTANE	TRACE			TRACE		0.1	
HEXANES PLUS	0.3			0.1		0.4	
NITROGEN	0.0			0.4		0.5	
OXYGEN	0.0			0.0		TRACE	
ARGON	0.0			TRACE		TRACE	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	2.4			0.2		0.5	
HELIUM	TRACE			TRACE		TRACE	
HEATING VALUE	1165			1154		1150	
SPECIFIC GRAVITY	0.701			0.600		0.654	
		INDEX SAMPLE	8398 7209	INDEX SAMPLE	8399 11844	INDEX SAMPLE	8400 2059
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	GARZA			GLASSCOCK		GLASSCOCK	
FIELD	TEAS			CREDO		GLASSCOCK	
WELL NAME	SHELL SLAUGHTER C. NO. 5			REED 1 NO. 4		BAKER NO. 1, OIL WELL	
LOCATION	SEC. 33, BLK. 2, T&NO SUR.			SEC. 21, BLK. 30, W&NW RR SUR.		SEC. 23, BLK. 33, T&P SUR.	
OWNER	SHELL OIL CO.			ODEN OIL CO.		CALIFORNIA CO.	
COMPLETED	7/-/00			12/01/68		05/09/30	
SAMPLED	08/-/59			04/28/69		06/17/30	
FORMATION	PERM-VATES			PERM-WOLFCAMP		NOT GIVEN	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	1300			7714		2260	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	0.2			71.9		24.8	
ETHANE	TRACE			11.0		52.2	
PROPANE	0.4			3.3		---	
N-BUTANE	0.0			2.9		---	
ISOBUTANE	0.0			0.8		---	
N-PENTANE	0.0			0.5		---	
ISOPENTANE	0.0			0.9		---	
CYCLOPENTANE	0.0			0.2		---	
HEXANES PLUS	0.0			0.3		---	
NITROGEN	98.7			1.7		9.1	
OXYGEN	0.1			0.0		0.5	
ARGON	TRACE			0.0		---	
HYDROGEN	0.4			0.0		---	
HYDROGEN SULFIDE	0.0			0.0		---	
CARBON DIOXIDE	0.1			0.0		13.4	
HELIUM	0.20			0.03		0.06	
HEATING VALUE	14			1374		1187	
SPECIFIC GRAVITY	0.965			0.808		0.984	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8401 12075	INDEX SAMPLE	8402 12076	INDEX SAMPLE	8403 12077
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GOLIAD			GOLIAD		GOLIAD	
FIELD.....	A-B-R			A-B-R		A-B-R	
WELL NAME.....	Z. A. BOOTH NO. 2			RALPH W. RAMSEY NO. 1		RALPH W. RAMSEY NO. 1	
LOCATION.....	JOSE MONTEZ SUR. A-204			M. DEJESUS BARVO GRANT A-51		M. DEJESUS BARVO GRANT A-51	
OWNER.....	ABEL & BANCROFT			ABEL & BANCROFT		ABEL & BANCROFT	
COMPLETED.....	11/20/68			02/14/68		02/14/68	
SAMPLED.....	10/06/69			10/06/69		10/06/69	
FORMATION.....	OLIG-VICKSBURG			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3037			8497		8740	
WELLHEAD PRESSURE, PSIG.....	1220			2938		2850	
OPEN FLOW, MCFD.....	5100			7200		3400	
COMPONENT, MOLE PCT							
METHANE.....	94.2	-----		80.6	-----	83.2	-----
ETHANE.....	0.1	-----		7.4	-----	7.1	-----
PROPANE.....	TRACE	-----		5.4	-----	3.4	-----
N-BUTANE.....	0.0	-----		1.1	-----	0.7	-----
ISOBUTANE.....	0.0	-----		1.0	-----	0.5	-----
N-PENTANE.....	0.0	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.0	-----		0.6	-----	0.3	-----
CYCLOPENTANE.....	0.0	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.0	-----		0.2	-----	0.2	-----
NITROGEN.....	4.4	-----		0.8	-----	1.4	-----
OXYGEN.....	1.0	-----		0.0	-----	0.0	-----
ARGON.....	0.1	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.1	-----		TRACE	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.0	-----	2.8	-----
HELIUM.....	0.01	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	956	-----		1204	-----	1130	-----
SPECIFIC GRAVITY.....	0.580	-----		0.727	-----	0.688	-----
		INDEX SAMPLE	8404 4868	INDEX SAMPLE	8405 15464	INDEX SAMPLE	8406 14577
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GOLIAD			GOLIAD		GOLIAD	
FIELD.....	ANGEL CITY			BIG OAK		CABEZA CREEK	
WELL NAME.....	J. BLUMH NO. 1			W. P. PITTMAN NO. 1		PETTUS UNIT NO. 44	
LOCATION.....	DEJESUS Y BARRO SUR. A-51			MARIA JESUS DELEON SUR. A-22		SEBASTIANA VELA SUR. A-337	
OWNER.....	STANLIND OIL & GAS CO.			LIGHTNING OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	11/08/49			09/20/77		08/29/74	
SAMPLED.....	05/23/50			10/31/78		02/06/76	
FORMATION.....	EOCE-SLICK			OLIG-FRIO		EOCE-PETTUS	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8042			2585		4294	
WELLHEAD PRESSURE, PSIG.....	2850			950		883	
OPEN FLOW, MCFD.....	6800			5000		2090	
COMPONENT, MOLE PCT							
METHANE.....	89.7	-----		98.2	-----	89.7	-----
ETHANE.....	0.1	-----		0.1	-----	5.7	-----
PROPANE.....	2.3	-----		TRACE	-----	2.5	-----
N-BUTANE.....	0.6	-----		0.0	-----	0.4	-----
ISOBUTANE.....	0.4	-----		0.0	-----	0.7	-----
N-PENTANE.....	0.3	-----		0.0	-----	0.1	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	0.1	-----
HEXANES PLUS.....	0.5	-----		0.0	-----	0.2	-----
NITROGEN.....	0.4	-----		1.3	-----	0.5	-----
OXYGEN.....	0.1	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		0.0	-----	0.2	-----
HELIUM.....	TRACE	-----		0.01	-----	TRACE	-----
HEATING VALUE.....	1132	-----		997	-----	1134	-----
SPECIFIC GRAVITY.....	0.648	-----		0.569	-----	0.639	-----
		INDEX SAMPLE	8407 14578	INDEX SAMPLE	8408 12031	INDEX SAMPLE	8409 4661
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GOLIAD			GOLIAD		GOLIAD	
FIELD.....	CABEZA CREEK			CABEZA CREEK S		CHARCO N	
WELL NAME.....	PETTUS UNIT NO. 44			MCLEN GETHKE NO. 2		CHARCO N	
LOCATION.....	SEBASTIANA VELA SUR. A-337			T. S. NELSON SUR. A-223		NOT GIVEN	
OWNER.....	CONTINENTAL OIL CO.			CONTINENTAL OIL CO.		W. L. GOLDSTON	
COMPLETED.....	02/06/76			02/13/69		01/12/49	
SAMPLED.....	02/06/76			05/09/69		04/04/49	
FORMATION.....	EOCE-YEGUA			EOCE-WESER		EOCE-	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4903			5093		6650	
WELLHEAD PRESSURE, PSIG.....	1623			1952		3425	
OPEN FLOW, MCFD.....	3150			3080		18000	
COMPONENT, MOLE PCT							
METHANE.....	89.4	-----		87.6	-----	80.3	-----
ETHANE.....	9.8	-----		6.3	-----	6.6	-----
PROPANE.....	2.3	-----		1.8	-----	5.1	-----
N-BUTANE.....	0.7	-----		0.6	-----	1.9	-----
ISOBUTANE.....	0.7	-----		0.7	-----	1.1	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.8	-----
ISOPENTANE.....	0.1	-----		0.0	-----	0.4	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.4	-----	1.1	-----
NITROGEN.....	0.5	-----		0.0	-----	0.8	-----
OXYGEN.....	0.7	-----		TRACE	-----	0.1	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.1	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	1.8	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1133	-----		970	-----	1273	-----
SPECIFIC GRAVITY.....	0.640	-----		0.656	-----	0.753	-----
		INDEX SAMPLE	8410 7140	INDEX SAMPLE	8411 12511	INDEX SAMPLE	8412 12512
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GOLIAD			GOLIAD		GOLIAD	
FIELD.....	CHARCO SF			CLIP		CLIP	
WELL NAME.....	REAGAN G.U. NO. 2C			B. B. GAYLE NO. 5-F		B. B. GAYLE NO. 5-H	
LOCATION.....	RAVENSQUIZ SUR.			TRACIO GUAJARDO SUR. A-127		GUAJARDO SUR. A-127	
OWNER.....	NORTHERN PUMP CO.			DOW CHEMICAL CO.		DOW CHEMICAL CO.	
COMPLETED.....	04/01/79			12/19/68		12/19/68	
SAMPLED.....	07/01/79			11/03/70		11/03/70	
FORMATION.....	EOCE-LULING			OLIG-FRIO		OLIG-FRIO U	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7488			2684		2294	
WELLHEAD PRESSURE, PSIG.....	2397			257		767	
OPEN FLOW, MCFD.....	24500			4030		4400	
COMPONENT, MOLE PCT							
METHANE.....	86.8	-----		97.7	-----	79.2	-----
ETHANE.....	4.0	-----		0.0	-----	0.0	-----
PROPANE.....	3.7	-----		TRACE	-----	TRACE	-----
N-BUTANE.....	0.7	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.6	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.2	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.1	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.2	-----		0.0	-----	0.0	-----
NITROGEN.....	0.0	-----		1.6	-----	0.4	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.2	-----		TRACE	-----	0.2	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		0.2	-----	0.3	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1153	-----		970	-----	1005	-----
SPECIFIC GRAVITY.....	0.671	-----		0.552	-----	0.558	-----

* CALCULATED GROSS HTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 8413 12514	INDEX SAMPLE 8414 10695	INDEX SAMPLE 8415 10696
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	GOLIAD		GOLIAD	GOLIAD
FIELD.....	CLIP		EMMA HAYNES	EMMA HAYNES
WELL NAME.....	B. B. GAYLE NO. 5-J		A. F. DOHMANN NO. 1	A. F. DOHMANN NO. 1
LOCATION.....	ISNACIO GUAJARDO SUR. A-127		H. T. CALLIHAN SUR. A-80	H. T. CALLIHAN SUR. A-80
OWNER.....	DOW CHEMICAL CO.		LONE STAR GAS CO.	LONE STAR GAS CO.
COMPLETED.....	10/30/70		06/02/65	06/02/65
SAMPLED.....	31/03/70		07/27/66	07/27/66
FORMATION.....	MIOC-L		EOCE-WILCOX	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	1500		11300	12650
WELLHEAD PRESSURE, PSIG.....	590		7686	7050
OPEN FLOW, MCFD.....	1500		36000	2750
COMPONENT, MOLE PCT.....				
METHANE.....	97.0	-----	88.8	87.6
ETHANE.....	0.0	-----	4.7	5.6
PROPANE.....	TRACE	-----	1.7	1.6
N-BUTANE.....	0.0	-----	2.6	0.4
ISOBUTANE.....	0.0	-----	0.2	0.3
N-PENTANE.....	0.0	-----	0.1	0.1
ISOPENTANE.....	0.0	-----	0.4	0.3
CYCLOPENTANE.....	0.0	-----	0.2	0.2
HEXANES PLUS.....	0.0	-----	0.3	0.4
NITROGEN.....	2.8	-----	0.5	0.4
OXYGEN.....	0.0	-----	0.0	0.0
ARGON.....	TRACE	-----	0.0	0.0
HYDROGEN.....	0.1	-----	0.0	0.1
HYDROGEN SULFIDE.....	0.0	-----	0.0	0.0
CARBON DIOXIDE.....	TRACE	-----	2.7	1.0
HELIUM.....	0.01	-----	TRACE	TRACE
HEATING VALUE.....	963	-----	1096	1099
SPECIFIC GRAVITY.....	0.565	-----	0.650	0.660
		INDEX SAMPLE 8416 5020	INDEX SAMPLE 8417 5293	INDEX SAMPLE 8418 4994
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	GOLIAD		GOLIAD	GOLIAD
FIELD.....	GLADYS POWELL		GREUTZMACHER NO. 1-T	GOTTSCHALT
WELL NAME.....	KAUFFMANN ESTATE NO. 1		MATHEW G. CARICE SUR. A-90	HUGO MCWILLEN NO. 1
LOCATION.....	ABSTRACT - 267		GEORGE R. BROWN	T. H. CALLIHAN SUR.
OWNER.....	FRANK W. MICHAUX		04/05/52	HUMBLE OIL & REFINING CO.
COMPLETED.....	12/16/50		04/01/52	09/12/50
SAMPLED.....	03/06/51		EOCE-WILCOX	02/13/51
FORMATION.....	EOCE-WILCOX		220	220
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	7675		8046	7480
WELLHEAD PRESSURE, PSIG.....	2827		3300	3254
OPEN FLOW, MCFD.....	29000		750	5000
COMPONENT, MOLE PCT.....				
METHANE.....	89.4	-----	86.7	90.0
ETHANE.....	4.7	-----	6.5	4.5
PROPANE.....	2.2	-----	2.6	0.0
N-BUTANE.....	0.6	-----	0.5	0.7
ISOBUTANE.....	0.3	-----	0.5	0.3
N-PENTANE.....	0.2	-----	0.1	0.4
ISOPENTANE.....	0.2	-----	0.2	TRACE
CYCLOPENTANE.....	TRACE	-----	0.1	0.1
HEXANES PLUS.....	0.2	-----	0.5	0.5
NITROGEN.....	0.0	-----	0.3	0.1
OXYGEN.....	0.1	-----	TRACE	0.1
ARGON.....	TRACE	-----	0.0	0.0
HYDROGEN.....	0.0	-----	0.0	0.0
HYDROGEN SULFIDE.....	0.0	-----	0.0	0.0
CARBON DIOXIDE.....	2.1	-----	2.4	1.4
HELIUM.....	0.01	-----	TRACE	0.01
HEATING VALUE.....	1102	-----	1118	1162
SPECIFIC GRAVITY.....	0.647	-----	0.662	0.649
		INDEX SAMPLE 8419 15306	INDEX SAMPLE 8420 4743	INDEX SAMPLE 8421 8679
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	GOLIAD		GOLIAD	GOLIAD
FIELD.....	MORDES CREEK E		MORDES CREEK N	MORNEY
WELL NAME.....	W. T. BRINKOLTER NO. 1		G. T. POWELL NO. 1	ANNA MORNEY NO. 1
LOCATION.....	VINCENT RAMOS SUR. A-241		W. D. SUTHERLAND SUR.	W. S. CAMPBELL SUR. A-92
OWNER.....	IKE LOVELADY, INC.		HUMBLE OIL & REFINING CO.	SINCLAIR OIL & GAS CO.
COMPLETED.....	01/07/76		01/25/49	05/31/62
SAMPLED.....	--/7/00		05/30/49	09/22/62
FORMATION.....	EOCE-WILCOX		EOCE-	-GAS SAND
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	8141		7646	2130
WELLHEAD PRESSURE, PSIG.....	2445		3358	891
OPEN FLOW, MCFD.....	9500		4400	22000
COMPONENT, MOLE PCT.....				
METHANE.....	85.1	-----	89.2	99.0
ETHANE.....	5.2	-----	5.1	TRACE
PROPANE.....	2.4	-----	2.0	TRACE
N-BUTANE.....	0.5	-----	0.4	0.0
ISOBUTANE.....	0.6	-----	0.4	0.0
N-PENTANE.....	0.2	-----	0.2	0.0
ISOPENTANE.....	0.4	-----	0.0	0.0
CYCLOPENTANE.....	0.2	-----	0.0	0.0
HEXANES PLUS.....	0.4	-----	0.3	0.0
NITROGEN.....	2.1	-----	0.4	0.8
OXYGEN.....	0.1	-----	0.1	0.0
ARGON.....	TRACE	-----	0.0	TRACE
HYDROGEN.....	0.1	-----	TRACE	0.0
HYDROGEN SULFIDE.....	0.0	-----	0.0	0.0
CARBON DIOXIDE.....	0.5	-----	1.9	0.1
HELIUM.....	TRACE	-----	0.01	0.01
HEATING VALUE.....	1109	-----	1098	1003
SPECIFIC GRAVITY.....	0.678	-----	0.646	0.558
		INDEX SAMPLE 8422 11170	INDEX SAMPLE 8423 11171	INDEX SAMPLE 8424 4771
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	GOLIAD		GOLIAD	GOLIAD
FIELD.....	LIVE OAK LAKE		LIVE OAK LAKE	MARSHALL
WELL NAME.....	L. W. O'CONNOR ESTATE A NO.14		L. W. O'CONNOR ESTATE A NO.1	J. B. DANFORTH NO. 1-C
LOCATION.....	JAMES MCCUNE SUR.		GALON N	SOLOMON GRIFFIN SUR. A-126
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.	SUNRAY OIL CORP.
COMPLETED.....	04/22/66		02/19/65	06/05/49
SAMPLED.....	10/13/67		10/13/67	09/29/49
FORMATION.....	OLIO-FRIO		OLIO-FRIO	EOCE-YEGUA
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	4350		5230	8924
WELLHEAD PRESSURE, PSIG.....	1550		1715	3265
OPEN FLOW, MCFD.....	16750		2590	3100
COMPONENT, MOLE PCT.....				
METHANE.....	94.6	-----	95.3	89.8
ETHANE.....	2.1	-----	0.3	5.8
PROPANE.....	0.8	-----	0.3	1.8
N-BUTANE.....	0.2	-----	TRACE	0.5
ISOBUTANE.....	0.1	-----	TRACE	0.3
N-PENTANE.....	0.1	-----	TRACE	0.2
ISOPENTANE.....	0.2	-----	0.1	0.2
CYCLOPENTANE.....	0.3	-----	0.1	TRACE
HEXANES PLUS.....	0.3	-----	0.1	0.3
NITROGEN.....	0.9	-----	0.4	0.3
OXYGEN.....	0.0	-----	0.0	0.6
ARGON.....	0.0	-----	TRACE	TRACE
HYDROGEN.....	0.1	-----	TRACE	0.6
HYDROGEN SULFIDE.....	0.0	-----	0.0	---
CARBON DIOXIDE.....	0.4	-----	0.5	0.1
HELIUM.....	0.01	-----	TRACE	0.01
HEATING VALUE.....	1067	-----	1049	1123
SPECIFIC GRAVITY.....	0.604	-----	0.589	0.626

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8425 4631	INDEX SAMPLE	8426 17649	INDEX SAMPLE	8427 17935
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GOLIAD			GOLIAD		GOLIAD	
FIELD.....	WELFARE			NOT GIVEN		SO. PARKS	
WELL NAME.....	BLUNTZER NO. B-1			W. T. NEYLAND NO. 1		WILLIAM T. DONOGHUE NO. 1	
LOCATION.....	NOT GIVEN			DE JESUS & BARRO SUR. A-51		MARIA DE JESUS BARRO SUR. A-	
OWNER.....	ATLANTIC REFINING CO.			ROSEWOOD RESOURCES		PHILKO ENERGY CORP.	
COMPLETED.....	09/05/48			--/--/00		05/13/85	
SAMPLED.....	11/17/48			04/18/85		--/--/00	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7845			14310		3385	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1770		1359	
OPEN FLOW, MCFD.....	1280			2200		3760	
COMPONENT, MOLE PCT							
METHANE.....	75.7	-----		90.4	-----	97.5	-----
ETHANE.....	23.0	-----		1.7	-----	0.1	-----
PROPANE.....	---	-----		0.1	-----	TRACE	-----
N-BUTANE.....	---	-----		0.1	-----	0.0	-----
ISOBUTANE.....	---	-----		0.0	-----	0.0	-----
N-PENTANE.....	---	-----		0.1	-----	0.0	-----
ISOPENTANE.....	---	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	---	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	---	-----		0.1	-----	0.0	-----
NITROGEN.....	0.8	-----		0.6	-----	1.5	-----
OXYGEN.....	0.3	-----		TRACE	-----	0.3	-----
ARGON.....	---	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	---	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		7.0	-----	0.5	-----
HELIUM.....	TRACE	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1179	-----		989	-----	989	-----
SPECIFIC GRAVITY.....	0.675	-----		0.641	-----	0.567	-----
		INDEX SAMPLE	8428 9713	INDEX SAMPLE	8429 13540	INDEX SAMPLE	8430 12079
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GOLIAD			GOLIAD		GOLIAD	
FIELD.....	SOLEBERG			SWICKHEIMER		TERRELL POINT E	
WELL NAME.....	L. H. VON DOHLEN NO. 1			J. P. SWICKHEIMER NO. 2		STATE OF TEXAS NO. 1	
LOCATION.....	JOHN SOLEBERG SUR. A-271			J. P. FERRELL SUR. A-356		G. MCKNIGHT SUR. A-24	
OWNER.....	ASSOC. OIL & GAS CO.			INEXCO OIL CO.		MERIDIAN EXPLORATION CO.	
COMPLETED.....	10/06/62			01/22/71		03/03/68	
SAMPLED.....	01/24/63			02/20/73		10/02/69	
FORMATION.....	EOCE-WILCOX			OLIG-FRIO		MIOC-CATAHOULA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	10090			2759		2902	
WELLHEAD PRESSURE, PSIG.....	5994			1005		1200	
OPEN FLOW, MCFD.....	22500			1460		10000	
COMPONENT, MOLE PCT							
METHANE.....	84.9	-----		98.2	-----	98.6	-----
ETHANE.....	7.1	-----		0.1	-----	0.1	-----
PROPANE.....	3.5	-----		TRACE	-----	TRACE	-----
N-BUTANE.....	0.7	-----		TRACE	-----	0.0	-----
ISOBUTANE.....	0.3	-----		TRACE	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.2	-----		TRACE	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		TRACE	-----	0.0	-----
NITROGEN.....	0.0	-----		1.4	-----	0.9	-----
OXYGEN.....	0.0	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	3.1	-----		0.2	-----	0.2	-----
HELIUM.....	TRACE	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1130	-----		997	-----	1001	-----
SPECIFIC GRAVITY.....	0.678	-----		0.562	-----	0.560	-----
		INDEX SAMPLE	8431 12080	INDEX SAMPLE	8432 5275	INDEX SAMPLE	8433 13544
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GOLIAD			GOLIAD		GOLIAD	
FIELD.....	TERRELL POINT E			WILDCAT		WILDCAT	
WELL NAME.....	STATE OF TEXAS NO. 1			BILL RODGERS NO. 1		J. F. MCCORD NO. 3	
LOCATION.....	G. MCKNIGHT SUR. A-24			W. P. MILLER SUR. A-193		NOAH P. STEBBINS SUR. A-256	
OWNER.....	MERIDIAN EXPLORATION CO.			MERIDIAN PETROLEUM CO.		STATES GAS PROD. CO.	
COMPLETED.....	03/03/68			12/16/51		01/06/72	
SAMPLED.....	10/02/69			04/17/52		02/--/73	
FORMATION.....	OLIG-FRIO 4030			OLIG-FRIO 3200		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4030			3205		9872	
WELLHEAD PRESSURE, PSIG.....	1300			1397		635	
OPEN FLOW, MCFD.....	390			1450		31500	
COMPONENT, MOLE PCT							
METHANE.....	89.3	-----		98.6	-----	87.1	-----
ETHANE.....	7.1	-----		0.1	-----	5.1	-----
PROPANE.....	TRACE	-----		0.3	-----	1.7	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.3	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.4	-----
N-PENTANE.....	0.0	-----		0.0	-----	TRACE	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.3	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.0	-----		TRACE	-----	0.1	-----
NITROGEN.....	8.2	-----		0.3	-----	TRACE	-----
OXYGEN.....	1.9	-----		TRACE	-----	TRACE	-----
ARGON.....	0.2	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.2	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		--	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.0	-----	4.9	-----
HELIUM.....	0.01	-----		0.01	-----	TRACE	-----
HEATING VALUE.....	907	-----		1021	-----	1063	-----
SPECIFIC GRAVITY.....	0.599	-----		0.563	-----	0.665	-----
		INDEX SAMPLE	8434 10241	INDEX SAMPLE	8435 17867	INDEX SAMPLE	8436 5307
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GONZALES			GONZALES		GRAY	
FIELD.....	CHERTIDE			FULCHUR		HOBART	
WELL NAME.....	FRANK ULMAN NO. 1			SPIECKERMANN NO. 1		HOBART NO. 1	
LOCATION.....	OTTO VON ROEDER SUR. A-462			ROBERT H. WYNN SUR. A-474		SEC. 26, BLK. 3, I&GN SUR.	
OWNER.....	TENNECO OIL CO.			PETROARY FUELS, INC.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	10/01/64			02/08/85		08/20/82	
SAMPLED.....	--/--/00			10/10/85		09/15/52	
FORMATION.....	CRET-EDWARDS			CRET-EDWARDS "A"		PENN-	
GEOLOGIC PROVINCE CODE.....	220			220		440	
DEPTH, FEET.....	11800			11834		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	4100			3300		NOT GIVEN	
OPEN FLOW, MCFD.....	16000			3666		3250	
COMPONENT, MOLE PCT							
METHANE.....	83.8	-----		75.6	-----	70.0	-----
ETHANE.....	3.0	-----		4.3	-----	4.8	-----
PROPANE.....	1.0	-----		1.6	-----	4.5	-----
N-BUTANE.....	0.6	-----		0.7	-----	0.3	-----
ISOBUTANE.....	0.2	-----		0.5	-----	0.1	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.2	-----
ISOPENTANE.....	TRACE	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		0.3	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		7.4	-----	0.1	-----
NITROGEN.....	0.0	-----		1.1	-----	2.1	-----
OXYGEN.....	0.1	-----		0.1	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.2	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	6.0	-----		6.8	-----	0.2	-----
HELIUM.....	0.01	-----		TRACE	-----	0.15	-----
HEATING VALUE.....	1073	-----		1018	-----	1066	-----
SPECIFIC GRAVITY.....	0.700	-----		0.758	-----	0.618	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8437 11616	INDEX SAMPLE	8438 11617	INDEX SAMPLE	8439 6092
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAY			GRAY		GRAY	
FIELD.....	HOOVER NE			HOOVER NE		LAKETON	
WELL NAME.....	SPEARMAN UNIT NO. 1-LT			SPEARMAN UNIT NO. 1-UT		WITMORE NO. 1	
LOCATION.....	SEC. 23, BLK. 3, H&N SUR.			SEC. 23, BLK. 3, I&N SUR.		SEC. 109, BLK. M-2, BS&F SUR	
OWNER.....	SINCLAIR OIL & GAS CO.			SINCLAIR OIL & GAS CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	01/01/57			01/01/57		--/--/00	
SAMPLED.....	08/05/68			08/05/68		06/25/56	
FORMATION.....	ORDO-ELLENBURGER			PENN-VIRGIL		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	9028			5010		7967	
WELLHEAD PRESSURE, PSIG.....	2340			1195		2313	
OPEN FLOW, MCFD.....	7990			9648		19340	
COMPONENT, MOLE PCT							
METHANE.....	90.6	-----		87.5	-----	89.5	-----
ETHANE.....	3.6	-----		4.2	-----	3.9	-----
PROPANE.....	1.3	-----		1.9	-----	1.5	-----
N-BUTANE.....	0.5	-----		0.6	-----	0.7	-----
ISOBUTANE.....	0.1	-----		0.2	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.3	-----	0.2	-----
ISOPENTANE.....	0.3	-----		0.1	-----	0.4	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.2	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.4	-----
NITROGEN.....	2.9	-----		4.8	-----	2.8	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		TRACE	-----	0.1	-----
HELIUM.....	0.08	-----		0.2	-----	0.08	-----
HEATING VALUE.....	1072	-----		1069	-----	1100	-----
SPECIFIC GRAVITY.....	0.625	-----		0.640	-----	0.640	-----
		INDEX SAMPLE	8440 8420	INDEX SAMPLE	8441 11758	INDEX SAMPLE	8442 15838
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAY			GRAY		GRAY	
FIELD.....	LAKETON			LAKETON		LAKETON	
WELL NAME.....	DEL NO. 2			M. H. BOSTON NO. 1		DEL NO. 1	
LOCATION.....	SEC. 110, BLK. M-2, BS&F SUR			SEC. 62, BLK. A-6, H&N SUR.		SEC. 110, BLK. M-2, BS&F SUR	
OWNER.....	PHILLIPS PETROLEUM CO.			SUN OIL CO.		PAGE PETROLEUM, INC.	
COMPLETED.....	10/02/61			01/25/67		06/30/79	
SAMPLED.....	03/01/62			02/10/69		11/09/79	
FORMATION.....	PERM-GRANITE WASH			CAMO-ARBUCKLE		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	9822			11440		10800	
WELLHEAD PRESSURE, PSIG.....	2949			3270		2210	
OPEN FLOW, MCFD.....	5200			56000		90000	
COMPONENT, MOLE PCT							
METHANE.....	91.9	-----		85.9	-----	71.4	-----
ETHANE.....	3.4	-----		5.8	-----	7.9	-----
PROPANE.....	1.6	-----		3.3	-----	4.6	-----
N-BUTANE.....	2.8	-----		1.0	-----	1.1	-----
ISOBUTANE.....	0.3	-----		0.6	-----	0.6	-----
N-PENTANE.....	0.3	-----		0.4	-----	0.3	-----
ISOPENTANE.....	0.4	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.3	-----	0.1	-----
NITROGEN.....	0.9	-----		2.1	-----	13.4	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.1	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.2	-----	TRACE	-----
HELIUM.....	0.04	-----		0.07	-----	0.16	-----
HEATING VALUE.....	1109	-----		1159	-----	1072	-----
SPECIFIC GRAVITY.....	0.625	-----		0.673	-----	0.734	-----
		INDEX SAMPLE	8443 7674	INDEX SAMPLE	8444 2830	INDEX SAMPLE	8445 3618
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAY			GRAY		GRAY	
FIELD.....	NOT GIVEN			PANHANDLE		PANHANDLE	
WELL NAME.....	PARKER NO. A-2			URANCZYK NO. 3		BAIRD & TALLEY NO. 1	
LOCATION.....	NOT GIVEN			SEC. 109, BLK. 7, I&N SUR.		SEC. 219, BLK. B-2, H&N SUR	
OWNER.....	JAMES E. & H. T. PARKER			HAGY, HARRINGTON & MARSH		NORTHERN NATURAL GAS CO.	
COMPLETED.....	--/--/00			10/11/39		--/--/00	
SAMPLED.....	--/--/00			11/02/39		03/01/43	
FORMATION.....	NOT GIVEN			PERM---		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2889			2810		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			411		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			26017		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	74.9	-----		67.9	-----	73.6	-----
ETHANE.....	9.2	-----		14.6	-----	20.2	-----
PROPANE.....	6.8	-----		---	-----	---	-----
N-BUTANE.....	2.2	-----		---	-----	---	-----
ISOBUTANE.....	1.2	-----		---	-----	---	-----
N-PENTANE.....	0.5	-----		---	-----	---	-----
ISOPENTANE.....	0.4	-----		---	-----	---	-----
CYCLOPENTANE.....	0.1	-----		---	-----	---	-----
HEXANES PLUS.....	0.3	-----		---	-----	---	-----
NITROGEN.....	4.1	-----		16.0	-----	5.7	-----
OXYGEN.....	TRACE	-----		0.6	-----	0.2	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	TRACE	-----		0.2	-----	0.0	-----
HELIUM.....	0.1	-----		0.71	-----	0.25	-----
HEATING VALUE.....	1272	-----		809	-----	1108	-----
SPECIFIC GRAVITY.....	0.762	-----		0.695	-----	0.678	-----
		INDEX SAMPLE	8446 3970	INDEX SAMPLE	8447 5318	INDEX SAMPLE	8448 983
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAY			GRAY		GRAY	
FIELD.....	PANHANDLE			PANHANDLE		PANHANDLE	
WELL NAME.....	ASH C WELL NO. 1			ASH C WELL NO. 1		C. H. SAUNDERS NO. 1	
LOCATION.....	SEC. 108, BLK. 3, I&N SUR.			SEC. 3, BLK. 26, H&N SUR.		SEC. 3, BLK. 5, ACH&B SUR.	
OWNER.....	TEXOMA NATURAL GAS CO.			KEWANEEO OIL CO.		TEXAS CO.	
COMPLETED.....	04/16/27			12/27/50		01/--/24	
SAMPLED.....	12/21/44			11/19/52		01/09/25	
FORMATION.....	PERM-WICHITA-ALBANY			PENN-CISCO L		-LIME	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			2295		2495	
WELLHEAD PRESSURE, PSIG.....	199			87		448	
OPEN FLOW, MCFD.....	2430			5400		60000	
COMPONENT, MOLE PCT							
METHANE.....	59.7	-----		69.0	-----	77.8	-----
ETHANE.....	12.7	-----		13.8	-----	17.4	-----
PROPANE.....	---	-----		8.0	-----	---	-----
N-BUTANE.....	---	-----		2.6	-----	---	-----
ISOBUTANE.....	---	-----		1.3	-----	---	-----
N-PENTANE.....	---	-----		0.6	-----	---	-----
ISOPENTANE.....	---	-----		0.1	-----	---	-----
CYCLOPENTANE.....	---	-----		0.1	-----	---	-----
HEXANES PLUS.....	---	-----		0.3	-----	---	-----
NITROGEN.....	23.7	-----		0.3	-----	4.2	-----
OXYGEN.....	0.0	-----		---	-----	0.3	-----
ARGON.....	---	-----		TRACE	-----	---	-----
HYDROGEN.....	---	-----		TRACE	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	3.7	-----		0.1	-----	0.1	-----
HELIUM.....	0.18	-----		9.05	-----	0.11	-----
HEATING VALUE.....	832	-----		1.66	-----	1100	-----
SPECIFIC GRAVITY.....	0.750	-----		0.811	-----	0.662	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8449 5225			INDEX SAMPLE	8450 5226			INDEX SAMPLE	8451 5228
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	GRAY			COUNTY.....	GRAY			COUNTY.....	GRAY		
FIELD.....	PANHANDLE E			FIELD.....	PANHANDLE E			FIELD.....	PANHANDLE E		
WELL NAME.....	GOLDSTON NO. 1			WELL NAME.....	RICE NO. 1			WELL NAME.....	YONES NO. B-1		
LOCATION.....	BS&F SUR.			LOCATION.....	SEC. 32, BLK. 30			LOCATION.....	SEC. 4, BS&F SUR.		
OWNER.....	T. J. WAGNER, JR.			OWNER.....	T. J. WAGNER, JR.			OWNER.....	T. J. WAGNER, JR.		
COMPLETED.....	08/10/51			COMPLETED.....	04/15/52			COMPLETED.....	03/25/52		
SAMPLED.....	06/11/52			SAMPLED.....	06/11/52			SAMPLED.....	06/11/52		
FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	NOT GIVEN			FORMATION.....	PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	2378			DEPTH, FEET.....	2310			DEPTH, FEET.....	2279		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	270			WELLHEAD PRESSURE, PSIG.....	422		
OPEN FLOW, MCFD.....	2500			OPEN FLOW, MCFD.....	2000			OPEN FLOW, MCFD.....	1000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	82.1			METHANE.....	82.7			METHANE.....	83.2		
ETHANE.....	5.6			ETHANE.....	4.8			ETHANE.....	5.4		
PROPANE.....	2.9			PROPANE.....	2.4			PROPANE.....	2.6		
N-BUTANE.....	0.7			N-BUTANE.....	0.7			N-BUTANE.....	0.6		
ISOBUTANE.....	0.4			ISOBUTANE.....	0.2			ISOBUTANE.....	0.2		
N-PENTANE.....	TRACE			N-PENTANE.....	0.1			N-PENTANE.....	0.2		
ISOPENTANE.....	0.3			ISOPENTANE.....	0.4			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	TRACE			HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1		
NITROGEN.....	7.7			NITROGEN.....	7.9			NITROGEN.....	7.2		
OXYGEN.....	TRACE			OXYGEN.....	TRACE			OXYGEN.....	TRACE		
ARGON.....	TRACE			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	TRACE			HYDROGEN.....	TRACE			HYDROGEN.....	TRACE		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.4			CARBON DIOXIDE.....	0.1		
HELIUM.....	0.20			HELIUM.....	0.23			HELIUM.....	0.20		
HEATING VALUE.....	1057			HEATING VALUE.....	1047			HEATING VALUE.....	1056		
SPECIFIC GRAVITY.....	0.666			SPECIFIC GRAVITY.....	0.666			SPECIFIC GRAVITY.....	0.659		
		INDEX SAMPLE	8452 7142			INDEX SAMPLE	8453 7359			INDEX SAMPLE	8454 7653
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	GRAY			COUNTY.....	GRAY			COUNTY.....	GRAY		
FIELD.....	PANHANDLE E			FIELD.....	PANHANDLE E			FIELD.....	PANHANDLE E		
WELL NAME.....	R. E. DARSEY A-3			WELL NAME.....	M. A. SHAW NO. 2			WELL NAME.....	KAREN NO. 1		
LOCATION.....	SEC. 13			LOCATION.....	SEC. 5, BLK. 1, ACH&B SUR.			LOCATION.....	SEC. 28, BLK. 1, ACH&B SUR.		
OWNER.....	AMARILLO OIL CO.			OWNER.....	TEXACO INC.			OWNER.....	R. W. ADAMS & SON		
COMPLETED.....	07/05/58			COMPLETED.....	07/07/59			COMPLETED.....	06/07/56		
SAMPLED.....	07/15/59			SAMPLED.....	01/25/60			SAMPLED.....	08/25/60		
FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-GRANITE WASH		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	2442			DEPTH, FEET.....	2294			DEPTH, FEET.....	2904		
WELLHEAD PRESSURE, PSIG.....	313			WELLHEAD PRESSURE, PSIG.....	52			WELLHEAD PRESSURE, PSIG.....	150		
OPEN FLOW, MCFD.....	7800			OPEN FLOW, MCFD.....	900			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	84.3			METHANE.....	76.0			METHANE.....	74.5		
ETHANE.....	6.2			ETHANE.....	7.8			ETHANE.....	8.5		
PROPANE.....	2.7			PROPANE.....	5.6			PROPANE.....	5.9		
N-BUTANE.....	0.0			N-BUTANE.....	2.6			N-BUTANE.....	2.6		
ISOBUTANE.....	1.2			ISOBUTANE.....	1.1			ISOBUTANE.....	0.7		
N-PENTANE.....	0.3			N-PENTANE.....	0.4			N-PENTANE.....	0.8		
ISOPENTANE.....	0.0			ISOPENTANE.....	0.8			ISOPENTANE.....	0.6		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.5		
HEXANES PLUS.....	0.0			HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.9		
NITROGEN.....	5.1			NITROGEN.....	4.1			NITROGEN.....	3.8		
OXYGEN.....	0.0			OXYGEN.....	TRACE			OXYGEN.....	TRACE		
ARGON.....	0.0			ARGON.....	0.0			ARGON.....	0.0		
HYDROGEN.....	TRACE			HYDROGEN.....	0.1			HYDROGEN.....	TRACE		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.1		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.1		
HELIUM.....	0.10			HELIUM.....	0.10			HELIUM.....	0.10		
HEATING VALUE.....	1092			HEATING VALUE.....	1271			HEATING VALUE.....	1312		
SPECIFIC GRAVITY.....	0.660			SPECIFIC GRAVITY.....	0.762			SPECIFIC GRAVITY.....	0.791		
		INDEX SAMPLE	8455 7654			INDEX SAMPLE	8456 7694			INDEX SAMPLE	8457 834
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	GRAY			COUNTY.....	GRAY			COUNTY.....	GRAY		
FIELD.....	PANHANDLE E			FIELD.....	PANHANDLE E			FIELD.....	PANHANDLE W		
WELL NAME.....	KAREN NO. A-1			WELL NAME.....	JOHNSON-FED. NO. 1			WELL NAME.....	TEXAS NO. 1 SAUNDERS		
LOCATION.....	SEC. 28, BLK. 1, ACH&B SUR.			LOCATION.....	SEC. 3, ROCKWALL CTY. SCHOOL			LOCATION.....	SEC. 187, BLK. 1		
OWNER.....	R. W. ADAMS & SON			OWNER.....	KERR-MCGEE CORP.			OWNER.....	TEXAS CO.		
COMPLETED.....	01/01/57			COMPLETED.....	08/23/60			COMPLETED.....	04/01/23		
SAMPLED.....	08/25/60			SAMPLED.....	09/20/60			SAMPLED.....	01/09/24		
FORMATION.....	PERM-GRANITE WASH			FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	2890			DEPTH, FEET.....	2615			DEPTH, FEET.....	2270		
WELLHEAD PRESSURE, PSIG.....	150			WELLHEAD PRESSURE, PSIG.....	340			WELLHEAD PRESSURE, PSIG.....	50		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	450			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	79.0			METHANE.....	33.1			METHANE.....	79.1		
ETHANE.....	7.7			ETHANE.....	0.4			ETHANE.....	16.8		
PROPANE.....	5.1			PROPANE.....	10.2			PROPANE.....	---		
N-BUTANE.....	1.8			N-BUTANE.....	4.2			N-BUTANE.....	---		
ISOBUTANE.....	0.4			ISOBUTANE.....	2.6			ISOBUTANE.....	---		
N-PENTANE.....	0.4			N-PENTANE.....	0.9			N-PENTANE.....	---		
ISOPENTANE.....	0.4			ISOPENTANE.....	1.3			ISOPENTANE.....	---		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.7			CYCLOPENTANE.....	---		
HEXANES PLUS.....	0.3			HEXANES PLUS.....	0.7			HEXANES PLUS.....	---		
NITROGEN.....	4.3			NITROGEN.....	41.5			NITROGEN.....	3.6		
OXYGEN.....	TRACE			OXYGEN.....	TRACE			OXYGEN.....	0.2		
ARGON.....	0.0			ARGON.....	0.1			ARGON.....	---		
HYDROGEN.....	0.1			HYDROGEN.....	0.1			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.0		
HELIUM.....	0.10			HELIUM.....	0.70			HELIUM.....	0.12		
HEATING VALUE.....	1202			HEATING VALUE.....	1043			HEATING VALUE.....	1102		
SPECIFIC GRAVITY.....	0.720			SPECIFIC GRAVITY.....	1.016			SPECIFIC GRAVITY.....	0.652		
		INDEX SAMPLE	8458 4443			INDEX SAMPLE	8459 5280			INDEX SAMPLE	8460 5613
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	GRAY			COUNTY.....	GRAY			COUNTY.....	GRAY		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
WELL NAME.....	LUCILE NO. 1			WELL NAME.....	MCCRACKEN NO. 1			WELL NAME.....	KROUCH NO. A-1		
LOCATION.....	SEC. 103, BLK. 2, H&GN SUR.			LOCATION.....	SEC. 31, BLK. 25, H&GN SUR.			LOCATION.....	SEC. 187, BLK. E, D&P SUR.		
OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	SHALICK OIL & GAS CORP.			OWNER.....	PANOMA CORP.		
COMPLETED.....	09/04/47			COMPLETED.....	04/25/52			COMPLETED.....	02/09/54		
SAMPLED.....	01/19/48			SAMPLED.....	10/02/52			SAMPLED.....	04/30/54		
FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	2810			DEPTH, FEET.....	2365			DEPTH, FEET.....	2350		
WELLHEAD PRESSURE, PSIG.....	398			WELLHEAD PRESSURE, PSIG.....	231			WELLHEAD PRESSURE, PSIG.....	415		
OPEN FLOW, MCFD.....	3550			OPEN FLOW, MCFD.....	560			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	60.4			METHANE.....	82.1			METHANE.....	79.9		
ETHANE.....	20.1			ETHANE.....	3.8			ETHANE.....	5.6		
PROPANE.....	---			PROPANE.....	1.0			PROPANE.....	2.6		
N-BUTANE.....	---			N-BUTANE.....	0.7			N-BUTANE.....	0.6		
ISOBUTANE.....	---			ISOBUTANE.....	0.4			ISOBUTANE.....	0.2		
N-PENTANE.....	---			N-PENTANE.....	0.2			N-PENTANE.....	0.1		
ISOPENTANE.....	---			ISOPENTANE.....	0.2			ISOPENTANE.....	TRACE		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	---			HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.1		
NITROGEN.....	18.6			NITROGEN.....	4.5			NITROGEN.....	10.4		
OXYGEN.....	0.2			OXYGEN.....	TRACE			OXYGEN.....	TRACE		
ARGON.....	---			ARGON.....	0.1			ARGON.....	TRACE		
HYDROGEN.....	---			HYDROGEN.....	0.0			HYDROGEN.....	TRACE		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	TRACE			CARBON DIOXIDE.....	0.0		
HELIUM.....	0.15			HELIUM.....	0.12			HELIUM.....	0.27		
HEATING VALUE.....	972			HEATING VALUE.....	1149			HEATING VALUE.....	1014		
SPECIFIC GRAVITY.....	0.732			SPECIFIC GRAVITY.....	0.689			SPECIFIC GRAVITY.....	0.665		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8461 5690	INDEX SAMPLE	8462 6300	INDEX SAMPLE	8463 6301
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAY			GRAY		GRAY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BAKER NO. 1			REEVES NO. 1		HIBLER NO. 1-A	
LOCATION.....	SEC. 176, D&P SUR.			SEC. 48, BLK. E, D&P SUR.		SEC. 66, BLK. E, D&P SUR.	
OWNER.....	CABOT CARBON CO.			EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	06/10/54			02/09/57		02/13/57	
SAMPLED.....	09/20/54			04/10/57		04/10/57	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-GRANITE WASH		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2569			2586		2502	
WELLHEAD PRESSURE, PSIG.....	388			428		416	
OPEN FLOW, MCFD.....	5300			3900		1400	
COMPONENT, MOLE PCT.....							
METHANE.....	71.6	-----		72.0	-----	70.7	-----
ETHANE.....	8.6	-----		3.0	-----	3.9	-----
PROPANE.....	3.7	-----		1.5	-----	3.0	-----
N-BUTANE.....	0.8	-----		0.6	-----	0.8	-----
ISOBUTANE.....	0.5	-----		0.4	-----	0.3	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	13.8	-----		21.2	-----	16.3	-----
OXYGEN.....	TRACE	-----		0.0	-----	2.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.1	-----
HYDROGEN.....	9.1	-----		0.9	-----	0.1	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		TRACE	-----	TRACE	-----
HELIUM.....	0.31	-----		0.60	-----	0.21	-----
HEATING VALUE.....	1041	-----		885	-----	955	-----
SPECIFIC GRAVITY.....	0.720	-----		0.698	-----	0.716	-----
		INDEX SAMPLE	8464 6598	INDEX SAMPLE	8465 7060	INDEX SAMPLE	8466 7061
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAY			GRAY		GRAY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MORLEY NO. 31			ALLEN W. KNORPP NO. 1		REAVERS NO. 1	
LOCATION.....	SEC. 61, BLK. 3, H&GN SUR.			SEC. 18, BLK. B-3, H&GN SUR.		SEC. 124, BLK. B-2, H&GN SUR	
OWNER.....	WILCOX OIL CO.			CABOT CARBON CO.		CABOT CARBON CO.	
COMPLETED.....	7/-/59			04/29/53		02/26/26	
SAMPLED.....	05/21/58			05/05/59		05/05/59	
FORMATION.....	NOT GIVEN			PERM-WICHITA-ALBANY		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3100			2855		2684	
WELLHEAD PRESSURE, PSIG.....	60			253		173	
OPEN FLOW, MCFD.....	600			294		1524	
COMPONENT, MOLE PCT.....							
METHANE.....	75.6	-----		59.8	-----	81.8	-----
ETHANE.....	7.9	-----		3.0	-----	6.5	-----
PROPANE.....	5.4	-----		2.5	-----	3.8	-----
N-BUTANE.....	2.1	-----		0.9	-----	1.2	-----
ISOBUTANE.....	1.1	-----		0.5	-----	0.6	-----
N-PENTANE.....	0.3	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.8	-----		0.3	-----	0.4	-----
CYCLOPENTANE.....	0.2	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.4	-----		0.2	-----	0.2	-----
NITROGEN.....	4.9	-----		31.4	-----	5.0	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.0	-----
HELIUM.....	0.20	-----		1.00	-----	0.20	-----
HEATING VALUE.....	1241	-----		810	-----	1140	-----
SPECIFIC GRAVITY.....	0.751	-----		0.761	-----	0.689	-----
		INDEX SAMPLE	8467 7147	INDEX SAMPLE	8468 7479	INDEX SAMPLE	8469 7480
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAY			GRAY		GRAY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	W. H. TAYLOR C NO. 1			JOHNSON C NO. 1		JOHNSON A NO. 1	
LOCATION.....	SEC. 39, BLK. B-2, H&GN SUR.			SEC. 6, BLK. E, B&B SUR.		SEC. 179, BLK. E, D&P SUR.	
OWNER.....	TEXACO INC.			D. D. HARRINGTON		D. D. HARRINGTON	
COMPLETED.....	12/15/58			09/-/59		09/-/59	
SAMPLED.....	07/17/59			03/03/60		03/03/60	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2474			2678		2674	
WELLHEAD PRESSURE, PSIG.....	286			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	8400			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	84.0	-----		65.0	-----	67.1	-----
ETHANE.....	5.2	-----		5.2	-----	4.6	-----
PROPANE.....	5.2	-----		5.5	-----	4.6	-----
N-BUTANE.....	0.7	-----		1.9	-----	1.3	-----
ISOBUTANE.....	0.5	-----		0.0	-----	0.8	-----
N-PENTANE.....	0.5	-----		0.6	-----	0.3	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	5.3	-----		13.1	-----	16.0	-----
OXYGEN.....	0.1	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.1	-----
HELIUM.....	0.10	-----		0.30	-----	0.40	-----
HEATING VALUE.....	1082	-----		1146	-----	1071	-----
SPECIFIC GRAVITY.....	0.661	-----		0.799	-----	0.762	-----
		INDEX SAMPLE	8470 7622	INDEX SAMPLE	8471 7712	INDEX SAMPLE	8472 1536
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAY			GRAY		GRAY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W/RED CAVE	
WELL NAME.....	JOHNSON NO. 1			JOHNSON NO. 1-A		WELL NO. 1	
LOCATION.....	SEC. 58, BLK. B-2, H&GN SUR.			SEC. 4, BLK. 3, B&B SUR.		SEC. 191, BLK. 3, I&GN SUR.	
OWNER.....	PETROLEUM EXPLORATION, INC.			EL PASO NATURAL GAS CO.		EMPIRE GAS & FUEL CO.	
COMPLETED.....	11/-/70			11/10/53		11/-/70	
SAMPLED.....	07/23/60			10/08/60		11/01/70	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2753			NOT GIVEN		2300	
WELLHEAD PRESSURE, PSIG.....	187			121		420	
OPEN FLOW, MCFD.....	1062			611		35000	
COMPONENT, MOLE PCT.....							
METHANE.....	79.8	-----		81.5	-----	70.9	-----
ETHANE.....	7.7	-----		6.6	-----	21.5	-----
PROPANE.....	5.2	-----		3.1	-----	---	-----
N-BUTANE.....	1.0	-----		0.0	-----	---	-----
ISOBUTANE.....	0.5	-----		0.9	-----	---	-----
N-PENTANE.....	0.4	-----		0.1	-----	---	-----
ISOPENTANE.....	0.3	-----		0.0	-----	---	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	---	-----
HEXANES PLUS.....	0.2	-----		0.1	-----	---	-----
NITROGEN.....	3.4	-----		6.7	-----	7.2	-----
OXYGEN.....	TRACE	-----		0.2	-----	0.3	-----
ARGON.....	0.0	-----		TRACE	-----	---	-----
HYDROGEN.....	0.2	-----		0.0	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.10	-----		0.20	-----	0.23	-----
HEATING VALUE.....	1212	-----		1099	-----	1168	-----
SPECIFIC GRAVITY.....	0.717	-----		0.673	-----	0.693	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSOLUTE OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8473 SAMPLE 5346			INDEX 8474 SAMPLE 5347			INDEX 8475 SAMPLE 5349		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GRAY		GRAY			GRAY		
FIELD.....	PURSLEY RANCH		PURSLEY RANCH			PURSLEY RANCH		
WELL NAME.....	DONA NO. 1		RACHEL NO. 1			MADELINE NO. 1		
LOCATION.....	SEC. 9, BLK. 25, H&GN SUR.		SEC. 9, BLK. 25, H&GN SUR.			SEC. 20, BLK. 25, H&GN SUR.		
OWNER.....	C. P. PURSLEY		C. P. PURSLEY			C. P. PURSLEY		
COMPLETED.....	--/--/00		--/--/00			12/--/52		
SAMPLED.....	01/14/53		12/09/52			12/09/52		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	1700		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.7		84.6			85.1		
ETHANE.....	5.8		3.7			5.0		
PROPANE.....	3.1		3.0			2.3		
N-BUTANE.....	0.8		0.8			0.8		
ISOBUTANE.....	0.4		0.3			0.2		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	4.4		4.7			6.0		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			TRACE		
HELIUM.....	0.13		0.13			0.16		
HEATING VALUE.....	1114		1197			1056		
SPECIFIC GRAVITY.....	0.665		0.659			0.645		
INDEX 8476 SAMPLE 5350			INDEX 8477 SAMPLE 10509			INDEX 8478 SAMPLE 16077		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GRAY		GRAY			GRAY		
FIELD.....	PURSLEY RANCH		WILDCAT			WILDCAT		
WELL NAME.....	MOLLY RUTH NO. 1		R. B. MATHERS 2 NO. 1			WM. D. STOCKSTILL NO. 1		
LOCATION.....	SEC. 30, BLK. 30, H&GN SUR.		SEC. 18, BLK. S. J. STUMP SUR.			SEC. 18, BLK. H2, BS&F SUR.		
OWNER.....	C. P. PURSLEY		STANDARD OIL CO. OF TEXAS			HUNT ENERGY CORP.		
COMPLETED.....	--/--/00		02/13/66			05/06/80		
SAMPLED.....	12/09/52		04/07/66			09/04/80		
FORMATION.....	NOT GIVEN		PENN-ATOKA			STRAY SAND		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		11690			9740		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		3205			3473		
OPEN FLOW, MCFD.....	NOT GIVEN		4200			4650		
COMPONENT, MOLE PCT								
METHANE.....	84.5		82.8			91.2		
ETHANE.....	5.3		7.7			3.5		
PROPANE.....	2.9		4.0			1.5		
N-BUTANE.....	1.1		1.1			0.5		
ISOBUTANE.....	0.4		0.3			0.1		
N-PENTANE.....	0.3		0.1			0.2		
ISOPENTANE.....	TRACE		0.4			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.2		
HEXANES PLUS.....	0.0		0.1			0.2		
NITROGEN.....	5.0		2.2			2.3		
OXYGEN.....	TRACE		0.3			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.7			0.2		
HELIUM.....	0.14		0.02			0.05		
HEATING VALUE.....	1100		1161			1077		
SPECIFIC GRAVITY.....	0.662		0.686			0.622		
INDEX 8479 SAMPLE 16444			INDEX 8480 SAMPLE 12937			INDEX 8481 SAMPLE 4137		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GRAYSON		GRAYSON			GRAYSON		
FIELD.....	HILLS		GORDONVILLE			HANDY		
WELL NAME.....	W. STRICKLAND GAS UNIT NO. 1		R. R. ROBBINS NO. 1			J. R. HANDY NO. 3		
LOCATION.....	JOSEPH STRICKLAND SUR. A1068		THOMAS TOBY SUR. A-1240			25 MI. NE OF GAINESVILLE		
OWNER.....	AMERICAN QUASAR PET. CO.		JAC. L. HAMON			TEXAS CO.		
COMPLETED.....	02/--/82		03/07/70			09/04/46		
SAMPLED.....	03/09/82		07/19/71			10/17/46		
FORMATION.....	PENN-DORNICK HILLS L		ORDO-OIL CREEK			CRET-BASAL		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	12867		15445			398		
WELLHEAD PRESSURE, PSIG.....	6133		7535			125		
OPEN FLOW, MCFD.....	80200		29000			469		
COMPONENT, MOLE PCT								
METHANE.....	80.5		90.2			88.2		
ETHANE.....	10.9		5.2			5.7		
PROPANE.....	4.3		3.4			---		
N-BUTANE.....	1.1		0.6			---		
ISOBUTANE.....	0.4		0.4			---		
N-PENTANE.....	0.3		0.3			---		
ISOPENTANE.....	0.2		0.0			---		
CYCLOPENTANE.....	0.1		TRACE			---		
HEXANES PLUS.....	0.2		0.2			---		
NITROGEN.....	1.4		0.7			5.1		
OXYGEN.....	0.1		0.0			0.5		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.5		0.2			0.4		
HELIUM.....	0.03		0.02			0.13		
HEATING VALUE.....	1208		1123			996		
SPECIFIC GRAVITY.....	0.702		0.634			0.610		
INDEX 8482 SAMPLE 10650			INDEX 8483 SAMPLE 16060			INDEX 8484 SAMPLE 7889		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GRAYSON		GRAYSON			GRAYSON		
FIELD.....	HANDY		MINERAL CREEK W			NEW MAG		
WELL NAME.....	W. B. THORN NO. 12		PETRO LEWIS-MUSCH GU NO. 1			MARY 1		
LOCATION.....	SAMUEL STEWART SUR. A1069		172 MI. W OF POTTSBORO			W. B. CHILES A-317 SUR.		
OWNER.....	TEXACO INC.		AMERICAN QUASAR PET. CO.			STANDARD OIL CO. OF TEXAS		
COMPLETED.....	07/24/60		03/24/80			03/01/59		
SAMPLED.....	07/14/66		09/04/80			03/08/61		
FORMATION.....	GRAY		PENN-DORNICK HILLS			ORDO-OIL CREEK		
GEOLOGIC PROVINCE CODE.....	350		350			350		
DEPTH, FEET.....	4639		12198			12813		
WELLHEAD PRESSURE, PSIG.....	1982		5813			5224		
OPEN FLOW, MCFD.....	3150		28500			78000		
COMPONENT, MOLE PCT								
METHANE.....	86.1		84.1			86.4		
ETHANE.....	6.0		9.2			7.8		
PROPANE.....	3.4		3.4			3.1		
N-BUTANE.....	1.1		0.9			0.9		
ISOBUTANE.....	0.4		0.3			0.5		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.3		0.1			0.1		
NITROGEN.....	1.8		0.8			0.7		
OXYGEN.....	0.2		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.7			0.2		
HELIUM.....	0.06		0.02			0.03		
HEATING VALUE.....	1163		1168			1165		
SPECIFIC GRAVITY.....	0.670		0.672			0.661		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8485 12553	INDEX SAMPLE	8486 16772	INDEX SAMPLE	8487 1731
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAYSON			GRAYSON		GRAYSON	
FIELD.....	NEW MAG			PARADISE COVE		POTTSBORO	
WELL NAME.....	NEW MAG UNIT NO. 12-1			W. STRICKLAND GAS UNIT NO.1		WALL NO. 1	
LOCATION.....	NOT GIVEN			JOS. STRICKLAND, A1068		JAMES INGRAM SUR.	
OWNER.....	CHEVRON OIL CO.			AMERICAN QUASAR PET. CO.		STIMPSON-FELL OIL CO.	
COMPLETED.....	07/28/61			10/28/81		01/-/79	
SAMPLED.....	11/27/70			02/17/83		04/05/29	
FORMATION.....	ORGO-OIL CREEK			PENN-DORNICK HILLS L		CRET-TRINITY	
GEOLOGIC PROVINCE CODE...	350			350		350	
DEPTH, FEET.....	12776			12747		870	
WELLHEAD PRESSURE, PSIG...	4200			2200		220	
OPEN FLOW, MCFD.....	3860			8056		4	
COMPONENT, MOLE PCT							
METHANE.....	84.3			79.0		87.2	
ETHANE.....	8.2			11.1		6.8	
PROPANE.....	4.3			4.6		---	
N-BUTANE.....	0.8			1.3		---	
ISOBUTANE.....	0.5			0.5		---	
N-PENTANE.....	0.2			0.3		---	
ISOPENTANE.....	TRACE			0.4		---	
CYCLOPENTANE.....	0.1			0.2		---	
HEXANES PLUS.....	0.2			0.2		---	
NITROGEN.....	1.1			1.4		5.5	
OXYGEN.....	0.1			0.0		0.2	
ARGON.....	0.0			TRACE		---	
HYDROGEN.....	0.1			0.2		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	TRACE			0.8		0.3	
HELIUM.....	0.03			0.03		0.20	
HEATING VALUE.....	1179			1224		1005	
SPECIFIC GRAVITY.....	0.672			0.715		0.615	
		INDEX SAMPLE	8488 11735	INDEX SAMPLE	8489 12478	INDEX SAMPLE	8490 12479
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GRAYSON			GREGG		GREGG	
FIELD.....	SHERMAN			DANVILLE		DANVILLE	
WELL NAME.....	ROY LOGSTON NO. 1			D. L. BALLENGER G.U. NO. 3-L		D. L. BALLENGER G.U. NO. 3-U	
LOCATION.....	J. B. MCANAIR SUR. A-763			HADEN EDWARDS SUR.		HADEN EDWARDS SUR.	
OWNER.....	STANDARD OIL CO. OF TEXAS			TEXACO INC.		TEXACO INC.	
COMPLETED.....	04/11/67			11/09/62		10/29/69	
SAMPLED.....	01/14/69			10/22/70		10/22/70	
FORMATION.....	-CORDELL			CRET-TRAVIS PEAK		CRET-GLOYD	
GEOLOGIC PROVINCE CODE...	350			260		260	
DEPTH, FEET.....	8590			7516		6791	
WELLHEAD PRESSURE, PSIG...	525			1245		355	
OPEN FLOW, MCFD.....	1240			350		250	
COMPONENT, MOLE PCT							
METHANE.....	83.2			90.9		90.7	
ETHANE.....	7.1			3.9		4.0	
PROPANE.....	1.4			0.9		1.3	
N-BUTANE.....	1.4			0.4		0.4	
ISOBUTANE.....	1.1			0.4		0.5	
N-PENTANE.....	0.4			0.4		0.2	
ISOPENTANE.....	0.0			0.4		0.0	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.5			0.5		0.4	
NITROGEN.....	1.1			0.0		1.4	
OXYGEN.....	0.1			0.0		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.9		0.8	
HELIUM.....	TRACE			0.01		0.01	
HEATING VALUE.....	1224			1098		1088	
SPECIFIC GRAVITY.....	0.704			0.631		0.630	
		INDEX SAMPLE	8491 3731	INDEX SAMPLE	8492 5647	INDEX SAMPLE	8493 12594
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GREGG			GREGG		GREGG	
FIELD.....	WILLOW SPRINGS			WILLOW SPRINGS		WILLOW SPRINGS	
WELL NAME.....	HORTON-DICKSON NO. 4			NORRIS ESTATE NO. 1		J. M. ROBERTSON NO. 3	
LOCATION.....	H. G. HUDSON SUR.			G. H. GROCE SUR.		A. J. FERGUSON SUR. A-75	
OWNER.....	LONE STAR PRODUCING CO.			MID-STATES OIL CORP.		LONE STAR PRODUCING CO.	
COMPLETED.....	12/06/42			01/30/54		10/29/69	
SAMPLED.....	03/24/44			06/28/54		12/18/70	
FORMATION.....	CRET-PETTIT L			CRET-RODESSA		CRET-TRAVIS PEAK	
GEOLOGIC PROVINCE CODE...	260			260		260	
DEPTH, FEET.....	7250			7606		7451	
WELLHEAD PRESSURE, PSIG...	NOT GIVEN			2700		2938	
OPEN FLOW, MCFD.....	3500			3100		4028	
COMPONENT, MOLE PCT							
METHANE.....	49.4			90.1		91.9	
ETHANE.....	46.9			3.8		3.8	
PROPANE.....	---			1.2		0.9	
N-BUTANE.....	---			0.3		0.2	
ISOBUTANE.....	---			0.4		0.3	
N-PENTANE.....	---			0.2		0.1	
ISOPENTANE.....	---			TRACE		0.0	
CYCLOPENTANE.....	---			TRACE		TRACE	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.8			1.1		1.3	
OXYGEN.....	0.5			0.0		TRACE	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			0.2		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	2.4			1.2		1.1	
HELIUM.....	0.00			1.01		0.01	
HEATING VALUE.....	1341			1076		1059	
SPECIFIC GRAVITY.....	0.816			0.625		0.615	
		INDEX SAMPLE	8494 12595	INDEX SAMPLE	8495 12596	INDEX SAMPLE	8496 12621
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	GREGG			GREGG		GREGG	
FIELD.....	WILLOW SPRINGS			WILLOW SPRINGS		WILLOW SPRINGS	
WELL NAME.....	E. D. ROBERTSON NO. A-2			B. A. SKIPPER NO. B-1		THRASHER NO. 2C	
LOCATION.....	ALEXANDER-FERGUSON SUR. A-76			MARSHALL-MANN SUR. A-256		2 MI. NW LONGVIEW	
OWNER.....	LONE STAR PRODUCING CO.			LONE STAR PRODUCING CO.		DORFMAN PRODUCTION CO.	
COMPLETED.....	02/23/59			12/29/59		12/18/55	
SAMPLED.....	12/16/70			12/16/70		12/29/70	
FORMATION.....	CRET-PETTIT			CRET-RODESSA		PLIO-HENDERSON	
GEOLOGIC PROVINCE CODE...	260			260		260	
DEPTH, FEET.....	7294			7326		6809	
WELLHEAD PRESSURE, PSIG...	560			476		270	
OPEN FLOW, MCFD.....	1761			8500		296	
COMPONENT, MOLE PCT							
METHANE.....	90.6			88.6		91.9	
ETHANE.....	4.3			4.3		4.1	
PROPANE.....	0.5			0.7		2.3	
N-BUTANE.....	0.5			0.7		0.3	
ISOBUTANE.....	0.5			0.8		0.6	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.1			0.1		0.0	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.4			0.6		0.3	
NITROGEN.....	0.8			0.6		0.6	
OXYGEN.....	0.0			0.2		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.1			1.1		0.8	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1192			1129		1092	
SPECIFIC GRAVITY.....	0.636			0.663		0.623	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8497 SAMPLE 12710			INDEX 8498 SAMPLE 16479			INDEX 8499 SAMPLE 5450		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GREGG		GRIMES			HALE		
FIELD.....	WILLOW SPRINGS		NOT GIVEN			PLAINVIEW		
WELL NAME.....	TOLAR UNIT NO. 1		CHANEY NO. 1			GRIFFITH PROD.-BIER NO. 1		
LOCATION.....	NOT GIVEN		NOT INER DONOHUE SUR. A-175			SEC. 1, BLK. D-A, GC&SF SUR.		
OWNER.....	SOUTHERN UNION PRODUCTION CO		CASHCO OIL CO.			JOHN F. BIER		
COMPLETED.....	07/31/68		11/02/81			107--750		
SAMPLED.....	03/12/71		04/-/82			04/25/53		
FORMATION.....	CRET-TRAVIS PEAK		CRET-BUDA			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	260		220			435		
DEPTH, FEET.....	NOT GIVEN		9927			3466		
WELLHEAD PRESSURE, PSIG.....	2100		3773			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		4500			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	90.5		85.2			0.6		
ETHANE.....	4.5		4.4			0.0		
PROPANE.....	1.1		1.1			0.5		
N-BUTANE.....	0.3		0.3			0.0		
ISOBUTANE.....	0.3		0.2			0.0		
N-PENTANE.....	0.2		0.2			0.0		
ISOPENTANE.....	TRACE		0.1			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	1.4		3.6			98.5		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		4.7			0.0		
HELIUM.....	0.03		0.02			0.13		
HEATING VALUE.....	1065		1010			29		
SPECIFIC GRAVITY.....	0.623		0.666			0.970		
INDEX 8500 SAMPLE 8140			INDEX 8501 SAMPLE 12666			INDEX 8502 SAMPLE 4427		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	POTTSVILLE		POTTSVILLE			POTTSVILLE S		
WELL NAME.....	T. K. REA MEIRS NO. 1		O. B. DAWSON NO. 1			CLARENCE REA NO. 1		
LOCATION.....	DAVID COOK SUR.		BBREC SUR. NO. 41			NOT GIVEN		
OWNER.....	LONG STAR PRODUCING CO.		LONG STAR PRODUCING CO.			LONG STAR PRODUCING CO.		
COMPLETED.....	03/25/36		07/08/36			10/10/47		
SAMPLED.....	08/09/61		02/08/71			02/05/48		
FORMATION.....	PENN-MARBLE FALLS		PENN-MARBLE FALLS			PENN-MARBLE FALLS		
GEOLOGIC PROVINCE CODE.....	415		415			415		
DEPTH, FEET.....	2412		2558			2720		
WELLHEAD PRESSURE, PSIG.....	1160		3010			1260		
OPEN FLOW, MCFD.....	34000		4160			6000		
COMPONENT, MOLE PCT								
METHANE.....	89.7		87.7			82.7		
ETHANE.....	1.4		1.4			11.4		
PROPANE.....	0.8		1.3			---		
N-BUTANE.....	0.2		0.3			---		
ISOBUTANE.....	0.3		0.3			---		
N-PENTANE.....	TRACE		0.1			---		
ISOPENTANE.....	0.2		0.2			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.1		0.1			---		
NITROGEN.....	4.0		4.5			4.8		
OXYGEN.....	TRACE		0.0			0.3		
ARGON.....	0.0		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.1		0.1			---		
HELIUM.....	0.20		0.16			0.16		
HEATING VALUE.....	1043		1057			1047		
SPECIFIC GRAVITY.....	0.617		0.632			0.636		
INDEX 8503 SAMPLE 4429			INDEX 8504 SAMPLE 8139			INDEX 8505 SAMPLE 5010		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HAMILTON		HAMILTON			HAMILTON		
FIELD.....	POTTSVILLE S		POTTSVILLE S			WILDCAT		
WELL NAME.....	E. J. RIEBE NO. 1		E. J. RIEBE NO. 1			W. L. D. COWLING NO. 1		
LOCATION.....	NOT GIVEN		RICHARD BROWN SUR.			JOHN PERSON SUR.		
OWNER.....	LONG STAR PRODUCING CO.		LONG STAR PRODUCING CO.			AMERADA PETROLEUM CORP.		
COMPLETED.....	08/30/77		12/13/50			12/13/50		
SAMPLED.....	02/05/48		08/09/61			03/16/51		
FORMATION.....	PENN-MARBLE FALLS		PENN-MARBLE FALLS			PENN-MARBLE FALLS		
GEOLOGIC PROVINCE CODE.....	415		415			415		
DEPTH, FEET.....	2590		2658			3164		
WELLHEAD PRESSURE, PSIG.....	1160		1160			1735		
OPEN FLOW, MCFD.....	13500		21000			3000		
COMPONENT, MOLE PCT								
METHANE.....	84.3		88.3			81.7		
ETHANE.....	8.9		4.9			5.9		
PROPANE.....	---		0.0			1.7		
N-BUTANE.....	---		0.2			0.4		
ISOBUTANE.....	---		---			0.2		
N-PENTANE.....	---		TRACE			---		
ISOPENTANE.....	---		---			TRACE		
CYCLOPENTANE.....	---		0.1			TRACE		
HEXANES PLUS.....	---		TRACE			0.1		
NITROGEN.....	0.7		TRACE			9.5		
OXYGEN.....	0.3		TRACE			0.1		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.6		0.1			0.4		
HELIUM.....	0.15		0.0			0.08		
HEATING VALUE.....	1013		1040			1006		
SPECIFIC GRAVITY.....	0.629		0.623			0.657		
INDEX 8506 SAMPLE 5955			INDEX 8507 SAMPLE 13923			INDEX 8508 SAMPLE 13927		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HANSFORD		HANSFORD			HANSFORD		
FIELD.....	BERNSTEIN		BERNSTEIN			BERNSTEIN E		
WELL NAME.....	THOMLINSON NO. 1		THOMLINSON NO. 1			BRAVO-HART NO. 1		
LOCATION.....	SEC. 2, BLK. 2, SA&MG SUR.		SEC. 29, BLK. 1, CIF SUR.			SEC. 32, BLK. 1, CIF SUR.		
OWNER.....	SHARPLES OIL CORP.		BASIN PETROLEUM CORP.			H & L OPERATING CO.		
COMPLETED.....	05/-/55		07/04/74			06/01/73		
SAMPLED.....	10/29/55		02/15/74			02/23/74		
FORMATION.....	PENN-MORROW U		PENN-MORROW U			PENN-LANSING		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6914		6722			5893		
WELLHEAD PRESSURE, PSIG.....	1700		1239			1851		
OPEN FLOW, MCFD.....	NOT GIVEN		9500			3010		
COMPONENT, MOLE PCT								
METHANE.....	93.6		81.1			82.2		
ETHANE.....	0.1		7.3			7.6		
PROPANE.....	0.1		4.7			4.7		
N-BUTANE.....	---		0.3			0.3		
ISOBUTANE.....	0.0		0.5			0.6		
N-PENTANE.....	0.0		0.3			0.3		
ISOPENTANE.....	0.0		0.3			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	TRACE		0.2			0.2		
NITROGEN.....	3.7		3.9			2.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.31		0.20			0.13		
HEATING VALUE.....	1053		1075			1195		
SPECIFIC GRAVITY.....	0.579		0.701			0.696		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE	8509 6774	INDEX SAMPLE	8510 6777	INDEX SAMPLE	8511 7066
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	HANSFORD	HANSFORD	HANSFORD	HANSFORD	HANSFORD
FIELD.....	BERNSTEIN S	BERNSTEIN S	BERNSTEIN S	BRILLHART	BRILLHART
WELL NAME.....	A. H. FRAZIER NO. 1	A. H. FRAZIER NO. 1	A. H. FRAZIER NO. 1	C. D. ALEXANDER NO. 1-9	C. D. ALEXANDER NO. 1-9
LOCATION.....	SEC. 14, BLK. 1, CTF SUR.	SEC. 14, BLK. 1, CTF SUR.	SEC. 14, BLK. 1, CTF SUR.	SEC. 9, BLK. 1, WCRR SUR.	SEC. 9, BLK. 1, WCRR SUR.
OWNER.....	NATURAL GAS PIPELINE CO.	NATURAL GAS PIPELINE CO.	SHAMROCK OIL & GAS CORP.	GULF & BAKER & TAYLOR DRIG.	GULF & BAKER & TAYLOR DRIG.
COMPLETED.....	05/08/58	05/08/58	08/01/58	05/01/59	05/01/59
SAMPLED.....	08/01/58	08/01/58	08/01/58	05/11/59	05/11/59
FORMATION.....	PENN-MORROW U	PENN-MORROW U	PENN-MORROW U	PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	6770	6096	6096	6738	6738
WELLHEAD PRESSURE, PSIG.....	1190	1475	1475	1730	1730
OPEN FLOW, MCFD.....	2850	8750	8750	5270	5270
COMPONENT, MOLE PCT					
METHANE.....	81.9	82.2	82.2	91.4	91.4
ETHANE.....	7.8	9.1	9.1	4.6	4.6
PROPANE.....	4.4	4.2	4.2	1.5	1.5
N-BUTANE.....	1.4	1.2	1.2	0.5	0.5
ISOBUTANE.....	0.5	0.5	0.5	0.2	0.2
N-PENTANE.....	0.4	0.3	0.3	0.1	0.1
ISOPENTANE.....	0.1	0.1	0.1	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.2	0.2	0.2	0.2
NITROGEN.....	2.6	1.7	1.7	0.6	0.6
OXYGEN.....	TRACE	0.0	0.0	0.0	0.0
ARGON.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.1	0.1	0.4	0.4
HELIUM.....	0.20	0.10	0.10	0.10	0.10
HEATING VALUE.....	1186	1193	1193	1098	1098
SPECIFIC GRAVITY.....	0.697	0.688	0.688	0.621	0.621
INDEX SAMPLE	8512 11946	INDEX SAMPLE	8513 9836	INDEX SAMPLE	8514 11540
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	HANSFORD	HANSFORD	HANSFORD	HANSFORD	HANSFORD
FIELD.....	BRILLHART	CLEMENTINE	CLEMENTINE	CLEMENTINE	CLEMENTINE
WELL NAME.....	A. K. BURLISON NO. 1	CLEMENTINE NO. 1	CLEMENTINE NO. 1	VENNEHMAN NO. 1	VENNEHMAN NO. 1
LOCATION.....	SEC. 27, BLK. 45, H&TC SUR.	SEC. 31, BLK. 1, WCRR SUR.	SEC. 31, BLK. 1, WCRR SUR.	SEC. 29, BLK. 1, WCRR SUR.	SEC. 29, BLK. 1, WCRR SUR.
OWNER.....	FEDERAL PETROLEUM, INC.	GULF OIL CORP.	GULF OIL CORP.	ATKINSON BROTHERS CORP.	ATKINSON BROTHERS CORP.
COMPLETED.....	08/28/68	07/17/64	07/17/64	03/08/68	03/08/68
SAMPLED.....	06/26/69	04/05/65	04/05/65	06/13/68	06/13/68
FORMATION.....	PENN-DES MOINES	PENN-MORROW	PENN-MORROW	PENN-MORROW U	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	6144	6760	6760	6709	6709
WELLHEAD PRESSURE, PSIG.....	1672	1657	1657	1555	1555
OPEN FLOW, MCFD.....	5400	9250	9250	3300	3300
COMPONENT, MOLE PCT					
METHANE.....	77.9	91.1	91.1	91.0	91.0
ETHANE.....	7.3	4.7	4.7	4.6	4.6
PROPANE.....	2.2	1.5	1.5	0.5	0.5
N-BUTANE.....	1.0	0.4	0.4	0.0	0.0
ISOBUTANE.....	0.6	0.3	0.3	0.0	0.0
N-PENTANE.....	0.4	0.2	0.2	0.3	0.3
ISOPENTANE.....	0.0	0.1	0.1	0.0	0.0
CYCLOPENTANE.....	0.1	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.2	0.2	0.1	0.1
NITROGEN.....	7.0	0.9	0.9	1.3	1.3
OXYGEN.....	0.0	0.0	0.0	0.1	0.1
ARGON.....	0.0	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.0	0.4	0.4	0.5	0.5
HELIUM.....	0.19	0.10	0.10	0.10	0.10
HEATING VALUE.....	1140	1096	1096	1075	1075
SPECIFIC GRAVITY.....	0.709	0.623	0.623	0.617	0.617
INDEX SAMPLE	8515 9898	INDEX SAMPLE	8516 12853	INDEX SAMPLE	8517 12702
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	HANSFORD	HANSFORD	HANSFORD	HANSFORD	HANSFORD
FIELD.....	COLLARD	COLLARD-WHITE	COLLARD-WHITE	FARMELL CREEK	FARMELL CREEK
WELL NAME.....	H. T. COLLARD G. U. NO. 1-LC	HOOPER A NO. 2	HOOPER A NO. 2	BROOKS NO. 1	BROOKS NO. 1
LOCATION.....	SEC. 19, BLK. 45, H&TC SUR.	SEC. 12, BLK. 3, SAENG SUR.	SEC. 12, BLK. 3, SAENG SUR.	SEC. 24, BLK. 2, G&H RR SUR.	SEC. 24, BLK. 2, G&H RR SUR.
OWNER.....	TEXACO INC.	PHILLIPS PETROLEUM CO.	PHILLIPS PETROLEUM CO.	STOWELL OIL & GAS, INC.	STOWELL OIL & GAS, INC.
COMPLETED.....	04/18/64	05/17/71	05/17/71	01/06/71	01/06/71
SAMPLED.....	05/11/65	06/16/73	06/16/73	03/08/71	03/08/71
FORMATION.....	PENN-VIRGIL & TONKAWA	PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY	PENN-MORROW L	PENN-MORROW L
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	4882	3546	3546	7121	7121
WELLHEAD PRESSURE, PSIG.....	5110	5110	5110	1479	1479
OPEN FLOW, MCFD.....	43000	2040	2040	6450	6450
COMPONENT, MOLE PCT					
METHANE.....	74.6	67.5	67.5	74.9	74.9
ETHANE.....	4.8	6.2	6.2	4.5	4.5
PROPANE.....	3.1	4.2	4.2	2.5	2.5
N-BUTANE.....	1.0	1.1	1.1	0.8	0.8
ISOBUTANE.....	0.5	0.3	0.3	0.3	0.3
N-PENTANE.....	0.2	0.4	0.4	0.3	0.3
ISOPENTANE.....	0.3	0.0	0.0	0.3	0.3
CYCLOPENTANE.....	0.1	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.2	0.2	0.2	0.2
NITROGEN.....	14.7	18.4	18.4	13.8	13.8
OXYGEN.....	0.0	0.1	0.1	1.9	1.9
ARGON.....	TRACE	0.1	0.1	0.1	0.1
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.3	0.3	0.1	0.1
HELIUM.....	0.43	0.78	0.78	0.22	0.22
HEATING VALUE.....	1008	999	999	977	977
SPECIFIC GRAVITY.....	0.708	0.798	0.798	0.703	0.703
INDEX SAMPLE	8518 11575	INDEX SAMPLE	8519 11576	INDEX SAMPLE	8520 13527
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	HANSFORD	HANSFORD	HANSFORD	HANSFORD	HANSFORD
FIELD.....	GRUVER NW	GRUVER NW	GRUVER NW	GRUVER NW	GRUVER NW
WELL NAME.....	RHODA HART NO. 1	RHODA HART NO. 1	RHODA HART NO. 1	MORRISON NO. 1	MORRISON NO. 1
LOCATION.....	SEC. 17, BLK. P, H&GNRR SUR.	SEC. 17, BLK. P, H&GNRR SUR.	SEC. 17, BLK. P, H&GNRR SUR.	SEC. 253, BLK. 2, G&H SUR.	SEC. 253, BLK. 2, G&H SUR.
OWNER.....	GULF OIL CORP.	GULF OIL CORP.	GULF OIL CORP.	MESEA PETROLEUM CO.	MESEA PETROLEUM CO.
COMPLETED.....	07/06/68	07/06/68	07/06/68	06/27/72	06/27/72
SAMPLED.....	07/16/68	07/16/68	07/16/68	02/09/73	02/09/73
FORMATION.....	PENN-MORROW U	PENN-MORROW U	PENN-MORROW U	PENN-MORROW U	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	6328	5770	5770	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1676	1530	1530	1625	1625
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	3600	3600
COMPONENT, MOLE PCT					
METHANE.....	79.5	78.3	78.3	87.6	87.6
ETHANE.....	6.7	9.1	9.1	5.1	5.1
PROPANE.....	4.7	4.6	4.6	2.9	2.9
N-BUTANE.....	1.4	1.4	1.4	0.8	0.8
ISOBUTANE.....	0.3	0.3	0.3	0.4	0.4
N-PENTANE.....	0.5	0.3	0.3	0.2	0.2
ISOPENTANE.....	TRACE	0.3	0.3	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.1	0.2	0.2
NITROGEN.....	6.1	8.8	8.8	1.2	1.2
OXYGEN.....	0.0	0.4	0.4	TRACE	TRACE
ARGON.....	TRACE	0.0	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.2	0.2	0.2	0.2
HELIUM.....	0.20	0.18	0.18	0.14	0.14
HEATING VALUE.....	1140	1067	1067	1140	1140
SPECIFIC GRAVITY.....	0.703	0.711	0.711	0.650	0.650

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8521 SAMPLE 14013		INDEX 8522 SAMPLE 14014		INDEX 8523 SAMPLE 14016	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HANNAS DRAW	FIELD.....	HANNAS DRAW	FIELD.....	HANNAS DRAW
WELL NAME.....	WELL NO. C-1	WELL NAME.....	HART NO. C-1	WELL NAME.....	RACOL NO. 2
LOCATION.....	SEC. 11, BLK. 2, GH&H SUR.	LOCATION.....	SEC. 77, BLK. 2, GH&H SUR.	LOCATION.....	SEC. 116, BLK. 2, GH&H SUR.
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	02/27/74	COMPLETED.....	08/27/73	COMPLETED.....	08/19/73
SAMPLED.....	05/30/74	SAMPLED.....	05/30/74	SAMPLED.....	05/30/74
FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-DOUGLAS
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	4820	DEPTH, FEET.....	4728	DEPTH, FEET.....	4750
WELLHEAD PRESSURE, PSIG.....	990	WELLHEAD PRESSURE, PSIG.....	999	WELLHEAD PRESSURE, PSIG.....	999
OPEN FLOW, MCFD.....	2800	OPEN FLOW, MCFD.....	21000	OPEN FLOW, MCFD.....	20000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	79.1	METHANE.....	80.1	METHANE.....	79.8
ETHANE.....	5.9	ETHANE.....	6.2	ETHANE.....	6.1
PROPANE.....	3.9	PROPANE.....	4.0	PROPANE.....	4.1
N-BUTANE.....	1.2	N-BUTANE.....	1.3	N-BUTANE.....	1.3
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	8.0	NITROGEN.....	6.7	NITROGEN.....	6.9
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.38	HELIUM.....	0.36	HELIUM.....	0.35
HEATING VALUE.....	1105	HEATING VALUE.....	1118	HEATING VALUE.....	1124
SPECIFIC GRAVITY.....	0.699	SPECIFIC GRAVITY.....	0.694	SPECIFIC GRAVITY.....	0.700

INDEX 8524 SAMPLE 5583		INDEX 8525 SAMPLE 5785		INDEX 8526 SAMPLE 5919	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HANSFORD	FIELD.....	HANSFORD	FIELD.....	HANSFORD
WELL NAME.....	S. P. & K. JACKSON NO. 1	WELL NAME.....	MATTHEWS UNIT II	WELL NAME.....	S. P. MILLER NO. 1
LOCATION.....	SEC. 111, BLK. 45, H&TC SUR.	LOCATION.....	SEC. 184, BLK. 45, H&TC SUR.	LOCATION.....	SEC. 5, BLK. 2, PSL SUR.
OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	R. M. FULTON & CO.	OWNER.....	STANOLIND OIL & GAS CO.
COMPLETED.....	12/29/53	COMPLETED.....	09/04/54	COMPLETED.....	04/26/55
SAMPLED.....	12/29/53	SAMPLED.....	03/02/55	SAMPLED.....	08/18/55
FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-CHEROKEE
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	4960	DEPTH, FEET.....	6879	DEPTH, FEET.....	6156
WELLHEAD PRESSURE, PSIG.....	1066	WELLHEAD PRESSURE, PSIG.....	19106	WELLHEAD PRESSURE, PSIG.....	1560
OPEN FLOW, MCFD.....	2680	OPEN FLOW, MCFD.....	16090	OPEN FLOW, MCFD.....	32000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	81.9	METHANE.....	85.1	METHANE.....	79.4
ETHANE.....	6.4	ETHANE.....	7.0	ETHANE.....	8.9
PROPANE.....	3.6	PROPANE.....	3.3	PROPANE.....	4.7
N-BUTANE.....	1.1	N-BUTANE.....	1.0	N-BUTANE.....	1.4
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.0	ISOPENTANE.....	0.4	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	5.5	NITROGEN.....	1.6	NITROGEN.....	3.9
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2
HELIUM.....	0.29	HELIUM.....	0.13	HELIUM.....	0.17
HEATING VALUE.....	1110	HEATING VALUE.....	1168	HEATING VALUE.....	1189
SPECIFIC GRAVITY.....	0.678	SPECIFIC GRAVITY.....	0.674	SPECIFIC GRAVITY.....	0.710

INDEX 8527 SAMPLE 6058		INDEX 8528 SAMPLE 6129		INDEX 8529 SAMPLE 7336	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HANSFORD	FIELD.....	HANSFORD	FIELD.....	HANSFORD
WELL NAME.....	WELL NO. 1	WELL NAME.....	HANSFORD GAS WELL NO. 1	WELL NAME.....	E. M. CARMODY NO. 4
LOCATION.....	SEC. 108, BLK. 45, H&TC SUR.	LOCATION.....	SEC. 120, BLK. 45, H&TC SUR.	LOCATION.....	SEC. 34, BLK. 4T, T&ND SUR.
OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	02/15/56	COMPLETED.....	03/05/56	COMPLETED.....	06/28/59
SAMPLED.....	05/15/56	SAMPLED.....	09/04/56	SAMPLED.....	01/13/60
FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7245	DEPTH, FEET.....	6942	DEPTH, FEET.....	7468
WELLHEAD PRESSURE, PSIG.....	1659	WELLHEAD PRESSURE, PSIG.....	1859	WELLHEAD PRESSURE, PSIG.....	1810
OPEN FLOW, MCFD.....	24000	OPEN FLOW, MCFD.....	33000	OPEN FLOW, MCFD.....	3
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	97.9	METHANE.....	89.6	METHANE.....	76.9
ETHANE.....	TRACE	ETHANE.....	4.9	ETHANE.....	8.3
PROPANE.....	0.1	PROPANE.....	2.1	PROPANE.....	4.4
N-BUTANE.....	0.1	N-BUTANE.....	0.7	N-BUTANE.....	1.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.3	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.5	ISOPENTANE.....	1.5
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3
NITROGEN.....	1.2	NITROGEN.....	1.2	NITROGEN.....	5.5
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.8
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3
HELIUM.....	0.17	HELIUM.....	0.12	HELIUM.....	0.20
HEATING VALUE.....	1016	HEATING VALUE.....	1173	HEATING VALUE.....	1173
SPECIFIC GRAVITY.....	0.569	SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.727

INDEX 8530 SAMPLE 7476		INDEX 8531 SAMPLE 8681		INDEX 8532 SAMPLE 8682	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HANSFORD	FIELD.....	HANSFORD	FIELD.....	HANSFORD
WELL NAME.....	W. MATTHEWS A NO. 1	WELL NAME.....	SEC. D, NO. 1	WELL NAME.....	SEC. D, NO. 1
LOCATION.....	SEC. 56, BLK. R, AB&M SUR.	LOCATION.....	SEC. 101, BLK. 45, H&TC SUR.	LOCATION.....	SEC. 101, BLK. 45, H&TC SUR.
OWNER.....	GULF OIL CORP.	OWNER.....	ROY FURR	OWNER.....	ROY FURR
COMPLETED.....	7/-700	COMPLETED.....	07/20/62	COMPLETED.....	07/20/62
SAMPLED.....	03/25/60	SAMPLED.....	09/22/62	SAMPLED.....	09/22/62
FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	8544	DEPTH, FEET.....	6924	DEPTH, FEET.....	7475
WELLHEAD PRESSURE, PSIG.....	2070	WELLHEAD PRESSURE, PSIG.....	1623	WELLHEAD PRESSURE, PSIG.....	2284
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	10250	OPEN FLOW, MCFD.....	2400
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	91.1	METHANE.....	88.5	METHANE.....	88.2
ETHANE.....	4.0	ETHANE.....	4.3	ETHANE.....	5.5
PROPANE.....	1.6	PROPANE.....	2.7	PROPANE.....	2.9
N-BUTANE.....	0.3	N-BUTANE.....	1.0	N-BUTANE.....	0.7
ISOBUTANE.....	0.4	ISOBUTANE.....	0.4	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	1.0	NITROGEN.....	1.9	NITROGEN.....	1.6
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.4
HELIUM.....	0.10	HELIUM.....	0.12	HELIUM.....	0.13
HEATING VALUE.....	1102	HEATING VALUE.....	1112	HEATING VALUE.....	1108
SPECIFIC GRAVITY.....	0.633	SPECIFIC GRAVITY.....	0.651	SPECIFIC GRAVITY.....	0.638

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8533 SAMPLE 5873			INDEX 8534 SAMPLE 5874			INDEX 8535 SAMPLE 5875		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HANSFORD		HANSFORD			HANSFORD		
FIELD.....	HANSFORD N		HANSFORD N			HANSFORD N		
WELL NAME.....	HENDERSON NO. 1		RALSTON NO. 1			O'DONNELL NO. 1		
LOCATION.....	SEC. 9, BLK. 45, H&TC SUR.		SEC. 10, BLK. 2, SA&MG SUR.			SEC. 81, BLK. 45, H&TC SUR.		
OWNER.....	SHARPLES OIL CORP.		SHARPLES OIL CORP.			SHARPLES OIL CORP.		
COMPLETED.....	10/27/54		01/24/55			04/11/55		
SAMPLED.....	--/--/00		07/14/55			07/14/55		
FORMATION.....	PENN-HEPLER		PENN-MORROW L			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6253		7312			7186		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1800			1800		
OPEN FLOW, MCFD.....	7700		12500			3500		
COMPONENT, MOLE PCT								
METHANE.....	81.8		90.3			90.1		
ETHANE.....	8.5		3.9			3.7		
PROPANE.....	4.1		1.7			1.6		
N-BUTANE.....	1.2		0.5			0.6		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.2		TRACE			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.3		
NITROGEN.....	2.9		2.0			2.5		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.16		0.18			0.20		
HEATING VALUE.....	1174		1083			1083		
SPECIFIC GRAVITY.....	0.690		0.625			0.628		

INDEX 8536 SAMPLE 5954			INDEX 8537 SAMPLE 5958			INDEX 8538 SAMPLE 5963		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HANSFORD		HANSFORD			HANSFORD		
FIELD.....	HANSFORD N		HANSFORD N			HANSFORD N		
WELL NAME.....	BECK NO. 1-8		BETTY NO. 1			STEELE NO. 1		
LOCATION.....	SEC. 80, BLK. 45, H&TC SUR.		SEC. 24, BLK. 1, CIF SUR.			SEC. 78, H&TC SUR.		
OWNER.....	SHARPLES OIL CORP.		SHARPLES OIL CORP.			SHAWROCK OIL & GAS CORP.		
COMPLETED.....	06/--/55		04/--/55			07/21/55		
SAMPLED.....	10/29/55		10/29/55			11/03/55		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-TONKAWA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6820		5870			5364		
WELLHEAD PRESSURE, PSIG.....	1200		1700			1380		
OPEN FLOW, MCFD.....	NOT GIVEN		8500			3350		
COMPONENT, MOLE PCT								
METHANE.....	87.6		96.5			85.9		
ETHANE.....	0.0		0.1			6.4		
PROPANE.....	0.5		0.1			3.3		
N-BUTANE.....	TRACE		0.1			1.0		
ISOBUTANE.....	0.0		0.0			0.3		
N-PENTANE.....	TRACE		0.0			0.2		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	TRACE		TRACE			0.2		
NITROGEN.....	10.0		2.6			1.9		
OXYGEN.....	0.9		TRACE			TRACE		
ARGON.....	0.1		TRACE			0.0		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.1			0.0		
CARBON DIOXIDE.....	0.0		0.21			0.14		
HELIUM.....	0.82		986			1150		
HEATING VALUE.....	900		0.567			0.663		
SPECIFIC GRAVITY.....	0.603							

INDEX 8539 SAMPLE 6207			INDEX 8540 SAMPLE 7834			INDEX 8541 SAMPLE 11756		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HANSFORD		HANSFORD			HANSFORD		
FIELD.....	HANSFORD N		HANSFORD N			HANSFORD N		
WELL NAME.....	MILLER NO. 1		J. 1, STEELE NO. 1			SEC. 9, COX GAS UNIT NO. 1		
LOCATION.....	SEC. 14, BLK. 22, SA&MG SUR.		SEC. 14, BLK. 45, H&TC SUR.			SEC. 9, BLK. 2, SA&MG SUR.		
OWNER.....	SPICKNALL ENTERPRISES		GULF OIL CORP.			SHARPLES & CO. PROPERTIES		
COMPLETED.....	11/27/56		10/10/59			05/25/55		
SAMPLED.....	12/10/56		02/01/61			02/01/69		
FORMATION.....	PENN-TONKAWA		PENN-TONKAWA			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	5324		5338			7374		
WELLHEAD PRESSURE, PSIG.....	1336		1270			782		
OPEN FLOW, MCFD.....	120000		14800			2460		
COMPONENT, MOLE PCT								
METHANE.....	85.7		86.3			90.8		
ETHANE.....	6.6		6.3			3.8		
PROPANE.....	2.0		3.0			1.6		
N-BUTANE.....	1.0		1.0			0.3		
ISOBUTANE.....	0.7		0.7			0.3		
N-PENTANE.....	0.0		0.2			0.2		
ISOPENTANE.....	0.7		0.1			0.1		
CYCLOPENTANE.....	0.0		0.1			0.1		
HEXANES PLUS.....	0.0		0.2			0.3		
NITROGEN.....	2.4		1.8			1.7		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.2			0.3		
HELIUM.....	0.13		0.10			0.16		
HEATING VALUE.....	1126		1151			1089		
SPECIFIC GRAVITY.....	0.661		0.665			0.625		

INDEX 8542 SAMPLE 11757			INDEX 8543 SAMPLE 11767			INDEX 8544 SAMPLE 11771		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HANSFORD		HANSFORD			HANSFORD		
FIELD.....	HANSFORD N		HANSFORD N			HANSFORD N		
WELL NAME.....	HENDERSON GAS UNIT NO. 1		VIRGINIA HUDSON NO. 1			REX SANDERS G.U. NO. 1C		
LOCATION.....	SEC. 82, BLK. 45, H&TC SUR.		SEC. 47, BLK. P, H&GN SUR.			SEC. 94, BLK. 45, H&TC SUR.		
OWNER.....	SHARPLES & CO. PROPERTIES		SHARPLES OIL CORP.			SUN OIL CO., DX DIVISION		
COMPLETED.....	07/22/55		04/--/58			06/07/56		
SAMPLED.....	02/07/69		02/--/69			--/--/00		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW U		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7004		7268			6981		
WELLHEAD PRESSURE, PSIG.....	336		666			392		
OPEN FLOW, MCFD.....	500		NOT GIVEN			161		
COMPONENT, MOLE PCT								
METHANE.....	89.3		90.1			90.2		
ETHANE.....	4.0		4.1			4.4		
PROPANE.....	1.1		1.7			1.5		
N-BUTANE.....	0.6		0.6			0.3		
ISOBUTANE.....	0.4		0.3			0.1		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.0		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	3.0		2.0			2.5		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.3			0.4		
HELIUM.....	0.21		0.17			0.25		
HEATING VALUE.....	1075		1088			1059		
SPECIFIC GRAVITY.....	0.633		0.628			0.617		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8545 11772	INDEX SAMPLE	8546 11841	INDEX SAMPLE	8547 11842
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HANSFORD			HANSFORD		HANSFORD	
FIELD.....	HANSFORD N			HANSFORD N		HANSFORD N	
WELL NAME.....	REX SANDERS G.U. NO. 1T			W. E. MAUPINETEL NO. 1-C		GERTRUDE OGLE NO. 1-T	
LOCATION.....	SEC. 94, BLK. 45, H&TC SUR.			W.D.C. HALL SUR.		SEC. 11, BLK. 2, SA&MG SUR.	
OWNER.....	SUN OIL CO., DX DIVISION			GULF OIL CORP.		GULF OIL CORP.	
COMPLETED.....	05/13/56			06/22/59		12/07/55	
SAMPLED.....	02/25/69			05/01/69		05/01/69	
FORMATION.....	PENN-MORROW L			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7264			7326		7733	
WELLHEAD PRESSURE, PSIG.....	392			1625		1530	
OPEN FLOW, MCFD.....	214			7100		2000	
COMPONENT, MOLE PCT							
METHANE.....	90.0			89.4		89.4	
ETHANE.....	4.0			4.5		4.2	
PROPANE.....	1.7			1.8		1.8	
N-BUTANE.....	0.5			0.8		0.6	
ISOBUTANE.....	0.2			0.1		0.2	
N-PENTANE.....	0.1			0.3		0.2	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.3		0.3	
NITROGEN.....	2.7			1.9		2.4	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.3		0.3	
HELIUM.....	0.21			0.16		0.19	
HEATING VALUE.....	1065			1100		1091	
SPECIFIC GRAVITY.....	0.621			0.634		0.634	
		INDEX SAMPLE	8548 13986	INDEX SAMPLE	8549 13917	INDEX SAMPLE	8550 5608
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HANSFORD			HANSFORD		HANSFORD	
FIELD.....	HANSFORD N			HART RANCH		HITCHLAND	
WELL NAME.....	A. B. HENDERSON NO. 2			HART NO. 1		HITCHLAND GAS UNIT NO. 1	
LOCATION.....	SEC. 82, BLK. 45, H&TC SUR.			SEC. 5, BLK. 5-T, T&NO SUR.		SEC. 35, BLK. 1, WCRR CO. SUR.	
OWNER.....	YUCCA PETROLEUM CO.			COLORADO INTERSTATE GAS CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	03/07/74			07/00		02/04/54	
SAMPLED.....	04/29/74			02/18/74		04/16/54	
FORMATION.....	PENN-TONKAWA			PENN-CLEVELAND		PENN-4640*	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5352			5994		4586	
WELLHEAD PRESSURE, PSIG.....	773			1390		1123	
OPEN FLOW, MCFD.....	4350			3300		1400	
COMPONENT, MOLE PCT							
METHANE.....	85.1			85.2		83.9	
ETHANE.....	6.6			6.9		5.9	
PROPANE.....	3.7			3.6		3.6	
N-BUTANE.....	0.1			0.3		0.4	
ISOBUTANE.....	0.4			0.4		0.4	
N-PENTANE.....	0.2			0.2		0.3	
ISOPENTANE.....	0.3			0.3		0.1	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	1.9			1.9		4.0	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.13			0.13		0.16	
HEATING VALUE.....	1157			1157		1134	
SPECIFIC GRAVITY.....	0.669			0.669		0.677	
		INDEX SAMPLE	8551 6296	INDEX SAMPLE	8552 7780	INDEX SAMPLE	8553 13273
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HANSFORD			HANSFORD		HANSFORD	
FIELD.....	HITCHLAND			HITCHLAND		HITCHLAND	
WELL NAME.....	ATKINS "E" C-3			MCCUTCHEN A NO. 1		HITCHLAND GAS UNIT NO. 1	
LOCATION.....	SEC. 17, BLK. 1, PSL SUR.			SEC. 5, BLK. 2, PSL SUR.		SEC. 35, BLK. 1, WCRR SUR.	
OWNER.....	PHILLIPS PETROLEUM CO.			SKELLY OIL CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	02/12/57			09/13/60		02/12/72	
SAMPLED.....	06/04/57			11/23/60		11/21/72	
FORMATION.....	PENN-ATOKA			PENN-4640*		PENN-MORROW U	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6469			4626		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1073			978		9700	
OPEN FLOW, MCFD.....	480			5600			
COMPONENT, MOLE PCT							
METHANE.....	89.3			84.1		90.3	
ETHANE.....	5.1			6.4		5.2	
PROPANE.....	2.3			3.6		1.9	
N-BUTANE.....	0.6			1.0		0.5	
ISOBUTANE.....	0.3			0.5		0.5	
N-PENTANE.....	0.1			0.2		0.2	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	1.6			3.7		0.9	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.1			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		0.3	
HELIUM.....	0.17			0.20		0.10	
HEATING VALUE.....	1104			1129		1103	
SPECIFIC GRAVITY.....	0.632			0.669		0.626	
		INDEX SAMPLE	8554 14651	INDEX SAMPLE	8555 14653	INDEX SAMPLE	8556 14655
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HANSFORD			HANSFORD		HANSFORD	
FIELD.....	HITCHLAND			HITCHLAND W		HITCHLAND W	
WELL NAME.....	HITCH NO. S-2			HITCH NO. F-2		HITCH NO. E-2	
LOCATION.....	SEC. 58, BLK. P, H&GN SUR.			SEC. 9, BLK. 1, PSL SUR.		SEC. 10, BLK. 1, PSL SUR.	
OWNER.....	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	09/01/59			06/03/59		02/24/59	
SAMPLED.....	04/27/76			04/27/76		04/27/76	
FORMATION.....	PENN-4640 FT.			PENN-MORROW L		PENN-MORROW L	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4595			6832		6933	
WELLHEAD PRESSURE, PSIG.....	270			760		530	
OPEN FLOW, MCFD.....	68			1275		360	
COMPONENT, MOLE PCT							
METHANE.....	82.4			82.4		82.2	
ETHANE.....	6.6			5.0		4.9	
PROPANE.....	2.3			1.9		4.7	
N-BUTANE.....	1.2			1.9		1.9	
ISOBUTANE.....	0.4			0.6		0.6	
N-PENTANE.....	0.3			0.7		0.5	
ISOPENTANE.....	0.3			0.7		0.8	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			3.6		0.4	
NITROGEN.....	0.3			TRACE		3.6	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.2	
HELIUM.....	0.17			0.16		0.14	
HEATING VALUE.....	1150			1198		1207	
SPECIFIC GRAVITY.....	0.688			0.712		0.717	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8557 SAMPLE 14657		INDEX 8558 SAMPLE 6402		INDEX 8559 SAMPLE 6505	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HITCHLAND W	FIELD.....	HORIZON	FIELD.....	HORIZON
WELL NAME.....	HITCH NO. D-2	WELL NAME.....	WEEK A NO. 1	WELL NAME.....	G. N. OCHILTREE NO. 1-147
LOCATION.....	SEC. 1, BLK. P, H&GN SUR.	LOCATION.....	SEC. 145, BLK. 4-T, T&NO SUR	LOCATION.....	SEC. 147, BLK. 4-T, T&NO SUR
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	HORIZON OIL & GAS CO.
COMPLETED.....	09/18/59	COMPLETED.....	07/20/57	COMPLETED.....	07/06/57
SAMPLED.....	04/27/76	SAMPLED.....	09/18/57	SAMPLED.....	02/15/59
FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-CLEVELAND	FORMATION.....	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	6747	DEPTH, FEET.....	6335	DEPTH, FEET.....	7483
WELLHEAD PRESSURE, PSIG.....	575	WELLHEAD PRESSURE, PSIG.....	1521	WELLHEAD PRESSURE, PSIG.....	1820
OPEN FLOW, MCFD.....	753	OPEN FLOW, MCFD.....	7835	OPEN FLOW, MCFD.....	38500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.5	METHANE.....	84.1	METHANE.....	92.8
ETHANE.....	5.0	ETHANE.....	8.5	ETHANE.....	3.5
PROPANE.....	4.4	PROPANE.....	3.6	PROPANE.....	1.2
N-BUTANE.....	1.4	N-BUTANE.....	1.1	N-BUTANE.....	0.3
ISOBUTANE.....	0.6	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	0.3	N-PENTANE.....	0.4	N-PENTANE.....	0.2
ISOPENTANE.....	0.9	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2
NITROGEN.....	3.7	NITROGEN.....	0.8	NITROGEN.....	0.7
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.4
HELIUM.....	0.16	HELIUM.....	0.10	HELIUM.....	0.10
HEATING VALUE.....	1191	HEATING VALUE.....	1192	HEATING VALUE.....	1084
SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.681	SPECIFIC GRAVITY.....	0.613

INDEX 8560 SAMPLE 7450		INDEX 8561 SAMPLE 7501		INDEX 8562 SAMPLE 10821	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HORIZON	FIELD.....	HORIZON	FIELD.....	HORIZON
WELL NAME.....	V. MATHEWS A NO. 1	WELL NAME.....	R. R. SMITH NO. 1	WELL NAME.....	H. M. CROOK NO. 1
LOCATION.....	SEC. 56, BLK. R, AB&M SUR.	LOCATION.....	SEC. 142, BLK. 4-T, T&NO SUR	LOCATION.....	SEC. 30, BLK. R, B&B SUR.
OWNER.....	GULF OIL CORP.	OWNER.....	TEXACO INC.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	--/--/00	COMPLETED.....	02/11/60	COMPLETED.....	08/18/66
SAMPLED.....	03/17/60	SAMPLED.....	04/08/60	SAMPLED.....	12/15/66
FORMATION.....	PENN-CLEVELAND	FORMATION.....	PENN-CLEVELAND	FORMATION.....	PENN-CLEVELAND
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	6604	DEPTH, FEET.....	6421	DEPTH, FEET.....	6386
WELLHEAD PRESSURE, PSIG.....	1600	WELLHEAD PRESSURE, PSIG.....	240	WELLHEAD PRESSURE, PSIG.....	1317
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	2490
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.7	METHANE.....	74.5	METHANE.....	82.3
ETHANE.....	7.9	ETHANE.....	13.1	ETHANE.....	6.9
PROPANE.....	4.0	PROPANE.....	7.6	PROPANE.....	4.0
N-BUTANE.....	1.3	N-BUTANE.....	2.5	N-BUTANE.....	1.2
ISOBUTANE.....	0.5	ISOBUTANE.....	0.7	ISOBUTANE.....	0.5
N-PENTANE.....	0.3	N-PENTANE.....	0.5	N-PENTANE.....	0.4
ISOPENTANE.....	0.4	ISOPENTANE.....	0.4	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3
NITROGEN.....	2.3	NITROGEN.....	0.2	NITROGEN.....	3.6
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.10	HELIUM.....	0.10	HELIUM.....	0.18
HEATING VALUE.....	1188	HEATING VALUE.....	1347	HEATING VALUE.....	1172
SPECIFIC GRAVITY.....	0.693	SPECIFIC GRAVITY.....	0.771	SPECIFIC GRAVITY.....	0.693

INDEX 8563 SAMPLE 5328		INDEX 8564 SAMPLE 5371		INDEX 8565 SAMPLE 5427	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
WELL NAME.....	NORTON NO. 2	WELL NAME.....	SEELY & SMITH NO. 1	WELL NAME.....	SEELY NO. 2
LOCATION.....	SEC. 81, BLK. 2, GH&H SUR.	LOCATION.....	SEC. 9, BLK. 3, GH&H SUR.	LOCATION.....	SEC. 24, BLK. P, H&GN SUR.
OWNER.....	TASCOSA GAS CO.	OWNER.....	TEXAS CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	06/23/50	COMPLETED.....	04/27/52	COMPLETED.....	10/27/53
SAMPLED.....	11/19/52	SAMPLED.....	12/31/52	SAMPLED.....	03/24/53
FORMATION.....	PENN--	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	3176	DEPTH, FEET.....	3101	DEPTH, FEET.....	2700
WELLHEAD PRESSURE, PSIG.....	415	WELLHEAD PRESSURE, PSIG.....	416	WELLHEAD PRESSURE, PSIG.....	329
OPEN FLOW, MCFD.....	621	OPEN FLOW, MCFD.....	379	OPEN FLOW, MCFD.....	4392
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	70.7	METHANE.....	77.6	METHANE.....	76.0
ETHANE.....	6.3	ETHANE.....	6.4	ETHANE.....	6.0
PROPANE.....	3.6	PROPANE.....	3.3	PROPANE.....	3.7
N-BUTANE.....	0.9	N-BUTANE.....	0.6	N-BUTANE.....	1.2
ISOBUTANE.....	0.3	ISOBUTANE.....	0.6	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	16.6	NITROGEN.....	10.6	NITROGEN.....	11.4
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.93	HELIUM.....	0.69	HELIUM.....	0.40
HEATING VALUE.....	989	HEATING VALUE.....	1029	HEATING VALUE.....	1067
SPECIFIC GRAVITY.....	0.718	SPECIFIC GRAVITY.....	0.680	SPECIFIC GRAVITY.....	0.711

INDEX 8566 SAMPLE 11859		INDEX 8567 SAMPLE 11864		INDEX 8568 SAMPLE 11868	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
WELL NAME.....	S. D. & K. K. JACKSON NO. 2	WELL NAME.....	S. P. & K. K. JACKSON NO. 1	WELL NAME.....	LOLA JACKSON NO. 1
LOCATION.....	SEC. 21, BLK. 2, H&B SUR.	LOCATION.....	SEC. 50, BLK. 1, MCRR SUR.	LOCATION.....	SEC. 22, BLK. 2, H&B SUR.
OWNER.....	ASHLAND OIL & REFINING CO.	OWNER.....	ASHLAND OIL & REFINING CO.	OWNER.....	ASHLAND OIL & REFINING CO.
COMPLETED.....	02/24/49	COMPLETED.....	04/19/49	COMPLETED.....	03/16/49
SAMPLED.....	05/13/69	SAMPLED.....	05/13/69	SAMPLED.....	05/13/69
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	2821	DEPTH, FEET.....	2830	DEPTH, FEET.....	2855
WELLHEAD PRESSURE, PSIG.....	168	WELLHEAD PRESSURE, PSIG.....	199	WELLHEAD PRESSURE, PSIG.....	173
OPEN FLOW, MCFD.....	396	OPEN FLOW, MCFD.....	595	OPEN FLOW, MCFD.....	116
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	72.2	METHANE.....	72.9	METHANE.....	72.6
ETHANE.....	6.3	ETHANE.....	6.4	ETHANE.....	6.5
PROPANE.....	3.7	PROPANE.....	3.5	PROPANE.....	3.7
N-BUTANE.....	1.1	N-BUTANE.....	0.9	N-BUTANE.....	1.1
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	15.5	NITROGEN.....	14.5	NITROGEN.....	14.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.2
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.07	HELIUM.....	0.09	HELIUM.....	0.61
HEATING VALUE.....	1013	HEATING VALUE.....	1013	HEATING VALUE.....	1010
SPECIFIC GRAVITY.....	0.718	SPECIFIC GRAVITY.....	0.712	SPECIFIC GRAVITY.....	0.719

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8569 SAMPLE 14650		INDEX 8570 SAMPLE 14652		INDEX 8571 SAMPLE 14654	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
WELL NAME.....	HITCH NO. E-1	WELL NAME.....	EDGAR NO. 1	WELL NAME.....	HITCH NO. 1
LOCATION.....	SEC. 10, BLK. 1, PFSL SUR.	LOCATION.....	SEC. 30, BLK. P, H&GN SUR.	LOCATION.....	SEC. 62, BLK. P, H&GN SUR.
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	08/13/45	COMPLETED.....	10/13/45	COMPLETED.....	07/17/45
SAMPLED.....	04/27/76	SAMPLED.....	04/27/76	SAMPLED.....	04/27/76
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	2620	DEPTH, FEET.....	2768	DEPTH, FEET.....	2792
WELLHEAD PRESSURE, PSIG.....	107	WELLHEAD PRESSURE, PSIG.....	83	WELLHEAD PRESSURE, PSIG.....	102
OPEN FLOW, MCFD.....	266	OPEN FLOW, MCFD.....	250	OPEN FLOW, MCFD.....	138
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.4	METHANE.....	75.2	METHANE.....	73.5
ETHANE.....	6.4	ETHANE.....	6.4	ETHANE.....	6.1
PROPANE.....	3.7	PROPANE.....	3.7	PROPANE.....	3.5
N-BUTANE.....	1.1	N-BUTANE.....	1.0	N-BUTANE.....	1.0
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	11.8	NITROGEN.....	12.1	NITROGEN.....	14.3
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.42	HELIUM.....	0.41	HELIUM.....	0.53
HEATING VALUE.....	1047	HEATING VALUE.....	1049	HEATING VALUE.....	1014
SPECIFIC GRAVITY.....	0.701	SPECIFIC GRAVITY.....	0.706	SPECIFIC GRAVITY.....	0.708

INDEX 8572 SAMPLE 14656		INDEX 8573 SAMPLE 14658		INDEX 8574 SAMPLE 14659	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
WELL NAME.....	HITCH NO. S-1	WELL NAME.....	HITCH NO. A-1	WELL NAME.....	HITCH NO. D-1
LOCATION.....	SEC. 58, BLK. P, H&GN SUR.	LOCATION.....	SEC. 289, BLK. 2, GH&H SUR.	LOCATION.....	SEC. 1, BLK. P, H&GN SUR.
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	08/17/45	COMPLETED.....	11/17/44	COMPLETED.....	01/24/45
SAMPLED.....	04/27/76	SAMPLED.....	04/27/76	SAMPLED.....	04/27/76
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	2825	DEPTH, FEET.....	2816	DEPTH, FEET.....	2647
WELLHEAD PRESSURE, PSIG.....	93	WELLHEAD PRESSURE, PSIG.....	121	WELLHEAD PRESSURE, PSIG.....	98
OPEN FLOW, MCFD.....	136	OPEN FLOW, MCFD.....	362	OPEN FLOW, MCFD.....	150
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.3	METHANE.....	75.2	METHANE.....	75.4
ETHANE.....	6.2	ETHANE.....	6.5	ETHANE.....	6.5
PROPANE.....	3.7	PROPANE.....	4.0	PROPANE.....	3.9
N-BUTANE.....	1.0	N-BUTANE.....	1.2	N-BUTANE.....	1.2
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	14.3	NITROGEN.....	11.4	NITROGEN.....	11.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.53	HELIUM.....	0.40	HELIUM.....	0.41
HEATING VALUE.....	1016	HEATING VALUE.....	1070	HEATING VALUE.....	1073
SPECIFIC GRAVITY.....	0.708	SPECIFIC GRAVITY.....	0.711	SPECIFIC GRAVITY.....	0.713

INDEX 8575 SAMPLE 14660		INDEX 8576 SAMPLE 14661		INDEX 8577 SAMPLE 14662	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
WELL NAME.....	HITCH NO. C-1	WELL NAME.....	SAME NO.	WELL NAME.....	HITCH NO. F-1
LOCATION.....	SEC. 8, BLK. 1, PFSL SUR.	LOCATION.....	SEC. 11, BLK. 1, PSL SUR.	LOCATION.....	SEC. 9, BLK. 1, PSL SUR.
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	02/12/45	COMPLETED.....	09/21/45	COMPLETED.....	05/26/45
SAMPLED.....	04/27/76	SAMPLED.....	04/27/76	SAMPLED.....	04/27/76
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	2770	DEPTH, FEET.....	2745	DEPTH, FEET.....	2769
WELLHEAD PRESSURE, PSIG.....	108	WELLHEAD PRESSURE, PSIG.....	103	WELLHEAD PRESSURE, PSIG.....	120
OPEN FLOW, MCFD.....	301	OPEN FLOW, MCFD.....	481	OPEN FLOW, MCFD.....	408
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.5	METHANE.....	75.6	METHANE.....	75.6
ETHANE.....	6.3	ETHANE.....	6.3	ETHANE.....	6.4
PROPANE.....	3.7	PROPANE.....	3.7	PROPANE.....	3.8
N-BUTANE.....	1.0	N-BUTANE.....	1.0	N-BUTANE.....	1.0
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	12.1	NITROGEN.....	11.9	NITROGEN.....	11.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.41	HELIUM.....	0.43	HELIUM.....	0.40
HEATING VALUE.....	1047	HEATING VALUE.....	1047	HEATING VALUE.....	1052
SPECIFIC GRAVITY.....	0.704	SPECIFIC GRAVITY.....	0.703	SPECIFIC GRAVITY.....	0.702

INDEX 8578 SAMPLE 15220		INDEX 8579 SAMPLE 10833		INDEX 8580 SAMPLE 14400	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HUNTER	FIELD.....	HUTCHINSON N	FIELD.....	LANDIS
WELL NAME.....	COLLARD A NO. 1	WELL NAME.....	COLLARD A NO. 1	WELL NAME.....	LANDIS NO. 1
LOCATION.....	SEC. 14, BLK. 45, H&TC SUR.	LOCATION.....	SEC. 14, BLK. 3, SA&MB SUR.	LOCATION.....	SEC. 34, BLK. R-B-&B. SUR.
OWNER.....	CONNAUT ENERGY CORP.	OWNER.....	ANADARKO PRODUCTION CO.	OWNER.....	R. L. BURNS CORP.
COMPLETED.....	01/21/77	COMPLETED.....	03/08/66	COMPLETED.....	--/--/74
SAMPLED.....	03/07/78	SAMPLED.....	01/09/67	SAMPLED.....	06/--/75
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WHITE DOLOMITE	FORMATION.....	PERM-CLEVELAND
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	3254	DEPTH, FEET.....	3408	DEPTH, FEET.....	6099
WELLHEAD PRESSURE, PSIG.....	6374	WELLHEAD PRESSURE, PSIG.....	603	WELLHEAD PRESSURE, PSIG.....	1468
OPEN FLOW, MCFD.....	2350	OPEN FLOW, MCFD.....	3630	OPEN FLOW, MCFD.....	5600
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.9	METHANE.....	75.1	METHANE.....	81.7
ETHANE.....	7.7	ETHANE.....	7.9	ETHANE.....	6.3
PROPANE.....	3.5	PROPANE.....	4.0	PROPANE.....	3.8
N-BUTANE.....	0.9	N-BUTANE.....	1.2	N-BUTANE.....	1.3
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.5
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	11.2	NITROGEN.....	10.7	NITROGEN.....	4.8
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.4
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.82	HELIUM.....	0.69	HELIUM.....	0.20
HEATING VALUE.....	1047	HEATING VALUE.....	1074	HEATING VALUE.....	1144
SPECIFIC GRAVITY.....	0.697	SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.694

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	INDEX SAMPLE	8581 14148	STATE	INDEX SAMPLE	8582 5072	STATE	INDEX SAMPLE	8583 5565
TEXAS			TEXAS			TEXAS		
COUNTY.....	HANSFORD		COUNTY.....	HANSFORD		COUNTY.....	HANSFORD	
FIELD.....	MORSE NE		FIELD.....	NOT GIVEN		FIELD.....	NOT GIVEN	
WELL NAME.....	E. T. RAFFERTY NO. 1		WELL NAME.....	MANN WOMBLE NO. 1		WELL NAME.....	T. J. BLAKEMORE NO. 1	
LOCATION.....	SEC. 1, BLK. 4, PSL SUR.		LOCATION.....	SEC. 27, BLK. 3-T, GH&H SUR.		LOCATION.....	SEC. 30, BLK. 4T, T&NO SUR.	
OWNER.....	CIG EXPLORATION, INC.		OWNER.....	J. H. HUBER CORP.		OWNER.....	TEXAS CO.	
COMPLETED.....	07/26/74		COMPLETED.....	06/19/51		COMPLETED.....	10/26/53	
SAMPLED.....	09/17/74		SAMPLED.....	06/21/51		SAMPLED.....	11/20/53	
FORMATION.....	PENN-DOUGLAS		FORMATION.....	PENN-		FORMATION.....	PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	4704		DEPTH, FEET.....	5314		DEPTH, FEET.....	7298	
WELLHEAD PRESSURE, PSIG.....	1035		WELLHEAD PRESSURE, PSIG.....	1225		WELLHEAD PRESSURE, PSIG.....	1627	
OPEN FLOW, MCFD.....	5900		OPEN FLOW, MCFD.....	2286		OPEN FLOW, MCFD.....	6850	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	77.3		METHANE.....	83.8		METHANE.....	92.5	
ETHANE.....	3.2		ETHANE.....	7.8		ETHANE.....	3.5	
PROPANE.....	3.5		PROPANE.....	1.5		PROPANE.....	1.5	
N-BUTANE.....	1.1		N-BUTANE.....	1.0		N-BUTANE.....	0.4	
ISOBUTANE.....	0.6		ISOBUTANE.....	0.5		ISOBUTANE.....	0.2	
N-PENTANE.....	0.3		N-PENTANE.....	0.1		N-PENTANE.....	0.1	
ISOPENTANE.....	0.2		ISOPENTANE.....	0.0		ISOPENTANE.....	0.1	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.3		HEXANES PLUS.....	0.1	
NITROGEN.....	11.0		NITROGEN.....	2.3		NITROGEN.....	1.1	
OXYGEN.....	TRACE		OXYGEN.....	0.1		OXYGEN.....	TRACE	
ARGON.....	TRACE		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	TRACE	
HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	---		HYDROGEN SULFIDE**.....	0.0	
CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.3	
HELIUM.....	0.45		HELIUM.....	0.13		HELIUM.....	0.14	
HEATING VALUE.....	1051		HEATING VALUE.....	1165		HEATING VALUE.....	1073	
SPECIFIC GRAVITY.....	0.698		SPECIFIC GRAVITY.....	0.681		SPECIFIC GRAVITY.....	0.609	
STATE	INDEX SAMPLE	8584 6090	STATE	INDEX SAMPLE	8585 6088	STATE	INDEX SAMPLE	8586 6165
TEXAS			TEXAS			TEXAS		
COUNTY.....	HANSFORD		COUNTY.....	HANSFORD		COUNTY.....	HANSFORD	
FIELD.....	NOT GIVEN		FIELD.....	PRAIRIE		FIELD.....	PRAIRIE	
WELL NAME.....	NUSBAUM		WELL NAME.....	COY. HOLT NO. 2		WELL NAME.....	T. E. JONES NO. 1	
LOCATION.....	SEC. 39, BLK. 4, T&NO SUR.		LOCATION.....	SEC. 140, BLK. 45, H&TC SUR.		LOCATION.....	SEC. 309, BLK. 2, GH&H SUR.	
OWNER.....	HONOLULU OIL CORP.		OWNER.....	SUN OIL CO.		OWNER.....	SUN OIL CO.	
COMPLETED.....	06/27/00		COMPLETED.....	04/18/56		COMPLETED.....	09/21/56	
SAMPLED.....	06/20/56		SAMPLED.....	06/18/56		SAMPLED.....	10/24/56	
FORMATION.....	NOT GIVEN		FORMATION.....	PENN-MORROW U		FORMATION.....	PENN-MORROW U	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	NOT GIVEN		DEPTH, FEET.....	7052		DEPTH, FEET.....	7190	
WELLHEAD PRESSURE, PSIG.....	2370		WELLHEAD PRESSURE, PSIG.....	2000		WELLHEAD PRESSURE, PSIG.....	1475	
OPEN FLOW, MCFD.....	16000		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	2300	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	92.1		METHANE.....	91.8		METHANE.....	88.9	
ETHANE.....	3.6		ETHANE.....	4.0		ETHANE.....	4.4	
PROPANE.....	1.6		PROPANE.....	1.1		PROPANE.....	1.8	
N-BUTANE.....	0.6		N-BUTANE.....	0.1		N-BUTANE.....	0.5	
ISOBUTANE.....	0.0		ISOBUTANE.....	0.1		ISOBUTANE.....	0.2	
N-PENTANE.....	0.1		N-PENTANE.....	0.2		N-PENTANE.....	0.3	
ISOPENTANE.....	0.4		ISOPENTANE.....	0.0		ISOPENTANE.....	0.1	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.3		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.7		HEXANES PLUS.....	0.2	
NITROGEN.....	0.6		NITROGEN.....	1.7		NITROGEN.....	3.1	
OXYGEN.....	TRACE		OXYGEN.....	TRACE		OXYGEN.....	0.1	
ARGON.....	0.2		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	0.1		HYDROGEN.....	0.2		HYDROGEN.....	0.0	
HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0	
CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.2	
HELIUM.....	0.08		HELIUM.....	0.15		HELIUM.....	0.17	
HEATING VALUE.....	1065		HEATING VALUE.....	1065		HEATING VALUE.....	1081	
SPECIFIC GRAVITY.....	0.620		SPECIFIC GRAVITY.....	0.608		SPECIFIC GRAVITY.....	0.634	
STATE	INDEX SAMPLE	8587 9633	STATE	INDEX SAMPLE	8588 8947	STATE	INDEX SAMPLE	8589 5790
TEXAS			TEXAS			TEXAS		
COUNTY.....	HANSFORD		COUNTY.....	HANSFORD		COUNTY.....	HANSFORD	
FIELD.....	SHAPLEY S		FIELD.....	SHAPLEY S		FIELD.....	SPEARMAN	
WELL NAME.....	HARRIS BRANDVIK NO. 1-XC		WELL NAME.....	HARRIS UNIT B		WELL NAME.....	OIL DEV. CO. OF TEX. NO. 1	
LOCATION.....	SEC. 24, BLK. P, H&GN RR SUR		LOCATION.....	SEC. 9, BLK. P, H&GN SUR.		LOCATION.....	SEC. 2, BLK. 4-T, T&NO SUR.	
OWNER.....	GULF OIL CORP.		OWNER.....	PAN AMERICAN PETROLEUM CORP.		OWNER.....	HUMBLE OIL & REFINING CO.	
COMPLETED.....	04/11/64		COMPLETED.....	01/09/63		COMPLETED.....	11/08/54	
SAMPLED.....	11/09/64		SAMPLED.....	04/26/63		SAMPLED.....	03/10/55	
FORMATION.....	PENN-MORROW B		FORMATION.....	PENN-MORROW		FORMATION.....	MISS-	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	6968		DEPTH, FEET.....	6802		DEPTH, FEET.....	7650	
WELLHEAD PRESSURE, PSIG.....	1472		WELLHEAD PRESSURE, PSIG.....	1580		WELLHEAD PRESSURE, PSIG.....	2150	
OPEN FLOW, MCFD.....	1500		OPEN FLOW, MCFD.....	2310		OPEN FLOW, MCFD.....	1500	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	80.9		METHANE.....	79.1		METHANE.....	92.2	
ETHANE.....	7.3		ETHANE.....	7.8		ETHANE.....	3.7	
PROPANE.....	4.3		PROPANE.....	4.9		PROPANE.....	3.5	
N-BUTANE.....	1.3		N-BUTANE.....	1.6		N-BUTANE.....	0.4	
ISOBUTANE.....	0.5		ISOBUTANE.....	0.5		ISOBUTANE.....	0.3	
N-PENTANE.....	0.1		N-PENTANE.....	0.6		N-PENTANE.....	0.4	
ISOPENTANE.....	0.2		ISOPENTANE.....	0.4		ISOPENTANE.....	0.2	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.3		HEXANES PLUS.....	0.4		HEXANES PLUS.....	0.2	
NITROGEN.....	0.0		NITROGEN.....	0.0		NITROGEN.....	0.8	
OXYGEN.....	TRACE		OXYGEN.....	0.0		OXYGEN.....	0.0	
ARGON.....	TRACE		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.1	
HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0	
CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.3	
HELIUM.....	0.23		HELIUM.....	0.3		HELIUM.....	0.09	
HEATING VALUE.....	1167		HEATING VALUE.....	1197		HEATING VALUE.....	1090	
SPECIFIC GRAVITY.....	0.699		SPECIFIC GRAVITY.....	0.720		SPECIFIC GRAVITY.....	0.616	
STATE	INDEX SAMPLE	8590 6142	STATE	INDEX SAMPLE	8591 7294	STATE	INDEX SAMPLE	8592 7312
TEXAS			TEXAS			TEXAS		
COUNTY.....	HANSFORD		COUNTY.....	HANSFORD		COUNTY.....	HANSFORD	
FIELD.....	SPEARMAN E		FIELD.....	SPEARMAN E		FIELD.....	SPEARMAN E	
WELL NAME.....	SEC. 8, ASATER C-1-17		WELL NAME.....	SEC. 20, BLK. 2, WCRR SUR.		WELL NAME.....	SEC. 13, BLK. 2, WCRR SUR.	
LOCATION.....	UNION OIL CO. OF CALIF.		LOCATION.....	TEXACO INC.		LOCATION.....	TEXACO INC.	
OWNER.....	UNION OIL CO. OF CALIF.		OWNER.....	TEXACO INC.		OWNER.....	TEXACO INC.	
COMPLETED.....	09/15/56		COMPLETED.....	11/30/59		COMPLETED.....	12/18/59	
SAMPLED.....	09/15/56		SAMPLED.....	11/30/59		SAMPLED.....	12/18/59	
FORMATION.....	PENN-MORROW U		FORMATION.....	PENN-ATOKA		FORMATION.....	PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360		GEOLOGIC PROVINCE CODE.....	360	
DEPTH, FEET.....	7294		DEPTH, FEET.....	7081		DEPTH, FEET.....	7080	
WELLHEAD PRESSURE, PSIG.....	1630		WELLHEAD PRESSURE, PSIG.....	402		WELLHEAD PRESSURE, PSIG.....	327	
OPEN FLOW, MCFD.....	31700		OPEN FLOW, MCFD.....	675		OPEN FLOW, MCFD.....	910	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	90.8		METHANE.....	79.3		METHANE.....	74.3	
ETHANE.....	3.5		ETHANE.....	11.2		ETHANE.....	14.5	
PROPANE.....	1.6		PROPANE.....	5.3		PROPANE.....	6.5	
N-BUTANE.....	0.5		N-BUTANE.....	0.6		N-BUTANE.....	0.5	
ISOBUTANE.....	0.3		ISOBUTANE.....	0.5		ISOBUTANE.....	0.5	
N-PENTANE.....	0.3		N-PENTANE.....	0.4		N-PENTANE.....	0.4	
ISOPENTANE.....	0.1		ISOPENTANE.....	0.1		ISOPENTANE.....	0.3	
CYCLOPENTANE.....	0.2		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.5		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.3	
NITROGEN.....	TRACE		NITROGEN.....	TRACE		NITROGEN.....	TRACE	
OXYGEN.....	TRACE		OXYGEN.....	TRACE		OXYGEN.....	TRACE	
ARGON.....	0.0		ARGON.....	TRACE		ARGON.....	0.0	
HYDROGEN.....	TRACE		HYDROGEN.....	0.2		HYDROGEN.....	0.3	
HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0		HYDROGEN SULFIDE**.....	0.0	
CARBON DIOXIDE.....	0.4		CARBON DIOXIDE.....	0.4		CARBON DIOXIDE.....	0.4	
HELIUM.....	0.16		HELIUM.....	0.10		HELIUM.....	0.05	
HEATING VALUE.....	1305		HEATING VALUE.....	1305		HEATING VALUE.....	1305	
SPECIFIC GRAVITY.....	0.634		SPECIFIC GRAVITY.....	0.714		SPECIFIC GRAVITY.....	0.752	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8593 SAMPLE 14954		INDEX 8594 SAMPLE 5886		INDEX 8595 SAMPLE 6061	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	SPEARMAN E	FIELD.....	TWIN	FIELD.....	TWIN
WELL NAME.....	LASSTON NO. 1	WELL NAME.....	STEELE NO. 57-1	WELL NAME.....	STEELE NO. 1
LOCATION.....	SEC. 15, BLK. 2, WCRS SUR.	LOCATION.....	SEC. 57, BLK. 45P, H&TC SUR.	LOCATION.....	SEC. 56, BLK. 45, H&TC SUR.
OWNER.....	PARAMOUNT PRODUCING, INC.	OWNER.....	PRODUCERS CHEMICAL SERVICE	OWNER.....	FULTON DEVELOPMENT CO.
COMPLETED.....	02/13/55	COMPLETED.....	07/25/55	COMPLETED.....	03/03/55
SAMPLED.....	03/31/77	SAMPLED.....	07/25/55	SAMPLED.....	03/24/55
FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-TONKAWA	FORMATION.....	PENN-TONKAWA
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7334	DEPTH, FEET.....	5157	DEPTH, FEET.....	5081
WELLHEAD PRESSURE, PSIG.....	293	WELLHEAD PRESSURE, PSIG.....	1490	WELLHEAD PRESSURE, PSIG.....	1400
OPEN FLOW, MCFD.....	3900	OPEN FLOW, MCFD.....	3583	OPEN FLOW, MCFD.....	37500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.3	METHANE.....	85.9	METHANE.....	86.8
ETHANE.....	3.8	ETHANE.....	5.9	ETHANE.....	6.3
PROpane.....	1.6	PROpane.....	1.2	PROpane.....	2.9
N-BUTANE.....	0.5	N-BUTANE.....	0.2	N-BUTANE.....	2.1
ISOBUTANE.....	0.1	ISOBUTANE.....	0.2	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.5	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	1.5	NITROGEN.....	2.4	NITROGEN.....	1.3
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.15	HELIUM.....	0.15	HELIUM.....	0.13
HEATING VALUE.....	1081	HEATING VALUE.....	1144	HEATING VALUE.....	1159
SPECIFIC GRAVITY.....	0.621	SPECIFIC GRAVITY.....	0.664	SPECIFIC GRAVITY.....	0.663

INDEX 8596 SAMPLE 6502		INDEX 8597 SAMPLE 9899		INDEX 8598 SAMPLE 5592	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	TWIN	FIELD.....	UNNAMED	FIELD.....	WILDCAT
WELL NAME.....	DEV. NO. 1-44	WELL NAME.....	H. T. COLLARD G. U. NO. 1-UC	WELL NAME.....	E. GRUVER GAS UNIT NO. 1
LOCATION.....	SEC. 44, BLK. 45, H&TC SUR.	LOCATION.....	SEC. 189, BLK. 45, H&TC SUR.	LOCATION.....	SEC. 111, BLK. 45, H&TC SUR.
OWNER.....	J. M. HUBER CORP. & C. AIKMA	OWNER.....	TEXACO INC.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	01/02/58	COMPLETED.....	11/28/64	COMPLETED.....	12/08/53
SAMPLED.....	02/05/58	SAMPLED.....	05/12/65	SAMPLED.....	12/11/53
FORMATION.....	PENN-HARMATON	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	5894	DEPTH, FEET.....	3434	DEPTH, FEET.....	6216
WELLHEAD PRESSURE, PSIG.....	1507	WELLHEAD PRESSURE, PSIG.....	603	WELLHEAD PRESSURE, PSIG.....	2018
OPEN FLOW, MCFD.....	1350	OPEN FLOW, MCFD.....	3400	OPEN FLOW, MCFD.....	5700
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.2	METHANE.....	74.1	METHANE.....	80.8
ETHANE.....	6.4	ETHANE.....	6.6	ETHANE.....	8.7
PROpane.....	2.8	PROpane.....	4.0	PROpane.....	4.3
N-BUTANE.....	0.9	N-BUTANE.....	0.2	N-BUTANE.....	1.3
ISOBUTANE.....	0.3	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.4
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	1.4	NITROGEN.....	11.9	NITROGEN.....	3.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2
HELIUM.....	0.10	HELIUM.....	0.74	HELIUM.....	0.20
HEATING VALUE.....	1138	HEATING VALUE.....	1065	HEATING VALUE.....	1175
SPECIFIC GRAVITY.....	0.652	SPECIFIC GRAVITY.....	0.716	SPECIFIC GRAVITY.....	0.694

INDEX 8599 SAMPLE 5687		INDEX 8600 SAMPLE 5876		INDEX 8601 SAMPLE 15833	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILLIAMS
WELL NAME.....	LOLA K. JACKSON NO. 4	WELL NAME.....	BOYD NO. 1	WELL NAME.....	MINDA "A" NO. 2
LOCATION.....	SEC. 19, BLK. 2, SA&MG SUR.	LOCATION.....	SEC. 51, BLK. 2, SA&MG SUR.	LOCATION.....	SEC. 35, BLK. 2, H&GN SUR.
OWNER.....	UNITED PRODUCING CO., INC.	OWNER.....	AMOCO PRODUCTION CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	07/19/54	COMPLETED.....	03/05/55	COMPLETED.....	09/08/79
SAMPLED.....	09/10/54	SAMPLED.....	07/14/55	SAMPLED.....	11/09/79
FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-TONKAWA	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	6586	DEPTH, FEET.....	5324	DEPTH, FEET.....	6768
WELLHEAD PRESSURE, PSIG.....	1450	WELLHEAD PRESSURE, PSIG.....	1400	WELLHEAD PRESSURE, PSIG.....	765
OPEN FLOW, MCFD.....	1400	OPEN FLOW, MCFD.....	10900	OPEN FLOW, MCFD.....	4200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	84.5	METHANE.....	89.8	METHANE.....	87.8
ETHANE.....	7.0	ETHANE.....	2.6	ETHANE.....	3.7
PROpane.....	3.5	PROpane.....	2.1	PROpane.....	2.3
N-BUTANE.....	0.7	N-BUTANE.....	0.8	N-BUTANE.....	0.7
ISOBUTANE.....	0.4	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.4	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	2.8	NITROGEN.....	2.3	NITROGEN.....	4.2
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.13	HELIUM.....	0.14	HELIUM.....	0.21
HEATING VALUE.....	1137	HEATING VALUE.....	1102	HEATING VALUE.....	1073
SPECIFIC GRAVITY.....	0.666	SPECIFIC GRAVITY.....	0.636	SPECIFIC GRAVITY.....	0.640

INDEX 8602 SAMPLE 9084		INDEX 8603 SAMPLE 14375		INDEX 8604 SAMPLE 11177	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HARDEN	COUNTY.....	HARDEN	COUNTY.....	HARDEN
FIELD.....	BEACH CREEK	FIELD.....	BEACH CREEK	FIELD.....	BEACH CREEK
WELL NAME.....	CONLEY A NO. 6	WELL NAME.....	C. G. HOOKS NO. 5	WELL NAME.....	H & TC FEE SEC. 189 NO. 9
LOCATION.....	SEC. 82, BLK. H, W&N RR SUR	LOCATION.....	JOSE C. LOPEZ SEC. A-360	LOCATION.....	H&TC FEE SEC. 189 NO. 9
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	AMOCO PRODUCTION CO.	OWNER.....	SINCLAIR OIL & GAS CO.
COMPLETED.....	06/24/63	COMPLETED.....	04/24/73	COMPLETED.....	05/27/66
SAMPLED.....	09/15/63	SAMPLED.....	05/19/75	SAMPLED.....	10/17/67
FORMATION.....	MISS-CHESTER	FORMATION.....	EOCE-YEGUA	FORMATION.....	EOCE-YEGUA 7-A
GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7600	DEPTH, FEET.....	9192	DEPTH, FEET.....	6615
WELLHEAD PRESSURE, PSIG.....	2225	WELLHEAD PRESSURE, PSIG.....	1290	WELLHEAD PRESSURE, PSIG.....	2343
OPEN FLOW, MCFD.....	3175	OPEN FLOW, MCFD.....	400	OPEN FLOW, MCFD.....	28500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.9	METHANE.....	68.2	METHANE.....	85.9
ETHANE.....	12.0	ETHANE.....	4.3	ETHANE.....	3.8
PROpane.....	7.3	PROpane.....	2.8	PROpane.....	2.9
N-BUTANE.....	1.5	N-BUTANE.....	0.6	N-BUTANE.....	0.7
ISOBUTANE.....	0.7	ISOBUTANE.....	0.6	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.5	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	2.8	NITROGEN.....	22.3	NITROGEN.....	2.9
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.5
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.3
HELIUM.....	0.10	HELIUM.....	0.06	HELIUM.....	0.01
HEATING VALUE.....	1245	HEATING VALUE.....	898	HEATING VALUE.....	1111
SPECIFIC GRAVITY.....	0.740	SPECIFIC GRAVITY.....	0.725	SPECIFIC GRAVITY.....	0.658

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8605 SAMPLE 11178		INDEX 8606 SAMPLE 14553		INDEX 8607 SAMPLE 16086	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HARDIN	COUNTY.....	HARDIN	COUNTY.....	HARDIN
FIELD.....	BEECH CREEK	FIELD.....	BEECH CREEK	FIELD.....	BRADLEY S
WELL NAME.....	H & TC FEE SEC. 189 NO. 9	WELL NAME.....	ARCO-FEE SEC. 189 NO. 1	WELL NAME.....	AR&S BRADLEY FEE NO. 1
LOCATION.....	H&TC FEE SEC. 189 NO. 9	LOCATION.....	H&TC RR CO. SUR. A-300	LOCATION.....	1.05 MI. NE OF SETH
OWNER.....	SINCLAIR OIL & GAS CO.	OWNER.....	ROBERT MOSBACHER	OWNER.....	JAKE L. HAROH
COMPLETED.....	05/27/66	COMPLETED.....	11/19/73	COMPLETED.....	11/12/77
SAMPLED.....	10/17/67	SAMPLED.....	12/18/75	SAMPLED.....	09/29/80
FORMATION.....	EOCE-YEGUA 2	FORMATION.....	EOCE-WILCOX	FORMATION.....	EOCE-YEGUA
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	6285	DEPTH, FEET.....	9388	DEPTH, FEET.....	7773
WELLHEAD PRESSURE, PSIG.....	2338	WELLHEAD PRESSURE, PSIG.....	2749	WELLHEAD PRESSURE, PSIG.....	2700
OPEN FLOW, MCFD.....	11300	OPEN FLOW, MCFD.....	4650	OPEN FLOW, MCFD.....	2754
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	89.1	METHANE.....	81.0	METHANE.....	84.5
ETHANE.....	5.1	ETHANE.....	7.7	ETHANE.....	4.3
PROPANE.....	2.2	PROPANE.....	6.0	PROPANE.....	2.3
N-BUTANE.....	0.7	N-BUTANE.....	1.2	N-BUTANE.....	0.6
ISOBUTANE.....	0.6	ISOBUTANE.....	1.3	ISOBUTANE.....	0.7
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.4	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.4
NITROGEN.....	1.2	NITROGEN.....	0.1	NITROGEN.....	6.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	1.4	CARBON DIOXIDE.....	0.3
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	1.02
HEATING VALUE.....	1131	HEATING VALUE.....	10721	HEATING VALUE.....	1082
SPECIFIC GRAVITY.....	0.646	SPECIFIC GRAVITY.....	0.721	SPECIFIC GRAVITY.....	0.668

INDEX 8608 SAMPLE 13096		INDEX 8609 SAMPLE 12379		INDEX 8610 SAMPLE 16424	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HARDIN	COUNTY.....	HARDIN	COUNTY.....	HARDIN
FIELD.....	DORSEY	FIELD.....	ELLIOTT	FIELD.....	LONG STATION
WELL NAME.....	STERNEBERG NO. 4	WELL NAME.....	F. P. ELLIOTT FEE NO. 5-L	WELL NAME.....	KIRBY-SANTA FE NO. 2-T
LOCATION.....	GREENBERG DORSEY SUR.	LOCATION.....	F. P. ELLIOTT LEAGUE A-18	LOCATION.....	KOUNCE
OWNER.....	WHITE SHIELD OIL & GAS CORP.	OWNER.....	ATLANTIC RICHFIELD CO.	OWNER.....	DAMSON OIL CORP.
COMPLETED.....	06/20/70	COMPLETED.....	06/11/69	COMPLETED.....	09/18/81
SAMPLED.....	06/23/71	SAMPLED.....	08/19/70	SAMPLED.....	02/05/82
FORMATION.....	EOCE-YEGUA	FORMATION.....	EOCE-YEGUA W	FORMATION.....	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7361	DEPTH, FEET.....	7318	DEPTH, FEET.....	10155
WELLHEAD PRESSURE, PSIG.....	2512	WELLHEAD PRESSURE, PSIG.....	1606	WELLHEAD PRESSURE, PSIG.....	4200
OPEN FLOW, MCFD.....	5300	OPEN FLOW, MCFD.....	3165	OPEN FLOW, MCFD.....	1760
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	88.9	METHANE.....	88.0	METHANE.....	84.5
ETHANE.....	5.6	ETHANE.....	5.7	ETHANE.....	8.0
PROPANE.....	2.5	PROPANE.....	2.6	PROPANE.....	3.4
N-BUTANE.....	0.6	N-BUTANE.....	0.7	N-BUTANE.....	0.7
ISOBUTANE.....	0.1	ISOBUTANE.....	0.3	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2
NITROGEN.....	1.1	NITROGEN.....	1.1	NITROGEN.....	0.6
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	1.4
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1129	HEATING VALUE.....	1149	HEATING VALUE.....	1167
SPECIFIC GRAVITY.....	0.643	SPECIFIC GRAVITY.....	0.656	SPECIFIC GRAVITY.....	0.681

INDEX 8611 SAMPLE 11176		INDEX 8612 SAMPLE 12380		INDEX 8613 SAMPLE 4928	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HARDIN	COUNTY.....	HARDIN	COUNTY.....	HARDIN
FIELD.....	MCGILL	FIELD.....	MCGILL	FIELD.....	O. C. NELSON
WELL NAME.....	A. HAMPTON FEE B NO. 1	WELL NAME.....	H. MCGILL FEE NO. 1-U	WELL NAME.....	O. C. NELSON NO. 1
LOCATION.....	A. HAMPTON SUR. A-3	LOCATION.....	H. MCGILL SUR. A-38	LOCATION.....	O. C. NELSON LEAGUE NO. A-40
OWNER.....	SINCLAIR OIL & GAS CO.	OWNER.....	ATLANTIC RICHFIELD CO.	OWNER.....	AMERICAN REPUBLICS CORP.
COMPLETED.....	08/14/66	COMPLETED.....	05/30/69	COMPLETED.....	06/01/50
SAMPLED.....	10/17/67	SAMPLED.....	08/19/70	SAMPLED.....	09/08/50
FORMATION.....	OLIG-FRIO F-1	FORMATION.....	EOCE-YEGUA C-3	FORMATION.....	EOCE-YEGUA
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7770	DEPTH, FEET.....	7250	DEPTH, FEET.....	7626
WELLHEAD PRESSURE, PSIG.....	2340	WELLHEAD PRESSURE, PSIG.....	2488	WELLHEAD PRESSURE, PSIG.....	3576
OPEN FLOW, MCFD.....	16400	OPEN FLOW, MCFD.....	12000	OPEN FLOW, MCFD.....	12000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	88.5	METHANE.....	89.3	METHANE.....	88.4
ETHANE.....	5.6	ETHANE.....	4.3	ETHANE.....	5.7
PROPANE.....	2.2	PROPANE.....	2.7	PROPANE.....	0.6
N-BUTANE.....	0.7	N-BUTANE.....	0.6	N-BUTANE.....	0.7
ISOBUTANE.....	0.5	ISOBUTANE.....	0.6	ISOBUTANE.....	0.7
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3
NITROGEN.....	1.1	NITROGEN.....	1.2	NITROGEN.....	0.6
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.4
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.02
HEATING VALUE.....	1132	HEATING VALUE.....	1122	HEATING VALUE.....	1146
SPECIFIC GRAVITY.....	0.649	SPECIFIC GRAVITY.....	0.641	SPECIFIC GRAVITY.....	0.653

INDEX 8614 SAMPLE 12005		INDEX 8615 SAMPLE 13389		INDEX 8616 SAMPLE 14520	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HARDIN	COUNTY.....	HARDIN	COUNTY.....	HARDIN
FIELD.....	PAVEY-KIRBY	FIELD.....	SILSBEE N	FIELD.....	SOUR LAKE
WELL NAME.....	KIRBY LBR. CO. TR. 104A NO.1	WELL NAME.....	KIRBY LUBER CO. NO. 1	WELL NAME.....	DISMAN-LUCAS NO. 1
LOCATION.....	F. HELFENSTEIN SUR. A-263	LOCATION.....	J. A. VICKERS SUR. A-52	LOCATION.....	ISAAC BRIDGE SUR. A-132
OWNER.....	SHELL OIL CO.	OWNER.....	COLINE OIL CO.	OWNER.....	SUN OIL CO.
COMPLETED.....	09/24/55	COMPLETED.....	06/19/71	COMPLETED.....	07/27/74
SAMPLED.....	08/20/69	SAMPLED.....	09/19/72	SAMPLED.....	10/31/75
FORMATION.....	EOCE-WILCOX	FORMATION.....	EOCE-YEGUA	FORMATION.....	EOCE-YEGUA
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8446	DEPTH, FEET.....	9699	DEPTH, FEET.....	9777
WELLHEAD PRESSURE, PSIG.....	4383	WELLHEAD PRESSURE, PSIG.....	4397	WELLHEAD PRESSURE, PSIG.....	1900
OPEN FLOW, MCFD.....	3250	OPEN FLOW, MCFD.....	340000	OPEN FLOW, MCFD.....	174
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	84.8	METHANE.....	88.0	METHANE.....	87.0
ETHANE.....	7.2	ETHANE.....	5.6	ETHANE.....	6.2
PROPANE.....	3.3	PROPANE.....	3.0	PROPANE.....	3.5
N-BUTANE.....	0.7	N-BUTANE.....	0.7	N-BUTANE.....	0.7
ISOBUTANE.....	0.6	ISOBUTANE.....	0.9	ISOBUTANE.....	0.7
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.9	NITROGEN.....	0.6	NITROGEN.....	0.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.7	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.9
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1149	HEATING VALUE.....	1146	HEATING VALUE.....	1157
SPECIFIC GRAVITY.....	0.677	SPECIFIC GRAVITY.....	0.653	SPECIFIC GRAVITY.....	0.663

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8617			INDEX 8618			INDEX 8619		
SAMPLE 5127			SAMPLE 13843			SAMPLE 4608		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARDIN		HARDIN			HARDIN		
FIELD.....	VICKERS		VILLAGE MILLS N			VILLAGE MILLS W		
WELL NAME.....	J. A. VICKERS NO. 1		KIRBY LUMBER CO. NO. 2			CHERRY FEE NO. 1		
LOCATION.....	NOT GIVEN		THOMAS J. HATTON SUR. A-279			WILBUR CHERRY SUR.		
OWNER.....	AMERICAN REPUBLICS CORP.		HOUSTON OIL & MINERALS CORP.			HOUSTON OIL CO. OF TEXAS		
COMPLETED.....	05/26/51		03/03/72			07/28/48		
SAMPLED.....	11/26/51		12/-/73			10/31/48		
FORMATION.....	EOCE-YEGUA L		OLIG-FRIO 6500			EOCE-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7203		6520			7026		
WELLHEAD PRESSURE, PSIG.....	2576		2338			3105		
OPEN FLOW, MCFD.....	1500		11007			440000		
COMPONENT, MOLE PCT								
METHANE.....	86.9		72.9			31.9		
ETHANE.....	5.6		6.2			61.5		
PROPANE.....	3.1		5.3			---		
N-BUTANE.....	0.7		1.6			---		
ISOBUTANE.....	0.9		1.9			---		
N-PENTANE.....	0.3		0.4			---		
ISOPENTANE.....	TRACE		0.7			---		
CYCLOPENTANE.....	0.1		0.1			---		
HEXANES PLUS.....	0.3		0.3			---		
NITROGEN.....	1.6		8.5			5.5		
OXYGEN.....	0.1		1.6			0.5		
ARGON.....	TRACE		0.1			---		
HYDROGEN.....	0.0		TRACE			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.5		0.5			0.6		
HELIUM.....	0.01		0.0			0.02		
HEATING VALUE.....	1148		1171			1425		
SPECIFIC GRAVITY.....	0.665		0.772			0.890		
INDEX 8620			INDEX 8621			INDEX 8622		
SAMPLE 15130			SAMPLE 14497			SAMPLE 4615		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRIS		HARRIS			HARRIS		
FIELD.....	CLINTON		BARREL S			CLINTON		
WELL NAME.....	BROWN ESTATE NO. 3		JOHN EHRHARDT NO. 2			A. S. MOODY NO. 2		
LOCATION.....	W. H. LLOYD SUR. A-1342		SEC. 6, BLK. 4, MCERRCO. SUR			REELS & TROBOUGH SUR.		
OWNER.....	AMAREX, INC.		PETROLEUM CORP. OF TEXAS			STANOLIND OIL & GAS CO.		
COMPLETED.....	01/17/76		02/12/75			08/01/48		
SAMPLED.....	10/26/77		10/21/75			11/08/48		
FORMATION.....	EOCE-YEGUA		EOCE-YEGUA			EOCE-YEGUA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	6994		6727			8000		
WELLHEAD PRESSURE, PSIG.....	1050		1400			4814		
OPEN FLOW, MCFD.....	1000		10000			11500		
COMPONENT, MOLE PCT								
METHANE.....	91.5		90.1			88.2		
ETHANE.....	4.5		5.1			10.5		
PROPANE.....	1.7		3.9			---		
N-BUTANE.....	0.5		0.4			---		
ISOBUTANE.....	0.3		0.4			---		
N-PENTANE.....	0.1		0.1			---		
ISOPENTANE.....	0.2		0.2			---		
CYCLOPENTANE.....	0.1		TRACE			---		
HEXANES PLUS.....	0.1		0.1			---		
NITROGEN.....	0.2		1.0			0.0		
OXYGEN.....	0.0		0.1			0.2		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.7		0.4			0.7		
HELIUM.....	TRACE		0.01			0.02		
HEATING VALUE.....	1100		1098			1089		
SPECIFIC GRAVITY.....	0.623		0.627			0.616		
INDEX 8623			INDEX 8624			INDEX 8625		
SAMPLE 12173			SAMPLE 13453			SAMPLE 13454		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRIS		HARRIS			HARRIS		
FIELD.....	CLINTON N		DECKERS PRAIRIE S			DECKERS PRAIRIE S		
WELL NAME.....	GORRICH NO. 1		OTTO SEIDEL NO. 4			OTTO SEIDEL NO. 4		
LOCATION.....	REELS & TROBOUGH SUR. A-59		JOHN H. EDWARDS SUR. A-20			JOHN H. EDWARDS SUR. A-20		
OWNER.....	SCURLOCK OIL CO.		SALMON CORP.			SALMON CORP.		
COMPLETED.....	02/20/68		01/21/72			01/21/71		
SAMPLED.....	10/08/69		10/19/72			10/19/72		
FORMATION.....	EOCE-YEGUA		MIOC-			MIOC-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3461		1442			1716		
WELLHEAD PRESSURE, PSIG.....	3651		512			696		
OPEN FLOW, MCFD.....	5800		3800			170000		
COMPONENT, MOLE PCT								
METHANE.....	91.3		98.5			98.8		
ETHANE.....	3.9		0.1			0.0		
PROPANE.....	1.8		0.1			TRACE		
N-BUTANE.....	0.4		0.0			0.0		
ISOBUTANE.....	0.4		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.0		
ISOPENTANE.....	0.2		0.0			0.0		
CYCLOPENTANE.....	0.2		0.0			0.0		
HEXANES PLUS.....	0.3		0.0			0.0		
NITROGEN.....	0.8		1.0			1.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.5		TRACE			0.0		
HELIUM.....	TRACE		0.01			0.01		
HEATING VALUE.....	1104		1002			1001		
SPECIFIC GRAVITY.....	0.628		0.561			0.559		
INDEX 8626			INDEX 8627			INDEX 8628		
SAMPLE 4527			SAMPLE 4643			SAMPLE 4887		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRIS		HARRIS			HARRIS		
FIELD.....	DURKEE		DURKEE			DURKEE		
WELL NAME.....	H. J. MOORE NO. 1		MOFFER ET AL. NO. 1			BASH NO. 1		
LOCATION.....	SEC. 17, BLK. 4, J.E. DURKEE SUR.		BLK. 6, GEO. GREEN SUR.			GEO. E. GREEN SUR. NO. 281		
OWNER.....	UNION PRODUCING CO.		HOUSTON OIL CO. OF TEXAS			UNION PRODUCING CO.		
COMPLETED.....	09/03/47		10/10/48			12/22/49		
SAMPLED.....	04/23/48		01/06/49			05/18/50		
FORMATION.....	EOCE-		EOCE-YEGUA			EOCE-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7680		7190			7708		
WELLHEAD PRESSURE, PSIG.....	2729		3270			2744		
OPEN FLOW, MCFD.....	40000		12000			16300		
COMPONENT, MOLE PCT								
METHANE.....	82.4		86.3			90.5		
ETHANE.....	16.5		12.5			4.9		
PROPANE.....	---		---			2.1		
N-BUTANE.....	---		---			0.5		
ISOBUTANE.....	---		---			0.4		
N-PENTANE.....	---		---			0.3		
ISOPENTANE.....	---		---			TRACE		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.1		
NITROGEN.....	0.1		0.2			0.0		
OXYGEN.....	0.3		0.2			0.1		
ARGON.....	---		---			0.0		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	---		---			0.7		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE.....	1130		1105			1129		
SPECIFIC GRAVITY.....	0.645		0.624			0.638		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE		8629 11148	INDEX SAMPLE		8630 16466	INDEX SAMPLE		8631 4998
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRIS		HARRIS			HARRIS		
WELL NAME.....	DURKEE W		FAIRBANKS			E. HOPKINS		
LOCATION.....	W. W. ANDERSON SUR. A-1630		R-1 BUSHNELL NO. 1			GEORGE WILLIAMS SUR. NO. 4		
OWNER.....	UNION PRODUCING CO.		GEORGE WILLIAMS SUR., A-858			TEXAS CO.		
COMPLETED.....	01/03/66		KILROY CO. OF TEXAS, INC.			10/11/56		
SAMPLED.....	10/06/67		12/13/80			01/23/51		
FORMATION.....	EOCE-GOODYKOONTZ		EOCE-YEGUA & GOODYKOONTZ			EOCE-		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7355		7256			7576		
WELLHEAD PRESSURE, PSIG.....	1950		2245			3325		
OPEN FLOW, MCFD.....	9630		20500			7000		
COMPONENT, MOLE PCT								
METHANE.....	90.5		89.9			91.8		
ETHANE.....	5.2		5.4			4.0		
PROpane.....	1.0		2.1			1.8		
N-BUTANE.....	0.5		0.5			0.5		
ISOBUTANE.....	0.4		0.4			0.5		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.3		0.3			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	0.4		0.6			0.1		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.3			0.8		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1113		1123			1099		
SPECIFIC GRAVITY.....	0.630		0.636			0.625		
INDEX SAMPLE		8632 13798	INDEX SAMPLE		8633 11256	INDEX SAMPLE		8634 11977
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRIS		HARRIS			HARRIS		
WELL NAME.....	GREENS BAYOU		HIGHLANDS			HUFFSMITH		
LOCATION.....	MCHSC NAV. DSTR. NO. 1		MAGEE ET AL. NO. 1			W. T. JONES NO. 2		
OWNER.....	RICHARD ROBERT VINCE SUR A76		JOS. T. HARRELL SUR. A-330			J. DONNELLY SUR. A-223		
COMPLETED.....	INEXCO OIL CO.		GULF OIL CORP.			TENNECO OIL CO.		
SAMPLED.....	02/20/72		12/22/66			12/11/67		
FORMATION.....	11/05/73		01/15/68			07/21/69		
GEOLOGIC PROVINCE CODE.....	OLIG-FRIO & VICKSBURG		OLIG-VICKSBURG			EOCE-SID MOORE		
DEPTH, FEET.....	7024		8046			5803		
WELLHEAD PRESSURE, PSIG.....	2904		2904			1842		
OPEN FLOW, MCFD.....	15000		20000			35000		
COMPONENT, MOLE PCT								
METHANE.....	79.3		92.0			91.7		
ETHANE.....	5.7		3.5			3.6		
PROpane.....	1.5		1.7			1.5		
N-BUTANE.....	1.5		0.6			0.4		
ISOBUTANE.....	1.6		0.5			0.3		
N-PENTANE.....	0.3		0.1			0.1		
ISOPENTANE.....	0.8		0.3			0.3		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.4		0.2			0.2		
NITROGEN.....	0.3		0.8			1.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	TRACE		TRACE			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	TRACE		0.01			0.06		
HEATING VALUE.....	1304		1107			1088		
SPECIFIC GRAVITY.....	0.746		0.627			0.620		
INDEX SAMPLE		8635 2072	INDEX SAMPLE		8636 11172	INDEX SAMPLE		8637 12123
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRIS		HARRIS			HARRIS		
WELL NAME.....	HUMBLE		MILTON N			MILTON N		
LOCATION.....	P. F. WILLIAMS NO. 3		BUSCH GAS UNIT NO. 1			LONGMEADOW COUNTRY CLUB NO.1		
OWNER.....	SEC. 20 MI NW HOUSTON		SEC. 5, WCRR CO. SUR. A-926			J. M. DEMENT SUR. A-228		
COMPLETED.....	HUMBLE OIL & REFINING CO.		TEXACO INC.			ROBERT MOSBACHER		
SAMPLED.....	08/28/29		06/01/66			04/21/69		
FORMATION.....	06/19/30		10/10/67			11/22/69		
GEOLOGIC PROVINCE CODE.....	EOCE-YEGUA		EOCE-MILCOX			EOCE-MILCOX		
DEPTH, FEET.....	220		220			220		
WELLHEAD PRESSURE, PSIG.....	4162		13000			10630		
OPEN FLOW, MCFD.....	165		8780			990		
COMPONENT, MOLE PCT	NOT GIVEN		31500			2900		
COMPONENT, MOLE PCT								
METHANE.....	76.6		86.8			89.9		
ETHANE.....	22.0		5.9			4.2		
PROpane.....	---		3.7			1.8		
N-BUTANE.....	---		1.8			0.5		
ISOBUTANE.....	---		0.3			0.2		
N-PENTANE.....	---		TRACE			0.1		
ISOPENTANE.....	---		0.4			0.3		
CYCLOPENTANE.....	---		0.1			0.1		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	0.7		0.6			0.6		
OXYGEN.....	0.4		0.0			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.1		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.3		3.5			2.1		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	1170		1081			1083		
SPECIFIC GRAVITY.....	0.671		0.660			0.638		
INDEX SAMPLE		8638 13448	INDEX SAMPLE		8639 5128	INDEX SAMPLE		8640 5129
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRIS		HARRIS			HARRIS		
WELL NAME.....	OLCOTT		PARADISE			PARADISE		
LOCATION.....	FRIENDSWOOD GAS UNIT NO. 1		HURT NO. 1-C			HURT NO. 1-C		
OWNER.....	WILLIAM R. SMITH SUR. A-735		NOT GIVEN			NOT GIVEN		
COMPLETED.....	HUMBLE OIL & REFINING CO.		UNION PRODUCING CO.			UNION PRODUCING CO.		
SAMPLED.....	03/02/71		07/10/51			07/10/51		
FORMATION.....	10/12/72		11/04/51			11/04/51		
GEOLOGIC PROVINCE CODE.....	TEC-MIOCENE		EOCE-			EOCE-		
DEPTH, FEET.....	220		220			220		
WELLHEAD PRESSURE, PSIG.....	2440		7237			7237		
OPEN FLOW, MCFD.....	930		1650			1650		
COMPONENT, MOLE PCT	4700		3000			3000		
COMPONENT, MOLE PCT								
METHANE.....	99.0		92.5			89.9		
ETHANE.....	0.1		3.6			5.6		
PROpane.....	TRACE		2.6			2.2		
N-BUTANE.....	0.0		0.4			0.4		
ISOBUTANE.....	0.0		0.4			0.4		
N-PENTANE.....	0.0		0.3			0.3		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.1			0.1		
HEXANES PLUS.....	0.0		0.2			0.2		
NITROGEN.....	0.8		0.6			0.4		
OXYGEN.....	TRACE		0.1			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		0.3			0.5		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	1005		1104			1120		
SPECIFIC GRAVITY.....	0.559		0.628			0.636		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8641			INDEX 8642			INDEX 8643		
SAMPLE 14251			SAMPLE 12392			SAMPLE 9597		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRIS		HARRIS			HARRIS		
FIELD.....	RENEE		TOMBALL			TOMBALL W		
WELL NAME.....	KELLY BROCK B NO. 1		TOMBALL G.U. NO. 1			LILLIE TRESELER NO. 4		
LOCATION.....	RICHARD & VINCE SUR. A-76		JOHN H. EDWARDS SUR. A-20			M. TEJERINA SUR.		
OWNER.....	INEXCO OIL CO.		HUMBLE OIL & REFINING CO.			TEXAS PACIFIC OIL CO.		
COMPLETED.....	07/30/74		06/19/69			05/19/61		
SAMPLED.....	01/06/75		08/26/70			10/-/64		
FORMATION.....	OLIG-VICKSBURG		EOCE-COCKFIELD			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8602		2392			5525		
WELLHEAD PRESSURE, PSIG.....	2150		950			1592		
OPEN FLOW, MCFD.....	8740		14500			45490		
COMPONENT, MOLE PCT								
METHANE.....	94.2		99.0			92.5		
ETHANE.....	3.1		0.0			4.3		
PROPANE.....	1.1		TRACE			1.5		
N-BUTANE.....	0.2		0.0			0.4		
ISOBUTANE.....	0.3		0.0			0.3		
N-PENTANE.....	TRACE		0.0			0.1		
ISOPENTANE.....	0.1		0.0			0.1		
CYCLOPENTANE.....	0.1		0.0			0.1		
HEXANES PLUS.....	0.1		0.0			0.2		
NITROGEN.....	0.3		0.6			0.3		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.2		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE.....	1073		1093			1099		
SPECIFIC GRAVITY.....	0.599		0.599			0.615		
INDEX 8644			INDEX 8645			INDEX 8646		
SAMPLE 4880			SAMPLE 12436			SAMPLE 15346		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRISON		HARRISON			HARRISON		
FIELD.....	LANSING N		LANSING N			SCOTTSVILLE		
WELL NAME.....	M. P. ISDM NO. 1		ISAM GAS UNIT NO. 1			YOUNG B G.U. NO. 1		
LOCATION.....	A. HERCHANT SUR. NO. A-430		E. A. HERCHANT SUR.			P. DAUGHERTY SUR. A-5		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC RICHFIELD CO.			TEXAS OIL & GAS CORP.		
COMPLETED.....	08/05/49		08/05/49			11/10/76		
SAMPLED.....	02/23/50		10/13/70			08/15/78		
FORMATION.....	CRET-RODESSA		CRET-RODESSA			CRET-TRAVIS PEAK		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	6734		6754			6274		
WELLHEAD PRESSURE, PSIG.....	3126		300			950		
OPEN FLOW, MCFD.....	16000		1100			2800		
COMPONENT, MOLE PCT								
METHANE.....	92.5		91.1			91.3		
ETHANE.....	8.1		8.2			4.8		
PROPANE.....	1.1		1.3			1.0		
N-BUTANE.....	0.2		0.3			0.5		
ISOBUTANE.....	0.4		0.5			0.2		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	TRACE		0.4			TRACE		
HEXANES PLUS.....	0.2		0.4			0.2		
NITROGEN.....	0.5		0.7			0.7		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.1			1.0		
HELIUM.....	0.02		0.02			0.01		
HEATING VALUE.....	1076		1092			1077		
SPECIFIC GRAVITY.....	0.613		0.629			0.618		
INDEX 8647			INDEX 8648			INDEX 8649		
SAMPLE 4136			SAMPLE 4138			SAMPLE 4933		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRISON		HARRISON			HARRISON		
FIELD.....	WASKOM		WASKOM			WASKOM		
WELL NAME.....	J. M. BRYSON ET AL. NO. 1		J. M. BRYSON ET AL. NO. 1			M. DOWNS		
LOCATION.....	3 MI. S OF WASKOM		2 MI. S OF WASKOM			EDWIN CARTER SUR.		
OWNER.....	WID-STATES OIL CORP.		WID-STATES OIL CORP.			LA GLORIA CORP.		
COMPLETED.....	03/13/46		03/13/46			01/11/50		
SAMPLED.....	09/28/46		09/28/46			08/21/50		
FORMATION.....	CRET-TRAVIS PEAK		CRET-PETTIT			CRET-TRAVIS PEAK		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	5826		5576			6223		
WELLHEAD PRESSURE, PSIG.....	1875		1325			2880		
OPEN FLOW, MCFD.....	52000		3700			6750		
COMPONENT, MOLE PCT								
METHANE.....	87.9		90.4			90.2		
ETHANE.....	9.0		8.9			5.0		
PROPANE.....	---		---			1.3		
N-BUTANE.....	---		---			0.5		
ISOBUTANE.....	---		---			0.3		
N-PENTANE.....	---		---			0.3		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.4		
NITROGEN.....	1.7		0.0			1.7		
OXYGEN.....	0.6		0.0			0.1		
ARGON.....	---		---			0.0		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.8		0.7			---		
HELIUM.....	0.03		0.03			0.02		
HEATING VALUE.....	1052		1075			1100		
SPECIFIC GRAVITY.....	0.617		0.605			0.630		
INDEX 8650			INDEX 8651			INDEX 8652		
SAMPLE 5442			SAMPLE 12460			SAMPLE 12486		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARRISON		HARRISON			HARRISON		
FIELD.....	WASKOM		WASKOM			WASKOM		
WELL NAME.....	ARKANSAS-LOUISIANA GAS CO.		WASKOM UNIT A-1 NO. B-1			DAVIS B-1		
LOCATION.....	D. C. MOORE SUR. A-455		NOT GIVEN			R. H. ADAMS SUR.		
OWNER.....	ARKANSAS-LOUISIANA CO.		PENNZOIL PRODUCING CO.			ARKANSAS LOUISIANA GAS CO.		
COMPLETED.....	09/27/51		01/11/56			12/24/40		
SAMPLED.....	05/06/53		10/19/70			10/16/70		
FORMATION.....	CRET-PETTIT U		CRET-HILL			CRET-TRAVIS PEAK		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	6050		4800			5870		
WELLHEAD PRESSURE, PSIG.....	2292		322			866		
OPEN FLOW, MCFD.....	12500		1399			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	89.2		87.9			90.3		
ETHANE.....	5.2		3.7			4.6		
PROPANE.....	1.6		1.3			1.4		
N-BUTANE.....	0.4		0.5			0.4		
ISOBUTANE.....	0.4		0.4			0.5		
N-PENTANE.....	0.4		0.2			0.2		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.2		0.1			TRACE		
HEXANES PLUS.....	0.7		0.4			0.3		
NITROGEN.....	1.0		4.6			1.5		
OXYGEN.....	0.1		0.5			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.4			0.7		
HELIUM.....	0.02		0.04			0.07		
HEATING VALUE.....	1052		1088			1088		
SPECIFIC GRAVITY.....	0.650		0.638			0.629		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8653 11588	INDEX SAMPLE	8654 10017	INDEX SAMPLE	8655 10018
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARRISON			HARRISON		HARRISON	
FIELD.....	WOODLAWN			WOODLAWN		WOODLAWN	
WELL NAME.....	H. A. DUNN NO. 1			LUCILLE W. MCELROY NO. 1		LUCILLE W. MCELROY NO. 1	
LOCATION.....	S. H. HUMPHRIES SUR. A-306			JOEL B. CRANE SUR. A-144		JOEL B. CRANE SUR. A-144	
OWNER.....	SAN JUAN EXPLORATION CO.			TENNECO OIL CO.		TENNECO OIL CO.	
COMPLETED.....	11/18/67			06/09/64		06/09/64	
SAMPLED.....	07/23/68			07/28/65		07/28/65	
FORMATION.....	CRET-TRAVIS PEAK			CRET-TRAVIS PEAK		CRET-TRAVIS PEAK	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	8046			6514		6762	
WELLHEAD PRESSURE, PSIG.....	2922			2335		2653	
OPEN FLOW, MCFD.....	7250			11800		6200	
COMPONENT, MOLE PCT							
METHANE.....	89.4			91.4		91.8	
ETHANE.....	4.1			3.5		3.4	
PROpane.....	0.9			0.8		0.8	
N-BUTANE.....	0.2			0.4		0.3	
ISOBUTANE.....	0.2			0.2		0.1	
N-PENTANE.....	0.5			0.4		0.2	
ISOPENTANE.....	0.0			TRACE		TRACE	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.5		0.3	
NITROGEN.....	2.6			1.9		2.1	
OXYGEN.....	0.3			0.0		0.1	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.6			0.03		0.8	
HELIUM.....	0.02			0.03		0.03	
HEATING VALUE.....	1053			1072		1049	
SPECIFIC GRAVITY.....	0.636			0.624		0.613	
		INDEX SAMPLE	8656 12498	INDEX SAMPLE	8657 12502	INDEX SAMPLE	8658 14918
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARRISON			HARRISON		HARRISON	
FIELD.....	WOODLAWN			WOODLAWN		WOODLAWN	
WELL NAME.....	SANDERS G.U. NO. 2			SANDERS NO. 1		WINSTON BROWN NO. 1	
LOCATION.....	G. H. SANDERS LEASE			S. F. SPARKS SUR.		F. W. PUGH SUR. A-559	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		DYCO PETROLEUM CORP.	
COMPLETED.....	05/-/64			12/-/50		09/21/75	
SAMPLED.....	10/26/70			10/26/70		02/25/77	
FORMATION.....	CRET-RODESSA			CRET-PETTIT		CRET-RODHILL	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	5614			6378		6798	
WELLHEAD PRESSURE, PSIG.....	2350			2480		2105	
OPEN FLOW, MCFD.....	273524			195000		3300	
COMPONENT, MOLE PCT							
METHANE.....	91.7			79.0		92.2	
ETHANE.....	4.0			5.5		4.2	
PROpane.....	0.5			3.0		1.0	
N-BUTANE.....	0.5			0.0		0.3	
ISOBUTANE.....	0.4			1.7		0.2	
N-PENTANE.....	0.1			1.6		0.2	
ISOPENTANE.....	0.0			0.0		0.1	
CYCLOPENTANE.....	0.1			0.5		TRACE	
HEXANES PLUS.....	0.4			2.2		0.2	
NITROGEN.....	0.0			2.8		0.9	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE**.....	0.1			0.1		0.0	
CARBON DIOXIDE.....	0.5			0.9		0.6	
HELIUM.....	0.03			0.02		0.02	
HEATING VALUE.....	1084			133		1075	
SPECIFIC GRAVITY.....	0.619			0.786		0.612	
		INDEX SAMPLE	8659 5766	INDEX SAMPLE	8660 540	INDEX SAMPLE	8661 1703
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		HARTLEY	
FIELD.....	PANHANDLE			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS A-125			LYMAN & BALFOUR NO. 1		BIVINS A-7	
LOCATION.....	SEC. 20, BLK. 21, CSS SUR.			SEC. 10, BLK. 2, G&M SUR.		SEC. 7, BLK. 25, EL&RR SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			PRAIRIE OIL & GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	12/29/54			10/-/20		-/-/00	
SAMPLED.....	01/26/55			11/30/20		10/26/28	
FORMATION.....	PERM-BIG LIME			PERM-WICHITA-ALBANY		-LIME	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	3385			3302		2919	
WELLHEAD PRESSURE, PSIG.....	26			440		NOT GIVEN	
OPEN FLOW, MCFD.....	10300			18500		25800	
COMPONENT, MOLE PCT							
METHANE.....	74.2			66.3		64.8	
ETHANE.....	14.6			14.8		17.8	
PROpane.....	2.7			---		---	
N-BUTANE.....	0.7			---		---	
ISOBUTANE.....	0.1			---		---	
N-PENTANE.....	0.1			---		---	
ISOPENTANE.....	0.2			---		---	
CYCLOPENTANE.....	0.1			---		---	
HEXANES PLUS.....	0.1			---		---	
NITROGEN.....	14.3			16.2		15.6	
OXYGEN.....	TRACE			1.0		0.3	
ARGON.....	0.1			---		---	
HYDROGEN.....	0.1			---		---	
HYDROGEN SULFIDE**.....	0.0			---		---	
CARBON DIOXIDE.....	0.7			0.8		0.7	
HELIUM.....	0.80			0.70		0.94	
HEATING VALUE.....	979			937		975	
SPECIFIC GRAVITY.....	0.698			0.704		0.712	
		INDEX SAMPLE	8662 1704	INDEX SAMPLE	8663 1726	INDEX SAMPLE	8664 1942
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		HARTLEY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS A-8			BIVINS A-9		BIVINS A-10	
LOCATION.....	SEC. 4, BLK. 25, EL&RR SUR.			SEC. 6, BLK. 21		SEC. 18, BLK. 2, G&M SUR	
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	-/-/00			10/22/28		05/17/29	
SAMPLED.....	10/26/28			03/29/29		03/06/30	
FORMATION.....	-LIME			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	2896			3602		3334	
WELLHEAD PRESSURE, PSIG.....	150			422		426	
OPEN FLOW, MCFD.....	47000			10500		2312	
COMPONENT, MOLE PCT							
METHANE.....	66.2			59.8		63.2	
ETHANE.....	17.9			19.5		15.6	
PROpane.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	14.8			18.3		19.1	
OXYGEN.....	0.1			0.3		0.2	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.2			1.1		0.7	
HELIUM.....	0.81			1.0		1.29	
HEATING VALUE.....	951			955		920	
SPECIFIC GRAVITY.....	0.703			0.735		0.714	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8665 2866	INDEX SAMPLE	8666 2867	INDEX SAMPLE	8667 2878
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		HARTLEY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	LEE BIVINS NO. A-9			BIVINS NO. A-10		BIVINS NO. A-22	
LOCATION.....	SEC. 9, BLK. 21, CSS SUR.			SEC. 18, BLK. 2, G&M SUR.		SEC. 13, BLK. 2, G&M SUR.	
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	10/01/28			05/17/29		12/12/37	
SAMPLED.....	08/21/41			08/21/41		08/21/41	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	3160			3285		3128	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	10500			2300		3550	
COMPONENT, MOLE PCT							
METHANE.....	65.6			65.3		63.0	
ETHANE.....	15.7			12.6		19.7	
PROpane.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	15.8			19.5		15.5	
OXYGEN.....	0.9			0.6		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.9			0.7		0.5	
HELIUM.....	1.06			1.28		0.85	
HEATING VALUE.....	946			887		991	
SPECIFIC GRAVITY.....	0.706			0.702		0.719	
		INDEX SAMPLE	8668 2886	INDEX SAMPLE	8669 4640	INDEX SAMPLE	8670 5078
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		HARTLEY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	W. GORDON NO. 1			BIVINS ESTATE NO. A-34		BIVINS A-71	
LOCATION.....	SEC. 2, BLK. 44, H&TC SUR.			SEC. 5, BLK. 25, EL&RR SUR.		SEC. 9, BLK. 21	
OWNER.....	PHILLIPS PETROLEUM CO.			CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	06/22/43			06/22/43		04/04/51	
SAMPLED.....	08/22/41			12/08/48		07/17/51	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-L	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	3260			3160		3200	
WELLHEAD PRESSURE, PSIG.....	400			369		343	
OPEN FLOW, MCFD.....	34300			5500		4300	
COMPONENT, MOLE PCT							
METHANE.....	66.8			64.0		73.0	
ETHANE.....	19.1			20.2		5.5	
PROpane.....	---			---		2.8	
N-BUTANE.....	---			---		0.8	
ISOBUTANE.....	---			---		0.2	
N-PENTANE.....	---			---		0.2	
ISOPENTANE.....	---			---		0.2	
CYCLOPENTANE.....	---			---		TRACE	
HEXANES PLUS.....	---			---		0.0	
NITROGEN.....	12.7			14.6		15.6	
OXYGEN.....	0.0			0.6		0.1	
ARGON.....	---			---		0.1	
HYDROGEN.....	---			---		0.0	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.7			0.6		0.5	
HELIUM.....	0.69			0.81		0.88	
HEATING VALUE.....	1019			1010		964	
SPECIFIC GRAVITY.....	0.705			0.725		0.699	
		INDEX SAMPLE	8671 5093	INDEX SAMPLE	8672 5102	INDEX SAMPLE	8673 5409
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		HARTLEY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS A-72			BIVINS NO. A-78		BIVINS A-90	
LOCATION.....	SEC. 14, BLK. 21, CSS			SEC. 20, BLK. 21, CSS SUR.		SEC. 20, BLK. 21, CSS SUR.	
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	--/--/00			--/--/00		01/15/53	
SAMPLED.....	10/31/51			11/23/51		03/11/53	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		3605	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		291	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		12900	
COMPONENT, MOLE PCT							
METHANE.....	73.2			71.4		73.7	
ETHANE.....	5.7			4.7		4.9	
PROpane.....	3.3			2.6		3.1	
N-BUTANE.....	0.8			0.7		0.8	
ISOBUTANE.....	0.3			0.3		0.5	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.0			0.0		0.1	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.2			TRACE		0.2	
NITROGEN.....	14.2			18.3		14.4	
OXYGEN.....	0.1			0.1		TRACE	
ARGON.....	0.1			0.2		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	0.7			0.7		0.7	
HELIUM.....	0.72			0.97		0.75	
HEATING VALUE.....	996			931		996	
SPECIFIC GRAVITY.....	0.714			0.703		0.710	
		INDEX SAMPLE	8674 5426	INDEX SAMPLE	8675 5467	INDEX SAMPLE	8676 5470
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		HARTLEY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BAY NO. 2			BIVINS A-93		BIVINS A-97	
LOCATION.....	SEC. 126, BLK. 44, H&TC SUR.			SEC. 15, BLK. 21, CSS SUR.		SEC. 19, BLK. 2, G&M SUR.	
OWNER.....	CANADIAN RIVER GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	11/11/52			05/07/53		04/25/53	
SAMPLED.....	03/02/53			05/15/53		05/15/53	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	3530			3312		3245	
WELLHEAD PRESSURE, PSIG.....	233			312		325	
OPEN FLOW, MCFD.....	4509			5200		4750	
COMPONENT, MOLE PCT							
METHANE.....	75.3			73.8		70.6	
ETHANE.....	6.2			3.0		4.9	
PROpane.....	1.8			1.0		2.6	
N-BUTANE.....	1.1			1.1		0.8	
ISOBUTANE.....	0.4			0.0		0.2	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	11.2			14.5		18.6	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.8		0.5	
HELIUM.....	0.48			0.78		1.20	
HEATING VALUE.....	1054			987		932	
SPECIFIC GRAVITY.....	0.712			0.705		0.711	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8677			INDEX 8678			INDEX 8679		
SAMPLE 5759			SAMPLE 5761			SAMPLE 5768		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARTLEY		HARTLEY			HARTLEY		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIVINS A-10		BIVINS A-9			BIVINS A-8		
LOCATION.....	SEC. 18, BLK. 2, G&M SUR.		SEC. 6, BLK. 21, CSS SUR.			SEC. 4, BLK. 25, EL&RR SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	05/17/29		10/01/28			07/31/28		
SAMPLED.....	02/16/55		01/26/55			01/26/55		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	3285		3160			2896		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			269		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			26756		
COMPONENT, MOLE PCT								
METHANE.....	70.3		70.4			74.0		
ETHANE.....	4.4		4.7			5.4		
PROPANE.....	2.3		2.0			2.7		
N-BUTANE.....	0.7		0.6			0.8		
ISOBUTANE.....	0.4		0.4			0.5		
N-PENTANE.....	TRACE		TRACE			0.2		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	19.4		19.4			14.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.8			0.8		
HELIUM.....	1.26		1.19			0.81		
HEATING VALUE.....	910		905			987		
SPECIFIC GRAVITY.....	0.707		0.707			0.705		
INDEX 8680			INDEX 8681			INDEX 8682		
SAMPLE 6230			SAMPLE 6233			SAMPLE 6234		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARTLEY		HARTLEY			HARTLEY		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIVINS A NO. 131		BIVINS A NO. 144			BIVINS A NO. 145		
LOCATION.....	SEC. 8, BLK. 21, CSS SUR.		SEC. 14, BLK. 2, G&M SUR.			SEC. 2, BLK. 21, CSS SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	09/23/55		07/09/56			07/13/56		
SAMPLED.....	01/23/57		01/23/57			01/23/57		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	3225		3250			3190		
WELLHEAD PRESSURE, PSIG.....	304		265			261		
OPEN FLOW, MCFD.....	760		3100			5500		
COMPONENT, MOLE PCT								
METHANE.....	62.6		73.9			71.6		
ETHANE.....	3.7		2.7			4.8		
PROPANE.....	3.5		2.8			2.4		
N-BUTANE.....	0.1		0.6			0.6		
ISOBUTANE.....	0.3		0.5			0.3		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	TRACE		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	29.1		14.2			18.0		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.8			0.7		
HELIUM.....	1.87		0.85			1.05		
HEATING VALUE.....	762		982			922		
SPECIFIC GRAVITY.....	0.716		0.701			0.703		
INDEX 8683			INDEX 8684			INDEX 8685		
SAMPLE 6235			SAMPLE 6236			SAMPLE 6237		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARTLEY		HARTLEY			HARTLEY		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIVINS A NO. 146		BIVINS A NO. 147			BIVINS A NO. 148		
LOCATION.....	SEC. 16, BLK. 21, CSS SUR.		SEC. 8, BLK. 25, EL&RR SUR.			SEC. 7, BLK. 21, CSS SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	08/09/56		07/25/56			08/17/56		
SAMPLED.....	03/20/57		01/23/57			01/23/57		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	3224		3367			3325		
WELLHEAD PRESSURE, PSIG.....	281		270			270		
OPEN FLOW, MCFD.....	6000		570			6700		
COMPONENT, MOLE PCT								
METHANE.....	72.9		73.4			67.4		
ETHANE.....	5.2		5.7			4.4		
PROPANE.....	2.5		3.0			2.1		
N-BUTANE.....	0.6		0.6			0.5		
ISOBUTANE.....	0.3		0.4			0.2		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	16.5		14.6			22.9		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.7			0.6		
HELIUM.....	0.94		0.85			1.50		
HEATING VALUE.....	945		984			853		
SPECIFIC GRAVITY.....	0.700		0.705			0.709		
INDEX 8686			INDEX 8687			INDEX 8688		
SAMPLE 6457			SAMPLE 10663			SAMPLE 10670		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HARTLEY		HARTLEY			HARTLEY		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIVINS NO. 1		BIVINS A-8			BIVINS A-9		
LOCATION.....	SEC. 27, BLK. 21, CSS SUR.		SEC. 4, BLK. 25, EL&RR SUR.			SEC. 6, BLK. 21, CSS SUR.		
OWNER.....	FRANK STORM		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	12/-/-57		07/31/28			10/01/28		
SAMPLED.....	12/26/57		07/21/66			07/21/66		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	3667		2896			3160		
WELLHEAD PRESSURE, PSIG.....	410		1155			154		
OPEN FLOW, MCFD.....	1000		11559			1741		
COMPONENT, MOLE PCT								
METHANE.....	73.4		72.2			68.2		
ETHANE.....	4.7		5.7			4.7		
PROPANE.....	2.0		3.3			2.5		
N-BUTANE.....	0.4		1.0			0.6		
ISOBUTANE.....	0.3		0.5			0.4		
N-PENTANE.....	0.0		TRACE			0.1		
ISOPENTANE.....	0.3		0.4			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	17.4		14.8			20.9		
OXYGEN.....	TRACE		0.1			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.4			0.8		
HELIUM.....	1.20		0.84			1.37		
HEATING VALUE.....	930		1001			895		
SPECIFIC GRAVITY.....	0.689		0.720			0.720		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8689 10671	INDEX SAMPLE	8690 10672	INDEX SAMPLE	8691 11888
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		HARTLEY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS A-7			BIVINS A-10		BIVINS A-76	
LOCATION.....	SEC. 7, BLK. 25, EL&RR SUR.			SEC. 18, BLK. 2, G&M SUR.		SEC. 13, BLK. 21, CSS SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	09/10/78			05/17/79		07/22/51	
SAMPLED.....	07/21/66			07/21/66		05/21/69	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	2919			3285		3250	
WELLHEAD PRESSURE, PSIG.....	212			209		NOT GIVEN	
OPEN FLOW, MCFD.....	19619			809		61148	
COMPONENT, MOLE PCT							
METHANE.....	70.8	-----		69.1	-----	72.1	-----
ETHANE.....	5.0	-----		4.8	-----	6.0	-----
PROpane.....	2.9	-----		2.7	-----	3.6	-----
N-BUTANE.....	0.9	-----		0.8	-----	1.7	-----
ISOBUTANE.....	0.4	-----		0.4	-----	0.7	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.3	-----		0.1	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.2	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.3	-----
NITROGEN.....	17.4	-----		19.6	-----	14.0	-----
OXYGEN.....	0.2	-----		0.0	-----	0.1	-----
ARGON.....	0.1	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.6	-----	0.8	-----
HELIUM.....	1.06	-----		1.30	-----	0.68	-----
HEATING VALUE.....	956	-----		918	-----	1032	-----
SPECIFIC GRAVITY.....	0.720	-----		0.720	-----	0.729	-----
		INDEX SAMPLE	8692 11890	INDEX SAMPLE	8693 11891	INDEX SAMPLE	8694 11892
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		HARTLEY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS A-58			BIVINS A-59		BIVINS A-61	
LOCATION.....	SEC. 12, BLK. 2, G&M SUR.			SEC. 6, BLK. 25, EL&RR SUR.		SEC. 6, BLK. 25, EL&RR SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	06/14/69			07/06/50		06/03/50	
SAMPLED.....	05/21/69			05/21/69		05/21/69	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	2943			3180		3155	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	14200			1470		27000	
COMPONENT, MOLE PCT							
METHANE.....	71.2	-----		66.3	-----	72.6	-----
ETHANE.....	5.8	-----		5.1	-----	6.2	-----
PROpane.....	3.6	-----		3.3	-----	3.5	-----
N-BUTANE.....	1.1	-----		1.3	-----	1.7	-----
ISOBUTANE.....	0.7	-----		0.8	-----	0.4	-----
N-PENTANE.....	0.3	-----		0.3	-----	0.4	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.3	-----	0.2	-----
HEXANES PLUS.....	0.2	-----		0.5	-----	0.3	-----
NITROGEN.....	15.1	-----		14.0	-----	13.3	-----
OXYGEN.....	0.1	-----		0.3	-----	0.0	-----
ARGON.....	0.1	-----		TRACE	-----	0.1	-----
HYDROGEN.....	TRACE	-----		6.5	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.0	-----		0.1	-----	0.8	-----
HELIUM.....	0.81	-----		0.86	-----	0.64	-----
HEATING VALUE.....	1006	-----		995	-----	1044	-----
SPECIFIC GRAVITY.....	0.730	-----		0.694	-----	0.729	-----
		INDEX SAMPLE	8695 12670	INDEX SAMPLE	8696 12671	INDEX SAMPLE	8697 13263
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		HARTLEY	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	NO. 1			NO. 2		BIVINS A-174	
LOCATION.....	E. OF HARTLEY			6 MI. E. OF HARTLEY		SEC. 6, BLK. 25, EL&RR SUR.	
OWNER.....	PARADOX PETROLEUM CO.			PARADOX PETROLEUM CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	--/--/00			--/--/00		05/13/72	
SAMPLED.....	02/13/71			02/13/71		05/13/72	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	435			435		435	
DEPTH, FEET.....	3000			3000		3155	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		735	
COMPONENT, MOLE PCT							
METHANE.....	73.4	-----		74.1	-----	72.5	-----
ETHANE.....	6.3	-----		6.1	-----	5.7	-----
PROpane.....	4.1	-----		3.4	-----	3.4	-----
N-BUTANE.....	1.0	-----		0.7	-----	1.0	-----
ISOBUTANE.....	0.6	-----		0.5	-----	0.5	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.7	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	0.2	-----		0.0	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	11.2	-----		14.9	-----	15.2	-----
OXYGEN.....	0.1	-----		0.1	-----	0.0	-----
ARGON.....	0.1	-----		0.3	-----	0.1	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.9	-----		0.0	-----	TRACE	-----
HELIUM.....	0.48	-----		0.32	-----	0.99	-----
HEATING VALUE.....	1083	-----		991	-----	1005	-----
SPECIFIC GRAVITY.....	0.733	-----		0.701	-----	0.712	-----
		INDEX SAMPLE	8698 13628	INDEX SAMPLE	8699 6205	INDEX SAMPLE	8700 16144
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HARTLEY			HARTLEY		WILCOX	
FIELD.....	PANHANDLE W			WILCOX		ALLISON PARKS	
WELL NAME.....	BIVINS A-175			H. JOHNSON NO. 1		L. JONES 14 LEASE NO. 1	
LOCATION.....	SEC. 8, BLK. 25, EL&RR SUR.			SEC. 375, BLK. 44, H&TC SUR.		SEC. 14, BLK. 21, ACHE&M&W	
OWNER.....	COLORADO INTERSTATE GAS CO.			STANDARD OIL CO. OF TEXAS		KERR-MCGEE CORP.	
COMPLETED.....	06/15/73			12/3/56		03/31/80	
SAMPLED.....	06/15/73			12/08/56		12/10/80	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	435			435		360	
DEPTH, FEET.....	NOT GIVEN			3578		14918	
WELLHEAD PRESSURE, PSIG.....	142			400		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			15		9500	
COMPONENT, MOLE PCT							
METHANE.....	70.8	-----		66.6	-----	96.9	-----
ETHANE.....	5.0	-----		4.3	-----	0.6	-----
PROpane.....	3.0	-----		1.1	-----	0.1	-----
N-BUTANE.....	0.9	-----		0.5	-----	TRACE	-----
ISOBUTANE.....	0.5	-----		0.1	-----	TRACE	-----
N-PENTANE.....	0.3	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	0.3	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.3	-----		0.0	-----	0.1	-----
NITROGEN.....	17.5	-----		24.8	-----	0.3	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.1	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.4	-----	2.0	-----
HELIUM.....	1.14	-----		1.24	-----	0.02	-----
HEATING VALUE.....	960	-----		821	-----	1000	-----
SPECIFIC GRAVITY.....	0.714	-----		0.705	-----	0.582	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8701 SAMPLE 16170		INDEX 8702 SAMPLE 15942		INDEX 8703 SAMPLE 17528	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	ALLISON-PARKS	FIELD.....	ALPAR	FIELD.....	ALPAR
WELL NAME.....	KIKER NO. 15-1	WELL NAME.....	FEE 1-111	WELL NAME.....	MORRIS-SHELL 1-77
LOCATION.....	SEC. 15, BLK. 2-1, ACH&B SUR.	LOCATION.....	SEC. 11, BLK. 41, H&TC SUR.	LOCATION.....	SEC. 77 41 W AND TC SURVEY
OWNER.....	KERR-MCGEE CORP.	OWNER.....	SHELL OIL CO.	OWNER.....	POGO PRODUCING CO.
COMPLETED.....	08/--/80	COMPLETED.....	04/01/79	COMPLETED.....	04/--/83
SAMPLED.....	01/15/81	SAMPLED.....	04/23/80	SAMPLED.....	11/28/84
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-TONKAWA	FORMATION.....	DEVON-HUNTON
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	14960	DEPTH, FEET.....	8000	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	8800	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	5200
OPEN FLOW, MCFD.....	3442	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	650
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.7	METHANE.....	81.4	METHANE.....	92.3
ETHANE.....	0.6	ETHANE.....	7.5	ETHANE.....	0.1
PROPANE.....	0.1	PROPANE.....	5.0	PROPANE.....	TRACE
N-BUTANE.....	TRACE	N-BUTANE.....	1.5	N-BUTANE.....	0.0
ISOBUTANE.....	TRACE	ISOBUTANE.....	0.3	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.4	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0
NITROGEN.....	0.3	NITROGEN.....	2.4	NITROGEN.....	2.1
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.3
HELIUM.....	0.02	HELIUM.....	0.09	HELIUM.....	0.03
HEATING VALUE.....	1006	HEATING VALUE.....	1207	HEATING VALUE.....	937
SPECIFIC GRAVITY.....	0.585	SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.615

INDEX 8704 SAMPLE 15926		INDEX 8705 SAMPLE 16205		INDEX 8706 SAMPLE 11737	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	BRISCOE	FIELD.....	BRISCOE	FIELD.....	BUFFALO WALLOW
WELL NAME.....	SMITH NO. 1	WELL NAME.....	SMITH NO. 1-39	WELL NAME.....	HEFLEY NO. 1
LOCATION.....	SEC. 38, BLK. M1, H&GN SUR.	LOCATION.....	SEC. 39, BLK. M1, H&GN SUR.	LOCATION.....	SEC. 28, BLK. M-1, H&GN SUR.
OWNER.....	UNION OIL CO. OF CALIF.	OWNER.....	INTERNORTH, INC.	OWNER.....	GULF OIL CORP.
COMPLETED.....	08/24/79	COMPLETED.....	02/25/80	COMPLETED.....	01/14/69
SAMPLED.....	03/25/80	SAMPLED.....	03/12/81	SAMPLED.....	01/14/69
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW	FORMATION.....	DEVON-HUNTON
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	14438	DEPTH, FEET.....	14364	DEPTH, FEET.....	19620
WELLHEAD PRESSURE, PSIG.....	6303	WELLHEAD PRESSURE, PSIG.....	7424	WELLHEAD PRESSURE, PSIG.....	6596
OPEN FLOW, MCFD.....	16500	OPEN FLOW, MCFD.....	7538	OPEN FLOW, MCFD.....	390000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	95.6	METHANE.....	95.8	METHANE.....	89.8
ETHANE.....	1.4	ETHANE.....	1.5	ETHANE.....	0.1
PROPANE.....	0.2	PROPANE.....	0.2	PROPANE.....	TRACE
N-BUTANE.....	0.1	N-BUTANE.....	0.1	N-BUTANE.....	0.0
ISOBUTANE.....	0.1	ISOBUTANE.....	0.1	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0
NITROGEN.....	0.5	NITROGEN.....	0.4	NITROGEN.....	1.2
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.8	CARBON DIOXIDE.....	1.7	CARBON DIOXIDE.....	8.7
HELIUM.....	0.02	HELIUM.....	0.02	HELIUM.....	TRACE
HEATING VALUE.....	1015	HEATING VALUE.....	1024	HEATING VALUE.....	812
SPECIFIC GRAVITY.....	0.590	SPECIFIC GRAVITY.....	0.593	SPECIFIC GRAVITY.....	0.644

INDEX 8707 SAMPLE 11787		INDEX 8708 SAMPLE 12627		INDEX 8709 SAMPLE 12701	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	BUFFALO WALLOW	FIELD.....	BUFFALO WALLOW	FIELD.....	BUFFALO WALLOW
WELL NAME.....	HEFLEY NO. 1A-90	WELL NAME.....	HEFLEY NO. 1	WELL NAME.....	CLIFFORD NO. 1
LOCATION.....	SEC. 90, BLK. M-1, H&GN SUR.	LOCATION.....	SEC. 41, BLK. M-1, H&GN SUR.	LOCATION.....	SEC. 30, BLK. M-1, H&GN RR SUR.
OWNER.....	UNION OIL CO. OF CALIF.	OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	GULF OIL CO.- U.S.
COMPLETED.....	03/--/68	COMPLETED.....	07/01/70	COMPLETED.....	12/28/70
SAMPLED.....	03/04/69	SAMPLED.....	01/13/71	SAMPLED.....	03/05/71
FORMATION.....	DEVON-HUNTON	FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	15910	DEPTH, FEET.....	13916
WELLHEAD PRESSURE, PSIG.....	6524	WELLHEAD PRESSURE, PSIG.....	8382	WELLHEAD PRESSURE, PSIG.....	8808
OPEN FLOW, MCFD.....	70000	OPEN FLOW, MCFD.....	2105	OPEN FLOW, MCFD.....	58500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.3	METHANE.....	95.7	METHANE.....	95.7
ETHANE.....	0.1	ETHANE.....	0.5	ETHANE.....	0.8
PROPANE.....	TRACE	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.2	NITROGEN.....	0.3	NITROGEN.....	1.8
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	8.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	1.6
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.02
HEATING VALUE.....	917	HEATING VALUE.....	981	HEATING VALUE.....	987
SPECIFIC GRAVITY.....	0.641	SPECIFIC GRAVITY.....	0.591	SPECIFIC GRAVITY.....	0.659

INDEX 8710 SAMPLE 12711		INDEX 8711 SAMPLE 14668		INDEX 8712 SAMPLE 16018	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	BUFFALO WALLOW	FIELD.....	BUFFALO WALLOW	FIELD.....	CAMPBELL RANCH
WELL NAME.....	FILLINGIM NO. 2-20	WELL NAME.....	WEEKS NO. 1-54	WELL NAME.....	CAMPBELL NO. 1-14
LOCATION.....	SEC. 20, BLK. M-1, H&TC SUR.	LOCATION.....	SEC. 54, BLK. M1, H&GN SUR.	LOCATION.....	SEC. 14, BLK I, I&GN SUR.
OWNER.....	UNION OIL CO. OF CALIF.	OWNER.....	NORTHERN NATURAL GAS EXPL. C	OWNER.....	HOODVER & BRACKEN ENERGIES, I
COMPLETED.....	03/10/71	COMPLETED.....	03/11/76	COMPLETED.....	--/--/80
SAMPLED.....	03/13/71	SAMPLED.....	02/26/76	SAMPLED.....	07/25/80
FORMATION.....	PENN-MORROW	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	13496	DEPTH, FEET.....	11271	DEPTH, FEET.....	9734
WELLHEAD PRESSURE, PSIG.....	7546	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	2425
OPEN FLOW, MCFD.....	9000	OPEN FLOW, MCFD.....	21000	OPEN FLOW, MCFD.....	1042
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.6	METHANE.....	85.2	METHANE.....	88.8
ETHANE.....	0.7	ETHANE.....	8.6	ETHANE.....	6.3
PROPANE.....	0.1	PROPANE.....	0.3	PROPANE.....	2.3
N-BUTANE.....	0.1	N-BUTANE.....	0.7	N-BUTANE.....	0.5
ISOBUTANE.....	0.0	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.0	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	0.6	NITROGEN.....	0.4	NITROGEN.....	0.4
OXYGEN.....	1.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.9	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.7
HELIUM.....	0.02	HELIUM.....	0.04	HELIUM.....	0.03
HEATING VALUE.....	11493	HEATING VALUE.....	11476	HEATING VALUE.....	1127
SPECIFIC GRAVITY.....	0.605	SPECIFIC GRAVITY.....	0.663	SPECIFIC GRAVITY.....	0.642

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8713 SAMPLE 12206		INDEX 8714 SAMPLE 12207		INDEX 8715 SAMPLE 12935	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	CANADIAN	FIELD.....	CANADIAN	FIELD.....	CANADIAN
WELL NAME.....	E. S. F. BRAINARD N. NO. 1-T	WELL NAME.....	E. S. F. BRAINARD N. NO. 1-C	WELL NAME.....	DAVID QUENTIN ISAACS NO. 1
LOCATION.....	SEC. 2, W.W. LANGHAM SUR.	LOCATION.....	SEC. 2, W.W. LANGHAM SUR.	LOCATION.....	JAMES CURTIS SUR.
OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	DIAMOND SHAMROCK CORP.
COMPLETED.....	11/18/69	COMPLETED.....	02/20/70	COMPLETED.....	05/17/71
SAMPLED.....	02/20/70	SAMPLED.....	02/20/70	SAMPLED.....	07/18/71
FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-MORROW L
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	12375	DEPTH, FEET.....	11082	DEPTH, FEET.....	12702
WELLHEAD PRESSURE, PSIG.....	4320	WELLHEAD PRESSURE, PSIG.....	3983	WELLHEAD PRESSURE, PSIG.....	5946
OPEN FLOW, MCFD.....	420	OPEN FLOW, MCFD.....	4000	OPEN FLOW, MCFD.....	4900
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	95.9	METHANE.....	89.5	METHANE.....	96.5
ETHANE.....	0.6	ETHANE.....	5.1	ETHANE.....	0.3
PROPANE.....	0.1	PROPANE.....	0.2	PROPANE.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	0.2	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.3	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.2	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.2	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.0
NITROGEN.....	0.4	NITROGEN.....	1.0	NITROGEN.....	0.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.2	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.8	CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	2.3
HELIUM.....	0.02	HELIUM.....	0.04	HELIUM.....	0.03
HEATING VALUE.....	9.8	HEATING VALUE.....	9.8	HEATING VALUE.....	9.8
SPECIFIC GRAVITY.....	0.586	SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.583

INDEX 8716 SAMPLE 16232		INDEX 8717 SAMPLE 11623		INDEX 8718 SAMPLE 13408	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	CANADIAN E	FIELD.....	CANADIAN NW	FIELD.....	CANADIAN NW
WELL NAME.....	LINDLEY NO. 4	WELL NAME.....	R. T. KELLY, ET AL. C. NO. 1	WELL NAME.....	WILLIAM D. NIX R. NO. 1-89
LOCATION.....	M. MOODY SUR.	LOCATION.....	SEC. 106, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 89, BLK. 42, H&TC SUR.
OWNER.....	PIONEER PRODUCTION CORP.	OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	DIAMOND SHAMROCK CORP.
COMPLETED.....	01/07/81	COMPLETED.....	05/04/67	COMPLETED.....	08/07/72
SAMPLED.....	04/14/81	SAMPLED.....	04/14/68	SAMPLED.....	09/30/72
FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-DOUGLAS
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	6806	DEPTH, FEET.....	12235	DEPTH, FEET.....	6604
WELLHEAD PRESSURE, PSIG.....	1700	WELLHEAD PRESSURE, PSIG.....	1504	WELLHEAD PRESSURE, PSIG.....	1734
OPEN FLOW, MCFD.....	7400	OPEN FLOW, MCFD.....	14200	OPEN FLOW, MCFD.....	10550
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	81.3	METHANE.....	94.6	METHANE.....	79.4
ETHANE.....	7.0	ETHANE.....	1.5	ETHANE.....	7.9
PROPANE.....	4.1	PROPANE.....	0.2	PROPANE.....	5.5
N-BUTANE.....	1.1	N-BUTANE.....	0.2	N-BUTANE.....	0.9
ISOBUTANE.....	0.6	ISOBUTANE.....	0.3	ISOBUTANE.....	0.4
N-PENTANE.....	0.3	N-PENTANE.....	0.0	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.5	CYCLOPENTANE.....	0.3
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.6	HEXANES PLUS.....	3.4
NITROGEN.....	4.2	NITROGEN.....	0.1	NITROGEN.....	TRACE
ARGON.....	0.5	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.16	HELIUM.....	0.03	HELIUM.....	0.18
HEATING VALUE.....	1143	HEATING VALUE.....	1043	HEATING VALUE.....	1214
SPECIFIC GRAVITY.....	0.692	SPECIFIC GRAVITY.....	0.609	SPECIFIC GRAVITY.....	0.722

INDEX 8719 SAMPLE 13460		INDEX 8720 SAMPLE 14288		INDEX 8721 SAMPLE 14289	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	CANADIAN SE	FIELD.....	CANADIAN SE	FIELD.....	CANADIAN SE
WELL NAME.....	MAY E. YOKLEY ET AL. D NO. 1	WELL NAME.....	LOUISE HOOVER C. NO. 1-229	WELL NAME.....	LOUISE HOOVER C. NO. 1-229
LOCATION.....	SEC. 98, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 229, BLK. C, G&HMB&A SUR	LOCATION.....	SEC. 229, BLK. C, G&HMB&A SUR
OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	DIAMOND SHAMROCK CORP.
COMPLETED.....	07/17/72	COMPLETED.....	12/02/74	COMPLETED.....	12/02/74
SAMPLED.....	10/28/72	SAMPLED.....	03/07/75	SAMPLED.....	03/07/75
FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-CHEROKEE
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7246	DEPTH, FEET.....	7606	DEPTH, FEET.....	10700
WELLHEAD PRESSURE, PSIG.....	1793	WELLHEAD PRESSURE, PSIG.....	1782	WELLHEAD PRESSURE, PSIG.....	2165
OPEN FLOW, MCFD.....	4250	OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	11500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.0	METHANE.....	88.0	METHANE.....	85.8
ETHANE.....	6.7	ETHANE.....	2.3	ETHANE.....	3.1
PROPANE.....	4.6	PROPANE.....	0.5	PROPANE.....	3.0
N-BUTANE.....	1.4	N-BUTANE.....	0.5	N-BUTANE.....	0.7
ISOBUTANE.....	0.9	ISOBUTANE.....	0.4	ISOBUTANE.....	0.6
N-PENTANE.....	0.6	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	3.1	NITROGEN.....	1.3	NITROGEN.....	0.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.8
HELIUM.....	0.18	HELIUM.....	0.08	HELIUM.....	0.03
HEATING VALUE.....	1192	HEATING VALUE.....	1117	HEATING VALUE.....	1154
SPECIFIC GRAVITY.....	0.705	SPECIFIC GRAVITY.....	0.641	SPECIFIC GRAVITY.....	0.663

INDEX 8722 SAMPLE 15376		INDEX 8723 SAMPLE 15064		INDEX 8724 SAMPLE 14610	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	CANADIAN SE	FIELD.....	CANADIAN SW	FIELD.....	CANADIAN W
WELL NAME.....	DODD NO. 1	WELL NAME.....	JENKIE CAMPBELL NO. 1	WELL NAME.....	JOHN C. ISAACS JR. "J" NO. 2
LOCATION.....	SEC. 46, BLK. M1, H&GN SUR.	LOCATION.....	SEC. 1, G.M. FROGGE SUR.	LOCATION.....	SEC. 2, BLK. A, LOU SUR.
OWNER.....	EARL L. SMITH & ASSOC.	OWNER.....	GULF OIL CO.- U.S.	OWNER.....	DIAMOND SHAMROCK CORP.
COMPLETED.....	02/29/78	COMPLETED.....	02/29/76	COMPLETED.....	02/04/76
SAMPLED.....	09/15/78	SAMPLED.....	07/29/77	SAMPLED.....	03/05/76
FORMATION.....	PENN-MORROW	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	14456	DEPTH, FEET.....	10081	DEPTH, FEET.....	13069
WELLHEAD PRESSURE, PSIG.....	7683	WELLHEAD PRESSURE, PSIG.....	2512	WELLHEAD PRESSURE, PSIG.....	4395
OPEN FLOW, MCFD.....	7000	OPEN FLOW, MCFD.....	12500	OPEN FLOW, MCFD.....	11800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	95.7	METHANE.....	81.4	METHANE.....	95.5
ETHANE.....	1.4	ETHANE.....	10.8	ETHANE.....	1.0
PROPANE.....	0.2	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.1	N-BUTANE.....	0.9	N-BUTANE.....	TRACE
ISOBUTANE.....	TRACE	ISOBUTANE.....	0.4	ISOBUTANE.....	TRACE
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	1.3	NITROGEN.....	1.2	NITROGEN.....	0.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.8	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	2.8
HELIUM.....	0.02	HELIUM.....	0.14	HELIUM.....	0.03
HEATING VALUE.....	1026	HEATING VALUE.....	1194	HEATING VALUE.....	988
SPECIFIC GRAVITY.....	0.594	SPECIFIC GRAVITY.....	0.690	SPECIFIC GRAVITY.....	0.587

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8725 16870	INDEX SAMPLE	8726 15741	INDEX SAMPLE	8727 6320
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HEMPHILL			HEMPHILL		HEMPHILL	
FIELD.....	CAST			CIRCLE DOT		FELDMAN	
WELL NAME.....	URSHEL EST. NO. 1			NAPECO LOCKE NO. 1		D. D. FELDMAN NO. 1	
LOCATION.....	DAVID CROCKETT SUR.			SEC. 85, BLK. M1, H&GN SUR.		SEC. 43, BLK. 42, H&TC SUR.	
OWNER.....	MOBIL PROD., TX & NM, INC.			NAPECO, INC.		MAGNOLIA PETROLEUM CO.	
COMPLETED.....	04/14/83			--/--/00		04/27/57	
SAMPLED.....	04/14/83			08/31/79		05/06/57	
FORMATION.....	PENN-MORROW L			PENN-MORROW		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	12394			13982		7556	
WELLHEAD PRESSURE, PSIG.....	4200			NOT GIVEN		2090	
OPEN FLOW, MCFD.....	805			5700		8000	
COMPONENT, MOLE PCT							
METHANE.....	95.6			95.3		82.6	
ETHANE.....	0.6			1.9		9.4	
PROPANE.....	0.1			0.4		4.1	
N-BUTANE.....	0.0			0.1		0.9	
ISOBUTANE.....	0.0			0.1		0.6	
N-PENTANE.....	0.0			TRACE		0.1	
ISOPENTANE.....	0.0			0.1		0.1	
CYCLOPENTANE.....	0.0			TRACE		TRACE	
HEXANES PLUS.....	0.0			0.1		0.1	
NITROGEN.....	0.4			0.7		1.6	
OXYGEN.....	0.1			0.1		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	3.0			1.0		0.4	
HELIUM.....	0.03			0.03		0.10	
HEATING VALUE.....	982			1026		1176	
SPECIFIC GRAVITY.....	0.589			0.590		0.681	
		INDEX SAMPLE	8728 8760	INDEX SAMPLE	8729 10356	INDEX SAMPLE	8730 10847
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HEMPHILL			HEMPHILL		HEMPHILL	
FIELD.....	FELDMAN			FELDMAN		FELDMAN	
WELL NAME.....	CHARLES G. NEWCOMER NO. 1-UT			TEXCELL 1-7		MCQUIDDY B NO. 1	
LOCATION.....	SEC. 44, BLK. 42, H&TC SUR.			SEC. 7, BLK. 42, HT&C SUR.		SEC. 3, BLK. 1, G&M SUR.	
OWNER.....	MOBIL OIL CO.			SHELL OIL CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	09/16/61			11/06/65		06/08/66	
SAMPLED.....	11/07/62			01/13/66		01/23/67	
FORMATION.....	PENN-DOUGLAS			PENN-TONKAWA		PENN-DOUGLAS	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6972			8086		7332	
WELLHEAD PRESSURE, PSIG.....	1606			2332		1803	
OPEN FLOW, MCFD.....	4150			12000		20500	
COMPONENT, MOLE PCT							
METHANE.....	79.9			82.6		82.1	
ETHANE.....	7.6			9.1		9.3	
PROPANE.....	5.0			3.7		4.4	
N-BUTANE.....	1.3			0.8		1.0	
ISOBUTANE.....	0.8			0.6		0.5	
N-PENTANE.....	0.2			0.3		0.3	
ISOPENTANE.....	0.4			TRACE		0.3	
CYCLOPENTANE.....	TRACE			0.2		0.1	
HEXANES PLUS.....	0.1			0.5		0.2	
NITROGEN.....	4.1			1.6		1.4	
OXYGEN.....	TRACE			0.1		TRACE	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.4		0.3	
HELIUM.....	0.18			0.10		0.08	
HEATING VALUE.....	1177			1189		1206	
SPECIFIC GRAVITY.....	0.705			0.690		0.696	
		INDEX SAMPLE	8731 12713	INDEX SAMPLE	8732 16983	INDEX SAMPLE	8733 13646
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HEMPHILL			HEMPHILL		HEMPHILL	
FIELD.....	FELDMAN			FELDMAN		FELDMAN N	
WELL NAME.....	DETRIXHE NO. 1			JONES ESTATE NO. 1-22		IMHEL "A" NO. 1	
LOCATION.....	SEC. 52, BLK. 42, H&TC SUR.			SEC. 52, BLK. 1, G&M SUR.		SEC. 14, BLK. 1, G&M SUR.	
OWNER.....	SANDEN OIL CORP.			PETROLEUM, INC.		DIAMOND SHAMROCK CORP.	
COMPLETED.....	03/10/70			11/17/81		04/30/73	
SAMPLED.....	03/12/71			07/13/83		07/14/73	
FORMATION.....	DEVON-HUNTON			PENN-DOUGLAS		PENN-DOUGLAS	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	14549			7391		7200	
WELLHEAD PRESSURE, PSIG.....	3900			1295		1712	
OPEN FLOW, MCFD.....	4900			422		2750	
COMPONENT, MOLE PCT							
METHANE.....	95.4			79.7		80.7	
ETHANE.....	0.1			6.9		7.8	
PROPANE.....	0.1			4.3		4.9	
N-BUTANE.....	0.0			1.1		1.1	
ISOBUTANE.....	0.0			0.6		0.9	
N-PENTANE.....	0.0			0.2		0.2	
ISOPENTANE.....	0.0			0.7		0.3	
CYCLOPENTANE.....	0.0			TRACE		TRACE	
HEXANES PLUS.....	0.0			0.2		0.2	
NITROGEN.....	3.0			3.7		3.7	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.3		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.4			0.3		0.1	
HELIUM.....	0.03			0.11		0.15	
HEATING VALUE.....	971			1185		1183	
SPECIFIC GRAVITY.....	0.587			0.706		0.703	
		INDEX SAMPLE	8734 15481	INDEX SAMPLE	8735 15550	INDEX SAMPLE	8736 15941
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HEMPHILL			HEMPHILL		HEMPHILL	
FIELD.....	HEMPHILL			HEMPHILL		HEMPHILL	
WELL NAME.....	DRA MORRIS NO. 4			FORGEY 112 NO. 1-112		FEF 1-111	
LOCATION.....	SEC. 92, BLK. 41, H&TC RR SUR			SEC. 112, BLK. 41, H&TC SUR.		SEC. 111, BLK. 41, H&TC SUR.	
OWNER.....	GULF OIL EXPL. & PROD. CO.			GULF OIL CORP.		SHELL OIL CO.	
COMPLETED.....	08/03/78			08/27/78		04/01/79	
SAMPLED.....	11/10/78			12/28/78		04/23/80	
FORMATION.....	PENN-TONKAWA			PENN-DOUGLAS		PENN-DOUGLAS	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8299			7117		7300	
WELLHEAD PRESSURE, PSIG.....	1715			1842		NOT GIVEN	
OPEN FLOW, MCFD.....	4000			23000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	82.9			83.5		83.1	
ETHANE.....	7.7			7.8		7.9	
PROPANE.....	4.2			4.2		4.2	
N-BUTANE.....	1.0			0.9		1.1	
ISOBUTANE.....	0.5			0.5		0.6	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.2			0.2		0.3	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	2.4			2.2		2.1	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.3		0.3	
HELIUM.....	0.10			0.15		0.14	
HEATING VALUE.....	1159			1153		1180	
SPECIFIC GRAVITY.....	0.685			0.677		0.687	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8737 SAMPLE 16406		INDEX 8738 SAMPLE 17717		INDEX 8739 SAMPLE 12700	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	GEM-DANDY (DOUGLAS)	FIELD.....	GLAZIER NW	FIELD.....	HAMON LOCKE
WELL NAME.....	DAVIDSON NO. 1	WELL NAME.....	ELMER SPARKS NO. 2	WELL NAME.....	LOCKE CATTLE CO. NO. 2
LOCATION.....	SEC. 46, BLK. 41, H&TC SUR.	LOCATION.....	SEC. 63, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 39, BLK. A-2, H&GN RR SUR.
OWNER.....	CAMBRIDGE & NAIL	OWNER.....	DIAMOND SHAMROCK EXPL. CO.	OWNER.....	JAKE L. HAMON
COMPLETED.....	10/23/80	COMPLETED.....	02/04/85	COMPLETED.....	02/12/77
SAMPLED.....	01/05/82	SAMPLED.....	06/18/85	SAMPLED.....	03/06/77
FORMATION.....	PENN-DOUGLAS "B" & "C"	FORMATION.....	PENN-HORROW U	FORMATION.....	ORDO-SIMPSON
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7860	DEPTH, FEET.....	11200	DEPTH, FEET.....	13080
WELLHEAD PRESSURE, PSIG.....	1760	WELLHEAD PRESSURE, PSIG.....	2500	WELLHEAD PRESSURE, PSIG.....	3888
OPEN FLOW, MCFD.....	2200	OPEN FLOW, MCFD.....	1806	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.6	METHANE.....	85.4	METHANE.....	88.6
ETHANE.....	7.5	ETHANE.....	7.7	ETHANE.....	4.1
PROPANE.....	3.0	PROPANE.....	2.9	PROPANE.....	1.9
N-BUTANE.....	0.0	N-BUTANE.....	0.7	N-BUTANE.....	0.7
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.7
N-PENTANE.....	0.3	N-PENTANE.....	0.5	N-PENTANE.....	0.3
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.2
NITROGEN.....	3.1	NITROGEN.....	0.6	NITROGEN.....	2.6
OXYGEN.....	0.2	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	0.6
HELIUM.....	0.14	HELIUM.....	0.02	HELIUM.....	0.08
HEATING VALUE.....	1165	HEATING VALUE.....	1164	HEATING VALUE.....	1095
SPECIFIC GRAVITY.....	0.687	SPECIFIC GRAVITY.....	0.674	SPECIFIC GRAVITY.....	0.643
INDEX 8740 SAMPLE 9263		INDEX 8741 SAMPLE 13538		INDEX 8742 SAMPLE 13757	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	HEMPHILL	FIELD.....	HEMPHILL	FIELD.....	HEMPHILL
WELL NAME.....	MOBART NO. 1-67	WELL NAME.....	THORNE NO. 1	WELL NAME.....	IDS-LITTLE NO. 1-30
LOCATION.....	SEC. 6, BLK. A-2, H&GN SUR.	LOCATION.....	SEC. 6, BLK. A-2, H&GN SUR.	LOCATION.....	SEC. 30, BLK. 1, I&GN SUR.
OWNER.....	SHELL OIL CO.	OWNER.....	KERR-MCGEE CORP.	OWNER.....	MCCULLOCH OIL CORP.
COMPLETED.....	01/29/64	COMPLETED.....	01/19/73	COMPLETED.....	08/20/73
SAMPLED.....	01/29/64	SAMPLED.....	02/21/73	SAMPLED.....	10/11/73
FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	10907	DEPTH, FEET.....	10500	DEPTH, FEET.....	10470
WELLHEAD PRESSURE, PSIG.....	2985	WELLHEAD PRESSURE, PSIG.....	2750	WELLHEAD PRESSURE, PSIG.....	2750
OPEN FLOW, MCFD.....	25000	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	2700
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.3	METHANE.....	70.3	METHANE.....	81.3
ETHANE.....	7.3	ETHANE.....	15.3	ETHANE.....	10.8
PROPANE.....	2.6	PROPANE.....	7.8	PROPANE.....	4.2
N-BUTANE.....	0.8	N-BUTANE.....	2.3	N-BUTANE.....	0.5
ISOBUTANE.....	0.3	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.6	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.6	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.1
NITROGEN.....	0.4	NITROGEN.....	0.8	NITROGEN.....	1.1
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.4
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.04
HEATING VALUE.....	1146	HEATING VALUE.....	1379	HEATING VALUE.....	1200
SPECIFIC GRAVITY.....	0.652	SPECIFIC GRAVITY.....	0.802	SPECIFIC GRAVITY.....	0.691
INDEX 8743 SAMPLE 14034		INDEX 8744 SAMPLE 14182		INDEX 8745 SAMPLE 14444	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	HEMPHILL	FIELD.....	HEMPHILL	FIELD.....	HEMPHILL
WELL NAME.....	GEORGE "A" NO. 1-45	WELL NAME.....	FLOWERS-B NO. 1	WELL NAME.....	ABRAHAM B NO. 1
LOCATION.....	SEC. 45, BLK. 1, I&GN SUR.	LOCATION.....	SEC. 47, BLK. 1, I&GN SUR.	LOCATION.....	SEC. 26, BLK. 1, I&GN SUR.
OWNER.....	ANADARKO PRODUCTION CO.	OWNER.....	ANADARKO PRODUCTION CO.	OWNER.....	ANADARKO PRODUCTION CO.
COMPLETED.....	07/10/73	COMPLETED.....	04/01/74	COMPLETED.....	--/--/00
SAMPLED.....	06/26/74	SAMPLED.....	10/23/74	SAMPLED.....	08/26/75
FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	10681	DEPTH, FEET.....	10912	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	2857	WELLHEAD PRESSURE, PSIG.....	1200	WELLHEAD PRESSURE, PSIG.....	1800
OPEN FLOW, MCFD.....	12800	OPEN FLOW, MCFD.....	1500	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	83.3	METHANE.....	86.1	METHANE.....	82.0
ETHANE.....	9.1	ETHANE.....	7.8	ETHANE.....	9.9
PROPANE.....	3.2	PROPANE.....	1.0	PROPANE.....	4.2
N-BUTANE.....	0.8	N-BUTANE.....	0.7	N-BUTANE.....	0.9
ISOBUTANE.....	0.5	ISOBUTANE.....	0.6	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	1.3	NITROGEN.....	0.7	NITROGEN.....	1.1
OXYGEN.....	0.3	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.7
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.03
HEATING VALUE.....	1154	HEATING VALUE.....	1156	HEATING VALUE.....	1194
SPECIFIC GRAVITY.....	0.675	SPECIFIC GRAVITY.....	0.662	SPECIFIC GRAVITY.....	0.692
INDEX 8746 SAMPLE 17632		INDEX 8747 SAMPLE 17292		INDEX 8748 SAMPLE 13803	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	HEMPHILL	FIELD.....	HEMPHILL (GRANITE WASH)	FIELD.....	HEXT
WELL NAME.....	WELLY SAVAGE NO. A-1	WELL NAME.....	LOCKE NO. 2-60	WELL NAME.....	R. HEXT NO. 1
LOCATION.....	SEC. 20, BLK. 1, I&GN SUR.	LOCATION.....	SEC. 60, BLK. A2, H&GN SUR.	LOCATION.....	SEC. 12, BLK. 43, H&TC SUR.
OWNER.....	KERR-MCGEE CORP.	OWNER.....	WAGNER & BROWN	OWNER.....	DIAMOND SHAMROCK CORP.
COMPLETED.....	03/29/85	COMPLETED.....	01/15/83	COMPLETED.....	08/30/77
SAMPLED.....	03/29/85	SAMPLED.....	05/15/84	SAMPLED.....	11/09/77
FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PENN-TONKAWA
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	10685	DEPTH, FEET.....	10198	DEPTH, FEET.....	7580
WELLHEAD PRESSURE, PSIG.....	777	WELLHEAD PRESSURE, PSIG.....	2528	WELLHEAD PRESSURE, PSIG.....	1713
OPEN FLOW, MCFD.....	586	OPEN FLOW, MCFD.....	31300	OPEN FLOW, MCFD.....	3400
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.1	METHANE.....	80.8	METHANE.....	81.6
ETHANE.....	9.6	ETHANE.....	10.7	ETHANE.....	9.1
PROPANE.....	4.0	PROPANE.....	4.2	PROPANE.....	4.1
N-BUTANE.....	0.2	N-BUTANE.....	1.2	N-BUTANE.....	1.1
ISOBUTANE.....	0.7	ISOBUTANE.....	0.6	ISOBUTANE.....	0.7
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.4	ISOPENTANE.....	0.3	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	0.1	NITROGEN.....	0.7	NITROGEN.....	1.8
OXYGEN.....	0.1	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.1
HELIUM.....	0.03	HELIUM.....	0.04	HELIUM.....	0.13
HEATING VALUE.....	1221	HEATING VALUE.....	1203	HEATING VALUE.....	1203
SPECIFIC GRAVITY.....	0.703	SPECIFIC GRAVITY.....	0.708	SPECIFIC GRAVITY.....	0.695

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8749 14866	INDEX SAMPLE	8750 13858	INDEX SAMPLE	8751 13343
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HEMPHILL			HEMPHILL		HEMPHILL	
FIELD.....	HIGGINS S			HOWE RANCH		HUMPHREYS	
WELL NAME.....	W.S.&C. JONES ESTATE NO. 1			GENE HOWE NO. 1		MARGUERITE HUMPHREYS NO. 1	
LOCATION.....	SEC. 43, BLK. 43, H&TC SUR.			SEC. 4, BLK. 1, G&M SUR.		JAMES FORD SUR.	
OWNER.....	ENSERCH EXPLORATION, INC.			EL PASO NATURAL GAS CO.		GULF OIL CO.- U.S.	
COMPLETED.....	06/16/75			04/12/73		03/23/72	
SAMPLED.....	12/07/76			01/07/74		08/02/72	
FORMATION.....	PENN-MORROW			DEVON-HUNTON		PENN-DOUGLAS	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11864			17202		7284	
WELLHEAD PRESSURE, PSIG.....	4480			5739		1775	
OPEN FLOW, MCFD.....	5000			23000		4800	
COMPONENT, MOLE PCT							
METHANE.....	93.5			92.9		80.6	
ETHANE.....	3.0			0.2		9.9	
PROPANE.....	0.6			TRACE		5.0	
N-BUTANE.....	0.2			0.0		1.3	
ISOBUTANE.....	0.1			0.0		0.8	
N-PENTANE.....	0.1			0.0		0.4	
ISOPENTANE.....	0.1			0.0		0.1	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.1			0.0		0.2	
NITROGEN.....	0.3			1.2		1.3	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.0			3.5		0.2	
HELIUM.....	0.03			0.03		0.12	
HEATING VALUE.....	1040			945		1226	
SPECIFIC GRAVITY.....	0.604			0.613		0.706	
		INDEX SAMPLE	8752 15839	INDEX SAMPLE	8753 17688	INDEX SAMPLE	8754 17690
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HEMPHILL			HEMPHILL		HEMPHILL	
FIELD.....	HUMPHREYS			JONES		JONES	
WELL NAME.....	BRIGHT NO. 1			JONES TRUST NO. 25A		HUMPHREYS NO. 31A	
LOCATION.....	SEC. 122, BLK. 41, H&TC SUR.			SEC. 25, BLK. 1, G&M SUR.		SEC. 31, BLK. 1, B&M SUR.	
OWNER.....	MOOD ENERGY CO.			WOODS PETROLEUM CORP.		WOODS PETROLEUM CORP.	
COMPLETED.....	05/29/79			10/19/84		12/13/84	
SAMPLED.....	11/23/79			05/24/85		05/24/85	
FORMATION.....	PENN-DOUGLAS			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	7304			11518		11392	
WELLHEAD PRESSURE, PSIG.....	1800			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	60000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	82.1			94.1		92.9	
ETHANE.....	7.7			2.0		3.9	
PROPANE.....	0.5			0.2		0.7	
N-BUTANE.....	1.2			0.1		0.2	
ISOBUTANE.....	0.6			0.0		0.1	
N-PENTANE.....	0.3			0.2		0.1	
ISOPENTANE.....	0.3			0.0		0.0	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	0.1			0.2		0.6	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			1.7		1.3	
HELIUM.....	0.14			0.03		0.02	
HEATING VALUE.....	1187			1015		1058	
SPECIFIC GRAVITY.....	0.695			0.599		0.610	
		INDEX SAMPLE	8755 17692	INDEX SAMPLE	8756 13517	INDEX SAMPLE	8757 13518
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HEMPHILL			HEMPHILL		HEMPHILL	
FIELD.....	JONES			LOCKE CATTLE CO.		LOCKE CATTLE CO.	
WELL NAME.....	HUMPHREYS NO. 32-A			LOCKE CATTLE CO. NO. 1		LOCKE CATTLE CO. NO. 1	
LOCATION.....	SEC. 32, BLK. 1, G&M SUR.			SEC. 40, BLK. A-2, H&GN SUR.		SEC. 40, BLK. A-2, H&GN SUR.	
OWNER.....	WOODS PETROLEUM CORP.			JAKE L. HARON		JAKE L. HARON	
COMPLETED.....	06/07/84			11/20/72		11/20/72	
SAMPLED.....	05/24/85			01/26/73		01/26/73	
FORMATION.....	PENN-MORROW U			PENN-MICHITA-ALBANY		PENN-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	11464			4500		10500	
WELLHEAD PRESSURE, PSIG.....	3522			1100		2380	
OPEN FLOW, MCFD.....	3522			11600		3600	
COMPONENT, MOLE PCT							
METHANE.....	91.7			87.5		86.0	
ETHANE.....	9.1			7.7		7.3	
PROPANE.....	0.6			2.6		3.1	
N-BUTANE.....	0.2			0.3		0.7	
ISOBUTANE.....	TRACE			0.7		0.5	
N-PENTANE.....	0.1			0.3		0.2	
ISOPENTANE.....	0.0			0.0		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.3			0.2		0.1	
NITROGEN.....	1.7			2.1		1.0	
OXYGEN.....	0.2			0.2		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.0			0.1		0.3	
HELIUM.....	0.03			0.1		0.03	
HEATING VALUE.....	1036			1116		1152	
SPECIFIC GRAVITY.....	0.615			0.646		0.658	
		INDEX SAMPLE	8758 7016	INDEX SAMPLE	8759 13043	INDEX SAMPLE	8760 14801
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HEMPHILL			HEMPHILL		HEMPHILL	
FIELD.....	MATHERS			MATHERS		MATHERS	
WELL NAME.....	FELDMAN NO. 1-A			HUMPHREYS NO. 1		MATHERS NO. 1	
LOCATION.....	SEC. 133, BLK. 42			SEC. 163, BLK. 41, T&C SUR.		SEC. 132, BLK. 42, H&TC SUR.	
OWNER.....	EL PASO NATURAL GAS CO.			PHILCON DEVELOPMENT CO.		NATURAL GAS ANADARKO, INC.	
COMPLETED.....	02/11/78			03/11/78		02/12/76	
SAMPLED.....	03/30/59			10/01/71		10/08/76	
FORMATION.....	PENN-MORROW & MATHERS			PENN-DOUGLAS		PENN-DOUGLAS	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	9883			7228		6249	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1875		1563	
OPEN FLOW, MCFD.....	NOT GIVEN			2550		6900	
COMPONENT, MOLE PCT							
METHANE.....	81.4			81.2		76.2	
ETHANE.....	9.5			9.2		10.5	
PROPANE.....	0.3			0.3		0.9	
N-BUTANE.....	1.3			1.2		1.6	
ISOBUTANE.....	0.8			0.8		0.6	
N-PENTANE.....	0.4			0.2		0.3	
ISOPENTANE.....	0.4			0.6		0.3	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.6			0.3		0.2	
NITROGEN.....	0.2			1.4		5.7	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.0			0.2		0.2	
HELIUM.....	0.03			0.11		0.17	
HEATING VALUE.....	1250			1250		1250	
SPECIFIC GRAVITY.....	0.721			0.712		0.736	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 8761 13374	INDEX SAMPLE 8762 13384	INDEX SAMPLE 8763 13385
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	HEMPHILL		HEMPHILL	HEMPHILL
FIELD.....	MATHERS RANCH		MATHERS RANCH	MATHERS RANCH
WELL NAME.....	MATHERS NO. 9		HUMPHREYS NO. 2	HUMPHREYS NO. 2
LOCATION.....	SEC. 164, BLK. 41, H&TC SUR.		SEC. 163, BLK. 41, H&TC SUR.	SEC. 163, BLK. 41, H&TC SUR.
OWNER.....	MCULLOCH OIL CORP.		PHILCON DEVELOPMENT CO.	PHILCON DEVELOPMENT CO.
COMPLETED.....	01/--/72		--/--/00	--/--/00
SAMPLED.....	08/17/72		--/--/00	09/08/72
FORMATION.....	PENN-DOUGLAS		DEVON-HUNTON	DEVON-HUNTON
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	7176		17245	16809
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1800	NOT GIVEN
OPEN FLOW, MCFD.....	800		6100	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	80.4	92.3	97.7	
ETHANE.....	9.5	0.4	0.5	
PROPANE.....	4.9	TRACE	0.1	
N-BUTANE.....	1.2	0.0	TRACE	
ISOBUTANE.....	0.8	0.0	0.0	
N-PENTANE.....	0.4	0.0	TRACE	
ISOPENTANE.....	0.2	0.0	TRACE	
CYCLOPENTANE.....	0.1	0.0	TRACE	
HEXANES PLUS.....	0.3	0.0	TRACE	
NITROGEN.....	1.9	1.2	0.7	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	6.1	1.0	
HELIUM.....	0.12	0.3	0.03	
HEATING VALUE.....	1224	942	1001	
SPECIFIC GRAVITY.....	0.711	0.621	0.571	

		INDEX SAMPLE 8764 9670	INDEX SAMPLE 8765 9920	INDEX SAMPLE 8766 10908
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	HEMPHILL		HEMPHILL	HEMPHILL
FIELD.....	MCQUIDDY		MCQUIDDY	MCQUIDDY
WELL NAME.....	MCQUIDDY A NO. 1		MCQUIDDY A NO. 2	CAMPBELL-SANTA FE NO. 1
LOCATION.....	JOHN GATES SUR.		JOHN GATES SUR.	SEC. 38, BLK. 1, I&GN SUR.
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	12/17/64		02/12/65	12/19/66
SAMPLED.....	12/17/64		06/13/65	04/03/67
FORMATION.....	PENN-MORROW U		PENN-DOUGLAS	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	11845		7228	11387
WELLHEAD PRESSURE, PSIG.....	6294		1781	4254
OPEN FLOW, MCFD.....	11400		5300	42000
COMPONENT, MOLE PCT				
METHANE.....	94.0	83.0	89.3	
ETHANE.....	1.5	8.6	7.1	
PROPANE.....	0.2	0.7	1.5	
N-BUTANE.....	TRACE	0.9	0.2	
ISOBUTANE.....	0.1	0.6	TRACE	
N-PENTANE.....	0.1	0.1	0.1	
ISOPENTANE.....	0.3	0.1	0.2	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.5	0.1	TRACE	
NITROGEN.....	1.4	1.8	0.2	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.3	0.8	1.3	
HELIUM.....	0.02	0.09	0.04	
HEATING VALUE.....	1048	1164	1090	
SPECIFIC GRAVITY.....	0.611	0.682	0.626	

		INDEX SAMPLE 8767 13607	INDEX SAMPLE 8768 15556	INDEX SAMPLE 8769 13978
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	HEMPHILL		HEMPHILL	HEMPHILL
FIELD.....	MENDOTA		MENDOTA	MENDOTA
WELL NAME.....	CAMPBELL NO. 2		CAMPBELL NO. 1-13	LESLIE WEBB ET AL. NO. 1
LOCATION.....	SEC. 9, BLK. 1 I&GN SUR.		SEC. 13, BLK. 1 I&GN SUR.	SEC. 13, BLK. 1, I&GN SUR.
OWNER.....	HOOPER & BRACKEN OIL PROP.		HOOPER & BRACKEN OIL PROP.	DIAMOND SHAMROCK CORP.
COMPLETED.....	02/01/73		11/13/77	01/23/70
SAMPLED.....	06/06/73		06/07/79	04/13/78
FORMATION.....	PENN-MORROW		PENN-GRANITE WASH	PENN-CHEROKEE
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	10000		9810	10266
WELLHEAD PRESSURE, PSIG.....	4000		1870	2114
OPEN FLOW, MCFD.....	80000		7176	5000
COMPONENT, MOLE PCT				
METHANE.....	91.6	68.0	82.4	
ETHANE.....	4.9	16.9	10.2	
PROPANE.....	0.9	8.3	4.0	
N-BUTANE.....	0.1	0.6	0.9	
ISOBUTANE.....	0.1	1.1	0.6	
N-PENTANE.....	TRACE	0.6	0.1	
ISOPENTANE.....	TRACE	0.7	0.2	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.1	0.3	0.1	
NITROGEN.....	0.5	0.8	0.6	
OXYGEN.....	0.4	TRACE	TRACE	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.7	0.4	0.7	
HELIUM.....	0.03	0.03	0.05	
HEATING VALUE.....	1051	1407	1190	
SPECIFIC GRAVITY.....	0.611	0.818	0.684	

		INDEX SAMPLE 8770 15280	INDEX SAMPLE 8771 15317	INDEX SAMPLE 8772 8886
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	HEMPHILL		HEMPHILL	HEMPHILL
FIELD.....	MENDOTA		MENDOTA SE	MENDOTA
WELL NAME.....	MYRTLE FLOWERS NO. 2		CAMPBELL NO. 1	HOBART NO. 1-21
LOCATION.....	SEC. 61, BLK. 81, H&GN SUR.		SEC. 32, BLK. 1, I&GN SUR.	SEC. 21, BLK. A-1, H&GN SUR.
OWNER.....	EXXON CO., U.S.A.		EDWIN CO.	SHELL OIL CO.
COMPLETED.....	12/31/77		12/05/77	09/06/62
SAMPLED.....	05/18/78		07/05/78	03/11/63
FORMATION.....	PENN-GRANITE WASH		PENN-MORROW	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	10372		12263	15240
WELLHEAD PRESSURE, PSIG.....	2611		3668	7888
OPEN FLOW, MCFD.....	14700		8000	3200
COMPONENT, MOLE PCT				
METHANE.....	80.9	93.1	95.6	
ETHANE.....	9.5	0.5	0.5	
PROPANE.....	4.5	0.4	0.1	
N-BUTANE.....	1.5	0.1	0.0	
ISOBUTANE.....	0.7	TRACE	0.0	
N-PENTANE.....	0.4	TRACE	0.0	
ISOPENTANE.....	0.6	TRACE	0.0	
CYCLOPENTANE.....	0.2	TRACE	0.0	
HEXANES PLUS.....	0.2	0.1	0.0	
NITROGEN.....	0.7	1.0	0.2	
OXYGEN.....	TRACE	0.1	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.1	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.03	3.0	
HELIUM.....	0.04	0.03	0.03	
HEATING VALUE.....	1257	1025	980	
SPECIFIC GRAVITY.....	0.721	0.598	0.585	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8773 SAMPLE 14421			INDEX 8774 SAMPLE 14906			INDEX 8775 SAMPLE 14936		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HEMPHILL		HEMPHILL			HEMPHILL		
FIELD.....	NOT GIVEN		NOT GIVEN			PARSELL SE		
WELL NAME.....	ARLINGTON 8 NO. 1		RAMP NO. 1			MITCHELL UNIT NO. 1		
LOCATION.....	SEC. 45, BLK. A-2, H&GN SUR.		SEC. 26, BLK. 41, H&TC SUR.			SEC. 128, BLK. 42, H&TC SUR.		
OWNER.....	MCULLOCH OIL CORP.		WESSELY ENERGY CORP.			PETROLEUM, INC.		
COMPLETED.....	--/--/00		10/23/75			06/11/75		
SAMPLED.....	07/--/75		02/15/77			03/10/77		
FORMATION.....	PERM-GRANITE WASH		NOT GIVEN			PENN-MORROW U		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10814		11729			10343		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		7321			3576		
OPEN FLOW, MCFD.....	NOT GIVEN		6350			3100		
COMPONENT, MOLE PCT								
METHANE.....	84.2		90.9			86.5		
ETHANE.....	8.7		5.8			7.9		
PROpane.....	3.7		1.6			2.8		
N-BUTANE.....	0.9		0.3			0.6		
ISOBUTANE.....	0.5		0.4			0.5		
N-PENTANE.....	0.1		0.0			0.2		
ISOPENTANE.....	0.4		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		TRACE			0.2		
NITROGEN.....	0.9		0.4			TRACE		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.5			0.9		
HELIUM.....	0.03		0.02			0.04		
HEATING VALUE.....	1178		1094			1159		
SPECIFIC GRAVITY.....	0.675		0.618			0.661		
INDEX 8776 SAMPLE 10866			INDEX 8777 SAMPLE 14969			INDEX 8778 SAMPLE 15150		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HEMPHILL		HEMPHILL			HEMPHILL		
FIELD.....	RAMP		RAMP NE			RED DEER CREEK		
WELL NAME.....	N. C. PYEATT NO. 1		RAMP NO. 1			ISAACS NO. 2-207		
LOCATION.....	SEC. 51, BLK. A-1, H&GN SUR.		SEC. 26, BLK. 41, H&TC SUR.			SEC. 207, BLK. C, GMM&A SUR.		
OWNER.....	SUN OIL CO.		WESSELY ENERGY CORP.			GULF ENERGY & MINERALS CO.		
COMPLETED.....	11/22/66		107--/75			10/02/77		
SAMPLED.....	02/09/67		04/06/77			11/21/77		
FORMATION.....	PENN-		PERM-GRANITE WASH			PENN-MORROW U		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	11172		11725			11364		
WELLHEAD PRESSURE, PSIG.....	3155		5885			3194		
OPEN FLOW, MCFD.....	4396		6350			3086		
COMPONENT, MOLE PCT								
METHANE.....	66.5		89.9			84.8		
ETHANE.....	12.6		1.0			7.1		
PROpane.....	8.4		1.8			3.3		
N-BUTANE.....	4.3		0.4			1.0		
ISOBUTANE.....	2.1		0.3			0.6		
N-PENTANE.....	1.0		0.2			0.5		
ISOPENTANE.....	2.1		0.1			0.5		
CYCLOPENTANE.....	0.4		TRACE			0.1		
HEXANES PLUS.....	1.1		0.2			0.5		
NITROGEN.....	1.2		0.5			0.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.0			1.1		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1537		1112			1198		
SPECIFIC GRAVITY.....	0.905		0.630			0.693		
INDEX 8779 SAMPLE 17238			INDEX 8780 SAMPLE 15805			INDEX 8781 SAMPLE 16198		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HEMPHILL		HEMPHILL			HEMPHILL		
FIELD.....	SHREIKY S		SNODOKS			WISLER DOUGLAS		
WELL NAME.....	MATHERS NO. 1-14		MATHERS NO. 1			URSHEL NO. 1-49		
LOCATION.....	SEC. 14, H&GN SURVEY, A2		SEC. 132, BLK. 42, H&TC SUR.			SEC. 49, BLK. 1, G&M SUR.		
OWNER.....	TOM F. MARSH, INC.		NATURAL GAS ANADARKO, INC.			JAKE L. HAMON		
COMPLETED.....	10/12/63		01/25/79			03/04/80		
SAMPLED.....	04/06/84		10/12/79			03/03/81		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-DOUGLAS		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	11820		11188			7020		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		5115			1800		
OPEN FLOW, MCFD.....	1350		5300			18500		
COMPONENT, MOLE PCT								
METHANE.....	90.3		96.8			82.2		
ETHANE.....	4.1		0.8			7.8		
PROpane.....	1.5		0.2			4.4		
N-BUTANE.....	0.5		0.0			1.2		
ISOBUTANE.....	0.3		0.0			0.7		
N-PENTANE.....	0.1		0.0			0.3		
ISOPENTANE.....	0.2		0.0			0.5		
CYCLOPENTANE.....	0.2		0.0			0.2		
HEXANES PLUS.....	0.3		0.0			0.4		
NITROGEN.....	1.3		0.4			2.1		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		1.9			0.2		
HELIUM.....	0.03		0.03			0.15		
HEATING VALUE.....	1090		1000			1213		
SPECIFIC GRAVITY.....	0.634		0.581			0.706		
INDEX 8782 SAMPLE 16366			INDEX 8783 SAMPLE 14807			INDEX 8784 SAMPLE 12329		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HEMPHILL		HEMPHILL			HEMPHILL		
FIELD.....	WISLER DOUGLAS		VIKING			WASHITA CREEK		
WELL NAME.....	HUMPREYS 39 NO. 1		SUMPTER #10 NO. 1			BOWERS G NO. 1		
LOCATION.....	SEC. 39, BLK. 1, G&M SUR.		SEC. 10, BLK. 2-1, ACH&B&W SUR			SEC. 253, BLK. 1, G&M&A SUR.		
OWNER.....	INTERNORTH, INC.		H&G O.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/--/00		--/--/00			11/21/69		
SAMPLED.....	10/27/81		107--/76			07/10/70		
FORMATION.....	PENN-DOUGLAS		NOT GIVEN			DEVON-HUNTON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7037		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1767		NOT GIVEN			7082		
OPEN FLOW, MCFD.....	5933		NOT GIVEN			100000		
COMPONENT, MOLE PCT								
METHANE.....	79.3		97.2			90.6		
ETHANE.....	8.5		0.7			0.1		
PROpane.....	5.3		0.1			TRACE		
N-BUTANE.....	1.4		0.0			0.0		
ISOBUTANE.....	0.4		0.0			0.0		
N-PENTANE.....	0.4		0.0			0.0		
ISOPENTANE.....	0.4		0.0			0.0		
CYCLOPENTANE.....	0.1		0.0			0.0		
HEXANES PLUS.....	0.3		0.0			0.0		
NITROGEN.....	3.0		0.2			2.1		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		1.8			7.1		
HELIUM.....	0.18		0.02			0.03		
HEATING VALUE.....	1221		1000			920		
SPECIFIC GRAVITY.....	0.721		0.577			0.633		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8785 SAMPLE 16525		INDEX 8786 SAMPLE 17061		INDEX 8787 SAMPLE 11061	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	WASHITA CREEK	FIELD.....	WASHITA CREEK	FIELD.....	WASHITA RIVER PROSPECT
WELL NAME.....	GEORGE NO. 1-B	WELL NAME.....	BOVERS NO. 5-A	WELL NAME.....	BRADSTREET NO. 1-B9
LOCATION.....	SEC. 8, BLK.M-1,H&GN RR SUR.	LOCATION.....	SEC.258, BLK.C, G&MMBA SUR.	LOCATION.....	SEC. 89, BLK.M-1,H&GNRR SUR.
OWNER.....	HAMILTON BROTHERS OIL CO.	OWNER.....	E.T.S. ENTERPRISES, INC.	OWNER.....	UNION OIL CO. OF CALIF.
COMPLETED.....	09/04/80	COMPLETED.....	07/23/82	COMPLETED.....	08/11/67
SAMPLED.....	05/~/82	SAMPLED.....	09/13/83	SAMPLED.....	08/13/67
FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PENN-MORROW U	FORMATION.....	DEVO-HUNTON
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	11354	DEPTH, FEET.....	14380	DEPTH, FEET.....	19746
WELLHEAD PRESSURE,PSIG.....	1775	WELLHEAD PRESSURE,PSIG.....	8438	WELLHEAD PRESSURE,PSIG.....	16600
OPEN FLOW, MCFD.....	1400	OPEN FLOW, MCFD.....	10000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	85.5	METHANE.....	96.6	METHANE.....	89.1
ETHANE.....	7.9	ETHANE.....	0.6	ETHANE.....	0.1
PROPANE.....	2.9	PROPANE.....	0.1	PROPANE.....	0.0
N-BUTANE.....	0.9	N-BUTANE.....	0.0	N-BUTANE.....	0.1
ISOBUTANE.....	0.6	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.2	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	0.3	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE
NITROGEN.....	0.7	NITROGEN.....	0.2	NITROGEN.....	1.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.3	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	2.2	CARBON DIOXIDE.....	8.8
HELIUM.....	0.03	HELIUM.....	0.02	HELIUM.....	0.03
HEATING VALUE.....	1171	HEATING VALUE.....	293	HEATING VALUE.....	915
SPECIFIC GRAVITY.....	0.668	SPECIFIC GRAVITY.....	0.579	SPECIFIC GRAVITY.....	0.653

INDEX 8788 SAMPLE 8191		INDEX 8789 SAMPLE 12523		INDEX 8790 SAMPLE 13741	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	BEACH & PINION NO.1 BRAINARD	WELL NAME.....	MATHERS RANCH NO. 1	WELL NAME.....	HOBBART RANCH NO. 4
LOCATION.....	SEC. 110, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 1518, J. FLOWERS SUR.	LOCATION.....	SEC. 50, BLK. A-2 H&GN SUR.
OWNER.....	BEACH & PINION	OWNER.....	MCCULLOCH OIL CORP.	OWNER.....	EL PASO NATURAL GAS CO.
COMPLETED.....	--/--/00	COMPLETED.....	03/04/70	COMPLETED.....	08/07/73
SAMPLED.....	09/13/61	SAMPLED.....	11/10/70	SAMPLED.....	10/02/73
FORMATION.....	PENN-MORROW U	FORMATION.....	DEVO-HUNTON	FORMATION.....	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	11000	DEPTH, FEET.....	16815	DEPTH, FEET.....	13234
WELLHEAD PRESSURE,PSIG.....	6370	WELLHEAD PRESSURE,PSIG.....	5897	WELLHEAD PRESSURE,PSIG.....	4533
OPEN FLOW, MCFD.....	600	OPEN FLOW, MCFD.....	104000	OPEN FLOW, MCFD.....	2887
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.8	METHANE.....	95.0	METHANE.....	94.2
ETHANE.....	4.5	ETHANE.....	0.4	ETHANE.....	2.6
PROPANE.....	0.9	PROPANE.....	TRACE	PROPANE.....	0.3
N-BUTANE.....	0.2	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.3	ISOBUTANE.....	0.0	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	0.5	NITROGEN.....	0.9	NITROGEN.....	0.6
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	1.8
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.03
HEATING VALUE.....	1070	HEATING VALUE.....	970	HEATING VALUE.....	1020
SPECIFIC GRAVITY.....	0.616	SPECIFIC GRAVITY.....	0.595	SPECIFIC GRAVITY.....	0.596

INDEX 8791 SAMPLE 13782		INDEX 8792 SAMPLE 13965		INDEX 8793 SAMPLE 16242	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL	COUNTY.....	HEMPHILL
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	BURTON NO. 1	WELL NAME.....	HENDERSON NO. 1-64	WELL NAME.....	THIERSTEIN NO. 75-1
LOCATION.....	SEC. 106, BLK. 41, H&TC SUR.	LOCATION.....	SEC. 64, BLK. 41, H&TC SUR.	LOCATION.....	SEC. 75, BLK. 41, H&TC SUR.
OWNER.....	AMARILLO OIL CO.	OWNER.....	MESA PETROLEUM CO.	OWNER.....	WOODS PETROLEUM CORP.
COMPLETED.....	--/00	COMPLETED.....	--/00	COMPLETED.....	12/09/60
SAMPLED.....	10/26/73	SAMPLED.....	03/27/74	SAMPLED.....	04/21/81
FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-MORROW	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	12994	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	10918
WELLHEAD PRESSURE,PSIG.....	3000	WELLHEAD PRESSURE,PSIG.....	9035	WELLHEAD PRESSURE,PSIG.....	5400
OPEN FLOW, MCFD.....	3247	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	4200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.7	METHANE.....	94.7	METHANE.....	81.9
ETHANE.....	0.7	ETHANE.....	0.4	ETHANE.....	8.7
PROPANE.....	0.1	PROPANE.....	TRACE	PROPANE.....	3.9
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	1.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	1.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.3
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.8
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.4
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	1.1
NITROGEN.....	0.4	NITROGEN.....	0.3	NITROGEN.....	0.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.1	CARBON DIOXIDE.....	4.6	CARBON DIOXIDE.....	0.3
HELIUM.....	0.02	HELIUM.....	0.02	HELIUM.....	0.02
HEATING VALUE.....	985	HEATING VALUE.....	966	HEATING VALUE.....	1272
SPECIFIC GRAVITY.....	0.581	SPECIFIC GRAVITY.....	0.602	SPECIFIC GRAVITY.....	0.729

INDEX 8794 SAMPLE 12467		INDEX 8795 SAMPLE 8389		INDEX 8796 SAMPLE 12614	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HENDERSON	COUNTY.....	HENDERSON	COUNTY.....	HENDERSON
FIELD.....	FRANKSTON	FIELD.....	OPELIKA	FIELD.....	OPELIKA
WELL NAME.....	HUGO WHITE J NO. 1	WELL NAME.....	ALLYN ESTATE B NO. 1	WELL NAME.....	ALLYN NO. 1-C
LOCATION.....	M. GOLIMER SUR. A-9	LOCATION.....	NOT GIVEN	LOCATION.....	ADRIAN ANGLIN S SUR.
OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	LONE STAR PRODUCING CO.	OWNER.....	LONE STAR PRODUCING CO.
COMPLETED.....	01/~/68	COMPLETED.....	08/11/61	COMPLETED.....	--/--/00
SAMPLED.....	10/~/70	SAMPLED.....	01/31/62	SAMPLED.....	12/29/70
FORMATION.....	CRET-JAMES	FORMATION.....	JURA-COTTON VALLEY	FORMATION.....	CRET-RODESSA
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	10026	DEPTH, FEET.....	10651	DEPTH, FEET.....	7850
WELLHEAD PRESSURE,PSIG.....	1800	WELLHEAD PRESSURE,PSIG.....	3400	WELLHEAD PRESSURE,PSIG.....	500
OPEN FLOW, MCFD.....	9000	OPEN FLOW, MCFD.....	1080	OPEN FLOW, MCFD.....	37172
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	57.0	METHANE.....	96.0	METHANE.....	82.9
ETHANE.....	16.4	ETHANE.....	1.3	ETHANE.....	4.3
PROPANE.....	11.9	PROPANE.....	0.3	PROPANE.....	1.7
N-BUTANE.....	3.3	N-BUTANE.....	0.1	N-BUTANE.....	0.5
ISOBUTANE.....	3.7	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.5
N-PENTANE.....	0.9	N-PENTANE.....	TRACE	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	1.0	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.4
NITROGEN.....	0.1	NITROGEN.....	0.1	NITROGEN.....	6.6
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	1.3
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.1
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	3.9	CARBON DIOXIDE.....	1.3	CARBON DIOXIDE.....	1.5
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.03
HEATING VALUE.....	1371	HEATING VALUE.....	1031	HEATING VALUE.....	1033
SPECIFIC GRAVITY.....	0.971	SPECIFIC GRAVITY.....	0.582	SPECIFIC GRAVITY.....	0.676

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8797 12615	INDEX SAMPLE	8798 12616	INDEX SAMPLE	8799 12610
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HENDERSON			HENDERSON		HENDERSON	
FIELD.....	OPELIKA			OPELIKA		TRI-CITIES	
WELL NAME.....	G. W. WOFFORD NO. 1			J. S. EDWARDS NO. 1		TEXIE YOUNG B NO. 2	
LOCATION.....	G. ACOSTA SUR.			J. GRAFF SUR.		JOSEPH RICE SUR.	
OWNER.....	LOWE STAR PRODUCING CO.			LOWE STAR PRODUCING CO.		LOWE STAR PRODUCING CO.	
COMPLETED.....	--/--/00			--/--/00		09/28/59	
SAMPLED.....	12/29/70			12/29/70		12/28/70	
FORMATION.....	CRET-TRAVIS PEAK			CRET-PETTIT		CRET-TRAVIS PEAK	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	9049			9574		9760	
WELLHEAD PRESSURE, PSIG.....	1150			600		630	
OPEN FLOW, MCFD.....	5400			400000		2503	
COMPONENT, MOLE PCT							
METHANE.....	90.5	-----		85.5	-----	97.5	-----
ETHANE.....	2.8	-----		3.2	-----	0.5	-----
PROPANE.....	0.8	-----		1.3	-----	0.1	-----
N-BUTANE.....	0.2	-----		0.5	-----	0.0	-----
ISOBUTANE.....	0.4	-----		0.5	-----	0.0	-----
N-PENTANE.....	TRACE	-----		0.2	-----	0.0	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	0.0	-----
NITROGEN.....	3.2	-----		5.4	-----	0.9	-----
OXYGEN.....	0.6	-----		1.2	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.1	-----		1.0	-----	0.9	-----
HELIUM.....	0.02	-----		0.01	-----	0.02	-----
HEATING VALUE.....	1022	-----		1037	-----	999	-----
SPECIFIC GRAVITY.....	0.619	-----		0.656	-----	0.571	-----
		INDEX SAMPLE	8800 15258	INDEX SAMPLE	8801 4790	INDEX SAMPLE	8802 12045
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HIDALGO			HIDALGO		HIDALGO	
FIELD.....	ALAMO			ARROWHEAD		ARROWHEAD	
WELL NAME.....	EL NEAL L. TYNER NO. 1			R. BARRERA NO. 1		BENTSEN BROTHERS B NO. 5	
LOCATION.....	EL BLANCA GRANT A-57			EL BENADITO & SAN JOSE GRANTS		EL BENADITO GRANT A-68	
OWNER.....	AMOCO PRODUCTION CO.			SUN OIL CO.		SUN OIL CO.	
COMPLETED.....	03/18/76			03/06/49		09/07/68	
SAMPLED.....	04/13/79			06/16/49		09/19/69	
FORMATION.....	OLIG-FRIO			NOT GIVEN		OLIG-ECHOLS	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9333			4630		5919	
WELLHEAD PRESSURE, PSIG.....	900			2109		1648	
OPEN FLOW, MCFD.....	2034			4800		6050	
COMPONENT, MOLE PCT							
METHANE.....	94.2	-----		87.5	-----	91.6	-----
ETHANE.....	3.3	-----		4.2	-----	4.1	-----
PROPANE.....	0.8	-----		1.9	-----	1.7	-----
N-BUTANE.....	0.3	-----		0.4	-----	0.2	-----
ISOBUTANE.....	0.4	-----		0.6	-----	0.5	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.4	-----	0.3	-----
NITROGEN.....	0.4	-----		4.3	-----	1.0	-----
OXYGEN.....	0.1	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.1	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	TRACE	-----
HELIUM.....	TRACE	-----		0.02	-----	0.01	-----
HEATING VALUE.....	1081	-----		1079	-----	1079	-----
SPECIFIC GRAVITY.....	0.604	-----		0.643	-----	0.618	-----
		INDEX SAMPLE	8803 12046	INDEX SAMPLE	8804 4803	INDEX SAMPLE	8805 4833
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HIDALGO			HIDALGO		HIDALGO	
FIELD.....	ARROWHEAD			DORNA		DORNA	
WELL NAME.....	BENTSEN BROTHERS C NO. 1			JOHN JANCIK NO. 1		THOMAS UNIT NO. 1	
LOCATION.....	EL BENADITO GRANT A-68			SANTA ANA GRANT NO. 72		SEC. 19, LOT 12, ALAMO SUBD.	
OWNER.....	SUN OIL CO.			SINCLAIR OIL & GAS CO.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	11/25/67			--/--/49		10/18/49	
SAMPLED.....	09/19/69			11/24/49		01/04/50	
FORMATION.....	OLIG-VICKSBURG			OLIG-FRIO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	11942			6556		6551	
WELLHEAD PRESSURE, PSIG.....	7498			2542		3088	
OPEN FLOW, MCFD.....	16000			68000		19300	
COMPONENT, MOLE PCT							
METHANE.....	87.2	-----		93.7	-----	91.2	-----
ETHANE.....	5.9	-----		0.6	-----	3.6	-----
PROPANE.....	1.9	-----		0.6	-----	1.0	-----
N-BUTANE.....	0.3	-----		0.3	-----	0.2	-----
ISOBUTANE.....	0.5	-----		0.3	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.3	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	0.2	-----
NITROGEN.....	1.6	-----		0.5	-----	2.5	-----
OXYGEN.....	0.1	-----		0.1	-----	0.6	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	2.0	-----		0.2	-----	0.2	-----
HELIUM.....	0.01	-----		0.00	-----	0.01	-----
HEATING VALUE.....	1084	-----		1084	-----	1047	-----
SPECIFIC GRAVITY.....	0.650	-----		0.607	-----	0.615	-----
		INDEX SAMPLE	8806 10540	INDEX SAMPLE	8807 13561	INDEX SAMPLE	8808 14256
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HIDALGO			HIDALGO		HIDALGO	
FIELD.....	EDINBURG, S			ELSA S		ELSA S	
WELL NAME.....	WILLIAM E. BEANE NO. 1			WILLIAM E. BEANE NO. 1-U		DIERICH NO. 1	
LOCATION.....	1-1/2 MI. S OF EDINBURG			SEC 156 LLANO GRANDE GRANT A54		LLANO GRANDE GRANT A-54	
OWNER.....	TENNECO OIL CO.			SUN OIL CO.		J. H. HUBER CORP.	
COMPLETED.....	--/--/00			06/23/71		04/30/73	
SAMPLED.....	04/26/65			03/05/73		02/09/75	
FORMATION.....	NOT GIVEN			OLIG-FRIO		OLIG-FRIO F-7400	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	NOT GIVEN			7170		7384	
WELLHEAD PRESSURE, PSIG.....	7450			2866		3168	
OPEN FLOW, MCFD.....	NOT GIVEN			5900		7600	
COMPONENT, MOLE PCT							
METHANE.....	91.0	-----		95.2	-----	95.8	-----
ETHANE.....	4.2	-----		2.7	-----	2.6	-----
PROPANE.....	1.3	-----		0.6	-----	0.3	-----
N-BUTANE.....	0.4	-----		0.2	-----	0.1	-----
ISOBUTANE.....	0.4	-----		0.2	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.6	-----		0.2	-----	0.1	-----
NITROGEN.....	1.3	-----		0.0	-----	0.6	-----
OXYGEN.....	0.4	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.1	-----	0.1	-----
HELIUM.....	TRACE	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1101	-----		1053	-----	1043	-----
SPECIFIC GRAVITY.....	0.628	-----		0.588	-----	0.585	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8809 14257	INDEX SAMPLE	8810 16460	INDEX SAMPLE	8811 15514
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HIDALGO			HIDALGO		HIDALGO	
FIELD.....	ELSA S			GUADALUPE		MARGILL	
WELL NAME.....	DIETRICH NO. 1			WOODS CHRISTIAN NO. 5		RIO FARMS NO. 2	
LOCATION.....	LLANO GRANDE GRANT A-54			SAN RAMON GRANT, A-62		LOT 69 SEC. 13, NTL&I SUBD.	
OWNER.....	J. HUBER CORP.			TENNECO OIL EXPL. & PROD. CO		ENERGY RESERVES GROUP, INC.	
COMPLETED.....	04/30/73			03/11/82		09/24/77	
SAMPLED.....	02/09/75			03/02/82		11/24/75	
FORMATION.....	OLIG-FR10 7250			OLIG-VICKSBURG		OLIG-FR10	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7242			12137		8860	
WELLHEAD PRESSURE, PSIG.....	2950			7765		3650	
OPEN FLOW, MCFD.....	7600			2500		4000	
COMPONENT, MOLE PCT							
METHANE.....	95.8	-----		88.5	-----	96.2	-----
ETHANE.....	2.6	-----		6.2	-----	2.2	-----
PROPANE.....	0.5	-----		2.2	-----	0.3	-----
N-BUTANE.....	0.1	-----		0.6	-----	0.0	-----
ISOBUTANE.....	0.2	-----		0.2	-----	0.0	-----
N-PENTANE.....	TRACE	-----		0.3	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		0.3	-----	0.0	-----
NITROGEN.....	0.6	-----		0.6	-----	1.1	-----
OXYGEN.....	0.0	-----		0.0	-----	0.3	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.0	-----	0.4	-----
HELIUM.....	0.01	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	1045	-----		1155	-----	1023	-----
SPECIFIC GRAVITY.....	0.583	-----		0.650	-----	0.578	-----
		INDEX SAMPLE	8812 5055	INDEX SAMPLE	8813 12000	INDEX SAMPLE	8814 13864
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HIDALGO			HIDALGO		HIDALGO	
FIELD.....	HIDALGO			HIDALGO		JAVELINA	
WELL NAME.....	EL TEXANO LAND CO. NO. 1			SAVAGE B UNIT NO. 2		LAND & TRUST CO. NO. 8	
LOCATION.....	PORCION 64, A-41			FRANCIS GUAJARDO PORCION A38		DAVID DAVIS SUR. A-135	
OWNER.....	TEXACO			UNION PRODUCING CO.		SHELL OIL CO.	
COMPLETED.....	02/26/51			08/02/68		04/05/72	
SAMPLED.....	06/22/51			08/18/69		01/14/73	
FORMATION.....	OLIG-FR10			EOCE-HACKNEY		OLIG-VICKSBURG	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6240			6560		11282	
WELLHEAD PRESSURE, PSIG.....	2899			600		7875	
OPEN FLOW, MCFD.....	7200			400		53000	
COMPONENT, MOLE PCT							
METHANE.....	92.9	-----		92.3	-----	89.7	-----
ETHANE.....	3.8	-----		3.5	-----	6.0	-----
PROPANE.....	1.1	-----		1.2	-----	1.9	-----
N-BUTANE.....	0.2	-----		0.3	-----	0.4	-----
ISOBUTANE.....	0.5	-----		0.6	-----	0.7	-----
N-PENTANE.....	0.1	-----		0.7	-----	0.2	-----
ISOPENTANE.....	0.0	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	0.3	-----
NITROGEN.....	0.9	-----		0.0	-----	0.3	-----
OXYGEN.....	0.1	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.3	-----
HELIUM.....	0.02	-----		0.01	-----	TRACE	-----
HEATING VALUE.....	1077	-----		112	-----	1154	-----
SPECIFIC GRAVITY.....	0.609	-----		0.624	-----	0.639	-----
		INDEX SAMPLE	8815 12587	INDEX SAMPLE	8816 12588	INDEX SAMPLE	8817 12589
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HIDALGO			HIDALGO		HIDALGO	
FIELD.....	JEFFRESS			JEFFRESS		JEFFRESS	
WELL NAME.....	F. D. KIRKBRIDE SUR. 488			G. D. ZANORA ST. OF TEX NO.1		PETER VAN SCHERPE JR., NO. 2	
LOCATION.....	COASTAL STATES GAS PROD. CO.			G. D. PARCHMAN SUR. 883		OLIG-6300 FT. SAND	
OWNER.....	COASTAL STATES GAS PROD. CO.			COASTAL STATES GAS PROD. CO.		COASTAL STATES GAS PROD. CO.	
COMPLETED.....	04/14/69			09/15/69		05/15/69	
SAMPLED.....	04/14/69			12/17/70		12/17/70	
FORMATION.....	OLIG-VICKSBURG U			OLIG-VICKSBURG T		OLIG-6300 FT. SAND	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	11318			9694		6298	
WELLHEAD PRESSURE, PSIG.....	8298			6215		3540	
OPEN FLOW, MCFD.....	37800			14000		9400	
COMPONENT, MOLE PCT							
METHANE.....	88.6	-----		90.6	-----	54.5	-----
ETHANE.....	5.9	-----		5.6	-----	3.4	-----
PROPANE.....	1.8	-----		1.8	-----	1.2	-----
N-BUTANE.....	0.2	-----		0.6	-----	0.6	-----
ISOBUTANE.....	0.6	-----		0.6	-----	0.6	-----
N-PENTANE.....	0.0	-----		0.1	-----	0.3	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.3	-----
NITROGEN.....	0.9	-----		0.6	-----	20.0	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	0.2	-----
HYDROGEN.....	0.0	-----		0.0	-----	8.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.8	-----		0.1	-----	10.7	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	1086	-----		1117	-----	744	-----
SPECIFIC GRAVITY.....	0.639	-----		0.628	-----	0.766	-----
		INDEX SAMPLE	8818 12564	INDEX SAMPLE	8819 12566	INDEX SAMPLE	8820 14575
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HIDALGO			HIDALGO		HIDALGO	
FIELD.....	LA BLANCA			LA BLANCA		LA REFORMA	
WELL NAME.....	LA BLANCA GAS UNIT NO. 26			LA BLANCA GAS UNIT H-26		A. GUERRA "B" NO. 5	
LOCATION.....	LA BLANCA SUBD.			LA BLANCA SUBD.		SAN JOSE GRANT A-575	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		CHAMPLIN PETROLEUM CO.	
COMPLETED.....	01/26/69			01/26/69		10/01/74	
SAMPLED.....	11/04/70			11/04/70		02/03/76	
FORMATION.....	OLIG-FR10			OLIG-FR10		OLIG-FR10	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7184			6587		6800	
WELLHEAD PRESSURE, PSIG.....	2650			2650		1812	
OPEN FLOW, MCFD.....	3300			26500		4048	
COMPONENT, MOLE PCT							
METHANE.....	95.0	-----		93.0	-----	91.1	-----
ETHANE.....	2.9	-----		3.7	-----	5.2	-----
PROPANE.....	0.6	-----		1.0	-----	1.9	-----
N-BUTANE.....	0.1	-----		0.1	-----	0.4	-----
ISOBUTANE.....	0.3	-----		0.1	-----	0.6	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.0	-----		TRACE	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.1	-----
NITROGEN.....	0.6	-----		1.1	-----	0.3	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.2	-----
HELIUM.....	0.01	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1062	-----		1073	-----	1117	-----
SPECIFIC GRAVITY.....	0.593	-----		0.605	-----	0.626	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8821 SAMPLE 4374			INDEX 8822 SAMPLE 4609			INDEX 8823 SAMPLE 13127		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HIDALGO		HIDALGO			HIDALGO		
FIELD.....	LOS INDIOS		LOS INDIOS			LOS INDIOS		
WELL NAME.....	RICHARD KING ESTATE NO. 3		GOLDSTON NO. 10			W. L. GOLDSTON NO. 8-18		
LOCATION.....	NOT GIVEN		NOT GIVEN			SANTA ANITA GRANT A-53		
OWNER.....	CHICAGO CORP.		CHICAGO CORP., ET AL.			CHAMPLIN PETROLEUM CO.		
COMPLETED.....	06/11/47		03/19/48			03/06/71		
SAMPLED.....	11/11/47		10/05/48			12/21/71		
FORMATION.....	OLIG-VICKSBURG		OLIG-FRIO			OLIG-FRIO UF-50		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	9345		6486			4216		
WELLHEAD PRESSURE, PSIG.....	9970		2735			1790		
OPEN FLOW, MCFD.....	1325		2800			10000		
COMPONENT, MOLE PCT								
METHANE.....	93.1	-----	89.0	-----		93.9	-----	
ETHANE.....	6.3	-----	10.1	-----		2.8	-----	
PROPANE.....	---	-----	---	-----		0.8	-----	
N-BUTANE.....	---	-----	---	-----		0.2	-----	
ISOBUTANE.....	---	-----	---	-----		0.3	-----	
N-PENTANE.....	---	-----	---	-----		0.1	-----	
ISOPENTANE.....	---	-----	---	-----		0.0	-----	
CYCLOPENTANE.....	---	-----	---	-----		0.1	-----	
HEXANES PLUS.....	---	-----	---	-----		0.3	-----	
NITROGEN.....	0.1	-----	0.5	-----		1.4	-----	
OXYGEN.....	0.3	-----	0.3	-----		0.2	-----	
ARGON.....	---	-----	---	-----		TRACE	-----	
HYDROGEN.....	---	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE**.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.1	-----		0.1	-----	
HELIUM.....	0.01	-----	0.01	-----		0.01	-----	
HEATING VALUE.....	1056	-----	1083	-----		1062	-----	
SPECIFIC GRAVITY.....	0.590	-----	0.609	-----		0.604	-----	

INDEX 8824 SAMPLE 5124			INDEX 8825 SAMPLE 5006			INDEX 8826 SAMPLE 10681		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HIDALGO		HIDALGO			HIDALGO		
FIELD.....	LOS TORITOS		MCALLEN			MCALLEN		
WELL NAME.....	WILLIAM BREWSTER NO. 1		PEARL KEIRN NO. 1			MCALLEN F.W. NO. 39		
LOCATION.....	NOT GIVEN		LOT 12, BLK. 7, PORCION 64			LOT 2, BLK. 15, S&P SUBD.		
OWNER.....	TAYLOR REFINING CO.		TAYLOR REFINING CO.			TENNECO OIL CO.		
COMPLETED.....	05/16/51		10/03/50			09/27/65		
SAMPLED.....	11/12/51		02/09/51			07/26/66		
FORMATION.....	OLIG-FRIO		OLIG-FRIO M			EOCC-MARKS		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	6745		8750			10432		
WELLHEAD PRESSURE, PSIG.....	3100		3625			7705		
OPEN FLOW, MCFD.....	12000		15000			30500		
COMPONENT, MOLE PCT								
METHANE.....	95.4	-----	92.9	-----		94.3	-----	
ETHANE.....	2.5	-----	4.3	-----		3.4	-----	
PROPANE.....	0.7	-----	0.5	-----		1.0	-----	
N-BUTANE.....	0.2	-----	0.4	-----		0.2	-----	
ISOBUTANE.....	0.2	-----	0.2	-----		0.3	-----	
N-PENTANE.....	0.1	-----	0.0	-----		0.1	-----	
ISOPENTANE.....	0.0	-----	0.2	-----		TRACE	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.2	-----		0.2	-----	
NITROGEN.....	0.7	-----	0.0	-----		0.4	-----	
OXYGEN.....	0.1	-----	TRACE	-----		0.0	-----	
ARGON.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE**.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.2	-----		TRACE	-----	
HELIUM.....	0.01	-----	TRACE	-----		0.03	-----	
HEATING VALUE.....	1056	-----	1100	-----		1074	-----	
SPECIFIC GRAVITY.....	0.590	-----	0.612	-----		0.600	-----	

INDEX 8827 SAMPLE 13862			INDEX 8828 SAMPLE 16090			INDEX 8829 SAMPLE 13863		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HIDALGO		HIDALGO			HIDALGO		
FIELD.....	MCALLEN RANCH		MCALLEN RANCH			MCALLEN RANCH		
WELL NAME.....	A. W. MCALLEN NO. 32		A. W. BEAULINE NO. 3			T. H. THESIS NO. 1		
LOCATION.....	SAN RAMON GRANT		SANTA ANITA GRANT A-63			SEC. 6, LGE. 2, NEWMAN'S SUB		
OWNER.....	SHELL OIL CO.		SUN GAS CO.			SHELL OIL CO.		
COMPLETED.....	08/30/72		---/---/00			03/04/72		
SAMPLED.....	01/14/73		10/13/69			01/14/74		
FORMATION.....	OLIG-VICKSBURG		OLIG-VICKSBURG			OLIG-VICKSBURG		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	2398		13125			12081		
WELLHEAD PRESSURE, PSIG.....	2436		NOT GIVEN			9140		
OPEN FLOW, MCFD.....	20500		7000			63000		
COMPONENT, MOLE PCT								
METHANE.....	89.0	-----	92.0	-----		90.7	-----	
ETHANE.....	5.3	-----	5.0	-----		5.6	-----	
PROPANE.....	2.2	-----	1.2	-----		1.7	-----	
N-BUTANE.....	0.5	-----	0.3	-----		0.3	-----	
ISOBUTANE.....	0.8	-----	0.6	-----		0.6	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	0.3	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.3	-----	0.2	-----		0.2	-----	
NITROGEN.....	0.5	-----	0.6	-----		0.3	-----	
OXYGEN.....	0.0	-----	0.1	-----		0.0	-----	
ARGON.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE**.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.2	-----		0.2	-----	
HELIUM.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEATING VALUE.....	1148	-----	1100	-----		1117	-----	
SPECIFIC GRAVITY.....	0.646	-----	0.618	-----		0.626	-----	

INDEX 8830 SAMPLE 5862			INDEX 8831 SAMPLE 14581			INDEX 8832 SAMPLE 10168		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HIDALGO		HIDALGO			HIDALGO		
FIELD.....	MISSION W		MONTE CRISTO			MONTE CRISTO E		
WELL NAME.....	RUTH N. JARED, ET AL. NO. 1		HAMMAN RANCH NO. 5			HAMMAN RANCH NO. 1		
LOCATION.....	NOT GIVEN		SAN SALVADOR DEL TULE GRANT			SALVADOR DELTULE GRANT A-290		
OWNER.....	HOUSTON OIL CO. OF TEXAS		HOUSTON OIL CO.			TENNECO OIL CO.		
COMPLETED.....	05/29/55		02/27/74			12/20/63		
SAMPLED.....	06/14/55		02/07/76			09/28/65		
FORMATION.....	OLIG-FRIO		OLIG-VICKSBURG			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8267		9061			9500		
WELLHEAD PRESSURE, PSIG.....	3488		6425			2850		
OPEN FLOW, MCFD.....	2350		12700			140500		
COMPONENT, MOLE PCT								
METHANE.....	93.0	-----	97.5	-----		92.5	-----	
ETHANE.....	4.2	-----	1.5	-----		4.5	-----	
PROPANE.....	0.1	-----	0.4	-----		0.4	-----	
N-BUTANE.....	0.3	-----	0.1	-----		0.3	-----	
ISOBUTANE.....	0.5	-----	0.2	-----		0.4	-----	
N-PENTANE.....	0.2	-----	TRACE	-----		0.1	-----	
ISOPENTANE.....	0.0	-----	TRACE	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.4	-----	TRACE	-----		0.2	-----	
NITROGEN.....	0.2	-----	0.3	-----		0.4	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.0	-----	
ARGON.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE**.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	TRACE	-----		TRACE	-----	
HELIUM.....	0.01	-----	TRACE	-----		TRACE	-----	
HEATING VALUE.....	1106	-----	1035	-----		1101	-----	
SPECIFIC GRAVITY.....	0.616	-----	0.572	-----		0.614	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8833 SAMPLE 5309			INDEX 8834 SAMPLE 5290			INDEX 8835 SAMPLE 13871		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HIDALGO		HIDALGO			HIDALGO		
FIELD.....	PENITAS		PHARR			SAL-DEL-REY		
WELL NAME.....	TEMPLE W- WEST NO. 1		LESTER DAWLEY UNIT NO. 1			H. SCHALEBEN NO. 1		
LOCATION.....	PORTIONS 73-74-75		LOT 8, BLK. 13			NOT GIVEN		
OWNER.....	HOUSTON OIL CO. OF TEXAS		TAYLOR OIL & GAS CO.			GEORGE MITCHELL & ASSOC. INC		
COMPLETED.....	03/04/52		05/25/52			09/16/71		
SAMPLED.....	08/04/52		10/10/52			01/18/74		
FORMATION.....	OLIG-FRIO		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5994		9734			8031		
WELLHEAD PRESSURE, PSIG.....	2488		7815			2940		
OPEN FLOW, MCFD.....	63000		43500			7800		
COMPONENT, MOLE PCT								
METHANE.....	82.1	-----	93.4	-----		96.0	-----	
ETHANE.....	2.8	-----	4.0	-----		2.3	-----	
PROPANE.....	0.7	-----	0.9	-----		0.4	-----	
N-BUTANE.....	0.1	-----	0.2	-----		TRACE	-----	
ISOBUTANE.....	0.2	-----	0.4	-----		0.2	-----	
N-PENTANE.....	0.1	-----	0.2	-----		TRACE	-----	
ISOPENTANE.....	0.0	-----	0.0	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.3	-----		0.1	-----	
NITROGEN.....	10.7	-----	0.4	-----		0.9	-----	
OXYGEN.....	2.5	-----	TRACE	-----		0.1	-----	
ARGON.....	0.1	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.4	-----	0.1	-----		TRACE	-----	
HELIUM.....	0.01	-----	TRACE	-----		0.01	-----	
HEATING VALUE.....	919	-----	1089	-----		1036	-----	
SPECIFIC GRAVITY.....	0.646	-----	0.608	-----		0.579	-----	
INDEX 8836 SAMPLE 7261			INDEX 8837 SAMPLE 13147			INDEX 8838 SAMPLE 13148		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HIDALGO		HIDALGO			HIDALGO		
FIELD.....	SANTA RITA		SANTILLANA S			SANTILLANA S		
WELL NAME.....	STATE TRACT 10, NO. 1		A. E. GUERRA NO. 5U			A. E. GUERRA NO. 5L		
LOCATION.....	NOT GIVEN		SANTA ANITA GRANT A-63			SANTA ANITA GRANT A-63		
OWNER.....	MOODY PROPERTIES		TEXACO INC.			TEXACO INC.		
COMPLETED.....	03/18/59		02/09/70			02/09/70		
SAMPLED.....	10/21/59		02/10/72			02/10/72		
FORMATION.....	OLIG-FRIO		OLIG-LF-3 SAND			OLIG-S-8		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	6052		7000			8500		
WELLHEAD PRESSURE, PSIG.....	2497		1350			3160		
OPEN FLOW, MCFD.....	16200		5013			5852		
COMPONENT, MOLE PCT								
METHANE.....	95.9	-----	92.9	-----		92.3	-----	
ETHANE.....	4.4	-----	4.3	-----		4.3	-----	
PROPANE.....	0.2	-----	0.9	-----		1.4	-----	
N-BUTANE.....	TRACE	-----	0.4	-----		0.4	-----	
ISOBUTANE.....	0.3	-----	0.4	-----		0.6	-----	
N-PENTANE.....	TRACE	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	0.1	-----	0.0	-----		0.1	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.5	-----		0.2	-----	
NITROGEN.....	0.7	-----	1.7	-----		0.6	-----	
OXYGEN.....	0.0	-----	0.2	-----		0.0	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.1	-----		0.1	-----	
HELIUM.....	TRACE	-----	0.01	-----		0.01	-----	
HEATING VALUE.....	1039	-----	1080	-----		1105	-----	
SPECIFIC GRAVITY.....	0.581	-----	0.618	-----		0.620	-----	
INDEX 8839 SAMPLE 11185			INDEX 8840 SAMPLE 15453			INDEX 8841 SAMPLE 15454		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HIDALGO		HIDALGO			HIDALGO		
FIELD.....	SHEPHERD		SHEPHERD			SHEPHERD		
WELL NAME.....	HUSBAND UNIT NO. 2-LT		WESSLING NO. 1			WESSLING NO. 1		
LOCATION.....	NARCISCO CAVASOS SUR. A-30		LOT 260, KELLY'S SUBD.			LOT 260, KELLY'S SUBD.		
OWNER.....	UNION PRODUCING CO.		EDWIN L. COX			EDWIN L. COX		
COMPLETED.....	10/28/66		04/17/77			04/17/77		
SAMPLED.....	10/23/67		10/25/78			10/25/78		
FORMATION.....	EOCE-CRUTCHFIELD		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	6919		7540			7307		
WELLHEAD PRESSURE, PSIG.....	1015		2920			1550		
OPEN FLOW, MCFD.....	1160		3100			1900		
COMPONENT, MOLE PCT								
METHANE.....	93.5	-----	93.1	-----		92.9	-----	
ETHANE.....	3.6	-----	3.8	-----		3.6	-----	
PROPANE.....	0.9	-----	0.2	-----		1.4	-----	
N-BUTANE.....	0.1	-----	0.3	-----		0.3	-----	
ISOBUTANE.....	0.3	-----	0.4	-----		0.4	-----	
N-PENTANE.....	0.3	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	TRACE	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.4	-----	0.2	-----		0.2	-----	
NITROGEN.....	0.5	-----	0.6	-----		0.6	-----	
OXYGEN.....	0.0	-----	0.1	-----		TRACE	-----	
ARGON.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.1	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.2	-----		0.2	-----	
HELIUM.....	0.01	-----	TRACE	-----		0.01	-----	
HEATING VALUE.....	1089	-----	1089	-----		1089	-----	
SPECIFIC GRAVITY.....	0.609	-----	0.612	-----		0.611	-----	
INDEX 8842 SAMPLE 17871			INDEX 8843 SAMPLE 14916			INDEX 8844 SAMPLE 4338		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HIDALGO		HIDALGO			HIDALGO		
FIELD.....	TEXAS GARDENS		WHITTET			WHITTET		
WELL NAME.....	ARCO CNG NO. 1		CAMPBELL UNIT NO. 1			J. M. DOSS NO. 1		
LOCATION.....	Y. RAMIREZ SUR. 79		2 1/4 N. CALLEN			XAVIER ZANDRA A-77		
OWNER.....	ARCO OIL & GAS CO.		MCCORMICK OIL & GAS CORP.			TEXAS CO.		
COMPLETED.....	11/07/84		10/20/75			05/29/47		
SAMPLED.....	10/15/88		02/21/77			07/17/57		
FORMATION.....	PERM-R SAND		OLIG-FRIO			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8351		7226			3630		
WELLHEAD PRESSURE, PSIG.....	1573		2232			1490		
OPEN FLOW, MCFD.....	1102		3600			18000		
COMPONENT, MOLE PCT								
METHANE.....	95.4	-----	93.7	-----		90.6	-----	
ETHANE.....	2.8	-----	3.3	-----		6.2	-----	
PROPANE.....	0.5	-----	1.0	-----		---	-----	
N-BUTANE.....	0.1	-----	0.3	-----		---	-----	
ISOBUTANE.....	0.1	-----	0.4	-----		---	-----	
N-PENTANE.....	0.1	-----	0.2	-----		---	-----	
ISOPENTANE.....	0.0	-----	0.1	-----		---	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		---	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		---	-----	
NITROGEN.....	0.2	-----	0.6	-----		1.9	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.4	-----	
ARGON.....	TRACE	-----	0.0	-----		---	-----	
HYDROGEN.....	TRACE	-----	0.0	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		---	-----	
CARBON DIOXIDE.....	0.4	-----	0.1	-----		0.9	-----	
HELIUM.....	TRACE	-----	0.01	-----		0.01	-----	
HEATING VALUE.....	1055	-----	1081	-----		1029	-----	
SPECIFIC GRAVITY.....	0.589	-----	0.605	-----		0.604	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8845 SAMPLE 4746			INDEX 8846 SAMPLE 15985			INDEX 8847 SAMPLE 9085		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HIDALGO		HIDALGO			HOCKLEY		
FIELD.....	WILDCAT		WILDCAT			ANTON		
WELL NAME.....	CARLSON UNIT NO. 1		BARBARA LIPS NO. 1			AARON COHEN NO. 1		
LOCATION.....	LOT 7, BLK. 1, MCCALL SUR.		15 W. S RACHAL			SEC. 112, BLK. A, THOMPSON SUR.		
OWNER.....	MAGNOLIA PETROLEUM CO.		HILLIARD OIL & GAS, INC.			AARON COHEN ESTATE		
COMPLETED.....	01/04/49		05/16/78			--/--/60		
SAMPLED.....	05/20/49		05/18/80			09/20/63		
FORMATION.....	OLIG-FR10		OLIG-VICKSBURG			TRIA-		
GEOLOGIC PROVINCE CODE.....	220		220			430		
DEPTH, FEET.....	7580		15163			490		
WELLHEAD PRESSURE, PSIG.....	2954		12400			42		
OPEN FLOW, MCFD.....	15		10500			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	93.5		89.8			0.1		
ETHANE.....	3.8		2.9			TRACE		
PROPANE.....	1.1		1.4			0.1		
N-BUTANE.....	0.3		0.7			0.0		
ISOBUTANE.....	0.0		1.2			TRACE		
N-PENTANE.....	0.1		0.6			0.0		
ISOPENTANE.....	0.1		0.4			0.0		
CYCLOPENTANE.....	TRACE		0.2			TRACE		
HEXANES PLUS.....	0.2		1.4			TRACE		
NITROGEN.....	0.5		0.1			99.5		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.1		0.0			0.0		
CARBON DIOXIDE.....	0.1		1.2			TRACE		
HELIUM.....	TRACE		TRACE			0.04		
HEATING VALUE.....	1078					4		
SPECIFIC GRAVITY.....	0.606		0.680			0.966		
INDEX 8848 SAMPLE 9086			INDEX 8849 SAMPLE 10780			INDEX 8850 SAMPLE 10781		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HOCKLEY		HOOD			HOOD		
FIELD.....	ANTON		BLACK RANCH			BLACK RANCH		
WELL NAME.....	AARON COHEN NO. 1		BLACK RANCH NO. 1			BLACK RANCH NO. 4		
LOCATION.....	SEC. 112, BLK. A, THOMPSON SUR		JOHN SEALY SUR.			J. W. ROBINSON SUR.		
OWNER.....	AARON COHEN ESTATE		ESTATE OF JOHN R. BLACK			ESTATE OF JOHN R. BLACK		
COMPLETED.....	09/01/60		06/14/66			08/18/66		
SAMPLED.....	09/21/63		11/21/66			11/21/66		
FORMATION.....	TRIA-		PENN-CONGLOMERATE			PENN-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	430		415			415		
DEPTH, FEET.....	490		1295			1370		
WELLHEAD PRESSURE, PSIG.....	42		600			523		
OPEN FLOW, MCFD.....	NOT GIVEN		12200			3100		
COMPONENT, MOLE PCT.....								
METHANE.....	0.1		89.2			86.8		
ETHANE.....	TRACE		3.9			5.0		
PROPANE.....	0.0		1.8			2.5		
N-BUTANE.....	0.0		0.6			0.6		
ISOBUTANE.....	0.0		0.0			0.5		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			0.1		
NITROGEN.....	98.9		4.0			4.0		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.7		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.22		0.34			0.22		
HEATING VALUE.....	1080		1040			1080		
SPECIFIC GRAVITY.....	0.969		0.618			0.646		
INDEX 8851 SAMPLE 10782			INDEX 8852 SAMPLE 10783			INDEX 8853 SAMPLE 15358		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HOOD		HOOD			HOOD		
FIELD.....	BLACK RANCH		BLACK RANCH			BRATTEN		
WELL NAME.....	BLACK RANCH NO. 5		BLACK RANCH NO. 6			BRATTEN RANCH NO. 2		
LOCATION.....	W. HILSPAUGH SUR.		W. HILSPAUGH SUR.			STANBURY SUR. A-498		
OWNER.....	ESTATE OF JOHN R. BLACK		ESTATE OF JOHN R. BLACK			GULF OIL EXPL. & PROD. CO.		
COMPLETED.....	08/25/66		09/24/66			01/16/77		
SAMPLED.....	11/21/66		11/21/66			08/25/78		
FORMATION.....	PENN-CONGLOMERATE		PENN-CONGLOMERATE			PENN-MARBLE FALLS		
GEOLOGIC PROVINCE CODE.....	415		415			415		
DEPTH, FEET.....	1304		802			4760		
WELLHEAD PRESSURE, PSIG.....	310		330			1630		
OPEN FLOW, MCFD.....	5200		2000			2375		
COMPONENT, MOLE PCT.....								
METHANE.....	86.2		88.4			66.3		
ETHANE.....	5.5		4.2			14.5		
PROPANE.....	2.7		2.0			8.5		
N-BUTANE.....	0.6		0.8			2.9		
ISOBUTANE.....	0.1		0.1			1.0		
N-PENTANE.....	0.2		0.0			1.0		
ISOPENTANE.....	0.1		0.0			0.3		
CYCLOPENTANE.....	TRACE		0.0			1.1		
HEXANES PLUS.....	0.1		0.0			2.2		
NITROGEN.....	3.8		4.1			0.1		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		0.1			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.24		0.25			0.12		
HEATING VALUE.....	1093		1050			1460		
SPECIFIC GRAVITY.....	0.652		0.626			0.863		
INDEX 8854 SAMPLE 15359			INDEX 8855 SAMPLE 15361			INDEX 8856 SAMPLE 12432		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HOOD		HOOD			HOPKINS		
FIELD.....	BRATTEN		MCINTOSH			COMO		
WELL NAME.....	BRATTEN RANCH NO. 4		W. D. WILKERSON NO. 1			DERMONT FOSTER NO. 5		
LOCATION.....	J. DOANE SUR. A-145		MCKINNEY WILLIAMS SUR. A-411			5 1/2 MI. S OF COMO		
OWNER.....	GULF OIL EXPL. & PROD. CO.		GULF OIL EXPL. & PROD. CO.			DELTA DRILLING CO.		
COMPLETED.....	05/16/77		04/27/77			05/18/68		
SAMPLED.....	08/25/78		08/25/78			10/--/70		
FORMATION.....	PENN-BIG SALINE		PENN-BIG SALINE			CRET-GLORY		
GEOLOGIC PROVINCE CODE.....	415		415			260		
DEPTH, FEET.....	4636		4864			8006		
WELLHEAD PRESSURE, PSIG.....	1478		1657			1200		
OPEN FLOW, MCFD.....	3650		7500			460		
COMPONENT, MOLE PCT.....								
METHANE.....	72.6		73.1			80.1		
ETHANE.....	13.0		12.2			7.2		
PROPANE.....	1.1		1.1			0.8		
N-BUTANE.....	1.0		2.0			0.8		
ISOBUTANE.....	1.1		1.2			1.0		
N-PENTANE.....	0.5		0.5			0.2		
ISOPENTANE.....	0.5		0.7			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.4		0.4			0.2		
NITROGEN.....	1.2		0.5			0.9		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.0			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			1.0		
HELIUM.....	0.09		0.09			0.03		
HEATING VALUE.....	1318		1322			1112		
SPECIFIC GRAVITY.....	0.775		0.781			0.695		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8857 SAMPLE 6874			INDEX 8858 SAMPLE 11847			INDEX 8859 SAMPLE 14799		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HOPKINS		HOPKINS			HOUSTON		
FIELD.....	SULPHUR BLUFF		WILDCAT			DECKER SWITCH		
WELL NAME.....	BASSHAM NO. 1		C. H. HAYES UNIT NO. 1			W. A. HOLCOMB NO. 1		
LOCATION.....	CRABT (A-154)		NW OF MT. VERNON			REFUGIO VALENZUELA SUR.		
OWNER.....	GRELLING ESTATE, ET AL.		COUCH OIL CO.			TEXAS CRUDE, INC.		
COMPLETED.....	03/29/58		--/--/00			10/30/74		
SAMPLED.....	11/19/58		04/26/69			10/07/76		
FORMATION.....	JURA-SHACKOVER		JURA-SHACKOVER			CRET-PETTIT		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	9324		9098			10413		
WELLHEAD PRESSURE, PSIG.....	2967		3148			5155		
OPEN FLOW, MCFD.....	14		127500			7729		
COMPONENT, MOLE PCT								
METHANE.....	54.4		37.8			97.2		
ETHANE.....	5.7		3.2			0.2		
PROPANE.....	2.1		1.3			TRACE		
N-BUTANE.....	0.0		0.7			0.0		
ISOBUTANE.....	0.5		0.4			0.0		
N-PENTANE.....	0.1		0.2			0.0		
ISOPENTANE.....	0.3		0.4			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.1		TRACE			0.0		
NITROGEN.....	30.7		49.1			0.7		
OXYGEN.....	0.2		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE**.....	0.3		0.0			0.0		
CARBON DIOXIDE.....	4.7		0.7			1.7		
HELIUM.....	0.10		0.12			0.01		
HEATING VALUE.....	772		537			988		
SPECIFIC GRAVITY.....	0.807		0.879			0.574		
INDEX 8860 SAMPLE 12959			INDEX 8861 SAMPLE 3762			INDEX 8862 SAMPLE 3665		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HOUSTON		HOUSTON			HOUSTON		
FIELD.....	FORT TRINIDAD		GRAPELAND			NAVARRO CROSSING		
WELL NAME.....	CRAWLEY NO. 1		FORD NEWMAN NO. 1			H. H. DAILEY & F. E. TAYLOR		
LOCATION.....	LOPEZ SUR. A-50		J. D. J. PROCELLE SUR.			J. G. THOMPSON LEAGUE		
OWNER.....	MORAN CORP.		LONG STAR PRODUCING CO.			JUNGLE OIL & REFINING CO.		
COMPLETED.....	02/16/70		01/16/42			06/24/38		
SAMPLED.....	08/18/71		04/04/44			09/11/43		
FORMATION.....	CRET-GLEN ROSE		CRET-WOODBINE			CRET-WOODBINE		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	10454		5879			5851		
WELLHEAD PRESSURE, PSIG.....	3725		2000			2240		
OPEN FLOW, MCFD.....	6000		21000			24100		
COMPONENT, MOLE PCT								
METHANE.....	68.2		67.6			92.8		
ETHANE.....	1.9		27.0			6.3		
PROPANE.....	8.7		---			---		
N-BUTANE.....	2.5		---			---		
ISOBUTANE.....	1.5		---			---		
N-PENTANE.....	0.6		---			---		
ISOPENTANE.....	0.4		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.4		---			---		
NITROGEN.....	1.6		4.0			0.1		
OXYGEN.....	TRACE		0.5			0.1		
ARGON.....	0.0		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE**.....	0.0		---			---		
CARBON DIOXIDE.....	1.2		0.9			0.7		
HELIUM.....	TRACE		0.00			TRACE		
HEATING VALUE.....	1372		1169			1053		
SPECIFIC GRAVITY.....	0.831		0.716			0.593		
INDEX 8863 SAMPLE 13462			INDEX 8864 SAMPLE 14786			INDEX 8865 SAMPLE 1319		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HOUSTON		HOUSTON			HOWARD		
FIELD.....	RUNNING DUKE		TRINITY			CHALK		
WELL NAME.....	DALLAS D. PETERS NO. 1		SOUTHLAND PAPER MILLS NO. 1			CHALK NO. 1		
LOCATION.....	STEPHEN ROGERS SUR. A-75		S. P. GLENN SUR. A-472			NOT GIVEN		
OWNER.....	AMOCO PRODUCTION CO.		ARMOUR PROPERTIES			MAGNOLIA PETROLEUM CO.		
COMPLETED.....	01/30/71		01/30/71			--/--/00		
SAMPLED.....	10/31/72		09/--/76			11/11/26		
FORMATION.....	CRET-RODESSA		CRET-WOODBINE			PERM-		
GEOLOGIC PROVINCE CODE.....	260		260			430		
DEPTH, FEET.....	9917		8562			1580		
WELLHEAD PRESSURE, PSIG.....	4180		3262			NOT GIVEN		
OPEN FLOW, MCFD.....	10300		15300			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	94.7		79.6			25.2		
ETHANE.....	1.3		3.4			65.1		
PROPANE.....	0.1		0.2			---		
N-BUTANE.....	0.1		0.2			---		
ISOBUTANE.....	0.2		0.1			---		
N-PENTANE.....	0.1		TRACE			---		
ISOPENTANE.....	0.0		TRACE			---		
CYCLOPENTANE.....	TRACE		TRACE			---		
HEXANES PLUS.....	0.1		TRACE			---		
NITROGEN.....	0.6		12.3			9.0		
OXYGEN.....	0.0		1.0			0.6		
ARGON.....	0.0		0.1			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE**.....	0.0		0.0			---		
CARBON DIOXIDE.....	2.4		2.2			0.1		
HELIUM.....	0.01		0.02			TRACE		
HEATING VALUE.....	1216		0.65			142		
SPECIFIC GRAVITY.....	0.599		0.665			0.918		
INDEX 8866 SAMPLE 2062			INDEX 8867 SAMPLE 2060			INDEX 8868 SAMPLE 2061		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HOWARD		HOWARD			HOWARD		
FIELD.....	CHALK		ROBERTS			ROBERTS		
WELL NAME.....	CHALK C. NO. 1		DORA ROBERTS NO. 7			DORA ROBERTS NO. 8		
LOCATION.....	SE. 1/4, BLK. 29, W&W SUR.		SE. 1/4, BLK. 29, W&W SUR.			SE. 1/4, BLK. 29, W&W SUR.		
OWNER.....	CONTINENTAL OIL CO.		CALIFORNIA CO.			CALIFORNIA CO.		
COMPLETED.....	--/--/00		07/24/29			11/19/29		
SAMPLED.....	06/19/30		06/19/30			06/16/30		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	1800		1798			2930		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	39.1		60.1			65.3		
ETHANE.....	52.5		28.2			21.7		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	7.9		11.0			11.6		
OXYGEN.....	0.5		0.5			0.8		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	---		---			---		
CARBON DIOXIDE.....	0.5		0.3			1.5		
HELIUM.....	0.05		0.03			0.08		
HEATING VALUE.....	1337		1114			1050		
SPECIFIC GRAVITY.....	0.853		0.746			0.725		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8869 SAMPLE 2064			INDEX 8870 SAMPLE 11704			INDEX 8871 SAMPLE 17670		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HOWARD		HOWARD			HOWARD		
FIELD.....	SNYDER		SURFACE SAMPLE			WILDCAT		
WELL NAME.....	M. H. DANIELS NO. 1		SAMPLE NO. 1			NELLIE SELLERS NO. 1		
LOCATION.....	SEC. 34, BLK. 30 T&P SUR.		816 SPRING, TEXAS			SEC. 146, BLK. 29, W&NW SUR.		
OWNER.....	MAGNOLIA PETROLEUM CO.		PIONEER NATURAL GAS CO.			BELNORTH PETROLEUM CORP.		
COMPLETED.....	08/20/25		--/--/00			--/--/84		
SAMPLED.....	06/18/30		12/13/68			05/11/85		
FORMATION.....	PENN-CLEARFORK		SURFACE			PENN-CANYON		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2640		NOT GIVEN			7415		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			2741		
COMPONENT, MOLE PCT								
METHANE.....	19.1		6.4			75.6		
ETHANE.....	77.2		0.0			8.9		
PROpane.....	---		0.0			6.0		
N-BUTANE.....	---		0.0			2.1		
ISOBUTANE.....	---		0.0			0.6		
N-PENTANE.....	---		0.0			0.6		
ISOPENTANE.....	---		0.0			0.8		
CYCLOPENTANE.....	---		0.0			0.3		
HEXANES PLUS.....	---		0.0			0.6		
NITROGEN.....	2.9		90.7			4.1		
OXYGEN.....	0.3		4.7			TRACE		
ARGON.....	---		0.0			0.0		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.9			0.4		
HELIUM.....	0.02		TRACE			0.11		
HEATING VALUE.....	1577		65			1274		
SPECIFIC GRAVITY.....	0.955		0.951			0.768		
INDEX 8872 SAMPLE 7910			INDEX 8873 SAMPLE 13537			INDEX 8874 SAMPLE 7969		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUNT		HUTCHINSON			HUTCHINSON		
FIELD.....	QUINLAN		BAR NINE			HANFORD		
WELL NAME.....	P. B. PAUL NO. 1		M. D. PRICE NO. 2			MATHEWS UNIT NO. 1		
LOCATION.....	NOT GIVEN		SEC. 1, BLK. 3, BS&F SUR.			SEC. 80, BLK. R, GB&CNG SUR.		
OWNER.....	PAUL C. TEAS		GULF OIL CO.- U.S.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	03/20/61		12/30/71			08/14/60		
SAMPLED.....	03/15/61		02/20/73			05/17/61		
FORMATION.....	JURA-SHACKOVER		PERM-COUNCIL GROVE			PENN-MORROW L		
GEOLOGIC PROVINCE CODE.....	260		440			440		
DEPTH, FEET.....	9012		3900			8529		
WELLHEAD PRESSURE, PSIG.....	9012		653			2017		
OPEN FLOW, MCFD.....	19000		2700			6250		
COMPONENT, MOLE PCT								
METHANE.....	40.2		66.3			91.1		
ETHANE.....	2.6		6.9			4.0		
PROpane.....	1.2		0.6			1.7		
N-BUTANE.....	0.7		1.3			0.5		
ISOBUTANE.....	0.7		0.7			0.4		
N-PENTANE.....	0.3		0.3			0.1		
ISOPENTANE.....	0.3		0.4			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		18.9			0.3		
NITROGEN.....	45.5		0.0			0.9		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.1		0.0			0.0		
CARBON DIOXIDE.....	8.0		TRACE			0.5		
HELIUM.....	0.10		0.24			0.10		
HEATING VALUE.....	0.78		1031			1097		
SPECIFIC GRAVITY.....	0.888		0.765			0.625		
INDEX 8875 SAMPLE 7971			INDEX 8876 SAMPLE 7296			INDEX 8877 SAMPLE 17874		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	HORIZON		HUTCH			HUTCHINSON		
WELL NAME.....	MATHEWS UNIT NO. 1		EFFIE HAE MEADOWS NO. 1			PRICE NO. 2		
LOCATION.....	SEC. 80, BLK. R, GB&CNG SUR.		SEC. 31, BLK. M21, TCRR SUR.			SEC. 26, BLK. M21, TCRR SUR.		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		CABOT CARBON CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	08/14/60		09/22/59			08/16/85		
SAMPLED.....	05/17/61		12/02/59			10/02/85		
FORMATION.....	PENN-CLEVELAND		PERM-GRANITE			PERM-WHITE DOLOMITE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	6618		5444			3333		
WELLHEAD PRESSURE, PSIG.....	1637		1331			425		
OPEN FLOW, MCFD.....	10000		18200			1005		
COMPONENT, MOLE PCT								
METHANE.....	91.2		63.8			77.0		
ETHANE.....	3.9		6.9			7.7		
PROpane.....	1.7		2.8			3.9		
N-BUTANE.....	0.5		0.7			1.3		
ISOBUTANE.....	0.4		0.1			0.6		
N-PENTANE.....	0.2		0.1			0.4		
ISOPENTANE.....	0.2		0.1			0.4		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.4		0.2			0.4		
NITROGEN.....	0.8		24.2			7.8		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.1			0.0		
CARBON DIOXIDE.....	0.4		0.1			0.1		
HELIUM.....	0.10		0.50			0.24		
HEATING VALUE.....	1110		899			1142		
SPECIFIC GRAVITY.....	0.630		0.741			0.720		
INDEX 8878 SAMPLE 5856			INDEX 8879 SAMPLE 6648			INDEX 8880 SAMPLE 6709		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	HUTCHINSON N		HUTCHINSON N			HUTCHINSON N		
WELL NAME.....	T. I. HARBOUR NO. 1		B. M. HOLT NO. 1			B. M. HOLT NO. 1		
LOCATION.....	SEC. 53, BLK. 5, T&NO SUR.		SEC. 51, BLK. 5, T&NO SUR.			SEC. 51, BLK. 5, T&NO SUR.		
OWNER.....	TEXAS CO.		TEXAS CO.			TEXACO INC.		
COMPLETED.....	11/24/54		12/05/57			12/05/57		
SAMPLED.....	06/10/55		06/19/58			--/--/00		
FORMATION.....	PENN-LIME		PENN-CLEVELAND			PENN-TONKAWA		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	6082		5875			4926		
WELLHEAD PRESSURE, PSIG.....	1592		1501			959		
OPEN FLOW, MCFD.....	3532		5783			1138		
COMPONENT, MOLE PCT								
METHANE.....	90.3		86.8			81.5		
ETHANE.....	4.2		5.8			3.2		
PROpane.....	0.6		0.8			2.0		
N-BUTANE.....	0.3		0.4			0.7		
ISOBUTANE.....	0.2		0.1			0.4		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.3		0.1			0.1		
NITROGEN.....	2.0		2.5			11.1		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.13		0.10			0.40		
HEATING VALUE.....	1094		1118			998		
SPECIFIC GRAVITY.....	0.628		0.650			0.665		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8881 SAMPLE 6556			INDEX 8882 SAMPLE 7215			INDEX 8883 SAMPLE 7871		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	JOHN CREEK		JOHN CREEK			JOHN CREEK		
WELL NAME.....	D. B. KIRK NO. 1		K. L. WEST ET AL. UNIT NO. 1			JONES L NO. 1		
LOCATION.....	SEC. 77, BLK. R, 68&CNG SUR.		SEC. 5			SEC. 1, 888&C SUR.		
OWNER.....	SUN OIL CO.		SINCLAIR OIL & GAS CO., ET A			PHILLIPS PETROLEUM CO.		
COMPLETED.....	01/07/58		09/07/58			12/24/60		
SAMPLED.....	04/15/58		09/15/59			02/23/61		
FORMATION.....	PENN-MORROW L		PENN-MORROW L			PENN-MORROW U		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	8172		8130			7278		
WELLHEAD PRESSURE, PSIG.....	1725		2073			2014		
OPEN FLOW, MCFD.....	4400		3800			9995		
COMPONENT, MOLE PCT								
METHANE.....	92.6		92.0			93.4		
ETHANE.....	3.9		3.9			3.3		
PROPANE.....	1.3		1.0			0.8		
N-BUTANE.....	0.5		0.4			0.3		
ISOBUTANE.....	0.1		0.3			0.4		
N-PENTANE.....	0.1		TRACE			0.1		
ISOPENTANE.....	0.2		0.4			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	0.6		1.9			0.8		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.4			0.4		
HELIUM.....	0.0		0.10			0.10		
HEATING VALUE.....	1089		1072			1072		
SPECIFIC GRAVITY.....	0.613		0.614			0.607		
INDEX 8884 SAMPLE 15998			INDEX 8885 SAMPLE 13511			INDEX 8886 SAMPLE 13512		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	LIPS W		MORSE SW			MORSE SW		
WELL NAME.....	PAITERSON 6-U. NO. 2		WADLEY NO. 4-3			PASCOE WOMBLE NO. 1-7		
LOCATION.....	SEC. 73, BLK. R, 68&CNG SUR.		SEC. 3, BLK. MC, H&OB SUR.			SEC. 7, BLK. 1, 888&C RR SUR		
OWNER.....	SUN OIL CO.		MCCULLOCH OIL CORP.			MCCULLOCH OIL CORP.		
COMPLETED.....	12/21/72		10/07/72			07/23/71		
SAMPLED.....	07/25/80		01/22/73			01/22/72		
FORMATION.....	PENN-CLEVELAND		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	6560		2948			3056		
WELLHEAD PRESSURE, PSIG.....	1532		400			400		
OPEN FLOW, MCFD.....	8500		2300			3800		
COMPONENT, MOLE PCT								
METHANE.....	82.7		71.8			67.4		
ETHANE.....	7.9		8.2			8.5		
PROPANE.....	4.3		5.0			4.7		
N-BUTANE.....	1.3		1.0			0.8		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.3		0.2			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	2.4		12.4			16.9		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		TRACE			0.1		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		TRACE			0.0		
CARBON DIOXIDE.....	0.2		TRACE			0.1		
HELIUM.....	0.13		0.56			0.90		
HEATING VALUE.....	1183		1065			1006		
SPECIFIC GRAVITY.....	0.690		0.721			0.734		
INDEX 8887 SAMPLE 14009			INDEX 8888 SAMPLE 14039			INDEX 8889 SAMPLE 13577		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	MORSE SW		MORSE SW			NOT GIVEN		
WELL NAME.....	CUNNINGHAM NO. 1		BARNES "B" NO. 4			JACKSON NO. A-1		
LOCATION.....	SEC. 8, BLK. 1, 888&C SUR.		SEC. 2, BLK. 1, 888&C SUR.			SEC. 7, BLK. R, 8&B SUR.		
OWNER.....	MCCULLOCH OIL CORP.		PHILLIPS PETROLEUM CO.			LEAR PETROLEUM CORP.		
COMPLETED.....	03/15/74		05/01/74			--/--/00		
SAMPLED.....	05/15/74		07/08/74			04/16/73		
FORMATION.....	PERM-NARHATON		PERM-WICHITA-ALBANY			PENN-MORROW L		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	5270		3012			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	2200		378			NOT GIVEN		
OPEN FLOW, MCFD.....	2800		2200			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.7		70.4			92.0		
ETHANE.....	6.6		8.1			3.9		
PROPANE.....	4.0		4.5			1.7		
N-BUTANE.....	1.1		0.8			0.4		
ISOBUTANE.....	0.5		0.4			0.3		
N-PENTANE.....	0.3		0.0			0.1		
ISOPENTANE.....	0.2		0.5			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		TRACE			0.1		
NITROGEN.....	13.8		14.3			0.8		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		0.1			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.4		
HELIUM.....	0.54		0.75			0.09		
HEATING VALUE.....	1039		1037			1091		
SPECIFIC GRAVITY.....	0.720		0.725			0.619		
INDEX 8890 SAMPLE 1392			INDEX 8891 SAMPLE 1410			INDEX 8892 SAMPLE 1412		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	INGERTON NO. 1		BIVINS B-5			INGERTON NO. 1		
LOCATION.....	SEC. 41, BLK. 47, H&TC SUR.		SEC. 88, BLK. 46, H&TC SUR.			SEC. 41, BLK. 47, H&TC SUR.		
OWNER.....	AMARILLO OIL CO.		AMARILLO OIL CO.			AMARILLO OIL CO.		
COMPLETED.....	--/--/00		03/16/27			07/05/27		
SAMPLED.....	05/19/27		06/24/27			07/12/27		
FORMATION.....	PERM-		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1195		2000			2550		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		408			190		
OPEN FLOW, MCFD.....	NOT GIVEN		70000			70000		
COMPONENT, MOLE PCT								
METHANE.....	6.5		63.5			56.0		
ETHANE.....	16.0		24.5			29.4		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	76.3		10.8			12.4		
OXYGEN.....	0.9		0.0			1.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.8			0.5		
HELIUM.....	0.22		0.88			0.43		
HEATING VALUE.....	353		1082			1094		
SPECIFIC GRAVITY.....	0.957		0.726			0.762		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8893 1542	INDEX SAMPLE	8894 1543	INDEX SAMPLE	8895 1676
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS B-4			BIVINS B-6		SANFORD NO. 1	
LOCATION.....	SEC. 13, BLK. Y-2, CB&CG SUR.			SEC. 90, BLK. 46, H&TC SUR.		SEC. 82, BLK. 46, H&TC SUR.	
OWNER.....	AMARILLO OIL CO.			AMARILLO OIL CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	10/--/25			09/16/27		--/--/00	
SAMPLED.....	11/04/27			11/04/27		09/18/28	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2305			2175		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	425			150		350	
OPEN FLOW, MCFD.....	81000			60000		60000	
COMPONENT, MOLE PCT							
METHANE.....	68.6			68.3		72.7	
ETHANE.....	20.9			21.2		19.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	9.5			9.6		6.9	
OXYGEN.....	0.3			0.3		0.6	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.3			0.2		0.3	
HELIUM.....	0.44			0.44		0.39	
HEATING VALUE.....	1069			1077		1077	
SPECIFIC GRAVITY.....	0.700			0.701		0.681	
		INDEX SAMPLE	8896 1802	INDEX SAMPLE	8897 1884	INDEX SAMPLE	8898 1921
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	JOHNSTON A-2			BIVINS B-1		JOHNSTON A-1	
LOCATION.....	SEC. 41, BLK. 47, H&TC SUR.			SEC. 11, BLK. Y2, CB&CGN		SEC. 4, BLK. Y-2, TTRR SUR.	
OWNER.....	AMARILLO OIL CO.			CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	--/--/00			03/18/24		05/10/24	
SAMPLED.....	06/24/29			09/23/23		01/04/30	
FORMATION.....	-SAND			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1280			2657		2265	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			429		415	
OPEN FLOW, MCFD.....	NOT GIVEN			33770		11000	
COMPONENT, MOLE PCT							
METHANE.....	7.7			73.5		71.2	
ETHANE.....	15.2			15.2		19.0	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	76.7			9.6		8.7	
OXYGEN.....	0.1			0.9		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.1			0.5		0.3	
HELIUM.....	0.25			0.43		0.45	
HEATING VALUE.....	350			1017		1062	
SPECIFIC GRAVITY.....	0.947			0.678		0.687	
		INDEX SAMPLE	8899 2081	INDEX SAMPLE	8900 2238	INDEX SAMPLE	8901 2590
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	JOHNSTON NO. 1			M. H. REED NO. 1		DUNAWAY A-2	
LOCATION.....	SEC. 61, BLK. 1, 8&B SUR.			MONROE SUR.		SEC. 5, BLK. Y-2, TTRR SUR.	
OWNER.....	CONTINENTAL OIL CO.			PRAIRIE OIL & GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	10/19/26			11/01/30		10/18/32	
SAMPLED.....	06/26/30			10/31/30		01/20/33	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3104			2465		2260	
WELLHEAD PRESSURE, PSIG.....	390			NOT GIVEN		370	
OPEN FLOW, MCFD.....	70000			14000		38000	
COMPONENT, MOLE PCT							
METHANE.....	66.7			74.3		63.3	
ETHANE.....	21.8			17.8		24.2	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	10.0			7.0		10.6	
OXYGEN.....	0.6			0.1		0.9	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.5			0.4		0.5	
HELIUM.....	0.39			0.44		0.45	
HEATING VALUE.....	1066			1072		1075	
SPECIFIC GRAVITY.....	0.710			0.674		0.726	
		INDEX SAMPLE	8902 3364	INDEX SAMPLE	8903 3375	INDEX SAMPLE	8904 3376
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS NO. F-1			BIVINS NO. B-1		DUNAWAY NO. B-1	
LOCATION.....	SEC. 13, BLK. Y-2, TTRR SUR.			SEC. 9, BLK. Y-2, TTRR SUR.		SEC. 5, BLK. Y-2, TTRR SUR.	
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	--/--/00			--/--/00		--/--/00	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	72.2			70.0		72.2	
ETHANE.....	18.2			18.6		18.2	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	8.6			10.2		8.8	
OXYGEN.....	0.3			0.5		0.5	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.2		0.3	
HELIUM.....	0.48			0.49		0.39	
HEATING VALUE.....	1058			1052		1058	
SPECIFIC GRAVITY.....	0.681			0.691		0.687	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8905 3377	INDEX SAMPLE	8906 3382	INDEX SAMPLE	8907 3389
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	POST NO. C-1			POST NO. A-1		DUNAWAY NO. A-1	
LOCATION.....	SEC. 10, BLK. Y-2, TTRR SUR.			SEC. 6, BLK. Y-2, TTRR SUR.		SEC. 5, BLK. Y-2, TTRR SUR.	
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	--/--/00			--/--/00		--/--/00	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	70.4			70.6		71.6	
ETHANE.....	18.2			19.5		18.3	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	10.2			8.9		8.8	
OXYGEN.....	0.5			0.3		0.5	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.2		0.3	
HELIUM.....	0.47			0.49		0.51	
HEATING VALUE.....	1039			1053		1053	
SPECIFIC GRAVITY.....	0.689			0.689		0.685	
		INDEX SAMPLE	8908 3977	INDEX SAMPLE	8909 5332	INDEX SAMPLE	8910 5356
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	JOHNSON NO. A-1-6			STEWART NO. 29		C. C. WHITTENBURG A NO. 38	
LOCATION.....	SEC. 1, BLK. Y-2, TTRR SUR.			SEC. 11, BLK. M-16, AB&M SUR		LOT 43, BLK. 5, WM. NEIL SUR	
OWNER.....	TEXOMA NATURAL GAS CO.			SHAMROCK OIL & GAS CORP.		CONTINENTAL OIL CO.	
COMPLETED.....	10/02/30			09/05/52		10/01/52	
SAMPLED.....	12/22/44			12/22/52		12/12/52	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2305			2870		2942	
WELLHEAD PRESSURE, PSIG.....	400			2317		241	
OPEN FLOW, MCFD.....	18470			---		758	
COMPONENT, MOLE PCT							
METHANE.....	75.0			76.3		75.0	
ETHANE.....	16.6			7.2		7.3	
PROPANE.....	---			4.4		4.7	
N-BUTANE.....	---			0.4		0.3	
ISOBUTANE.....	---			0.4		0.6	
N-PENTANE.....	---			0.4		0.3	
ISOPENTANE.....	---			0.2		0.1	
CYCLOPENTANE.....	---			TRACE		TRACE	
HEXANES PLUS.....	---			0.2		0.2	
NITROGEN.....	7.6			8.8		9.9	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.4		0.1	
HELIUM.....	0.47			0.38		0.40	
HEATING VALUE.....	1057			1113		1104	
SPECIFIC GRAVITY.....	0.669			0.717		0.719	
		INDEX SAMPLE	8911 5358	INDEX SAMPLE	8912 5359	INDEX SAMPLE	8913 5382
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	LOGAN NO. A-20			NORTH AMERICAN NO. 2		BURNETT NO. 6	
LOCATION.....	SEC. 135, BLK. 5-T, T&NO SUR			SEC. 85, 146, H&TC SUR.		SEC. 127, BLK. 5, H&GN SUR.	
OWNER.....	SHAMROCK OIL & GAS CORP.			FRANK C. HENDERSON TRUSTS		J. GORDON BURCH	
COMPLETED.....	10/15/52			08/01/52		08/01/51	
SAMPLED.....	12/13/52			12/17/52		02/03/53	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3120			2350		3160	
WELLHEAD PRESSURE, PSIG.....	302			174		183	
OPEN FLOW, MCFD.....	241			39000		1300	
COMPONENT, MOLE PCT							
METHANE.....	74.7			77.2		77.0	
ETHANE.....	8.3			5.9		6.6	
PROPANE.....	4.6			3.4		4.5	
N-BUTANE.....	0.9			1.1		1.4	
ISOBUTANE.....	0.5			0.5		0.7	
N-PENTANE.....	0.3			0.4		0.4	
ISOPENTANE.....	0.0			0.2		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	9.6			10.1		8.2	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	TRACE			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.3		0.4	
HELIUM.....	0.47			0.77		0.35	
HEATING VALUE.....	1099			1070		1121	
SPECIFIC GRAVITY.....	0.716			0.704		0.716	
		INDEX SAMPLE	8914 5861	INDEX SAMPLE	8915 7036	INDEX SAMPLE	8916 7037
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	JOSEPH RANCH B NO. 24			DOKE HEIRS NO. 1		YAKE B NO. 1	
LOCATION.....	SEC. 38, BLK. Y, A&B SUR.			SEC. 4, BLK. J, H&GN SUR.		SEC. 2, BLK. M-26, TC&RR SUR	
OWNER.....	SINCLAIR OIL & GAS CO.			PANHANDLE PRODUCING CO.		PANHANDLE PRODUCING CO.	
COMPLETED.....	06/17/55			12/20/53		01/01/58	
SAMPLED.....	06/17/55			04/23/59		04/23/59	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2284			3038		2742	
WELLHEAD PRESSURE, PSIG.....	145			151		133	
OPEN FLOW, MCFD.....	12500			2162		855	
COMPONENT, MOLE PCT							
METHANE.....	77.4			73.2		75.1	
ETHANE.....	6.3			7.9		7.2	
PROPANE.....	3.8			5.6		4.8	
N-BUTANE.....	1.4			1.9		1.8	
ISOBUTANE.....	0.7			1.0		0.9	
N-PENTANE.....	0.4			0.3		0.4	
ISOPENTANE.....	0.2			0.4		0.4	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.3			0.3		0.3	
NITROGEN.....	8.7			8.2		8.2	
OXYGEN.....	0.0			0.2		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.1		0.2	
HELIUM.....	0.41			0.30		0.30	
HEATING VALUE.....	1111			1111		1159	
SPECIFIC GRAVITY.....	0.717			0.751		0.738	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8917 SAMPLE 7042			INDEX 8918 SAMPLE 7043			INDEX 8919 SAMPLE 7504		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	CARVER A NO. 2		HERRING A NO. 8			JATTEN NO. 3		
LOCATION.....	SEC. 4, W. M. NEIL SUR.		E. ALMAGUEL SUR.			SEC. 12, BLK. Y, M&C SUR.		
OWNER.....	J. M. HUBER CORP.		SKELLY OIL CO.			CREST OIL CO.		
COMPLETED.....	07/-/50		-7/-/00			09/10/59		
SAMPLED.....	04/27/59		12/18/60			12/18/60		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2915		2785			2682		
WELLHEAD PRESSURE, PSIG.....	119		163			97		
OPEN FLOW, MCFD.....	1215		540			1800		
COMPONENT, MOLE PCT								
METHANE.....	75.2		73.0			76.3		
ETHANE.....	7.9		8.6			6.8		
PROPANE.....	4.7		5.1			5.5		
N-BUTANE.....	1.5		1.5			1.5		
ISOBUTANE.....	0.7		0.7			0.5		
N-PENTANE.....	0.3		0.3			0.4		
ISOPENTANE.....	0.3		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.3		
NITROGEN.....	8.6		9.9			7.7		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	TRACE		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.40		0.30			0.40		
HEATING VALUE.....	1139		1141			1150		
SPECIFIC GRAVITY.....	0.729		0.741			0.726		
INDEX 8920 SAMPLE 7768			INDEX 8921 SAMPLE 7769			INDEX 8922 SAMPLE 8196		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIVINS A-160		BIVINS A-161			BOST NO. 3-R		
LOCATION.....	SEC. 90, BLK. 46, H&TC SUR.		SEC. 13, BLK. Y-2, GB&CG SUR			SEC. 9, BLK. Y-2, TT&RR SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	10/24/60		10/24/60			-7/-/00		
SAMPLED.....	11/14/60		11/08/60			09/13/61		
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH		PERM-WICHITA-ALBANY&GR. WASH			PERM-TUBBS		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2170		2280			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	160		196			8		
OPEN FLOW, MCFD.....	16400		22300			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	77.0		77.0			72.8		
ETHANE.....	6.4		6.3			5.6		
PROPANE.....	3.8		3.6			5.5		
N-BUTANE.....	1.3		1.2			0.5		
ISOBUTANE.....	0.8		0.8			0.2		
N-PENTANE.....	0.3		0.3			0.1		
ISOPENTANE.....	0.4		0.4			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	8.9		9.3			17.1		
OXYGEN.....	TRACE		TRACE			0.6		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.4			0.5		
HELIUM.....	0.40		0.0			0.13		
HEATING VALUE.....	1108		1098			932		
SPECIFIC GRAVITY.....	0.715		0.713			0.700		
INDEX 8923 SAMPLE 8199			INDEX 8924 SAMPLE 8861			INDEX 8925 SAMPLE 10029		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BOST NO. 1R		BOST NO. C-3			BOST D-2		
LOCATION.....	SEC. 11, BLK. Y-2, TT&RR SUR		SEC. 10, BLK. Y-2, TT&RR SUR.			SEC. 1, B&F SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	-7/-/00		10/09/62			07/25/65		
SAMPLED.....	09/13/61		02/14/63			08/05/65		
FORMATION.....	PERM-TUBBS		PERM-GRANITE WASH			PERM-WICHITA-ALBANY&GR. WASH		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		2340			2404		
WELLHEAD PRESSURE, PSIG.....	27		172			149		
OPEN FLOW, MCFD.....	NOT GIVEN		25200			55000		
COMPONENT, MOLE PCT								
METHANE.....	80.7		76.8			76.1		
ETHANE.....	6.4		6.2			6.4		
PROPANE.....	2.6		3.6			4.0		
N-BUTANE.....	0.6		1.3			4.4		
ISOBUTANE.....	0.3		0.8			0.8		
N-PENTANE.....	0.1		0.4			0.2		
ISOPENTANE.....	0.2		0.3			0.5		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	TRACE		0.3			0.3		
NITROGEN.....	8.7		9.5			9.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.4		
HELIUM.....	0.15		0.50			0.44		
HEATING VALUE.....	1043		1096			1113		
SPECIFIC GRAVITY.....	0.667		0.712			0.723		
INDEX 8926 SAMPLE 10756			INDEX 8927 SAMPLE 13135			INDEX 8928 SAMPLE 7341		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W/RED CAVE		
WELL NAME.....	JOHNSON NO. A-3		FISCHER NO. 1			BIVINS NO. C-1		
LOCATION.....	SEC. 4, Y-2, TT&RR SUR.		SEC. 2, DL&CC SUR.			SEC. 13, GB&CNGRR SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			AMARILLO OIL CO.		
COMPLETED.....	10/07/60		01/29/71			01/15/60		
SAMPLED.....	10/10/66		01/11/72			01/19/60		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2265		3012			1602		
WELLHEAD PRESSURE, PSIG.....	126		392			NOT GIVEN		
OPEN FLOW, MCFD.....	30500		7100			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.7		68.1			81.1		
ETHANE.....	6.3		7.6			6.6		
PROPANE.....	5.1		3.7			2.4		
N-BUTANE.....	0.2		0.5			0.6		
ISOBUTANE.....	1.9		0.3			0.2		
N-PENTANE.....	0.6		TRACE			0.1		
ISOPENTANE.....	0.0		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		TRACE			0.1		
NITROGEN.....	9.3		18.3			8.2		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.3		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.1		
HELIUM.....	0.44		0.21			0.10		
HEATING VALUE.....	1127		957			1048		
SPECIFIC GRAVITY.....	0.727		0.721			0.664		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8929 SAMPLE 7448			INDEX 8930 SAMPLE 7748			INDEX 8931 SAMPLE 7749		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	BIVINS 8-2		EVELYN NO. 2			INGERTON A NO. 3		
LOCATION.....	SEC. 90, BLK. 46, H&TC SUR.		SEC. 42, BLK. 47, H&TC SUR.			SEC. 41, BLK. 47, H&TC SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--7--/25		10/10/60			10/31/60		
SAMPLED.....	03/17/60		11/01/60			11/01/60		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1470		1530			1552		
WELLHEAD PRESSURE, PSIG.....	408		346			369		
OPEN FLOW, MCFD.....	1500		13354			4400		
COMPONENT, MOLE PCT								
METHANE.....	81.7		80.3			80.7		
ETHANE.....	6.7		7.2			6.9		
PROPANE.....	2.5		2.6			2.6		
N-BUTANE.....	0.6		0.7			0.7		
ISOBUTANE.....	0.3		0.3			0.4		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	7.7		8.1			8.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.10		0.20			0.20		
HEATING VALUE.....	1057		1058			1059		
SPECIFIC GRAVITY.....	0.663		0.670			0.670		
INDEX 8932 SAMPLE 7751			INDEX 8933 SAMPLE 7767			INDEX 8934 SAMPLE 7795		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	JAY NO. 2		BIVINS A-160			BOST A 1R		
LOCATION.....	SEC. 40, BLK. 47, H&TC SUR.		SEC. 90, BLK. 46, H&TC SUR.			SEC. 14, BLK. Y2, GB&CNG SUR		
OWNER.....	PHILLIPS PETROLEUM CO.		COLORADO INTERSTATE GAS CO.			ANADARKO PRODUCTION CO.		
COMPLETED.....	10/31/60		11/14/60			11/14/60		
SAMPLED.....	11/01/60		11/14/60			12/13/60		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1622		1483			1766		
WELLHEAD PRESSURE, PSIG.....	376		405			365		
OPEN FLOW, MCFD.....	5200		8100			12250		
COMPONENT, MOLE PCT								
METHANE.....	79.9		82.0			81.5		
ETHANE.....	7.0		6.6			6.8		
PROPANE.....	2.0		2.6			2.6		
N-BUTANE.....	0.8		0.5			0.6		
ISOBUTANE.....	0.3		0.4			0.3		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	8.3		7.5			7.6		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.20		0.20			0.10		
HEATING VALUE.....	1069		1053			1059		
SPECIFIC GRAVITY.....	0.679		0.661			0.665		
INDEX 8935 SAMPLE 7800			INDEX 8936 SAMPLE 7801			INDEX 8937 SAMPLE 7878		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	BOST B-1R		BIVINS B-1R			SNOW NO. 9		
LOCATION.....	SEC. 90, BLK. Y-2, TTRR SUR.		SEC. 51, BLK. 46, H&TC SUR.			SEC. 57, BLK. M-23, TC&RR SUR		
OWNER.....	ANADARKO PRODUCTION CO.		ANADARKO PRODUCTION CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	12/12/60		12/12/60			12/08/60		
SAMPLED.....	12/13/60		12/13/60			02/02/61		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1577		1524			1539		
WELLHEAD PRESSURE, PSIG.....	377		403			391		
OPEN FLOW, MCFD.....	4700		9800			12600		
COMPONENT, MOLE PCT								
METHANE.....	82.6		81.6			80.5		
ETHANE.....	6.7		6.9			7.0		
PROPANE.....	1.7		2.6			2.6		
N-BUTANE.....	0.6		0.6			0.6		
ISOBUTANE.....	0.4		0.3			0.5		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	7.6		7.5			8.3		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	0.10		0.10			0.10		
HEATING VALUE.....	1044		1057			1053		
SPECIFIC GRAVITY.....	0.656		0.662			0.667		
INDEX 8938 SAMPLE 7883			INDEX 8939 SAMPLE 7884			INDEX 8940 SAMPLE 7887		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	HUTCHINSON		HUTCHINSON			HUTCHINSON		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	SNOW NO. 10		SNOW NO. 9			REDDCAVE B NO. 1		
LOCATION.....	SEC. 46, BLK. 47, H&TC SUR.		SEC. 57, BLK. M-23, TC&RR SUR			SEC. 80, BLK. 46, H&TC SUR.		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	12/12/60		12/08/60			02/16/61		
SAMPLED.....	03/02/61		03/02/61			03/09/61		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1537		1539			1569		
WELLHEAD PRESSURE, PSIG.....	377		395			339		
OPEN FLOW, MCFD.....	13700		12600			5420		
COMPONENT, MOLE PCT								
METHANE.....	81.9		81.4			81.4		
ETHANE.....	6.8		6.2			6.2		
PROPANE.....	2.4		2.7			2.6		
N-BUTANE.....	0.5		0.6			0.7		
ISOBUTANE.....	0.4		0.3			0.4		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	7.5		7.2			7.9		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.20		0.20			0.20		
HEATING VALUE.....	1053		1066			1063		
SPECIFIC GRAVITY.....	0.661		0.666			0.671		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8941 SAMPLE 7888		INDEX 8942 SAMPLE 7903		INDEX 8943 SAMPLE 7904	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	JOHNSON EB NO. 1	WELL NAME.....	SNOW NO. 12	WELL NAME.....	SNOW NO. 11
LOCATION.....	SEC. 3, BLK. 1, B&B SUR.	LOCATION.....	SEC. 3, J. POITEVENT SUR.	LOCATION.....	SEC. 3, J. POITEVENT SUR.
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	02/24/61	COMPLETED.....	02/02/61	COMPLETED.....	02/01/61
SAMPLED.....	03/09/61	SAMPLED.....	03/16/61	SAMPLED.....	03/16/61
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1579	DEPTH, FEET.....	1688	DEPTH, FEET.....	1737
WELLHEAD PRESSURE, PSIG.....	375	WELLHEAD PRESSURE, PSIG.....	404	WELLHEAD PRESSURE, PSIG.....	371
OPEN FLOW, MCFD.....	710	OPEN FLOW, MCFD.....	6000	OPEN FLOW, MCFD.....	3450
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	83.3	METHANE.....	81.3	METHANE.....	82.0
ETHANE.....	5.5	ETHANE.....	7.0	ETHANE.....	6.7
PROPANE.....	1.9	PROPANE.....	2.4	PROPANE.....	2.5
N-BUTANE.....	0.4	N-BUTANE.....	0.5	N-BUTANE.....	0.5
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	7.6	NITROGEN.....	7.8	NITROGEN.....	7.3
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.20	HELIUM.....	0.10	HELIUM.....	0.20
HEATING VALUE.....	1043	HEATING VALUE.....	1048	HEATING VALUE.....	1057
SPECIFIC GRAVITY.....	0.655	SPECIFIC GRAVITY.....	0.660	SPECIFIC GRAVITY.....	0.659

INDEX 8944 SAMPLE 8232		INDEX 8945 SAMPLE 8426		INDEX 8946 SAMPLE 8427	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	KERMICLE NO. 2	WELL NAME.....	BOST NO. 1R	WELL NAME.....	BIVINS NO. 7R
LOCATION.....	LULA KERMICLE SUR.	LOCATION.....	SEC. 10, Y-2, TTRR SUR.	LOCATION.....	SEC. 11, BLK. Y-2, GB&CNSUR
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	08/15/61	COMPLETED.....	10/25/61	COMPLETED.....	10/23/61
SAMPLED.....	10/10/61	SAMPLED.....	03/02/62	SAMPLED.....	03/02/62
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1256	DEPTH, FEET.....	1646	DEPTH, FEET.....	1628
WELLHEAD PRESSURE, PSIG.....	398	WELLHEAD PRESSURE, PSIG.....	324	WELLHEAD PRESSURE, PSIG.....	34
OPEN FLOW, MCFD.....	13425	OPEN FLOW, MCFD.....	1250	OPEN FLOW, MCFD.....	4350
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	81.6	METHANE.....	81.5	METHANE.....	80.7
ETHANE.....	6.5	ETHANE.....	6.1	ETHANE.....	6.7
PROPANE.....	2.6	PROPANE.....	2.7	PROPANE.....	2.8
N-BUTANE.....	0.6	N-BUTANE.....	0.7	N-BUTANE.....	0.7
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	7.7	NITROGEN.....	7.7	NITROGEN.....	7.7
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.15	HELIUM.....	0.15	HELIUM.....	0.15
HEATING VALUE.....	1055	HEATING VALUE.....	1059	HEATING VALUE.....	1076
SPECIFIC GRAVITY.....	0.662	SPECIFIC GRAVITY.....	0.665	SPECIFIC GRAVITY.....	0.676

INDEX 8947 SAMPLE 8454		INDEX 8948 SAMPLE 8457		INDEX 8949 SAMPLE 8856	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	BOST NO. 3 R	WELL NAME.....	BOST NO. 2-R	WELL NAME.....	BIVINS NO. 8R
LOCATION.....	SEC. 9, BLK. Y-2, TTRR SUR.	LOCATION.....	SEC. 6, BLK. Y-2, TTRR SUR.	LOCATION.....	SEC. 88, BLK. 46, H&C SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	10/23/61	COMPLETED.....	10/23/61	COMPLETED.....	08/27/62
SAMPLED.....	03/14/62	SAMPLED.....	03/14/62	SAMPLED.....	02/14/63
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1606	DEPTH, FEET.....	1558	DEPTH, FEET.....	1580
WELLHEAD PRESSURE, PSIG.....	345	WELLHEAD PRESSURE, PSIG.....	341	WELLHEAD PRESSURE, PSIG.....	334
OPEN FLOW, MCFD.....	1800	OPEN FLOW, MCFD.....	4800	OPEN FLOW, MCFD.....	7500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	81.9	METHANE.....	81.7	METHANE.....	82.0
ETHANE.....	6.3	ETHANE.....	6.4	ETHANE.....	6.4
PROPANE.....	2.5	PROPANE.....	2.5	PROPANE.....	2.7
N-BUTANE.....	0.6	N-BUTANE.....	0.7	N-BUTANE.....	0.7
ISOBUTANE.....	0.2	ISOBUTANE.....	0.3	ISOBUTANE.....	0.1
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	7.9	NITROGEN.....	7.9	NITROGEN.....	7.4
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.16	HELIUM.....	0.14	HELIUM.....	0.10
HEATING VALUE.....	1052	HEATING VALUE.....	1051	HEATING VALUE.....	1060
SPECIFIC GRAVITY.....	0.664	SPECIFIC GRAVITY.....	0.661	SPECIFIC GRAVITY.....	0.664

INDEX 8950 SAMPLE 9297		INDEX 8951 SAMPLE 9299		INDEX 8952 SAMPLE 9301	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS NO. 18R	WELL NAME.....	DUNAWAY NO. 1R	WELL NAME.....	JOHNSON NO. 1R
LOCATION.....	SEC. 13, BLK. Y-2, TTRR SUR.	LOCATION.....	SEC. 3, BLK. Y-2, TTRR SUR.	LOCATION.....	SEC. 3, BLK. Y-2, TTRR SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	09/20/63	COMPLETED.....	09/13/63	COMPLETED.....	09/13/63
SAMPLED.....	04/14/64	SAMPLED.....	04/14/64	SAMPLED.....	04/14/64
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1610	DEPTH, FEET.....	1612	DEPTH, FEET.....	1611
WELLHEAD PRESSURE, PSIG.....	307	WELLHEAD PRESSURE, PSIG.....	305	WELLHEAD PRESSURE, PSIG.....	363
OPEN FLOW, MCFD.....	4700	OPEN FLOW, MCFD.....	4100	OPEN FLOW, MCFD.....	4900
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	81.7	METHANE.....	82.1	METHANE.....	82.0
ETHANE.....	6.6	ETHANE.....	6.4	ETHANE.....	6.5
PROPANE.....	2.4	PROPANE.....	2.2	PROPANE.....	2.5
N-BUTANE.....	0.6	N-BUTANE.....	0.5	N-BUTANE.....	0.6
ISOBUTANE.....	0.2	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	7.7	NITROGEN.....	8.1	NITROGEN.....	7.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.15	HELIUM.....	0.15	HELIUM.....	0.15
HEATING VALUE.....	1053	HEATING VALUE.....	1053	HEATING VALUE.....	1053
SPECIFIC GRAVITY.....	0.663	SPECIFIC GRAVITY.....	0.661	SPECIFIC GRAVITY.....	0.660

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8953 9312	INDEX SAMPLE	8954 9800	INDEX SAMPLE	8955 12273
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		SHIRLEY	
WELL NAME.....	BIVINS NO. 17R			JOHNSON 2-R		JENKINS NO. 1	
LOCATION.....	SEC. 90, BLK. 46, H&TC SUR.			SEC. 3, BLK. Y-2, TTRR SUR.		SEC. 119, BLK. 5-T, T+NO SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		BLAK OIL CO.	
COMPLETED.....	11/18/63			08/20/64		10/04/68	
SAMPLED.....	04/14/64			03/16/65		06/01/70	
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE		PENN-CLEVELAND	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1352			1612		6015	
WELLHEAD PRESSURE, PSIG.....	310			321		770	
OPEN FLOW, MCFD.....	5300			2750		1639	
COMPONENT, MOLE PCT							
METHANE.....	82.2	---	---	81.8	---	88.4	---
ETHANE.....	6.4	---	---	6.2	---	4.3	---
PROPANE.....	2.4	---	---	2.4	---	2.3	---
N-BUTANE.....	0.6	---	---	0.6	---	0.7	---
ISOBUTANE.....	0.2	---	---	0.3	---	0.4	---
N-PENTANE.....	0.1	---	---	TRACE	---	0.2	---
ISOPENTANE.....	0.1	---	---	TRACE	---	0.2	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	0.1	---
HEXANES PLUS.....	0.1	---	---	0.1	---	0.2	---
NITROGEN.....	7.6	---	---	8.0	---	3.0	---
OXYGEN.....	0.0	---	---	0.0	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN.....	0.0	---	---	0.0	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.1	---
HELIUM.....	0.15	---	---	0.15	---	0.13	---
HEATING VALUE.....	1050	---	---	1046	---	1101	---
SPECIFIC GRAVITY.....	0.660	---	---	0.663	---	0.643	---
		INDEX SAMPLE	8956 12274	INDEX SAMPLE	8957 17527	INDEX SAMPLE	8958 12690
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		IRION	
FIELD.....	SHIRLEY			WILDCAT		BROOKS	
WELL NAME.....	JARVIS NO. 1			MARTY NO. 1		BROOKS NO. 1	
LOCATION.....	SEC. 83, BLK. S-T, T&NO SUR.			SEC. 219, BLK. 2, I&GN SUR.		NOT GIVEN	
OWNER.....	BLAK OIL CO.			FOLTT OPERATING CO.		CENARD OIL & GAS CO.	
COMPLETED.....	03/03/69			06/06/84		--/--/00	
SAMPLED.....	06/01/70			11/29/84		02/--/71	
FORMATION.....	PENN-TONKAWA			PERM-WICHITA-ALBANY		PENN-CANYON NO. 3	
GEOLOGIC PROVINCE CODE.....	440			440		430	
DEPTH, FEET.....	5392			3106		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1316			500		NOT GIVEN	
OPEN FLOW, MCFD.....	4054			8000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	85.5	---	---	79.9	---	75.4	---
ETHANE.....	5.9	---	---	6.1	---	9.8	---
PROPANE.....	2.5	---	---	0.9	---	5.3	---
N-BUTANE.....	0.7	---	---	0.9	---	1.2	---
ISOBUTANE.....	0.4	---	---	0.4	---	0.6	---
N-PENTANE.....	0.2	---	---	0.2	---	0.2	---
ISOPENTANE.....	0.2	---	---	0.2	---	0.4	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.2	---	0.2	---
NITROGEN.....	6.1	---	---	8.5	---	6.4	---
OXYGEN.....	0.0	---	---	0.2	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	TRACE	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	TRACE	---	---	0.1	---	0.3	---
HELIUM.....	0.22	---	---	0.19	---	0.13	---
HEATING VALUE.....	1065	---	---	1069	---	1177	---
SPECIFIC GRAVITY.....	0.652	---	---	0.684	---	0.731	---
		INDEX SAMPLE	8959 15033	INDEX SAMPLE	8960 11250	INDEX SAMPLE	8961 11251
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	IRION			IRION		IRION	
FIELD.....	BURNT ROCK			DOVE CREEK		DOVE CREEK	
WELL NAME.....	SHEEN #3061 NO. 1			WINTERBOTHAM D NO. 1		WINTERBOTHAM D NO. 1	
LOCATION.....	SEC. 3061, BLK. 28, H&TCRR SUR.			SEC. 27, BLK. 21, H&TC SUR.		SEC. 27, BLK. 21, H&TC SUR.	
OWNER.....	UNION TEXAS PETROLEUM CORP.			SKELLY OIL CO.		SKELLY OIL CO.	
COMPLETED.....	08/03/67			04/14/66		03/14/66	
SAMPLED.....	06/23/77			12/28/67		12/28/67	
FORMATION.....	PENN-CANYON			PENN-CANYON C		PENN-CANYON D	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	6559			6432		6473	
WELLHEAD PRESSURE, PSIG.....	1695			2190		2245	
OPEN FLOW, MCFD.....	3512			3100		4600	
COMPONENT, MOLE PCT							
METHANE.....	39.3	---	---	74.4	---	75.6	---
ETHANE.....	5.7	---	---	9.7	---	9.4	---
PROPANE.....	4.3	---	---	4.3	---	4.1	---
N-BUTANE.....	0.4	---	---	0.3	---	1.3	---
ISOBUTANE.....	0.5	---	---	0.5	---	0.5	---
N-PENTANE.....	0.3	---	---	0.3	---	0.3	---
ISOPENTANE.....	0.7	---	---	0.7	---	0.3	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.3	---	0.3	---
NITROGEN.....	7.3	---	---	7.3	---	7.7	---
OXYGEN.....	0.0	---	---	0.0	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.1	---	---	0.0	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	45.4	---	---	0.4	---	0.4	---
HELIUM.....	0.06	---	---	0.14	---	0.16	---
HEATING VALUE.....	1140	---	---	1170	---	1140	---
SPECIFIC GRAVITY.....	1.125	---	---	0.741	---	0.722	---
		INDEX SAMPLE	8962 15076	INDEX SAMPLE	8963 14886	INDEX SAMPLE	8964 6010
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	IRION			IRION		IRION	
FIELD.....	ELA SUGG			SPRAYBERRY		SUGG	
WELL NAME.....	ELA C. SUGG #6 NO. 6			ELA C. SUGG #6 NO. 6		ELA SUGG A-NO. 1	
LOCATION.....	SEC. 103, BLK. 14, H&TC SUR.			SEC. 103, BLK. 14, H&TC SUR.		SEC. 95, BLK. 14, H&TC SUR.	
OWNER.....	AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		SUNRAY MID-CONTINENT OIL CO.	
COMPLETED.....	06/16/76			06/16/76		10/19/55	
SAMPLED.....	07/05/77			07/25/77		01/31/55	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-CLEARFORK	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	7814			7900		4535	
WELLHEAD PRESSURE, PSIG.....	2160			2150		550	
OPEN FLOW, MCFD.....	9100			9000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	75.8	---	---	71.4	---	74.6	---
ETHANE.....	12.2	---	---	12.3	---	8.7	---
PROPANE.....	4.6	---	---	6.6	---	7.7	---
N-BUTANE.....	0.8	---	---	0.8	---	2.4	---
ISOBUTANE.....	0.5	---	---	0.7	---	0.5	---
N-PENTANE.....	0.3	---	---	0.4	---	0.3	---
ISOPENTANE.....	0.3	---	---	0.5	---	0.9	---
CYCLOPENTANE.....	TRACE	---	---	0.2	---	0.2	---
HEXANES PLUS.....	0.1	---	---	0.3	---	0.3	---
NITROGEN.....	3.9	---	---	4.7	---	4.0	---
OXYGEN.....	0.6	---	---	0.6	---	TRACE	---
ARGON.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN.....	0.0	---	---	0.0	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.8	---	---	0.4	---	0.2	---
HELIUM.....	0.07	---	---	0.07	---	0.08	---
HEATING VALUE.....	1259	---	---	1259	---	1284	---
SPECIFIC GRAVITY.....	0.726	---	---	0.772	---	0.771	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8965			INDEX 8966			INDEX 8967		
SAMPLE 4019			SAMPLE 17582			SAMPLE 1790		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACK		JACK			JACK		
FIELD.....	IRION		BOONSVILLE			IRION		
WELL NAME.....	TANKERSLEY		BILLIE YATES NO. 14			IRION NO. 2		
LOCATION.....	SEC. 10, 6CSF SUR.		JAMES SWEENEY SUR. A-527			ISAAC HUGHSON SUR.		
OWNER.....	SHELL OIL CO.		GULF OIL EXPL. & PROD. CO.			PRAIRIE OIL & GAS CO.		
COMPLETED.....	--/--/00		08/27/84			04/19/29		
SAMPLED.....	05/08/45		01/31/85			06/07/29		
FORMATION.....	PENN-STRAWN		PENN-CADDO			PENN-3150 FT. SAND		
GEOLOGIC PROVINCE CODE.....	430		420			420		
DEPTH, FEET.....	7198		4682			3150		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1400			800		
OPEN FLOW, MCFD.....	NOT GIVEN		1700			12300		
COMPONENT, MOLE PCT								
METHANE.....	54.2		77.0			70.9		
ETHANE.....	28.5		7.1			20.1		
PROpane.....	---		6.8			---		
N-BUTANE.....	---		2.1			---		
ISOBUTANE.....	---		0.9			---		
N-PENTANE.....	---		0.5			---		
ISOPENTANE.....	---		0.5			---		
CYCLOPENTANE.....	---		0.1			---		
HEXANES PLUS.....	---		0.3			---		
NITROGEN.....	15.5		4.1			8.6		
OXYGEN.....	0.6		0.1			0.2		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	1.1		0.3			0.2		
HELIUM.....	0.07		0.12			0.24		
HEATING VALUE.....	1060		1247			1078		
SPECIFIC GRAVITY.....	0.773		0.751			0.693		

INDEX 8968			INDEX 8969			INDEX 8970		
SAMPLE 5289			SAMPLE 5364			SAMPLE 11938		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACK		JACK			CAMPSEY		
FIELD.....	BRYSON S		BRYSON S			WOOD CAMPSEY NO. 1		
WELL NAME.....	MALE THOMASON NO. 1		MARY FIELDS NO. 1			W. BECK SUR. A2007		
LOCATION.....	SMITH SUR.		BROWN SUR. NO. A72			GEORGE MITCHELL & ASSOC. INC		
OWNER.....	BRYSON PIPELINE & REF. CO.		O. P. LEONARD			10/10/68		
COMPLETED.....	05/18/52		--/--/00			06/13/69		
SAMPLED.....	10/06/52		07/14/52			PENN-ATOKA CONGLOMERATE		
FORMATION.....	PENN-STRAWN		PENN-STRAWN			420		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	1801		NOT GIVEN			5374		
WELLHEAD PRESSURE, PSIG.....	700		630			1916		
OPEN FLOW, MCFD.....	8000		15000			7000		
COMPONENT, MOLE PCT								
METHANE.....	75.6		75.8			78.9		
ETHANE.....	4.8		4.8			8.4		
PROpane.....	3.2		3.3			5.1		
N-BUTANE.....	0.8		0.7			1.2		
ISOBUTANE.....	0.5		0.4			0.7		
N-PENTANE.....	0.2		0.2			0.4		
ISOPENTANE.....	0.1		0.2			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.2		
HEXANES PLUS.....	0.1		0.1			0.4		
NITROGEN.....	14.2		14.1			4.2		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.1		
HELIUM.....	0.33		0.34			0.15		
HEATING VALUE.....	1000		999			1204		
SPECIFIC GRAVITY.....	0.698		0.695			0.721		

INDEX 8971			INDEX 8972			INDEX 8973		
SAMPLE 4187			SAMPLE 12831			SAMPLE 12832		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACK		JACK			JACK		
FIELD.....	CHERRYHOMES		CRAFTON W			CRAFTON W		
WELL NAME.....	T. H. CHERRYHOMES NO. C-1		ROY CHERRYHOMES NO. 7			ROY CHERRYHOMES NO. E-3		
LOCATION.....	FLORIANE PAYNE SUR. A-1564		3 MI. NE OF CUNDIFF			3 MI. NE OF CUNDIFF		
OWNER.....	AMERICAN OIL CO.		AMERICAN DRILLING CORP.			AMERICAN DRILLING CORP.		
COMPLETED.....	08/15/46		08/26/66			09/23/69		
SAMPLED.....	12/05/46		05/17/71			05/17/71		
FORMATION.....	PENN-CONGLOMERATE		PENN-CADDO			PENN-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	4576		5358			5374		
WELLHEAD PRESSURE, PSIG.....	1250		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	768		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.5		76.6			73.1		
ETHANE.....	20.9		10.9			10.8		
PROpane.....	---		5.9			6.9		
N-BUTANE.....	---		1.6			1.9		
ISOBUTANE.....	---		0.9			0.9		
N-PENTANE.....	0.8		0.3			0.5		
ISOPENTANE.....	---		0.6			0.6		
CYCLOPENTANE.....	---		0.1			0.1		
HEXANES PLUS.....	---		0.2			0.3		
NITROGEN.....	4.9		5.4			3.9		
OXYGEN.....	0.1		0.1			0.4		
ARGON.....	---		0.0			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.4		
HELIUM.....	0.22		0.09			0.11		
HEATING VALUE.....	1119		1207			1274		
SPECIFIC GRAVITY.....	0.682		0.739			0.771		

INDEX 8974			INDEX 8975			INDEX 8976		
SAMPLE 12656			SAMPLE 5885			SAMPLE 12292		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACK		JACK			JACK		
FIELD.....	DARNER-HAMMON		DEES			DUNES		
WELL NAME.....	H. FRANKLIN		SHAWN NO. A-1			JOLLY A NO. 1		
LOCATION.....	BLK. 41, HENDERSON SCH. LAND		PLEASANT FOLAND SUR. NO. A-497			SEC. 2 C.H. BONNER SUR. A1364		
OWNER.....	HAMMON PROPERTIES		F. KIRK JOHNSON			RIDDLE & GOTTLIEB		
COMPLETED.....	08/--/60		03/28/55			03/25/69		
SAMPLED.....	02/05/71		07/25/55			06/12/70		
FORMATION.....	PENN-CADDO		PENN-MARBLE FALLS			PENN-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	4253		5355			5804		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1900			830		
OPEN FLOW, MCFD.....	95		10000			1920		
COMPONENT, MOLE PCT								
METHANE.....	78.8		81.0			79.1		
ETHANE.....	8.5		8.4			8.6		
PROpane.....	5.8		4.6			5.5		
N-BUTANE.....	1.7		1.4			1.7		
ISOBUTANE.....	0.7		0.6			0.8		
N-PENTANE.....	0.5		0.3			0.4		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.2		0.2			0.1		
HEXANES PLUS.....	0.3		0.2			0.2		
NITROGEN.....	2.6		2.2			3.5		
OXYGEN.....	0.2		TRACE			TRACE		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.1		
HELIUM.....	0.10		0.09			0.15		
HEATING VALUE.....	1239		1215			1209		
SPECIFIC GRAVITY.....	0.732		0.708			0.717		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 8977 SAMPLE 16864			INDEX 8978 SAMPLE 16776			INDEX 8979 SAMPLE 12830		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACK		JACK			JACK		
FIELD.....	ELLIS NO. 3		HENDERSON RANCH			JACK COUNTY REGULAR		
WELL NAME.....	JAMES J. WILLIAMS SUR., A-877		VERA HENDERSON NO. 1			ROY CHERRYHOMES NO. C-5		
LOCATION.....	CORDOVA RESOURCES, INC.		G. THOMPSON SUR. A-612			3 MI. NE OF CUNDIFF		
OWNER.....	09/01/82		MITCHELL ENERGY CORP.			AMERICAN DRILLING CORP.		
COMPLETED.....	04/05/83		11/24/83			01/31/65		
SAMPLED.....	PENN-CADDO		02/25/83			05/17/71		
FORMATION.....	420		PENN-MARBLE FALLS			PENN-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	4724		5256			5311		
WELLHEAD PRESSURE, PSIG.....	217		600			NOT GIVEN		
OPEN FLOW, MCFD.....	2400		300			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	66.5		75.9			72.8		
ETHANE.....	9.0		8.9			8.3		
PROPANE.....	9.9		5.4			4.5		
N-BUTANE.....	3.4		1.7			4.6		
ISOBUTANE.....	1.2		0.8			0.0		
N-PENTANE.....	0.5		0.4			0.0		
ISOPENTANE.....	1.3		1.0			2.4		
CYCLOPENTANE.....	0.2		0.2			0.2		
HEXANES PLUS.....	0.4		0.5			0.3		
NITROGEN.....	6.9		4.4			6.0		
OXYGEN.....	0.1		0.2			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.8		
HELIUM.....	0.21		0.13			0.09		
HEATING VALUE.....	1553		1246			1285		
SPECIFIC GRAVITY.....	0.848		0.753			0.805		
INDEX 8980 SAMPLE 13074			INDEX 8981 SAMPLE 14185			INDEX 8982 SAMPLE 15066		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACK		JACK			JACK		
FIELD.....	JACK COUNTY REGULAR		JACK COUNTY REGULAR			JACKSBORO S		
WELL NAME.....	BLK. 29, WOOD CSL SUR.		SEC. 2731, TEEL SUR. A-649			W. R. RICHARDS #16" NO. 1		
LOCATION.....	NATOL PETROLEUM CORP.		MCAHON-BULLINGTON			JAMES ANDERS SUR. A-16		
OWNER.....	07/10/70		11/16/73			SOUTHWESTERN GAS PIPELINE, I		
COMPLETED.....	10/09/71		10/23/74			07/-/77		
SAMPLED.....	PENN-BEND CONGLOMERATE		PENN-ATOKA			PENN-ATOKA		
FORMATION.....	420		420			420		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	5680		4490			5224		
WELLHEAD PRESSURE, PSIG.....	865		1600			2005		
OPEN FLOW, MCFD.....	8000		3400			2600		
COMPONENT, MOLE PCT								
METHANE.....	73.1		77.2			79.1		
ETHANE.....	9.5		8.3			8.7		
PROPANE.....	6.3		6.1			4.8		
N-BUTANE.....	1.3		1.8			1.4		
ISOBUTANE.....	0.8		0.9			0.5		
N-PENTANE.....	0.3		0.4			0.4		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	7.3		3.9			4.4		
OXYGEN.....	0.3		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.2		
HELIUM.....	0.11		0.14			0.14		
HEATING VALUE.....	1176		1258			1185		
SPECIFIC GRAVITY.....	0.747		0.742			0.713		
INDEX 8983 SAMPLE 12607			INDEX 8984 SAMPLE 13719			INDEX 8985 SAMPLE 12557		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACK		JACK			JACK		
FIELD.....	KEN-RICH		KRAMBERGER			MEANDER W		
WELL NAME.....	L. A. WORTHINGTON NO. 12		MARY E. LINDSEY NO. 1			DAVIS C. NO. 3		
LOCATION.....	J. B. BUCKNER SUR. A-33		E. W. WRIGHT SUR. A-898			NOT GIVEN		
OWNER.....	GEORGE MITCHELL & ASSOC. INC		GEORGE MITCHELL & ASSOC. INC			MURK ROYALTY CO.		
COMPLETED.....	06/13/65		12/13/72			01/08/61		
SAMPLED.....	12/22/70		09/17/73			12/01/70		
FORMATION.....	PENN-CADDO		PENN-ATOKA			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	5050		5239			5600		
WELLHEAD PRESSURE, PSIG.....	537		1915			1260		
OPEN FLOW, MCFD.....	33		11750			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	76.1		80.2			79.9		
ETHANE.....	7.4		7.7			8.2		
PROPANE.....	6.6		4.6			5.1		
N-BUTANE.....	1.8		1.2			1.2		
ISOBUTANE.....	0.3		0.6			0.6		
N-PENTANE.....	0.3		0.3			0.3		
ISOPENTANE.....	0.7		0.4			0.3		
CYCLOPENTANE.....	0.2		0.2			0.1		
HEXANES PLUS.....	0.3		0.3			0.3		
NITROGEN.....	3.4		3.3			3.3		
OXYGEN.....	0.3		TRACE			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.2			0.1		
HELIUM.....	0.10		0.14			0.17		
HEATING VALUE.....	1269		1201			1194		
SPECIFIC GRAVITY.....	0.756		0.711			0.710		
INDEX 8986 SAMPLE 4863			INDEX 8987 SAMPLE 12555			INDEX 8988 SAMPLE 4829		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACK		JACK			JACK		
FIELD.....	NEW		NEWPORT SE			NOT GIVEN		
WELL NAME.....	S. CASTLEBERRY		S. B. FLINT NO. 1			G. W. FOWLER NO. 1		
LOCATION.....	J. J. STEPHENS SUR. ABS. 535		E. MI. SE. OF NEWPORT			NOT GIVEN		
OWNER.....	K. O. CO. & L.H. SIMPSON		E. O. JOHNSTON CO.			MID-CONTINENT PETROLEUM CORP		
COMPLETED.....	11/19/49		-/-/00			11/-/49		
SAMPLED.....	03/16/50		11/29/70			12/29/49		
FORMATION.....	NOT GIVEN		PENN-ATOKA			PENN-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	5316		NOT GIVEN			5500		
WELLHEAD PRESSURE, PSIG.....	1500		600			2500		
OPEN FLOW, MCFD.....	NOT GIVEN		200			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	81.1		74.8			80.8		
ETHANE.....	3.2		4.7			7.8		
PROPANE.....	4.3		6.8			4.2		
N-BUTANE.....	1.1		1.8			1.4		
ISOBUTANE.....	0.6		0.7			0.6		
N-PENTANE.....	0.3		0.6			0.6		
ISOPENTANE.....	TRACE		0.4			0.0		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.3			0.5		
NITROGEN.....	3.4		3.6			3.1		
OXYGEN.....	0.1		TRACE			0.2		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.6		
CARBON DIOXIDE.....	0.3		0.3			0.12		
HELIUM.....	0.16		0.16			1192		
HEATING VALUE.....	1169		1244			1192		
SPECIFIC GRAVITY.....	0.695		0.743			0.710		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	8989 16337	INDEX SAMPLE	8990 12570	INDEX SAMPLE	8991 12559
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	JACK			JACK		JACK	
FIELD.....	NOT GIVEN			PERRIN N		RIGGS N	
WELL NAME.....	ANNA C STREET NO. 1			REITH-TURNER NO. 1		NORTH RIGGS TRACT 1 NO. 2	
LOCATION.....	J. L. MOLLARS SUR. A-1916			T. C. ARGO SUR. A-1899		F. SANDERS SUR. A-1001	
OWNER.....	THRESHOLD DEVELOPMENT CO.			PETROLEUM CORP. OF TEXAS		GULF OIL CO.- U.S.	
COMPLETED.....	--/--/80			--/--/80		04/14/53	
SAMPLED.....	09/15/81			12/01/70		11/30/70	
FORMATION.....	PENN-MARBLE FALLS			PENN-MARBLE FALLS		PENN-CONGLOMERATE	
GEOLOGIC PROVINCE CODE.....	420			420		420	
DEPTH, FEET.....	5362			5034		5054	
WELLHEAD PRESSURE, PSIG.....	1200			685		NOT GIVEN	
OPEN FLOW, MCFD.....	2198			180		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	58.5	-----		80.3	-----	75.9	-----
ETHANE.....	15.1	-----		8.8	-----	8.5	-----
PROPANE.....	15.4	-----		4.7	-----	6.6	-----
N-BUTANE.....	3.3	-----		1.1	-----	2.3	-----
ISOBUTANE.....	1.4	-----		0.7	-----	2.4	-----
N-PENTANE.....	0.5	-----		0.3	-----	0.9	-----
ISOPENTANE.....	0.3	-----		0.4	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.6	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	1.3	-----
NITROGEN.....	4.8	-----		3.0	-----	1.7	-----
OXYGEN.....	TRACE	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.2	-----	0.3	-----
HELIUM.....	0.08	-----		0.12	-----	0.09	-----
HEATING VALUE.....	146	-----		1096	-----	1358	-----
SPECIFIC GRAVITY.....	0.899	-----		0.706	-----	0.754	-----
		INDEX SAMPLE	8992 12561	INDEX SAMPLE	8993 4128	INDEX SAMPLE	8994 4889
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	JACK			JACK		JACK	
FIELD.....	RISCH SE			WILDCAT		WILDCAT	
WELL NAME.....	C. G. WORKMAN			W. H. HEATH NO. 1		HATTIE MAE WRIGHT NO. 1	
LOCATION.....	SEC. 9, BLK. 1, HENDERSON SUR.			4 N. CENE OF PERRIN		J. W. BATES SUR. A-47	
OWNER.....	PETROLEUM CORP. OF TEXAS			CONTINENTAL OIL CO.		ROSEBER & PENDELE, INC., ET AL	
COMPLETED.....	--/--/80			--/--/46		02/18/50	
SAMPLED.....	12/01/70			10/07/46		05/19/50	
FORMATION.....	PENN-CADDO			PENN-CADDO		PENN-MARBLE FALLS	
GEOLOGIC PROVINCE CODE.....	420			420		420	
DEPTH, FEET.....	4349			4432		4674	
WELLHEAD PRESSURE, PSIG.....	1740			1740		1560	
OPEN FLOW, MCFD.....	364			1450		7500	
COMPONENT, MOLE PCT							
METHANE.....	67.8	-----		64.9	-----	84.3	-----
ETHANE.....	12.2	-----		30.5	-----	6.7	-----
PROPANE.....	9.9	-----		---	-----	4.0	-----
N-BUTANE.....	3.0	-----		---	-----	1.1	-----
ISOBUTANE.....	2.0	-----		---	-----	0.4	-----
N-PENTANE.....	0.9	-----		---	-----	0.3	-----
ISOPENTANE.....	0.7	-----		---	-----	TRACE	-----
CYCLOPENTANE.....	0.3	-----		---	-----	0.1	-----
HEXANES PLUS.....	0.8	-----		---	-----	0.4	-----
NITROGEN.....	2.1	-----		3.6	-----	2.3	-----
OXYGEN.....	TRACE	-----		0.5	-----	0.1	-----
ARGON.....	0.0	-----		---	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.2	-----
CARBON DIOXIDE.....	0.3	-----		0.4	-----	0.18	-----
HELIUM.....	0.07	-----		0.14	-----	1164	-----
HEATING VALUE.....	1451	-----		1204	-----	0.679	-----
SPECIFIC GRAVITY.....	0.858	-----		0.727	-----		
		INDEX SAMPLE	8995 5018	INDEX SAMPLE	8996 5407	INDEX SAMPLE	8997 16245
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	JACK			JACK		JACK	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	CAMPBELL A NO. 2			CHEERY-HOLMES F-1		MATLOCK NO. 1	
LOCATION.....	NOT GIVEN			I. WAMPLER SUR. A-2180		J. J. WALKER SUR. A-1892	
OWNER.....	MID-CONTINENT PETROLEUM CORP			RUSSELL MAGUIRE		WORLD PRODUCERS, INC.	
COMPLETED.....	09/10/50			12/22/50		10/29/50	
SAMPLED.....	03/07/51			05/04/53		04/27/81	
FORMATION.....	PENN-CONGLOMERATE			PENN-ATOKA		PENN-MARBLE FALLS	
GEOLOGIC PROVINCE CODE.....	420			420		420	
DEPTH, FEET.....	5300			5033		5874	
WELLHEAD PRESSURE, PSIG.....	2700			1500		1880	
OPEN FLOW, MCFD.....	4700			4500		4000	
COMPONENT, MOLE PCT							
METHANE.....	83.3	-----		83.0	-----	78.5	-----
ETHANE.....	7.9	-----		6.4	-----	8.0	-----
PROPANE.....	3.7	-----		3.9	-----	5.1	-----
N-BUTANE.....	1.0	-----		0.9	-----	1.4	-----
ISOBUTANE.....	0.4	-----		0.7	-----	0.6	-----
N-PENTANE.....	0.3	-----		0.1	-----	0.3	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	0.4	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	2.6	-----		2.9	-----	5.0	-----
OXYGEN.....	0.3	-----		TRACE	-----	0.1	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.4	-----	0.2	-----
HELIUM.....	0.13	-----		0.19	-----	0.14	-----
HEATING VALUE.....	1151	-----		1137	-----	1182	-----
SPECIFIC GRAVITY.....	0.676	-----		0.681	-----	0.718	-----
		INDEX SAMPLE	8998 3700	INDEX SAMPLE	8999 3804	INDEX SAMPLE	9000 12560
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	JACK			JACK		JACK	
FIELD.....	WOLFE			WOLFE		WOLFE	
WELL NAME.....	L. N. WOLFE NO. 1			L. N. WOLFE NO. 2		GRACE-KELSAY NO. 1	
LOCATION.....	SEC. 3341, TELL SUR.			E. C. NEWMAN SUR. A-1148		B. C. TERRY SUR. A-611	
OWNER.....	SHELL OIL CO.			SHELL OIL CO.		PETROLEUM CORP. OF TEXAS	
COMPLETED.....	02/18/43			03/03/44		--/--/00	
SAMPLED.....	11/24/43			04/21/44		12/01/70	
FORMATION.....	PENN-CADDO			PENN-ATOKA		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	420			420		420	
DEPTH, FEET.....	4345			4828		4356	
WELLHEAD PRESSURE, PSIG.....	1979			1979		90	
OPEN FLOW, MCFD.....	500			8000		80	
COMPONENT, MOLE PCT							
METHANE.....	61.8	-----		66.8	-----	76.7	-----
ETHANE.....	26.9	-----		26.8	-----	9.2	-----
PROPANE.....	---	-----		---	-----	7.2	-----
N-BUTANE.....	---	-----		---	-----	1.7	-----
ISOBUTANE.....	---	-----		---	-----	1.0	-----
N-PENTANE.....	---	-----		---	-----	0.6	-----
ISOPENTANE.....	---	-----		---	-----	TRACE	-----
CYCLOPENTANE.....	---	-----		---	-----	0.2	-----
HEXANES PLUS.....	---	-----		---	-----	0.4	-----
NITROGEN.....	3.5	-----		5.7	-----	2.4	-----
OXYGEN.....	0.4	-----		0.4	-----	TRACE	-----
ARGON.....	---	-----		---	-----	0.1	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.2	-----	0.11	-----
HELIUM.....	0.13	-----		0.10	-----	1274	-----
HEATING VALUE.....	1234	-----		1157	-----	0.751	-----
SPECIFIC GRAVITY.....	0.741	-----		0.714	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9001 SAMPLE 12006			INDEX 9002 SAMPLE 16025			INDEX 9003 SAMPLE 15446		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACKSON		JACKSON			JACKSON		
FIELD.....	APPLING		APPLING			CARANCAHUA E		
WELL NAME.....	STATE TRACT 225 NO. 1		FLOYD APPLING NO. 1			R. B. TRULL NO. 2		
LOCATION.....	CARANCAHUA BAY		JOHN R. WICKHAM SUR. A-274			PATRICK GREEN SUR. A-25		
OWNER.....	CROWN CENTRAL PETROLEUM CORP		DAVIS OIL CO.			DOW CHEMICAL CO.		
COMPLETED.....	02/05/68		06/~/78			10/22/76		
SAMPLED.....	08/20/69		08/01/80			10/19/78		
FORMATION.....	EDGE-PETERSON		OLIG-FR10			MIOC-		
GEOLOGIC PROVINCE CODE...	220		220			220		
DEPTH, FEET.....	8307		9332			1873		
WELLHEAD PRESSURE, PSIG...	1700		1800			910		
OPEN FLOW, MCFD.....	6400		2060			8600		
COMPONENT, MOLE PCT.....								
METHANE.....	82.1		82.4			91.6		
ETHANE.....	6.7		4.4			3.6		
PROPANE.....	3.1		1.9			1.7		
N-BUTANE.....	0.7		0.5			0.4		
ISOBUTANE.....	0.9		1.0			0.7		
N-PENTANE.....	0.3		0.2			0.1		
ISOPENTANE.....	0.2		0.3			0.3		
CYCLOPENTANE.....	0.1		0.1			0.3		
HEXANES PLUS.....	0.4		0.3			0.5		
NITROGEN.....	4.2		6.5			0.7		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		0.1			0.0		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.0			0.1		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1132		1054			1128		
SPECIFIC GRAVITY.....	0.689		0.682			0.635		
INDEX 9004 SAMPLE 4748			INDEX 9005 SAMPLE 12618			INDEX 9006 SAMPLE 12619		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACKSON		JACKSON			JACKSON		
FIELD.....	CORDELE E		CORDELE W			CORDELE W		
WELL NAME.....	E. CINAL NO. 1		YAUSST B NO. 7			KERN ACKLEY NO. 4		
LOCATION.....	SEC. 5, BLK. 2, I&GN SUR.		J. G. WHITE SUR. A-278			A. BAKER SUR. A-96		
OWNER.....	R. D. RUTHERFORD		CORDELE OPERATING CO.			CORDELE OPERATING CO.		
COMPLETED.....	03/13/49		12/02/70			02/20/70		
SAMPLED.....	05/23/49		12/30/70			12/30/70		
FORMATION.....	MIOC-CATAHOULA		MIOC-KERN			MIOC-2250 FT. STRAY		
GEOLOGIC PROVINCE CODE...	220		220			220		
DEPTH, FEET.....	2763		3123			2259		
WELLHEAD PRESSURE, PSIG...	1400		1228			970		
OPEN FLOW, MCFD.....	93000		17000			880		
COMPONENT, MOLE PCT.....								
METHANE.....	98.7		99.2			99.5		
ETHANE.....	0.2		TRACE			0.0		
PROPANE.....	0.2		0.0			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	0.2		0.0			0.0		
NITROGEN.....	0.4		0.4			0.5		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.01		0.01			TRACE		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1028		1005			1008		
SPECIFIC GRAVITY.....	0.569		0.560			0.556		
INDEX 9007 SAMPLE 12549			INDEX 9008 SAMPLE 13929			INDEX 9009 SAMPLE 15186		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACKSON		JACKSON			JACKSON		
FIELD.....	GANADO		GANADO			GANADO NW		
WELL NAME.....	SEC. 6, BLK. 2, I&GN SUR.		BERNIE COPSEY NO. 3			C. F. SPENCER ESTATE NO. 4		
LOCATION.....	NOT GIVEN		GEORGE SOUTHERLAND SUR. A-75			A. B. WILLIAMS SUR. A-270		
OWNER.....	TEXACO INC.		R. H. ENGELKE			MILLICAN OIL CO.		
COMPLETED.....	02/08/72		12/20/72			08/05/75		
SAMPLED.....	11/19/70		02/26/74			01/09/78		
FORMATION.....	MIOC-3800 FT. SAND		OLIG-FR10			MIOC-CATAHOULA		
GEOLOGIC PROVINCE CODE...	220		220			220		
DEPTH, FEET.....	3838		5678			3160		
WELLHEAD PRESSURE, PSIG...	1105		1943			1248		
OPEN FLOW, MCFD.....	54200		8500			34000		
COMPONENT, MOLE PCT.....								
METHANE.....	98.8		98.9			98.8		
ETHANE.....	0.0		0.1			0.1		
PROPANE.....	0.1		0.1			0.1		
N-BUTANE.....	0.0		0.0			TRACE		
ISOBUTANE.....	0.0		0.0			TRACE		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.0		0.0			0.1		
NITROGEN.....	0.0		0.0			0.1		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.3		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1018		1018			1018		
SPECIFIC GRAVITY.....	0.559		0.561			0.567		
INDEX 9010 SAMPLE 13876			INDEX 9011 SAMPLE 14751			INDEX 9012 SAMPLE 4996		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACKSON		JACKSON			JACKSON		
FIELD.....	GANADO W		HARMOND			KOOP BEND		
WELL NAME.....	MINTA DOLES B NO. 4		MAGGIE BRANCH NO. 26-H			FRANCIS-KOOP NO. 1		
LOCATION.....	CLINTON OIL CO. A-65		G. F. ROGERS SUR. A-291			NOT GIVEN		
OWNER.....	CLINTON OIL CO.		INTERCOASTAL OPERATING CO.			J. M. HUBER CORP.		
COMPLETED.....	08/31/73		07/07/73			07/05/50		
SAMPLED.....	01/09/74		09/02/76			02/01/51		
FORMATION.....	OLIG-FR10		OLIG-FR10			OLIG-FR10		
GEOLOGIC PROVINCE CODE...	220		220			220		
DEPTH, FEET.....	4756		6490			6260		
WELLHEAD PRESSURE, PSIG...	440		900			NOT GIVEN		
OPEN FLOW, MCFD.....	3600		1200			9000		
COMPONENT, MOLE PCT.....								
METHANE.....	95.2		94.1			94.3		
ETHANE.....	2.8		3.1			3.2		
PROPANE.....	0.7		1.1			1.2		
N-BUTANE.....	0.1		0.4			0.3		
ISOBUTANE.....	0.2		0.3			0.1		
N-PENTANE.....	TRACE		0.1			0.1		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	TRACE		0.1			0.1		
NITROGEN.....	0.2		0.3			0.4		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.6		0.3			0.1		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1047		1078			1070		
SPECIFIC GRAVITY.....	0.588		0.604			0.595		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9013 15581	INDEX SAMPLE	9014 15582	INDEX SAMPLE	9015 3811
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	JACKSON			JACKSON		JACKSON	
FIELD.....	LA WARD N			LA WARD N		LA WARD N	
WELL NAME.....	T. A. GRAVES NO. 5			T. A. GRAVES NO. 5		J. A. GRAVES	
LOCATION.....	PATRICK SCOTT SUR. A-69			PATRICK SCOTT SUR. A-69		NOT GIVEN	
OWNER.....	PETRO-LEWIS CORP.			PETRO-LEWIS CORP.		BARNSDALL OIL CO.	
COMPLETED.....	03/03/77			03/03/77		02/10/43	
SAMPLED.....	03/19/79			--/--/00		04/14/44	
FORMATION.....	OLIG-FRIO			OLIG-FRIO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	5856			6092		5091	
WELLHEAD PRESSURE, PSIG.....	2000			2125		2120	
OPEN FLOW, MCFD.....	9400			19500		20000	
COMPONENT, MOLE PCT							
METHANE.....	94.2	-----		93.8	-----	93.0	-----
ETHANE.....	3.2	-----		2.9	-----	3.1	-----
PROPANE.....	0.8	-----		1.2	-----	---	-----
N-BUTANE.....	0.3	-----		0.3	-----	---	-----
ISOBUTANE.....	0.3	-----		0.3	-----	---	-----
N-PENTANE.....	0.1	-----		0.1	-----	---	-----
ISOPENTANE.....	0.3	-----		0.2	-----	---	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	---	-----
HEXANES PLUS.....	0.2	-----		0.6	-----	---	-----
NITROGEN.....	0.3	-----		0.6	-----	3.5	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.4	-----
ARGON.....	TRACE	-----		TRACE	-----	---	-----
HYDROGEN.....	TRACE	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		0.3	-----	0.0	-----
HELIUM.....	0.01	-----		0.01	-----	0.00	-----
HEATING VALUE.....	1084	-----		1076	-----	998	-----
SPECIFIC GRAVITY.....	0.605	-----		0.605	-----	0.586	-----
		INDEX SAMPLE	9016 3997	INDEX SAMPLE	9017 10125	INDEX SAMPLE	9018 3877
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	JACKSON			JACKSON		JACKSON	
FIELD.....	LOLITA			MAUDE B. TRAYLOR N		MAYO	
WELL NAME.....	T. J. HAYS NO. 1			W. L. TRAYLOR NO. 2		LELA STONER NO. 2	
LOCATION.....	NOT GIVEN			HUGH MCGUFFIN SUR. A-43		W. H. ROBERTSON SUR.	
OWNER.....	LOUIS CROUCH			SUPERIOR OIL CO.		LOUIS CROUCH	
COMPLETED.....	04/06/44			11/12/63		01/06/44	
SAMPLED.....	03/20/45			09/16/65		06/24/44	
FORMATION.....	OLIG-FRIO			OLIG-FRIO JO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	5830			9210		5500	
WELLHEAD PRESSURE, PSIG.....	2065			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	6500			7904		17000	
COMPONENT, MOLE PCT							
METHANE.....	89.9	-----		87.5	-----	96.3	-----
ETHANE.....	9.4	-----		6.9	-----	3.2	-----
PROPANE.....	---	-----		2.2	-----	---	-----
N-BUTANE.....	---	-----		0.5	-----	---	-----
ISOBUTANE.....	---	-----		0.6	-----	---	-----
N-PENTANE.....	---	-----		0.2	-----	---	-----
ISOPENTANE.....	---	-----		0.1	-----	---	-----
CYCLOPENTANE.....	---	-----		0.1	-----	---	-----
HEXANES PLUS.....	---	-----		0.4	-----	---	-----
NITROGEN.....	0.2	-----		0.7	-----	0.0	-----
OXYGEN.....	0.4	-----		0.0	-----	0.0	-----
ARGON.....	---	-----		TRACE	-----	---	-----
HYDROGEN.....	---	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.8	-----	0.5	-----
HELIUM.....	0.00	-----		0.01	-----	TRACE	-----
HEATING VALUE.....	1079	-----		1141	-----	1033	-----
SPECIFIC GRAVITY.....	0.605	-----		0.655	-----	0.575	-----
		INDEX SAMPLE	9019 15400	INDEX SAMPLE	9020 15401	INDEX SAMPLE	9021 15402
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	JACKSON			JACKSON		JACKSON	
FIELD.....	MCDANIEL			MCDANIEL		MCDANIEL	
WELL NAME.....	WILLIAM BORCHERS NO. 3			WILLIAM BORCHERS NO. 2		WILLIAM BORCHERS NO. 1-C	
LOCATION.....	20 MI. E OF VICTORIA			THOMAS BRIDGES SUR. A-94		THOMAS BRIDGES SUR. A-94	
OWNER.....	DIXEL RESOURCES, INC.			DIXEL RESOURCES, INC.		DIXEL RESOURCES, INC.	
COMPLETED.....	--/--/00			06/28/77		03/23/77	
SAMPLED.....	10/05/78			10/05/78		10/05/78	
FORMATION.....	OLIG-FRIO			OLIG-FRIO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3600			2833		2900	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1250		1240	
OPEN FLOW, MCFD.....	320			23000		310	
COMPONENT, MOLE PCT							
METHANE.....	97.8	-----		96.5	-----	98.5	-----
ETHANE.....	0.2	-----		0.1	-----	0.1	-----
PROPANE.....	TRACE	-----		TRACE	-----	TRACE	-----
N-BUTANE.....	TRACE	-----		TRACE	-----	0.0	-----
ISOBUTANE.....	TRACE	-----		0.0	-----	0.0	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.0	-----
NITROGEN.....	1.2	-----		0.6	-----	0.8	-----
OXYGEN.....	0.2	-----		0.3	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.4	-----	0.4	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1004	-----		986	-----	1000	-----
SPECIFIC GRAVITY.....	0.568	-----		0.571	-----	0.562	-----
		INDEX SAMPLE	9022 15403	INDEX SAMPLE	9023 12571	INDEX SAMPLE	9024 12572
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	JACKSON			JACKSON		JACKSON	
FIELD.....	MCDANIEL			MOODY RANCH		MOODY RANCH	
WELL NAME.....	WILLIAM BORCHERS NO. 1-T			W. L. MOODY, JR. NO. 10		W. L. MOODY JR. NO. 10	
LOCATION.....	THOMAS BRIDGES SUR. A-94			NANCY A. MCFARLAND SUR. A-42		NANCY A. MCFARLAND SUR. A-42	
OWNER.....	DIXEL RESOURCES, INC.			CROWN CENTRAL PETROLEUM CORP		CROWN CENTRAL PETROLEUM CORP	
COMPLETED.....	03/23/77			11/09/69		11/09/69	
SAMPLED.....	10/05/78			12/--/70		12/--/70	
FORMATION.....	OLIG-FRIO			OLIG-FRIO 7500		OLIG-FRIO 7500	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3330			7230		7230	
WELLHEAD PRESSURE, PSIG.....	1200			2600		2600	
OPEN FLOW, MCFD.....	1800			43000		43000	
COMPONENT, MOLE PCT							
METHANE.....	97.4	-----		88.5	-----	90.3	-----
ETHANE.....	0.1	-----		3.6	-----	3.5	-----
PROPANE.....	TRACE	-----		1.9	-----	1.8	-----
N-BUTANE.....	TRACE	-----		0.6	-----	0.6	-----
ISOBUTANE.....	0.0	-----		0.9	-----	0.8	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.3	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.3	-----
NITROGEN.....	1.6	-----		3.5	-----	1.8	-----
OXYGEN.....	0.2	-----		0.0	-----	0.3	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.2	-----	0.2	-----
HELIUM.....	0.01	-----		0.02	-----	TRACE	-----
HEATING VALUE.....	1094	-----		1076	-----	1108	-----
SPECIFIC GRAVITY.....	0.568	-----		0.736	-----	0.639	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9025		INDEX 9026		INDEX 9027	
STATE	SAMPLE 15181	STATE	SAMPLE 9577	STATE	SAMPLE 3886
TEXAS	JACKSON	TEXAS	JACKSON	TEXAS	JACKSON
COUNTY	SANDY CREEK	COUNTY	SWAN LAKE	COUNTY	TEXANA
WELL NAME	W. B. FOWLER NO. 5	WELL NAME	G. T. BROOKING NO. 20	WELL NAME	M. K. SIMONS NO. 2
LOCATION	S. C. A. ROGERS SUR. A-65	LOCATION	JOSHUA T. BELL SUR. A-7	LOCATION	NOT GIVEN
OWNER	FRID SHIELD	OWNER	SOUTHERN MINERALS CORP.	OWNER	GULF OIL CORP.
COMPLETED	07/06/75	COMPLETED	08/12/51	COMPLETED	06/12/42
SAMPLED	01/05/78	SAMPLED	10/01/64	SAMPLED	08/17/44
FORMATION	OL16-FR10	FORMATION	OL16-FR10	FORMATION	OL16-FR10
GEOLOGIC PROVINCE CODE	220	GEOLOGIC PROVINCE CODE	220	GEOLOGIC PROVINCE CODE	220
DEPTH, FEET	4705	DEPTH, FEET	8630	DEPTH, FEET	5705
WELLHEAD PRESSURE, PSIG	1800	WELLHEAD PRESSURE, PSIG	1950	WELLHEAD PRESSURE, PSIG	NOT GIVEN
OPEN FLOW, MCFD	13500	OPEN FLOW, MCFD	7310	OPEN FLOW, MCFD	700
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	97.5	METHANE	90.3	METHANE	89.3
ETHANE	1.1	ETHANE	4.2	ETHANE	9.3
PROPANE	0.3	PROPANE	2.1	PROPANE	0.0
N-BUTANE	0.1	N-BUTANE	0.8	N-BUTANE	---
ISOBUTANE	0.0	ISOBUTANE	0.8	ISOBUTANE	---
N-PENTANE	0.1	N-PENTANE	0.2	N-PENTANE	---
ISOPENTANE	0.1	ISOPENTANE	0.4	ISOPENTANE	---
CYCLOPENTANE	0.1	CYCLOPENTANE	0.1	CYCLOPENTANE	---
HEXANES PLUS	0.1	HEXANES PLUS	0.3	HEXANES PLUS	---
NITROGEN	0.2	NITROGEN	0.3	NITROGEN	1.1
OXYGEN	0.0	OXYGEN	TRACE	OXYGEN	0.0
ARGON	TRACE	ARGON	0.0	ARGON	---
HYDROGEN	TRACE	HYDROGEN	0.0	HYDROGEN	---
HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	---
CARBON DIOXIDE	0.4	CARBON DIOXIDE	0.5	CARBON DIOXIDE	0.3
HELIUM	0.01	HELIUM	0.1	HELIUM	0.01
HEATING VALUE	1036	HEATING VALUE	1143	HEATING VALUE	1071
SPECIFIC GRAVITY	0.577	SPECIFIC GRAVITY	0.647	SPECIFIC GRAVITY	0.608
INDEX 9028		INDEX 9029		INDEX 9030	
STATE	SAMPLE 17610	STATE	SAMPLE 9590	STATE	SAMPLE 14576
TEXAS	JACKSON	TEXAS	JACKSON	TEXAS	JACKSON
COUNTY	TORO GRANDE	COUNTY	WEST RANCH	COUNTY	WEST RANCH
WELL NAME	A. T. DINCANS GAS UNIT NO. 1	WELL NAME	WEST RANCH A NO. 383-U	WELL NAME	WEST RANCH UNIT 2 NO. 1
LOCATION	J. E. SISNEROS SUR. A-70	LOCATION	RAMOS MUSQUEZ SUR. A-59	LOCATION	R. MOSQUEZ GRANT A-59
OWNER	CITIES SERVICE OIL & GAS COR	OWNER	MOBIL OIL CORP.	OWNER	MOBIL OIL CO.
COMPLETED	08/11/51	COMPLETED	06/08/63	COMPLETED	12/11/71
SAMPLED	03/05/85	SAMPLED	10/05/64	SAMPLED	02/02/76
FORMATION	EOCE-YEGUA	FORMATION	OL16-FR10	FORMATION	MIOC-H
GEOLOGIC PROVINCE CODE	220	GEOLOGIC PROVINCE CODE	220	GEOLOGIC PROVINCE CODE	220
DEPTH, FEET	8696	DEPTH, FEET	6024	DEPTH, FEET	4175
WELLHEAD PRESSURE, PSIG	5913	WELLHEAD PRESSURE, PSIG	2187	WELLHEAD PRESSURE, PSIG	1360
OPEN FLOW, MCFD	29000	OPEN FLOW, MCFD	NOT GIVEN	OPEN FLOW, MCFD	2200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	94.3	METHANE	87.8	METHANE	98.9
ETHANE	2.3	ETHANE	4.7	ETHANE	0.1
PROPANE	0.9	PROPANE	2.6	PROPANE	TRACE
N-BUTANE	0.2	N-BUTANE	1.1	N-BUTANE	0.0
ISOBUTANE	0.2	ISOBUTANE	1.1	ISOBUTANE	0.0
N-PENTANE	0.1	N-PENTANE	0.3	N-PENTANE	0.0
ISOPENTANE	0.1	ISOPENTANE	0.8	ISOPENTANE	0.0
CYCLOPENTANE	0.1	CYCLOPENTANE	0.3	CYCLOPENTANE	0.0
HEXANES PLUS	0.1	HEXANES PLUS	0.7	HEXANES PLUS	0.0
NITROGEN	0.4	NITROGEN	0.3	NITROGEN	0.8
OXYGEN	0.3	OXYGEN	0.0	OXYGEN	0.0
ARGON	TRACE	ARGON	0.0	ARGON	TRACE
HYDROGEN	0.0	HYDROGEN	0.0	HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	1.2	CARBON DIOXIDE	0.3	CARBON DIOXIDE	0.1
HELIUM	TRACE	HELIUM	TRACE	HELIUM	0.01
HEATING VALUE	1051	HEATING VALUE	1209	HEATING VALUE	1004
SPECIFIC GRAVITY	0.603	SPECIFIC GRAVITY	0.685	SPECIFIC GRAVITY	0.559
INDEX 9031		INDEX 9032		INDEX 9033	
STATE	SAMPLE 12014	STATE	SAMPLE 12015	STATE	SAMPLE 13114
TEXAS	JACKSON	TEXAS	JACKSON	TEXAS	JACKSON
COUNTY	WEST RANCH S	COUNTY	WEST RANCH S	COUNTY	WEST RANCH S
WELL NAME	WEST RANCH NO. 464-C	WELL NAME	WEST RANCH NO. 464-T	WELL NAME	WEST RANCH UNIT 2 NO.1
LOCATION	R. MUSQUEZ GRANT A-59	LOCATION	RAMON MUSQUEZ GRANT A-59	LOCATION	R. MUSQUEZ GRANT A-59
OWNER	MOBIL OIL CORP.	OWNER	MOBIL OIL CORP.	OWNER	MOBIL OIL CO.
COMPLETED	10/10/68	COMPLETED	09/26/68	COMPLETED	12/16/71
SAMPLED	08/28/69	SAMPLED	08/28/69	SAMPLED	08/20/71
FORMATION	OL16-GRETA	FORMATION	OL16-FR10	FORMATION	MIOC-E
GEOLOGIC PROVINCE CODE	220	GEOLOGIC PROVINCE CODE	220	GEOLOGIC PROVINCE CODE	220
DEPTH, FEET	5307	DEPTH, FEET	7054	DEPTH, FEET	3820
WELLHEAD PRESSURE, PSIG	1969	WELLHEAD PRESSURE, PSIG	1000	WELLHEAD PRESSURE, PSIG	1319
OPEN FLOW, MCFD	21000	OPEN FLOW, MCFD	NOT GIVEN	OPEN FLOW, MCFD	46000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	95.0	METHANE	90.8	METHANE	99.1
ETHANE	2.6	ETHANE	1.6	ETHANE	0.1
PROPANE	0.5	PROPANE	2.1	PROPANE	0.1
N-BUTANE	0.5	N-BUTANE	0.4	N-BUTANE	0.0
ISOBUTANE	0.0	ISOBUTANE	0.5	ISOBUTANE	0.0
N-PENTANE	TRACE	N-PENTANE	0.1	N-PENTANE	0.0
ISOPENTANE	0.3	ISOPENTANE	0.2	ISOPENTANE	0.0
CYCLOPENTANE	TRACE	CYCLOPENTANE	0.3	CYCLOPENTANE	0.0
HEXANES PLUS	0.2	HEXANES PLUS	0.2	HEXANES PLUS	0.0
NITROGEN	0.5	NITROGEN	0.8	NITROGEN	0.7
OXYGEN	0.0	OXYGEN	0.0	OXYGEN	0.0
ARGON	TRACE	ARGON	TRACE	ARGON	TRACE
HYDROGEN	0.1	HYDROGEN	0.1	HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	TRACE
CARBON DIOXIDE	0.3	CARBON DIOXIDE	0.3	CARBON DIOXIDE	TRACE
HELIUM	0.01	HELIUM	TRACE	HELIUM	0.01
HEATING VALUE	1062	HEATING VALUE	1114	HEATING VALUE	1008
SPECIFIC GRAVITY	0.595	SPECIFIC GRAVITY	0.628	SPECIFIC GRAVITY	0.559
INDEX 9034		INDEX 9035		INDEX 9036	
STATE	SAMPLE 13115	STATE	SAMPLE 13860	STATE	SAMPLE 15480
TEXAS	JACKSON	TEXAS	JACKSON	TEXAS	JACKSON
COUNTY	WEST RANCH S	COUNTY	WESTHOFF RANCH	COUNTY	WESTHOFF RANCH
WELL NAME	WEST RANCH UNIT 2 NO. 1	WELL NAME	A. E. WESTHOFF NO. 6	WELL NAME	MCDOWELL NO. 2
LOCATION	R. MUSQUEZ GRANT A-59	LOCATION	THOMAS HENEFEE SUR. A-52	LOCATION	THOMAS HENEFEE LEAGUE, A-52
OWNER	MOBIL OIL CORP.	OWNER	MOBIL OIL TRUST	OWNER	MOLLY ENERGY, INC.
COMPLETED	12/16/71	COMPLETED	05/25/72	COMPLETED	07/24/77
SAMPLED	12/16/71	SAMPLED	01/14/74	SAMPLED	11/08/78
FORMATION	MIOC-D	FORMATION	OL16-FR10	FORMATION	OL16-FR10
GEOLOGIC PROVINCE CODE	220	GEOLOGIC PROVINCE CODE	220	GEOLOGIC PROVINCE CODE	220
DEPTH, FEET	3759	DEPTH, FEET	6728	DEPTH, FEET	4943
WELLHEAD PRESSURE, PSIG	1315	WELLHEAD PRESSURE, PSIG	2100	WELLHEAD PRESSURE, PSIG	1528
OPEN FLOW, MCFD	19800	OPEN FLOW, MCFD	6546	OPEN FLOW, MCFD	3200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	99.2	METHANE	94.1	METHANE	98.2
ETHANE	0.1	ETHANE	3.1	ETHANE	1.0
PROPANE	TRACE	PROPANE	1.2	PROPANE	0.1
N-BUTANE	0.0	N-BUTANE	0.2	N-BUTANE	TRACE
ISOBUTANE	0.0	ISOBUTANE	0.2	ISOBUTANE	TRACE
N-PENTANE	0.0	N-PENTANE	0.3	N-PENTANE	TRACE
ISOPENTANE	0.0	ISOPENTANE	0.2	ISOPENTANE	0.0
CYCLOPENTANE	0.0	CYCLOPENTANE	TRACE	CYCLOPENTANE	TRACE
HEXANES PLUS	0.0	HEXANES PLUS	0.2	HEXANES PLUS	0.1
NITROGEN	0.7	NITROGEN	0.2	NITROGEN	0.3
OXYGEN	0.0	OXYGEN	0.0	OXYGEN	0.0
ARGON	0.0	ARGON	0.0	ARGON	TRACE
HYDROGEN	0.0	HYDROGEN	0.0	HYDROGEN	0.2
HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	0.0	HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	TRACE	CARBON DIOXIDE	0.3	CARBON DIOXIDE	TRACE
HELIUM	0.01	HELIUM	0.1	HELIUM	0.01
HEATING VALUE	1007	HEATING VALUE	1074	HEATING VALUE	1021
SPECIFIC GRAVITY	0.558	SPECIFIC GRAVITY	0.600	SPECIFIC GRAVITY	0.562

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9037 SAMPLE 4958			INDEX 9038 SAMPLE 4959			INDEX 9039 SAMPLE 9148		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JACKSON		JACKSON			JACKSON		
FIELD.....	WILDCAT		WILDCAT			BUNA		
WELL NAME.....	VIRGINIA B. WILEY		VIRGINIA B. WILEY			NO. 1		
LOCATION.....	NESTOR CLAY SUR. NO. 13		NESTOR CLAY SUR. NO. 13			SEC. 82, H&TC RR SUR.		
OWNER.....	JAKE L. HAMON & EDWIN L. COX		JAKE L. HAMON & EDWIN L. COX			SINCLAIR OIL & GAS CO.		
COMPLETED.....	08/19/50		08/19/50			05/08/62		
SAMPLED.....	11/07/50		11/07/50			10/24/63		
FORMATION.....	NOT GIVEN		OLIG-FRIO			OLIG-MILCOX 1ST		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5450		5450			11089		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1375			5522		
OPEN FLOW, MCFD.....	5500		5500			35700		
COMPONENT, MOLE PCT								
METHANE.....	97.0		94.8			82.7		
ETHANE.....	1.9		2.8			8.4		
PROPANE.....	0.3		0.7			4.3		
N-BUTANE.....	0.1		0.2			1.3		
ISOBUTANE.....	0.1		0.1			0.6		
N-PENTANE.....	0.0		0.1			0.2		
ISOPENTANE.....	TRACE		0.0			0.5		
CYCLOPENTANE.....	0.0		TRACE			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	0.3		0.6			0.4		
OXYGEN.....	0.1		0.1			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE**.....	---		---			0.0		
CARBON DIOXIDE.....	0.3		0.4			1.3		
HELIUM.....	0.01		TRACE			0.01		
HEATING VALUE*.....	1035		1049			1208		
SPECIFIC GRAVITY.....	0.578		0.594			0.703		

INDEX 9040 SAMPLE 11305			INDEX 9041 SAMPLE 12354			INDEX 9042 SAMPLE 12356		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JEFFERSON		JEFFERSON			JEFFERSON		
FIELD.....	AMELIA		ANGELINA			ANGELINA		
WELL NAME.....	R. J. PEVETO NO. 15-H		W. J. CRAWFORD NO. 3			BELCO FEE NO. 1 (L-T.)		
LOCATION.....	C. WILLIAMS SUR. A-59		SEC. 161, T&NO SUR. A-373			L. A. CASEY SUR. A-942		
OWNER.....	HUMBLE OIL & REFINING CO.		BELCO PETROLEUM CORP.			BELCO PETROLEUM CORP.		
COMPLETED.....	09/16/66		04/08/69			06/14/69		
SAMPLED.....	02/21/68		08/11/70			08/11/70		
FORMATION.....	MIOC		OLIG-MARGINULINA TEX			OLIG-NODOSARIA 3RD		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3279		10670			13010		
WELLHEAD PRESSURE, PSIG.....	1235		900			5500		
OPEN FLOW, MCFD.....	22300		1000			2968		
COMPONENT, MOLE PCT								
METHANE.....	94.3		95.1			88.8		
ETHANE.....	3.1		2.3			4.4		
PROPANE.....	0.6		0.5			0.5		
N-BUTANE.....	0.2		TRACE			0.5		
ISOBUTANE.....	TRACE		0.2			0.6		
N-PENTANE.....	0.0		0.1			0.3		
ISOPENTANE.....	0.4		0.0			TRACE		
CYCLOPENTANE.....	0.4		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.3		
NITROGEN.....	0.7		0.8			1.7		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.6			1.1		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE*.....	1076		1034			1100		
SPECIFIC GRAVITY.....	0.603		0.587			0.646		

INDEX 9043 SAMPLE 12357			INDEX 9044 SAMPLE 13081			INDEX 9045 SAMPLE 11960		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JEFFERSON		JEFFERSON			JEFFERSON		
FIELD.....	ANGELINA		BEAUMONT W			BIG HILL		
WELL NAME.....	BELCO FEE NO. 1 (U-T.)		KEITH & DOWLEN NO. 24U			GEORGE L. ANDERSON NO. 3		
LOCATION.....	L. A. CASEY SUR. A-942		W. WILLIAMS SUR. A-80			SEC. 173, T&NO RR SUR. A-341		
OWNER.....	BELCO PETROLEUM CORP.		AMOCO PRODUCTION CO.			U.S. BUREAU OF MINES		
COMPLETED.....	06/14/69		10/20/70			12/22/67		
SAMPLED.....	08/11/70		10/-/-71			07/08/69		
FORMATION.....	OLIG-NODOSARIA 2ND		OLIG-NODOSARIA			OLIG-HACKBERRY NO. 7		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	12000		7257			8674		
WELLHEAD PRESSURE, PSIG.....	3500		2535			1539		
OPEN FLOW, MCFD.....	2019		3600			1150		
COMPONENT, MOLE PCT								
METHANE.....	87.9		92.8			96.3		
ETHANE.....	2.3		2.1			2.0		
PROPANE.....	2.2		1.8			0.4		
N-BUTANE.....	0.6		0.6			0.1		
ISOBUTANE.....	0.7		0.8			0.1		
N-PENTANE.....	0.0		0.1			0.1		
ISOPENTANE.....	0.0		0.4			0.0		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.4		0.5			0.1		
NITROGEN.....	2.1		0.6			0.3		
OXYGEN.....	0.3		TRACE			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.1			0.5		
HELIUM.....	TRACE		0.02			TRACE		
HEATING VALUE*.....	1106		1131			1038		
SPECIFIC GRAVITY.....	0.653		0.636			0.581		

INDEX 9046 SAMPLE 11961			INDEX 9047 SAMPLE 4765			INDEX 9048 SAMPLE 16752		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JEFFERSON		JEFFERSON			JEFFERSON		
FIELD.....	BIG HILL		BIG HILL N			DEVIL		
WELL NAME.....	GEORGE L. ANDERSON NO. 1		C. E. BYRNE NO. 1			WINZER UNIT NO. 1		
LOCATION.....	SEC. 173, T&NO RR SUR. A-341		SEC. 147, T&NO SUR.			W. H. BALDWIN SUR., A-652		
OWNER.....	HOUSTON NATURAL GAS PROD. CO		MCCARTHY OIL & GAS CORP.			MCCORMICK OPERATING CO.		
COMPLETED.....	12/14/64		07/14/64			07/07/82		
SAMPLED.....	07/08/69		10/17/49			01/17/83		
FORMATION.....	OLIG-HACKBERRY NO. 5		OLIG-MARGINULINA			OLIG-DISCORBIS		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8562		8108			12516		
WELLHEAD PRESSURE, PSIG.....	1220		3121			9000		
OPEN FLOW, MCFD.....	446		122000			45500		
COMPONENT, MOLE PCT								
METHANE.....	94.5		94.0			93.4		
ETHANE.....	2.9		3.6			1.7		
PROPANE.....	0.6		0.3			0.3		
N-BUTANE.....	0.1		0.1			0.1		
ISOBUTANE.....	TRACE		0.1			0.1		
N-PENTANE.....	0.2		0.1			TRACE		
ISOPENTANE.....	TRACE		0.0			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	0.6		0.2			0.2		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.0			0.2		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.1			3.9		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE*.....	1042		1071			991		
SPECIFIC GRAVITY.....	0.592		0.599			0.609		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9049 SAMPLE 14225		INDEX 9050 SAMPLE 14893		INDEX 9051 SAMPLE 14894	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	JEFFERSON	COUNTY.....	JEFFERSON	COUNTY.....	JEFFERSON
FIELD.....	FANNETT	FIELD.....	GILBERT RANCH	FIELD.....	GILBERT RANCH
WELL NAME.....	JUNKER SPENCER "A" NO. 58	WELL NAME.....	GILBERT ESTATE NO. 1	WELL NAME.....	GILBERT ESTATE NO. 1
LOCATION.....	W. H. SMITH SUR. A-198	LOCATION.....	JOHN RICORD SUR. A-189	LOCATION.....	JOHN RICORD SUR. A-189
OWNER.....	GULF OIL CO.- U.S.	OWNER.....	KILROY CO. OF TEXAS, INC.	OWNER.....	KILROY CO. OF TEXAS, INC.
COMPLETED.....	05/04/73	COMPLETED.....	11/15/74	COMPLETED.....	11/15/74
SAMPLED.....	11/14/74	SAMPLED.....	01/30/77	SAMPLED.....	01/30/77
FORMATION.....	OLIG-FR10	FORMATION.....	OLIG-MODOSARIA	FORMATION.....	OLIG-MODOSARIA
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7234	DEPTH, FEET.....	8754	DEPTH, FEET.....	8632
WELLHEAD PRESSURE, PSIG.....	703	WELLHEAD PRESSURE, PSIG.....	2501	WELLHEAD PRESSURE, PSIG.....	2251
OPEN FLOW, MCFD.....	5032	OPEN FLOW, MCFD.....	14046	OPEN FLOW, MCFD.....	25304
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	93.3	METHANE.....	93.4	METHANE.....	93.3
ETHANE.....	0.5	ETHANE.....	3.4	ETHANE.....	3.4
PROPANE.....	1.2	PROPANE.....	1.3	PROPANE.....	1.3
N-BUTANE.....	0.3	N-BUTANE.....	0.4	N-BUTANE.....	0.4
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.4	NITROGEN.....	0.3	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1086	HEATING VALUE.....	1087	HEATING VALUE.....	1089
SPECIFIC GRAVITY.....	0.611	SPECIFIC GRAVITY.....	0.609	SPECIFIC GRAVITY.....	0.611
INDEX 9052 SAMPLE 13104		INDEX 9053 SAMPLE 15829		INDEX 9054 SAMPLE 11990	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	JEFFERSON	COUNTY.....	JEFFERSON	COUNTY.....	JEFFERSON
FIELD.....	GOLD TRIANGLE	FIELD.....	SUN ISLAND W	FIELD.....	HIGH ISLAND BLK. 10-L
WELL NAME.....	PAN AMERICAN FEE NO. 1	WELL NAME.....	HERBERT BROUSSARD "A" NO. 2	WELL NAME.....	TEXAS GULF TRACT 10 NO. A-5
LOCATION.....	ELIZA WILLIAMS SUR. A-498	LOCATION.....	A. HOTCHKISS SUR. A-31	LOCATION.....	STATE TRACT 10-L
OWNER.....	PRUDENTIAL DRILLING CO.	OWNER.....	DOW CHEMICAL CO. U.S.A.	OWNER.....	MOBIL OIL CORP.
COMPLETED.....	07/25/70	COMPLETED.....	07/25/70	COMPLETED.....	01/07/68
SAMPLED.....	09/25/71	SAMPLED.....	11/06/79	SAMPLED.....	08/01/69
FORMATION.....	OLIG-HACKBERRY	FORMATION.....	OLIG-HACKBERRY	FORMATION.....	MIOC-A-2 SAND
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	10952	DEPTH, FEET.....	10211	DEPTH, FEET.....	6239
WELLHEAD PRESSURE, PSIG.....	4500	WELLHEAD PRESSURE, PSIG.....	6407	WELLHEAD PRESSURE, PSIG.....	3000
OPEN FLOW, MCFD.....	23000	OPEN FLOW, MCFD.....	9500	OPEN FLOW, MCFD.....	15180
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	97.3	METHANE.....	86.4	METHANE.....	96.7
ETHANE.....	1.2	ETHANE.....	7.5	ETHANE.....	1.9
PROPANE.....	0.3	PROPANE.....	0.2	PROPANE.....	0.2
N-BUTANE.....	0.0	N-BUTANE.....	0.7	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.8	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.2	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.2	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	0.4	NITROGEN.....	0.4	NITROGEN.....	0.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.3
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1035	HEATING VALUE.....	1170	HEATING VALUE.....	1023
SPECIFIC GRAVITY.....	0.573	SPECIFIC GRAVITY.....	0.664	SPECIFIC GRAVITY.....	0.572
INDEX 9055 SAMPLE 12358		INDEX 9056 SAMPLE 13801		INDEX 9057 SAMPLE 13802	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	JEFFERSON	COUNTY.....	JEFFERSON	COUNTY.....	JEFFERSON
FIELD.....	HIGH ISLAND BLK. 24-L	FIELD.....	HIGH ISLAND BLK. 24-L	FIELD.....	HIGH ISLAND BLK. 24-L
WELL NAME.....	BLK. 24-L NO. 5	WELL NAME.....	STATE LEASE 59456 NO. C-3	WELL NAME.....	STATE LEASE 59456 NO. C-3U
LOCATION.....	STATE LEASE NO. 59455	LOCATION.....	BLK. 24-L HIGH ISLAND	LOCATION.....	BLK. 24-L HIGH ISLAND
OWNER.....	ATLANTIC RICHFIELD CO.	OWNER.....	ATLANTIC RICHFIELD CO.	OWNER.....	ATLANTIC RICHFIELD CO.
COMPLETED.....	04/30/69	COMPLETED.....	05/22/72	COMPLETED.....	05/22/72
SAMPLED.....	06/03/70	SAMPLED.....	11/05/73	SAMPLED.....	11/05/73
FORMATION.....	MIOC-	FORMATION.....	MIOC-J SERIES	FORMATION.....	MIOC-US
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8088	DEPTH, FEET.....	10965	DEPTH, FEET.....	10810
WELLHEAD PRESSURE, PSIG.....	3165	WELLHEAD PRESSURE, PSIG.....	6015	WELLHEAD PRESSURE, PSIG.....	6260
OPEN FLOW, MCFD.....	33000	OPEN FLOW, MCFD.....	31700	OPEN FLOW, MCFD.....	37300
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	94.3	METHANE.....	96.0	METHANE.....	96.1
ETHANE.....	3.0	ETHANE.....	1.5	ETHANE.....	1.6
PROPANE.....	0.9	PROPANE.....	0.4	PROPANE.....	0.4
N-BUTANE.....	0.2	N-BUTANE.....	TRACE	N-BUTANE.....	TRACE
ISOBUTANE.....	0.3	ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE
N-PENTANE.....	0.2	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.4	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	0.4	NITROGEN.....	0.5	NITROGEN.....	0.3
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	1.2
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1082	HEATING VALUE.....	1017	HEATING VALUE.....	1029
SPECIFIC GRAVITY.....	0.603	SPECIFIC GRAVITY.....	0.585	SPECIFIC GRAVITY.....	0.587
INDEX 9058 SAMPLE 5007		INDEX 9059 SAMPLE 11191		INDEX 9060 SAMPLE 12577	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	JEFFERSON	COUNTY.....	JEFFERSON	COUNTY.....	JEFFERSON
FIELD.....	HILDEBRANDT BAYOU	FIELD.....	HILDEBRANDT BAYOU	FIELD.....	HILDEBRANDT BAYOU
WELL NAME.....	AUBREY NO. 1	WELL NAME.....	BORDAGES-STATE GAS UNIT NO.1	WELL NAME.....	BROUSSARD TRUST ET AL. NO. 1
LOCATION.....	JOHN J. FRENCH SUR.	LOCATION.....	E. D. CHINNEETH SUR. A-104	LOCATION.....	BLK. 5, JOHN MCNABB SUR. A-174
OWNER.....	TEXACO CO.	OWNER.....	TEXACO INC.	OWNER.....	JAMES F. MORSE & CO.
COMPLETED.....	--/--/00	COMPLETED.....	03/24/66	COMPLETED.....	11/17/48
SAMPLED.....	01/24/51	SAMPLED.....	10/27/57	SAMPLED.....	12/12/70
FORMATION.....	OLIG-FR10	FORMATION.....	OLIG-HILDEBRANDT BAYOU	FORMATION.....	OLIG-MARGINULINA
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8370	DEPTH, FEET.....	9630	DEPTH, FEET.....	7719
WELLHEAD PRESSURE, PSIG.....	2863	WELLHEAD PRESSURE, PSIG.....	4900	WELLHEAD PRESSURE, PSIG.....	2350
OPEN FLOW, MCFD.....	27000	OPEN FLOW, MCFD.....	20665	OPEN FLOW, MCFD.....	74580
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	89.8	METHANE.....	89.5	METHANE.....	86.9
ETHANE.....	2.4	ETHANE.....	2.8	ETHANE.....	5.1
PROPANE.....	2.5	PROPANE.....	2.1	PROPANE.....	2.8
N-BUTANE.....	0.7	N-BUTANE.....	0.6	N-BUTANE.....	0.8
ISOBUTANE.....	0.9	ISOBUTANE.....	0.4	ISOBUTANE.....	1.1
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.4
ISOPENTANE.....	0.1	ISOPENTANE.....	0.3	ISOPENTANE.....	0.7
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.4
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	1.1
NITROGEN.....	0.5	NITROGEN.....	0.5	NITROGEN.....	0.8
OXYGEN.....	0.2	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	--	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.1
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1142	HEATING VALUE.....	1130	HEATING VALUE.....	1221
SPECIFIC GRAVITY.....	0.649	SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.694

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9061 16388			INDEX SAMPLE	9062 13626			INDEX SAMPLE	9063 10107
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	JEFFERSON			COUNTY.....	JEFFERSON			COUNTY.....	JEFFERSON		
FIELD.....	M-HALF CIRCLE RANCH			FIELD.....	MARRS MCLEAN			FIELD.....	MCFAADDIN RANCH		
WELL NAME.....	M-HALF CIRCLE RANCH NO. 2			WELL NAME.....	J. E. PATE NO. 1			WELL NAME.....	MCFAADDIN RANCH NO. 1		
LOCATION.....	W. B. BURTON SUR., A-8			LOCATION.....	W. E. WILLIAMS SUR. A-662			LOCATION.....	NANCY E. ROGERS SUR. A-803		
OWNER.....	GULF OIL CORP.			OWNER.....	CHEVRON OIL CO.			OWNER.....	SHELL OIL CO.		
COMPLETED.....	01/21/81			COMPLETED.....	04/12/71			COMPLETED.....	11/18/64		
SAMPLED.....	11/19/81			SAMPLED.....	06/08/73			SAMPLED.....	09/02/65		
FORMATION.....	OLIG-FRIO			FORMATION.....	OLIG-NODOSARIA			FORMATION.....	MIOC-		
GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	10200			DEPTH, FEET.....	11158			DEPTH, FEET.....	8422		
WELLHEAD PRESSURE,PSIG.....	15951			WELLHEAD PRESSURE,PSIG.....	1500			WELLHEAD PRESSURE,PSIG.....	3285		
OPEN FLOW, MCFD.....	290000			OPEN FLOW, MCFD.....	1500			OPEN FLOW, MCFD.....	160000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	95.9			METHANE.....	92.6			METHANE.....	97.1		
ETHANE.....	2.1			ETHANE.....	3.2			ETHANE.....	1.6		
PROPANE.....	0.6			PROPANE.....	1.5			PROPANE.....	0.3		
N-BUTANE.....	0.2			N-BUTANE.....	0.3			N-BUTANE.....	TRACE		
ISOBUTANE.....	0.1			ISOBUTANE.....	0.2			ISOBUTANE.....	0.0		
N-PENTANE.....	0.1			N-PENTANE.....	0.1			N-PENTANE.....	0.0		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.1			ISOPENTANE.....	0.0		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.0		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.0		
NITROGEN.....	0.3			NITROGEN.....	0.6			NITROGEN.....	0.6		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	TRACE			ARGON.....	0.0			ARGON.....	TRACE		
HYDROGEN.....	0.1			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.5			CARBON DIOXIDE.....	0.5			CARBON DIOXIDE.....	0.3		
HELIUM.....	TRACE			HELIUM.....	TRACE			HELIUM.....	TRACE		
HEATING VALUE.....	1049			HEATING VALUE.....	1084			HEATING VALUE.....	1020		
SPECIFIC GRAVITY.....	0.588			SPECIFIC GRAVITY.....	0.616			SPECIFIC GRAVITY.....	0.570		
		INDEX SAMPLE	9064 12003			INDEX SAMPLE	9065 12004			INDEX SAMPLE	9066 16292
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	JEFFERSON			COUNTY.....	JEFFERSON			COUNTY.....	JEFFERSON		
FIELD.....	NOME			FIELD.....	NOME			FIELD.....	NOME NE		
WELL NAME.....	ED PAGGI NO. 3-U			WELL NAME.....	ED PAGGI NO. 3-L			WELL NAME.....	PICA INVESTMENT CO. NO. 1		
LOCATION.....	J. W. KIRBY SUR. A-584			LOCATION.....	J. W. KIRBY SUR. A-584			LOCATION.....	3.6 MI. SSE SOUR LAKE		
OWNER.....	SHELL OIL CO.			OWNER.....	SHELL OIL CO.			OWNER.....	TEXACO INC.		
COMPLETED.....	10/03/68			COMPLETED.....	10/03/69			COMPLETED.....	11/14/80		
SAMPLED.....	08/20/69			SAMPLED.....	08/20/69			SAMPLED.....	07/10/81		
FORMATION.....	OLIG-NOME			FORMATION.....	OLIG-FRIO			FORMATION.....	EOCE-YEGUA		
GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	6908			DEPTH, FEET.....	6933			DEPTH, FEET.....	10500		
WELLHEAD PRESSURE,PSIG.....	2458			WELLHEAD PRESSURE,PSIG.....	2305			WELLHEAD PRESSURE,PSIG.....	6827		
OPEN FLOW, MCFD.....	16800			OPEN FLOW, MCFD.....	8600			OPEN FLOW, MCFD.....	12444		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	90.2			METHANE.....	90.7			METHANE.....	83.5		
ETHANE.....	3.6			ETHANE.....	3.8			ETHANE.....	6.9		
PROPANE.....	1.6			PROPANE.....	0.2			PROPANE.....	5.2		
N-BUTANE.....	0.7			N-BUTANE.....	0.2			N-BUTANE.....	0.9		
ISOBUTANE.....	1.5			ISOBUTANE.....	1.3			ISOBUTANE.....	0.9		
N-PENTANE.....	0.3			N-PENTANE.....	0.3			N-PENTANE.....	0.1		
ISOPENTANE.....	0.4			ISOPENTANE.....	0.3			ISOPENTANE.....	0.4		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.2		
HEXANES PLUS.....	0.4			HEXANES PLUS.....	0.3			HEXANES PLUS.....	0.3		
NITROGEN.....	1.1			NITROGEN.....	1.0			NITROGEN.....	0.5		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	TRACE		
ARGON.....	0.0			ARGON.....	TRACE			ARGON.....	0.0		
HYDROGEN.....	0.2			HYDROGEN.....	0.2			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	1.2		
HELIUM.....	0.01			HELIUM.....	TRACE			HELIUM.....	TRACE		
HEATING VALUE.....	1149			HEATING VALUE.....	1132			HEATING VALUE.....	1209		
SPECIFIC GRAVITY.....	0.652			SPECIFIC GRAVITY.....	0.641			SPECIFIC GRAVITY.....	0.703		
		INDEX SAMPLE	9067 7964			INDEX SAMPLE	9068 14615			INDEX SAMPLE	9069 7428
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	JEFFERSON			COUNTY.....	JEFFERSON			COUNTY.....	JEFFERSON		
FIELD.....	PORT ARTHUR			FIELD.....	STOWELL			FIELD.....	TAYLOR BAYOU S		
WELL NAME.....	DOORNBOS NO. 1			WELL NAME.....	W. M. STOEGER NO. 2			WELL NAME.....	J. WILFERT NO. 1		
LOCATION.....	NOT GIVEN			LOCATION.....	E. LOPEZ SUR. A-37			LOCATION.....	NOT GIVEN		
OWNER.....	KILROY CO. OF TEXAS, INC.			OWNER.....	HNG OIL CO.			OWNER.....	TENNESSEE GAS TRANSMISSION C		
COMPLETED.....	04/-/59			COMPLETED.....	08/14/74			COMPLETED.....	04/02/59		
SAMPLED.....	05/27/60			SAMPLED.....	03/19/76			SAMPLED.....	03/01/60		
FORMATION.....	OLIG-HACKBERRY			FORMATION.....	OLIG-FRIO			FORMATION.....	OLIG-MARGINULINA & FRIO		
GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	11058			DEPTH, FEET.....	8104			DEPTH, FEET.....	8006		
WELLHEAD PRESSURE,PSIG.....	6500			WELLHEAD PRESSURE,PSIG.....	2730			WELLHEAD PRESSURE,PSIG.....	2500		
OPEN FLOW, MCFD.....	210000			OPEN FLOW, MCFD.....	2930			OPEN FLOW, MCFD.....	11200		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	89.5			METHANE.....	94.6			METHANE.....	95.3		
ETHANE.....	6.5			ETHANE.....	1.2			ETHANE.....	2.5		
PROPANE.....	2.3			PROPANE.....	0.8			PROPANE.....	0.9		
N-BUTANE.....	0.3			N-BUTANE.....	0.2			N-BUTANE.....	0.2		
ISOBUTANE.....	0.5			ISOBUTANE.....	0.3			ISOBUTANE.....	0.3		
N-PENTANE.....	TRACE			N-PENTANE.....	TRACE			N-PENTANE.....	0.1		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.1			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.1		
HEXANES PLUS.....	TRACE			HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.2		
NITROGEN.....	0.3			NITROGEN.....	0.5			NITROGEN.....	0.3		
OXYGEN.....	TRACE			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	0.0			ARGON.....	0.0			ARGON.....	0.0		
HYDROGEN.....	0.1			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.1		
HELIUM.....	0.01			HELIUM.....	TRACE			HELIUM.....	TRACE		
HEATING VALUE.....	1114			HEATING VALUE.....	1063			HEATING VALUE.....	1077		
SPECIFIC GRAVITY.....	0.627			SPECIFIC GRAVITY.....	0.596			SPECIFIC GRAVITY.....	0.599		
		INDEX SAMPLE	9070 4437			INDEX SAMPLE	9071 4346			INDEX SAMPLE	9072 3728
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	JIM HOGG			COUNTY.....	JIM HOGG			COUNTY.....	JIM HOGG		
FIELD.....	A. K. EAST			FIELD.....	ALLEN			FIELD.....	ARMSTRONG		
WELL NAME.....	SEC. 14, ANTONIO YSAQUINO GR.			WELL NAME.....	JOHN ALLEN NO. 1			WELL NAME.....	ROY YAGER NO. 3		
LOCATION.....	TEXAS CO.			LOCATION.....	BLK. 10, SEC. 29, H&GNRR SUR			LOCATION.....	SEC. 222		
OWNER.....	TEXAS CO.			OWNER.....	CAH CORP.			OWNER.....	TEXAS CO.		
COMPLETED.....	07/29/47			COMPLETED.....	05/13/47			COMPLETED.....	01/15/44		
SAMPLED.....	01/16/48			SAMPLED.....	08/29/47			SAMPLED.....	03/16/44		
FORMATION.....	EOCE-JACKSON			FORMATION.....	TERT-2900 FT. SAND			FORMATION.....	-STRAND LINE STRUCTURE		
GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	3953			DEPTH, FEET.....	2937			DEPTH, FEET.....	2869		
WELLHEAD PRESSURE,PSIG.....	1420			WELLHEAD PRESSURE,PSIG.....	NOT GIVEN			WELLHEAD PRESSURE,PSIG.....	NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	2900			OPEN FLOW, MCFD.....	6000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	82.2			METHANE.....	90.8			METHANE.....	98.6		
ETHANE.....	16.6			ETHANE.....	5.5			ETHANE.....	---		
PROPANE.....	---			PROPANE.....	---			PROPANE.....	---		
N-BUTANE.....	---			N-BUTANE.....	---			N-BUTANE.....	---		
ISOBUTANE.....	---			ISOBUTANE.....	---			ISOBUTANE.....	---		
N-PENTANE.....	---			N-PENTANE.....	---			N-PENTANE.....	---		
ISOPENTANE.....	---			ISOPENTANE.....	---			ISOPENTANE.....	---		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	---			CYCLOPENTANE.....	---		
HEXANES PLUS.....	---			HEXANES PLUS.....	---			HEXANES PLUS.....	---		
NITROGEN.....	0.6			NITROGEN.....	2.6			NITROGEN.....	0.0		
OXYGEN.....	0.3			OXYGEN.....	0.3			OXYGEN.....	1.1		
ARGON.....	---			ARGON.....	---			ARGON.....	---		
HYDROGEN.....	---			HYDROGEN.....	---			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.8			CARBON DIOXIDE.....	0.3		
HELIUM.....	TRACE			HELIUM.....	0.01			HELIUM.....	0.00		
HEATING VALUE.....	1013			HEATING VALUE.....	1018			HEATING VALUE.....	999		
SPECIFIC GRAVITY.....	0.644			SPECIFIC GRAVITY.....	0.602			SPECIFIC GRAVITY.....	0.563		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9073 SAMPLE 17577		INDEX 9074 SAMPLE 5162		INDEX 9075 SAMPLE 15525	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	JIM HOGG	COUNTY.....	JIM HOGG	COUNTY.....	JIM HOGG
FIELD.....	CHARCO LARGO CREEK (3330)	FIELD.....	JONES E	FIELD.....	KELSEY DEEP
WELL NAME.....	KING HCH COLO B. NO. 94	WELL NAME.....	A. C. JONES NO. 47	WELL NAME.....	MRS. A. M. K. BASS NO. 32-F
LOCATION.....	LAS MORITAS GRANT	LOCATION.....	AQUA NUEVO DE ABAJO GRANT	LOCATION.....	LA BLANCA GRANT
OWNER.....	EXXON CO., U.S.A.	OWNER.....	SUN OIL CO.	OWNER.....	EXXON CO., U.S.A.
COMPLETED.....	07/24/84	COMPLETED.....	09/05/51	COMPLETED.....	02/04/77
SAMPLED.....	01/24/85	SAMPLED.....	01/21/52	SAMPLED.....	11/21/78
FORMATION.....	EOCE-JACKSON	FORMATION.....	NOT GIVEN	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	3326	DEPTH, FEET.....	4990	DEPTH, FEET.....	5910
WELLHEAD PRESSURE, PSIG.....	1200	WELLHEAD PRESSURE, PSIG.....	1969	WELLHEAD PRESSURE, PSIG.....	2337
OPEN FLOW, MCFD.....	1447	OPEN FLOW, MCFD.....	5650	OPEN FLOW, MCFD.....	2528
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	91.3	METHANE.....	95.0	METHANE.....	89.7
ETHANE.....	4.1	ETHANE.....	2.5	ETHANE.....	4.6
PROPANE.....	1.2	PROPANE.....	0.9	PROPANE.....	2.0
N-BUTANE.....	0.3	N-BUTANE.....	0.2	N-BUTANE.....	0.8
ISOBUTANE.....	0.5	ISOBUTANE.....	0.2	ISOBUTANE.....	1.0
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.4
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.5
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.4
NITROGEN.....	0.2	NITROGEN.....	0.6	NITROGEN.....	0.2
OXYGEN.....	0.2	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1092	HEATING VALUE.....	1897	HEATING VALUE.....	1167
SPECIFIC GRAVITY.....	0.625	SPECIFIC GRAVITY.....	0.593	SPECIFIC GRAVITY.....	0.653
INDEX 9076 SAMPLE 15526		INDEX 9077 SAMPLE 6483		INDEX 9078 SAMPLE 7921	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	JIM HOGG	COUNTY.....	JIM HOGG	COUNTY.....	JIM HOGG
FIELD.....	KELSEY DEEP	FIELD.....	STROMAN	FIELD.....	THOMPSONVILLE NE
WELL NAME.....	MRS. A. M. K. BASS NO. 32-D	WELL NAME.....	NO. 3	WELL NAME.....	YEAGER-ARMSTRONG NO. 1
LOCATION.....	LA BLANCA GRANT	LOCATION.....	SUB. NO. 299	LOCATION.....	NOT GIVEN
OWNER.....	EXXON CO., U.S.A.	OWNER.....	W. L. COTTON	OWNER.....	COASTAL STATES GAS PROD. CO.
COMPLETED.....	02/02/77	COMPLETED.....	04/06/57	COMPLETED.....	10/22/60
SAMPLED.....	02/17/78	SAMPLED.....	01/26/58	SAMPLED.....	03/20/61
FORMATION.....	OLIG-FRIO	FORMATION.....	EOCE-JACKSON L	FORMATION.....	EOCE-HINNANT 1ST
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	6638	DEPTH, FEET.....	3578	DEPTH, FEET.....	9670
WELLHEAD PRESSURE, PSIG.....	1668	WELLHEAD PRESSURE, PSIG.....	1102	WELLHEAD PRESSURE, PSIG.....	5910
OPEN FLOW, MCFD.....	5308	OPEN FLOW, MCFD.....	3000	OPEN FLOW, MCFD.....	95000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	92.7	METHANE.....	96.6	METHANE.....	90.2
ETHANE.....	3.9	ETHANE.....	1.8	ETHANE.....	3.1
PROPANE.....	1.5	PROPANE.....	0.1	PROPANE.....	1.1
N-BUTANE.....	0.4	N-BUTANE.....	TRACE	N-BUTANE.....	0.1
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.1
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	TRACE
NITROGEN.....	0.2	NITROGEN.....	0.5	NITROGEN.....	TRACE
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	5.3
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1099	HEATING VALUE.....	1038	HEATING VALUE.....	1005
SPECIFIC GRAVITY.....	0.614	SPECIFIC GRAVITY.....	0.580	SPECIFIC GRAVITY.....	0.635
INDEX 9079 SAMPLE 7922		INDEX 9080 SAMPLE 17502		INDEX 9081 SAMPLE 4975	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	JIM HOGG	COUNTY.....	JIM HOGG	COUNTY.....	JIM WELLS
FIELD.....	THOMPSONVILLE NE	FIELD.....	TRAVIS WARD	FIELD.....	ALFRED
WELL NAME.....	R. LOPEZ NO. 1	WELL NAME.....	F. L. TREVINO NO. 1-A	WELL NAME.....	ED C. ADAMS NO. 1
LOCATION.....	NOT GIVEN	LOCATION.....	SEC. 17, ABSTRACT 181, H&GN	LOCATION.....	JUAN HERNANDEZ SUR. 10
OWNER.....	COASTAL STATES GAS PROD. CO.	OWNER.....	AMERICAN SALES CORP.	OWNER.....	TEXAS CO.
COMPLETED.....	07/22/60	COMPLETED.....	10/17/83	COMPLETED.....	05/27/50
SAMPLED.....	03/20/61	SAMPLED.....	10/16/84	SAMPLED.....	12/05/50
FORMATION.....	EOCE-HINNANT 1ST	FORMATION.....	EOCE-WILCOX	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	9724	DEPTH, FEET.....	13960	DEPTH, FEET.....	2500
WELLHEAD PRESSURE, PSIG.....	5900	WELLHEAD PRESSURE, PSIG.....	8500	WELLHEAD PRESSURE, PSIG.....	1150
OPEN FLOW, MCFD.....	55000	OPEN FLOW, MCFD.....	6281000	OPEN FLOW, MCFD.....	8300
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	91.2	METHANE.....	81.7	METHANE.....	97.7
ETHANE.....	3.9	ETHANE.....	1.8	ETHANE.....	0.1
PROPANE.....	0.6	PROPANE.....	TRACE	PROPANE.....	0.1
N-BUTANE.....	0.1	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.2	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.0	NITROGEN.....	0.2	NITROGEN.....	1.8
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.2
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	4.4	CARBON DIOXIDE.....	17.9	CARBON DIOXIDE.....	0.0
HELIUM.....	10	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1013	HEATING VALUE.....	830	HEATING VALUE.....	996
SPECIFIC GRAVITY.....	0.626	SPECIFIC GRAVITY.....	0.730	SPECIFIC GRAVITY.....	0.564
INDEX 9082 SAMPLE 6498		INDEX 9083 SAMPLE 6499		INDEX 9084 SAMPLE 14295	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	JIM WELLS	COUNTY.....	JIM WELLS	COUNTY.....	JIM WELLS
FIELD.....	AMARGOSA	FIELD.....	AMARGOSA	FIELD.....	EL PAR
WELL NAME.....	SHEFFER RANCH A NO. 6	WELL NAME.....	SHEFFER RANCH A NO. 3	WELL NAME.....	KING RANCH MORGAN NO. M-34
LOCATION.....	SA&MGR A-478 SUR.	LOCATION.....	J. WELLS A-527 SUR.	LOCATION.....	SANTA GERTRUDIS GRANT
OWNER.....	TIDEWATER OIL CO.	OWNER.....	TIDEWATER OIL CO.	OWNER.....	EXXON CO., U.S.A.
COMPLETED.....	02/07/58	COMPLETED.....	02/07/58	COMPLETED.....	05/27/73
SAMPLED.....	02/07/58	SAMPLED.....	02/07/58	SAMPLED.....	03/14/75
FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-MARGINULINA	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	2745	DEPTH, FEET.....	2266	DEPTH, FEET.....	4449
WELLHEAD PRESSURE, PSIG.....	1140	WELLHEAD PRESSURE, PSIG.....	735	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	5700	OPEN FLOW, MCFD.....	39500	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	95.0	METHANE.....	96.0	METHANE.....	93.3
ETHANE.....	4.0	ETHANE.....	0.5	ETHANE.....	4.0
PROPANE.....	TRACE	PROPANE.....	TRACE	PROPANE.....	1.4
N-BUTANE.....	0.1	N-BUTANE.....	TRACE	N-BUTANE.....	0.2
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	---
N-PENTANE.....	0.3	N-PENTANE.....	0.0	N-PENTANE.....	0.3
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.2	NITROGEN.....	3.1	NITROGEN.....	0.6
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.01	HELIUM.....	0.02	HELIUM.....	TRACE
HEATING VALUE.....	1064	HEATING VALUE.....	710	HEATING VALUE.....	1079
SPECIFIC GRAVITY.....	0.590	SPECIFIC GRAVITY.....	0.573	SPECIFIC GRAVITY.....	0.603

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9085			INDEX 9086			INDEX 9087		
SAMPLE 5100			SAMPLE 6497			SAMPLE 4802		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JIM WELLS		JIM WELLS			JIM WELLS		
FIELD.....	EMBLETON		FREEBORN			HALDEMAN S		
WELL NAME.....	R. V. EMBLETON NO. 1		FREEBORN TRUSTEE NO. 3			AL. H. HENDERSON NO. 1		
LOCATION.....	NOT GIVEN		J. T. WHITE A-529 SUR.			LOTS 5812, HALDEMAN SUBD. 43		
OWNER.....	W. EARL ROWE		GETTY OIL CO.			SINCLAIR OIL & GAS CO.		
COMPLETED.....	05/23/51		04/06/57			11/23/49		
SAMPLED.....	11/03/51		02/07/59			04/06/57		
FORMATION.....	OLIG-HETEROSTEGINA		EDCE-PELTUS			OLIG-ZONE 21-B		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3400		5344			5321		
WELLHEAD PRESSURE, PSIG.....	1430		2600			2077		
OPEN FLOW, MCFD.....	9800		6600			12000		
COMPONENT, MOLE PCT								
METHANE.....	98.0		89.3			92.9		
ETHANE.....	0.5		5.2			3.5		
PROPANE.....	0.2		2.6			1.5		
N-BUTANE.....	TRACE		0.7			0.3		
ISOBUTANE.....	0.0		0.8			0.4		
N-PENTANE.....	0.1		0.2			0.3		
ISOPENTANE.....	0.0		0.4			0.0		
CYCLOPENTANE.....	0.0		TRACE			0.1		
HEXANES PLUS.....	0.1		0.3			0.3		
NITROGEN.....	0.9		0.1			0.4		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.1		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	1016		1157			1102		
SPECIFIC GRAVITY.....	0.568		0.651			0.619		

INDEX 9088			INDEX 9089			INDEX 9090		
SAMPLE 15441			SAMPLE 10555			SAMPLE 4922		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JIM WELLS		JIM WELLS			JIM WELLS		
FIELD.....	HOELSCHER		L. GLORIA N			MAGNOLIA CITY		
WELL NAME.....	HOELSCHER NO. 1		SEELIGSON UNIT NO. 1			REYNOLDS & RICHARDSON NO. 1		
LOCATION.....	10 MI. NE ALICE		SEC. 11, SEELIGSON RANCH			SEC. 210		
OWNER.....	DINEIRO OIL CO.		SAMEADAN OIL CORP.			HICKOK & REYNOLDS ROYALTY CO		
COMPLETED.....	12/31/76		11/27/65			06/19/50		
SAMPLED.....	10/13/78		05/09/66			09/14/50		
FORMATION.....	OLIG-FRIO		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5500		6900			3927		
WELLHEAD PRESSURE, PSIG.....	1050		3150			NOT GIVEN		
OPEN FLOW, MCFD.....	8000		88			12		
COMPONENT, MOLE PCT								
METHANE.....	91.5		96.0			97.3		
ETHANE.....	4.5		1.8			0.6		
PROPANE.....	1.7		0.7			0.4		
N-BUTANE.....	0.4		0.2			0.3		
ISOBUTANE.....	0.4		0.1			0.0		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.0		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.4		
NITROGEN.....	0.3		0.6			0.6		
OXYGEN.....	TRACE		0.2			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.4		TRACE			0.0		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1105		1049			1049		
SPECIFIC GRAVITY.....	0.622		0.587			0.584		

INDEX 9091			INDEX 9092			INDEX 9093		
SAMPLE 4894			SAMPLE 12487			SAMPLE 12488		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JIM WELLS		JIM WELLS			JIM WELLS		
FIELD.....	MAGNOLIA CITY N		MAGNOLIA CITY N			MAGNOLIA CITY N		
WELL NAME.....	V. A. BERGH NO. 2		NINA ADAMS NO. 25F			NINA ADAMS NO. 19		
LOCATION.....	LOT 7, ADAMS & STAPLES SUBD.		MARCELLINO LOPEZ SUR. A-281			MARCELLINO LOPEZ SUR. A-281		
OWNER.....	FRANK W. MICHAUX		HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	12/06/49		07/08/69			11/27/68		
SAMPLED.....	05/29/50		10/27/70			10/27/70		
FORMATION.....	OLIG-FRIO		OLIG-D-60			OLIG-D-80		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3433		3607			3801		
WELLHEAD PRESSURE, PSIG.....	1429		795			1550		
OPEN FLOW, MCFD.....	26000		1700			2180		
COMPONENT, MOLE PCT								
METHANE.....	98.3		99.4			98.9		
ETHANE.....	0.3		0.1			0.2		
PROPANE.....	0.1		TRACE			0.1		
N-BUTANE.....	0.1		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	0.1		0.0			0.0		
NITROGEN.....	0.7		0.3			0.6		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	TRACE		0.1			0.1		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.1		
HELIUM.....	TRACE		0.02			0.01		
HEATING VALUE.....	1019		1009			1008		
SPECIFIC GRAVITY.....	0.567		0.555			0.559		

INDEX 9094			INDEX 9095			INDEX 9096		
SAMPLE 12489			SAMPLE 4115			SAMPLE 4329		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JIM WELLS		JIM WELLS			JIM WELLS		
FIELD.....	MAGNOLIA CITY N		MAGNOLIA CITY N			NOT GIVEN		
WELL NAME.....	NINA ADAMS NO. 25D		WM. F. FILTER NO. 1			S. B. ALLEY NO. 1		
LOCATION.....	MARCELLINO LOPEZ SUR. A-281		6 MI. SE OF ALICE			5 MI. S OF ALICE		
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.			SOUTHERN MINERALS CORP.		
COMPLETED.....	02/04/69		06/23/46			03/21/47		
SAMPLED.....	10/27/70		10/02/46			06/06/47		
FORMATION.....	OLIG-E-25		OLIG-FRIO U			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	4252		3745			3577		
WELLHEAD PRESSURE, PSIG.....	960		NOT GIVEN			1590		
OPEN FLOW, MCFD.....	11600		6230			12500		
COMPONENT, MOLE PCT								
METHANE.....	93.1		98.0			98.9		
ETHANE.....	0.0		0.2			0.3		
PROPANE.....	0.0		---			---		
N-BUTANE.....	0.7		---			---		
ISOBUTANE.....	0.0		---			---		
N-PENTANE.....	0.0		---			---		
ISOPENTANE.....	0.5		---			---		
CYCLOPENTANE.....	0.1		---			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	3.8		1.2			0.5		
OXYGEN.....	0.9		0.2			0.2		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.4			0.1		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	1006		996			1007		
SPECIFIC GRAVITY.....	0.604		0.565			0.560		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9097 SAMPLE 12078			INDEX 9098 SAMPLE 4083			INDEX 9099 SAMPLE 4692		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JIM WELLS		JIM WELLS			JIM WELLS		
FIELD.....	NOT GIVEN		ORANGE GROVE			PALITO BLANCO		
WELL NAME.....	INGRAM-CLEMENSEN UNIT NO. 1		SCHUENEMANN NO. 1			ZELLA C. FOSTER NO. 1		
LOCATION.....	BENTONVILLE AREA		NOT GIVEN			NOT GIVEN		
OWNER.....	MERIDIAN EXPLORATION CO.		ATLANTIC REFINING CO.			TEXAS CO.		
COMPLETED.....	08/05/69		09/28/44			10/04/48		
SAMPLED.....	10/07/69		05/30/45			01/27/49		
FORMATION.....	OLIG-FRIO		OLIG-VICKSBURG			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5445		5000			4450		
WELLHEAD PRESSURE, PSIG.....	1750		1715			1860		
OPEN FLOW, MCFD.....	25000		5800			11800		
COMPONENT, MOLE PCT								
METHANE.....	91.6	-----	93.3	-----		92.2	-----	
ETHANE.....	3.8	-----	6.4	-----		4.5	-----	
PROPANE.....	1.5	-----	---	-----		1.8	-----	
N-BUTANE.....	0.5	-----	---	-----		0.4	-----	
ISOBUTANE.....	0.5	-----	---	-----		0.3	-----	
N-PENTANE.....	0.3	-----	---	-----		0.3	-----	
ISOPENTANE.....	0.3	-----	---	-----		TRACE	-----	
CYCLOPENTANE.....	0.1	-----	---	-----		TRACE	-----	
HEXANES PLUS.....	0.4	-----	---	-----		0.2	-----	
NITROGEN.....	0.8	-----	0.0	-----		TRACE	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.1	-----	
ARGON.....	TRACE	-----	---	-----		0.0	-----	
HYDROGEN.....	0.1	-----	---	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		---	-----	
CARBON DIOXIDE.....	TRACE	-----	0.3	-----		TRACE	-----	
HELIUM.....	TRACE	-----	0.01	-----		TRACE	-----	
HEATING VALUE.....	1119	-----	1060	-----		1112	-----	
SPECIFIC GRAVITY.....	0.629	-----	0.589	-----		0.615	-----	

INDEX 9100 SAMPLE 17679			INDEX 9101 SAMPLE 4565			INDEX 9102 SAMPLE 6500		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JIM WELLS		JIM WELLS			JIM WELLS		
FIELD.....	PAUL WHITE N		PREMONT			ROWENA		
WELL NAME.....	HUNTER D NO. 1		THIRKELL NO. 1			SHAEFFER RANCH A NO. 2		
LOCATION.....	MANUEL BARRERA A-36 SUR.		SEC. 77, SK&K SUR. A-457			THOMAS GARCIA SUR. A-167		
OWNER.....	TXO PRODUCTION CO.		BARNSDALL OIL CO.			YDEWATER OIL CO.		
COMPLETED.....	--/--/00		02/10/48			08/13/56		
SAMPLED.....	05/23/85		10/01/48			02/07/58		
FORMATION.....	YEGUA		OLIG-FRIO			EOCE-HOCKLEY		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7181		4421			4975		
WELLHEAD PRESSURE, PSIG.....	2100		2048			1900		
OPEN FLOW, MCFD.....	350		13200			4150		
COMPONENT, MOLE PCT								
METHANE.....	89.0	-----	87.4	-----		86.9	-----	
ETHANE.....	2.2	-----	11.6	-----		6.2	-----	
PROPANE.....	0.7	-----	---	-----		2.6	-----	
N-BUTANE.....	0.7	-----	---	-----		0.7	-----	
ISOBUTANE.....	0.4	-----	---	-----		1.0	-----	
N-PENTANE.....	0.2	-----	---	-----		0.4	-----	
ISOPENTANE.....	0.4	-----	---	-----		0.6	-----	
CYCLOPENTANE.....	0.1	-----	---	-----		0.4	-----	
HEXANES PLUS.....	0.3	-----	---	-----		1.1	-----	
NITROGEN.....	0.3	-----	0.6	-----		0.0	-----	
OXYGEN.....	TRACE	-----	0.3	-----		TRACE	-----	
ARGON.....	TRACE	-----	---	-----		0.0	-----	
HYDROGEN.....	---	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.8	-----	0.1	-----		0.2	-----	
HELIUM.....	TRACE	-----	TRACE	-----		0.01	-----	
HEATING VALUE.....	1141	-----	1093	-----		1230	-----	
SPECIFIC GRAVITY.....	0.651	-----	0.617	-----		0.693	-----	

INDEX 9103 SAMPLE 2478			INDEX 9104 SAMPLE 3822			INDEX 9105 SAMPLE 3823		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JIM WELLS		JIM WELLS			JIM WELLS		
FIELD.....	SANDATA		SEELIGSON			SEELIGSON		
WELL NAME.....	MADE NO. 1		MADE NO. 22			W. MILLER NO. 16		
LOCATION.....	LOT 2, W. H. BODE SUBD.		NOT GIVEN			SEC. 66, R.P. HALDEMAN SUBD.		
OWNER.....	LARCO GAS & PETROLEUM CO.		SUN OIL CO.			SUN OIL CO.		
COMPLETED.....	10/07/39		12/27/43			11/21/43		
SAMPLED.....	02/19/32		04/25/44			04/25/44		
FORMATION.....	OLIG-MARINE U		OLIG-ZONE 15			OLIG-ZONE 16		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	2910		5375			4750		
WELLHEAD PRESSURE, PSIG.....	1350		2195			1970		
OPEN FLOW, MCFD.....	NOT GIVEN		30000			8000		
COMPONENT, MOLE PCT								
METHANE.....	95.0	-----	84.0	-----		84.8	-----	
ETHANE.....	0.0	-----	12.5	-----		9.0	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	3.9	-----	---	-----		5.8	-----	
OXYGEN.....	1.1	-----	0.4	-----		0.4	-----	
ARGON.....	---	-----	---	-----		0.0	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.0	-----	---	-----		0.0	-----	
HELIUM.....	TRACE	-----	0.00	-----		0.00	-----	
HEATING VALUE.....	962	-----	1077	-----		1027	-----	
SPECIFIC GRAVITY.....	0.577	-----	0.631	-----		0.625	-----	

INDEX 9106 SAMPLE 13120			INDEX 9107 SAMPLE 15230			INDEX 9108 SAMPLE 15241		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	JIM WELLS		JIM WELLS			JIM WELLS		
FIELD.....	SEELIGSON		SEELIGSON			SEELIGSON		
WELL NAME.....	SEELIGSON NO. 57		SEELIGSON UNIT NO. 1-241			SEELIGSON UNIT NO. 1-241		
LOCATION.....	BS&F SUR. NO. 63		5 MI. NE OF PREMONT			5 MI. NE OF PREMONT		
OWNER.....	SUN OIL CO.		SUN PRODUCTION CO.			SUN PRODUCTION CO.		
COMPLETED.....	09/04/70		09/03/76			09/03/76		
SAMPLED.....	12/27/71		03/15/78			03/15/78		
FORMATION.....	OLIG-SEG 2,22-G-4		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7400		4276			4788		
WELLHEAD PRESSURE, PSIG.....	4000		1495			1490		
OPEN FLOW, MCFD.....	65854		3977			3444		
COMPONENT, MOLE PCT								
METHANE.....	89.8	-----	89.2	-----		96.0	-----	
ETHANE.....	5.1	-----	4.5	-----		2.8	-----	
PROPANE.....	2.0	-----	2.0	-----		0.3	-----	
N-BUTANE.....	0.6	-----	0.5	-----		0.1	-----	
ISOBUTANE.....	0.6	-----	0.9	-----		0.1	-----	
N-PENTANE.....	0.2	-----	0.2	-----		TRACE	-----	
ISOPENTANE.....	0.2	-----	0.7	-----		0.1	-----	
CYCLOPENTANE.....	TRACE	-----	0.6	-----		0.1	-----	
HEXANES PLUS.....	0.3	-----	1.1	-----		0.1	-----	
NITROGEN.....	0.7	-----	0.2	-----		0.3	-----	
OXYGEN.....	0.0	-----	---	-----		TRACE	-----	
ARGON.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.6	-----	0.0	-----		0.1	-----	
HELIUM.....	0.01	-----	TRACE	-----		TRACE	-----	
HEATING VALUE.....	1119	-----	1201	-----		1059	-----	
SPECIFIC GRAVITY.....	0.638	-----	0.673	-----		0.583	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9109 3860			INDEX SAMPLE	9110 17685			INDEX SAMPLE	9111 12024
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	JIM WELLS			JIM WELLS				JIM WELLS			
FIELD.....	SELLER			SOLO MUERTO				STRATTON			
WELL NAME.....	JOE SELLER NO. 1			CONZALEZ NO. 1				KING RANCH STRATTON A-17F			
LOCATION.....	2 1/2 MI. SW OF ALICE			LA TINA JA DE LARA A-36				PASO ANCHO DE ARRIBA GRANT			
OWNER.....	HIGHLAND OIL CO.			AMERICAN PETROFINA CO. OF TE				HUMBLE OIL & REFINING CO.			
COMPLETED.....	05/7/44			11/6/84				01/17/68			
SAMPLED.....	08/07/44			05/24/84				08/31/69			
FORMATION.....	NOT GIVEN			EOCE-YEGUA				OLIG-4300 FT. SAND			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	4954			7057				4320			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			3684				1648			
OPEN FLOW, MCFD.....	5400			23500				9170			
COMPONENT, MOLE PCT											
METHANE.....	87.4	-----	-----	60.7	-----	-----	-----	95.1	-----	-----	-----
ETHANE.....	8.9	-----	-----	16.7	-----	-----	-----	2.2	-----	-----	-----
PROPANE.....	---	-----	-----	12.0	-----	-----	-----	0.7	-----	-----	-----
N-BUTANE.....	---	-----	-----	3.9	-----	-----	-----	0.2	-----	-----	-----
ISOBUTANE.....	---	-----	-----	2.3	-----	-----	-----	0.2	-----	-----	-----
N-PENTANE.....	---	-----	-----	0.5	-----	-----	-----	TRACE	-----	-----	-----
ISOPENTANE.....	---	-----	-----	1.8	-----	-----	-----	0.2	-----	-----	-----
CYCLOPENTANE.....	---	-----	-----	0.2	-----	-----	-----	0.1	-----	-----	-----
HEXANES PLUS.....	2.1	-----	-----	0.6	-----	-----	-----	0.2	-----	-----	-----
NITROGEN.....	0.9	-----	-----	0.3	-----	-----	-----	1.0	-----	-----	-----
ARGON.....	---	-----	-----	TRACE	-----	-----	-----	0.0	-----	-----	-----
HYDROGEN.....	---	-----	-----	TRACE	-----	-----	-----	TRACE	-----	-----	-----
HYDROGEN SULFIDE.....	---	-----	-----	0.0	-----	-----	-----	0.1	-----	-----	-----
CARBON DIOXIDE.....	0.7	-----	-----	1.0	-----	-----	-----	0.0	-----	-----	-----
HELIUM.....	TRACE	-----	-----	TRACE	-----	-----	-----	0.01	-----	-----	-----
HEATING VALUE.....	1045	-----	-----	1571	-----	-----	-----	1057	-----	-----	-----
SPECIFIC GRAVITY.....	0.619	-----	-----	0.925	-----	-----	-----	0.593	-----	-----	-----
		INDEX SAMPLE	9112 12025			INDEX SAMPLE	9113 12026			INDEX SAMPLE	9114 13146
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	JIM WELLS			JIM WELLS				JIM WELLS			
FIELD.....	STRATTON			STRATTON				JIM WELLS			
WELL NAME.....	KING RANCH STRATTON A-17H			KING RANCH STRATTON A-17				H. C. TIJERINA NO. 82			
LOCATION.....	PASO ANCHO DE ARRIBA GRANT			PASO ANCHO DE ARRIBA GRANT				AB&W SUR. NO. 359			
OWNER.....	HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.				TEXACO INC.			
COMPLETED.....	01/13/68			06/13/61				09/04/70			
SAMPLED.....	08/31/69			08/31/69				02/04/72			
FORMATION.....	OLIG-D-35 SAND			OLIG-5300 FT. SAND				OLIG-TIJERINA 2-A			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	5521			5224				7188			
WELLHEAD PRESSURE, PSIG.....	1430			1340				1500			
OPEN FLOW, MCFD.....	2300			13600				2080			
COMPONENT, MOLE PCT											
METHANE.....	90.0	-----	-----	90.8	-----	-----	-----	90.6	-----	-----	-----
ETHANE.....	4.0	-----	-----	4.5	-----	-----	-----	4.8	-----	-----	-----
PROPANE.....	2.0	-----	-----	2.0	-----	-----	-----	2.1	-----	-----	-----
N-BUTANE.....	0.6	-----	-----	0.4	-----	-----	-----	0.7	-----	-----	-----
ISOBUTANE.....	0.6	-----	-----	0.7	-----	-----	-----	0.7	-----	-----	-----
N-PENTANE.....	0.3	-----	-----	0.1	-----	-----	-----	0.2	-----	-----	-----
ISOPENTANE.....	0.1	-----	-----	0.3	-----	-----	-----	0.3	-----	-----	-----
CYCLOPENTANE.....	0.2	-----	-----	0.1	-----	-----	-----	TRACE	-----	-----	-----
HEXANES PLUS.....	0.5	-----	-----	0.3	-----	-----	-----	0.2	-----	-----	-----
NITROGEN.....	0.7	-----	-----	0.7	-----	-----	-----	0.3	-----	-----	-----
ARGON.....	TRACE	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
HYDROGEN.....	0.0	-----	-----	0.0	-----	-----	-----	TRACE	-----	-----	-----
HYDROGEN SULFIDE.....	0.1	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
CARBON DIOXIDE.....	0.0	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
HELIUM.....	0.01	-----	-----	0.02	-----	-----	-----	0.2	-----	-----	-----
HEATING VALUE.....	1141	-----	-----	1126	-----	-----	-----	TRACE	-----	-----	-----
SPECIFIC GRAVITY.....	0.642	-----	-----	0.633	-----	-----	-----	0.639	-----	-----	-----
		INDEX SAMPLE	9115 14292			INDEX SAMPLE	9116 14297			INDEX SAMPLE	9117 14590
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	JIM WELLS			JIM WELLS				JIM WELLS			
FIELD.....	T. C. B.			T. C. B.				TON GRAHAM			
WELL NAME.....	TIJERINA NO. J-120			TIJERINA NO. J-120				KULCHAK NO. 1			
LOCATION.....	ALICE G. KING SUR. 240			A. G. KING SUR. 240, A-267				LA VACA GRANT A-166			
OWNER.....	EXXON CO., U.S.A.			EXXON CO., U.S.A.				CAYMAN EXPLORATION CORP.			
COMPLETED.....	12/16/72			12/16/72				02/05/74			
SAMPLED.....	03/14/75			03/14/75				02/24/76			
FORMATION.....	OLIG-VICKSBURG			OLIG-VICKSBURG				OLIG-FRIO			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	8375			7970				5136			
WELLHEAD PRESSURE, PSIG.....	5191			5092				870			
OPEN FLOW, MCFD.....	12200			11000				2650			
COMPONENT, MOLE PCT											
METHANE.....	68.7	-----	-----	90.0	-----	-----	-----	93.1	-----	-----	-----
ETHANE.....	13.3	-----	-----	5.4	-----	-----	-----	3.5	-----	-----	-----
PROPANE.....	8.4	-----	-----	2.1	-----	-----	-----	1.5	-----	-----	-----
N-BUTANE.....	0.0	-----	-----	0.4	-----	-----	-----	0.4	-----	-----	-----
ISOBUTANE.....	2.2	-----	-----	0.6	-----	-----	-----	0.4	-----	-----	-----
N-PENTANE.....	0.4	-----	-----	0.1	-----	-----	-----	TRACE	-----	-----	-----
ISOPENTANE.....	0.5	-----	-----	0.2	-----	-----	-----	0.3	-----	-----	-----
CYCLOPENTANE.....	0.1	-----	-----	0.1	-----	-----	-----	TRACE	-----	-----	-----
HEXANES PLUS.....	0.4	-----	-----	0.2	-----	-----	-----	0.1	-----	-----	-----
NITROGEN.....	2.6	-----	-----	0.2	-----	-----	-----	0.5	-----	-----	-----
ARGON.....	0.6	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
HYDROGEN.....	TRACE	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
HYDROGEN SULFIDE.....	0.0	-----	-----	TRACE	-----	-----	-----	0.0	-----	-----	-----
CARBON DIOXIDE.....	0.0	-----	-----	0.0	-----	-----	-----	0.0	-----	-----	-----
HELIUM.....	0.6	-----	-----	0.5	-----	-----	-----	0.1	-----	-----	-----
HEATING VALUE.....	1356	-----	-----	TRACE	-----	-----	-----	TRACE	-----	-----	-----
SPECIFIC GRAVITY.....	0.816	-----	-----	1123	-----	-----	-----	1090	-----	-----	-----
		INDEX SAMPLE	9118 3742			INDEX SAMPLE	9119 3831			INDEX SAMPLE	9120 3820
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	JIM WELLS			JIM WELLS				JIM WELLS			
FIELD.....	WADE CITY			WILDCAT				WILSON			
WELL NAME.....	STRAUBE NO. 1			ALMOND NO. 1				M. DE GARZA NO. 1-A			
LOCATION.....	WADE CITY			SEC. 13, S.A.M.G., A-471				NOT GIVEN			
OWNER.....	REPUBLIC NATURAL GAS CO.			H. WILCOX OIL & GAS CO.				SAM E. WILSON, JR.			
COMPLETED.....	01/12/43			03/08/44				03/21/43			
SAMPLED.....	03/28/44			05/06/44				04/30/44			
FORMATION.....	OLIG-FRIO BASAL			NOT GIVEN				OLIG-VICKSBURG			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	4799			3222				7921			
WELLHEAD PRESSURE, PSIG.....	32000			1350				4450			
OPEN FLOW, MCFD.....	---			5000				100			
COMPONENT, MOLE PCT											
METHANE.....	94.4	-----	-----	93.2	-----	-----	-----	76.2	-----	-----	-----
ETHANE.....	3.5	-----	-----	2.2	-----	-----	-----	20.9	-----	-----	-----
PROPANE.....	---	-----	-----	---	-----	-----	-----	---	-----	-----	-----
N-BUTANE.....	---	-----	-----	---	-----	-----	-----	---	-----	-----	-----
ISOBUTANE.....	---	-----	-----	---	-----	-----	-----	---	-----	-----	-----
N-PENTANE.....	---	-----	-----	---	-----	-----	-----	---	-----	-----	-----
ISOPENTANE.....	---	-----	-----	---	-----	-----	-----	---	-----	-----	-----
CYCLOPENTANE.....	---	-----	-----	---	-----	-----	-----	---	-----	-----	-----
HEXANES PLUS.....	---	-----	-----	---	-----	-----	-----	---	-----	-----	-----
NITROGEN.....	1.5	-----	-----	4.1	-----	-----	-----	1.9	-----	-----	-----
ARGON.....	0.4	-----	-----	0.5	-----	-----	-----	0.4	-----	-----	-----
HYDROGEN.....	---	-----	-----	---	-----	-----	-----	---	-----	-----	-----
HYDROGEN SULFIDE.....	---	-----	-----	---	-----	-----	-----	---	-----	-----	-----
CARBON DIOXIDE.....	0.2	-----	-----	0.0	-----	-----	-----	0.6	-----	-----	-----
HELIUM.....	0.00	-----	-----	0.00	-----	-----	-----	0.00	-----	-----	-----
HEATING VALUE.....	1019	-----	-----	984	-----	-----	-----	1146	-----	-----	-----
SPECIFIC GRAVITY.....	0.582	-----	-----	0.585	-----	-----	-----	0.674	-----	-----	-----

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9121 3825	INDEX SAMPLE	9122 13132	INDEX SAMPLE	9123 3761
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	JIM WELLS			KARNES		KARNES	
FIELD.....	WILSON			ATKINSON		BURNELL	
WELL NAME.....	MITCHELL NO. 1			ATKINSON GU NO. 2-2		VON ROEDER NO. 1-W	
LOCATION.....	NOT GIVEN			KARNES CO. LAND SUR. A-169		NOT GIVEN	
OWNER.....	SAM E. WILSON, JR.			HUMBLE OIL & REFINING CO.		AMERICAN LIBERTY OIL CO.	
COMPLETED.....	02/25/44			06/22/71		02/06/43	
SAMPLED.....	04/30/44			01/-/72		-/-/700	
FORMATION.....	OLIG-FRIO			EOCE-CARIZZO		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7300			4250		6740	
WELLHEAD PRESSURE, PSIG.....	3500			300		2500	
OPEN FLOW, MCFD.....	20			4761		45000	
COMPONENT, MOLE PCT							
METHANE.....	86.0			90.5		81.6	
ETHANE.....	10.6			4.2		15.4	
PROPANE.....	0.0			2.1		---	
N-BUTANE.....	---			0.4		---	
ISOBUTANE.....	---			0.6		---	
N-PENTANE.....	---			0.1		---	
ISOPENTANE.....	---			0.1		---	
CYCLOPENTANE.....	0.0			0.1		---	
HEXANES PLUS.....	---			0.2		---	
NITROGEN.....	2.8			1.1		1.1	
OXYGEN.....	0.4			0.1		0.0	
ARGON.....	---			0.0		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.1			0.6		1.5	
HELIUM.....	0.00			TRACE		0.00	
HEATING VALUE.....	1061			1103		1103	
SPECIFIC GRAVITY.....	0.622			0.633		0.648	
		INDEX SAMPLE	9124 3887	INDEX SAMPLE	9125 11592	INDEX SAMPLE	9126 8561
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	KARNES			KARNES		KARNES	
FIELD.....	BURNELL			HONDO CREEK W		HYSAW	
WELL NAME.....	T. L. SPIELHAGEN NO. 1			J. W. NICHOLS ET AL. NO. 1		TOM CLARK NO. 1	
LOCATION.....	1/2 M. NE OF BURNELL			C. M. MARTINEZ SUR. A-6		H. W. BUTLER A-438 SUR.	
OWNER.....	STANOLIND OIL & GAS CO.			DIAMOND SHAMROCK CORP.		VIKING DRILLING CO., ET AL.	
COMPLETED.....	04/07/44			03/15/67		10/09/61	
SAMPLED.....	07/27/68			07/27/68		05/11/62	
FORMATION.....	EOCE-WILCOX			EOCE-LULING		CRET-EDWARDS	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6750			6201		11068	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1825		3750	
OPEN FLOW, MCFD.....	36000			13600		3700	
COMPONENT, MOLE PCT							
METHANE.....	59.4			88.0		98.6	
ETHANE.....	38.4			5.4		0.1	
PROPANE.....	---			2.3		TRACE	
N-BUTANE.....	---			0.6		TRACE	
ISOBUTANE.....	---			0.4		TRACE	
N-PENTANE.....	---			0.2		TRACE	
ISOPENTANE.....	---			0.4		TRACE	
CYCLOPENTANE.....	---			0.1		TRACE	
HEXANES PLUS.....	---			0.3		TRACE	
NITROGEN.....	0.0			0.6		0.9	
OXYGEN.....	0.5			0.1		0.0	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	1.7			1.1		0.2	
HELIUM.....	0.01			0.01		0.02	
HEATING VALUE.....	1290			1130		1001	
SPECIFIC GRAVITY.....	0.764			0.658		0.559	
		INDEX SAMPLE	9127 14911	INDEX SAMPLE	9128 14570	INDEX SAMPLE	9129 5158
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	KARNES			KARNES		KARNES	
FIELD.....	KENEDY			KENEDY SW		PARGMANN	
WELL NAME.....	ESTELLE ROLF NO. 1			MCDOWELL NO. 1		MARY PARGMANN NO. 1	
LOCATION.....	CARLOS MARTINEZ GRANT A-6			CARLOS MARTINEZ GRANT A-6		VICTOR BLANCO SUR. A-3	
OWNER.....	GENERAL CRUDE OIL CO.			GENERAL CRUDE OIL CO.		HARRIGAN & FOHS	
COMPLETED.....	10/18/74			05/10/74		08/29/51	
SAMPLED.....	02/15/77			01/27/76		01/29/52	
FORMATION.....	CRET-EDWARDS			CRET-SLIGO		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	13065			15655		7158	
WELLHEAD PRESSURE, PSIG.....	4957			11010		2500	
OPEN FLOW, MCFD.....	8850			16500		32400	
COMPONENT, MOLE PCT							
METHANE.....	89.8			91.5		87.0	
ETHANE.....	1.6			1.1		5.6	
PROPANE.....	0.4			TRACE		3.1	
N-BUTANE.....	0.2			0.0		0.7	
ISOBUTANE.....	0.1			0.0		0.6	
N-PENTANE.....	0.1			0.0		0.3	
ISOPENTANE.....	0.1			0.0		0.0	
CYCLOPENTANE.....	TRACE			0.0		0.1	
HEXANES PLUS.....	0.1			0.0		0.1	
NITROGEN.....	0.4			0.9		0.9	
OXYGEN.....	0.0			0.0		0.2	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.6	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	7.4			7.4		0.9	
HELIUM.....	TRACE			0.01		0.01	
HEATING VALUE.....	973			929		1141	
SPECIFIC GRAVITY.....	0.652			0.630		0.660	
		INDEX SAMPLE	9130 15456	INDEX SAMPLE	9131 14910	INDEX SAMPLE	9132 15178
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	KARNES			KARNES		KENEDY	
FIELD.....	RUNGE E			SPEAR		CABAZAS	
WELL NAME.....	GAUS NO. 1			8. TIPS NO. 1		YTURRIA L & C CO. NO. 37	
LOCATION.....	VICTOR BLANCO SUR. A-3			CARLOS MARTINEZ SUR. A-6		SAN JUAN DECARRICITOS GRANT	
OWNER.....	CITIES SERVICE CO.			GENERAL CRUDE OIL CO.		TEXACO INC.	
COMPLETED.....	10/18/74			10/18/77		04/06/76	
SAMPLED.....	10/19/78			02/15/77		-/-/700	
FORMATION.....	OLIG-HACKNEY			CRET-EDWARDS		HIOC-	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9710			13450		6040	
WELLHEAD PRESSURE, PSIG.....	3450			5865		2397	
OPEN FLOW, MCFD.....	5400			5800		15147	
COMPONENT, MOLE PCT							
METHANE.....	85.1			87.8		95.8	
ETHANE.....	5.8			3.3		1.4	
PROPANE.....	3.4			0.9		0.2	
N-BUTANE.....	3.1			0.4		0.1	
ISOBUTANE.....	0.8			0.2		TRACE	
N-PENTANE.....	0.3			0.2		TRACE	
ISOPENTANE.....	0.4			0.1		TRACE	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.0		0.1	
NITROGEN.....	0.4			TRACE		2.0	
OXYGEN.....	TRACE			0.0		0.2	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.4			6.9		0.1	
HELIUM.....	TRACE			TRACE		0.01	
HEATING VALUE.....	1062			1015		1014	
SPECIFIC GRAVITY.....	0.691			0.667		0.580	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 9133 14294	INDEX SAMPLE 9134 13111	INDEX SAMPLE 9135 4930
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	KENEDY		KENEDY	KENEDY
FIELD.....	CALANORIA		EL PAISTLE DEEP	JULIAN
WELL NAME.....	SAN JOSE DELA PARRA NO. 2		JOHN F. KENNEDY, JR. NO. 7	SANTA FE RANCH, PASTURE NO. 1
LOCATION.....	SAN JUAN DE CARRICITOS GRANT		LA PARRA GRANT, A-37	SAN SALVADOR DEL TULE GRANT
OWNER.....	EXXON CO., U.S.A.		HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	03/27/72		06/23/70	04/28/50
SAMPLED.....	03/13/75		12/10/71	08/25/50
FORMATION.....	OLIG-FR10		OLIG-FR10 C	OLIG-FR10
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	8603		13622	8270
WELLHEAD PRESSURE, PSIG.....	4226		9500	8815
OPEN FLOW, MCFD.....	12000		26000	5100
COMPONENT, MOLE PCT				
METHANE.....	93.8	89.4	87.0	
ETHANE.....	1.1	5.5	5.2	
PROPANE.....	0.2	2.1	3.3	
N-BUTANE.....	TRACE	0.5	1.1	
ISOBUTANE.....	TRACE	0.5	1.1	
N-PENTANE.....	TRACE	0.2	0.3	
ISOPENTANE.....	0.0	0.0	0.3	
CYCLOPENTANE.....	TRACE	0.2	TRACE	
HEXANES PLUS.....	TRACE	0.5	0.5	
NITROGEN.....	2.3	0.6	0.8	
OXYGEN.....	0.2	TRACE	0.2	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	2.2	0.0	---	
HYDROGEN SULFIDE.....	0.0	0.0	0.1	
CARBON DIOXIDE.....	TRACE	0.1	0.01	
HELIUM.....	0.02	TRACE	1184	
HEATING VALUE.....	986	1146	0.673	
SPECIFIC GRAVITY.....	0.563	0.646		
		INDEX SAMPLE 9136 12028	INDEX SAMPLE 9137 12029	INDEX SAMPLE 9138 12211
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	KENEDY		KENEDY	KENEDY
FIELD.....	JULIAN		JULIAN	MURDOCK PASS
WELL NAME.....	SAN SALVADOR DEL TULE GRANT		SAN SALVADOR DEL TULE GRANT	STATE TRACT 230 NO. 1
LOCATION.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	TRACT 230, LAGUNDA MADRE
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	SAMEDAN OIL CORP.
COMPLETED.....	09/04/69		09/15/68	02/20/69
SAMPLED.....	09/04/69		09/04/69	02/22/70
FORMATION.....	OLIG-22-A SAND		OLIG-21-A SAND	OLIG-FR10
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	8230		8160	7279
WELLHEAD PRESSURE, PSIG.....	2683		2400	2708
OPEN FLOW, MCFD.....	10500		4200	8200
COMPONENT, MOLE PCT				
METHANE.....	85.0	82.9	95.8	
ETHANE.....	5.2	5.3	1.3	
PROPANE.....	4.5	4.2	0.2	
N-BUTANE.....	0.9	0.2	0.2	
ISOBUTANE.....	2.0	2.3	0.0	
N-PENTANE.....	0.2	0.5	0.2	
ISOPENTANE.....	0.2	0.3	TRACE	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.3	0.7	0.1	
NITROGEN.....	1.3	1.6	1.3	
OXYGEN.....	TRACE	0.0	0.1	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.1	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.1	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1201	1254	1020	
SPECIFIC GRAVITY.....	0.687	0.723	0.581	
		INDEX SAMPLE 9139 5234	INDEX SAMPLE 9140 17169	INDEX SAMPLE 9141 13605
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	KENEDY		KENEDY	KENEDY
FIELD.....	PENASCAL		POTRERO FARIAS	POTRERO LOPEÑO
WELL NAME.....	KENEDY RANCH NO. A-1		MRS. S. K. EAST EST. NO. B-4	STATE TRACT 318 NO. 1
LOCATION.....	RINCON DEL PENASCAL		LAS MOTAS DE LA BARRETA A-77	EL TORO ISLAND
OWNER.....	LA GLORIA CORP.		S. K. EAST ESTATE	HUGHES & HUGHES
COMPLETED.....	01/30/52		02/03/84	---/---/00
SAMPLED.....	05/05/52		02/03/84	06/04/73
FORMATION.....	OLIG-MARGNULINA		OLIG-G-34 SAND	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	7040		6950	6288
WELLHEAD PRESSURE, PSIG.....	3241		2640	2534
OPEN FLOW, MCFD.....	42000		70	12000
COMPONENT, MOLE PCT				
METHANE.....	95.2	96.3	96.4	
ETHANE.....	1.9	1.3	1.3	
PROPANE.....	0.5	0.1	0.2	
N-BUTANE.....	0.1	0.1	TRACE	
ISOBUTANE.....	0.2	TRACE	0.1	
N-PENTANE.....	0.1	TRACE	TRACE	
ISOPENTANE.....	0.0	0.0	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	TRACE	
NITROGEN.....	1.8	1.9	1.8	
OXYGEN.....	TRACE	0.1	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	TRACE	TRACE	0.0	
HYDROGEN SULFIDE.....	---	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1031	1010	1008	
SPECIFIC GRAVITY.....	0.586	0.575	0.572	
		INDEX SAMPLE 9142 13149	INDEX SAMPLE 9143 10259	INDEX SAMPLE 9144 14293
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	KENEDY		KENEDY	KENEDY
FIELD.....	RAYMONDVILLE		RAYMONDVILLE	RAYMONDVILLE
WELL NAME.....	TURRIAL L & C CO. NO. 35-H		MRS. S. K. EAST NO. 21	S. K. EAST NO. 59
LOCATION.....	7 MI. SE RUDOLPH		LOS FINADOS GRANT A-36	LOS FINADOS GRANT A-36
OWNER.....	TEXACO INC.		HUMBLE OIL & REFINING CO.	EXXON CO., U.S.A.
COMPLETED.....	01/22/71		01/22/71	02/06/73
SAMPLED.....	02/10/72		10/29/65	03/13/75
FORMATION.....	OLIG-F-14 SAND		OLIG-M-85	A-36
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	7900		12898	3707
WELLHEAD PRESSURE, PSIG.....	2515		8545	1508
OPEN FLOW, MCFD.....	1550		5600	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	93.8	95.5	93.4	
ETHANE.....	1.0	1.9	2.9	
PROPANE.....	0.1	0.4	0.8	
N-BUTANE.....	TRACE	0.1	0.2	
ISOBUTANE.....	TRACE	0.1	0.3	
N-PENTANE.....	0.1	0.2	0.1	
ISOPENTANE.....	0.0	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	TRACE	0.3	0.2	
NITROGEN.....	4.1	1.3	1.8	
OXYGEN.....	0.7	0.0	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.0	0.1	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	975	1042	1052	
SPECIFIC GRAVITY.....	0.583	0.586	0.602	

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	INDEX SAMPLE	9145 14296	TEXAS KENEY RITA MRS. S. K. EAST NO. 59 LOS FINADOS GRANT A-36 EYXON CO., U.S.A. 02/06/73 03/13/75 0116-FR10 220	TEXAS KENEY SARITA J. G. KENEY B-5 EL PAISTLE GRANT HUMBLE OIL & REFINING CO. 10/28/48 03/23/49 WLOC-FLEMING 220	TEXAS KENEY SARITA JOHN G. KENEY, JR. NO. 1-E EL PAISTLE GRANT HUMBLE OIL & REFINING CO. --/-/700 11/29/51 0116-FR10 220
DEPTH, FEET		4650	2420	7057	
WELLHEAD PRESSURE, PSIG		1304	1016	2730	
OPEN FLOW, MCFD		5348	8200	9000	
COMPONENT, MOLE PCT					
METHANE	94.2	---	97.6	---	92.1
ETHANE	5.0	---	0.1	---	3.4
PROPANE	0.8	---	0.0	---	1.4
N-BUTANE	0.2	---	0.0	---	0.5
ISOBUTANE	0.3	---	0.0	---	0.2
N-PENTANE	TRACE	---	0.0	---	0.2
ISOPENTANE	0.2	---	0.0	---	0.2
CYCLOPENTANE	TRACE	---	0.0	---	TRACE
HEXANES PLUS	1.2	---	0.2	---	0.2
NITROGEN	0.0	---	1.9	---	1.4
OXYGEN	0.0	---	0.2	---	0.2
ARGON	0.0	---	TRACE	---	TRACE
HYDROGEN	0.0	---	TRACE	---	TRACE
HYDROGEN SULFIDE	0.0	---	---	---	---
CARBON DIOXIDE	TRACE	---	0.2	---	0.2
HELIUM	0.01	---	0.01	---	0.01
HEATING VALUE	1059	---	990	---	1081
SPECIFIC GRAVITY	0.596	---	0.566	---	0.617

STATE	INDEX SAMPLE	9148 12037	TEXAS KENEY VICTORIA E MRS. S. K. EAST NO. 18-B LAPARRA GRANT A-37 HUMBLE OIL & REFINING CO. 04/23/68 09/15/69 0116-FR10 N-02 220	TEXAS KENEY VICTORIA E SANTA FE RCH J PASTURE NO.27 SAN SALVADOR DEL TULE GRT.A1 EYXON CO., U.S.A. 07/-/62 03/28/83 0116-FR10 9400 220	TEXAS KENT CHAPARRAL J. W. YOUNG NO. 118-1 W & W RR SUR. BLK. G GENERAL CRUDE OIL CO. 08/08/55 11/10/55 PENN-L 430
DEPTH, FEET		11626	9404		6752
WELLHEAD PRESSURE, PSIG		10825	1800		300
OPEN FLOW, MCFD		68000	1044		30
COMPONENT, MOLE PCT					
METHANE	91.5	---	91.7	---	51.4
ETHANE	4.6	---	2.9	---	10.0
PROPANE	0.2	---	0.5	---	16.5
N-BUTANE	0.2	---	0.6	---	5.1
ISOBUTANE	0.4	---	0.6	---	3.4
N-PENTANE	0.2	---	0.2	---	0.9
ISOPENTANE	TRACE	---	0.2	---	1.3
CYCLOPENTANE	0.1	---	TRACE	---	0.2
HEXANES PLUS	0.3	---	0.3	---	0.5
NITROGEN	0.8	---	1.3	---	8.6
OXYGEN	0.1	---	0.0	---	TRACE
ARGON	0.0	---	TRACE	---	TRACE
HYDROGEN	0.1	---	0.2	---	TRACE
HYDROGEN SULFIDE	0.0	---	0.0	---	0.0
CARBON DIOXIDE	0.0	---	0.1	---	0.3
HELIUM	TRACE	---	TRACE	---	0.04
HEATING VALUE	1096	---	1098	---	1600
SPECIFIC GRAVITY	0.617	---	0.623	---	1.020

STATE	INDEX SAMPLE	9151 3663	TEXAS KENT NOT GIVEN NO. 1 SEC. 7, BLK. 1 GIRARD TRUST CO., ET AL. --/-/700 09/17/43 NOT GIVEN 430	TEXAS KIMBLE BOLT NW M. B. MURR SEC. 7, YUNG SUR. LOW DRILLING CO., INC. 04/04/62 06/26/62 PENN-STRAWN 410	TEXAS KIMBLE NOT GIVEN J. D. COWSERT NO. 1-A SEC. 19, BLK. 16, YUNG SUR. TUCKER DRILLING CO., INC. 10/18/63 10/18/64 PENN-STRAWN 410
DEPTH, FEET		233	1976		3532
WELLHEAD PRESSURE, PSIG		NOT GIVEN	603		1200
OPEN FLOW, MCFD		NOT GIVEN	6000		24000
COMPONENT, MOLE PCT					
METHANE	0.0	---	83.8	---	91.2
ETHANE	1.4	---	1.6	---	2.3
PROPANE	---	---	0.6	---	1.0
N-BUTANE	---	---	0.2	---	0.2
ISOBUTANE	---	---	0.2	---	0.2
N-PENTANE	---	---	TRACE	---	TRACE
ISOPENTANE	---	---	0.1	---	0.1
CYCLOPENTANE	---	---	TRACE	---	0.1
HEXANES PLUS	---	---	0.1	---	0.1
NITROGEN	98.1	---	13.0	---	3.7
OXYGEN	0.4	---	0.0	---	0.0
ARGON	---	---	TRACE	---	TRACE
HYDROGEN	---	---	0.0	---	0.0
HYDROGEN SULFIDE	---	---	0.0	---	0.0
CARBON DIOXIDE	0.0	---	0.0	---	0.0
HELIUM	0.09	---	0.43	---	0.16
HEATING VALUE	25	---	916	---	1018
SPECIFIC GRAVITY	0.968	---	0.632	---	0.611

STATE	INDEX SAMPLE	9154 6847	TEXAS KING JUNIPER R. B. MASTERSON NO. 13 SEC. 152, BLK. A, MONTGOMERY SUR PAN AMERICAN PETROLEUM CORP. --/-/700 10/28/58 PENN-STRAWN 430	TEXAS KING JUNIPER R. B. MASTERSON NO. 16 SEC. 41, AB&M SUR. PAN AMERICAN PETROLEUM CORP. 05/09/59 09/15/59 PENN-BEND CONGLOMERATE 430	TEXAS KLEBERG ALAZAN K. R. ALAZAN NO. 275 EL ALAZAN GRANT A-241 EYXON CO., U.S.A. 11/09/72 02/01/74 WLOC-D52 SAND 220
DEPTH, FEET		5275	5710		3515
WELLHEAD PRESSURE, PSIG		1875	2028		1485
OPEN FLOW, MCFD		7000	900		8036
COMPONENT, MOLE PCT					
METHANE	55.1	---	74.0	---	95.6
ETHANE	10.4	---	0.0	---	1.4
PROPANE	9.8	---	4.7	---	0.1
N-BUTANE	5.0	---	1.3	---	0.0
ISOBUTANE	3.2	---	0.7	---	0.1
N-PENTANE	1.4	---	0.1	---	0.0
ISOPENTANE	2.6	---	0.9	---	0.1
CYCLOPENTANE	0.5	---	0.1	---	TRACE
HEXANES PLUS	3.7	---	0.7	---	TRACE
NITROGEN	9.8	---	17.3	---	2.2
OXYGEN	0.1	---	TRACE	---	0.0
ARGON	TRACE	---	0.0	---	TRACE
HYDROGEN	0.1	---	0.3	---	0.0
HYDROGEN SULFIDE	0.0	---	0.0	---	0.0
CARBON DIOXIDE	TRACE	---	0.1	---	0.4
HELIUM	0.10	---	0.10	---	0.01
HEATING VALUE	1552	---	1002	---	1004
SPECIFIC GRAVITY	0.996	---	0.730	---	0.578

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 9157 10258	INDEX SAMPLE 9158 4285	INDEX SAMPLE 9159 14270
STATE.....	TEXAS			
COUNTY.....	KLEBERG			
FIELD.....	ALAZAN N			
WELL NAME.....	KING RANCH ALAZAN NO. 164			
LOCATION.....	LOS COMITAS GRANT A-231			
OWNER.....	HUMBLE OIL & REFINING CO.			
COMPLETED.....	10/12/64			
SAMPLED.....	10/29/65			
FORMATION.....	OLIG-J-06			
GEOLOGIC PROVINCE CODE.....	220			
DEPTH, FEET.....	9444			
WELLHEAD PRESSURE, PSIG.....	3501			
OPEN FLOW, MCFD.....	4500			
COMPONENT, MOLE PCT				
METHANE.....	91.5			
ETHANE.....	4.0			
PROPANE.....	1.2			
N-BUTANE.....	0.4			
ISOBUTANE.....	0.5			
N-PENTANE.....	0.2			
ISOPENTANE.....	0.1			
CYCLOPENTANE.....	0.1			
HEXANES PLUS.....	0.6			
NITROGEN.....	1.1			
OXYGEN.....	0.1			
ARGON.....	TRACE			
HYDROGEN.....	0.0			
HYDROGEN SULFIDE.....	0.0			
CARBON DIOXIDE.....	0.2			
HELIUM.....	0.01			
HEATING VALUE.....	1107			
SPECIFIC GRAVITY.....	0.629			
		INDEX SAMPLE 9160 4825	INDEX SAMPLE 9161 10260	INDEX SAMPLE 9162 15026
STATE.....	TEXAS			
COUNTY.....	KLEBERG			
FIELD.....	LAGUNA LARGA			
WELL NAME.....	KING RANCH NO. G-1			
LOCATION.....	RINCON DE LOS LAURELES, T123			
OWNER.....	HUMBLE OIL & REFINING CO.			
COMPLETED.....	08/26/49			
SAMPLED.....	11/28/49			
FORMATION.....	OLIG-MARGINULINA			
GEOLOGIC PROVINCE CODE.....	220			
DEPTH, FEET.....	6495			
WELLHEAD PRESSURE, PSIG.....	2867			
OPEN FLOW, MCFD.....	35000			
COMPONENT, MOLE PCT				
METHANE.....	94.1			
ETHANE.....	2.7			
PROPANE.....	0.8			
N-BUTANE.....	0.2			
ISOBUTANE.....	0.4			
N-PENTANE.....	0.0			
ISOPENTANE.....	0.2			
CYCLOPENTANE.....	TRACE			
HEXANES PLUS.....	0.2			
NITROGEN.....	1.3			
OXYGEN.....	0.1			
ARGON.....	TRACE			
HYDROGEN.....	0.0			
HYDROGEN SULFIDE.....	0.0			
CARBON DIOXIDE.....	0.2			
HELIUM.....	0.01			
HEATING VALUE.....	1058			
SPECIFIC GRAVITY.....	0.603			
		INDEX SAMPLE 9163 12090	INDEX SAMPLE 9164 15097	INDEX SAMPLE 9165 14026
STATE.....	TEXAS			
COUNTY.....	KLEBERG			
FIELD.....	MURDOCK PASS N			
WELL NAME.....	DUNN MCCAMPBELL A NO. 3			
LOCATION.....	PADRE ISLAND			
OWNER.....	SUN OIL CO.			
COMPLETED.....	12/12/68			
SAMPLED.....	10/21/69			
FORMATION.....	OLIG-MARGINULINA			
GEOLOGIC PROVINCE CODE.....	220			
DEPTH, FEET.....	7318			
WELLHEAD PRESSURE, PSIG.....	2798			
OPEN FLOW, MCFD.....	152272			
COMPONENT, MOLE PCT				
METHANE.....	95.3			
ETHANE.....	2.1			
PROPANE.....	0.4			
N-BUTANE.....	0.1			
ISOBUTANE.....	0.1			
N-PENTANE.....	0.2			
ISOPENTANE.....	0.0			
CYCLOPENTANE.....	TRACE			
HEXANES PLUS.....	1.2			
NITROGEN.....	0.0			
OXYGEN.....	0.0			
ARGON.....	0.0			
HYDROGEN.....	0.1			
HYDROGEN SULFIDE.....	0.0			
CARBON DIOXIDE.....	0.2			
HELIUM.....	0.01			
HEATING VALUE.....	1034			
SPECIFIC GRAVITY.....	0.583			
		INDEX SAMPLE 9166 14027	INDEX SAMPLE 9167 12567	INDEX SAMPLE 9168 13861
STATE.....	TEXAS			
COUNTY.....	KLEBERG			
FIELD.....	STATE TRACT 924-S NO. 1			
WELL NAME.....	STATE TRACT 924-S NO. 1			
LOCATION.....	STATE TRACT 924-S			
OWNER.....	MCMORAN EXPLORATION CO.			
COMPLETED.....	03/07/72			
SAMPLED.....	06/12/74			
FORMATION.....	OLIG-FRIO			
GEOLOGIC PROVINCE CODE.....	220			
DEPTH, FEET.....	7625			
WELLHEAD PRESSURE, PSIG.....	2865			
OPEN FLOW, MCFD.....	59000			
COMPONENT, MOLE PCT				
METHANE.....	93.3			
ETHANE.....	3.3			
PROPANE.....	1.1			
N-BUTANE.....	0.2			
ISOBUTANE.....	0.5			
N-PENTANE.....	0.1			
ISOPENTANE.....	0.1			
CYCLOPENTANE.....	TRACE			
HEXANES PLUS.....	0.1			
NITROGEN.....	1.0			
OXYGEN.....	TRACE			
ARGON.....	0.0			
HYDROGEN.....	0.0			
HYDROGEN SULFIDE.....	0.0			
CARBON DIOXIDE.....	0.3			
HELIUM.....	0.01			
HEATING VALUE.....	1042			
SPECIFIC GRAVITY.....	0.606			
		INDEX SAMPLE 9169 14027	INDEX SAMPLE 9170 12567	INDEX SAMPLE 9171 13861
STATE.....	TEXAS			
COUNTY.....	KLEBERG			
FIELD.....	STATE TRACT 980-S NO. 1			
WELL NAME.....	STATE TRACT 980-S NO. 1			
LOCATION.....	OFFSHORE			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			
COMPLETED.....	03/02/72			
SAMPLED.....	09/02/72			
FORMATION.....	OLIG-FRIO			
GEOLOGIC PROVINCE CODE.....	220			
DEPTH, FEET.....	7915			
WELLHEAD PRESSURE, PSIG.....	2975			
OPEN FLOW, MCFD.....	45450			
COMPONENT, MOLE PCT				
METHANE.....	94.8			
ETHANE.....	2.3			
PROPANE.....	0.7			
N-BUTANE.....	0.2			
ISOBUTANE.....	0.5			
N-PENTANE.....	0.1			
ISOPENTANE.....	0.0			
CYCLOPENTANE.....	TRACE			
HEXANES PLUS.....	0.1			
NITROGEN.....	1.2			
OXYGEN.....	TRACE			
ARGON.....	0.0			
HYDROGEN.....	0.0			
HYDROGEN SULFIDE.....	0.0			
CARBON DIOXIDE.....	0.4			
HELIUM.....	0.01			
HEATING VALUE.....	1040			
SPECIFIC GRAVITY.....	0.591			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9169 10142	INDEX SAMPLE	9170 8672	INDEX SAMPLE	9171 15289
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	KLEBERG			KLEBERG		KLEBERG	
FIELD.....	STRATTON			TIO PANCHO		WILDCAT	
WELL NAME.....	G. P. WARDNER 83-MT			K. P. RINCON NO. 1		G. P. WARDNER NO. 127	
LOCATION.....	PASA ANCHO DE ARRIBA GT-A-93			R. E. L. KING SUR. NO. 282		PASA ANCHO DE ABAJO GRANT	
OWNER.....	CHAMPLIN PETROLEUM CO.			HUMBLE OIL & REFINING CO.		CHAMPLIN PETROLEUM CO.	
COMPLETED.....	05/16/62			05/31/62		10/16/76	
SAMPLED.....	09/22/65			09/11/62		05/1/78	
FORMATION.....	OLIG-SAND			OLIG-FRIO J-55		OLIG-VICKSBURG	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6766			9540		8662	
WELLHEAD PRESSURE, PSIG.....	1305			3652		5330	
OPEN FLOW, MCFD.....	5870			39000		82000	
COMPONENT, MOLE PCT							
METHANE.....	91.6	---	---	90.0	---	89.0	---
ETHANE.....	4.5	---	---	4.5	---	4.5	---
PROPANE.....	1.7	---	---	1.7	---	2.2	---
N-BUTANE.....	0.5	---	---	0.5	---	0.7	---
ISOBUTANE.....	0.5	---	---	0.8	---	0.9	---
N-PENTANE.....	0.1	---	---	0.3	---	0.3	---
ISOPENTANE.....	0.3	---	---	0.5	---	0.4	---
CYCLOPENTANE.....	0.1	---	---	0.2	---	0.2	---
HEXANES PLUS.....	0.4	---	---	0.9	---	0.5	---
NITROGEN.....	0.2	---	---	0.3	---	0.3	---
OXYGEN.....	0.0	---	---	0.0	---	0.0	---
ARGON.....	TRACE	---	---	0.0	---	0.0	---
HYDROGEN.....	0.0	---	---	0.0	---	TRACE	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.2	---	1.0	---
HELIUM.....	TRACE	---	---	0.01	---	TRACE	---
HEATING VALUE.....	1128	---	---	1147	---	1156	---
SPECIFIC GRAVITY.....	0.630	---	---	0.649	---	0.663	---
		INDEX SAMPLE	9172 15290	INDEX SAMPLE	9173 16254	INDEX SAMPLE	9174 5660
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	KLEBERG			KLEBERG		LA SALLE	
FIELD.....	WILDCAT			YEARY W		STUART CITY	
WELL NAME.....	G. P. WARDNER NO. 127			L. L. HUFF ESTATE NO. 1		ALBERT MARTIN NO. 1	
LOCATION.....	PASA ANCHO DE ABAJO GRANT			DE LA BOVIDA GRANT, A-232		J. H. MARTIN SUR.	
OWNER.....	CHAMPLIN PETROLEUM CO.			WAINOCO OIL & GAS CO.		STANOLINO OIL & GAS CO.	
COMPLETED.....	10/16/76			10/08/80		02/02/54	
SAMPLED.....	05/1/78			05/11/81		07/29/54	
FORMATION.....	OLIG-VICKSBURG			MIOC-HUFF		CRET-EDWARDS	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8662			10702		10022	
WELLHEAD PRESSURE, PSIG.....	5330			5660		4772	
OPEN FLOW, MCFD.....	82000			21000		5500	
COMPONENT, MOLE PCT							
METHANE.....	92.3	---	---	92.5	---	91.5	---
ETHANE.....	4.1	---	---	4.0	---	3.3	---
PROPANE.....	1.4	---	---	1.6	---	0.6	---
N-BUTANE.....	0.4	---	---	0.4	---	0.2	---
ISOBUTANE.....	0.3	---	---	0.4	---	0.0	---
N-PENTANE.....	0.1	---	---	0.2	---	0.0	---
ISOPENTANE.....	0.2	---	---	TRACE	---	TRACE	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	0.1	---	---	0.1	---	TRACE	---
NITROGEN.....	0.2	---	---	0.4	---	0.0	---
OXYGEN.....	0.0	---	---	0.0	---	TRACE	---
ARGON.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN.....	TRACE	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.9	---	---	0.3	---	4.3	---
HELIUM.....	TRACE	---	---	TRACE	---	TRACE	---
HEATING VALUE.....	1086	---	---	1091	---	1008	---
SPECIFIC GRAVITY.....	0.617	---	---	0.613	---	0.621	---
		INDEX SAMPLE	9175 3776	INDEX SAMPLE	9176 3777	INDEX SAMPLE	9177 3778
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LA SALLE			LA SALLE		LA SALLE	
FIELD.....	WASHBURN			WASHBURN		WASHBURN S	
WELL NAME.....	S. T. S. "A" LSE. NO. 13			S. T. S. "A" LSE. NO. 31		S. T. S. "A" LSE. NO. 1	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	QUINTANA PETROLEUM CORP.			QUINTANA PETROLEUM CORP.		QUINTANA PETROLEUM CORP.	
COMPLETED.....	08/24/42			03/18/44		03/30/43	
SAMPLED.....	04/08/44			04/08/44		04/08/44	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4820			5092		6030	
WELLHEAD PRESSURE, PSIG.....	1100			1750		800	
OPEN FLOW, MCFD.....	537			2190		606	
COMPONENT, MOLE PCT							
METHANE.....	87.8	---	---	84.0	---	79.6	---
ETHANE.....	11.1	---	---	14.7	---	19.2	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	0.2	---	---	0.4	---	0.3	---
OXYGEN.....	0.4	---	---	0.5	---	0.4	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.5	---	---	0.4	---	0.5	---
HELIUM.....	0.00	---	---	0.00	---	0.00	---
HEATING VALUE.....	1088	---	---	1114	---	1150	---
SPECIFIC GRAVITY.....	0.617	---	---	0.635	---	0.658	---
		INDEX SAMPLE	9178 9100	INDEX SAMPLE	9179 10827	INDEX SAMPLE	9180 14568
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LAMB			LAMB		LAVACA	
FIELD.....	ANTON N			WILDCAT		BORCHERS	
WELL NAME.....	H. L. CAIN & W. S. MOSS NO. 1			WILDCAT NO. 1		WILLIAM BORCHERS NO. 4	
LOCATION.....	SEC. 6, BLK. 1; THOMPSON SUR			STATE CAPITOL LANDS		A. ELGIN ABSTRACT 156	
OWNER.....	W. S. MOSS			VAUGHN PETROLEUM, INC.		MURPHY H. BAXTER	
COMPLETED.....	09/28/63			---		01/30/75	
SAMPLED.....	09/28/63			---		01/28/76	
FORMATION.....	TRIA-CHINLE			NOT GIVEN		MIOC-BORCHERS	
GEOLOGIC PROVINCE CODE.....	435			435		220	
DEPTH, FEET.....	500			2615		1900	
WELLHEAD PRESSURE, PSIG.....	32			NOT GIVEN		816	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		270	
COMPONENT, MOLE PCT							
METHANE.....	TRACE	---	---	0.2	---	97.8	---
ETHANE.....	0.0	---	---	0.0	---	0.1	---
PROPANE.....	0.0	---	---	0.0	---	TRACE	---
N-BUTANE.....	0.0	---	---	0.0	---	0.0	---
ISOBUTANE.....	0.0	---	---	0.0	---	0.0	---
N-PENTANE.....	0.0	---	---	0.0	---	0.0	---
ISOPENTANE.....	0.0	---	---	0.0	---	0.0	---
CYCLOPENTANE.....	0.0	---	---	0.0	---	0.0	---
HEXANES PLUS.....	0.0	---	---	0.0	---	0.0	---
NITROGEN.....	98.6	---	---	99.2	---	1.8	---
OXYGEN.....	TRACE	---	---	0.2	---	0.0	---
ARGON.....	1.0	---	---	0.1	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	TRACE	---	---	0.3	---	0.4	---
HELIUM.....	0.31	---	---	0.00	---	0.01	---
HEATING VALUE.....	0	---	---	---	---	993	---
SPECIFIC GRAVITY.....	0.968	---	---	0.969	---	0.567	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9181 15190			INDEX SAMPLE	9182 15191			INDEX SAMPLE	9183 3696
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	LAVACA			LAVACA				LAVACA			
FIELD.....	BORCHERS			BORCHERS				BRUSHY CREEK			
WELL NAME.....	D. B. PLOEGER NO. 1			D. B. PLOEGER NO. 1				D. G. MCMAHUS NO. 1			
LOCATION.....	ELLEN FAGAN SUR. A-571			ELLEN FAGAN SUR. A-571				C. P. DALMUS SUR.			
OWNER.....	SUPERIOR OIL CO.			SUPERIOR OIL CO.				SHELL OIL CO.			
COMPLETED.....	08/04/74			08/04/74				03/21/42			
SAMPLED.....	01/14/78			01/14/78				10/27/43			
FORMATION.....	MIOC			MIOC				EOCE-WILCOX			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	1894			1894				7680			
WELLHEAD PRESSURE, PSIG.....	645			645				3311			
OPEN FLOW, MCFD.....	47200			47200				11250			
COMPONENT, MOLE PCT.....											
METHANE.....	98.9			99.0				77.0			
ETHANE.....	0.1			TRACE				20.9			
PROPANE.....	TRACE			TRACE				---			
N-BUTANE.....	TRACE			TRACE				---			
ISOBUTANE.....	TRACE			TRACE				---			
N-PENTANE.....	0.1			0.1				---			
ISOPENTANE.....	0.0			0.0				---			
CYCLOPENTANE.....	0.1			TRACE				---			
HEXANES PLUS.....	0.1			0.1				---			
NITROGEN.....	0.5			0.5				0.1			
OXYGEN.....	0.1			0.1				0.2			
ARGON.....	TRACE			TRACE				---			
HYDROGEN.....	TRACE			TRACE				---			
HYDROGEN SULFIDE.....	0.0			0.0				---			
CARBON DIOXIDE.....	0.1			0.1				1.8			
HELIUM.....	0.01			0.01				0.00			
HEATING VALUE.....	1017			1012				1155			
SPECIFIC GRAVITY.....	0.565			0.562				0.677			

		INDEX SAMPLE	9184 14900			INDEX SAMPLE	9185 13169			INDEX SAMPLE	9186 12099
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	LAVACA			LAVACA				LAVACA			
FIELD.....	HALLETTSVILLE NW			JANSKY				KINKLER			
WELL NAME.....	JULIUS TECHNIK UNIT NO. 1			W. V. JANSKY NO. 1				ELLA ZAPALAC NO. 1			
LOCATION.....	JAMES CAMPBELL SUR. A-6			N E HALLETTSVILLE 3 MI.				SAMUEL FULLER SUR. A-18			
OWNER.....	HOWELL DRILLING, INC.			HNG OIL CO.				SHELL OIL CO.			
COMPLETED.....	06/30/75			--/--/70				09/03/68			
SAMPLED.....	02/11/77			02/15/72				11/09/69			
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX				EOCE-WILCOX U			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	8735			8620				8814			
WELLHEAD PRESSURE, PSIG.....	2865			2579				2875			
OPEN FLOW, MCFD.....	5600			82000				10500			
COMPONENT, MOLE PCT.....											
METHANE.....	82.7			61.5				80.4			
ETHANE.....	6.6			7.3				7.4			
PROPANE.....	4.9			12.3				5.4			
N-BUTANE.....	1.1			5.9				0.9			
ISOBUTANE.....	0.9			0.7				1.1			
N-PENTANE.....	0.2			1.8				0.3			
ISOPENTANE.....	0.4			2.0				0.4			
CYCLOPENTANE.....	0.1			0.4				0.1			
HEXANES PLUS.....	0.2			1.5				0.4			
NITROGEN.....	0.6			0.9				1.2			
OXYGEN.....	TRACE			TRACE				0.0			
ARGON.....	TRACE			0.0				0.0			
HYDROGEN.....	0.0			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	2.2			1.7				2.2			
HELIUM.....	0.01			TRACE				0.01			
HEATING VALUE.....	1190			1681				1209			
SPECIFIC GRAVITY.....	0.708			1.010				0.726			

		INDEX SAMPLE	9187 12101			INDEX SAMPLE	9188 4697			INDEX SAMPLE	9189 3694
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	LAVACA			MORALES W				LAVACA			
FIELD.....	MORALES N			MORALES W				PROVIDENT CITY			
WELL NAME.....	WM. BORCHERS NO. 4			WM. BORCHERS NO. 1-A				F. W. NEUHAUS NO. 1			
LOCATION.....	JAMES CHESHER SUR. A-114			WM. HOSFORD SUR. ABST. 232				JOHN D. RAGSDALE SUR.			
OWNER.....	SHELL OIL CO.			UNION PRODUCING CO.				SHELL OIL CO.			
COMPLETED.....	10/03/68			04/24/48				09/23/42			
SAMPLED.....	11/09/69			09/--/48				11/03/43			
FORMATION.....	MIOC			MIOC				EOCE-WILCOX			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	1880			2030				8540			
WELLHEAD PRESSURE, PSIG.....	1475			864				3860			
OPEN FLOW, MCFD.....	4000			4400				40000			
COMPONENT, MOLE PCT.....											
METHANE.....	99.3			98.3				81.0			
ETHANE.....	0.0			0.0				14.8			
PROPANE.....	0.1			0.0				---			
N-BUTANE.....	0.0			0.0				---			
ISOBUTANE.....	0.0			0.0				---			
N-PENTANE.....	0.0			0.0				---			
ISOPENTANE.....	0.0			0.0				---			
CYCLOPENTANE.....	0.0			0.0				---			
HEXANES PLUS.....	0.0			0.0				---			
NITROGEN.....	0.4			1.4				1.3			
OXYGEN.....	0.0			0.1				0.4			
ARGON.....	TRACE			TRACE				---			
HYDROGEN.....	0.1			---				---			
HYDROGEN SULFIDE.....	0.0			---				---			
CARBON DIOXIDE.....	0.1			0.1				2.5			
HELIUM.....	0.01			0.01				0.00			
HEATING VALUE.....	1009			997				1086			
SPECIFIC GRAVITY.....	0.558			0.562				0.660			

		INDEX SAMPLE	9190 4832			INDEX SAMPLE	9191 12100			INDEX SAMPLE	9192 12102
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	LAVACA			LAVACA				LAVACA			
FIELD.....	PROVIDENT CITY			PROVIDENT CITY				PROVIDENT CITY			
WELL NAME.....	FAY ROUSE NO. 1			A. V. TRAYLOR NO. 6				DAVID TRAYLOR NO. 6			
LOCATION.....	AARON MONROE SUR.			DAVID DAVIS SUR. A-135				DAVID DAVIS SUR. A-135			
OWNER.....	SHELL OIL CO.			SHELL OIL CO.				SHELL OIL CO.			
COMPLETED.....	08/28/49			11/03/68				11/03/68			
SAMPLED.....	10/19/49			11/09/69				11/09/69			
FORMATION.....	EOCE-WILCOX			OLIG-FRIO				EOCE-YEGUA M-1			
GEOLOGIC PROVINCE CODE.....	220			220				220			
DEPTH, FEET.....	8890			3176				5837			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1330				1500			
OPEN FLOW, MCFD.....	8800			26000				6000			
COMPONENT, MOLE PCT.....											
METHANE.....	88.1			99.1				88.0			
ETHANE.....	4.8			0.0				6.5			
PROPANE.....	1.9			TRACE				2.8			
N-BUTANE.....	0.5			0.0				0.5			
ISOBUTANE.....	0.4			0.0				0.7			
N-PENTANE.....	0.2			0.0				0.1			
ISOPENTANE.....	0.3			0.0				0.1			
CYCLOPENTANE.....	0.1			0.0				0.1			
HEXANES PLUS.....	0.4			0.0				0.1			
NITROGEN.....	1.2			0.5				0.8			
OXYGEN.....	0.1			0.0				0.0			
ARGON.....	TRACE			TRACE				0.0			
HYDROGEN.....	---			0.1				TRACE			
HYDROGEN SULFIDE.....	---			0.0				0.0			
CARBON DIOXIDE.....	2.1			0.2				0.3			
HELIUM.....	0.01			0.01				TRACE			
HEATING VALUE.....	1100			1138				1138			
SPECIFIC GRAVITY.....	0.559			0.557				0.647			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9193 13911	INDEX SAMPLE	9194 15179	INDEX SAMPLE	9195 15438
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LAVACA			LAVACA		LAVACA	
FIELD.....	PROVIDENT CITY			RAGSDALE RANCH		SPEARS SW	
WELL NAME.....	PROVIDENT CITY G.U. NO. 9			J. R. RAGSDALE NO. 1		1 S. CAVES NO. 1	
LOCATION.....	DAVID DAVIS SUR. A-135			JAMES RYAN SUR. A-42		JAMES CHESHER SR. SUR. A-114	
OWNER.....	SHELL OIL CO.			HUGHES & HUGHES OIL & GAS		WAINCOG OIL & GAS CO.	
COMPLETED.....	01/04/72			02/04/75		08/14/77	
SAMPLED.....	02/06/74			01/06/78		10/16/78	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8895			8364		5450	
WELLHEAD PRESSURE, PSIG.....	3100			2885		2091	
OPEN FLOW, MCFD.....	16500			13000		3700	
COMPONENT, MOLE PCT							
METHANE.....	88.6	-----	89.7	-----	91.6	-----	
ETHANE.....	4.9	-----	4.4	-----	5.1	-----	
PROPANE.....	2.0	-----	1.6	-----	1.6	-----	
N-BUTANE.....	0.5	-----	0.5	-----	0.3	-----	
ISOBUTANE.....	0.5	-----	0.2	-----	0.3	-----	
N-PENTANE.....	TRACE	-----	0.1	-----	0.1	-----	
ISOPENTANE.....	0.3	-----	0.2	-----	0.2	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----	0.1	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----	0.2	-----	
NITROGEN.....	0.1	-----	0.3	-----	0.3	-----	
OXYGEN.....	0.0	-----	0.0	-----	0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----	TRACE	-----	
HYDROGEN.....	TRACE	-----	TRACE	-----	TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	
CARBON DIOXIDE.....	2.7	-----	2.7	-----	0.3	-----	
HELIUM.....	TRACE	-----	0.01	-----	0.01	-----	
HEATING VALUE.....	1093	-----	1071	-----	1108	-----	
SPECIFIC GRAVITY.....	0.650	-----	0.638	-----	0.622	-----	
		INDEX SAMPLE	9196 13872	INDEX SAMPLE	9197 12582	INDEX SAMPLE	9198 13857
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LAVACA			LAVACA		LAVACA	
FIELD.....	VIENNA			VIENNA N		WORD N	
WELL NAME.....	JOE KHANEK NO. 3			R. B. KINN, ET AL. NO. 1		ANNIE BROWN ET AL. NO. 1	
LOCATION.....	M. MULDOON SUR. A-34			J. B. JANUARY SUR. A-552		NOT GIVEN	
OWNER.....	GEORGE MITCHELL & ASSOC. INC			CONTINENTAL OIL CO.		SUPERIOR OIL CO.	
COMPLETED.....	03/28/73			08/03/70		06/09/72	
SAMPLED.....	01/18/74			12/17/70		12/27/73	
FORMATION.....	OLIG-FRIO			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3243			8296		8115	
WELLHEAD PRESSURE, PSIG.....	1385			2913		2818	
OPEN FLOW, MCFD.....	16000			5600		14800	
COMPONENT, MOLE PCT							
METHANE.....	99.2	-----	90.0	-----	85.4	-----	
ETHANE.....	0.1	-----	4.3	-----	6.4	-----	
PROPANE.....	TRACE	-----	1.8	-----	3.5	-----	
N-BUTANE.....	0.0	-----	0.5	-----	0.8	-----	
ISOBUTANE.....	0.0	-----	0.4	-----	0.8	-----	
N-PENTANE.....	0.0	-----	0.2	-----	0.1	-----	
ISOPENTANE.....	0.0	-----	0.0	-----	0.3	-----	
CYCLOPENTANE.....	0.0	-----	0.1	-----	TRACE	-----	
HEXANES PLUS.....	0.0	-----	0.2	-----	0.1	-----	
NITROGEN.....	0.3	-----	0.7	-----	0.3	-----	
OXYGEN.....	TRACE	-----	TRACE	-----	TRACE	-----	
ARGON.....	TRACE	-----	TRACE	-----	0.0	-----	
HYDROGEN.....	TRACE	-----	0.0	-----	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.0	-----	0.0	-----	
HELIUM.....	0.01	-----	0.01	-----	0.01	-----	
HEATING VALUE.....	1007	-----	1088	-----	1147	-----	
SPECIFIC GRAVITY.....	0.959	-----	0.640	-----	0.676	-----	
		INDEX SAMPLE	9199 14268	INDEX SAMPLE	9200 14269	INDEX SAMPLE	9201 16174
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LAVACA			LAVACA		LAVACA	
FIELD.....	WORD N			WORD N		WORD N	
WELL NAME.....	NEUHAUS UNIT NO. 2			NEUHAUS UNIT NO. 2		MOYTEK NO. 1-E	
LOCATION.....	J. SMOTHERS SUR. A-47			J. SMOTHERS SUR. A-47		JAMES CAMPBELL SUR. 2, A-6	
OWNER.....	ENTERPRISE PROD. CO.			BASS ENTERPRISES PROD. CO.		HOWELL DRILLING, INC.	
COMPLETED.....	03/13/73			04/20/74		06/22/80	
SAMPLED.....	02/19/75			02/19/75		01/22/81	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		CRET-EDWARDS	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	7506			7100		13000	
WELLHEAD PRESSURE, PSIG.....	2369			2169		2700	
OPEN FLOW, MCFD.....	13500			12000		4000	
COMPONENT, MOLE PCT							
METHANE.....	84.8	-----	86.4	-----	87.9	-----	
ETHANE.....	6.0	-----	5.9	-----	5.9	-----	
PROPANE.....	3.3	-----	2.9	-----	0.7	-----	
N-BUTANE.....	0.8	-----	0.8	-----	0.2	-----	
ISOBUTANE.....	0.9	-----	0.2	-----	0.3	-----	
N-PENTANE.....	0.1	-----	0.2	-----	0.1	-----	
ISOPENTANE.....	0.6	-----	0.6	-----	0.1	-----	
CYCLOPENTANE.....	0.2	-----	0.1	-----	TRACE	-----	
HEXANES PLUS.....	0.4	-----	0.1	-----	0.1	-----	
NITROGEN.....	0.9	-----	0.5	-----	0.3	-----	
OXYGEN.....	TRACE	-----	0.0	-----	TRACE	-----	
ARGON.....	0.0	-----	0.0	-----	TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.0	-----	0.0	-----	
HELIUM.....	0.01	-----	0.01	-----	0.01	-----	
HEATING VALUE.....	1167	-----	1157	-----	991	-----	
SPECIFIC GRAVITY.....	0.693	-----	0.677	-----	0.661	-----	
		INDEX SAMPLE	9202 14298	INDEX SAMPLE	9203 6475	INDEX SAMPLE	9204 12576
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LAVACA			LEE		LEON	
FIELD.....	TURNER UNIT NO. 2			TANGLEWOOD		BUFFALO	
WELL NAME.....	2 MILE SE OF YOKUM			JAMES JOHNSON NO. 1		EMMA B. PAGE NO. 1	
LOCATION.....	ENTERPRISE RESOURCES INC.			JOHN FULCHER SUR.		NOT GIVEN	
OWNER.....	ENTERPRISE RESOURCES INC.			VICK ASSOC. & J. E. PEDERSON		ONE STAR PRODUCING CO.	
COMPLETED.....	04/11/73			03/77/88		7/77/00	
SAMPLED.....	03/07/75			01/15/58		12/08/70	
FORMATION.....	EOCE-WILCOX			CRET-BUDA		CRET-WOODBINE	
GEOLOGIC PROVINCE CODE.....	220			220		260	
DEPTH, FEET.....	8812			6060		5496	
WELLHEAD PRESSURE, PSIG.....	1860			2700		1400	
OPEN FLOW, MCFD.....	9844			5400		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	85.5	-----	91.6	-----	97.6	-----	
ETHANE.....	6.3	-----	2.4	-----	0.7	-----	
PROPANE.....	3.0	-----	0.8	-----	0.4	-----	
N-BUTANE.....	0.8	-----	0.2	-----	0.0	-----	
ISOBUTANE.....	0.6	-----	0.1	-----	0.0	-----	
N-PENTANE.....	0.1	-----	0.1	-----	0.0	-----	
ISOPENTANE.....	0.2	-----	TRACE	-----	0.0	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----	0.0	-----	
HEXANES PLUS.....	0.3	-----	TRACE	-----	0.0	-----	
NITROGEN.....	0.3	-----	1.6	-----	0.6	-----	
OXYGEN.....	0.0	-----	TRACE	-----	0.0	-----	
ARGON.....	TRACE	-----	0.0	-----	TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	
CARBON DIOXIDE.....	2.8	-----	2.9	-----	0.6	-----	
HELIUM.....	TRACE	-----	0.02	-----	0.01	-----	
HEATING VALUE.....	1122	-----	1016	-----	1012	-----	
SPECIFIC GRAVITY.....	0.672	-----	0.620	-----	0.570	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9205 SAMPLE 11848			INDEX 9206 SAMPLE 14775			INDEX 9207 SAMPLE 13838		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LEON		LEON			LEON		
FIELD.....	BUFFALO S		INTERVILLE N			JEWETT		
WELL NAME.....	MARY HOWARD NO. 1		T. R. RODELL NO. 1			M. G. CLUTE NO. 1		
LOCATION.....	RALPH CAMPBELL SUR. A-191		B. CARAKER SUR.			J. W. TOMLINSON SUR. A-863		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		LAKE RONEL OIL CO.			DOW CHEMICAL CO.		
COMPLETED.....	10/04/68		06/04/76			11/02/71		
SAMPLED.....	05/07/69		09/--/76			12/22/73		
FORMATION.....	CRET-WOODBINE		CRET-PETTIT			CRET-PETTIT		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	5830		10151			9446		
WELLHEAD PRESSURE, PSIG.....	1865		4515			1500		
OPEN FLOW, MCFD.....	11180		7600			6500		
COMPONENT, MOLE PCT								
METHANE.....	96.3		94.7			94.9		
ETHANE.....	0.6		1.6			1.3		
PROPANE.....	0.1		0.5			0.6		
N-BUTANE.....	0.0		0.2			0.3		
ISOBUTANE.....	0.0		0.1			0.3		
N-PENTANE.....	0.0		0.1			0.1		
ISOPENTANE.....	0.0		0.1			0.1		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		0.1			0.1		
NITROGEN.....	0.5		0.5			0.2		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.4		2.2			2.0		
HELIUM.....	0.02		0.01			TRACE		
HEATING VALUE.....	989		1025			1034		
SPECIFIC GRAVITY.....	0.583		0.602			0.602		

INDEX 9208 SAMPLE 12575			INDEX 9209 SAMPLE 12429			INDEX 9210 SAMPLE 12604		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LEON		LEON			LEON		
FIELD.....	LEON		MCBEE			NAVARRO CROSSING		
WELL NAME.....	PAGE ESTATE NO. C-1		BARKLEY NO. 1			E. F. SWIFT HEIRS NO. 1		
LOCATION.....	NOT GIVEN		JEWETT, TEXAS			OAKWOOD		
OWNER.....	LONE STAR PRODUCING CO.		SUN OIL CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	02/13/51		08/19/55			--/--/00		
SAMPLED.....	12/08/70		10/07/70			12/22/70		
FORMATION.....	CRET-RODESSA		CRET-RODESSA			CRET-WOODBINE		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	8799		8740			5700		
WELLHEAD PRESSURE, PSIG.....	925		925			NOT GIVEN		
OPEN FLOW, MCFD.....	1476		1670			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	91.6		86.6			90.8		
ETHANE.....	0.8		6.1			1.6		
PROPANE.....	0.2		2.0			0.6		
N-BUTANE.....	0.0		1.0			0.2		
ISOBUTANE.....	0.0		1.5			0.2		
N-PENTANE.....	0.0		0.8			0.1		
ISOPENTANE.....	0.0		0.2			TRACE		
CYCLOPENTANE.....	0.0		0.3			0.1		
HEXANES PLUS.....	0.0		1.6			0.2		
NITROGEN.....	4.3		1.6			4.6		
OXYGEN.....	0.9		0.0			0.9		
ARGON.....	0.1		0.0			TRACE		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.0		0.3			0.5		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	947		1081			996		
SPECIFIC GRAVITY.....	0.603		0.716			0.611		

INDEX 9211 SAMPLE 12574			INDEX 9212 SAMPLE 17835			INDEX 9213 SAMPLE 8996		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LEON		LEON			LEON		
FIELD.....	OAKWOOD		PETEY WISEBAKER			RED OAK		
WELL NAME.....	C. H. HALEY		LOIS VAUGHN NO. 1			P. E. HARCROW NO. 2		
LOCATION.....	NOT GIVEN		DEL VALLE SUR. A-29			JOSEPH BEATTY SUR. A-59		
OWNER.....	LONE STAR PRODUCING CO.		WISEBAKER PROD. CO.			LONE STAR PRODUCING CO.		
COMPLETED.....	12/08/70		05/21/85			05/26/63		
SAMPLED.....	12/08/70		09/17/85			05/30/63		
FORMATION.....	CRET-WOODBINE		CRET-GLEN ROSE G			CRET-SUB-CLARKSVILLE		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	5814		10234			5767		
WELLHEAD PRESSURE, PSIG.....	1400		3200			1810		
OPEN FLOW, MCFD.....	2840		1380			1070		
COMPONENT, MOLE PCT								
METHANE.....	95.3		81.4			85.8		
ETHANE.....	1.8		6.2			8.0		
PROPANE.....	0.7		3.7			2.5		
N-BUTANE.....	0.2		0.7			0.9		
ISOBUTANE.....	0.3		1.3			0.4		
N-PENTANE.....	TRACE		0.8			0.2		
ISOPENTANE.....	TRACE		0.5			0.2		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.2		1.0			0.2		
NITROGEN.....	0.8		0.8			1.2		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		1.9			0.6		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	1019		1219			1152		
SPECIFIC GRAVITY.....	0.594		0.748			0.665		

INDEX 9214 SAMPLE 16437			INDEX 9215 SAMPLE 15392			INDEX 9216 SAMPLE 17351		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LEON		LIBERTY			LIBERTY		
FIELD.....	SILVER CREEK		CLEVELAND S			COLONEL		
WELL NAME.....	E. N. VANN UNIT NO. 1		WILMA D. GASKAMP NO. 1			B. E. GUINN NO. 1		
LOCATION.....	M. JOHNSON SUR. A-1027		MAURICE SMITH SUR. A-105			JAMES HUMPHRIES SUR. A-212		
OWNER.....	SUN GAS CO.		ATAPCO			WESTLAND OIL DEV. CORP.		
COMPLETED.....	01/31/81		08/19/76			11/02/83		
SAMPLED.....	02/23/82		09/26/78			07/09/84		
FORMATION.....	JURA-COTTON VALLEY		EOCE-YEGUA			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	260		220			220		
DEPTH, FEET.....	14533		6625			14000		
WELLHEAD PRESSURE, PSIG.....	750		2450			11005		
OPEN FLOW, MCFD.....	900		5900			1900		
COMPONENT, MOLE PCT								
METHANE.....	97.1		86.9			88.9		
ETHANE.....	0.2		2.6			4.7		
PROPANE.....	0.1		2.9			0.9		
N-BUTANE.....	0.0		0.6			0.2		
ISOBUTANE.....	0.0		0.0			0.2		
N-PENTANE.....	0.0		0.1			0.1		
ISOPENTANE.....	0.0		0.2			TRACE		
CYCLOPENTANE.....	0.0		0.1			TRACE		
HEXANES PLUS.....	0.0		0.1			0.2		
NITROGEN.....	0.1		0.9			0.0		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	24.6		0.0			4.8		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE.....	990		1129			1036		
SPECIFIC GRAVITY.....	0.583		0.654			0.646		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9217 SAMPLE 16465			INDEX 9218 SAMPLE 4694			INDEX 9219 SAMPLE 5000		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIBERTY		LIBERTY			LIBERTY		
FIELD.....	COTTONWOOD SE		DAYTON N			DAYTON N		
WELL NAME.....	BOYT HEIRS NO. 1		J. A. DEERING NCT-1, NO. 2			J. D. WILLIAMS NO. 3		
LOCATION.....	C. F. STEVENS NO. 10 SUR.		BLK. 134, H&TC RY CO. SUR.			H&TC SUR. 123, A-262		
OWNER.....	TEXACO U.S.A.		TEXAS CO.			TEXAS CO.		
COMPLETED.....	08/--/81		06/04/48			10/31/50		
SAMPLED.....	03/26/82		03/05/49			01/24/50		
FORMATION.....	EOCE-YEGUA		EOCE-YEGUA			MIOC-NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	16119		7474			2136		
WELLHEAD PRESSURE, PSIG.....	13000		3742			NOT GIVEN		
OPEN FLOW, MCFD.....	2100		18000			20000		
COMPONENT, MOLE PCT								
METHANE.....	64.8	-----	87.3	-----		90.4	-----	
ETHANE.....	16.2	-----	7.0	-----		0.4	-----	
PROPANE.....	7.4	-----	2.9	-----		0.2	-----	
N-BUTANE.....	1.5	-----	0.7	-----		0.1	-----	
ISOBUTANE.....	1.6	-----	0.4	-----		0.0	-----	
N-PENTANE.....	0.3	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	0.8	-----	0.3	-----		TRACE	-----	
CYCLOPENTANE.....	0.2	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.5	-----	0.0	-----		0.0	-----	
NITROGEN.....	0.9	-----	0.6	-----		8.5	-----	
OXYGEN.....	0.1	-----	0.1	-----		0.1	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.01	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		---	-----	
CARBON DIOXIDE.....	5.7	-----	0.3	-----		0.2	-----	
HELIUM.....	TRACE	-----	0.0	-----		0.02	-----	
HEATING VALUE.....	1321	-----	1145	-----		936	-----	
SPECIFIC GRAVITY.....	0.851	-----	0.647	-----		0.599	-----	
INDEX 9220 SAMPLE 14184			INDEX 9221 SAMPLE 12023			INDEX 9222 SAMPLE 5133		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIBERTY		LIBERTY			LIBERTY		
FIELD.....	ESPERSON DOME		GUM BAYOU			GUM ISLAND		
WELL NAME.....	MOORE BLUFF NO. A-207		MOORE BLUFF NO. H-1			ESPERSON NO. C.I.		
LOCATION.....	C. W. FISHER SUR. A-657		LOUIS DAVIS SUR. A-18			NOT GIVEN		
OWNER.....	GENERAL CRUDE OIL CO.		GENERAL CRUDE OIL CO.			GENERAL CRUDE OIL CO.		
COMPLETED.....	04/04/68		04/04/68			03/05/51		
SAMPLED.....	10/23/74		08/29/69			09/28/51		
FORMATION.....	EOCE-COOK MOUNTAIN		EOCE-COOK MOUNTAIN L			EOCE-YEGUA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	17610		11922			8915		
WELLHEAD PRESSURE, PSIG.....	3000		1600			4102		
OPEN FLOW, MCFD.....	NOT GIVEN		2000			14000		
COMPONENT, MOLE PCT								
METHANE.....	88.4	-----	87.7	-----		90.0	-----	
ETHANE.....	5.5	-----	6.1	-----		5.3	-----	
PROPANE.....	2.6	-----	2.7	-----		2.0	-----	
N-BUTANE.....	0.6	-----	0.3	-----		0.6	-----	
ISOBUTANE.....	0.6	-----	0.3	-----		0.3	-----	
N-PENTANE.....	0.1	-----	TRACE	-----		0.3	-----	
ISOPENTANE.....	0.4	-----	0.3	-----		TRACE	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.3	-----	0.1	-----		0.2	-----	
NITROGEN.....	0.5	-----	0.6	-----		0.5	-----	
OXYGEN.....	TRACE	-----	0.0	-----		TRACE	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.1	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		---	-----	
CARBON DIOXIDE.....	0.7	-----	1.3	-----		0.8	-----	
HELIUM.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEATING VALUE.....	1143	-----	1116	-----		1112	-----	
SPECIFIC GRAVITY.....	0.653	-----	0.647	-----		0.635	-----	
INDEX 9223 SAMPLE 4047			INDEX 9224 SAMPLE 4049			INDEX 9225 SAMPLE 2500		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIBERTY		LIBERTY			LIBERTY		
FIELD.....	HARDIN		HARDIN			MULL		
WELL NAME.....	PARLOW NO. 1-C		PARLOW NO. 1-T			NO. 63-A		
LOCATION.....	NOT GIVEN		NOT GIVEN			JESSE DEVORE LEAGUE		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.			REPUBLIC PRODUCTION CO.		
COMPLETED.....	07/--/44		12/06/38			04/23/32		
SAMPLED.....	07/26/45		07/26/45			05/19/32		
FORMATION.....	EOCE-MCHURTRY		EOCE-DAVIS			MIOC		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7580		7547			2366		
WELLHEAD PRESSURE, PSIG.....	1100		1100			NOT GIVEN		
OPEN FLOW, MCFD.....	9700		19600			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.2	-----	75.6	-----		58.5	-----	
ETHANE.....	17.3	-----	23.9	-----		38.8	-----	
PROPANE.....	---	-----	---	-----		---	-----	
N-BUTANE.....	---	-----	---	-----		---	-----	
ISOBUTANE.....	---	-----	---	-----		---	-----	
N-PENTANE.....	---	-----	---	-----		---	-----	
ISOPENTANE.....	---	-----	---	-----		---	-----	
CYCLOPENTANE.....	---	-----	---	-----		---	-----	
HEXANES PLUS.....	---	-----	---	-----		---	-----	
NITROGEN.....	0.0	-----	0.0	-----		0.0	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.4	-----	
ARGON.....	---	-----	---	-----		---	-----	
HYDROGEN.....	---	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.5	-----	0.5	-----		2.3	-----	
HELIUM.....	TRACE	-----	0.00	-----		0.00	-----	
HEATING VALUE.....	1143	-----	1194	-----		1288	-----	
SPECIFIC GRAVITY.....	0.645	-----	0.678	-----		0.771	-----	
INDEX 9226 SAMPLE 14872			INDEX 9227 SAMPLE 11997			INDEX 9228 SAMPLE 13404		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIBERTY		LIBERTY			LIBERTY		
FIELD.....	MULL		MCCOY			GUINN		
WELL NAME.....	HANNAH CARR NO. 1		MABEL OTT HOWARD NO. 1			U.S. PLYWOOD ET AL. NO. 1		
LOCATION.....	NICHOLAS LYNCH SUR. A-308		DANIEL DONAHOE SUR. A-24			REUBIN BARROW SUR. A-136		
OWNER.....	GENERAL CRUDE OIL CO.		AMERICAN PETROLEUM CORP.			MCCORMICK OIL & GAS CORP.		
COMPLETED.....	10/16/76		03/12/68			06/30/71		
SAMPLED.....	12/14/76		08/11/69			09/26/72		
FORMATION.....	EOCE-YEGUA		EOCE-WILCOX			EOCE-YEGUA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8976		14392			7524		
WELLHEAD PRESSURE, PSIG.....	3850		9510			1270		
OPEN FLOW, MCFD.....	21669		3449			13000		
COMPONENT, MOLE PCT								
METHANE.....	89.9	-----	79.4	-----		88.0	-----	
ETHANE.....	5.4	-----	2.4	-----		3.7	-----	
PROPANE.....	2.1	-----	2.4	-----		2.2	-----	
N-BUTANE.....	0.5	-----	0.3	-----		0.5	-----	
ISOBUTANE.....	0.4	-----	0.4	-----		0.4	-----	
N-PENTANE.....	0.2	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	0.2	-----	0.2	-----		0.1	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.1	-----	
NITROGEN.....	0.2	-----	3.7	-----		1.6	-----	
OXYGEN.....	0.0	-----	0.7	-----		TRACE	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.1	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.6	-----	4.2	-----		1.1	-----	
HELIUM.....	TRACE	-----	0.01	-----		0.01	-----	
HEATING VALUE.....	1129	-----	1095	-----		1095	-----	
SPECIFIC GRAVITY.....	0.639	-----	0.698	-----		0.641	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9229 SAMPLE 14871			INDEX 9230 SAMPLE 15145			INDEX 9231 SAMPLE 11748		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIBERTY		LIBERTY			LIMESTONE		
FIELD.....	RAYWOOD W		RAYWOOD W			BOX CHURCH		
WELL NAME.....	MALLET UNIT NO. 1		MALLET MITCHELL NO. 1			WHITE NO. 1		
LOCATION.....	WILLIAM FIELDS SUR. A-194		URIAH ANDERSON SUR. A-1			JUAN D. ACOSTA SUR. A-1		
OWNER.....	GENERAL CRUDE OIL CO.		GENERAL CRUDE OIL CO.			JAKE L. HAMON		
COMPLETED.....	06/01/75		05/04/77			01/08/69		
SAMPLED.....	12/14/76		05/15/77			01/12/69		
FORMATION.....	EOCE-COOK MOUNTAIN		EOCE-COOK MOUNTAIN			JURA-SMACKOVER		
GEOLOGIC PROVINCE CODE.....	220		220			260		
DEPTH, FEET.....	12002		11904			10690		
WELLHEAD PRESSURE, PSIG.....	4500		1550			4082		
OPEN FLOW, MCFD.....	6800		5000			24000		
COMPONENT, MOLE PCT								
METHANE.....	89.9	-----	90.2	-----		60.8	-----	
ETHANE.....	5.3	-----	4.4	-----		2.2	-----	
PROPANE.....	1.9	-----	1.4	-----		0.9	-----	
N-BUTANE.....	0.5	-----	0.4	-----		0.5	-----	
ISOBUTANE.....	0.4	-----	0.3	-----		0.1	-----	
N-PENTANE.....	0.1	-----	0.2	-----		0.4	-----	
ISOPENTANE.....	0.2	-----	0.2	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.4	-----	
NITROGEN.....	0.3	-----	1.4	-----		28.2	-----	
OXYGEN.....	0.0	-----	0.3	-----		0.2	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	1.2	-----	1.1	-----		6.2	-----	
HELIUM.....	TRACE	-----	TRACE	-----		0.07	-----	
HEATING VALUE.....	1108	-----	1084	-----		741	-----	
SPECIFIC GRAVITY.....	0.637	-----	0.635	-----		0.779	-----	
INDEX 9232 SAMPLE 12465			INDEX 9233 SAMPLE 10916			INDEX 9234 SAMPLE 17926		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIMESTONE		LIMESTONE			LIMESTONE		
FIELD.....	FALLON		HEADSVILLE			NAVASOTA		
WELL NAME.....	FLOYD DUKE NO. 1		R. L. BROWN NO. 1			COLLIE SIMS NO. 1		
LOCATION.....	JUAN N. ACOSTA SUR. A-1		J. G. GARDNER SUR. A217			JUAN L. CHAVERT SUR., A-4		
OWNER.....	GEORGE MITCHELL & ASSOC. INC		MOBIL OIL CORP.			TXO PRODUCTION CORP.		
COMPLETED.....	05/10/69		-7/-/70			03/07/85		
SAMPLED.....	10/22/70		04/06/67			12/06/85		
FORMATION.....	JURA-COTTON VALLEY		JURA-COTTON VALLEY			CRET-PETTIT		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	11212		9664			7504		
WELLHEAD PRESSURE, PSIG.....	3500		3940			2600		
OPEN FLOW, MCFD.....	10000		21700			155		
COMPONENT, MOLE PCT								
METHANE.....	96.2	-----	95.3	-----		92.1	-----	
ETHANE.....	1.0	-----	1.8	-----		3.2	-----	
PROPANE.....	0.1	-----	0.3	-----		1.3	-----	
N-BUTANE.....	0.2	-----	0.0	-----		0.7	-----	
ISOBUTANE.....	0.0	-----	0.0	-----		0.1	-----	
N-PENTANE.....	0.0	-----	0.0	-----		0.6	-----	
ISOPENTANE.....	0.0	-----	0.0	-----		0.0	-----	
CYCLOPENTANE.....	0.0	-----	0.0	-----		0.2	-----	
HEXANES PLUS.....	0.0	-----	0.0	-----		0.2	-----	
NITROGEN.....	0.3	-----	0.3	-----		0.2	-----	
OXYGEN.....	0.0	-----	0.0	-----		TRACE	-----	
ARGON.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.1	-----	TRACE	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	2.2	-----	2.3	-----		1.1	-----	
HELIUM.....	0.01	-----	0.01	-----		0.01	-----	
HEATING VALUE.....	1002	-----	1005	-----		1115	-----	
SPECIFIC GRAVITY.....	0.586	-----	0.590	-----		0.637	-----	
INDEX 9235 SAMPLE 5064			INDEX 9236 SAMPLE 12507			INDEX 9237 SAMPLE 10820		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIMESTONE		LIMESTONE			LIMESTONE		
FIELD.....	OLETHA		OLETHA			OLETHA SW		
WELL NAME.....	LULA MASON NO. 1		J. B. BATTLE G.O.U. NO. 1-C			CRYSTAL D. JONES NO. 1		
LOCATION.....	JUAN LUIS CHAVERT SUR.		NOT GIVEN			M. C. REJON SUR. A-26		
OWNER.....	TEXAS CO.		TEXACO INC.			WATBURN OIL CO., ET AL.		
COMPLETED.....	04/01/51		-7/-/52			10/14/60		
SAMPLED.....	06/18/51		11/03/70			12/12/66		
FORMATION.....	CRET-GLEN ROSE L		CRET-RODESSA			CRET-RODESSA		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	6788		6734			6728		
WELLHEAD PRESSURE, PSIG.....	3151		2150			1866		
OPEN FLOW, MCFD.....	22000		2042			10000		
COMPONENT, MOLE PCT								
METHANE.....	89.7	-----	93.7	-----		91.8	-----	
ETHANE.....	4.6	-----	2.6	-----		3.0	-----	
PROPANE.....	1.7	-----	0.7	-----		1.6	-----	
N-BUTANE.....	0.5	-----	0.3	-----		0.6	-----	
ISOBUTANE.....	0.2	-----	0.3	-----		0.6	-----	
N-PENTANE.....	0.3	-----	0.1	-----		0.2	-----	
ISOPENTANE.....	0.3	-----	0.1	-----		0.3	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.0	-----	0.2	-----		0.4	-----	
NITROGEN.....	1.4	-----	0.7	-----		0.6	-----	
OXYGEN.....	0.2	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.1	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	1.2	-----	0.9	-----		0.2	-----	
HELIUM.....	0.02	-----	0.02	-----		0.02	-----	
HEATING VALUE.....	1086	-----	1113	-----		1111	-----	
SPECIFIC GRAVITY.....	0.636	-----	0.606	-----		0.637	-----	
INDEX 9238 SAMPLE 10774			INDEX 9239 SAMPLE 10776			INDEX 9240 SAMPLE 10777		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIMESTONE		LIMESTONE			LIMESTONE		
FIELD.....	POKEY		POKEY			POKEY		
WELL NAME.....	LULLENE REGAN NO. 1		JOHN C. MCCLARAN NO. 1			JESSIE P. WRIGHT NO. 1-T		
LOCATION.....	J. D. BROWN SUR. A-51		M. RIVA PALACTOUS SUR. A-21			JUAN LUIS CHAVERT SUR. A-4		
OWNER.....	J. BURNS BROWN, ET AL.		J. BURNS BROWN, ET AL.			J. BURNS BROWN, ET AL.		
COMPLETED.....	07/29/66		04/10/65			08/28/65		
SAMPLED.....	11/10/66		11/10/66			11/10/66		
FORMATION.....	CRET-TRAVIS PEAK		CRET-RODESSA			CRET-TRAVIS PEAK		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	6852		6415			7414		
WELLHEAD PRESSURE, PSIG.....	2700		2300			1600		
OPEN FLOW, MCFD.....	4000		4000			4000		
COMPONENT, MOLE PCT								
METHANE.....	88.6	-----	90.3	-----		96.7	-----	
ETHANE.....	1.1	-----	3.2	-----		1.3	-----	
PROPANE.....	0.2	-----	1.8	-----		0.2	-----	
N-BUTANE.....	0.0	-----	0.7	-----		0.0	-----	
ISOBUTANE.....	0.0	-----	0.3	-----		0.0	-----	
N-PENTANE.....	0.0	-----	0.4	-----		0.0	-----	
ISOPENTANE.....	0.0	-----	0.2	-----		0.0	-----	
CYCLOPENTANE.....	0.0	-----	0.3	-----		0.0	-----	
HEXANES PLUS.....	0.0	-----	0.8	-----		0.0	-----	
NITROGEN.....	9.6	-----	0.7	-----		1.1	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	0.1	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.4	-----	0.0	-----		0.6	-----	
HELIUM.....	0.02	-----	0.02	-----		0.01	-----	
HEATING VALUE.....	922	-----	1148	-----		1008	-----	
SPECIFIC GRAVITY.....	0.611	-----	0.655	-----		0.573	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9241 12040	INDEX SAMPLE	9242 4906	INDEX SAMPLE	9243 11640
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LIMESTONE			LIMESTONE		LIMESTONE	
FIELD.....	TILLMON			WILDCAT		WILDCAT	
WELL NAME.....	TILLMON NO. 1			KEY NO. 1		EASTLING NO. 1	
LOCATION.....	P. JOHNSON SUR. A-295			ROZELIA SCOTT SUR.		7 MI. SE MEXIA	
OWNER.....	UNION PRODUCTION CO.			GREAT EXPECTATION OIL CO.		VAUGHN PETROLEUM, INC.	
COMPLETED.....	02/22/59			05/16/60		04/07/68	
SAMPLED.....	05/15/69			05/17/50		09/12/68	
FORMATION.....	CRET-TRAVIS PEAK			NOT GIVEN		JURA-COTTON VALLEY	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	8822			2705		11329	
WELLHEAD PRESSURE, PSIG.....	3280			350		5775	
OPEN FLOW, MCFD.....	3800			3150		8000	
COMPONENT, MOLE PCT							
METHANE.....	97.6	-----		98.3	-----	96.2	-----
ETHANE.....	0.3	-----		0.7	-----	0.7	-----
PROPANE.....	0.2	-----		0.2	-----	0.2	-----
N-BUTANE.....	0.0	-----		0.2	-----	0.0	-----
ISOBUTANE.....	0.0	-----		0.2	-----	0.0	-----
N-PENTANE.....	0.0	-----		TRACE	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		---	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.1	-----	0.0	-----
NITROGEN.....	0.8	-----		---	-----	0.3	-----
OXYGEN.....	TRACE	-----		---	-----	0.0	-----
ARGON.....	TRACE	-----		---	-----	0.0	-----
HYDROGEN.....	TRACE	-----		---	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.1	-----		---	-----	2.6	-----
HELIUM.....	0.01	-----		0.00	-----	0.00	-----
HEATING VALUE.....	997	-----		1092	-----	990	-----
SPECIFIC GRAVITY.....	0.570	-----		0.572	-----	0.585	-----
		INDEX SAMPLE	9244 12188	INDEX SAMPLE	9245 13209	INDEX SAMPLE	9246 15685
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LIPSCOMB			LIPSCOMB		LIPSCOMB	
FIELD.....	BEAL			DEAL		BOOKER S	
WELL NAME.....	SEC. 413, BLK. 43, H&TC SUR.			ALEXANDER NO. 1		SCOTT NO. 1	
LOCATION.....	DIAMOND SHAMROCK CORP.			SEC. 467, BLK. 43, H&TC SUR.		SEC. 117, BLK. 43, H&TC SUR.	
OWNER.....	DIAMOND SHAMROCK CORP.			PHILCON DEVELOPMENT CO.		LEAR PETROLEUM CORP.	
COMPLETED.....	12/16/69			04/03/72		10/07/78	
SAMPLED.....	02/09/70			05/15/72		07/05/79	
FORMATION.....	PENN-MORROW U			PENN-MORROW L		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	10543			10222		9350	
WELLHEAD PRESSURE, PSIG.....	2400			3782		2600	
OPEN FLOW, MCFD.....	3500			3750		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	86.6	-----		90.8	-----	84.8	-----
ETHANE.....	7.3	-----		4.8	-----	7.9	-----
PROPANE.....	2.9	-----		1.7	-----	3.7	-----
N-BUTANE.....	0.2	-----		0.3	-----	0.7	-----
ISOBUTANE.....	0.2	-----		0.4	-----	0.3	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.1	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.2	-----
NITROGEN.....	1.1	-----		0.5	-----	0.9	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.1	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.8	-----		0.0	-----	0.6	-----
HELIUM.....	0.06	-----		0.04	-----	0.08	-----
HEATING VALUE.....	1124	-----		1092	-----	1172	-----
SPECIFIC GRAVITY.....	0.649	-----		0.627	-----	0.675	-----
		INDEX SAMPLE	9247 7636	INDEX SAMPLE	9248 7721	INDEX SAMPLE	9249 9530
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LIPSCOMB			LIPSCOMB		LIPSCOMB	
FIELD.....	BRADFORD			BRADFORD		BRADFORD	
WELL NAME.....	C. L. KING NO. 1			PEERY A NO. 1		J. B. MARTIN NO. 1	
LOCATION.....	SEC. 642, BLK. 43, H&TC SUR.			SEC. 730, BLK. 43, H&TC SUR.		SEC. 809, BLK. 43, H&TC SUR.	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PHILLIP PETROLEUM CO.		SHAMROCK OIL & GAS CORP.	
COMPLETED.....	01/25/60			08/09/60		06/09/64	
SAMPLED.....	08/08/60			10/13/60		08/06/64	
FORMATION.....	PENN-TOKAWA			PENN-MORROW U		PENN-CLEVELAND	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6474			9049		7623	
WELLHEAD PRESSURE, PSIG.....	21300			1450		1800	
OPEN FLOW, MCFD.....	21300			14250		6650	
COMPONENT, MOLE PCT							
METHANE.....	80.2	-----		86.0	-----	78.1	-----
ETHANE.....	5.3	-----		3.5	-----	7.1	-----
PROPANE.....	5.3	-----		3.3	-----	5.8	-----
N-BUTANE.....	1.6	-----		0.8	-----	2.3	-----
ISOBUTANE.....	0.2	-----		0.6	-----	0.6	-----
N-PENTANE.....	0.3	-----		TRACE	-----	0.6	-----
ISOPENTANE.....	0.7	-----		0.5	-----	0.6	-----
CYCLOPENTANE.....	0.3	-----		0.2	-----	0.3	-----
HEXANES PLUS.....	0.5	-----		0.2	-----	0.6	-----
NITROGEN.....	2.0	-----		0.4	-----	1.3	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.6	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.6	-----	2.7	-----
HELIUM.....	0.10	-----		0.10	-----	0.07	-----
HEATING VALUE.....	1243	-----		1174	-----	1257	-----
SPECIFIC GRAVITY.....	0.725	-----		0.670	-----	0.765	-----
		INDEX SAMPLE	9250 9947	INDEX SAMPLE	9251 10020	INDEX SAMPLE	9252 10376
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LIPSCOMB			LIPSCOMB		LIPSCOMB	
FIELD.....	BRADFORD			BRADFORD		BRADFORD	
WELL NAME.....	HAMKER NO. 1			A. BECKER, JR. ET AL. NO. 1		G. JERGENSEN NO. 1	
LOCATION.....	SEC. 590, BLK. 43, H&TC SUR.			SEC. 774, BLK. 43, H&TC SUR.		SEC. 895, BLK. 43, H&TC SUR.	
OWNER.....	GULF OIL CORP.			SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.	
COMPLETED.....	06/05/64			04/27/64		12/1/65	
SAMPLED.....	07/01/65			08/02/65		01/29/66	
FORMATION.....	PENN-TOKAWA			PENN-CLEVELAND		PENN-CLEVELAND	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6475			7461		7655	
WELLHEAD PRESSURE, PSIG.....	1758			2344		2350	
OPEN FLOW, MCFD.....	11750			3080		7300	
COMPONENT, MOLE PCT							
METHANE.....	78.7	-----		87.2	-----	88.6	-----
ETHANE.....	8.4	-----		6.0	-----	6.2	-----
PROPANE.....	2.2	-----		0.3	-----	2.0	-----
N-BUTANE.....	1.5	-----		0.8	-----	0.6	-----
ISOBUTANE.....	0.8	-----		0.3	-----	0.2	-----
N-PENTANE.....	0.4	-----		0.3	-----	0.1	-----
ISOPENTANE.....	0.4	-----		TRACE	-----	0.1	-----
CYCLOPENTANE.....	0.3	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.6	-----		0.2	-----	0.1	-----
NITROGEN.....	3.3	-----		0.2	-----	1.4	-----
OXYGEN.....	0.1	-----		0.2	-----	0.0	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.3	-----	0.3	-----
HELIUM.....	0.14	-----		0.08	-----	0.10	-----
HEATING VALUE.....	1236	-----		1108	-----	1109	-----
SPECIFIC GRAVITY.....	0.734	-----		0.648	-----	0.635	-----

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9253 SAMPLE 13584			INDEX 9254 SAMPLE 13788			INDEX 9255 SAMPLE 14983		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
FIELD.....	BRADFORD		BRADFORD			BRADFORD		
WELL NAME.....	BRADFORD 8 NO. 1		REDELSPERGER NO. 1			CLA 0, PIPER NO. 3		
LOCATION.....	SEC. 687, BLK. 43, H&TC SUR.		SEC. 900, BLK. 43, H&TC SUR.			SEC. 688, BLK. 43, H&TC SUR.		
OWNER.....	COTTON PETROLEUM CORP.		COTTON PETROLEUM CORP.			DIAMOND SHAMROCK CORP.		
COMPLETED.....	10/18/72		04/13/73			02/02/77		
SAMPLED.....	04/12/73		10/30/73			05/01/77		
FORMATION.....	PENN-MORROW		PENN-CLEVELAND			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9618		7516			9859		
WELLHEAD PRESSURE, PSIG.....	1200		1802			3090		
OPEN FLOW, MCFD.....	750		2700			1800		
COMPONENT, MOLE PCT								
METHANE.....	87.8		85.7			96.3		
ETHANE.....	6.5		6.1			1.1		
PROPANE.....	2.8		4.2			0.2		
N-BUTANE.....	0.6		1.1			0.1		
ISOBUTANE.....	0.5		0.5			0.1		
N-PENTANE.....	0.2		0.2			TRACE		
ISOPENTANE.....	0.2		0.3			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	0.5		1.3			0.4		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.0			1.6		
HELIUM.....	0.04		0.11			0.06		
HEATING VALUE.....	1138		1173			1007		
SPECIFIC GRAVITY.....	0.651		0.670			0.581		
INDEX 9256 SAMPLE 14984			INDEX 9257 SAMPLE 15532			INDEX 9258 SAMPLE 16291		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
FIELD.....	BRADFORD		BRADFORD			BRADFORD		
WELL NAME.....	OLA 0, PIPER NO. 3		FRED LOESCH NO. 2			SIM PAINE NO. 3		
LOCATION.....	SEC. 688, BLK. 43, H&TC SUR.		SEC. 945, BLK. 43, H&TC SUR.			SEC. 943, BLK. 43, H&TC SUR.		
OWNER.....	DIAMOND SHAMROCK CORP.		ARCO OIL & GAS CO.			ARCO OIL & GAS CO.		
COMPLETED.....	02/02/77		11/26/79			05/13/80		
SAMPLED.....	05/01/77		04/09/80			07/13/81		
FORMATION.....	PENN-CLEVELAND		PENN-CLEVELAND			PENN-CLEVELAND		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7646		7334			7354		
WELLHEAD PRESSURE, PSIG.....	2075		1855			1760		
OPEN FLOW, MCFD.....	6000		11500			3200		
COMPONENT, MOLE PCT								
METHANE.....	90.4		86.1			83.8		
ETHANE.....	5.8		5.8			4.8		
PROPANE.....	1.6		3.8			4.8		
N-BUTANE.....	0.4		1.2			1.8		
ISOBUTANE.....	TRACE		0.4			0.7		
N-PENTANE.....	0.1		0.3			0.4		
ISOPENTANE.....	0.1		0.4			0.6		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.3		
NITROGEN.....	0.8		1.3			2.3		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.3			0.3		
HELIUM.....	0.05		0.12			0.15		
HEATING VALUE.....	1088		1173			1206		
SPECIFIC GRAVITY.....	0.620		0.674			0.705		
INDEX 9259 SAMPLE 16968			INDEX 9260 SAMPLE 15916			INDEX 9261 SAMPLE 10183		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
FIELD.....	BRADFORD		CAMBRIDGE			COBURN		
WELL NAME.....	CRUISE #1 NO. 2		WELSH NO. 1			CITIZENS NATL-BK TRUSTEE D NO.2		
LOCATION.....	SEC. 768, BLK. 43, H&TC SUR.		SEC. 499, BLK. 43, H&TC SUR.			SEC. 257, BLK. 43, H&TC SUR.		
OWNER.....	PHILLIPS PETROLEUM CO.		MAT PETROLEUM, INC.			SHAMROCK OIL & GAS CORP.		
COMPLETED.....	03/03/83		7/7/00			09/03/65		
SAMPLED.....	05/31/83		03/09/80			10/05/65		
FORMATION.....	PENN-CLEVELAND		PENN-ATOKA & NOVA			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7390		8700			11204		
WELLHEAD PRESSURE, PSIG.....	2049		NOT GIVEN			3944		
OPEN FLOW, MCFD.....	4100		9500			3100		
COMPONENT, MOLE PCT								
METHANE.....	87.9		86.5			96.7		
ETHANE.....	6.2		9.0			0.7		
PROPANE.....	0.7		0.6			0.2		
N-BUTANE.....	0.7		0.2			0.0		
ISOBUTANE.....	0.3		0.2			0.0		
N-PENTANE.....	0.3		0.2			0.0		
ISOPENTANE.....	0.2		0.1			0.0		
CYCLOPENTANE.....	0.2		TRACE			0.0		
HEXANES PLUS.....	0.5		0.1			0.0		
NITROGEN.....	0.5		0.1			0.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.3		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.4			1.9		
HELIUM.....	0.06		0.07			0.04		
HEATING VALUE.....	1146		1377			1077		
SPECIFIC GRAVITY.....	0.654		0.649			0.581		
INDEX 9262 SAMPLE 9391			INDEX 9263 SAMPLE 9709			INDEX 9264 SAMPLE 16405		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
FIELD.....	COBURN		COBURN SW			COBURN		
WELL NAME.....	GILBERT HILL NO. 1		CITIZENS NATL-BK. TR. A NO.2			V. SCHOENHALS "C" ET AL NO.1		
LOCATION.....	SEC. 43, BLK. 43, H&TC SUR.		SEC. 143, BLK. 43, H&TC SUR.			SEC. 510, BLK. 43, H&TC SUR.		
OWNER.....	SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.			DIAMOND SHAMROCK CORP.		
COMPLETED.....	03/18/64		11/10/64			11/11/81		
SAMPLED.....	06/08/64		01/21/65			12/23/81		
FORMATION.....	PENN-MORROW L		PENN-MORROW			PENN-CLEVELAND & ATOKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10974		11587			7938		
WELLHEAD PRESSURE, PSIG.....	3380		4792			NOT GIVEN		
OPEN FLOW, MCFD.....	5200		1430			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	93.6		94.3			89.1		
ETHANE.....	3.0		2.4			5.7		
PROPANE.....	1.2		0.7			2.3		
N-BUTANE.....	0.2		0.1			0.6		
ISOBUTANE.....	0.1		0.1			0.2		
N-PENTANE.....	TRACE		0.1			0.2		
ISOPENTANE.....	0.1		TRACE			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.5			0.2		
NITROGEN.....	0.4		0.3			0.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.3			0.3		
HELIUM.....	0.04		0.05			0.06		
HEATING VALUE.....	1053		1057			1126		
SPECIFIC GRAVITY.....	0.603		0.606			0.639		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9265 SAMPLE 12235		INDEX 9266 SAMPLE 10829		INDEX 9267 SAMPLE 15754	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	FOLLETT	FIELD.....	FOLLETT S	FIELD.....	FOLLETT S
WELL NAME.....	TRAVIS NO. 1-V	WELL NAME.....	HAUD 1 HAINES NO. 1	WELL NAME.....	BORN NO. 1
LOCATION.....	SEC. 92, BLK. 10, HT&B SUR.	LOCATION.....	SEC. 1138, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 969, BLK. 43, H&TC SUR.
OWNER.....	CLINTON OIL CO.	OWNER.....	SHAMROCK OIL & GAS CORP.	OWNER.....	HOMER PETROLEUM CORP.
COMPLETED.....	01/24/70	COMPLETED.....	11/01/66	COMPLETED.....	04/12/79
SAMPLED.....	7/1/70	SAMPLED.....	01/04/67	SAMPLED.....	09/17/79
FORMATION.....	PENN-MORROW M	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	8717	DEPTH, FEET.....	9066	DEPTH, FEET.....	9244
WELLHEAD PRESSURE, PSIG.....	2700	WELLHEAD PRESSURE, PSIG.....	2503	WELLHEAD PRESSURE, PSIG.....	2800
OPEN FLOW, MCFD.....	24500	OPEN FLOW, MCFD.....	4750	OPEN FLOW, MCFD.....	3000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.7	METHANE.....	84.0	METHANE.....	94.2
ETHANE.....	4.9	ETHANE.....	6.6	ETHANE.....	3.0
PROPANE.....	2.3	PROPANE.....	3.5	PROPANE.....	0.9
N-BUTANE.....	0.6	N-BUTANE.....	1.1	N-BUTANE.....	0.2
ISOBUTANE.....	0.3	ISOBUTANE.....	0.6	ISOBUTANE.....	0.1
N-PENTANE.....	0.1	N-PENTANE.....	0.3	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	0.6	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.1
NITROGEN.....	0.9	NITROGEN.....	1.1	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.8
HELIUM.....	0.05	HELIUM.....	0.08	HELIUM.....	0.04
HEATING VALUE.....	1100	HEATING VALUE.....	1194	HEATING VALUE.....	1051
SPECIFIC GRAVITY.....	0.631	SPECIFIC GRAVITY.....	0.702	SPECIFIC GRAVITY.....	0.596

INDEX 9268 SAMPLE 17785		INDEX 9269 SAMPLE 7506		INDEX 9270 SAMPLE 7537	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	FOLLETT S	FIELD.....	FRASS	FIELD.....	FRASS
WELL NAME.....	TRAVIS "N" NO. 3	WELL NAME.....	HENRY FRASS, JR. B-1-LC	WELL NAME.....	ANNA FRASS G NO. 1
LOCATION.....	SEC. 134, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 70, BLK. 10, HT&B SUR.	LOCATION.....	SEC. 105, BLK. 10, H&TC SUR.
OWNER.....	TXO PRODUCTION CORP.	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	TEXACO INC.
COMPLETED.....	01/23/85	COMPLETED.....	01/29/60	COMPLETED.....	10/30/59
SAMPLED.....	07/24/85	SAMPLED.....	04/15/60	SAMPLED.....	05/03/60
FORMATION.....	PENN-TONKAWA	FORMATION.....	PENN-MORROW L	FORMATION.....	MISS-LIME
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	6420	DEPTH, FEET.....	8778	DEPTH, FEET.....	8839
WELLHEAD PRESSURE, PSIG.....	1390	WELLHEAD PRESSURE, PSIG.....	1780	WELLHEAD PRESSURE, PSIG.....	1018
OPEN FLOW, MCFD.....	5600	OPEN FLOW, MCFD.....	3700	OPEN FLOW, MCFD.....	3350
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	85.5	METHANE.....	96.5	METHANE.....	81.1
ETHANE.....	3.9	ETHANE.....	1.4	ETHANE.....	6.9
PROPANE.....	3.0	PROPANE.....	0.7	PROPANE.....	4.0
N-BUTANE.....	1.0	N-BUTANE.....	0.1	N-BUTANE.....	1.9
ISOBUTANE.....	0.1	ISOBUTANE.....	0.1	ISOBUTANE.....	0.9
N-PENTANE.....	0.4	N-PENTANE.....	TRACE	N-PENTANE.....	1.5
ISOPENTANE.....	0.3	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.6
HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.1	HEXANES PLUS.....	1.9
NITROGEN.....	1.4	NITROGEN.....	0.2	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.6
HELIUM.....	0.08	HELIUM.....	0.10	HELIUM.....	0.10
HEATING VALUE.....	1180	HEATING VALUE.....	1033	HEATING VALUE.....	1327
SPECIFIC GRAVITY.....	0.677	SPECIFIC GRAVITY.....	0.582	SPECIFIC GRAVITY.....	0.765

INDEX 9271 SAMPLE 17094		INDEX 9272 SAMPLE 12764		INDEX 9273 SAMPLE 9900	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	THREE SISTERS	FIELD.....	GREEN	FIELD.....	HIGGINS S
WELL NAME.....	THREE SISTERS NO. 1	WELL NAME.....	GEN N NO. 1	WELL NAME.....	ROT SAMSONG NO. 1
LOCATION.....	SEC. 72, BLK. 10, H&TC SUR.	LOCATION.....	SEC. 468, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 88, BLK. 43, H&TC SUR.
OWNER.....	GEODYNE RESOURCES, INC.	OWNER.....	PHILCON DEVELOPMENT CO.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	04/15/83	COMPLETED.....	11/03/69	COMPLETED.....	03/22/65
SAMPLED.....	10/17/83	SAMPLED.....	04/15/71	SAMPLED.....	05/19/65
FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-TONKAWA
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	8887	DEPTH, FEET.....	10203	DEPTH, FEET.....	7584
WELLHEAD PRESSURE, PSIG.....	2200	WELLHEAD PRESSURE, PSIG.....	3438	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	13500	OPEN FLOW, MCFD.....	4900	OPEN FLOW, MCFD.....	7500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.0	METHANE.....	89.6	METHANE.....	83.4
ETHANE.....	6.1	ETHANE.....	5.0	ETHANE.....	5.6
PROPANE.....	2.4	PROPANE.....	0.9	PROPANE.....	4.5
N-BUTANE.....	1.0	N-BUTANE.....	0.4	N-BUTANE.....	1.0
ISOBUTANE.....	0.5	ISOBUTANE.....	0.6	ISOBUTANE.....	0.7
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	0.3	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.4	HEXANES PLUS.....	TRACE
NITROGEN.....	0.4	NITROGEN.....	0.0	NITROGEN.....	3.9
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	0.4
HELIUM.....	0.05	HELIUM.....	0.04	HELIUM.....	0.11
HEATING VALUE.....	1169	HEATING VALUE.....	1199	HEATING VALUE.....	1132
SPECIFIC GRAVITY.....	0.666	SPECIFIC GRAVITY.....	0.639	SPECIFIC GRAVITY.....	0.678

INDEX 9274 SAMPLE 8691		INDEX 9275 SAMPLE 8951		INDEX 9276 SAMPLE 14236	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	HIGGINS W	FIELD.....	HIGGINS W	FIELD.....	HIGGINS W
WELL NAME.....	LILLIAN M. ADDIE NO. 1	WELL NAME.....	JIS 162 BUSSARD NO. 1	WELL NAME.....	WAY M. WRIGHT E NO. 1-163
LOCATION.....	SEC. 161, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 162, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 163, BLK. 43, H&TC SUR.
OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	DIAMOND SHAMROCK CORP.
COMPLETED.....	04/10/62	COMPLETED.....	01/31/63	COMPLETED.....	10/01/74
SAMPLED.....	10/01/62	SAMPLED.....	05/01/63	SAMPLED.....	11/24/74
FORMATION.....	MISS-	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	11539	DEPTH, FEET.....	10564	DEPTH, FEET.....	10660
WELLHEAD PRESSURE, PSIG.....	3986	WELLHEAD PRESSURE, PSIG.....	3776	WELLHEAD PRESSURE, PSIG.....	3950
OPEN FLOW, MCFD.....	8300	OPEN FLOW, MCFD.....	23500	OPEN FLOW, MCFD.....	5200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.6	METHANE.....	90.2	METHANE.....	88.8
ETHANE.....	0.7	ETHANE.....	5.9	ETHANE.....	6.1
PROPANE.....	0.1	PROPANE.....	1.5	PROPANE.....	1.8
N-BUTANE.....	0.1	N-BUTANE.....	0.4	N-BUTANE.....	0.2
ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.4
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	0.3	ISOPENTANE.....	0.1	ISOPENTANE.....	0.5
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.3
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.4
NITROGEN.....	0.3	NITROGEN.....	0.5	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	2.2	CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	0.9
HELIUM.....	TRACE	HELIUM.....	0.05	HELIUM.....	0.04
HEATING VALUE.....	1169	HEATING VALUE.....	1099	HEATING VALUE.....	1133
SPECIFIC GRAVITY.....	0.583	SPECIFIC GRAVITY.....	0.625	SPECIFIC GRAVITY.....	0.649

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9277 SAMPLE 14738		INDEX 9278 SAMPLE 15617		INDEX 9279 SAMPLE 9925	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	HORSE CREEK NW	FIELD.....	HORSE CREEK NW	FIELD.....	KELLN
WELL NAME.....	BRADDOUS NO. 1	WELL NAME.....	KELLN 206 NO. 1	WELL NAME.....	KELLN NO. 3
LOCATION.....	SEC. 293, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 206, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 153, BLK. 43, H&TC SUR.
OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	DORCHESTER EXPLORATION, INC.	OWNER.....	EL PASO NATURAL GAS CO.
COMPLETED.....	04/13/76	COMPLETED.....	05/04/79	COMPLETED.....	03/31/63
SAMPLED.....	08/19/76	SAMPLED.....	05/04/79	SAMPLED.....	06/09/65
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-TONKAWA
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	10920	DEPTH, FEET.....	11042	DEPTH, FEET.....	7239
WELLHEAD PRESSURE, PSIG.....	3580	WELLHEAD PRESSURE, PSIG.....	4410	WELLHEAD PRESSURE, PSIG.....	166
OPEN FLOW, MCFD.....	4500	OPEN FLOW, MCFD.....	6600	OPEN FLOW, MCFD.....	3300
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.9	METHANE.....	97.3	METHANE.....	81.5
ETHANE.....	1.2	ETHANE.....	0.8	ETHANE.....	8.6
PROPANE.....	0.3	PROPANE.....	0.1	PROPANE.....	4.5
N-BUTANE.....	0.0	N-BUTANE.....	1.0	N-BUTANE.....	1.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.8
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.2
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.2
NITROGEN.....	0.5	NITROGEN.....	0.3	NITROGEN.....	2.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	1.4	CARBON DIOXIDE.....	0.3
HELIUM.....	0.04	HELIUM.....	0.04	HELIUM.....	0.10
HEATING VALUE.....	1011	HEATING VALUE.....	1003	HEATING VALUE.....	1188
SPECIFIC GRAVITY.....	0.573	SPECIFIC GRAVITY.....	0.574	SPECIFIC GRAVITY.....	0.697

INDEX 9280 SAMPLE 7536		INDEX 9281 SAMPLE 7797		INDEX 9282 SAMPLE 11709	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	KIOWA CREEK	FIELD.....	KIOWA CREEK	FIELD.....	KIOWA CREEK
WELL NAME.....	CRUISE A NO. 1	WELL NAME.....	BLAU NO. 1	WELL NAME.....	BRILLHART NO. 2-852
LOCATION.....	SEC. 856, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 941, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 852, BLK. 43, H&TC SUR.
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	AMBSADOR OIL CORP.	OWNER.....	KERR-MCGEE CORP.
COMPLETED.....	03/16/60	COMPLETED.....	01/26/61	COMPLETED.....	03/07/68
SAMPLED.....	05/04/60	SAMPLED.....	12/19/60	SAMPLED.....	12/17/68
FORMATION.....	PENN-TONKAWA	FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	6389	DEPTH, FEET.....	5900	DEPTH, FEET.....	9134
WELLHEAD PRESSURE, PSIG.....	041811	WELLHEAD PRESSURE, PSIG.....	1500	WELLHEAD PRESSURE, PSIG.....	2242
OPEN FLOW, MCFD.....	20099	OPEN FLOW, MCFD.....	5402	OPEN FLOW, MCFD.....	4168
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.6	METHANE.....	82.9	METHANE.....	85.8
ETHANE.....	5.9	ETHANE.....	5.6	ETHANE.....	7.1
PROPANE.....	5.7	PROPANE.....	1.0	PROPANE.....	3.7
N-BUTANE.....	1.0	N-BUTANE.....	0.6	N-BUTANE.....	0.9
ISOBUTANE.....	0.4	ISOBUTANE.....	0.6	ISOBUTANE.....	0.4
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.9	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	1.0	NITROGEN.....	4.5	NITROGEN.....	0.7
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.6
HELIUM.....	0.10	HELIUM.....	0.20	HELIUM.....	0.06
HEATING VALUE.....	1169	HEATING VALUE.....	1130	HEATING VALUE.....	1163
SPECIFIC GRAVITY.....	0.666	SPECIFIC GRAVITY.....	0.680	SPECIFIC GRAVITY.....	0.668

INDEX 9283 SAMPLE 12407		INDEX 9284 SAMPLE 17478		INDEX 9285 SAMPLE 16137	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	KIOWA CREEK	FIELD.....	KIOWA CREEK	FIELD.....	KIOWA CREEK N
WELL NAME.....	R. PAINE NO. 1-944	WELL NAME.....	BRILLHART NO. 2	WELL NAME.....	PARKER # NO. 1
LOCATION.....	SEC. 944, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 851, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 1031, BLK. 43, H&TC SUR
OWNER.....	YUCCA PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	TEXAS OIL & GAS CORP.
COMPLETED.....	08/04/70	COMPLETED.....	04/23/84	COMPLETED.....	08/20/80
SAMPLED.....	09/-70	SAMPLED.....	10/11/84	SAMPLED.....	12/04/80
FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-CLEVELAND	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	5873	DEPTH, FEET.....	7520	DEPTH, FEET.....	8654
WELLHEAD PRESSURE, PSIG.....	1462	WELLHEAD PRESSURE, PSIG.....	1430	WELLHEAD PRESSURE, PSIG.....	2900
OPEN FLOW, MCFD.....	16500	OPEN FLOW, MCFD.....	7500	OPEN FLOW, MCFD.....	38000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	83.0	METHANE.....	87.7	METHANE.....	84.4
ETHANE.....	5.7	ETHANE.....	6.9	ETHANE.....	7.4
PROPANE.....	3.0	PROPANE.....	2.4	PROPANE.....	3.5
N-BUTANE.....	0.8	N-BUTANE.....	0.3	N-BUTANE.....	0.6
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	6.0	NITROGEN.....	0.4	NITROGEN.....	1.8
OXYGEN.....	0.2	OXYGEN.....	TRACE	OXYGEN.....	0.4
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	TRACE	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.6
HELIUM.....	0.19	HELIUM.....	0.06	HELIUM.....	0.07
HEATING VALUE.....	1093	HEATING VALUE.....	1147	HEATING VALUE.....	1147
SPECIFIC GRAVITY.....	0.670	SPECIFIC GRAVITY.....	0.651	SPECIFIC GRAVITY.....	0.672

INDEX 9286 SAMPLE 16640		INDEX 9287 SAMPLE 16471		INDEX 9288 SAMPLE 6258	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	LADY	FIELD.....	LEAR	FIELD.....	LIPSCOMB
WELL NAME.....	GADBERRY NO. 1	WELL NAME.....	ALLEN ESTATE NO. 2-1118	WELL NAME.....	R. H. COWAN NO. 1
LOCATION.....	SEC. 1175, BLK. 10, H&GN SUR.	LOCATION.....	SEC. 1175, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 545, BLK. 43, H&TC SUR.
OWNER.....	WILLIFORD ENERGY CO.	OWNER.....	NATURAL GAS ANADARKO, INC.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	09/10/82	COMPLETED.....	06/09/81	COMPLETED.....	01/19/77
SAMPLED.....	09/10/82	SAMPLED.....	03/31/82	SAMPLED.....	03/08/57
FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	8484	DEPTH, FEET.....	8548	DEPTH, FEET.....	10164
WELLHEAD PRESSURE, PSIG.....	1725	WELLHEAD PRESSURE, PSIG.....	2413	WELLHEAD PRESSURE, PSIG.....	2972
OPEN FLOW, MCFD.....	1800	OPEN FLOW, MCFD.....	89000	OPEN FLOW, MCFD.....	10800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.4	METHANE.....	85.1	METHANE.....	93.1
ETHANE.....	15.8	ETHANE.....	8.1	ETHANE.....	3.5
PROPANE.....	5.8	PROPANE.....	3.7	PROPANE.....	1.3
N-BUTANE.....	1.4	N-BUTANE.....	0.9	N-BUTANE.....	0.3
ISOBUTANE.....	0.7	ISOBUTANE.....	0.3	ISOBUTANE.....	0.1
N-PENTANE.....	0.3	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.4	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.8	NITROGEN.....	0.8	NITROGEN.....	0.1
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	1.3
HELIUM.....	0.07	HELIUM.....	0.08	HELIUM.....	0.06
HEATING VALUE.....	1261	HEATING VALUE.....	1170	HEATING VALUE.....	1062
SPECIFIC GRAVITY.....	0.734	SPECIFIC GRAVITY.....	0.669	SPECIFIC GRAVITY.....	0.608

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9289 SAMPLE 6263			INDEX 9290 SAMPLE 6341			INDEX 9291 SAMPLE 7715		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
FIELD.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
WELL NAME.....	REBA N. MILLER NO. 1		SCHULTZ BROS. NO. 1			C. C. DUKE NO. 1		
LOCATION.....	SEC. 71, BLK. 43, H&TC SUR.		SEC. 69A, BLK. 43, H&TC SUR.			SEC. 781, BLK. 43, H&TC SUR.		
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	01/20/57		03/19/57			05/02/57		
SAMPLED.....	03/08/57		06/12/57			10/10/60		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-TONKAWA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9764		9736			6610		
WELLHEAD PRESSURE, PSIG.....	3250		3374			1876		
OPEN FLOW, MCFD.....	2300		13200			5900		
COMPONENT, MOLE PCT								
METHANE.....	87.2		84.7			85.3		
ETHANE.....	7.0		7.0			6.3		
PROPANE.....	2.4		2.6			3.1		
N-BUTANE.....	0.6		1.0			1.2		
ISOBUTANE.....	0.6		0.7			0.7		
N-PENTANE.....	0.2		0.8			0.4		
ISOPENTANE.....	0.2		0.0			0.3		
CYCLOPENTANE.....	0.1		0.4			0.1		
HEXANES PLUS.....	0.4		1.5			0.4		
NITROGEN.....	0.2		0.1			1.9		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.0		1.0			0.1		
HELIUM.....	0.08		0.04			0.10		
HEATING VALUE.....	1149		11238			1176		
SPECIFIC GRAVITY.....	0.659		0.711			0.678		
INDEX 9292 SAMPLE 13583			INDEX 9293 SAMPLE 15568			INDEX 9294 SAMPLE 13647		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
FIELD.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
WELL NAME.....	JAMES ROLAND WHEAT NO. 1		VALENTINE SCHOENHALS A NO. 1			ROSE C. TURNER NO. 1		
LOCATION.....	SEC. 455, BLK. 43, H&TC SUR.		SEC. 457, BLK. 43, H&TC SUR.			SEC. 541, BLK. 43, H&TC SUR.		
OWNER.....	DIAMOND SHAHROCK CORP.		DIAMOND SHAHROCK CORP.			DIAMOND SHAHROCK CORP.		
COMPLETED.....	03/13/73		01/11/79			04/24/73		
SAMPLED.....	04/14/73		02/20/79			07/14/73		
FORMATION.....	PENN-CLEVELAND		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8096		9758			10134		
WELLHEAD PRESSURE, PSIG.....	2424		2493			3518		
OPEN FLOW, MCFD.....	2900		5200			3100		
COMPONENT, MOLE PCT								
METHANE.....	89.0		88.2			96.4		
ETHANE.....	5.8		6.2			1.0		
PROPANE.....	2.4		0.2			1.2		
N-BUTANE.....	0.6		0.4			TRACE		
ISOBUTANE.....	0.3		0.2			TRACE		
N-PENTANE.....	0.1		0.1			TRACE		
ISOPENTANE.....	0.2		0.2			TRACE		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	0.8		0.5			0.4		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.9			1.7		
HELIUM.....	0.06		1.06			0.03		
HEATING VALUE.....	1120		1113			1000		
SPECIFIC GRAVITY.....	0.639		0.637			0.579		
INDEX 9295 SAMPLE 13657			INDEX 9296 SAMPLE 14533			INDEX 9297 SAMPLE 16142		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
FIELD.....	LIPSCOMB SE		LIPSCOMB SW			LIPSCOMB SW		
WELL NAME.....	PILOT		ANTHONY NO. 1			OWEN NO. 1-544		
LOCATION.....	SECC 516, BLK. 43, H&TC SUR.		SEC. 372, BLK. 43, H&TC SUR.			SEC. 544, BLK. 43, H&TC SUR.		
OWNER.....	COTTON PETROLEUM CORP.		DIAMOND SHAHROCK CORP.			NATURAL GAS ANADARKO, INC.		
COMPLETED.....	09/28/72		09/17/75			03/25/80		
SAMPLED.....	03/28/72		01/14/75			12/05/80		
FORMATION.....	PENN-MORROW		PENN-CLEVELAND			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10243		8194			9211		
WELLHEAD PRESSURE, PSIG.....	3323		2020			2791		
OPEN FLOW, MCFD.....	25700		2800			5900		
COMPONENT, MOLE PCT								
METHANE.....	95.7		85.3			87.7		
ETHANE.....	1.5		7.6			7.9		
PROPANE.....	0.5		3.6			2.1		
N-BUTANE.....	0.1		0.9			0.5		
ISOBUTANE.....	0.2		0.4			0.2		
N-PENTANE.....	TRACE		0.2			0.1		
ISOPENTANE.....	TRACE		0.2			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.4		1.0			0.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.5		0.3			0.5		
HELIUM.....	0.04		0.10			0.05		
HEATING VALUE.....	1025		1160			1125		
SPECIFIC GRAVITY.....	0.590		0.665			0.640		
INDEX 9298 SAMPLE 7984			INDEX 9299 SAMPLE 10384			INDEX 9300 SAMPLE 16285		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LIPSCOMB		LIPSCOMB			LIPSCOMB		
FIELD.....	MAMMOTH CREEK		MAMMOTH CREEK N			MAMMOTH CREEK N		
WELL NAME.....	BROYLES NO. 1		EMRLICH NO. 1			GEX NO. 1		
LOCATION.....	SEC. 1051, BLK. 43, H&TC SUR.		SEC. 1051, BLK. 43, H&TC SUR.			SEC. 873, BLK. 43, H&TC SUR.		
OWNER.....	AMARILLO OIL CO.		AMARILLO OIL CO.			MAY PETROLEUM, INC.		
COMPLETED.....	03/30/61		11/01/65			04/22/81		
SAMPLED.....	05/21/61		02/07/66			06/17/81		
FORMATION.....	PENN-CLEVELAND		PENN-COTTAGE GROVE			PENN-CLEVELAND		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7347		7500			7731		
WELLHEAD PRESSURE, PSIG.....	2580		2368			2368		
OPEN FLOW, MCFD.....	7000		3000			6500		
COMPONENT, MOLE PCT								
METHANE.....	88.6		89.3			83.6		
ETHANE.....	5.8		6.0			1.2		
PROPANE.....	1.9		1.9			3.8		
N-BUTANE.....	0.5		0.7			1.2		
ISOBUTANE.....	0.2		0.9			0.7		
N-PENTANE.....	0.2		0.3			0.4		
ISOPENTANE.....	0.1		TRACE			0.3		
CYCLOPENTANE.....	TRACE		0.2			0.2		
HEXANES PLUS.....	0.2		0.7			0.4		
NITROGEN.....	1.6		0.2			1.3		
OXYGEN.....	0.0		1.0			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.06			1.1		
HELIUM.....	0.10		1148			0.07		
HEATING VALUE.....	1097		1148			1190		
SPECIFIC GRAVITY.....	0.637		0.648			0.697		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 9301 16570	INDEX SAMPLE 9302 10524	INDEX SAMPLE 9303 15680
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	LIPSCOMB		LIPSCOMB	LIPSCOMB
FIELD.....	MAAMOTH CREEK N		MAAMOTH CREEK S	MAY
WELL NAME.....	HERMAN SCHULTZ NO. 2		YAUCK NO. 1	DUKE NO. 1
LOCATION.....	SEC. 1048, BLK. 43, H&TC SUR.		SEC. 182, BLK. 43, H&TC SUR.	SEC. 1038, BLK. 43, H&TC SUR.
OWNER.....	PIONEER PRODUCTION CORP.		APACHE CORP.	MAY PETROLEUM, INC.
COMPLETED.....	08/11/81		02/12/66	11/16/78
SAMPLED.....	07/08/82		04/11/66	06/28/79
FORMATION.....	PENN-CLEVELAND		PENN-TONKAWA	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	7418		6549	9384
WELLHEAD PRESSURE, PSIG.....	1000		1775	3118
OPEN FLOW, MCFD.....	13800		6900	46000
COMPONENT, MOLE PCT				
METHANE.....	90.3	83.1	94.7	
ETHANE.....	5.8	6.6	2.4	
PROPANE.....	1.8	3.0	0.7	
N-BUTANE.....	0.5	1.2	0.2	
ISOBUTANE.....	0.2	0.6	0.1	
N-PENTANE.....	0.1	0.1	0.1	
ISOPENTANE.....	0.1	TRACE	0.1	
CYCLOPENTANE.....	0.1	0.8	TRACE	
HEXANES PLUS.....	0.1	1.8	0.1	
NITROGEN.....	0.5	1.4	0.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.5	0.3	1.2	
HELIUM.....	0.05	0.10	0.04	
HEATING VALUE.....	1106	1268	1044	
SPECIFIC GRAVITY.....	0.627	0.733	0.597	

		INDEX SAMPLE 9304 16148	INDEX SAMPLE 9305 6298	INDEX SAMPLE 9306 14594
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	LIPSCOMB		LIPSCOMB	LIPSCOMB
FIELD.....	MAY		MERYDITH	NORTHUP
WELL NAME.....	TERRELL NO. 1		MERYDITH NO. 1	WALLACE N. HAMKER NO. 1
LOCATION.....	SEC. 1125, BLK. 43, H&TC SUR.		SEC. 469, BLK. 43, H&TC SUR.	SEC. 589, BLK. 43, H&TC SUR.
OWNER.....	UNIVERSAL RESOURCES CORP.		HUMBLE OIL & REFINING CO.	DIAMOND SHAMROCK CORP.
COMPLETED.....	09/15/80		02/29/56	11/25/75
SAMPLED.....	12/15/80		04/10/57	03/04/76
FORMATION.....	PENN-MORROW		PENN-KEYES	PENN-CLEVELAND
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	9228		10162	7485
WELLHEAD PRESSURE, PSIG.....	3223		85	1815
OPEN FLOW, MCFD.....	4300		NOT GIVEN	6500
COMPONENT, MOLE PCT				
METHANE.....	93.5	83.0	85.7	
ETHANE.....	2.4	8.0	6.5	
PROPANE.....	0.6	3.6	1.1	
N-BUTANE.....	0.1	1.7	0.5	
ISOBUTANE.....	0.1	1.4	0.2	
N-PENTANE.....	TRACE	0.2	0.4	
ISOPENTANE.....	0.1	0.5	TRACE	
CYCLOPENTANE.....	0.1	0.2	TRACE	
HEXANES PLUS.....	0.1	0.6	0.1	
NITROGEN.....	0.1	0.3	0.0	
OXYGEN.....	0.2	TRACE	0.0	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.1	0.9	0.4	
HELIUM.....	0.04	0.05	0.10	
HEATING VALUE.....	1026	1250	1163	
SPECIFIC GRAVITY.....	0.598	0.709	0.668	

		INDEX SAMPLE 9307 15283	INDEX SAMPLE 9308 15849	INDEX SAMPLE 9309 16408
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	LIPSCOMB		LIPSCOMB	LIPSCOMB
FIELD.....	NORTHUP		NOT GIVEN	NOT GIVEN
WELL NAME.....	W. T. TREGELLAS-A NO. 1		BENSCH NO. 1	SCHULTZ "F" NO. 2
LOCATION.....	SEC. 675, BLK. 43, H&TC SUR.		SEC. 246, BLK. 43, H&TC SUR.	SEC. 1068, BLK. 43, T&TC SUR.
OWNER.....	DIAMOND SHAMROCK CORP.		COTTON PETROLEUM CORP.	COTTON PETROLEUM CORP.
COMPLETED.....	04/04/78		--/--/00	--/--/80
SAMPLED.....	05/25/78		12/05/79	--/--/82
FORMATION.....	PENN-CLEVELAND		PENN-CLEVELAND	PENN-TONKAWA
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	730		7600	6452
WELLHEAD PRESSURE, PSIG.....	1750		1470	NOT GIVEN
OPEN FLOW, MCFD.....	6000		1350	2700
COMPONENT, MOLE PCT				
METHANE.....	85.8	86.0	86.8	
ETHANE.....	6.8	8.9	3.3	
PROPANE.....	3.7	3.7	1.8	
N-BUTANE.....	1.0	1.1	0.3	
ISOBUTANE.....	0.3	0.3	0.5	
N-PENTANE.....	0.2	0.3	0.1	
ISOPENTANE.....	0.2	0.3	0.0	
CYCLOPENTANE.....	0.1	0.1	0.5	
HEXANES PLUS.....	0.2	0.2	0.0	
NITROGEN.....	1.1	1.5	2.9	
OXYGEN.....	TRACE	TRACE	0.7	
ARGON.....	TRACE	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.3	TRACE	
HELIUM.....	0.10	0.11	0.05	
HEATING VALUE.....	1162	1122	1122	
SPECIFIC GRAVITY.....	0.667	0.670	0.662	

		INDEX SAMPLE 9310 11463	INDEX SAMPLE 9311 11464	INDEX SAMPLE 9312 16611
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	LIPSCOMB		LIPSCOMB	LIPSCOMB
FIELD.....	NOTLA		NOTLA	STUART RANCH
WELL NAME.....	DAVID KELLN NO. 1		DAVID KELLN NO. 1	INGLE NO. 1
LOCATION.....	SEC. 59, BLK. 43, H&TC SUR.		SEC. 59, BLK. 43, H&TC SUR.	SEC. 970, BLK. 43, H&TC SUR.
OWNER.....	CABOT CORP.		CABOT CORP.	HFC, INC.
COMPLETED.....	--/--/00		--/--/00	12/22/81
SAMPLED.....	04/29/68		04/29/68	08/06/82
FORMATION.....	PENN-MORROW		PENN-MORROW	PENN-MORROW L
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	9944		10950	9297
WELLHEAD PRESSURE, PSIG.....	4622		5275	3742
OPEN FLOW, MCFD.....	14420		14930	1250
COMPONENT, MOLE PCT				
METHANE.....	86.4	93.9	87.8	
ETHANE.....	7.7	2.6	5.6	
PROPANE.....	2.9	2.7	2.8	
N-BUTANE.....	0.6	0.2	0.7	
ISOBUTANE.....	0.2	0.2	0.6	
N-PENTANE.....	0.1	0.1	0.1	
ISOPENTANE.....	0.2	0.0	0.4	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.2	0.3	0.2	
NITROGEN.....	0.7	0.6	0.3	
OXYGEN.....	0.1	0.1	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	TRACE	0.0	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	1.2	1.1	
HELIUM.....	0.05	0.04	0.03	
HEATING VALUE.....	1146	1053	1152	
SPECIFIC GRAVITY.....	0.658	0.606	0.657	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9313 SAMPLE 17552		INDEX 9314 SAMPLE 11974		INDEX 9315 SAMPLE 11975	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	TRENFELD CLEVELAND	FIELD.....	TROSPER	FIELD.....	TROSPER
WELL NAME.....	SQUIRE NO. 2	WELL NAME.....	TROSPER NO. 1	WELL NAME.....	TROSPER NO. 1
LOCATION.....	SEC. 108-052	LOCATION.....	SEC. 362, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 342, BLK. 43, H&TC SUR.
OWNER.....	NEUDORNE OIL CO.	OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	DIAMOND SHAMROCK CORP.
COMPLETED.....	07/22/84	COMPLETED.....	06/10/69	COMPLETED.....	06/10/69
SAMPLED.....	12/26/84	SAMPLED.....	07/17/69	SAMPLED.....	07/17/69
FORMATION.....	PENN-CLEVELAND	FORMATION.....	DEVON-HUNTON & ORDO-VIOLA	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7668	DEPTH, FEET.....	13376	DEPTH, FEET.....	10520
WELLHEAD PRESSURE, PSIG.....	2300	WELLHEAD PRESSURE, PSIG.....	4285	WELLHEAD PRESSURE, PSIG.....	3748
OPEN FLOW, MCFD.....	1400	OPEN FLOW, MCFD.....	52000	OPEN FLOW, MCFD.....	33250
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	79.8	METHANE.....	96.4	METHANE.....	96.4
ETHANE.....	10.6	ETHANE.....	0.5	ETHANE.....	0.7
PROpane.....	8.3	PROpane.....	0.1	PROpane.....	0.2
N-BUTANE.....	1.3	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.5	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.2	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.3	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.2	NITROGEN.....	1.7	NITROGEN.....	0.6
OXYGEN.....	TRACE	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.2	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	1.8
HELIUM.....	0.07	HELIUM.....	0.06	HELIUM.....	0.04
HEATING VALUE.....	1232	HEATING VALUE.....	986	HEATING VALUE.....	995
SPECIFIC GRAVITY.....	0.714	SPECIFIC GRAVITY.....	0.577	SPECIFIC GRAVITY.....	0.578

INDEX 9316 SAMPLE 12187		INDEX 9317 SAMPLE 17624		INDEX 9318 SAMPLE 6449	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	TROSPER	FIELD.....	UNIT FIELD	FIELD.....	WILDCAT
WELL NAME.....	CITIZEN NATIONAL BANK G-8-A	WELL NAME.....	ELEMENT BLOOD NO. 3	WELL NAME.....	J. A. BARTON NO. 1
LOCATION.....	SEC. 343, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 637, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 525, BLK. 43, H&TC SUR.
OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	UNIT DRILLING & EXPL. CO.	OWNER.....	TEXAS CO.
COMPLETED.....	02/09/70	COMPLETED.....	10/15/57	COMPLETED.....	10/02/57
SAMPLED.....	02/09/70	SAMPLED.....	03/21/85	SAMPLED.....	11/25/57
FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	10607	DEPTH, FEET.....	9220	DEPTH, FEET.....	10440
WELLHEAD PRESSURE, PSIG.....	3288	WELLHEAD PRESSURE, PSIG.....	2250	WELLHEAD PRESSURE, PSIG.....	3342
OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	23800	OPEN FLOW, MCFD.....	1500
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	95.8	METHANE.....	87.8	METHANE.....	96.2
ETHANE.....	1.8	ETHANE.....	7.2	ETHANE.....	1.5
PROpane.....	0.5	PROpane.....	2.5	PROpane.....	0.2
N-BUTANE.....	0.0	N-BUTANE.....	0.5	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.3	ISOBUTANE.....	0.1
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.6	NITROGEN.....	0.4	NITROGEN.....	0.2
OXYGEN.....	0.6	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	1.5
HELIUM.....	0.04	HELIUM.....	0.07	HELIUM.....	0.10
HEATING VALUE.....	1016	HEATING VALUE.....	113	HEATING VALUE.....	1018
SPECIFIC GRAVITY.....	0.583	SPECIFIC GRAVITY.....	0.547	SPECIFIC GRAVITY.....	0.584

INDEX 9319 SAMPLE 11059		INDEX 9320 SAMPLE 13551		INDEX 9321 SAMPLE 14249	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	HARRY L. KING NO. 1	WELL NAME.....	RACHEL "A" NO. 1	WELL NAME.....	ALEX BORN ET AL. NO. A-1
LOCATION.....	SEC. 51, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 332, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 332, BLK. 43, H&TC SUR.
OWNER.....	APACHE CORP.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	DIAMOND SHAMROCK CORP.
COMPLETED.....	04/01/67	COMPLETED.....	11/16/72	COMPLETED.....	11/19/74
SAMPLED.....	08/02/67	SAMPLED.....	02/28/73	SAMPLED.....	12/28/74
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-CLEVELAND
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	9428	DEPTH, FEET.....	10894	DEPTH, FEET.....	8140
WELLHEAD PRESSURE, PSIG.....	2675	WELLHEAD PRESSURE, PSIG.....	4175	WELLHEAD PRESSURE, PSIG.....	1947
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	13500	OPEN FLOW, MCFD.....	13000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	81.8	METHANE.....	96.7	METHANE.....	82.6
ETHANE.....	6.7	ETHANE.....	6.9	ETHANE.....	7.8
PROpane.....	3.1	PROpane.....	0.2	PROpane.....	4.6
N-BUTANE.....	0.8	N-BUTANE.....	TRACE	N-BUTANE.....	1.4
ISOBUTANE.....	0.5	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.7
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	0.3
ISOPENTANE.....	1.2	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.4	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.5	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.3
NITROGEN.....	3.7	NITROGEN.....	0.5	NITROGEN.....	1.3
OXYGEN.....	0.7	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.4
HELIUM.....	0.07	HELIUM.....	0.04	HELIUM.....	0.10
HEATING VALUE.....	1165	HEATING VALUE.....	1001	HEATING VALUE.....	1216
SPECIFIC GRAVITY.....	0.706	SPECIFIC GRAVITY.....	0.576	SPECIFIC GRAVITY.....	0.703

INDEX 9322 SAMPLE 16995		INDEX 9323 SAMPLE 17321		INDEX 9324 SAMPLE 4574	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIPSCOMB	COUNTY.....	LIPSCOMB	COUNTY.....	LIVE OAK
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	ALBERT W
WELL NAME.....	LYNN NO. 1	WELL NAME.....	TERREL NO. 1	WELL NAME.....	ALBERT W. WEST A NO. 2
LOCATION.....	SEC. 557, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 80, BLK. 10, H&TC SUR.	LOCATION.....	MICHAEL CRONICAN SUR.
OWNER.....	J. C. ICHARDSON	OWNER.....	CONTAUT ENERGY CORP.	OWNER.....	CONTINENTAL OIL CO.
COMPLETED.....	04/29/81	COMPLETED.....	06/15/83	COMPLETED.....	07/06/45
SAMPLED.....	07/20/83	SAMPLED.....	06/12/84	SAMPLED.....	10/02/48
FORMATION.....	PENN-CLEVELAND	FORMATION.....	PENN-TONKAWA	FORMATION.....	EDGE-SLICK
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7430	DEPTH, FEET.....	6276	DEPTH, FEET.....	6696
WELLHEAD PRESSURE, PSIG.....	1050	WELLHEAD PRESSURE, PSIG.....	1342	WELLHEAD PRESSURE, PSIG.....	2950
OPEN FLOW, MCFD.....	3600	OPEN FLOW, MCFD.....	3160	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	82.6	METHANE.....	87.4	METHANE.....	81.2
ETHANE.....	4.4	ETHANE.....	5.3	ETHANE.....	16.8
PROpane.....	4.2	PROpane.....	2.3	PROpane.....	---
N-BUTANE.....	1.6	N-BUTANE.....	0.7	N-BUTANE.....	---
ISOBUTANE.....	0.5	ISOBUTANE.....	0.3	ISOBUTANE.....	---
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	---
ISOPENTANE.....	0.8	ISOPENTANE.....	0.2	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	2.0	NITROGEN.....	1.1	NITROGEN.....	0.0
OXYGEN.....	0.2	OXYGEN.....	TRACE	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	---
HYDROGEN.....	0.3	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	1.7
HELIUM.....	0.12	HELIUM.....	0.11	HELIUM.....	0.01
HEATING VALUE.....	1193	HEATING VALUE.....	1127	HEATING VALUE.....	1124
SPECIFIC GRAVITY.....	0.701	SPECIFIC GRAVITY.....	0.653	SPECIFIC GRAVITY.....	0.656

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9325 12234	INDEX SAMPLE	9326 5099	INDEX SAMPLE	9327 14274
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LIVE OAK			LIVE OAK		LIVE OAK	
FIELD.....	ATKINSON			BAKER		BRASLAU	
WELL NAME.....	M. M. ATKINSON NO. 1			BAKER NO. 1		F. BRASLAU GU NO. 2	
LOCATION.....	P. MOORE SUR. 145, A-298			NOT GIVEN		J. POITEVENT SUR. A-324	
OWNER.....	RICHARD E. HAAS			EARL ROWE		ATLANTIC RICHFIELD CO.	
COMPLETED.....	07/03/69			11/29/47		02/26/73	
SAMPLED.....	04/09/70			11/03/51		02/20/75	
FORMATION.....	EOCE-REKLAW			OLIG-FRIO		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4255			2000		8550	
WELLHEAD PRESSURE, PSIG.....	1625			760		5020	
OPEN FLOW, MCFD.....	125000			4000		60000	
COMPONENT, MOLE PCT							
METHANE.....	90.7	-----		98.4	-----	86.7	-----
ETHANE.....	4.3	-----		0.1	-----	6.1	-----
PROPANE.....	2.1	-----		0.1	-----	2.9	-----
N-BUTANE.....	0.5	-----		0.1	-----	0.7	-----
ISOBUTANE.....	0.4	-----		0.0	-----	0.5	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.3	-----		0.0	-----	0.4	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.2	-----
NITROGEN.....	1.1	-----		0.9	-----	0.2	-----
OXYGEN.....	0.0	-----		0.2	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.1	-----	2.2	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1107	-----		1011	-----	1139	-----
SPECIFIC GRAVITY.....	0.630	-----		0.568	-----	0.671	-----
		INDEX SAMPLE	9328 14113	INDEX SAMPLE	9329 10141	INDEX SAMPLE	9330 16359
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LIVE OAK			LIVE OAK		LIVE OAK	
FIELD.....	C. A. WINN			CHAPA		CHAPA E	
WELL NAME.....	ROY HINNANT NO. 5			EL PASO NATURAL GAS NO. 1		EL PASO NATURAL GAS NO. 2	
LOCATION.....	MI. S OF GEORGE WEST			SEC. 32D VIC. CHAPASUR-A-739		SEC. 299, HOOPER&WADESUR.A250	
OWNER.....	FRIO PRODUCTION CO.			ATLANTIC REFINING CO.		AMINOIL U.S.A., INC.	
COMPLETED.....	09/03/72			08/20/64		08/31/79	
SAMPLED.....	07/24/74			09/21/65		10/-/81	
FORMATION.....	EOCE-HOCKLEY			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	4173			8228		11088	
WELLHEAD PRESSURE, PSIG.....	760			4400		1430	
OPEN FLOW, MCFD.....	4200			20950		47000	
COMPONENT, MOLE PCT							
METHANE.....	88.2	-----		87.4	-----	87.4	-----
ETHANE.....	6.0	-----		5.8	-----	4.7	-----
PROPANE.....	2.9	-----		2.2	-----	1.1	-----
N-BUTANE.....	0.7	-----		0.3	-----	0.2	-----
ISOBUTANE.....	0.8	-----		0.3	-----	0.3	-----
N-PENTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.4	-----		0.3	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	0.2	-----
NITROGEN.....	0.3	-----		0.4	-----	0.1	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.0	-----
ARGON.....	0.4	-----		0.0	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		2.5	-----	5.7	-----
HELIUM.....	0.01	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1162	-----		1110	-----	1037	-----
SPECIFIC GRAVITY.....	0.655	-----		0.661	-----	0.663	-----
		INDEX SAMPLE	9331 16360	INDEX SAMPLE	9332 4774	INDEX SAMPLE	9333 4896
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LIVE OAK			LIVE OAK		LIVE OAK	
FIELD.....	CHAPA E			CLAYTON		CLAYTON	
WELL NAME.....	EL PASO GAS NO. 1			C. S. HERRING NO. 1		GREAT SO. LIFE INS.CO.NO. 1	
LOCATION.....	HOOPER & WADESUR. A-250			C. F. SIMMONS SUBD.		BLK. 51	
OWNER.....	AMINOIL U.S.A., INC.			WESTERN NATURAL GAS CO.		WESTERN NATURAL GAS CO.	
COMPLETED.....	01/24/79			06/11/49		03/29/50	
SAMPLED.....	10/-/81			10/25/49		05/19/50	
FORMATION.....	EOCE-WILCOX			EOCE-		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9856			6500		6426	
WELLHEAD PRESSURE, PSIG.....	5915			2405		2315	
OPEN FLOW, MCFD.....	12400			60000		36000	
COMPONENT, MOLE PCT							
METHANE.....	87.9	-----		88.8	-----	88.6	-----
ETHANE.....	4.6	-----		5.9	-----	5.9	-----
PROPANE.....	1.1	-----		2.3	-----	2.3	-----
N-BUTANE.....	0.2	-----		0.6	-----	0.6	-----
ISOBUTANE.....	0.2	-----		0.4	-----	0.5	-----
N-PENTANE.....	0.1	-----		0.3	-----	0.3	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.0	-----
NITROGEN.....	0.1	-----		0.5	-----	0.0	-----
OXYGEN.....	0.0	-----		0.1	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.6	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	5.5	-----		1.0	-----	1.1	-----
HELIUM.....	TRACE	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1032	-----		1119	-----	1133	-----
SPECIFIC GRAVITY.....	0.656	-----		0.645	-----	0.653	-----
		INDEX SAMPLE	9334 4897	INDEX SAMPLE	9335 13890	INDEX SAMPLE	9336 15585
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	LIVE OAK			LIVE OAK		LIVE OAK	
FIELD.....	CLAYTON			CLAYTON		CLAYTON	
WELL NAME.....	UNIT NO. 1			BLK. 85 NO. 2		HERRING "A" NO. 1	
LOCATION.....	BLK. 76, SARA AMESON SUR.			D.R. FANT SUR. NO. 20, A-628		JOHN BUCHANAN SUR. A-81	
OWNER.....	MAGNOLIA PETROLEUM CO.			MOBIL OIL CORP.		KILROY CO. OF TEXAS, INC.	
COMPLETED.....	10/24/49			01/16/74		08/10/77	
SAMPLED.....	03/07/50			03/25/74		03/20/79	
FORMATION.....	EOCE-WILCOX			EOCE-WILCOX		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6953			8353		7720	
WELLHEAD PRESSURE, PSIG.....	2985			3870		2785	
OPEN FLOW, MCFD.....	43500			2800		4100	
COMPONENT, MOLE PCT							
METHANE.....	88.7	-----		89.8	-----	86.9	-----
ETHANE.....	5.3	-----		4.1	-----	3.6	-----
PROPANE.....	2.7	-----		2.4	-----	2.9	-----
N-BUTANE.....	0.7	-----		0.5	-----	0.6	-----
ISOBUTANE.....	0.5	-----		0.5	-----	0.5	-----
N-PENTANE.....	0.3	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.3	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.1	-----	0.1	-----
NITROGEN.....	0.3	-----		0.7	-----	2.8	-----
OXYGEN.....	0.1	-----		0.0	-----	0.2	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.8	-----		1.0	-----	1.9	-----
HELIUM.....	0.01	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1241	-----		1105	-----	1083	-----
SPECIFIC GRAVITY.....	0.642	-----		0.644	-----	0.661	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9337 SAMPLE 15586		INDEX 9338 SAMPLE 16213		INDEX 9339 SAMPLE 16379	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIVE OAK	COUNTY.....	LIVE OAK	COUNTY.....	LIVE OAK
FIELD.....	CLAYTON	FIELD.....	STANLEY PAWLK NO. 1	FIELD.....	LEROY
WELL NAME.....	HERRING "A" NO. 1	WELL NAME.....	G. N. LAFANT #16 SUR. A-604	WELL NAME.....	J. G. RISER NO. 2
LOCATION.....	JOHN BUCHANAN SUR. A-81	LOCATION.....	PEND OREILLE OIL & GAS CO.	LOCATION.....	J. W. WINTERS SUR. 402, A792
OWNER.....	KILROY CO. OF TEXAS, INC.	OWNER.....	---	OWNER.....	M. L. HANKINS, JR.
COMPLETED.....	08/10/77	COMPLETED.....	03/18/81	COMPLETED.....	---
SAMPLED.....	03/20/79	SAMPLED.....	---	SAMPLED.....	---
FORMATION.....	EOCE-WILCOX	FORMATION.....	EOCE-WILCOX	FORMATION.....	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8351	DEPTH, FEET.....	9476	DEPTH, FEET.....	9545
WELLHEAD PRESSURE, PSIG.....	4035	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	2150
OPEN FLOW, MCFD.....	1330	OPEN FLOW, MCFD.....	20000	OPEN FLOW, MCFD.....	2356
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	81.8	METHANE.....	85.2	METHANE.....	86.5
ETHANE.....	6.1	ETHANE.....	6.3	ETHANE.....	6.1
PROPANE.....	3.6	PROPANE.....	3.2	PROPANE.....	2.9
N-BUTANE.....	0.9	N-BUTANE.....	0.8	N-BUTANE.....	0.6
ISOBUTANE.....	0.7	ISOBUTANE.....	0.6	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.4	ISOPENTANE.....	0.3	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3
NITROGEN.....	3.8	NITROGEN.....	0.6	NITROGEN.....	0.3
OXYGEN.....	0.6	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.5	CARBON DIOXIDE.....	2.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1125	HEATING VALUE.....	1152	HEATING VALUE.....	1142
SPECIFIC GRAVITY.....	0.696	SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.671
INDEX 9340 SAMPLE 16032		INDEX 9341 SAMPLE 13356		INDEX 9342 SAMPLE 17350	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIVE OAK	COUNTY.....	LIVE OAK	COUNTY.....	LIVE OAK
FIELD.....	LIMES	FIELD.....	MAXINE NE	FIELD.....	WIKESKA N
WELL NAME.....	C. S. NELSON TRUST NO. 1	WELL NAME.....	CHARLES LINDHOLM NO. 1	WELL NAME.....	PATRICIA CROCKER NO. 1
LOCATION.....	CAMERON CO. SCHOOL LAND	LOCATION.....	R. W. FANT SUR. A615	LOCATION.....	J. F. TORREY SUR. 305, A-466
OWNER.....	PEND OREILLE OIL & GAS CO.	OWNER.....	PRAIRIE PRODUCING CO.	OWNER.....	GOLDKING PRODUCTION CO.
COMPLETED.....	---	COMPLETED.....	11/1/71	COMPLETED.....	---
SAMPLED.....	07/31/80	SAMPLED.....	08/18/72	SAMPLED.....	07/03/84
FORMATION.....	EOCE-WILCOX	FORMATION.....	EOCE-WILCOX	FORMATION.....	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7882	DEPTH, FEET.....	8010	DEPTH, FEET.....	10300
WELLHEAD PRESSURE, PSIG.....	2249	WELLHEAD PRESSURE, PSIG.....	3825	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	6600	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.2	METHANE.....	84.6	METHANE.....	81.2
ETHANE.....	6.2	ETHANE.....	7.2	ETHANE.....	7.8
PROPANE.....	3.1	PROPANE.....	3.1	PROPANE.....	3.3
N-BUTANE.....	0.8	N-BUTANE.....	0.9	N-BUTANE.....	1.2
ISOBUTANE.....	0.6	ISOBUTANE.....	0.7	ISOBUTANE.....	0.7
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.5	ISOPENTANE.....	0.2	ISOPENTANE.....	0.5
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	0.3	NITROGEN.....	0.5	NITROGEN.....	0.0
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.7	CARBON DIOXIDE.....	1.4	CARBON DIOXIDE.....	3.7
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1157	HEATING VALUE.....	1168	HEATING VALUE.....	1186
SPECIFIC GRAVITY.....	0.675	SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.723
INDEX 9343 SAMPLE 17897		INDEX 9344 SAMPLE 3981		INDEX 9345 SAMPLE 15183	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIVE OAK	COUNTY.....	LIVE OAK	COUNTY.....	LIVE OAK
FIELD.....	NOT GIVEN	FIELD.....	OAKVILLE	FIELD.....	OAKVILLE E
WELL NAME.....	KITTIE BURNS NO. 1	WELL NAME.....	M. A. DEAGAN NO. 3	WELL NAME.....	H. L. HINTON GU 1 NO 1
LOCATION.....	W. A. NORWELL SUR. 58, A-310	LOCATION.....	NOT GIVEN	LOCATION.....	JAMES MCGLOIN SUR. A-26
OWNER.....	PETRUS OPERATING CO., INC.	OWNER.....	HENDERSON COQUAT	OWNER.....	NEUMIN PRODUCTION CO.
COMPLETED.....	---	COMPLETED.....	02/25/45	COMPLETED.....	07/08/76
SAMPLED.....	11/11/85	SAMPLED.....	03/01/45	SAMPLED.....	02/28/77
FORMATION.....	EOCE-QUEEN CITY	FORMATION.....	EOCE-WILCOX	FORMATION.....	EOCE-SLICK
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7195	DEPTH, FEET.....	6930	DEPTH, FEET.....	6750
WELLHEAD PRESSURE, PSIG.....	3300	WELLHEAD PRESSURE, PSIG.....	920	WELLHEAD PRESSURE, PSIG.....	2374
OPEN FLOW, MCFD.....	300	OPEN FLOW, MCFD.....	11300	OPEN FLOW, MCFD.....	2600
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.6	METHANE.....	81.8	METHANE.....	88.3
ETHANE.....	5.2	ETHANE.....	15.1	ETHANE.....	5.7
PROPANE.....	1.5	PROPANE.....	---	PROPANE.....	2.2
N-BUTANE.....	0.4	N-BUTANE.....	---	N-BUTANE.....	0.3
ISOBUTANE.....	0.2	ISOBUTANE.....	---	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	---	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	---	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	---	HEXANES PLUS.....	0.1
NITROGEN.....	0.2	NITROGEN.....	0.1	NITROGEN.....	0.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.4	CARBON DIOXIDE.....	3.0	CARBON DIOXIDE.....	2.2
HELIUM.....	TRACE	HELIUM.....	0.00	HELIUM.....	TRACE
HEATING VALUE.....	1087	HEATING VALUE.....	1099	HEATING VALUE.....	1102
SPECIFIC GRAVITY.....	0.642	SPECIFIC GRAVITY.....	0.659	SPECIFIC GRAVITY.....	0.649
INDEX 9346 SAMPLE 12036		INDEX 9347 SAMPLE 16463		INDEX 9348 SAMPLE 13546	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIVE OAK	COUNTY.....	LIVE OAK	COUNTY.....	LIVE OAK
FIELD.....	SALT CREEK	FIELD.....	THREE RIVERS	FIELD.....	TOM LYNE N
WELL NAME.....	SALT CREEK G. U. NO. 1	WELL NAME.....	HARRY J. SCHULZ NO. 1	WELL NAME.....	T. J. LYNE NO. 12
LOCATION.....	D. R. FANT SUR. NO. 2	LOCATION.....	JOHN HEFFERMAN, A-11	LOCATION.....	SEC. 165, AB#H SUR. A-74
OWNER.....	EARLSBORO OIL & GAS CO., INC	OWNER.....	ENNERICH EXPLORATION, INC.	OWNER.....	ATLANTIC RICHFIELD CO.
COMPLETED.....	02/05/68	COMPLETED.....	06/11/81	COMPLETED.....	01/06/71
SAMPLED.....	09/12/69	SAMPLED.....	03/09/82	SAMPLED.....	02/13/73
FORMATION.....	EOCE-WILCOX	FORMATION.....	CRET-EDWARDS	FORMATION.....	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8237	DEPTH, FEET.....	13072	DEPTH, FEET.....	9397
WELLHEAD PRESSURE, PSIG.....	3262	WELLHEAD PRESSURE, PSIG.....	3512	WELLHEAD PRESSURE, PSIG.....	2625
OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	3521	OPEN FLOW, MCFD.....	156000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	85.3	METHANE.....	92.6	METHANE.....	86.8
ETHANE.....	6.2	ETHANE.....	6.2	ETHANE.....	6.9
PROPANE.....	3.6	PROPANE.....	0.1	PROPANE.....	2.6
N-BUTANE.....	0.8	N-BUTANE.....	TRACE	N-BUTANE.....	0.4
ISOBUTANE.....	0.1	ISOBUTANE.....	0.1	ISOBUTANE.....	0.4
N-PENTANE.....	0.3	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	0.4	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2	HEXANES PLUS.....	TRACE
NITROGEN.....	1.1	NITROGEN.....	0.4	NITROGEN.....	0.3
OXYGEN.....	0.1	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	2.4
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1162	HEATING VALUE.....	966	HEATING VALUE.....	1102
SPECIFIC GRAVITY.....	0.680	SPECIFIC GRAVITY.....	0.628	SPECIFIC GRAVITY.....	0.653

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE	9349 4637	INDEX SAMPLE	9350 4737	INDEX SAMPLE	9351 16196
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	LIVE OAK	LIVE OAK	LOVING	LOVING	
FIELD.....	WILCOX	WILCOX	ATOKA	ATOKA	
WELL NAME.....	C. W. B. CHRISTENSON NO. 1	MAGULIN NO. 1	LUDEMAN #6" NO. 1	LUDEMAN #6" NO. 1	
LOCATION.....	NOT GIVEN	NOT GIVEN	SEC. 6, BLK. C-26, PSL SUR.	SEC. 6, BLK. C-26, PSL SUR.	
OWNER.....	CONTINENTAL OIL CO.	WESTERN NATURAL GAS CO.	HMC OIL CO.	HMC OIL CO.	
COMPLETED.....	08/12/48	12/30/48	12/10/80	12/10/80	
SAMPLED.....	11/27/48	05/03/49	02/24/81	02/24/81	
FORMATION.....	EOCE-QUEEN CITY L	EOCE-WILCOX	PENN-ATOKA	PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	220	220	430	430	
DEPTH, FEET.....	7172	7986	15702	15702	
WELLHEAD PRESSURE, PSIG.....	4000	3120	10300	10300	
OPEN FLOW, MCFD.....	560	84000	8153	8153	
COMPONENT, MOLE PCT.....					
METHANE.....	67.8	67.4	94.6	94.6	
ETHANE.....	27.0	6.0	0.6	0.6	
PROPANE.....	---	2.4	0.1	0.1	
N-BUTANE.....	---	0.6	TRACE	TRACE	
ISOBUTANE.....	---	0.5	TRACE	TRACE	
N-PENTANE.....	---	0.2	TRACE	TRACE	
ISOPENTANE.....	---	0.1	TRACE	TRACE	
CYCLOPENTANE.....	---	0.1	TRACE	TRACE	
HEXANES PLUS.....	---	0.3	0.1	0.1	
NITROGEN.....	3.6	0.4	0.8	0.8	
OXYGEN.....	1.4	0.1	0.0	0.0	
ARGON.....	---	TRACE	TRACE	TRACE	
HYDROGEN.....	---	---	0.0	0.0	
HYDROGEN SULFIDE.....	---	---	0.0	0.0	
CARBON DIOXIDE.....	0.2	2.1	3.7	3.7	
HELIUM.....	TRACE	TRACE	0.03	0.03	
HEATING VALUE.....	1171	1199	977	977	
SPECIFIC GRAVITY.....	0.713	0.664	0.600	0.600	

INDEX SAMPLE	9352 15519	INDEX SAMPLE	9353 15038	INDEX SAMPLE	9354 16272
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	LOVING	LOVING	LOVING	LOVING	
FIELD.....	HARRISON RANCH	MADERA	MADERA	MADERA	
WELL NAME.....	HARRISON NO. 10-1	MACO GAS UNIT NO. 1	MACO GAS UNIT NO. 1	MACO GAS UNIT NO. 1	
LOCATION.....	SEC. 10, BLK. 29, PSL SUR.	SEC. 34, BLK. 56, T-1, T&P SUR.	SEC. 34, BLK. 56, T-1, T&P SUR.	SEC. 34, BLK. 56, T-1, T&P SUR.	
OWNER.....	HUNT PETROLEUM CORP.	TEXACO INC.	TEXACO INC.	TEXACO INC.	
COMPLETED.....	10/05/77	1/26/75	07/12/80	07/12/80	
SAMPLED.....	11/17/78	06/29/77	05/10/81	05/10/81	
FORMATION.....	PENN-MORROW	SILU-FUSSELMAN	SILU-FUSSELMAN	SILU-FUSSELMAN	
GEOLOGIC PROVINCE CODE.....	430	430	430	430	
DEPTH, FEET.....	16294	17500	15224	15224	
WELLHEAD PRESSURE, PSIG.....	11370	5500	8638	8638	
OPEN FLOW, MCFD.....	4500	2000	4800	4800	
COMPONENT, MOLE PCT.....					
METHANE.....	96.6	93.4	97.4	97.4	
ETHANE.....	1.7	0.5	0.9	0.9	
PROPANE.....	0.2	TRACE	0.1	0.1	
N-BUTANE.....	0.1	TRACE	TRACE	TRACE	
ISOBUTANE.....	0.0	TRACE	TRACE	TRACE	
N-PENTANE.....	TRACE	TRACE	TRACE	TRACE	
ISOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	0.1	
NITROGEN.....	0.5	4.1	1.0	1.0	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	0.1	0.5	0.5	
HELIUM.....	0.01	0.04	0.02	0.02	
HEATING VALUE.....	1023	961	1011	1011	
SPECIFIC GRAVITY.....	0.577	0.593	0.571	0.571	

INDEX SAMPLE	9355 7525	INDEX SAMPLE	9356 16666	INDEX SAMPLE	9357 14108
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	LOVING	LOVING	LOVING	LOVING	
FIELD.....	MASON N	WENTONE	MOORE-HOOPER	MOORE-HOOPER	
WELL NAME.....	MINNIE KYLE A NO. 2	ARNO NO. 1	MOORE-HOOPER NO. 1	MOORE-HOOPER NO. 1	
LOCATION.....	SEC. 10, BLK. 55, T&P SUR.	SEC. 80, BLK. 33, M&C SUR.	SEC. 79, BLK. 1, M&W SUR.	SEC. 79, BLK. 1, M&W SUR.	
OWNER.....	OHIO OIL CO.	AMERICAN TRADING & PROD. CO.	SUN OIL CO.	SUN OIL CO.	
COMPLETED.....	02/15/53	03/09/80	01/02/74	01/02/74	
SAMPLED.....	04/27/60	09/23/82	07/25/74	07/25/74	
FORMATION.....	PERM-DELAWARE	SILU-FUSSELMAN	SILU-FUSSELMAN	SILU-FUSSELMAN	
GEOLOGIC PROVINCE CODE.....	430	430	430	430	
DEPTH, FEET.....	3976	18928	18988	18988	
WELLHEAD PRESSURE, PSIG.....	695	NOT GIVEN	6450	6450	
OPEN FLOW, MCFD.....	NOT GIVEN	6950	164000	164000	
COMPONENT, MOLE PCT.....					
METHANE.....	79.0	93.9	96.3	96.3	
ETHANE.....	9.7	0.5	0.8	0.8	
PROPANE.....	4.0	TRACE	0.1	0.1	
N-BUTANE.....	0.8	0.0	0.0	0.0	
ISOBUTANE.....	0.5	0.0	0.0	0.0	
N-PENTANE.....	0.1	0.0	0.0	0.0	
ISOPENTANE.....	0.2	0.0	0.0	0.0	
CYCLOPENTANE.....	0.1	0.0	0.0	0.0	
HEXANES PLUS.....	0.1	0.0	0.0	0.0	
NITROGEN.....	5.3	1.0	1.0	1.0	
OXYGEN.....	0.1	TRACE	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	TRACE	0.1	0.1	
CARBON DIOXIDE.....	0.1	4.4	1.7	1.7	
HELIUM.....	0.02	0.02	0.03	0.03	
HEATING VALUE.....	1143	960	993	993	
SPECIFIC GRAVITY.....	0.696	0.603	0.581	0.581	

INDEX SAMPLE	9358 17021	INDEX SAMPLE	9359 16340	INDEX SAMPLE	9360 14262
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	LOVING	LOVING	LOVING	LOVING	
FIELD.....	PINAL DOME	SLASH RANCH	VERMEJO	VERMEJO	
WELL NAME.....	GLEN S. BRUNSON NO. 17-1	GLEN S. BRUNSON ET AL. C NO. 1	EL PASO STATE NO. 1	EL PASO STATE NO. 1	
LOCATION.....	SEC. 17, PSL SUR.	SEC. 16, BLK. 53, T&P SUR.	SEC. 54, BLK. 1, M&W SUR.	SEC. 54, BLK. 1, M&W SUR.	
OWNER.....	HUNT OIL CO.	MOBIL PROD. TX & NM, INC.	FOREST OIL CORP.	FOREST OIL CORP.	
COMPLETED.....	05/25/82	11/24/80	07/26/73	07/26/73	
SAMPLED.....	08/23/83	09/24/81	02/14/75	02/14/75	
FORMATION.....	PERM-WOLF CAMP L	SILU-FUSSELMAN	SILU-FUSSELMAN	SILU-FUSSELMAN	
GEOLOGIC PROVINCE CODE.....	430	430	430	430	
DEPTH, FEET.....	15000	19503	18804	18804	
WELLHEAD PRESSURE, PSIG.....	10340	6129	6100	6100	
OPEN FLOW, MCFD.....	3500	3550	32000	32000	
COMPONENT, MOLE PCT.....					
METHANE.....	90.7	96.1	96.3	96.3	
ETHANE.....	5.0	0.6	0.4	0.4	
PROPANE.....	1.3	TRACE	TRACE	TRACE	
N-BUTANE.....	0.4	TRACE	0.0	0.0	
ISOBUTANE.....	0.4	TRACE	0.0	0.0	
N-PENTANE.....	0.1	0.0	0.0	0.0	
ISOPENTANE.....	0.1	0.0	0.0	0.0	
CYCLOPENTANE.....	0.1	0.0	0.0	0.0	
HEXANES PLUS.....	0.3	0.1	0.0	0.0	
NITROGEN.....	0.0	0.9	0.0	0.0	
OXYGEN.....	0.0	TRACE	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.3	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.3	0.1	0.1	
CARBON DIOXIDE.....	0.4	1.9	2.2	2.2	
HELIUM.....	0.01	0.03	0.02	0.02	
HEATING VALUE.....	1110	990	983	983	
SPECIFIC GRAVITY.....	0.628	0.583	0.582	0.582	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9361 SAMPLE 10816		INDEX 9362 SAMPLE 16079		INDEX 9363 SAMPLE 6871	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LOVING	COUNTY.....	LOVING	COUNTY.....	LUBBOCK
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	LEE HARRISON
WELL NAME.....	WILDCAT NO. 1	WELL NAME.....	RED BLUFF DEEP NO. 1	WELL NAME.....	E. SCHOPPA NO. 3
LOCATION.....	SEC. 36, BLK. 76, PSL SUR.	LOCATION.....	SEC. 7, BLK. 56-T-1-T&P SUR.	LOCATION.....	SEC. 2, BLK. 1, EL&RR SUR.
OWNER.....	NATURAL GAS & OIL CORP.	OWNER.....	H. L. BROWN, JR.	OWNER.....	WALICE-BOGART PRODUCTION CO.
COMPLETED.....	12/12/66	COMPLETED.....	03/7/80	COMPLETED.....	03/7/78
SAMPLED.....	12/13/66	SAMPLED.....	09/25/80	SAMPLED.....	08/7/78
FORMATION.....	PENN-MORROW & ATOKA	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	15470	DEPTH, FEET.....	11971	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	6606	WELLHEAD PRESSURE, PSIG.....	7963	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	32000	OPEN FLOW, MCFD.....	10500	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	96.8	METHANE.....	86.3	METHANE.....	0.5
ETHANE.....	1.5	ETHANE.....	8.5	ETHANE.....	0.1
PROPANE.....	0.2	PROPANE.....	2.6	PROPANE.....	0.1
N-BUTANE.....	0.1	N-BUTANE.....	0.8	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.5	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.2	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	0.8	NITROGEN.....	0.5	NITROGEN.....	96.7
OXYGEN.....	0.6	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	1.3
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	1.0
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.04
HEATING VALUE.....	1021	HEATING VALUE.....	1169	HEATING VALUE.....	0.26
SPECIFIC GRAVITY.....	0.576	SPECIFIC GRAVITY.....	0.659	SPECIFIC GRAVITY.....	0.966

INDEX 9364 SAMPLE 12332		INDEX 9365 SAMPLE 12704		INDEX 9366 SAMPLE 16457	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MADISON	COUNTY.....	MARION	COUNTY.....	MARION
FIELD.....	HOOKER	FIELD.....	EXCELSIOR	FIELD.....	KILDARE
WELL NAME.....	WILSON HEIRS NO. 1	WELL NAME.....	BLISS STALCUP	WELL NAME.....	E.E. HICKS NO. 1
LOCATION.....	JOHN MONTEGOMERY SUR. A-153	LOCATION.....	SMITHLAND	LOCATION.....	ANTONIO DLS COY SUR., A-66
OWNER.....	GLEN ROSE CORP.	OWNER.....	BARNWELL DRILLING CO., INC.	OWNER.....	HILLIARD OIL & GAS, INC.
COMPLETED.....	04/01/69	COMPLETED.....	10/27/65	COMPLETED.....	12/04/81
SAMPLED.....	07/20/70	SAMPLED.....	03/07/71	SAMPLED.....	03/18/82
FORMATION.....	CRET-GEORGETOWN	FORMATION.....	CRET-PETIT	FORMATION.....	JURA-SNACKOVER
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	11108	DEPTH, FEET.....	6237	DEPTH, FEET.....	10543
WELLHEAD PRESSURE, PSIG.....	4100	WELLHEAD PRESSURE, PSIG.....	1000	WELLHEAD PRESSURE, PSIG.....	5200
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	900000	OPEN FLOW, MCFD.....	7050
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	80.1	METHANE.....	87.1	METHANE.....	94.3
ETHANE.....	8.3	ETHANE.....	4.1	ETHANE.....	2.1
PROPANE.....	2.8	PROPANE.....	1.5	PROPANE.....	0.5
N-BUTANE.....	0.7	N-BUTANE.....	0.6	N-BUTANE.....	0.3
ISOBUTANE.....	0.6	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.3	N-PENTANE.....	0.5	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.7	HEXANES PLUS.....	0.2
NITROGEN.....	2.2	NITROGEN.....	3.7	NITROGEN.....	1.0
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	4.6	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	1.0
HELIUM.....	0.01	HELIUM.....	0.03	HELIUM.....	0.01
HEATING VALUE.....	1104	HEATING VALUE.....	1107	HEATING VALUE.....	1045
SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.663	SPECIFIC GRAVITY.....	0.601

INDEX 9367 SAMPLE 15618		INDEX 9368 SAMPLE 12485		INDEX 9369 SAMPLE 12705	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MARION	COUNTY.....	MARION	COUNTY.....	MARION
FIELD.....	PINES SPILLWAY	FIELD.....	RODESSA	FIELD.....	RODESSA
WELL NAME.....	S. E. WOOD NO. 1	WELL NAME.....	CROMER NO. 1	WELL NAME.....	BADGETT NO. 1
LOCATION.....	J. C. WALKER SUR. A-413	LOCATION.....	W. PEACOCK SUR.	LOCATION.....	JEFFERSON, TEXAS
OWNER.....	CLAYTON W. WILLIAMS, JR.	OWNER.....	ARKANSAS LOUISIANA GAS CO.	OWNER.....	BARNWELL DRILLING CO., INC.
COMPLETED.....	10/09/76	COMPLETED.....	09/14/39	COMPLETED.....	11/14/68
SAMPLED.....	05/10/79	SAMPLED.....	03/16/70	SAMPLED.....	03/07/71
FORMATION.....	CRET-RODESSA	FORMATION.....	CRET-GLOYD M	FORMATION.....	CRET-TRAVIS PEAK
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	6073	DEPTH, FEET.....	5915	DEPTH, FEET.....	6742
WELLHEAD PRESSURE, PSIG.....	2035	WELLHEAD PRESSURE, PSIG.....	200	WELLHEAD PRESSURE, PSIG.....	800
OPEN FLOW, MCFD.....	4700	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	800000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	91.4	METHANE.....	89.7	METHANE.....	86.7
ETHANE.....	3.9	ETHANE.....	3.7	ETHANE.....	0.5
PROPANE.....	1.1	PROPANE.....	1.1	PROPANE.....	0.6
N-BUTANE.....	0.5	N-BUTANE.....	0.4	N-BUTANE.....	0.2
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.2
N-PENTANE.....	0.3	N-PENTANE.....	0.4	N-PENTANE.....	0.7
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3
NITROGEN.....	1.0	NITROGEN.....	2.2	NITROGEN.....	8.2
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	1.0
HELIUM.....	0.01	HELIUM.....	0.02	HELIUM.....	0.04
HEATING VALUE.....	1091	HEATING VALUE.....	1086	HEATING VALUE.....	976
SPECIFIC GRAVITY.....	0.626	SPECIFIC GRAVITY.....	0.636	SPECIFIC GRAVITY.....	0.633

INDEX 9370 SAMPLE 10697		INDEX 9371 SAMPLE 11963		INDEX 9372 SAMPLE 11991	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA
FIELD.....	BAER RANCH	FIELD.....	BAY CITY	FIELD.....	BAY CITY E
WELL NAME.....	BAER RANCH NO. A-3	WELL NAME.....	COBB NO. 32-8	WELL NAME.....	MCWILLIAMS GAS UNIT NO. 2
LOCATION.....	CHARLES DALE SUP. A-148	LOCATION.....	MARIA CUMMINS SUR. A-22	LOCATION.....	SEC. 1, 186NRR SUR.
OWNER.....	FALCON SEABOARD DRILLING CO.	OWNER.....	SKELLY OIL CO.	OWNER.....	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	07/19/65	COMPLETED.....	07/19/65	COMPLETED.....	11/13/67
SAMPLED.....	08/03/66	SAMPLED.....	07/11/69	SAMPLED.....	08/10/69
FORMATION.....	OLIG-TEX-MISS NO. 3	FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-SLOAN
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	14454	DEPTH, FEET.....	7470	DEPTH, FEET.....	8794
WELLHEAD PRESSURE, PSIG.....	10750	WELLHEAD PRESSURE, PSIG.....	2435	WELLHEAD PRESSURE, PSIG.....	1610
OPEN FLOW, MCFD.....	11400	OPEN FLOW, MCFD.....	20000	OPEN FLOW, MCFD.....	8790
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	89.2	METHANE.....	82.6	METHANE.....	91.4
ETHANE.....	5.3	ETHANE.....	5.5	ETHANE.....	3.8
PROPANE.....	0.3	PROPANE.....	0.3	PROPANE.....	1.7
N-BUTANE.....	0.3	N-BUTANE.....	1.3	N-BUTANE.....	0.5
ISOBUTANE.....	0.1	ISOBUTANE.....	1.8	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	0.4	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	1.0	HEXANES PLUS.....	0.2
NITROGEN.....	0.1	NITROGEN.....	0.7	NITROGEN.....	0.7
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	3.4	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.7
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1050	HEATING VALUE.....	1282	HEATING VALUE.....	1104
SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.739	SPECIFIC GRAVITY.....	0.630

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9373 SAMPLE 14004		INDEX 9374 SAMPLE 14005		INDEX 9375 SAMPLE 10877	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA
FIELD.....	BRAZOS AREA BLK. 541	FIELD.....	BRAZOS AREA BLK. 541	FIELD.....	BRAZOS BLK. 519S R
WELL NAME.....	BLK. 5410CS-G-1733 NO. A-2	WELL NAME.....	BLK. 5410CS-G-1733 NO. 2	WELL NAME.....	STATE TRACT 519 S NO. 1
LOCATION.....	OFFSHORE FED. BLK. 541	LOCATION.....	OFFSHORE FED. BLK. 541	LOCATION.....	BRAZOS AREA GULF OF MEXICO
OWNER.....	TEXACO INC.	OWNER.....	TEXACO INC.	OWNER.....	SHELL OIL CO.
COMPLETED.....	03/09/72	COMPLETED.....	03/09/72	COMPLETED.....	10/01/66
SAMPLED.....	05/04/72	SAMPLED.....	05/04/72	SAMPLED.....	02/22/67
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	MIOC-8
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	6971
WELLHEAD PRESSURE, PSIG.....	9335	WELLHEAD PRESSURE, PSIG.....	2051	WELLHEAD PRESSURE, PSIG.....	2781
OPEN FLOW, MCFD.....	2787	OPEN FLOW, MCFD.....	1717	OPEN FLOW, MCFD.....	20000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	94.7	METHANE.....	93.9	METHANE.....	95.2
ETHANE.....	2.2	ETHANE.....	2.3	ETHANE.....	1.9
PROPANE.....	0.9	PROPANE.....	0.9	PROPANE.....	0.7
N-BUTANE.....	0.2	N-BUTANE.....	0.2	N-BUTANE.....	0.2
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.2
N-PENTANE.....	TRACE	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	0.5	NITROGEN.....	1.2	NITROGEN.....	1.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.3
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1053	HEATING VALUE.....	1055	HEATING VALUE.....	1039
SPECIFIC GRAVITY.....	0.597	SPECIFIC GRAVITY.....	0.606	SPECIFIC GRAVITY.....	0.590

INDEX 9376 SAMPLE 13789		INDEX 9377 SAMPLE 4644		INDEX 9378 SAMPLE 12360	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA
FIELD.....	BRAZOS BLK. A-76 S	FIELD.....	COLLEGEPORT	FIELD.....	COLLEGEPORT
WELL NAME.....	0CS-G-1752 NO. A-1	WELL NAME.....	MARY PIERCE NO. 1	WELL NAME.....	C. T. FRAZIER NO. 2C
LOCATION.....	BLK. A-76 OFFSHORE	LOCATION.....	SEC. A419	LOCATION.....	BLK. 26, E. YEAMANS SUR-A148
OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	GULF OIL CORP.	OWNER.....	DOW CHEMICAL CO.
COMPLETED.....	10/31/71	COMPLETED.....	07/19/48	COMPLETED.....	12/18/68
SAMPLED.....	10/24/73	SAMPLED.....	01/03/49	SAMPLED.....	08/13/70
FORMATION.....	MIOC-BIGENERINA HUMBLEI	FORMATION.....	MIOC-	FORMATION.....	MIOC-2900 FT. SAND
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	9193	DEPTH, FEET.....	4094	DEPTH, FEET.....	2929
WELLHEAD PRESSURE, PSIG.....	4200	WELLHEAD PRESSURE, PSIG.....	1591	WELLHEAD PRESSURE, PSIG.....	1252
OPEN FLOW, MCFD.....	415000	OPEN FLOW, MCFD.....	10500	OPEN FLOW, MCFD.....	151000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	94.8	METHANE.....	92.5	METHANE.....	98.2
ETHANE.....	2.0	ETHANE.....	3.9	ETHANE.....	0.3
PROPANE.....	0.9	PROPANE.....	---	PROPANE.....	0.1
N-BUTANE.....	0.2	N-BUTANE.....	---	N-BUTANE.....	0.0
ISOBUTANE.....	0.4	ISOBUTANE.....	---	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	---	N-PENTANE.....	0.0
ISOPENTANE.....	TRACE	ISOPENTANE.....	---	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	---	HEXANES PLUS.....	0.0
NITROGEN.....	0.7	NITROGEN.....	3.3	NITROGEN.....	1.4
OXYGEN.....	0.0	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1049	HEATING VALUE.....	1007	HEATING VALUE.....	1003
SPECIFIC GRAVITY.....	0.597	SPECIFIC GRAVITY.....	0.599	SPECIFIC GRAVITY.....	0.563

INDEX 9379 SAMPLE 12361		INDEX 9380 SAMPLE 12362		INDEX 9381 SAMPLE 12363	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA
FIELD.....	COLLEGEPORT	FIELD.....	COLLEGEPORT	FIELD.....	COLLEGEPORT
WELL NAME.....	RAY BOWERS NO. 4J	WELL NAME.....	SAM V. LE TULLE NO. 9H	WELL NAME.....	SAM V. LE TULLE NO. 9I
LOCATION.....	SEC. 38, GMD SUR., A-186	LOCATION.....	SEC. 38, D. YEAMANS SUR-A417	LOCATION.....	SEC. 38, D. YEAMANS SUR-A417
OWNER.....	DOW CHEMICAL CO.	OWNER.....	DOW CHEMICAL CO.	OWNER.....	DOW CHEMICAL CO.
COMPLETED.....	04/19/69	COMPLETED.....	04/10/69	COMPLETED.....	06/10/69
SAMPLED.....	08/13/70	SAMPLED.....	08/13/70	SAMPLED.....	08/13/70
FORMATION.....	MIOC-NO. 4 SAND	FORMATION.....	MIOC-NO. 4 SAND	FORMATION.....	MIOC-NO. 6 SAND
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	3900	DEPTH, FEET.....	3891	DEPTH, FEET.....	4110
WELLHEAD PRESSURE, PSIG.....	674	WELLHEAD PRESSURE, PSIG.....	576	WELLHEAD PRESSURE, PSIG.....	1726
OPEN FLOW, MCFD.....	4300	OPEN FLOW, MCFD.....	2151	OPEN FLOW, MCFD.....	4075
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.4	METHANE.....	98.3	METHANE.....	98.3
ETHANE.....	2.2	ETHANE.....	0.1	ETHANE.....	0.1
PROPANE.....	TRACE	PROPANE.....	TRACE	PROPANE.....	TRACE
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	2.1	NITROGEN.....	1.5	NITROGEN.....	1.4
OXYGEN.....	0.2	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	990	HEATING VALUE.....	998	HEATING VALUE.....	998
SPECIFIC GRAVITY.....	0.566	SPECIFIC GRAVITY.....	0.561	SPECIFIC GRAVITY.....	0.560

INDEX 9382 SAMPLE 12364		INDEX 9383 SAMPLE 12365		INDEX 9384 SAMPLE 12366	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA	COUNTY.....	MATAGORDA
FIELD.....	COLLEGEPORT	FIELD.....	COLLEGEPORT	FIELD.....	COLLEGEPORT
WELL NAME.....	SAM V. LE TULLE NO. 9F	WELL NAME.....	SAM V. LE TULLE NO. 9G	WELL NAME.....	C. C. HUTCHENSON JR.
LOCATION.....	SEC. 38, D. YEAMANS SUR-A417	LOCATION.....	SEC. 38, D. YEAMANS SUR-A417	LOCATION.....	SEC. 9, GMD NO. 3 SUR-A-180
OWNER.....	DOW CHEMICAL CO.	OWNER.....	DOW CHEMICAL CO.	OWNER.....	DOW CHEMICAL CO.
COMPLETED.....	04/19/69	COMPLETED.....	04/10/69	COMPLETED.....	08/12/69
SAMPLED.....	08/13/70	SAMPLED.....	08/13/70	SAMPLED.....	08/13/70
FORMATION.....	MIOC-NO. 7-A SAND	FORMATION.....	MIOC-NO. 7-B SAND	FORMATION.....	MIOC-NO. 3-A SAND
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	5072	DEPTH, FEET.....	5266	DEPTH, FEET.....	3773
WELLHEAD PRESSURE, PSIG.....	2053	WELLHEAD PRESSURE, PSIG.....	2050	WELLHEAD PRESSURE, PSIG.....	1171
OPEN FLOW, MCFD.....	7800	OPEN FLOW, MCFD.....	8000	OPEN FLOW, MCFD.....	160000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.2	METHANE.....	94.8	METHANE.....	98.4
ETHANE.....	0.1	ETHANE.....	2.1	ETHANE.....	0.2
PROPANE.....	TRACE	PROPANE.....	TRACE	PROPANE.....	TRACE
N-BUTANE.....	0.0	N-BUTANE.....	0.3	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.4	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0
NITROGEN.....	1.5	NITROGEN.....	0.9	NITROGEN.....	1.3
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	997	HEATING VALUE.....	1056	HEATING VALUE.....	1000
SPECIFIC GRAVITY.....	0.560	SPECIFIC GRAVITY.....	0.599	SPECIFIC GRAVITY.....	0.560

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 9385 SAMPLE 12367	INDEX 9386 SAMPLE 12368	INDEX 9387 SAMPLE 12369
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	MATAGORDA		MATAGORDA	MATAGORDA
FIELD.....	COLLEGEPORT		COLLEGEPORT	COLLEGEPORT
WELL NAME.....	RAY BOWERS NO. 41		J. A. LOPSHIRE NO. 1J	J. A. LOPSHIRE NO. 1H
LOCATION.....	SEC. 28, EMD SUR., A-186		SEC. 25, D. YEAMANS SUR. A417	SEC. 25, D. YEAMANS SUR. A417
OWNER.....	DDW CHEMICAL CO.		DDW CHEMICAL CO.	DDW CHEMICAL CO.
COMPLETED.....	12/05/69		05/13/69	05/13/69
SAMPLED.....	08/14/70		08/13/70	08/13/70
FORMATION.....	MIOC-NO. 5-A SAND		MIOC-NORTH SAND	MIOC-NO. 3 SAND
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	4066		1914	3737
WELLHEAD PRESSURE, PSIG.....	718		773	932
OPEN FLOW, MCFD.....	1040		7400	3200
COMPONENT, MOLE PCT				
METHANE.....	98.3		98.5	98.2
ETHANE.....	0.1		0.0	0.3
PROPANE.....	TRACE		TRACE	TRACE
N-BUTANE.....	0.0		0.0	0.0
ISOBUTANE.....	0.0		0.0	0.0
N-PENTANE.....	0.0		0.0	0.0
ISOPENTANE.....	0.0		0.0	0.0
CYCLOPENTANE.....	0.0		0.0	0.0
HEXANES PLUS.....	0.0		0.0	0.0
NITROGEN.....	1.5		1.3	1.4
OXYGEN.....	TRACE		0.1	TRACE
ARGON.....	0.0		0.0	TRACE
HYDROGEN.....	TRACE		TRACE	TRACE
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.0		0.1	TRACE
HELIUM.....	0.01		0.01	0.01
HEATING VALUE.....	998		998	1000
SPECIFIC GRAVITY.....	0.561		0.561	0.561
		INDEX 9388 SAMPLE 12393	INDEX 9389 SAMPLE 15887	INDEX 9390 SAMPLE 15888
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	MATAGORDA		MATAGORDA	MATAGORDA
FIELD.....	DUNCAN SLOUGH S		DUNCAN SLOUGH S	DUNCAN SLOUGH S
WELL NAME.....	TEXAS GULF 57686 NO. 5		GULF COAST WATER NO. 1	GULF COAST WATER NO. 1
LOCATION.....	STATE TRACT 487-L		MONTEZ & DURAN SUR. 11	MONTEZ & DURAN SUR. 11
OWNER.....	MOBIL OIL CORP.		DANIEL OIL CO.	DANIEL OIL CO.
COMPLETED.....	02/21/69		11/27/70	11/27/70
SAMPLED.....	08/26/70		01/29/80	01/29/80
FORMATION.....	MIOC-COVE		OLIG-FRIO F-6 U	OLIG-FRIO L
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	6559		10719	11092
WELLHEAD PRESSURE, PSIG.....	2923		6000	4000
OPEN FLOW, MCFD.....	52000		58000	8000
COMPONENT, MOLE PCT				
METHANE.....	94.3		91.7	89.3
ETHANE.....	2.3		4.5	5.5
PROPANE.....	0.1		1.5	2.1
N-BUTANE.....	0.2		0.4	0.5
ISOBUTANE.....	0.4		0.4	0.6
N-PENTANE.....	0.3		0.2	0.2
ISOPENTANE.....	0.0		0.1	0.2
CYCLOPENTANE.....	0.1		TRACE	0.1
HEXANES PLUS.....	0.4		0.1	0.2
NITROGEN.....	0.9		0.3	0.3
OXYGEN.....	TRACE		TRACE	TRACE
ARGON.....	TRACE		TRACE	TRACE
HYDROGEN.....	0.1		0.0	0.0
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.2		0.9	1.0
HELIUM.....	TRACE		TRACE	TRACE
HEATING VALUE.....	1077		1093	1126
SPECIFIC GRAVITY.....	0.607		0.623	0.645
		INDEX 9391 SAMPLE 15134	INDEX 9392 SAMPLE 15396	INDEX 9393 SAMPLE 12108
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	MATAGORDA		MATAGORDA	MATAGORDA
FIELD.....	HAMMAN		HAWKINSVILLE N	LUCKY W
WELL NAME.....	GLOVER UNIT NO. 1		NORA CALDWELL NO. 1	R. P. DAWDY NO. 1-A
LOCATION.....	J. C. BELKNAP SUR. A-113		A. C. BUCKNER LEAGUE, A-10	BOWMAN & REESE SUR. A-8
OWNER.....	ATLANTIC RICHFIELD CO.		H. L. HAWKINS, JR.	J. H. HUBER CORP.
COMPLETED.....	11/04/77		03/24/77	06/09/68
SAMPLED.....	12/03/77		10/02/78	11/09/69
FORMATION.....	PENN-CLEVELAND		OLIG-FRIO	OLIG-FRIO F-12
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	9151		11200	9202
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1600	3300
OPEN FLOW, MCFD.....	NOT GIVEN		4200	7000
COMPONENT, MOLE PCT				
METHANE.....	87.8		84.3	92.7
ETHANE.....	5.6		4.4	5.0
PROPANE.....	2.5		2.9	1.3
N-BUTANE.....	0.7		0.9	0.5
ISOBUTANE.....	0.2		0.1	0.1
N-PENTANE.....	0.3		0.8	0.1
ISOPENTANE.....	0.2		0.3	0.2
CYCLOPENTANE.....	TRACE		0.5	TRACE
HEXANES PLUS.....	0.2		1.8	0.1
NITROGEN.....	0.6		0.7	0.9
OXYGEN.....	0.0		0.1	TRACE
ARGON.....	0.0		0.0	TRACE
HYDROGEN.....	0.0		TRACE	0.2
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	1.2		1.0	0.7
HELIUM.....	TRACE		TRACE	TRACE
HEATING VALUE.....	1140		1277	1062
SPECIFIC GRAVITY.....	0.660		0.743	0.606
		INDEX 9394 SAMPLE 4037	INDEX 9395 SAMPLE 12383	INDEX 9396 SAMPLE 5229
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	MATAGORDA		MATAGORDA	MATAGORDA
FIELD.....	MARHAM		MARHAM	NOT GIVEN
WELL NAME.....	DENMAN KOUNTZE C NO. 3		J. E. DAWDY ET AL. NO. 1	TEXAS STATE E-B NO. 1
LOCATION.....	HENRY PARKER SUR. L12		BOWMAN & REESE SUR. A-8	STATE T55, TRES PALACIOS BAY
OWNER.....	ATLANTIC RICHFIELD CO.		OCCIDENTAL PETROLEUM CORP.	BRAZOS OIL & GAS CO.
COMPLETED.....	12/06/44		10/05/69	11/11/51
SAMPLED.....	05/24/45		08/23/70	03/21/52
FORMATION.....	OLIG-FRIO		OLIG-ANDMILINA	MIOC-
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	4847		10150	4526
WELLHEAD PRESSURE, PSIG.....	1900		1650	NOT GIVEN
OPEN FLOW, MCFD.....	20000		4200	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	96.4		91.4	97.9
ETHANE.....	3.4		3.8	1.0
PROPANE.....	---		1.3	TRACE
N-BUTANE.....	---		0.4	0.0
ISOBUTANE.....	---		0.2	0.0
N-PENTANE.....	---		0.2	0.1
ISOPENTANE.....	---		0.1	0.0
CYCLOPENTANE.....	---		0.1	0.0
HEXANES PLUS.....	---		0.3	TRACE
NITROGEN.....	0.0		0.7	0.9
OXYGEN.....	0.1		0.1	TRACE
ARGON.....	---		TRACE	TRACE
HYDROGEN.....	---		TRACE	TRACE
HYDROGEN SULFIDE.....	---		0.0	---
CARBON DIOXIDE.....	0.1		1.2	0.1
HELIUM.....	0.00		0.01	0.01
HEATING VALUE.....	1037		1080	1014
SPECIFIC GRAVITY.....	0.573		0.624	0.566

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9397 5230	INDEX SAMPLE	9398 13959	INDEX SAMPLE	9399 13960
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MATAGORDA			MATAGORDA		MATAGORDA	
FIELD.....	NOT GIVEN			OLIVER POINT S		OLIVER POINT S	
WELL NAME.....	TEXAS STATE XA NO. 2			STATE TRACT 86 NO. 1-L		STATE TRACT 86 NO. 1-U	
LOCATION.....	STATE TRACT 195			TRES PALACIOS BAY		TRES PALACIOS BAY	
OWNER.....	BRAZOS OIL & GAS CO.			MCMORAN EXPLORATION CO.		MCMORAN EXPLORATION CO.	
COMPLETED.....	7/7/80			05/22/72		05/22/72	
SAMPLED.....	03/24/52			03/14/74		03/14/74	
FORMATION.....	MIOC-			MIOC-4200 FT. SAND		MIOC-3950 FT. SAND	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	NOT GIVEN			4184		3953	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1705		1720	
OPEN FLOW, MCFD.....	NOT GIVEN			7500		8000	
COMPONENT, MOLE PCT							
METHANE.....	98.2	-----	97.9	-----	98.2	-----	98.2
ETHANE.....	0.1	-----	0.3	-----	0.4	-----	0.4
PROPANE.....	TRACE	-----	0.1	-----	TRACE	-----	TRACE
N-BUTANE.....	0.1	-----	TRACE	-----	TRACE	-----	TRACE
ISOBUTANE.....	0.0	-----	0.1	-----	TRACE	-----	TRACE
N-PENTANE.....	0.0	-----	TRACE	-----	TRACE	-----	TRACE
ISOPENTANE.....	0.1	-----	TRACE	-----	TRACE	-----	TRACE
CYCLOPENTANE.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE
HEXANES PLUS.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE
NITROGEN.....	1.4	-----	1.5	-----	1.2	-----	1.2
OXYGEN.....	TRACE	-----	0.0	-----	0.0	-----	0.0
ARGON.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE
HYDROGEN.....	0.0	-----	0.0	-----	TRACE	-----	TRACE
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0
CARBON DIOXIDE.....	0.1	-----	TRACE	-----	TRACE	-----	TRACE
HELIUM.....	0.01	-----	0.01	-----	0.01	-----	0.01
HEATING VALUE.....	1003	-----	1003	-----	1003	-----	1003
SPECIFIC GRAVITY.....	0.565	-----	0.564	-----	0.560	-----	0.560

		INDEX SAMPLE	9400 12637	INDEX SAMPLE	9401 12640	INDEX SAMPLE	9402 4048
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MATAGORDA			MATAGORDA		MATAGORDA	
FIELD.....	OYSTER LAKE			OYSTER LAKE		PALACIOS	
WELL NAME.....	SAM V. LE TULLE ET AL. NO. 1			SAM V. LE TULLE ET AL. NO. 1		STATE BANK NO. 1	
LOCATION.....	RALPH WRIGHT SUR. A-407			RALPH WRIGHT SUR. A-407		NOT GIVEN	
OWNER.....	VENUS OIL CO.			VENUS OIL CO.		ATLANTIC REFINING CO.	
COMPLETED.....	01/13/69			01/13/69		08/06/37	
SAMPLED.....	01/21/71			01/21/71		05/24/45	
FORMATION.....	OLIG-FRIO			OLIG-FRIO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3981			3981		7864	
WELLHEAD PRESSURE, PSIG.....	1580			1580		2000	
OPEN FLOW, MCFD.....	41000			41000		15000	
COMPONENT, MOLE PCT							
METHANE.....	98.6	-----	98.6	-----	84.3	-----	84.3
ETHANE.....	0.1	-----	0.2	-----	15.2	-----	15.2
PROPANE.....	0.1	-----	TRACE	-----	---	-----	---
N-BUTANE.....	0.0	-----	0.0	-----	---	-----	---
ISOBUTANE.....	0.0	-----	0.0	-----	---	-----	---
N-PENTANE.....	0.0	-----	0.0	-----	---	-----	---
ISOPENTANE.....	0.0	-----	0.0	-----	---	-----	---
CYCLOPENTANE.....	0.0	-----	0.0	-----	---	-----	---
HEXANES PLUS.....	0.0	-----	0.0	-----	---	-----	---
NITROGEN.....	1.2	-----	1.2	-----	0.0	-----	0.0
OXYGEN.....	0.0	-----	0.0	-----	0.1	-----	0.1
ARGON.....	0.0	-----	0.0	-----	---	-----	---
HYDROGEN.....	0.0	-----	0.0	-----	---	-----	---
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	---	-----	---
CARBON DIOXIDE.....	0.1	-----	TRACE	-----	0.4	-----	0.4
HELIUM.....	TRACE	-----	0.01	-----	0.01	-----	0.01
HEATING VALUE.....	1003	-----	1002	-----	1126	-----	1126
SPECIFIC GRAVITY.....	0.562	-----	0.560	-----	0.634	-----	0.634

		INDEX SAMPLE	9403 13449	INDEX SAMPLE	9404 12110	INDEX SAMPLE	9405 12111
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MATAGORDA			MATAGORDA		MATAGORDA	
FIELD.....	PETRUCHA			PETRUCHA		PHEASANT	
WELL NAME.....	DUGOLD MCFARLAND SUR. A-61			EAST FRIO NO. 1		EAST FRIO NO. 1	
LOCATION.....	AMOCO PRODUCTION CO.			JOHN H. UPDIKE SUR. A-399		JOHN H. UPDIKE SUR. A-399	
OWNER.....	AMOCO PRODUCTION CO.			MICHEL T. HALBOUYT		MICHEL T. HALBOUYT	
COMPLETED.....	03/02/71			08/01/68		08/01/68	
SAMPLED.....	10/03/72			11/11/69		11/11/69	
FORMATION.....	OLIG-FRIO			OLIG-MCDONALD		OLIG-FRIO F-28	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	12645			8900		9200	
WELLHEAD PRESSURE, PSIG.....	7339			1500		1500	
OPEN FLOW, MCFD.....	10288			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	89.9	-----	88.5	-----	89.9	-----	89.9
ETHANE.....	4.8	-----	5.9	-----	5.4	-----	5.4
PROPANE.....	1.9	-----	2.4	-----	1.9	-----	1.9
N-BUTANE.....	0.4	-----	0.4	-----	0.4	-----	0.4
ISOBUTANE.....	0.4	-----	0.4	-----	0.4	-----	0.4
N-PENTANE.....	0.1	-----	0.1	-----	0.1	-----	0.1
ISOPENTANE.....	0.1	-----	0.1	-----	0.2	-----	0.2
CYCLOPENTANE.....	TRACE	-----	0.1	-----	0.1	-----	0.1
HEXANES PLUS.....	0.1	-----	0.2	-----	0.2	-----	0.2
NITROGEN.....	0.2	-----	0.7	-----	0.6	-----	0.6
OXYGEN.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE
ARGON.....	0.0	-----	TRACE	-----	0.0	-----	0.0
HYDROGEN.....	0.0	-----	0.1	-----	0.1	-----	0.1
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0
CARBON DIOXIDE.....	1.9	-----	0.5	-----	0.5	-----	0.5
HELIUM.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE
HEATING VALUE.....	1087	-----	1134	-----	1111	-----	1111
SPECIFIC GRAVITY.....	0.634	-----	0.646	-----	0.632	-----	0.632

		INDEX SAMPLE	9406 13751	INDEX SAMPLE	9407 13845	INDEX SAMPLE	9408 16200
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MATAGORDA			MATAGORDA		MATAGORDA	
FIELD.....	PHEASANT SW			PHEASANT SW		PHEASANT SW	
WELL NAME.....	MATL TRULL NO. 2			MATL TRULL NO. 2		MICHALIK MATL G-U. NO. 1	
LOCATION.....	SUSAN PERKINS SUR., A-371			SUSAN PERKINS SUR., A-371		SEC. 31, SUSAN PERKINS SUR.	
OWNER.....	MOBIL OIL CORP.			MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED.....	02/24/72			02/24/72		02/24/72	
SAMPLED.....	10/12/73			12/28/73		03/02/81	
FORMATION.....	OLIG-FRIO			OLIG-FRIO H		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	11665			11297		10190	
WELLHEAD PRESSURE, PSIG.....	5632			3440		5000	
OPEN FLOW, MCFD.....	76000			25364		310	
COMPONENT, MOLE PCT							
METHANE.....	87.3	-----	87.3	-----	88.1	-----	88.1
ETHANE.....	6.6	-----	6.5	-----	6.1	-----	6.1
PROPANE.....	2.5	-----	2.5	-----	2.5	-----	2.5
N-BUTANE.....	0.6	-----	0.5	-----	0.5	-----	0.5
ISOBUTANE.....	0.7	-----	0.8	-----	0.8	-----	0.8
N-PENTANE.....	0.1	-----	0.1	-----	0.1	-----	0.1
ISOPENTANE.....	0.4	-----	0.3	-----	0.3	-----	0.3
CYCLOPENTANE.....	0.1	-----	0.1	-----	0.1	-----	0.1
HEXANES PLUS.....	0.3	-----	0.2	-----	0.2	-----	0.2
NITROGEN.....	0.2	-----	0.6	-----	0.6	-----	0.6
OXYGEN.....	TRACE	-----	0.0	-----	TRACE	-----	TRACE
ARGON.....	0.0	-----	0.0	-----	TRACE	-----	TRACE
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	0.0
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0
CARBON DIOXIDE.....	1.1	-----	1.0	-----	0.8	-----	0.8
HELIUM.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE
HEATING VALUE.....	1152	-----	1141	-----	1141	-----	1141
SPECIFIC GRAVITY.....	0.662	-----	0.657	-----	0.655	-----	0.655

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9409 16804	INDEX SAMPLE	9410 11174	INDEX SAMPLE	9411 11175
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MATAGORDA			MATAGORDA		MATAGORDA	
FIELD.....	RUGLEY N			WADSWORTH		WADSWORTH	
WELL NAME.....	F. B. JATSON TRUST ET AL B-1			ETHEL CORNELIUS NO. 15		ETHEL CORNELIUS NO. 15	
LOCATION.....	M. B. NUCKOLLS SUR. A-66			SAMUEL R. FISHER SUR. A-34		SAMUEL R. FISHER SUR. A-34	
OWNER.....	PRAIRIE PRODUCING CO.			MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED.....	03/28/81			07/07/66		07/07/66	
SAMPLED.....	03/14/83			10/16/67		10/16/67	
FORMATION.....	OLIG-FRIO L			OLIG-CH-1		CRET-LEWIS 9900	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	13116			9317		9853	
WELLHEAD PRESSURE, PSIG.....	8215			1667		3122	
OPEN FLOW, MCFD.....	17500			1630		22800	
COMPONENT, MOLE PCT							
METHANE.....	82.3	-----		86.0	-----	79.3	-----
ETHANE.....	7.8	-----		6.5	-----	7.2	-----
PROPANE.....	3.8	-----		2.5	-----	4.2	-----
N-BUTANE.....	0.9	-----		0.5	-----	1.4	-----
ISOBUTANE.....	1.1	-----		0.8	-----	2.6	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.8	-----
ISOPENTANE.....	0.6	-----		0.1	-----	0.8	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.3	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	1.7	-----
NITROGEN.....	0.4	-----		2.1	-----	1.0	-----
OXYGEN.....	0.0	-----		0.3	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.2	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.5	-----	0.6	-----
HELIUM.....	TRACE	-----		0.02	-----	0.01	-----
HEATING VALUE.....	1184	-----		1123	-----	1343	-----
SPECIFIC GRAVITY.....	0.707	-----		0.658	-----	0.780	-----
		INDEX SAMPLE	9412 4016	INDEX SAMPLE	9413 5179	INDEX SAMPLE	9414 1983
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MATAGORDA			MATAGORDA		MAVERICK	
FIELD.....	WILDCAT			WILDCAT		CHITTIM	
WELL NAME.....	GRANBURY-FULLLOVE NO. 1			ETHEL CORNELIUS NO. 1		RYCADE NO. 3	
LOCATION.....	NOT GIVEN			NOT GIVEN		SEC. 116, BLK. 7, I&GNRR SUR.	
OWNER.....	SKELLY OIL CO.			MAGNOLIA PETROLEUM CO.		RYCADE OIL CORP.	
COMPLETED.....	11/10/44			01/18/52		02/02/30	
SAMPLED.....	05/07/45			01/16-FRIO		04/07/30	
FORMATION.....	OLIG-FRIO L			220		CRET-GLEN ROSE	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	8735			11374		5522	
WELLHEAD PRESSURE, PSIG.....	3100			8812		2100	
OPEN FLOW, MCFD.....	3627			43		11750	
COMPONENT, MOLE PCT							
METHANE.....	89.2	-----		89.2	-----	79.8	-----
ETHANE.....	2.4	-----		5.8	-----	17.9	-----
PROPANE.....	---	-----		1.8	-----	---	-----
N-BUTANE.....	---	-----		0.4	-----	---	-----
ISOBUTANE.....	---	-----		0.4	-----	---	-----
N-PENTANE.....	---	-----		0.2	-----	---	-----
ISOPENTANE.....	---	-----		0.0	-----	---	-----
CYCLOPENTANE.....	---	-----		TRACE	-----	---	-----
HEXANES PLUS.....	---	-----		0.2	-----	---	-----
NITROGEN.....	0.0	-----		0.7	-----	0.3	-----
OXYGEN.....	0.3	-----		0.1	-----	0.3	-----
ARGON.....	---	-----		TRACE	-----	---	-----
HYDROGEN.....	---	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	1.1	-----		1.2	-----	1.7	-----
HELIUM.....	0.00	-----		0.01	-----	0.02	-----
HEATING VALUE.....	1072	-----		1100	-----	1129	-----
SPECIFIC GRAVITY.....	0.613	-----		0.637	-----	0.662	-----
		INDEX SAMPLE	9415 10314	INDEX SAMPLE	9416 10315	INDEX SAMPLE	9417 8383
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MAVERICK			MAVERICK		MAVERICK	
FIELD.....	CHITTIM			CHITTIM		EAGLE	
WELL NAME.....	ESTATE NO. 1			NO. 1-607		NO. 8	
LOCATION.....	SEC. 188, I&GN RR SUR. A-199			SEC. 607, I & GN SUR. A-199		SEC. 18, BLK. 6, I&GNRR SUR.	
OWNER.....	W. B. YARBOROUGH			W. B. YARBOROUGH		C. C. WINN	
COMPLETED.....	02/01/64			11/20/65		02/24/61	
SAMPLED.....	11/20/65			11/20/65		01/25/62	
FORMATION.....	CRET-PEARSALL			CRET-PEARSALL		CRET-SAN MIGUEL	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6970			7870		1185	
WELLHEAD PRESSURE, PSIG.....	2726			6595		500	
OPEN FLOW, MCFD.....	5600			20800		610	
COMPONENT, MOLE PCT							
METHANE.....	86.3	-----		80.8	-----	99.0	-----
ETHANE.....	7.4	-----		8.9	-----	0.1	-----
PROPANE.....	2.1	-----		3.3	-----	0.0	-----
N-BUTANE.....	0.7	-----		0.5	-----	0.0	-----
ISOBUTANE.....	0.4	-----		0.9	-----	0.0	-----
N-PENTANE.....	0.4	-----		1.1	-----	0.0	-----
ISOPENTANE.....	0.1	-----		TRACE	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		0.3	-----	0.0	-----
HEXANES PLUS.....	0.5	-----		1.8	-----	0.0	-----
NITROGEN.....	0.5	-----		0.9	-----	0.6	-----
OXYGEN.....	0.1	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.4	-----	0.1	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1049	-----		1249	-----	1007	-----
SPECIFIC GRAVITY.....	0.663	-----		0.747	-----	0.559	-----
		INDEX SAMPLE	9418 8241	INDEX SAMPLE	9419 8243	INDEX SAMPLE	9420 8244
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MCCULLOCH			MCCULLOCH		MCCULLOCH	
FIELD.....	LOJON			LOJON		LOJON	
WELL NAME.....	NAT RANDALLS NO. 1			CHARLES MILLER NO. 1		WARREN CAYLOR	
LOCATION.....	WALDRIP SUR. NO. 146			WALDRIP SUR. NO. 1184		WALDRIP SUR. NO. 1184	
OWNER.....	LOW DRILLING CO., INC.			LOW DRILLING CO., INC.		LOW DRILLING CO., INC.	
COMPLETED.....	05/05/60			07/15/59		05/05/60	
SAMPLED.....	10/12/61			10/12/61		10/12/61	
FORMATION.....	PENN-STRAWN			PENN-STRAWN		PENN-STRAWN	
GEOLOGIC PROVINCE CODE.....	410			410		410	
DEPTH, FEET.....	1346			1376		976	
WELLHEAD PRESSURE, PSIG.....	600			600		511	
OPEN FLOW, MCFD.....	2525			3100		940	
COMPONENT, MOLE PCT							
METHANE.....	74.5	-----		77.0	-----	77.0	-----
ETHANE.....	2.7	-----		2.4	-----	1.9	-----
PROPANE.....	1.1	-----		1.0	-----	0.6	-----
N-BUTANE.....	0.3	-----		0.2	-----	0.1	-----
ISOBUTANE.....	0.2	-----		0.2	-----	0.1	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	20.2	-----		18.4	-----	19.3	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.58	-----		0.56	-----	0.64	-----
HEATING VALUE.....	854	-----		872	-----	841	-----
SPECIFIC GRAVITY.....	0.670	-----		0.662	-----	0.652	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9421 SAMPLE 8245		INDEX 9422 SAMPLE 11062		INDEX 9423 SAMPLE 11063	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MCCULLOCH	COUNTY.....	MCCULLOCH	COUNTY.....	MCCULLOCH
FIELD.....	LOJON	FIELD.....	LOJON	FIELD.....	LOJON
WELL NAME.....	J. K. SHELTON NO. 1	WELL NAME.....	J. B. ROWE NO. 1	WELL NAME.....	S. A. LAWSON NO. 1
LOCATION.....	B. HULBERT SUR. NO. 1098	LOCATION.....	NEAR WALDRIP	LOCATION.....	NEAR WALDRIP
OWNER.....	J. S. PLUMMER	OWNER.....	BRADY MUNICIPAL GAS CORP.	OWNER.....	BRADY MUNICIPAL GAS CORP.
COMPLETED.....	---/---/00	COMPLETED.....	---/---/42	COMPLETED.....	---/---/41
SAMPLED.....	10/12/61	SAMPLED.....	08/14/67	SAMPLED.....	08/14/67
FORMATION.....	PENN-STRAWN	FORMATION.....	PENN-STRAWN	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	410	GEOLOGIC PROVINCE CODE.....	410	GEOLOGIC PROVINCE CODE.....	410
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	1395	DEPTH, FEET.....	1400
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	620	WELLHEAD PRESSURE, PSIG.....	600
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	5500	OPEN FLOW, MCFD.....	4900
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	80.2	METHANE.....	73.4	METHANE.....	75.2
ETHANE.....	0.9	ETHANE.....	2.8	ETHANE.....	2.8
PROPANE.....	0.5	PROPANE.....	1.0	PROPANE.....	1.1
N-BUTANE.....	0.2	N-BUTANE.....	0.2	N-BUTANE.....	0.2
ISOBUTANE.....	0.1	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	TRACE	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.5
NITROGEN.....	17.3	NITROGEN.....	20.6	NITROGEN.....	19.5
OXYGEN.....	0.0	OXYGEN.....	0.4	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.57	HELIUM.....	0.59	HELIUM.....	0.59
HEATING VALUE.....	857	HEATING VALUE.....	856	HEATING VALUE.....	864
SPECIFIC GRAVITY.....	0.641	SPECIFIC GRAVITY.....	0.681	SPECIFIC GRAVITY.....	0.667

INDEX 9424 SAMPLE 11064		INDEX 9425 SAMPLE 11065		INDEX 9426 SAMPLE 1830	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MCCULLOCH	COUNTY.....	MCCULLOCH	COUNTY.....	MCCULLOCH
FIELD.....	LOJON	FIELD.....	LOJON	FIELD.....	M. C. SMITH
WELL NAME.....	C. E. FROST NO. 1	WELL NAME.....	S. A. LAWSON NO. 2	WELL NAME.....	M. C. SMITH NO. 2
LOCATION.....	NEAR WALDRIP	LOCATION.....	NEAR WALDRIP	LOCATION.....	SEC. 1293, T. SERKHART SUR.
OWNER.....	BRADY MUNICIPAL GAS CORP.	OWNER.....	BRADY MUNICIPAL GAS CORP.	OWNER.....	ROTH & FAUROT
COMPLETED.....	---/---/45	COMPLETED.....	---/---/41	COMPLETED.....	05/31/29
SAMPLED.....	08/14/67	SAMPLED.....	08/14/67	SAMPLED.....	08/04/29
FORMATION.....	PENN-STRAWN	FORMATION.....	PENN-STRAWN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	410	GEOLOGIC PROVINCE CODE.....	410	GEOLOGIC PROVINCE CODE.....	410
DEPTH, FEET.....	1400	DEPTH, FEET.....	1399	DEPTH, FEET.....	1567
WELLHEAD PRESSURE, PSIG.....	265	WELLHEAD PRESSURE, PSIG.....	615	WELLHEAD PRESSURE, PSIG.....	850
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	690	OPEN FLOW, MCFD.....	2408
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.7	METHANE.....	75.3	METHANE.....	73.7
ETHANE.....	1.6	ETHANE.....	2.7	ETHANE.....	8.5
PROPANE.....	0.7	PROPANE.....	1.1	PROPANE.....	---
N-BUTANE.....	0.2	N-BUTANE.....	0.3	N-BUTANE.....	---
ISOBUTANE.....	0.1	ISOBUTANE.....	0.2	ISOBUTANE.....	---
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	---
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	20.7	NITROGEN.....	19.5	NITROGEN.....	16.4
OXYGEN.....	0.1	OXYGEN.....	0.1	OXYGEN.....	0.2
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.1	HYDROGEN.....	TRACE	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.6
HELIUM.....	0.56	HELIUM.....	0.56	HELIUM.....	0.68
HEATING VALUE.....	834	HEATING VALUE.....	874	HEATING VALUE.....	899
SPECIFIC GRAVITY.....	0.663	SPECIFIC GRAVITY.....	0.676	SPECIFIC GRAVITY.....	0.669

INDEX 9427 SAMPLE 5163		INDEX 9428 SAMPLE 15598		INDEX 9429 SAMPLE 14588	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MCCULLOCH	COUNTY.....	MCCULLOCH	COUNTY.....	MCMULLEN
FIELD.....	SHILB & JOHNSON	FIELD.....	WALLACE CREEK	FIELD.....	BRAZIL
WELL NAME.....	JOHNSON NO. 1	WELL NAME.....	JOHNNIE V. GUICE NO. 1	WELL NAME.....	EARL BAKER NO. 5
LOCATION.....	INDIANOLA SUR. NO. 15	LOCATION.....	SEC. 4, BRONAUGH BRO. SUR.	LOCATION.....	M. F. LOWE SUR. 6, A-886
OWNER.....	PRINCE BROTHERS & GEHLE DRIL	OWNER.....	BLAIR EXPLORATION, INC.	OWNER.....	ATLANTIC RICHFIELD CO.
COMPLETED.....	09/05/51	COMPLETED.....	10/20/78	COMPLETED.....	10/14/74
SAMPLED.....	02/13/52	SAMPLED.....	04/04/79	SAMPLED.....	02/23/76
FORMATION.....	PENN-NOT GIVEN	FORMATION.....	PENN-CROSS CUT	FORMATION.....	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	410	GEOLOGIC PROVINCE CODE.....	410	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	1690	DEPTH, FEET.....	1700	DEPTH, FEET.....	8474
WELLHEAD PRESSURE, PSIG.....	204	WELLHEAD PRESSURE, PSIG.....	875	WELLHEAD PRESSURE, PSIG.....	4971
OPEN FLOW, MCFD.....	1500	OPEN FLOW, MCFD.....	5082	OPEN FLOW, MCFD.....	33250
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	83.8	METHANE.....	74.4	METHANE.....	87.6
ETHANE.....	0.2	ETHANE.....	2.2	ETHANE.....	5.7
PROPANE.....	0.1	PROPANE.....	1.0	PROPANE.....	1.9
N-BUTANE.....	0.0	N-BUTANE.....	0.3	N-BUTANE.....	0.4
ISOBUTANE.....	0.1	ISOBUTANE.....	0.2	ISOBUTANE.....	0.4
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	10.0	NITROGEN.....	20.1	NITROGEN.....	0.0
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	3.6
HELIUM.....	0.50	HELIUM.....	0.72	HELIUM.....	TRACE
HEATING VALUE.....	867	HEATING VALUE.....	850	HEATING VALUE.....	1087
SPECIFIC GRAVITY.....	0.627	SPECIFIC GRAVITY.....	0.676	SPECIFIC GRAVITY.....	0.660

INDEX 9430 SAMPLE 13877		INDEX 9431 SAMPLE 3805		INDEX 9432 SAMPLE 3785	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MCMULLEN	COUNTY.....	MCMULLEN	COUNTY.....	MCMULLEN
FIELD.....	CAMPANA S	FIELD.....	EZZELL	FIELD.....	GREEN BRANCH
WELL NAME.....	H. E. GOUGER FEE NO. 31	WELL NAME.....	H. E. GOUGER C-2	WELL NAME.....	T. S. MC LSE. NO. 1
LOCATION.....	SEC. 75, AB&M SUR. A-1451	LOCATION.....	NOT GIVEN	LOCATION.....	SEC. 25
OWNER.....	TEXACO INC.	OWNER.....	EDWIN M. JONES	OWNER.....	QUINTANA PETROLEUM CORP.
COMPLETED.....	04/02/72	COMPLETED.....	---/---/00	COMPLETED.....	06/29/42
SAMPLED.....	01/21/74	SAMPLED.....	04/16/48	SAMPLED.....	04/08/48
FORMATION.....	OLIG-FRIO	FORMATION.....	EOCE-CARRIZO & WILCOX	FORMATION.....	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	1700	DEPTH, FEET.....	6419	DEPTH, FEET.....	5719
WELLHEAD PRESSURE, PSIG.....	470	WELLHEAD PRESSURE, PSIG.....	1150	WELLHEAD PRESSURE, PSIG.....	1400
OPEN FLOW, MCFD.....	4889	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	747
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	99.4	METHANE.....	80.4	METHANE.....	73.4
ETHANE.....	TRACE	ETHANE.....	17.0	ETHANE.....	24.2
PROPANE.....	TRACE	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	0.0	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	0.0	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	0.0	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.0	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	0.5	NITROGEN.....	2.1	NITROGEN.....	1.4
OXYGEN.....	0.0	OXYGEN.....	0.4	OXYGEN.....	0.4
ARGON.....	0.0	ARGON.....	---	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.6
HELIUM.....	TRACE	HELIUM.....	0.00	HELIUM.....	0.00
HEATING VALUE.....	1007	HEATING VALUE.....	1119	HEATING VALUE.....	1177
SPECIFIC GRAVITY.....	0.655	SPECIFIC GRAVITY.....	0.650	SPECIFIC GRAVITY.....	0.688

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9433 SAMPLE 11999			INDEX 9434 SAMPLE 4923			INDEX 9435 SAMPLE 5002		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MC MULLEN		MC MULLEN			MC MULLEN		
FIELD.....	GREEN BRANCH SE		HAGIST RANCH			HAGIST RANCH		
WELL NAME.....	SOUTH TEXAS SYNDICATE NO. 1		HAGIST RANCH INC. NO. A-1			HAGIST RANCH INC. NO. B-1		
LOCATION.....	MCS MCCLAIN SUR. A-793		R. W. WELLS SUR. NO. 467			BB&M CO. SUR. NO. 3		
OWNER.....	UNION PRODUCING CO.		STANOLIND OIL & GAS CO.			STANOLIND OIL & GAS CO.		
COMPLETED.....	03/27/68		06/06/50			08/12/50		
SAMPLED.....	08/19/69		09/29/50			01/16/51		
FORMATION.....	EOCE-WILCOX 6200		EOCE-WILCOX			EOCE-WILCOX		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	6190		7696			7125		
WELLHEAD PRESSURE, PSIG.....	2168		2922			2265		
OPEN FLOW, MCFD.....	3460		34000			1275		
COMPONENT, MOLE PCT								
METHANE.....	86.3		88.9			86.7		
ETHANE.....	5.9		5.4			5.7		
PROPANE.....	3.5		2.2			2.8		
N-BUTANE.....	0.9		0.5			0.7		
ISOBUTANE.....	0.5		0.3			0.6		
N-PENTANE.....	0.2		0.3			0.3		
ISOPENTANE.....	0.4		0.1			0.0		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.5			0.4		
NITROGEN.....	1.3		0.0			0.2		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.2		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.4		1.7			1.4		
HELIUM.....	0.01		TRACE			0.01		
HEATING VALUE.....	1158		1123			1132		
SPECIFIC GRAVITY.....	0.666		0.655			0.657		
INDEX 9436 SAMPLE 12008			INDEX 9437 SAMPLE 5169			INDEX 9438 SAMPLE 5632		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MC MULLEN		MC MULLEN			MC MULLEN		
FIELD.....	HAGIST RANCH		HOSTETTER			HOSTETTER		
WELL NAME.....	HAGIST RANCH NO. 1		A. M. HOSTETTER NO. 1			RENSHAW UNIT NO. 1		
LOCATION.....	ETRR SUR. NO. 5		JUSTO CORONA SUR. NO. 68			SEC. 33, AB&M SUR.		
OWNER.....	FRIO PRODUCTION CO.		SUNRAY OIL CORP.			SUNRAY OIL CORP.		
COMPLETED.....	02/05/68		06/23/51			03/13/54		
SAMPLED.....	08/23/69		12/01/51			05/28/54		
FORMATION.....	OLIG-FRIO		EOCE-WILCOX			EOCE-QUEEN CITY		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	1055		10088			6068		
WELLHEAD PRESSURE, PSIG.....	390		7664			2271		
OPEN FLOW, MCFD.....	2600		NOT GIVEN			1950		
COMPONENT, MOLE PCT								
METHANE.....	99.2		85.1			89.0		
ETHANE.....	0.0		7.4			5.5		
PROPANE.....	0.0		2.8			2.9		
N-BUTANE.....	0.0		0.6			0.0		
ISOBUTANE.....	0.0		0.3			1.1		
N-PENTANE.....	0.0		0.2			TRACE		
ISOPENTANE.....	0.0		0.2			0.2		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	0.0		0.3			0.1		
NITROGEN.....	0.6		0.5			0.5		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.1		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		2.8			1.0		
HELIUM.....	0.01		TRACE			0.02		
HEATING VALUE.....	1005		1121			1114		
SPECIFIC GRAVITY.....	0.557		0.675			0.639		
INDEX 9439 SAMPLE 12051			INDEX 9440 SAMPLE 14331			INDEX 9441 SAMPLE 14332		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MC MULLEN		MC MULLEN			MC MULLEN		
FIELD.....	HOSTETTER		HOSTETTER			HOSTETTER		
WELL NAME.....	HUGHES GAS UNIT NO. 1		GOUGER GAS UNIT 2 NO. 2			GOUGER GAS UNIT 2 NO. 2		
LOCATION.....	AB&M SUR. A-26		SEC. 67, AB&M SUR. A-27			SEC. 67, AB&M SUR. A-27		
OWNER.....	TEXACO INC.		TEXACO INC.			TEXACO INC.		
COMPLETED.....	04/01/68		01/31/73			01/31/73		
SAMPLED.....	09/20/69		05/09/75			05/09/75		
FORMATION.....	EOCE-WILCOX		EOCE-WILCOX			-SCHULZE		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	9392		9390			9070		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		5900			7056		
OPEN FLOW, MCFD.....	600		8000			24000		
COMPONENT, MOLE PCT								
METHANE.....	85.0		86.5			86.4		
ETHANE.....	6.3		5.5			5.4		
PROPANE.....	2.2		3.3			3.5		
N-BUTANE.....	0.4		0.0			0.8		
ISOBUTANE.....	0.4		0.9			2.9		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.1		0.4			0.3		
CYCLOPENTANE.....	0.1		0.1			1.6		
HEXANES PLUS.....	0.2		0.2			0.3		
NITROGEN.....	1.5		0.4			0.6		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.7		TRACE			TRACE		
HELIUM.....	TRACE		1157			1161		
HEATING VALUE.....	1085		0.677			0.679		
SPECIFIC GRAVITY.....	0.675							
INDEX 9442 SAMPLE 14273			INDEX 9443 SAMPLE 2482			INDEX 9444 SAMPLE 17505		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MC MULLEN		MC MULLEN			MC MULLEN		
FIELD.....	HOSTETTER M		JACOB GAS			LA JOLLA E		
WELL NAME.....	D. W. RHODE 54 NO. 1		JACOB NO. 1-A			CLIFTON WHEELER NO. 1		
LOCATION.....	ALFRED SPAULDING SUR. 54		NOT GIVEN			AB&M SUR. 191, A-508		
OWNER.....	ATOMIC RICHFIELD CO.		JAMES BUZZINI & PICKETT, IN			TEXAS GAS EXPLORATION CORP.		
COMPLETED.....	01/25/75		--/--/31			06/13/83		
SAMPLED.....	02/20/75		04/01/32			09/25/84		
FORMATION.....	EOCE-WILCOX		EOCE-JACKSON BASAL			CRET-SLIGO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	9000		765			16513		
WELLHEAD PRESSURE, PSIG.....	5800		350			12201		
OPEN FLOW, MCFD.....	28500		4000			20408		
COMPONENT, MOLE PCT								
METHANE.....	90.1		92.0			84.3		
ETHANE.....	4.2		0.0			0.1		
PROPANE.....	1.2		---			TRACE		
N-BUTANE.....	0.2		---			0.0		
ISOBUTANE.....	0.3		---			0.0		
N-PENTANE.....	TRACE		---			0.0		
ISOPENTANE.....	0.1		---			0.0		
CYCLOPENTANE.....	TRACE		---			0.0		
HEXANES PLUS.....	0.1		---			0.0		
NITROGEN.....	0.1		7.6			8.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.0		---			TRACE		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	3.6		0.4			7.5		
HELIUM.....	0.01		TRACE			0.02		
HEATING VALUE.....	1045		932			856		
SPECIFIC GRAVITY.....	0.634		0.590			0.660		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE	9445 5907	INDEX SAMPLE	9446 5712	INDEX SAMPLE	9447 4632
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	MC MULLEN	MC MULLEN	MC MULLEN	MC MULLEN	
FIELD.....	POSSUM CREEK	SAN MIGUEL CREEK	SAN MIGUEL CREEK	SAN MIGUEL CREEK	
WELL NAME.....	HABEL BROWNSON NO. 11	SEC 6-U, 1, WELL NO. 1	SEC. A-430, SMITH SUR. NO.26	ESTATE OF EDWIN M. JONES	
LOCATION.....	W. H. JACOBS SUR. 10, A-1028	HUMBLE OIL & REFINING CO.	10/25/53	08/10/48	
OWNER.....	BRIDWELL OIL CO.	10/08/54	11/19/48	NOT GIVEN	
COMPLETED.....	04/25/55	CRET-EDWARDS	220	220	
SAMPLED.....	08/04/55	10182	6926		
FORMATION.....	EDGE-WILCOX BASAL	3700	2950		
GEOLOGIC PROVINCE CODE.....	220	905	12000		
DEPTH, FEET.....	6047				
WELLHEAD PRESSURE, PSIG.....	2300				
OPEN FLOW, MCFD.....	4000				
COMPONENT, MOLE PCT					
METHANE.....	85.5	75.4	71.0		
ETHANE.....	5.0	2.5	27.4		
PROpane.....	3.6	1.3			
N-BUTANE.....	1.2	0.4			
ISOBUTANE.....	0.9	0.2			
N-PENTANE.....	0.3	0.1			
ISOPENTANE.....	0.9	0.1			
CYCLOPENTANE.....	0.4	TRACE			
HEXANES PLUS.....	0.9	0.1			
NITROGEN.....	0.9	4.6	0.0		
OXYGEN.....	0.0	0.0	0.3		
ARGON.....	0.0	0.0			
HYDROGEN.....	0.0	0.1			
HYDROGEN SULFIDE.....	0.0	0.1			
CARBON DIOXIDE.....	0.5	9.9	1.3		
HELIUM.....	0.02	0.03	0.01		
HEATING VALUE.....	1252	909	1210		
SPECIFIC GRAVITY.....	0.709	0.742	0.704		
INDEX SAMPLE	9448 15882	INDEX SAMPLE	9449 15729	INDEX SAMPLE	9450 8534
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	MC MULLEN	MC MULLEN	MC MULLEN	MC MULLEN	
FIELD.....	WILSON	WILSON	WILSON	WILSON	
WELL NAME.....	L. H. MC LAUGHERTY NO. 1	VIRGINIA RAGSDALE NO. 1	VIRGINIA RAGSDALE NO. 1	VIRGINIA RAGSDALE NO. 1	
LOCATION.....	SEC. 13, A-517	PABLO ALANIS SUR. 112, A1120	PABLO ALANIS SUR. 112, A1120	PABLO ALANIS SUR. 112, A1120	
OWNER.....	SHELL OIL CO.	ARCO OIL & GAS CO.	ARCO OIL & GAS CO.	ARCO OIL & GAS CO.	
COMPLETED.....	11/12/77	07/18/78	07/18/78	07/18/78	
SAMPLED.....	01/21/80	08/23/79	08/23/79	08/23/79	
FORMATION.....	CRET-EDWARDS	OLIO-FRIO	OLIO-FRIO	OLIO-FRIO	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	11692	1648	1648	1648	
WELLHEAD PRESSURE, PSIG.....	4240	4240	4240	4240	
OPEN FLOW, MCFD.....	14000	11802	11802	11802	
COMPONENT, MOLE PCT					
METHANE.....	91.4	99.1	99.1	99.1	
ETHANE.....	1.2	TRACE	TRACE	TRACE	
PROpane.....	0.3	0.0	0.0	0.0	
N-BUTANE.....	0.1	0.0	0.0	0.0	
ISOBUTANE.....	0.1	0.0	0.0	0.0	
N-PENTANE.....	TRACE	0.0	0.0	0.0	
ISOPENTANE.....	TRACE	0.0	0.0	0.0	
CYCLOPENTANE.....	TRACE	0.0	0.0	0.0	
HEXANES PLUS.....	0.1	0.0	0.0	0.0	
NITROGEN.....	0.2	0.6	0.6	0.6	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	TRACE	0.1	0.1	0.1	
CARBON DIOXIDE.....	6.6	0.1	0.1	0.1	
HELIUM.....	TRACE	0.01	0.01	0.01	
HEATING VALUE.....	967	1006	1006	1006	
SPECIFIC GRAVITY.....	0.634	0.559	0.559	0.559	
INDEX SAMPLE	9451 12723	INDEX SAMPLE	9452 12724	INDEX SAMPLE	9453 12725
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	MIDLAND	MIDLAND	MIDLAND	MIDLAND	
FIELD.....	CRESP	CRESP	CRESP	CRESP	
WELL NAME.....	SEC. 47, BLK. 38, TPRR CO. SUR.	SEC. 17, BLK. 38, TPRR CO. SUR.	SEC. 17, BLK. 38, TPRR CO. SUR.	SEC. 17, BLK. 38, TPRR CO. SUR.	
LOCATION.....	MURPHY H. BAXTER	MURPHY H. BAXTER	MURPHY H. BAXTER	MURPHY H. BAXTER	
OWNER.....	MURPHY H. BAXTER	MURPHY H. BAXTER	MURPHY H. BAXTER	MURPHY H. BAXTER	
COMPLETED.....	10/10/60	04/21/61	04/21/61	04/21/61	
SAMPLED.....	03/19/71	03/19/71	03/19/71	03/19/71	
FORMATION.....	DEVON	DEVON	DEVON	DEVON	
GEOLOGIC PROVINCE CODE.....	430	430	430	430	
DEPTH, FEET.....	11460	11460	11460	11460	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	75.6	75.4	75.4	75.4	
ETHANE.....	14.3	14.4	14.4	14.4	
PROpane.....	5.3	5.4	5.4	5.4	
N-BUTANE.....	1.3	1.2	1.2	1.2	
ISOBUTANE.....	0.4	0.6	0.6	0.6	
N-PENTANE.....	0.4	0.2	0.2	0.2	
ISOPENTANE.....	0.4	0.4	0.4	0.4	
CYCLOPENTANE.....	0.1	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.1	0.1	0.1	
NITROGEN.....	0.2	1.8	1.8	1.8	
OXYGEN.....	0.1	0.1	0.1	0.1	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.4	0.4	0.4	
HELIUM.....	0.03	0.03	0.03	0.03	
HEATING VALUE.....	1252	1250	1250	1250	
SPECIFIC GRAVITY.....	0.737	0.731	0.731	0.731	
INDEX SAMPLE	9454 12726	INDEX SAMPLE	9455 7214	INDEX SAMPLE	9456 12739
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	MIDLAND	MIDLAND	MIDLAND	MIDLAND	
FIELD.....	DAVIS	DAVIS	DAVIS	DAVIS	
WELL NAME.....	CRESP UNIT NO. 1	J. T. BROWN ET AL. NO. 1	J. T. BROWN ET AL. NO. 1	J. T. BROWN ET AL. NO. 1	
LOCATION.....	SEC. 20, BLK. 38, T-2 SUR.	SEC. 20, BLK. 38, T&PRR	SEC. 20, BLK. 38, T&PRR	SEC. 20, BLK. 38, T&PRR	
OWNER.....	MURPHY H. BAXTER	GULF OIL CORP.	GULF OIL CORP.	GULF OIL CORP.	
COMPLETED.....	06/17/58	06/17/59	06/17/59	06/17/59	
SAMPLED.....	03/19/71	09/16/59	09/16/59	09/16/59	
FORMATION.....	PENN-STRAWN	PENN-STRAWN	PENN-STRAWN	PENN-STRAWN	
GEOLOGIC PROVINCE CODE.....	430	430	430	430	
DEPTH, FEET.....	10484	9885	9885	9885	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	2300	2300	2300	
OPEN FLOW, MCFD.....	NOT GIVEN	2000	2000	2000	
COMPONENT, MOLE PCT					
METHANE.....	2.1	70.7	70.7	70.7	
ETHANE.....	7.9	15.4	15.4	15.4	
PROpane.....	48.3	6.9	6.9	6.9	
N-BUTANE.....	25.0	1.9	1.9	1.9	
ISOBUTANE.....	10.3	1.7	1.7	1.7	
N-PENTANE.....	1.9	0.1	0.1	0.1	
ISOPENTANE.....	3.3	1.1	1.1	1.1	
CYCLOPENTANE.....	0.3	0.1	0.1	0.1	
HEXANES PLUS.....	0.8	0.2	0.2	0.2	
NITROGEN.....	0.1	2.5	2.5	2.5	
OXYGEN.....	0.0	TRACE	TRACE	TRACE	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.1	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.0	0.0	
HELIUM.....	0.01	0.04	0.04	0.04	
HEATING VALUE.....	2884	1324	1324	1324	
SPECIFIC GRAVITY.....	1.746	0.780	0.780	0.780	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	INDEX SAMPLE	9457 10477	TEXAS MIDLAND G. BRYANT G. BRYANT B NO. 1 SEC. 39, BLK. 40, T&P SUR. TEXACO INC. 09/02/65 07/24/66 DEV0- 430	TEXAS MIDLAND NOT GIVEN H. S. FOSTER NO. B-1 SEC. 11, BLK. 141, T&P SUR. PLYMOUTH OIL CO. 12/27/52 08/02/53 PENN-STRAWN 430	INDEX SAMPLE	9458 5547	TEXAS MIDLAND PARKS TRACT 23 NO. 1 BLK. 40, T3S, 1+P RR CO. SUR MOBIL OIL CORP. 07/24/69 04/20/71 DEV0- 430	INDEX SAMPLE	9459 12776	TEXAS MIDLAND PARKS TRACT 23 NO. 1 BLK. 40, T3S, 1+P RR CO. SUR MOBIL OIL CORP. 07/24/69 04/20/71 DEV0- 430
COUNTY										
WELL NAME										
LOCATION										
OWNER										
COMPLETED										
SAMPLED										
FORMATION										
GEOLOGIC PROVINCE CODE										
DEPTH, FEET										
WELLHEAD PRESSURE, PSIG										
OPEN FLOW, MCFD										
COMPONENT, MOLE PCT										
METHANE										
ETHANE										
PROPANE										
N-BUTANE										
ISOBUTANE										
N-PENTANE										
ISOPENTANE										
CYCLOPENTANE										
HEXANES PLUS										
NITROGEN										
OXYGEN										
ARGON										
HYDROGEN										
HYDROGEN SULFIDE										
CARBON DIOXIDE										
HELIUM										
HEATING VALUE										
SPECIFIC GRAVITY										
STATE										
COUNTY										
WELL NAME										
LOCATION										
OWNER										
COMPLETED										
SAMPLED										
FORMATION										
GEOLOGIC PROVINCE CODE										
DEPTH, FEET										
WELLHEAD PRESSURE, PSIG										
OPEN FLOW, MCFD										
COMPONENT, MOLE PCT										
METHANE										
ETHANE										
PROPANE										
N-BUTANE										
ISOBUTANE										
N-PENTANE										
ISOPENTANE										
CYCLOPENTANE										
HEXANES PLUS										
NITROGEN										
OXYGEN										
ARGON										
HYDROGEN										
HYDROGEN SULFIDE										
CARBON DIOXIDE										
HELIUM										
HEATING VALUE										
SPECIFIC GRAVITY										
STATE										
COUNTY										
WELL NAME										
LOCATION										
OWNER										
COMPLETED										
SAMPLED										
FORMATION										
GEOLOGIC PROVINCE CODE										
DEPTH, FEET										
WELLHEAD PRESSURE, PSIG										
OPEN FLOW, MCFD										
COMPONENT, MOLE PCT										
METHANE										
ETHANE										
PROPANE										
N-BUTANE										
ISOBUTANE										
N-PENTANE										
ISOPENTANE										
CYCLOPENTANE										
HEXANES PLUS										
NITROGEN										
OXYGEN										
ARGON										
HYDROGEN										
HYDROGEN SULFIDE										
CARBON DIOXIDE										
HELIUM										
HEATING VALUE										
SPECIFIC GRAVITY										
STATE										
COUNTY										
WELL NAME										
LOCATION										
OWNER										
COMPLETED										
SAMPLED										
FORMATION										
GEOLOGIC PROVINCE CODE										
DEPTH, FEET										
WELLHEAD PRESSURE, PSIG										
OPEN FLOW, MCFD										
COMPONENT, MOLE PCT										
METHANE										
ETHANE										
PROPANE										
N-BUTANE										
ISOBUTANE										
N-PENTANE										
ISOPENTANE										
CYCLOPENTANE										
HEXANES PLUS										
NITROGEN										
OXYGEN										
ARGON										
HYDROGEN										
HYDROGEN SULFIDE										
CARBON DIOXIDE										
HELIUM										
HEATING VALUE										
SPECIFIC GRAVITY										
STATE										
COUNTY										
WELL NAME										
LOCATION										
OWNER										
COMPLETED										
SAMPLED										
FORMATION										
GEOLOGIC PROVINCE CODE										
DEPTH, FEET										
WELLHEAD PRESSURE, PSIG										
OPEN FLOW, MCFD										
COMPONENT, MOLE PCT										
METHANE										
ETHANE										
PROPANE										
N-BUTANE										
ISOBUTANE										
N-PENTANE										
ISOPENTANE										
CYCLOPENTANE										
HEXANES PLUS										
NITROGEN										
OXYGEN										
ARGON										
HYDROGEN										
HYDROGEN SULFIDE										
CARBON DIOXIDE										
HELIUM										
HEATING VALUE										
SPECIFIC GRAVITY										

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9469 6305			INDEX SAMPLE	9470 8739			INDEX SAMPLE	9471 1066
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	MITCHELL			COUNTY.....	MONTAGUE			COUNTY.....	MONTAGUE		
FIELD.....	WILDCAT			FIELD.....	GIFFORD			FIELD.....	NOCONA		
WELL NAME.....	WEINER NO. 1			WELL NAME.....	RUTH GIFFORD NO. 1			WELL NAME.....	J. E. LEMONS NO. 1		
LOCATION.....	SEC. 7, BLK. 13, H&TC SUR.			LOCATION.....	NOT GIVEN			LOCATION.....	T8S, BLK. 5, SAM. LITTLE SUR		
OWNER.....	URICE DRILLING CO.			OWNER.....	STAR OIL CO., INC.			OWNER.....	TEXHOMA OIL & REFINING CO.		
COMPLETED.....	03/20/57			COMPLETED.....	10/15/61			COMPLETED.....	04/-/25		
SAMPLED.....	03/08/57			SAMPLED.....	11/01/62			SAMPLED.....	05/27/25		
FORMATION.....	NOT GIVEN			FORMATION.....	PENN-CONGLOMERATE			FORMATION.....	PENN-CISCO		
GEOLOGIC PROVINCE CODE.....	430			GEOLOGIC PROVINCE CODE.....	420			GEOLOGIC PROVINCE CODE.....	420		
DEPTH, FEET.....	520			DEPTH, FEET.....	6026			DEPTH, FEET.....	680		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	1380			WELLHEAD PRESSURE, PSIG.....	270		
OPEN FLOW, MCFD.....	10000			OPEN FLOW, MCFD.....	4800			OPEN FLOW, MCFD.....	2000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	46.4			METHANE.....	80.9			METHANE.....	45.0		
ETHANE.....	2.5			ETHANE.....	7.4			ETHANE.....	3.5		
PROPANE.....	0.1			PROPANE.....	4.8			PROPANE.....	---		
N-BUTANE.....	0.1			N-BUTANE.....	1.3			N-BUTANE.....	---		
ISOBUTANE.....	0.1			ISOBUTANE.....	0.5			ISOBUTANE.....	---		
N-PENTANE.....	0.0			N-PENTANE.....	0.2			N-PENTANE.....	---		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.4			ISOPENTANE.....	---		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	---		
HEXANES PLUS.....	TRACE			HEXANES PLUS.....	0.1			HEXANES PLUS.....	---		
NITROGEN.....	49.8			NITROGEN.....	3.7			NITROGEN.....	50.0		
OXYGEN.....	TRACE			OXYGEN.....	TRACE			OXYGEN.....	0.5		
ARGON.....	0.1			ARGON.....	TRACE			ARGON.....	---		
HYDROGEN.....	0.1			HYDROGEN.....	TRACE			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.3			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	TRACE			CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.1		
HELIUM.....	0.61			HELIUM.....	0.17			HELIUM.....	0.91		
HEATING VALUE.....	529			HEATING VALUE.....	1173			HEATING VALUE.....	519		
SPECIFIC GRAVITY.....	0.776			SPECIFIC GRAVITY.....	0.699			SPECIFIC GRAVITY.....	0.778		
		INDEX SAMPLE	9472 1126			INDEX SAMPLE	9473 1132			INDEX SAMPLE	9474 1137
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	MONTAGUE			COUNTY.....	MONTAGUE			COUNTY.....	MONTAGUE		
FIELD.....	NOCONA			FIELD.....	NOCONA			FIELD.....	NOCONA		
WELL NAME.....	ROWLAND NO. 1			WELL NAME.....	RUCKTASHEL NO. 1			WELL NAME.....	ROWLAND NO. 1-A		
LOCATION.....	J. CHAMBLISS SUR.			LOCATION.....	SAMUEL LITTLE SUR.			LOCATION.....	J. CHAMBLISS SUR.		
OWNER.....	PURE OIL CO.			OWNER.....	TEXAS CO.			OWNER.....	TEXHOMA OIL & REFINING CO.		
COMPLETED.....	--/--/00			COMPLETED.....	--/--/00			COMPLETED.....	--/--/00		
SAMPLED.....	08/18/25			SAMPLED.....	08/20/25			SAMPLED.....	08/19/25		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	420			GEOLOGIC PROVINCE CODE.....	420			GEOLOGIC PROVINCE CODE.....	420		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	50.0			METHANE.....	42.1			METHANE.....	44.7		
ETHANE.....	3.6			ETHANE.....	5.9			ETHANE.....	3.3		
PROPANE.....	---			PROPANE.....	---			PROPANE.....	---		
N-BUTANE.....	---			N-BUTANE.....	---			N-BUTANE.....	---		
ISOBUTANE.....	---			ISOBUTANE.....	---			ISOBUTANE.....	---		
N-PENTANE.....	---			N-PENTANE.....	---			N-PENTANE.....	---		
ISOPENTANE.....	---			ISOPENTANE.....	---			ISOPENTANE.....	---		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	---			CYCLOPENTANE.....	---		
HEXANES PLUS.....	---			HEXANES PLUS.....	---			HEXANES PLUS.....	---		
NITROGEN.....	44.5			NITROGEN.....	49.8			NITROGEN.....	50.2		
OXYGEN.....	0.8			OXYGEN.....	0.9			OXYGEN.....	0.6		
ARGON.....	---			ARGON.....	---			ARGON.....	---		
HYDROGEN.....	---			HYDROGEN.....	---			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.4			CARBON DIOXIDE.....	0.2		
HELIUM.....	0.95			HELIUM.....	0.94			HELIUM.....	1.13		
HEATING VALUE.....	571			HEATING VALUE.....	532			HEATING VALUE.....	512		
SPECIFIC GRAVITY.....	0.759			SPECIFIC GRAVITY.....	0.794			SPECIFIC GRAVITY.....	0.779		
		INDEX SAMPLE	9475 1295			INDEX SAMPLE	9476 7912			INDEX SAMPLE	9477 4036
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	MONTAGUE			COUNTY.....	MONTAGUE			COUNTY.....	MONTAGUE		
FIELD.....	NOCONA			FIELD.....	NOCONA N			FIELD.....	CONROE		
WELL NAME.....	MADDOX NO. 1			WELL NAME.....	WELL A			WELL NAME.....	KEYSTONE-HILLS NO. 20		
LOCATION.....	NOT GIVEN			LOCATION.....	NOT GIVEN			LOCATION.....	NOT GIVEN		
OWNER.....	TEXAS CO.			OWNER.....	GENERAL DRILLING & PROD. CO.			OWNER.....	ATLANTIC REFINING CO.		
COMPLETED.....	--/--/00			COMPLETED.....	--/--/00			COMPLETED.....	02/14/34		
SAMPLED.....	08/19/26			SAMPLED.....	03/24/61			SAMPLED.....	07/24/45		
FORMATION.....	NOT GIVEN			FORMATION.....	PENN-CISCO			FORMATION.....	EOCE-COCKFIELD U		
GEOLOGIC PROVINCE CODE.....	420			GEOLOGIC PROVINCE CODE.....	420			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	1192			DEPTH, FEET.....	4956		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	300			WELLHEAD PRESSURE, PSIG.....	900		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	5000			OPEN FLOW, MCFD.....	18000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	51.3			METHANE.....	58.6			METHANE.....	84.5		
ETHANE.....	5.2			ETHANE.....	3.5			ETHANE.....	15.3		
PROPANE.....	---			PROPANE.....	2.4			PROPANE.....	---		
N-BUTANE.....	---			N-BUTANE.....	1.2			N-BUTANE.....	---		
ISOBUTANE.....	---			ISOBUTANE.....	0.6			ISOBUTANE.....	---		
N-PENTANE.....	---			N-PENTANE.....	0.2			N-PENTANE.....	---		
ISOPENTANE.....	---			ISOPENTANE.....	0.3			ISOPENTANE.....	---		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	---		
HEXANES PLUS.....	---			HEXANES PLUS.....	0.1			HEXANES PLUS.....	---		
NITROGEN.....	41.9			NITROGEN.....	32.5			NITROGEN.....	0.0		
OXYGEN.....	0.3			OXYGEN.....	TRACE			OXYGEN.....	0.0		
ARGON.....	---			ARGON.....	0.1			ARGON.....	---		
HYDROGEN.....	---			HYDROGEN.....	0.0			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.2		
HELIUM.....	0.96			HELIUM.....	0.40			HELIUM.....	TRACE		
HEATING VALUE.....	613			HEATING VALUE.....	810			HEATING VALUE.....	1130		
SPECIFIC GRAVITY.....	0.753			SPECIFIC GRAVITY.....	0.772			SPECIFIC GRAVITY.....	0.632		
		INDEX SAMPLE	9478 11638			INDEX SAMPLE	9479 14169			INDEX SAMPLE	9480 5694
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	MONTGOMERY			COUNTY.....	MONTGOMERY			COUNTY.....	MONTGOMERY		
FIELD.....	CONROE			FIELD.....	CONROE			FIELD.....	CONROE TOWNSITE		
WELL NAME.....	A. A. & D. A. MADELEY NO. 43			WELL NAME.....	E. MOODY NO. 28			WELL NAME.....	FED. ROYALTY CO. NO. 1		
LOCATION.....	RANSOM HOUSE SUR. A-244			LOCATION.....	RANSOM HOUSE SUR. A-244			LOCATION.....	NOT GIVEN		
OWNER.....	HUMBLE OIL & REFINING CO.			OWNER.....	TEXACO INC.			OWNER.....	HUMBLE OIL & REFINING CO.		
COMPLETED.....	06/22/67			COMPLETED.....	07/17/73			COMPLETED.....	07/20/54		
SAMPLED.....	09/04/68			SAMPLED.....	10/--/74			SAMPLED.....	09/23/54		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	EOCE-COCKFIELD		
GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	1810			DEPTH, FEET.....	2058			DEPTH, FEET.....	6232		
WELLHEAD PRESSURE, PSIG.....	23182			WELLHEAD PRESSURE, PSIG.....	9330			WELLHEAD PRESSURE, PSIG.....	2303		
OPEN FLOW, MCFD.....	---			OPEN FLOW, MCFD.....	8700			OPEN FLOW, MCFD.....	7400		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	97.1			METHANE.....	97.3			METHANE.....	92.1		
ETHANE.....	0.6			ETHANE.....	0.5			ETHANE.....	3.7		
PROPANE.....	0.4			PROPANE.....	0.2			PROPANE.....	1.8		
N-BUTANE.....	0.4			N-BUTANE.....	TRACE			N-BUTANE.....	0.2		
ISOBUTANE.....	0.1			ISOBUTANE.....	0.6			ISOBUTANE.....	0.6		
N-PENTANE.....	0.2			N-PENTANE.....	TRACE			N-PENTANE.....	0.1		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.0			ISOPENTANE.....	0.3		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.1		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.2		
NITROGEN.....	0.7			NITROGEN.....	0.6			NITROGEN.....	0.4		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	TRACE			ARGON.....	TRACE			ARGON.....	0.0		
HYDROGEN.....	0.0			HYDROGEN.....	0.0			HYDROGEN.....	0.1		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.3		
HELIUM.....	0.01			HELIUM.....	TRACE			HELIUM.....	0.01		
HEATING VALUE.....	1043			HEATING VALUE.....	1018			HEATING VALUE.....	1104		
SPECIFIC GRAVITY.....	0.585			SPECIFIC GRAVITY.....	0.569			SPECIFIC GRAVITY.....	0.621		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9481 15535	INDEX SAMPLE	9482 4836	INDEX SAMPLE	9483 9602
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MONTGOMERY			MONTGOMERY		MONTGOMERY	
FIELD.....	CONROE W			DECKERS PRAIRIE		LAKE CREEK	
WELL NAME.....	DAN W. MADELEY NO. 1			SCHIEL NO. 1		LAKE CREEK UNIT NO. 27	
LOCATION.....	JAMES PAVEHOUSE SUR.			T. J. STANSBURY SUR.		T. J. NICHOLS SUR. A-397	
OWNER.....	MITCHELL ENERGY CORP.			STERLING OIL & REFINING CORP		SUPERIOR OIL CO.	
COMPLETED.....	01/13/78			09/13/49		05/05/63	
SAMPLED.....	12/12/78			01/25/50		10/14/64	
FORMATION.....	EOCE-HOCKLEY			EOCE-NOT GIVEN		EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	1055			5486		13540	
WELLHEAD PRESSURE, PSIG.....	1575			2343		5500	
OPEN FLOW, MCFD.....	16330			10400		7620	
COMPONENT, MOLE PCT							
METHANE.....	97.9	-----		90.6	-----	91.8	-----
ETHANE.....	0.4	-----		4.4	-----	3.9	-----
PROPANE.....	TRACE	-----		1.8	-----	1.4	-----
N-BUTANE.....	0.1	-----		0.3	-----	0.3	-----
ISOBUTANE.....	0.0	-----		0.5	-----	0.1	-----
N-PENTANE.....	TRACE	-----		0.3	-----	TRACE	-----
ISOPENTANE.....	TRACE	-----		0.0	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.3	-----	0.1	-----
NITROGEN.....	1.0	-----		0.7	-----	0.0	-----
OXYGEN.....	0.1	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.1	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.8	-----	0.2	-----
HELIUM.....	0.01	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	1012	-----		1105	-----	1063	-----
SPECIFIC GRAVITY.....	0.567	-----		0.634	-----	0.621	-----
		INDEX SAMPLE	9484 13386	INDEX SAMPLE	9485 13403	INDEX SAMPLE	9486 14320
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MONTGOMERY			MONTGOMERY		MONTGOMERY	
FIELD.....	LAKE CREEK			PAUL NELSON W		PAUL NELSON W	
WELL NAME.....	FOLA G. FROST NO. 1			CHARLES M. THOMAS NO. 1		GOODSON NO. 2	
LOCATION.....	ARCHIBALD HODGE SUR. A-18			WILLIAM WILLS SUR. A-594		M. S. TAYLOR SUR. A-552	
OWNER.....	PRAIRIE PRODUCING CO.			MCCORMICK OIL & GAS CORP.		MCCORMICK OIL & GAS CORP.	
COMPLETED.....	09/07/71			06/24/71		05/16/73	
SAMPLED.....	09/17/72			09/26/72		04/20/75	
FORMATION.....	EOCE-WILCOX			EOCE-YEGUA		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	11558			7556		7420	
WELLHEAD PRESSURE, PSIG.....	2080			1465		2600	
OPEN FLOW, MCFD.....	7600			20800		630	
COMPONENT, MOLE PCT							
METHANE.....	84.8	-----		85.3	-----	85.5	-----
ETHANE.....	5.7	-----		5.6	-----	6.4	-----
PROPANE.....	2.7	-----		5.7	-----	2.9	-----
N-BUTANE.....	0.6	-----		0.7	-----	0.7	-----
ISOBUTANE.....	0.4	-----		0.5	-----	0.8	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.4	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	1.1	-----		3.0	-----	2.5	-----
OXYGEN.....	0.2	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	3.4	-----		0.9	-----	0.7	-----
HELIUM.....	0.01	-----		0.01	-----	0.02	-----
HEATING VALUE.....	1092	-----		1103	-----	1138	-----
SPECIFIC GRAVITY.....	0.673	-----		0.659	-----	0.671	-----
		INDEX SAMPLE	9487 17296	INDEX SAMPLE	9488 6013	INDEX SAMPLE	9489 5436
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MONTGOMERY			MOORE		MOORE	
FIELD.....	WILDCAT			BARREL SPRINGS		HUGOTON, TEXAS	
WELL NAME.....	FRIENWOOD DEV. NO. 1			MARTENSON A-5		GOCHNAUR NO. 1	
LOCATION.....	J. R. GROSS SUR., A-719			SEC. 76, BLK. 0-18, D&P SUR.		SEC. 3, BLK. M2, HARWELL SUR.	
OWNER.....	VOLVO PETROLEUM, INC.			COLORADO INTERSTATE GAS CO.		KERR-MCGEE OIL IND., INC.	
COMPLETED.....	05/12/84			11/02/54		7/1/70	
SAMPLED.....	05/17/84			01/31/56		03/30/53	
FORMATION.....	EOCE-WILCOX A-2			PERM-WICHITA-ALBANY		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	220			440		440	
DEPTH, FEET.....	9983			2465		3152	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			343		431	
OPEN FLOW, MCFD.....	2403			12000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	86.5	-----		73.7	-----	73.4	-----
ETHANE.....	6.4	-----		5.8	-----	6.1	-----
PROPANE.....	2.4	-----		3.4	-----	3.7	-----
N-BUTANE.....	0.6	-----		1.0	-----	1.0	-----
ISOBUTANE.....	0.5	-----		0.4	-----	0.5	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.3	-----		0.3	-----	0.2	-----
CYCLOPENTANE.....	0.2	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.2	-----	0.2	-----
NITROGEN.....	0.5	-----		15.8	-----	13.7	-----
OXYGEN.....	0.1	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		0.1	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.1	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	2.0	-----		0.2	-----	0.1	-----
HELIUM.....	0.01	-----		0.83	-----	0.62	-----
HEATING VALUE.....	1143	-----		1025	-----	1031	-----
SPECIFIC GRAVITY.....	0.673	-----		0.713	-----	0.714	-----
		INDEX SAMPLE	9490 5437	INDEX SAMPLE	9491 5778	INDEX SAMPLE	9492 6250
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MOORE			MOORE		MOORE	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	REEVES NO. 1			BOULWARE NO. 1		HUBER NO. 2	
LOCATION.....	SEC. 17, BLK. 9			SEC. 17, BLK. M-2, HBA SUR.		SEC. 96, BLK. 3-T, T&O SUR.	
OWNER.....	KERR-MCGEE CORP.			SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.	
COMPLETED.....	7/1/70			11/02/54		01/10/57	
SAMPLED.....	02/15/57			02/15/53		02/15/57	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			3333		3097	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			364		390	
OPEN FLOW, MCFD.....	NOT GIVEN			216		3462	
COMPONENT, MOLE PCT							
METHANE.....	71.2	-----		72.3	-----	74.4	-----
ETHANE.....	5.9	-----		6.5	-----	6.7	-----
PROPANE.....	3.9	-----		3.6	-----	3.5	-----
N-BUTANE.....	0.0	-----		0.9	-----	0.8	-----
ISOBUTANE.....	0.4	-----		0.1	-----	0.6	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.1	-----
NITROGEN.....	16.3	-----		14.6	-----	12.8	-----
OXYGEN.....	TRACE	-----		0.1	-----	TRACE	-----
ARGON.....	0.1	-----		0.1	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.1	-----	0.1	-----
HELIUM.....	0.81	-----		0.72	-----	0.60	-----
HEATING VALUE.....	993	-----		1011	-----	1030	-----
SPECIFIC GRAVITY.....	0.717	-----		0.713	-----	0.703	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9493 7153			INDEX SAMPLE	9494 7156			INDEX SAMPLE	9495 7365
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS				HUGOTON, TEXAS			
WELL NAME.....	LETTERMAN GAS UNIT NO. 1			LET-MEX NO. 1				WELL UNIT NO. 1			
LOCATION.....	SEC. 22, BLK. M-2, H&TC SUR.			SEC. 6, BLK. Q, H&GN SUR.				SEC. 22, BLK. M-2, CAMPBELL			
OWNER.....	TEXACO INC.			TEXACO INC.				KERR-MCGEE OIL IND., INC.			
COMPLETED.....	01/31/58			10/30/57				06/09/59			
SAMPLED.....	07/24/59			07/24/59				01/30/60			
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP				PERM-CHASE GROUP			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3289			3287				3274			
WELLHEAD PRESSURE, PSIG.....	382			398				362			
OPEN FLOW, MCFD.....	4178			5090				354			
COMPONENT, MOLE PCT											
METHANE.....	70.6			70.5				70.3			
ETHANE.....	6.6			6.7				6.5			
PROPANE.....	4.2			4.1				3.8			
N-BUTANE.....	1.0			1.0				1.1			
ISOBUTANE.....	0.5			0.4				0.4			
N-PENTANE.....	0.1			0.1				0.2			
ISOPENTANE.....	0.4			0.5				0.2			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	15.6			15.6				16.1			
OXYGEN.....	0.0			TRACE				0.0			
ARGON.....	0.1			TRACE				0.1			
HYDROGEN.....	0.0			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.0				0.1			
HELIUM.....	0.80			0.80				0.90			
HEATING VALUE.....	1019			1018				1000			
SPECIFIC GRAVITY.....	0.727			0.724				0.721			
		INDEX SAMPLE	9496 13020			INDEX SAMPLE	9497 13021			INDEX SAMPLE	9498 13023
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS				HUGOTON, TEXAS			
WELL NAME.....	DOLOMITE WELL NO. 1			HUNGATE NO. 1				PAULUS NO. 1			
LOCATION.....	SEC. 38, BLK. 2T, T&NO SUR.			SEC. 37, BLK. 2T, T&NO SUR.				SEC. 28, BLK. 2T, T&NO SUR.			
OWNER.....	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.				PHILLIPS PETROLEUM CO.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	09/20/71			09/20/71				09/20/71			
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP				PERM-CHASE GROUP			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	71.6			71.3				72.1			
ETHANE.....	6.3			6.3				6.3			
PROPANE.....	4.5			4.6				4.5			
N-BUTANE.....	1.1			1.0				1.1			
ISOBUTANE.....	0.8			0.8				0.6			
N-PENTANE.....	0.2			0.1				0.2			
ISOPENTANE.....	0.3			0.2				0.3			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.2			0.1				0.2			
NITROGEN.....	14.2			14.4				14.0			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.2				TRACE			
HELIUM.....	0.68			0.70				0.69			
HEATING VALUE.....	1051			1033				1049			
SPECIFIC GRAVITY.....	0.731			0.724				0.726			
		INDEX SAMPLE	9499 13024			INDEX SAMPLE	9500 15350			INDEX SAMPLE	9501 3280
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS				NOT GIVEN			
WELL NAME.....	SEC. 29, BLK. 0-18, D&P SUR.			FLOES NO. 28				MASTERTON NO. A-2			
LOCATION.....	PHILLIPS PETROLEUM CO.			SEC. 87, BLK. 3T, T&NO SUR.				SEC. 49, BLK. 3, G&M SUR.			
OWNER.....	PHILLIPS PETROLEUM CO.			DIAMOND SHAMROCK CORP.				CANADIAN RIVER GAS CO.			
COMPLETED.....	--/--/00			09/17/70				--/--/00			
SAMPLED.....	09/20/71			08/24/78				--/--/00			
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			3018				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			172				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			6300				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	70.7			73.3				69.9			
ETHANE.....	6.2			6.6				19.9			
PROPANE.....	4.6			4.0				---			
N-BUTANE.....	1.1			1.1				---			
ISOBUTANE.....	0.7			0.4				---			
N-PENTANE.....	0.2			0.2				---			
ISOPENTANE.....	0.2			0.2				---			
CYCLOPENTANE.....	0.1			TRACE				---			
HEXANES PLUS.....	0.2			0.1				---			
NITROGEN.....	15.1			15.1				0.2			
OXYGEN.....	0.0			0.0				0.4			
ARGON.....	TRACE			0.1				---			
HYDROGEN.....	TRACE			0.1				---			
HYDROGEN SULFIDE.....	0.0			0.0				---			
CARBON DIOXIDE.....	0.0			0.1				0.1			
HELIUM.....	0.73			0.62				0.50			
HEATING VALUE.....	1038			1038				1065			
SPECIFIC GRAVITY.....	0.732			0.712				0.692			
		INDEX SAMPLE	9502 1402			INDEX SAMPLE	9503 1546			INDEX SAMPLE	9504 1899
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	MASTERTON NO. J-1			T. THOMPSON A-2				FEE A-1			
LOCATION.....	SEC. 59, BLK. 0-18, D&P SUR.			SEC. 76, BLK. 3, G&M SUR.				SEC. 76, BLK. 3, G&M SUR.			
OWNER.....	AMARILLO OIL CO.			AMARILLO OIL CO.				CANADIAN RIVER GAS CO.			
COMPLETED.....	04/30/27			09/--/27				--/--/00			
SAMPLED.....	07/23/27			11/23/27				11/18/29			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3024			3270				3830			
WELLHEAD PRESSURE, PSIG.....	14000			432				NOT GIVEN			
OPEN FLOW, MCFD.....	---			90000				5000			
COMPONENT, MOLE PCT											
METHANE.....	56.1			64.2				70.1			
ETHANE.....	25.8			22.2				19.0			
PROPANE.....	---			---				---			
N-BUTANE.....	---			---				---			
ISOBUTANE.....	---			---				---			
N-PENTANE.....	---			---				---			
ISOPENTANE.....	---			---				---			
CYCLOPENTANE.....	---			---				---			
HEXANES PLUS.....	---			---				---			
NITROGEN.....	16.5			12.8				9.2			
OXYGEN.....	0.9			0.2				0.8			
ARGON.....	---			---				---			
HYDROGEN.....	---			---				---			
HYDROGEN SULFIDE.....	---			---				---			
CARBON DIOXIDE.....	0.2			0.2				0.2			
HELIUM.....	0.58			0.50				0.50			
HEATING VALUE.....	1031			1048				1051			
SPECIFIC GRAVITY.....	0.755			0.719				0.690			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9505			INDEX 9506			INDEX 9507		
SAMPLE 2283			SAMPLE 2648			SAMPLE 2768		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	J. M. SHELTON A-1		KILGORE NO. 2-G			REED NO. A-2		
LOCATION.....	SEC. 52, BLK. 3, G&M SUR.		SEC. 29, BLK. PMC, ELRR SUR.			SEC. 47, BLK. 3, G&M SUR.		
OWNER.....	RED RIVER GAS CO.		TEXOMA NATURAL GAS CO.			CANADIAN RIVER GAS CO.		
COMPLETED.....	04/05/30		06/02/31			09/--/37		
SAMPLED.....	02/09/31		10/19/33			09/--/37		
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2761		2890			2215		
WELLHEAD PRESSURE, PSIG.....	425		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	57800		15600			41000		
COMPONENT, MOLE PCT								
METHANE.....	74.1		59.2			70.8		
ETHANE.....	17.3		20.2			17.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	7.7		19.4			10.1		
OXYGEN.....	0.2		0.3			0.5		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE**.....	0.2		---			---		
CARBON DIOXIDE.....	0.2		0.3			0.2		
HELIUM.....	0.47		0.64			0.46		
HEATING VALUE.....	1061		962			1038		
SPECIFIC GRAVITY.....	0.673		0.737			0.687		

INDEX 9508			INDEX 9509			INDEX 9510		
SAMPLE 2862			SAMPLE 2864			SAMPLE 2873		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	SEC. NO. A-1		BIVINS NO. A-15			KILGORE NO. A-1		
LOCATION.....	SEC. 85, BLK. 2, G&M SUR.		SEC. 76, BLK. 2, G&M SUR.			SEC. 18, BLK. PMC, EL&RR SUR.		
OWNER.....	CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		
COMPLETED.....	06/13/28		03/04/36			05/21/39		
SAMPLED.....	08/21/41		08/21/41			08/21/41		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2420		2710			2920		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	14000		7300			36400		
COMPONENT, MOLE PCT								
METHANE.....	69.3		67.5			64.9		
ETHANE.....	14.4		15.3			20.0		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	14.9		14.6			13.7		
OXYGEN.....	0.2		---			0.5		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.9			0.3		
HELIUM.....	0.94		0.98			0.62		
HEATING VALUE.....	960		958			1016		
SPECIFIC GRAVITY.....	0.688		0.699			0.713		

INDEX 9511			INDEX 9512			INDEX 9513		
SAMPLE 2875			SAMPLE 2881			SAMPLE 2920		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIVINS NO. A-7		CRAWFORD NO. A-1			BIVINS A-17		
LOCATION.....	SEC. 7, BLK. 25, EL&RR SUR.		SEC. 26, BLK. PMC, EL&RR SUR.			SEC. 73, BLK. 2, C&M SUR.		
OWNER.....	CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		
COMPLETED.....	09/10/28		06/29/28			01/28/36		
SAMPLED.....	08/21/41		08/22/41			10/14/41		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2919		2590			2875		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	25800		12500			5000		
COMPONENT, MOLE PCT								
METHANE.....	67.8		61.7			65.2		
ETHANE.....	15.4		20.9			17.3		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	15.0		15.9			15.6		
OXYGEN.....	0.3		0.6			0.6		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.5		0.1			0.3		
HELIUM.....	0.96		0.84			1.02		
HEATING VALUE.....	963		1000			971		
SPECIFIC GRAVITY.....	0.695		0.724			0.707		

INDEX 9514			INDEX 9515			INDEX 9516		
SAMPLE 2921			SAMPLE 3283			SAMPLE 3284		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIVINS NO. A-24		THOMPSON NO. B-2			SNEED NO. A-1		
LOCATION.....	SEC. 23, BLK. PMC, EL&RR SUR.		SEC. 17, BLK. 44, H&TC SUR.			SEC. 51, BLK. 6T, T&NO SUR.		
OWNER.....	CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		
COMPLETED.....	11/25/38		11/25/38			--/--/00		
SAMPLED.....	10/14/41		--/--/00			--/--/00		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2510		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	33880		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	66.4		66.2			68.4		
ETHANE.....	18.2		20.2			20.1		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	14.0		12.6			10.6		
OXYGEN.....	0.2		0.3			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.3		0.1			0.1		
HELIUM.....	0.91		0.64			0.54		
HEATING VALUE.....	933		933			1053		
SPECIFIC GRAVITY.....	0.703		0.707			0.698		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX	9517			INDEX	9518			INDEX	9519
		SAMPLE	3290			SAMPLE	3336			SAMPLE	3339
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	BIVINS NO. J-1			SNEED NO. C-1				FEE NO. A-1			
LOCATION.....	SEC. 54, BLK. 46, H&TC SUR.			SEC. 46, BLK. 6T, T&NO SUR.				SEC. 76, BLK. 3, G&M SUR.			
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.				CANADIAN RIVER GAS CO.			
COMPLETED.....	--/--/00			--/--/00				--/--/00			
SAMPLED.....	--/--/00			--/--/00				--/--/00			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	70.0	-----		70.7	-----			71.4	-----		
ETHANE.....	19.7	-----		19.6	-----			19.1	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	9.2	-----		8.7	-----			8.4	-----		
OXYGEN.....	0.3	-----		0.3	-----			0.4	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.3	-----		0.2	-----			0.2	-----		
HELIUM.....	0.50	-----		0.47	-----			0.46	-----		
HEATING VALUE.....	1062	-----		1067	-----			1066	-----		
SPECIFIC GRAVITY.....	0.692	-----		0.699	-----			0.696	-----		
		INDEX	9520			INDEX	9521			INDEX	9522
		SAMPLE	3350			SAMPLE	3842			SAMPLE	3978
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	THOMPSON NO. 8-3			BROWN NO. 1				SNEED NO. 3-P			
LOCATION.....	SEC. 75, BLK. 018, D&P SUR.			SEC. 44, BLK. 2, G&M SUR.				CENTER M-GEORGE SUR.			
OWNER.....	CANADIAN RIVER GAS CO.			DAVID RUBIN				TEXOMA NATURAL GAS CO.			
COMPLETED.....	--/--/00			--/--/00				01/12/35			
SAMPLED.....	--/--/00			--/--/00				12/22/44			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-BIG LIKE				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			3333				2338			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			330				368			
OPEN FLOW, MCFD.....	NOT GIVEN			18000				8620			
COMPONENT, MOLE PCT											
METHANE.....	68.8	-----		59.6	-----			69.1	-----		
ETHANE.....	18.0	-----		21.8	-----			19.2	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	11.9	-----		16.8	-----			10.9	-----		
OXYGEN.....	0.4	-----		0.6	-----			0.0	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.2	-----		0.6	-----			0.3	-----		
HELIUM.....	0.72	-----		0.62	-----			0.47	-----		
HEATING VALUE.....	1020	-----		994	-----			1044	-----		
SPECIFIC GRAVITY.....	0.694	-----		0.738	-----			0.695	-----		
		INDEX	9523			INDEX	9524			INDEX	9525
		SAMPLE	3979			SAMPLE	3980			SAMPLE	4022
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	WELLS NO. 6-P			WELLS NO. 1-P				SNEED 8-2			
LOCATION.....	SEC. 38, BLK. 6T, T&NO SUR.			SEC. 14, BLK. 44, H&TC SUR.				SEC. 27, BLK. G-T, T&NO SUR.			
OWNER.....	TEXOMA NATURAL GAS CO.			TEXOMA NATURAL GAS CO.				CANADIAN RIVER GAS CO.			
COMPLETED.....	10/04/35			03/21/35				--/--/00			
SAMPLED.....	12/22/44			12/22/44				--/--/00			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2200			2971				3014			
WELLHEAD PRESSURE, PSIG.....	405			417				NOT GIVEN			
OPEN FLOW, MCFD.....	31000			9960				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	69.4	-----		68.3	-----			67.3	-----		
ETHANE.....	15.9	-----		16.8	-----			21.3	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	14.0	-----		13.0	-----			10.4	-----		
OXYGEN.....	0.2	-----		0.0	-----			0.4	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.3	-----		1.3	-----			0.1	-----		
HELIUM.....	0.38	-----		0.61	-----			0.49	-----		
HEATING VALUE.....	988	-----		993	-----			1063	-----		
SPECIFIC GRAVITY.....	0.692	-----		0.701	-----			0.704	-----		
		INDEX	9526			INDEX	9527			INDEX	9528
		SAMPLE	4074			SAMPLE	4075			SAMPLE	4639
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	BAKER NO. 1			BAKER NO. 1				CRAWFORD NO. C-1			
LOCATION.....	SEC. 39, BLK. 0-18, D&P SUR.			SEC. 39, BLK. 0-18, D&P SUR.				SEC. 24, BLK. PHC, EL&RR SUR			
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.				CANADIAN RIVER GAS CO.			
COMPLETED.....	12/21/45			12/21/45				09/05/48			
SAMPLED.....	--/--/00			--/--/00				12/08/48			
FORMATION.....	PERM-L			PERM-L				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			2670				2476			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			399				341			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				5000			
COMPONENT, MOLE PCT											
METHANE.....	65.7	-----		69.3	-----			61.4	-----		
ETHANE.....	18.0	-----		15.9	-----			21.1	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	15.1	-----		13.8	-----			16.1	-----		
OXYGEN.....	0.0	-----		0.0	-----			0.2	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.2	-----		0.1	-----			0.3	-----		
HELIUM.....	0.98	-----		0.85	-----			0.91	-----		
HEATING VALUE.....	988	-----		987	-----			1000	-----		
SPECIFIC GRAVITY.....	0.704	-----		0.687	-----			0.726	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	INDEX SAMPLE	9529 4641	TEXAS MOORE PANHANDLE W COOPER NO. A-1 SEC. 16, BLK. PHC, ELERR SUR CANADIAN RIVER GAS CO. 09/28/48 12/08/48 PERM-WICHITA-ALBANY 440 2540 341 24 62.3 20.8 --- --- --- --- --- --- 15.1 0.6 --- --- --- 0.3 0.92 1004 0.722	TEXAS MOORE PANHANDLE W BIVINS A-55 SEC. 75, GUNTER SUR. B-2 CANADIAN RIVER GAS CO. --/--/00 10/14/49 PERM-WICHITA-ALBANY 440 NOT GIVEN NOT GIVEN NOT GIVEN 72.6 5.3 2.8 0.8 0.3 0.1 0.1 0.1 16.2 0.1 0.1 0.1 0.1 0.4 0.98 963 0.704	TEXAS MOORE PANHANDLE W BIVINS NO. A-82 SEC. 1, BLK. 1 ELERR SUR. COLORADO INTERSTATE GAS CO. --/--/00 05/01/52 PERM-WICHITA-ALBANY 440 2535 NOT GIVEN 5600 72.9 4.9 2.9 0.8 0.3 0.1 0.1 0.1 TRACE 16.4 TRACE 0.1 TRACE --- 0.4 0.97 951 0.698
STATE	INDEX SAMPLE	9532 5286	TEXAS MOORE PANHANDLE W RICARD A NO. 1 SEC. 172, BLK. 3-T, T&NO SUR. PHILLIPS PETROLEUM CO. 07/12/51 10/13/52 PERM-WICHITA-ALBANY 440 2730 214 105425 74.7 7.1 4.1 1.1 0.7 0.2 0.2 TRACE 0.2 10.8 0.0 0.0 0.0 0.0 0.5 0.43 1078 0.718	TEXAS MOORE PANHANDLE W SUNRAY NO. 1 SEC. 1, BLK. M-2, B.H. SUR. KERR-MCGEE CORP. 12/30/52 11/21/52 PERM-WICHITA-ALBANY 440 5310 415 1580 74.8 6.1 3.7 1.0 0.5 0.2 0.1 TRACE 0.1 12.7 TRACE 0.1 TRACE 0.1 TRACE 0.2 0.56 1036 0.708	TEXAS MOORE PANHANDLE W LEWIS NO. 1 SEC. 121, BLK. 3-T, T&NO SUR KERR-MCGEE CORP. 04/05/49 11/21/52 PERM-WICHITA-ALBANY 440 3210 383 865 74.9 6.3 3.9 1.0 0.5 0.2 0.1 TRACE 0.1 12.2 TRACE 0.1 TRACE 0.0 0.1 1045 0.708
STATE	INDEX SAMPLE	9535 5434	TEXAS MOORE PANHANDLE W LEWIS NO. 1 SEC. 8, BLK. 3-T, T&NO SUR. KERR-MCGEE OIL IND., INC. --/--/00 03/30/53 PERM-WICHITA-ALBANY 440 3210 396 NOT GIVEN 75.3 6.2 3.8 1.0 0.9 0.2 0.2 0.1 0.1 12.0 TRACE 0.1 TRACE 0.0 0.0 0.51 1046 0.706	TEXAS MOORE PANHANDLE W SUNRAY NO. 1 SEC. 1, BLK. M2, HARWELL SUR. KERR-MCGEE CORP. --/--/00 03/30/53 PERM-WICHITA-ALBANY 440 3200 428 NOT GIVEN 75.0 5.1 3.7 1.0 0.9 0.2 0.2 0.1 0.1 12.4 TRACE 0.1 TRACE 0.0 0.1 1043 0.708	TEXAS MOORE PANHANDLE W LOCHTE SEC. 8, BLK. 1, PD SUR. A. H. ROWLAND 12/13/52 07/02/53 PERM-WICHITA-ALBANY 440 2740 205 3585 77.6 5.6 3.9 1.1 0.3 0.1 0.1 0.2 9.3 TRACE TRACE 0.0 0.0 0.0 0.40 1091 0.702
STATE	INDEX SAMPLE	9538 5605	TEXAS MOORE PANHANDLE W A. NIELD NO. 2 SEC. 361, BLK. 44, H&TC SUR. MAGNOLIA PETROLEUM CO. 12/15/53 04/06/54 PERM-WICHITA-ALBANY 440 2850 187 87061 75.0 6.8 4.3 1.4 0.8 0.4 0.2 0.1 0.2 0.1 0.2 0.1 0.1 0.0 0.0 0.1 1107 0.727	TEXAS MOORE PANHANDLE W BIVINS A-15 SEC. 76, BLK. 2, G&M SUR. COLORADO INTERSTATE GAS CO. 07/28/56 01/26/55 PERM-WICHITA-ALBANY 440 2710 NOT GIVEN NOT GIVEN 73.2 5.1 4.7 0.7 0.4 0.2 0.3 0.1 0.1 15.8 TRACE 0.1 TRACE 0.0 0.1 971 0.702	TEXAS MOORE PANHANDLE W BIVINS A-17 SEC. 73, BLK. 2, G&M SUR. COLORADO INTERSTATE GAS CO. 07/28/56 01/26/55 PERM-WICHITA-ALBANY 440 2875 NOT GIVEN NOT GIVEN 72.7 5.0 4.6 0.8 0.5 0.2 0.2 TRACE 0.1 16.3 TRACE 0.1 TRACE 0.0 0.4 960 0.702

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9541 5767	INDEX SAMPLE	9542 5769	INDEX SAMPLE	9543 6025
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MOORE			MOORE		MOORE	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	WILMS A-21			WILMS A-7		MASTERSON A-5	
LOCATION.....	SEC. 35, BLK. PMC, EL&RR SUR.			SEC. 7, BLK. 25, EL&RR SUR.		SEC. 76, BLK. 0-18, D&P SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	11/26/55			07/10/58		10/12/40	
SAMPLED.....	01/26/55			01/26/55		02/10/56	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		-LIME & DOLOMITE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2645			NOT GIVEN		2465	
WELLHEAD PRESSURE, PSIG.....	350			NOT GIVEN		277	
OPEN FLOW, MCFD.....	30000			NOT GIVEN		12000	
COMPONENT, MOLE PCT							
METHANE.....	74.7			72.5		73.6	
ETHANE.....	5.6			5.0		8.2	
PROPANE.....	3.2			2.9		3.7	
N-BUTANE.....	1.0			0.8		0.9	
ISOBUTANE.....	0.5			0.4		0.2	
N-PENTANE.....	0.2			0.1		0.2	
ISOPENTANE.....	0.2			0.3		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	13.2			16.3		11.0	
OXYGEN.....	TRACE			TRACE		1.2	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		0.3	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.4		0.1	
HELIUM.....	0.77			1.01		0.15	
HEATING VALUE.....	1017			966		1053	
SPECIFIC GRAVITY.....	0.702			0.706		0.713	
		INDEX SAMPLE	9544 6985	INDEX SAMPLE	9545 7074	INDEX SAMPLE	9546 7075
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MOORE			MOORE		MOORE	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	EMMA MCDOWELL NO. 2			KILLGORE A-15		KILLGORE A-16	
LOCATION.....	SEC. 16, BLK. M-16			SEC. 13, BLK. PMC, EL&RR SUR		SEC. 31, BLK. 44, H&TC SUR.	
OWNER.....	KERR-MCCEE OIL IND., INC.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	11/26/58			12/18/58		01/13/59	
SAMPLED.....	03/25/59			05/14/59		05/04/59	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			2662		3307	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			22		169	
OPEN FLOW, MCFD.....	NOT GIVEN			7000		3900	
COMPONENT, MOLE PCT							
METHANE.....	73.8			73.4		75.2	
ETHANE.....	5.5			5.8		6.5	
PROPANE.....	5.6			3.1		3.6	
N-BUTANE.....	1.8			0.9		1.0	
ISOBUTANE.....	0.9			0.5		0.7	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.5			0.3		0.3	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.3			0.1		0.2	
NITROGEN.....	7.5			14.3		11.1	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	0.1			0.1		TRACE	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.3		0.6	
HELIUM.....	0.30			0.80		0.50	
HEATING VALUE.....	1190			1001		1064	
SPECIFIC GRAVITY.....	0.751			0.706		0.714	
		INDEX SAMPLE	9547 7087	INDEX SAMPLE	9548 7092	INDEX SAMPLE	9549 7293
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MOORE			MOORE		MOORE	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	WILMS NO. 2			ZOFFNESS NO. 2		PANHANDLE W	
LOCATION.....	A. DUBOIS SUR.			SEC. 55, BLK. 6T, T&NO RRSUR		SEC. 1, BLK. M-3	
OWNER.....	PHILLIPS PETROLEUM CO.			PANHANDLE EASTERN PIPELINE C		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	04/22/59			06/20/51		09/10/59	
SAMPLED.....	06/02/59			06/05/59		12/01/59	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY&GR. WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2462			2100		2165	
WELLHEAD PRESSURE, PSIG.....	150			214		205	
OPEN FLOW, MCFD.....	4100			74435		33000	
COMPONENT, MOLE PCT							
METHANE.....	77.7			76.6		77.0	
ETHANE.....	6.5			6.6		6.1	
PROPANE.....	4.2			3.6		3.7	
N-BUTANE.....	1.4			0.7		0.9	
ISOBUTANE.....	0.7			1.0		0.6	
N-PENTANE.....	0.3			0.2		0.3	
ISOPENTANE.....	0.1			0.4		0.3	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.3		0.3	
NITROGEN.....	7.8			9.4		9.3	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			TRACE		0.1	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.3		0.3	
HELIUM.....	0.40			0.40		0.40	
HEATING VALUE.....	1123			1107		1094	
SPECIFIC GRAVITY.....	0.712			0.710		0.709	
		INDEX SAMPLE	9550 7352	INDEX SAMPLE	9551 7356	INDEX SAMPLE	9552 7397
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MOORE			MOORE		MOORE	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	SNEED NO. 1-20			CRAWFORD D-3		CRAWFORD C-2	
LOCATION.....	SEC. 20, BLK. 6, T&NO SUR.			SEC. 32, BLK. PMC, EL&RR SUR		SEC. 32, BLK. PMC, EL&RR SUR	
OWNER.....	PANHANDLE EASTERN PIPELINE C			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	10/15/39			08/09/59		08/03/59	
SAMPLED.....	01/19/60			02/16/60		02/16/60	
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH			PERM-WICHITA-ALBANY&GR. WASH		PERM-WICHITA-ALBANY&GR. WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2490			3209		2945	
WELLHEAD PRESSURE, PSIG.....	177			177		2203	
OPEN FLOW, MCFD.....	4232			7700		16200	
COMPONENT, MOLE PCT							
METHANE.....	76.1			74.3		73.5	
ETHANE.....	6.5			7.5		9.9	
PROPANE.....	4.4			3.5		3.6	
N-BUTANE.....	1.2			1.1		1.0	
ISOBUTANE.....	0.7			0.7		0.6	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.3			0.4		0.3	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	9.7			12.4		12.2	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.1			0.0		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		1.7	
HELIUM.....	0.40			0.60		0.60	
HEATING VALUE.....	1105			1057		1033	
SPECIFIC GRAVITY.....	0.717			0.718		0.724	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX		9553	INDEX		9554	INDEX		9555
SAMPLE		7398	SAMPLE		8200	SAMPLE		8417
STATE.....	TEXAS		STATE.....	TEXAS		STATE.....	TEXAS	
COUNTY.....	MOORE		COUNTY.....	MOORE		COUNTY.....	MOORE	
FIELD.....	PANHANDLE W		FIELD.....	PANHANDLE W		FIELD.....	PANHANDLE W	
WELL NAME.....	KILLGORE A-16		WELL NAME.....	WARTICK No. 2-R		WELL NAME.....	SNEED D-2	
LOCATION.....	SEC. 31, BLK. 44, H&TC SUR.		LOCATION.....	SEC. 92, BLK. 46, H&TC SUR.		LOCATION.....	SEC. 42, BLK. 6-T, T&NO SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.		OWNER.....	COLORADO INTERSTATE GAS CO.		OWNER.....	COLORADO INTERSTATE GAS CO.	
COMPLETED.....	01/13/59		COMPLETED.....	--/--/00		COMPLETED.....	08/12/61	
SAMPLED.....	02/16/60		SAMPLED.....	09/13/61		SAMPLED.....	02/07/62	
FORMATION.....	PERM-WICHITA-ALBANY		FORMATION.....	PERM-TUBB		FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	
GEOLOGIC PROVINCE CODE.....	440		GEOLOGIC PROVINCE CODE.....	440		GEOLOGIC PROVINCE CODE.....	440	
DEPTH, FEET.....	3307		DEPTH, FEET.....	NOT GIVEN		DEPTH, FEET.....	2400	
WELLHEAD PRESSURE, PSIG.....	169		WELLHEAD PRESSURE, PSIG.....	3		WELLHEAD PRESSURE, PSIG.....	186	
OPEN FLOW, MCFD.....	3900		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	8600	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	74.9		METHANE.....	82.0		METHANE.....	77.8	
ETHANE.....	6.2		ETHANE.....	6.4		ETHANE.....	6.5	
PROPANE.....	4.0		PROPANE.....	2.4		PROPANE.....	4.0	
N-BUTANE.....	1.1		N-BUTANE.....	0.5		N-BUTANE.....	1.3	
ISOBUTANE.....	0.5		ISOBUTANE.....	0.4		ISOBUTANE.....	0.7	
N-PENTANE.....	0.2		N-PENTANE.....	0.1		N-PENTANE.....	0.3	
ISOPENTANE.....	0.3		ISOPENTANE.....	0.1		ISOPENTANE.....	0.4	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.2	
NITROGEN.....	11.5		NITROGEN.....	7.7		NITROGEN.....	8.0	
OXYGEN.....	TRACE		OXYGEN.....	TRACE		OXYGEN.....	TRACE	
ARGON.....	TRACE		ARGON.....	TRACE		ARGON.....	TRACE	
HYDROGEN.....	0.0		HYDROGEN.....	0.1		HYDROGEN.....	TRACE	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.4		CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.3	
HELIUM.....	0.50		HELIUM.....	0.15		HELIUM.....	0.37	
HEATING VALUE.....	1063		HEATING VALUE.....	1052		HEATING VALUE.....	1120	
SPECIFIC GRAVITY.....	0.715		SPECIFIC GRAVITY.....	0.662		SPECIFIC GRAVITY.....	0.712	
INDEX		9556	INDEX		9557	INDEX		9558
SAMPLE		8849	SAMPLE		9065	SAMPLE		9066
STATE.....	TEXAS		STATE.....	TEXAS		STATE.....	TEXAS	
COUNTY.....	MOORE		COUNTY.....	MOORE		COUNTY.....	MOORE	
FIELD.....	PANHANDLE W		FIELD.....	PANHANDLE W		FIELD.....	PANHANDLE W	
WELL NAME.....	MASTERTSON M-5		WELL NAME.....	KILLGORE B-1		WELL NAME.....	KILLGORE B-1	
LOCATION.....	SEC. 14, BLK. 8-10, EL&RR SUR.		LOCATION.....	SEC. 22, BLK. PMC, EL&RR SUR.		LOCATION.....	SEC. 22, BLK. PMC, EL&RR SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.		OWNER.....	COLORADO INTERSTATE GAS CO.		OWNER.....	COLORADO INTERSTATE GAS CO.	
COMPLETED.....	09/04/62		COMPLETED.....	--/--/00		COMPLETED.....	--/--/00	
SAMPLED.....	02/07/63		SAMPLED.....	08/16/63		SAMPLED.....	08/16/63	
FORMATION.....	PERM-GRANITE WASH		FORMATION.....	--GRORDERHEAD		FORMATION.....	PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440		GEOLOGIC PROVINCE CODE.....	440		GEOLOGIC PROVINCE CODE.....	440	
DEPTH, FEET.....	2080		DEPTH, FEET.....	NOT GIVEN		DEPTH, FEET.....	2490	
WELLHEAD PRESSURE, PSIG.....	189		WELLHEAD PRESSURE, PSIG.....	216		WELLHEAD PRESSURE, PSIG.....	216	
OPEN FLOW, MCFD.....	13000		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	30100	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	75.9		METHANE.....	70.4		METHANE.....	73.8	
ETHANE.....	5.4		ETHANE.....	6.7		ETHANE.....	5.8	
PROPANE.....	4.2		PROPANE.....	3.9		PROPANE.....	3.3	
N-BUTANE.....	1.5		N-BUTANE.....	1.5		N-BUTANE.....	1.0	
ISOBUTANE.....	0.5		ISOBUTANE.....	0.7		ISOBUTANE.....	0.6	
N-PENTANE.....	0.4		N-PENTANE.....	0.4		N-PENTANE.....	0.2	
ISOPENTANE.....	0.3		ISOPENTANE.....	0.7		ISOPENTANE.....	0.3	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.3		CYCLOPENTANE.....	0.3	
HEXANES PLUS.....	0.3		HEXANES PLUS.....	0.5		HEXANES PLUS.....	0.2	
NITROGEN.....	9.7		NITROGEN.....	13.5		NITROGEN.....	13.6	
OXYGEN.....	TRACE		OXYGEN.....	TRACE		OXYGEN.....	0.0	
ARGON.....	TRACE		ARGON.....	0.1		ARGON.....	0.1	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.1	
HELIUM.....	0.50		HELIUM.....	0.80		HELIUM.....	0.90	
HEATING VALUE.....	1109		HEATING VALUE.....	1098		HEATING VALUE.....	1026	
SPECIFIC GRAVITY.....	0.720		SPECIFIC GRAVITY.....	0.757		SPECIFIC GRAVITY.....	0.711	
INDEX		9559	INDEX		9560	INDEX		9561
SAMPLE		9116	SAMPLE		9117	SAMPLE		9217
STATE.....	TEXAS		STATE.....	TEXAS		STATE.....	TEXAS	
COUNTY.....	MOORE		COUNTY.....	MOORE		COUNTY.....	MOORE	
FIELD.....	PANHANDLE W		FIELD.....	PANHANDLE W		FIELD.....	PANHANDLE W	
WELL NAME.....	FE. NO. 1-R		WELL NAME.....	SNEED No. 2R		WELL NAME.....	STORM No. 1	
LOCATION.....	SEC. 76, BLK. 3, G&M SUR.		LOCATION.....	SEC. 5, BLK. 8-10, EL&RR SUR		LOCATION.....	SEC. 13, BLK. PMC, EL&RR SUR	
OWNER.....	COLORADO INTERSTATE GAS CO.		OWNER.....	COLORADO INTERSTATE GAS CO.		OWNER.....	KATEX OIL CO.	
COMPLETED.....	10/17/63		COMPLETED.....	10/14/63		COMPLETED.....	--/--/00	
SAMPLED.....	10/17/63		SAMPLED.....	10/14/63		SAMPLED.....	01/17/64	
FORMATION.....	PERM-TUBB		FORMATION.....	PERM-TUBB		FORMATION.....	PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440		GEOLOGIC PROVINCE CODE.....	440		GEOLOGIC PROVINCE CODE.....	440	
DEPTH, FEET.....	1164		DEPTH, FEET.....	1312		DEPTH, FEET.....	3383	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	138		WELLHEAD PRESSURE, PSIG.....	138	
OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	857	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	73.9		METHANE.....	76.4		METHANE.....	73.0	
ETHANE.....	6.0		ETHANE.....	6.2		ETHANE.....	6.5	
PROPANE.....	3.4		PROPANE.....	3.7		PROPANE.....	3.7	
N-BUTANE.....	1.3		N-BUTANE.....	1.5		N-BUTANE.....	1.4	
ISOBUTANE.....	0.5		ISOBUTANE.....	0.3		ISOBUTANE.....	0.4	
N-PENTANE.....	0.3		N-PENTANE.....	0.3		N-PENTANE.....	0.3	
ISOPENTANE.....	0.7		ISOPENTANE.....	0.1		ISOPENTANE.....	0.4	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.3	
NITROGEN.....	12.8		NITROGEN.....	10.1		NITROGEN.....	12.3	
OXYGEN.....	TRACE		OXYGEN.....	TRACE		OXYGEN.....	0.0	
ARGON.....	0.1		ARGON.....	TRACE		ARGON.....	TRACE	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.1	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.8		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.9	
HELIUM.....	0.40		HELIUM.....	0.50		HELIUM.....	0.60	
HEATING VALUE.....	1040		HEATING VALUE.....	1090		HEATING VALUE.....	1062	
SPECIFIC GRAVITY.....	0.721		SPECIFIC GRAVITY.....	0.713		SPECIFIC GRAVITY.....	0.730	
INDEX		9562	INDEX		9563	INDEX		9564
SAMPLE		10673	SAMPLE		10674	SAMPLE		10675
STATE.....	TEXAS		STATE.....	TEXAS		STATE.....	TEXAS	
COUNTY.....	MOORE		COUNTY.....	MOORE		COUNTY.....	MOORE	
FIELD.....	PANHANDLE W		FIELD.....	PANHANDLE W		FIELD.....	PANHANDLE W	
WELL NAME.....	KILLGORE B-1		WELL NAME.....	BIVINS A-15		WELL NAME.....	SEAY A-1	
LOCATION.....	SEC. 22, BLK. PMC, EL&RR SUR		LOCATION.....	SEC. 76, BLK. 2, G&M SUR.		LOCATION.....	SEC. 85, BLK. 2, G&M SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.		OWNER.....	COLORADO INTERSTATE GAS CO.		OWNER.....	COLORADO INTERSTATE GAS CO.	
COMPLETED.....	06/14/61		COMPLETED.....	03/04/36		COMPLETED.....	06/13/28	
SAMPLED.....	07/21/66		SAMPLED.....	07/21/66		SAMPLED.....	07/21/66	
FORMATION.....	PERM-WICHITA-ALBANY		FORMATION.....	PERM-WICHITA-ALBANY		FORMATION.....	PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440		GEOLOGIC PROVINCE CODE.....	440		GEOLOGIC PROVINCE CODE.....	440	
DEPTH, FEET.....	2665		DEPTH, FEET.....	2710		DEPTH, FEET.....	2420	
WELLHEAD PRESSURE, PSIG.....	187		WELLHEAD PRESSURE, PSIG.....	206		WELLHEAD PRESSURE, PSIG.....	191	
OPEN FLOW, MCFD.....	9198		OPEN FLOW, MCFD.....	1522		OPEN FLOW, MCFD.....	983	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	72.0		METHANE.....	71.7		METHANE.....	71.0	
ETHANE.....	6.2		ETHANE.....	5.4		ETHANE.....	6.2	
PROPANE.....	3.7		PROPANE.....	3.2		PROPANE.....	3.9	
N-BUTANE.....	1.3		N-BUTANE.....	1.0		N-BUTANE.....	1.3	
ISOBUTANE.....	0.5		ISOBUTANE.....	0.5		ISOBUTANE.....	0.6	
N-PENTANE.....	0.2		N-PENTANE.....	0.1		N-PENTANE.....	0.2	
ISOPENTANE.....	0.5		ISOPENTANE.....	0.4		ISOPENTANE.....	0.5	
CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.2	
NITROGEN.....	14.3		NITROGEN.....	16.0		NITROGEN.....	15.0	
OXYGEN.....	0.0		OXYGEN.....	0.0		OXYGEN.....	0.0	
ARGON.....	0.1		ARGON.....	0.1		ARGON.....	0.1	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.1	
HELIUM.....	0.88		HELIUM.....	1.00		HELIUM.....	0.96	
HEATING VALUE.....	1038		HEATING VALUE.....	992		HEATING VALUE.....	1040	
SPECIFIC GRAVITY.....	0.730		SPECIFIC GRAVITY.....	0.720		SPECIFIC GRAVITY.....	0.730	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE	9565 10676	INDEX SAMPLE	9566 10677	INDEX SAMPLE	9567 11877
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	MOORE	MOORE	MOORE	MOORE	MOORE
FIELD.....	PANHANDLE W	PANHANDLE W	PANHANDLE W	PANHANDLE W	PANHANDLE W
WELL NAME.....	KILLGORE A-16	KILLGORE A-1	KILLGORE A-17	KILLGORE A-17	KILLGORE A-17
LOCATION.....	SEC. 31, BLK. 44, H&TC SUR.	SEC. 18, BLK. PMC&RR SUR.	SEC. 21, BLK. PMC&EL&RR SUR.	SEC. 21, BLK. PMC&EL&RR SUR.	SEC. 21, BLK. PMC&EL&RR SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	01/13/59	05/27/59	05/27/59	05/27/59	05/27/59
SAMPLED.....	07/21/66	07/21/66	07/21/66	07/21/66	07/21/66
FORMATION.....	PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	440	440	440	440
DEPTH, FEET.....	3307	2920	3259	3259	3259
WELLHEAD PRESSURE, PSIG.....	113	124	125	125	125
OPEN FLOW, MCFD.....	1319	2319	1980	1980	1980
COMPONENT, MOLE PCT.....					
METHANE.....	73.6	73.1	72.1	72.1	72.1
ETHANE.....	6.7	6.4	6.0	6.0	6.0
PROpane.....	4.2	4.0	3.2	3.2	3.2
N-BUTANE.....	1.3	1.3	1.0	1.0	1.0
ISOBUTANE.....	0.6	0.6	0.5	0.5	0.5
N-PENTANE.....	0.3	0.2	0.2	0.2	0.2
ISOPENTANE.....	0.4	0.5	0.2	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.3	0.2	0.2	0.2	0.2
NITROGEN.....	11.2	12.3	14.8	14.8	14.8
OXYGEN.....	TRACE	0.0	0.3	0.3	0.3
ARGON.....	TRACE	0.0	0.1	0.1	0.1
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.0	0.7	0.8	0.8	0.8
HELIUM.....	0.70	0.65	0.68	0.68	0.68
HEATING VALUE.....	1088	1067	1003	1003	1003
SPECIFIC GRAVITY.....	0.730	0.730	0.723	0.723	0.723

INDEX SAMPLE	9568 11894	INDEX SAMPLE	9569 13260	INDEX SAMPLE	9570 13264
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	MOORE	MOORE	MOORE	MOORE	MOORE
FIELD.....	PANHANDLE W	PANHANDLE W	PANHANDLE W	PANHANDLE W	PANHANDLE W
WELL NAME.....	KILLGORE A-17	BIVINS A-172	SEAY A-2	SEAY A-2	SEAY A-2
LOCATION.....	SEC. 21, BLK. PMC&EL&RR SUR.	SEC. 1, BLK. N-1, BOULDIN SUR.	SEC. 85, BLK. 2, G&M SUR.	SEC. 85, BLK. 2, G&M SUR.	SEC. 85, BLK. 2, G&M SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	05/10/69	05/04/72	04/24/72	04/24/72	04/24/72
SAMPLED.....	05/10/69	05/04/72	04/24/72	04/24/72	04/24/72
FORMATION.....	PERM-GRANITE WASH	PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	440	440	440	440
DEPTH, FEET.....	3489	2703	2408	2408	2408
WELLHEAD PRESSURE, PSIG.....	100	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	500	7570	10150	10150	10150
COMPONENT, MOLE PCT.....					
METHANE.....	73.2	72.7	72.7	72.7	72.7
ETHANE.....	6.1	5.6	5.6	5.6	5.6
PROpane.....	3.2	3.2	3.3	3.3	3.3
N-BUTANE.....	1.1	0.9	0.9	0.9	0.9
ISOBUTANE.....	0.5	0.5	0.5	0.5	0.5
N-PENTANE.....	0.2	0.2	0.2	0.2	0.2
ISOPENTANE.....	0.3	0.2	0.2	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.1	0.1	0.1	0.1
NITROGEN.....	14.1	15.2	15.1	15.1	15.1
OXYGEN.....	0.0	TRACE	0.0	0.0	0.0
ARGON.....	0.1	0.1	0.1	0.1	0.1
HYDROGEN.....	0.1	0.2	0.2	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	TRACE	TRACE	TRACE	TRACE
HELIUM.....	0.72	0.99	1.00	1.00	1.00
HEATING VALUE.....	1024	994	996	996	996
SPECIFIC GRAVITY.....	0.717	0.706	0.706	0.706	0.706

INDEX SAMPLE	9571 13662	INDEX SAMPLE	9572 5763	INDEX SAMPLE	9573 6012
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	MOORE	MOORE	MOORE	MOORE	MOORE
FIELD.....	PANHANDLE W	PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	KILLGORE A-19	BIVINS A-2R	BIVINS A-2R	BIVINS A-2R	BIVINS A-2R
LOCATION.....	SEC. 12, BLK. PMC, EL&RR SUR.	SEC. 13, BLK. 0-18, D&P SUR.	SEC. 13, BLK. 0-18, D&P SUR.	SEC. 13, BLK. 0-18, D&P SUR.	SEC. 13, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	7/7/00	07/16/24	01/26/55	01/31/56	01/31/56
SAMPLED.....	06/11/73	01/26/55	01/31/56	01/31/56	01/31/56
FORMATION.....	-15700 FT. SAND	PERM-RED CAVE	PERM-RED CAVE	PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	440	440	440	440
DEPTH, FEET.....	NOT GIVEN	1865	1850	1850	1850
WELLHEAD PRESSURE, PSIG.....	81	NOT GIVEN	343	343	343
OPEN FLOW, MCFD.....	3840	NOT GIVEN	12000	12000	12000
COMPONENT, MOLE PCT.....					
METHANE.....	74.8	79.2	78.9	78.9	78.9
ETHANE.....	5.8	8.6	8.5	8.5	8.5
PROpane.....	4.5	4.4	3.7	3.7	3.7
N-BUTANE.....	1.0	0.8	0.9	0.9	0.9
ISOBUTANE.....	0.6	0.6	0.2	0.2	0.2
N-PENTANE.....	0.5	0.1	0.2	0.2	0.2
ISOPENTANE.....	0.3	0.2	0.2	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.2	0.2	0.2
NITROGEN.....	12.7	6.6	6.5	6.5	6.5
OXYGEN.....	0.0	TRACE	0.0	0.0	0.0
ARGON.....	0.1	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.3	0.4	0.4	0.4
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.1	0.1	0.1	0.1
HELIUM.....	0.65	0.17	0.16	0.16	0.16
HEATING VALUE.....	1013	1111	1113	1113	1113
SPECIFIC GRAVITY.....	0.710	0.688	0.688	0.688	0.688

INDEX SAMPLE	9574 7318	INDEX SAMPLE	9575 7324	INDEX SAMPLE	9576 7605
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	MOORE	MOORE	MOORE	MOORE	MOORE
FIELD.....	PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	J. T. SNEED NO. 103	J. T. SNEED NO. 101	SELTON A-9	SELTON A-9	SELTON A-9
LOCATION.....	SEC. 15, BLK. N, JONES SUR	SEC. 54, BLK. 3, G&M SUR.	SEC. 54, BLK. 47, H&TC SUR.	SEC. 54, BLK. 47, H&TC SUR.	SEC. 54, BLK. 47, H&TC SUR.
OWNER.....	NATURAL GAS PIPELINE CO.	NATURAL GAS PIPELINE CO.	AMARILLO OIL CO.	AMARILLO OIL CO.	AMARILLO OIL CO.
COMPLETED.....	11/16/59	11/16/59	05/25/60	05/25/60	05/25/60
SAMPLED.....	12/29/59	12/29/59	07/18/60	07/18/60	07/18/60
FORMATION.....	PERM-RED CAVE	PERM-RED CAVE	PERM-RED CAVE	PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	440	440	440	440
DEPTH, FEET.....	1540	1575	1539	1539	1539
WELLHEAD PRESSURE, PSIG.....	380	321	411	411	411
OPEN FLOW, MCFD.....	3100	745	3900	3900	3900
COMPONENT, MOLE PCT.....					
METHANE.....	81.7	81.3	80.8	80.8	80.8
ETHANE.....	6.9	6.8	7.1	7.1	7.1
PROpane.....	2.8	2.6	3.0	3.0	3.0
N-BUTANE.....	0.6	0.6	0.7	0.7	0.7
ISOBUTANE.....	0.3	0.4	0.3	0.3	0.3
N-PENTANE.....	0.1	0.1	TRACE	TRACE	TRACE
ISOPENTANE.....	0.2	0.1	0.2	0.2	0.2
CYCLOPENTANE.....	0.0	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1	0.1	0.1
NITROGEN.....	7.1	7.7	7.3	7.3	7.3
OXYGEN.....	0.0	0.0	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.1	TRACE	0.2	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.1	0.1	0.1
HELIUM.....	0.10	0.10	0.10	0.10	0.10
HEATING VALUE.....	1072	1060	1072	1072	1072
SPECIFIC GRAVITY.....	0.668	0.667	0.670	0.670	0.670

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9577 7606	INDEX SAMPLE	9578 7796	INDEX SAMPLE	9579 7831
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MOORE			MOORE		MOORE	
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	
WELL NAME.....	SHELTON A-10			BITUMS A-1R		MASTERTON NO. 2R	
LOCATION.....	SEC. 53, BLK. 3, G&M SUR.			SEC. 93, BLK. 46, H&TC SUR.		SEC. 85, BLK. 0-18, D&P SUR.	
OWNER.....	AMARILLO OIL CO.			ANADARKO PRODUCTION CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	05/29/60			11/--/60		07/29/60	
SAMPLED.....	07/18/61			12/13/60		01/18/61	
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1579			1873		1662	
WELLHEAD PRESSURE, PSIG.....	399			394		364	
OPEN FLOW, MCFD.....	6200			8700		2796	
COMPONENT, MOLE PCT							
METHANE.....	80.7			82.1		79.8	
ETHANE.....	7.2			6.6		8.3	
PROPANE.....	3.0			1.6		3.4	
N-BUTANE.....	0.8			0.5		0.8	
ISOBUTANE.....	0.1			0.4		0.5	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	7.1			8.2		6.2	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.3			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		0.2	
HELIUM.....	0.20			0.20		0.20	
HEATING VALUE.....	1074			1035		1103	
SPECIFIC GRAVITY.....	0.669			0.656		0.681	
		INDEX SAMPLE	9580 7832	INDEX SAMPLE	9581 7833	INDEX SAMPLE	9582 7864
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MOORE			MOORE		MOORE	
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	
WELL NAME.....	MASTERTON NO. 1R			MASTERTON NO. 3R		SHELTON A-14R	
LOCATION.....	SEC. 76, BLK. 0-18, D&P SUR.			SEC. 86, BLK. 0-18, D&P SUR.		SEC. 50, BLK. 47, H&TC SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		AMARILLO OIL CO.	
COMPLETED.....	08/21/60			07/15/60		02/14/61	
SAMPLED.....	01/18/61			01/18/61		02/14/61	
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1936			1566		1476	
WELLHEAD PRESSURE, PSIG.....	262			385		394	
OPEN FLOW, MCFD.....	2816			5374		6700	
COMPONENT, MOLE PCT							
METHANE.....	78.5			79.5		81.5	
ETHANE.....	7.4			7.0		7.0	
PROPANE.....	4.0			3.4		2.7	
N-BUTANE.....	0.9			0.9		0.6	
ISOBUTANE.....	0.6			0.6		0.4	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.1			0.2		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.2			6.3		0.1	
NITROGEN.....	5.6			0.0		7.4	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.3			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.4		TRACE	
HELIUM.....	0.20			0.20		0.10	
HEATING VALUE.....	1142			1114		1064	
SPECIFIC GRAVITY.....	0.695			0.691		0.665	
		INDEX SAMPLE	9583 7865	INDEX SAMPLE	9584 7868	INDEX SAMPLE	9585 7874
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MOORE			MOORE		MOORE	
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	
WELL NAME.....	SHELTON A-11R			SHELLY NO. 2		J. T. SNEED NO. 130	
LOCATION.....	SEC. 53, BLK. 3, G&M SUR.			SEC. 2, BLK. J.J. POIT. SUR.		SEC. 1, BLK. 8-12, D&PRR SUR	
OWNER.....	AMARILLO OIL CO.			PHILLIPS PETROLEUM CO.		NATURAL GAS PIPELINE CO.	
COMPLETED.....	02/14/61			02/28/61		12/29/60	
SAMPLED.....	02/14/61			02/22/61		02/28/61	
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1479			1689		1549	
WELLHEAD PRESSURE, PSIG.....	398			376		400	
OPEN FLOW, MCFD.....	11000			13000		3600	
COMPONENT, MOLE PCT							
METHANE.....	81.5			81.2		81.9	
ETHANE.....	7.1			7.0		7.5	
PROPANE.....	2.8			2.6		3.2	
N-BUTANE.....	0.6			0.4		0.7	
ISOBUTANE.....	0.3			0.4		0.4	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	7.2			7.6		5.9	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		TRACE	
HELIUM.....	0.20			0.10		0.20	
HEATING VALUE.....	1070			1063		1107	
SPECIFIC GRAVITY.....	0.666			0.668		0.673	
		INDEX SAMPLE	9586 7875	INDEX SAMPLE	9587 7876	INDEX SAMPLE	9588 7877
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	MOORE			MOORE		MOORE	
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	
WELL NAME.....	J. T. SNEED NO. 124			J. T. SNEED NO. 126		J. T. SNEED NO. 126	
LOCATION.....	SEC. 1, T1RR CO. SUR.			SEC. 1, T1RR CO. SUR.		RACSDALE SUR.	
OWNER.....	NATURAL GAS PIPELINE CO.			NATURAL GAS PIPELINE CO.		NATURAL GAS PIPELINE CO.	
COMPLETED.....	--/--/00			--/--/00		12/23/60	
SAMPLED.....	02/28/61			02/28/61		02/28/61	
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1714			1660		1572	
WELLHEAD PRESSURE, PSIG.....	425			406		406	
OPEN FLOW, MCFD.....	5900			2900		2700	
COMPONENT, MOLE PCT							
METHANE.....	80.9			80.6		81.4	
ETHANE.....	7.6			7.8		7.3	
PROPANE.....	3.2			3.3		2.9	
N-BUTANE.....	0.7			0.8		0.6	
ISOBUTANE.....	0.4			0.4		0.4	
N-PENTANE.....	0.1			0.1		TRACE	
ISOPENTANE.....	0.1			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	6.5			6.5		6.9	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			TRACE		TRACE	
HELIUM.....	0.10			0.20		0.10	
HEATING VALUE.....	1090			1096		1074	
SPECIFIC GRAVITY.....	0.672			0.676		0.666	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9589 7879			INDEX SAMPLE	9590 7896			INDEX SAMPLE	9591 7897
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE				PANHANDLE W/RED CAVE			
WELL NAME.....	LATIN NO. 2			SHELTON A-13R				SHELTON A-12R			
LOCATION.....	SEC. 1, BLK. 4, POITEVENT SUR.			SEC. 52, BLK. 47, H&TC SUR.				SEC. 52, BLK. 3, G&M SUR.			
OWNER.....	PHILLIPS PETROLEUM CO.			AMARILLO OIL CO.				AMARILLO OIL CO.			
COMPLETED.....	12/19/60			02/17/61				02/17/61			
SAMPLED.....	03/02/61			02/17/61				02/17/61			
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE				PERM-RED CAVE			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	1675			1516				1497			
WELLHEAD PRESSURE, PSIG.....	346			392				399			
OPEN FLOW, MCFD.....	4300			19500				4123			
COMPONENT, MOLE PCT											
METHANE.....	81.4			81.2				81.7			
ETHANE.....	6.9			7.0				8.3			
PROPANE.....	2.7			2.6				2.5			
N-BUTANE.....	0.5			0.6				0.6			
ISOBUTANE.....	0.3			0.3				0.1			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	TRACE			TRACE				TRACE			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	7.6			7.8				5.9			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.1			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	TRACE			0.1				0.1			
HELIUM.....	0.20			0.10				0.0			
HEATING VALUE.....	1055			1059				1085			
SPECIFIC GRAVITY.....	0.662			0.669				0.665			
		INDEX SAMPLE	9592 7899			INDEX SAMPLE	9593 7900			INDEX SAMPLE	9594 8387
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE				PANHANDLE W/RED CAVE			
WELL NAME.....	STATE A NO. 2-R			STATE A 1R				CRAWFORD NO. 1R			
LOCATION.....	SEC. 95, BLK. 46, H&TC SUR.			SEC. 96, BLK. 46, H&TC SUR.				SEC. 24, BLK. PMC, EL&RR SUR			
OWNER.....	ANADARKO PRODUCTION CO.			ANADARKO PRODUCTION CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	03/11/61			03/11/61				07/22/61			
SAMPLED.....	03/11/61			03/11/61				01/31/62			
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE				PERM-RED CAVE			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	1270			1206				1837			
WELLHEAD PRESSURE, PSIG.....	375			378				353			
OPEN FLOW, MCFD.....	9200			5850				9800			
COMPONENT, MOLE PCT											
METHANE.....	81.6			81.9				79.6			
ETHANE.....	6.8			6.7				8.2			
PROPANE.....	2.5			2.5				3.7			
N-BUTANE.....	0.6			0.5				0.8			
ISOBUTANE.....	0.4			0.3				0.5			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	TRACE			TRACE				TRACE			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	7.6			7.6				6.2			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.1			0.1				0.3			
HYDROGEN SULFIDE.....	0.0			0.1				0.0			
CARBON DIOXIDE.....	0.1			0.1				0.1			
HELIUM.....	0.10			0.10				0.16			
HEATING VALUE.....	1061			1051				1112			
SPECIFIC GRAVITY.....	0.667			0.661				0.684			
		INDEX SAMPLE	9595 8456			INDEX SAMPLE	9596 8480			INDEX SAMPLE	9597 8482
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE				PANHANDLE W/RED CAVE			
WELL NAME.....	WARRICK NO. 2 R			SNEED B-9R				STATE A-3R			
LOCATION.....	SEC. 92, BLK. 46, H&TC SUR.			SEC. 92, BLK. 46, H&TC SUR.				SEC. 92, BLK. 46, H&TC SUR.			
OWNER.....	COLORADO INTERSTATE GAS CO.			ANADARKO PRODUCTION CO.				ANADARKO PRODUCTION CO.			
COMPLETED.....	10/23/61			05/02/61				04/19/61			
SAMPLED.....	03/14/62			02/21/62				03/21/62			
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE				PERM-RED CAVE			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	1476			1713				1303			
WELLHEAD PRESSURE, PSIG.....	172			410				403			
OPEN FLOW, MCFD.....	7000			1275				5576			
COMPONENT, MOLE PCT											
METHANE.....	81.1			81.7				82.9			
ETHANE.....	6.5			6.7				6.2			
PROPANE.....	2.6			2.7				2.3			
N-BUTANE.....	0.7			0.6				0.3			
ISOBUTANE.....	0.2			0.2				0.3			
N-PENTANE.....	0.1			0.1				TRACE			
ISOPENTANE.....	0.1			0.2				0.3			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	8.2			7.4				7.0			
OXYGEN.....	0.1			0.0				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			0.1				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	TRACE			0.1				0.0			
HELIUM.....	0.14			0.17				0.17			
HEATING VALUE.....	1050			1063				1055			
SPECIFIC GRAVITY.....	0.666			0.666				0.657			
		INDEX SAMPLE	9598 8847			INDEX SAMPLE	9599 8852			INDEX SAMPLE	9600 8857
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE				PANHANDLE W/RED CAVE			
WELL NAME.....	THOMPSON NO. 1R			SNEED NO. 1R				BIVINS NO. 9R			
LOCATION.....	SEC. 26, BLK. B-26, EL&RR SUR			TR. 1, MARY S. JOHNSON SUR.				SEC. 93, BLK. 46, H&TC SUR.			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	09/17/62			09/27/62				08/27/63			
SAMPLED.....	02/07/63			02/07/63				02/14/63			
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE				PERM-RED CAVE			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	1725			1577				1464			
WELLHEAD PRESSURE, PSIG.....	380			363				373			
OPEN FLOW, MCFD.....	2050			9100				16000			
COMPONENT, MOLE PCT											
METHANE.....	80.5			81.8				82.5			
ETHANE.....	7.8			6.5				6.5			
PROPANE.....	3.5			2.3				2.3			
N-BUTANE.....	1.0			0.7				0.8			
ISOBUTANE.....	0.2			0.1				TRACE			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	0.3			0.3				0.3			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	6.2			7.2				7.0			
OXYGEN.....	0.0			0.1				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.1				0.1			
HELIUM.....	0.10			0.10				0.10			
HEATING VALUE.....	1109			1055				1066			
SPECIFIC GRAVITY.....	0.682			0.663				0.663			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9601 SAMPLE 9296		INDEX 9602 SAMPLE 9298		INDEX 9603 SAMPLE 9300	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MOORE	COUNTY.....	MOORE	COUNTY.....	MOORE
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	SNEED NO. 2R	WELL NAME.....	MARRICK NO. 4R	WELL NAME.....	BIVINS NO. 19R
LOCATION.....	SEC. 3, BLK. B-10, ELRR SUR.	LOCATION.....	SEC. 34, BLK. 46, H&TC SUR.	LOCATION.....	SEC. 4, W.T. PALMER SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	10/15/63	COMPLETED.....	09/24/63	COMPLETED.....	09/26/63
SAMPLED.....	04/14/64	SAMPLED.....	04/14/64	SAMPLED.....	04/14/64
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1764	DEPTH, FEET.....	1548	DEPTH, FEET.....	1534
WELLHEAD PRESSURE, PSIG.....	287	WELLHEAD PRESSURE, PSIG.....	344	WELLHEAD PRESSURE, PSIG.....	341
OPEN FLOW, MCFD.....	3300	OPEN FLOW, MCFD.....	17200	OPEN FLOW, MCFD.....	18000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	80.4	METHANE.....	82.2	METHANE.....	79.9
ETHANE.....	5.2	ETHANE.....	6.6	ETHANE.....	6.9
PROPANE.....	0.5	PROPANE.....	2.6	PROPANE.....	2.4
N-BUTANE.....	0.8	N-BUTANE.....	0.6	N-BUTANE.....	0.6
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	6.0	NITROGEN.....	2.2	NITROGEN.....	8.9
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1
HELIUM.....	0.15	HELIUM.....	0.16	HELIUM.....	0.14
HEATING VALUE.....	1110	HEATING VALUE.....	1062	HEATING VALUE.....	1044
SPECIFIC GRAVITY.....	0.681	SPECIFIC GRAVITY.....	0.662	SPECIFIC GRAVITY.....	0.673
INDEX 9604 SAMPLE 9755		INDEX 9605 SAMPLE 9759		INDEX 9606 SAMPLE 10028	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MOORE	COUNTY.....	MOORE	COUNTY.....	MOORE
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	SNEED 3R	WELL NAME.....	THOMPSON 2R	WELL NAME.....	THOMPSON 2R
LOCATION.....	SEC. 51, BLK 3, G&M SUR.	LOCATION.....	HORACE HALL SUR.	LOCATION.....	SEC. 28, BLK B-10, EL & RR
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	08/25/64	COMPLETED.....	08/25/64	COMPLETED.....	07/11/65
SAMPLED.....	08/18/65	SAMPLED.....	02/18/65	SAMPLED.....	08/05/65
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1552	DEPTH, FEET.....	1729	DEPTH, FEET.....	1871
WELLHEAD PRESSURE, PSIG.....	346	WELLHEAD PRESSURE, PSIG.....	384	WELLHEAD PRESSURE, PSIG.....	434
OPEN FLOW, MCFD.....	2450	OPEN FLOW, MCFD.....	4100	OPEN FLOW, MCFD.....	1950
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	80.9	METHANE.....	79.4	METHANE.....	80.4
ETHANE.....	6.8	ETHANE.....	8.0	ETHANE.....	7.8
PROPANE.....	2.7	PROPANE.....	3.8	PROPANE.....	3.6
N-BUTANE.....	0.7	N-BUTANE.....	0.9	N-BUTANE.....	0.8
ISOBUTANE.....	0.3	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	7.9	NITROGEN.....	6.6	NITROGEN.....	6.3
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.14	HELIUM.....	0.14	HELIUM.....	0.16
HEATING VALUE.....	1064	HEATING VALUE.....	1115	HEATING VALUE.....	1106
SPECIFIC GRAVITY.....	0.672	SPECIFIC GRAVITY.....	0.692	SPECIFIC GRAVITY.....	0.682
INDEX 9607 SAMPLE 10030		INDEX 9608 SAMPLE 10698		INDEX 9609 SAMPLE 11043	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MOORE	COUNTY.....	MOORE	COUNTY.....	MOORE
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	FEE 3R	WELL NAME.....	BIVINS 24R	WELL NAME.....	SNEED 4R
LOCATION.....	SEC. 53, BLK 47, H&TC SUR.	LOCATION.....	SEC. 53, BLK. PMC, EL&RR SUR	LOCATION.....	SEC. 51, BLK. 6-T&T&NO SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	07/11/65	COMPLETED.....	08/01/66	COMPLETED.....	07/21/67
SAMPLED.....	08/05/65	SAMPLED.....	08/19/66	SAMPLED.....	07/27/67
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1492	DEPTH, FEET.....	1925	DEPTH, FEET.....	1777
WELLHEAD PRESSURE, PSIG.....	285	WELLHEAD PRESSURE, PSIG.....	328	WELLHEAD PRESSURE, PSIG.....	453
OPEN FLOW, MCFD.....	2450	OPEN FLOW, MCFD.....	9900	OPEN FLOW, MCFD.....	4800
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	81.5	METHANE.....	77.6	METHANE.....	79.6
ETHANE.....	6.6	ETHANE.....	8.5	ETHANE.....	6.1
PROPANE.....	2.6	PROPANE.....	4.0	PROPANE.....	3.5
N-BUTANE.....	0.6	N-BUTANE.....	0.9	N-BUTANE.....	0.8
ISOBUTANE.....	0.3	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	7.7	NITROGEN.....	7.6	NITROGEN.....	6.8
OXYGEN.....	0.0	OXYGEN.....	0.2	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.18	HELIUM.....	0.15	HELIUM.....	0.15
HEATING VALUE.....	1060	HEATING VALUE.....	1107	HEATING VALUE.....	1105
SPECIFIC GRAVITY.....	0.667	SPECIFIC GRAVITY.....	0.700	SPECIFIC GRAVITY.....	0.687
INDEX 9610 SAMPLE 12894		INDEX 9611 SAMPLE 13675		INDEX 9612 SAMPLE 2302	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MOORE	COUNTY.....	MOORE	COUNTY.....	MOTLEY
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	NOT GIVEN
WELL NAME.....	BIVINS 47R	WELL NAME.....	KILLGORE 1 R	WELL NAME.....	NOT GIVEN
LOCATION.....	SEC. 23, BLK. PMC, EL&RR SUR	LOCATION.....	SEC. 18, BLK PMC, EL&RR SUR.	LOCATION.....	SEC. 40, BLK. B
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	HERRY BROS. & PERINI, INC.
COMPLETED.....	07/09/71	COMPLETED.....	07/09/71	COMPLETED.....	---/---/00
SAMPLED.....	08/09/71	SAMPLED.....	08/08/73	SAMPLED.....	03/01/31
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	435
DEPTH, FEET.....	1867	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	1200
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	589	WELLHEAD PRESSURE, PSIG.....	750
OPEN FLOW, MCFD.....	1500	OPEN FLOW, MCFD.....	2390	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	78.7	METHANE.....	80.8	METHANE.....	0.0
ETHANE.....	9.1	ETHANE.....	7.4	ETHANE.....	0.0
PROPANE.....	0.7	PROPANE.....	0.8	PROPANE.....	---
N-BUTANE.....	0.9	N-BUTANE.....	0.8	N-BUTANE.....	---
ISOBUTANE.....	0.8	ISOBUTANE.....	0.5	ISOBUTANE.....	---
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	0.2	ISOPENTANE.....	---
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	5.2	NITROGEN.....	0.0	NITROGEN.....	99.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.15	HELIUM.....	0.20	HELIUM.....	0.04
HEATING VALUE.....	1157	HEATING VALUE.....	1110	HEATING VALUE.....	0
SPECIFIC GRAVITY.....	0.701	SPECIFIC GRAVITY.....	0.683	SPECIFIC GRAVITY.....	0.969

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9613 6879			INDEX SAMPLE	9614 12541			INDEX SAMPLE	9615 12546
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	MOTLEY			COUNTY.....	NACOGDOCHES			COUNTY.....	NACOGDOCHES		
FIELD.....	NOT GIVEN			FIELD.....	DOUGLASS			FIELD.....	DOUGLASS		
WELL NAME.....	SEC. 1, BLK. GP. C&MRR SUR.			WELL NAME.....	DOUGLASS GAS UNIT 6 NO. 1			WELL NAME.....	DOUGLASS GAS UNIT 3 NO. 1		
LOCATION.....	PAN AMERICAN PETROLEUM CORP.			LOCATION.....	COY. 6 COMB SUR.			LOCATION.....	MIGUEL SACCO SUR.		
OWNER.....	11/03/58			OWNER.....	HUMBLE OIL & REFINING CO.			OWNER.....	HUMBLE OIL & REFINING CO.		
COMPLETED.....	11/03/58			COMPLETED.....	09/24/64			COMPLETED.....	12/11/52		
SAMPLED.....	11/24/58			SAMPLED.....	11/10/70			SAMPLED.....	11/10/70		
FORMATION.....	PENN-STRAWN U			FORMATION.....	CRET-RODESSA			FORMATION.....	CRET-PETTIT		
GEOLOGIC PROVINCE CODE.....	435			GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260		
DEPTH, FEET.....	8517			DEPTH, FEET.....	8100			DEPTH, FEET.....	9170		
WELLHEAD PRESSURE, PSIG.....	2080			WELLHEAD PRESSURE, PSIG.....	3460			WELLHEAD PRESSURE, PSIG.....	3656		
OPEN FLOW, MCFD.....	1			OPEN FLOW, MCFD.....	95500			OPEN FLOW, MCFD.....	3600		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	71.3			METHANE.....	97.5			METHANE.....	97.4		
ETHANE.....	15.0			ETHANE.....	0.5			ETHANE.....	0.6		
PROPANE.....	6.7			PROPANE.....	0.2			PROPANE.....	0.2		
N-BUTANE.....	1.3			N-BUTANE.....	0.0			N-BUTANE.....	0.0		
ISOBUTANE.....	0.7			ISOBUTANE.....	0.0			ISOBUTANE.....	0.0		
N-PENTANE.....	0.1			N-PENTANE.....	0.0			N-PENTANE.....	0.0		
ISOPENTANE.....	0.2			ISOPENTANE.....	0.0			ISOPENTANE.....	0.0		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.0			CYCLOPENTANE.....	0.0		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.0			HEXANES PLUS.....	0.0		
NITROGEN.....	4.0			NITROGEN.....	0.4			NITROGEN.....	0.4		
OXYGEN.....	TRACE			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	0.0			ARGON.....	0.0			ARGON.....	0.0		
HYDROGEN.....	TRACE			HYDROGEN.....	TRACE			HYDROGEN.....	0.1		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.4			CARBON DIOXIDE.....	1.4			CARBON DIOXIDE.....	1.2		
HELIUM.....	0.10			HELIUM.....	0.01			HELIUM.....	0.01		
HEATING VALUE.....	1250			HEATING VALUE.....	1002			HEATING VALUE.....	1003		
SPECIFIC GRAVITY.....	0.754			SPECIFIC GRAVITY.....	0.574			SPECIFIC GRAVITY.....	0.572		
		INDEX SAMPLE	9616 13541			INDEX SAMPLE	9617 17703			INDEX SAMPLE	9618 4826
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	NACOGDOCHES			COUNTY.....	NACOGDOCHES			COUNTY.....	NACOGDOCHES		
FIELD.....	CROSSMAN "A" NO. 1			FIELD.....	NOT GIVEN			FIELD.....	TRAWICK		
WELL NAME.....	JEFFERSON WILSON SUR. A-59			WELL NAME.....	ETTA BOZELL NO. 1			WELL NAME.....	THURMAN CRAWFORD NO. 1		
LOCATION.....	INEXCO OIL CO.			LOCATION.....	JOHN H. HYDE JR., SUR. A-259			LOCATION.....	NOT GIVEN		
OWNER.....	10/05/72			OWNER.....	PRICHARD ENGINEERING			OWNER.....	HUMBLE OIL & REFINING CO.		
COMPLETED.....	02/27/73			COMPLETED.....	06/08/85			COMPLETED.....	05/29/49		
SAMPLED.....	02/27/73			SAMPLED.....	11/29/49			SAMPLED.....	11/29/49		
FORMATION.....	CRET-PETTIT U			FORMATION.....	CRET-TRAVIS PEAK			FORMATION.....	CRET-PETTIT L		
GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260		
DEPTH, FEET.....	8972			DEPTH, FEET.....	0842			DEPTH, FEET.....	7498		
WELLHEAD PRESSURE, PSIG.....	3874			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	3984		
OPEN FLOW, MCFD.....	2500			OPEN FLOW, MCFD.....	1729			OPEN FLOW, MCFD.....	42000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	96.4			METHANE.....	97.5			METHANE.....	94.8		
ETHANE.....	1.1			ETHANE.....	0.3			ETHANE.....	1.3		
PROPANE.....	0.3			PROPANE.....	0.1			PROPANE.....	0.3		
N-BUTANE.....	0.1			N-BUTANE.....	0.0			N-BUTANE.....	0.2		
ISOBUTANE.....	0.1			ISOBUTANE.....	0.0			ISOBUTANE.....	0.0		
N-PENTANE.....	0.1			N-PENTANE.....	0.0			N-PENTANE.....	0.1		
ISOPENTANE.....	TRACE			ISOPENTANE.....	0.0			ISOPENTANE.....	0.0		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.0			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.0			HEXANES PLUS.....	0.1		
NITROGEN.....	0.5			NITROGEN.....	0.7			NITROGEN.....	2.0		
OXYGEN.....	TRACE			OXYGEN.....	0.1			OXYGEN.....	0.1		
ARGON.....	0.0			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	0.0			HYDROGEN.....	TRACE			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	1.4			CARBON DIOXIDE.....	1.4			CARBON DIOXIDE.....	1.0		
HELIUM.....	0.01			HELIUM.....	0.01			HELIUM.....	0.02		
HEATING VALUE.....	1016			HEATING VALUE.....	0.96			HEATING VALUE.....	1012		
SPECIFIC GRAVITY.....	0.584			SPECIFIC GRAVITY.....	0.575			SPECIFIC GRAVITY.....	0.589		
		INDEX SAMPLE	9619 9189			INDEX SAMPLE	9620 12539			INDEX SAMPLE	9621 12543
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	NACOGDOCHES			COUNTY.....	NACOGDOCHES			COUNTY.....	NACOGDOCHES		
FIELD.....	TRAWICK			FIELD.....	TRAWICK			FIELD.....	TRAWICK		
WELL NAME.....	TRAWICK G.U. NO. 6			WELL NAME.....	TRAWICK G.U. 6 NO. 2			WELL NAME.....	TRAWICK G.U. 6 NO. 3		
LOCATION.....	HUMBLE OIL & REFINING CO.			LOCATION.....	LUIS SANCHEZ SUR.			LOCATION.....	LUIS SANCHEZ SUR.		
OWNER.....	10/24/62			OWNER.....	HUMBLE OIL & REFINING CO.			OWNER.....	HUMBLE OIL & REFINING CO.		
COMPLETED.....	10/24/62			COMPLETED.....	11/19/62			COMPLETED.....	01/29/66		
SAMPLED.....	11/24/63			SAMPLED.....	11/10/70			SAMPLED.....	11/10/70		
FORMATION.....	JURA			FORMATION.....	JURA			FORMATION.....	CRET-TRAVIS PEAK		
GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260		
DEPTH, FEET.....	11840			DEPTH, FEET.....	11820			DEPTH, FEET.....	8576		
WELLHEAD PRESSURE, PSIG.....	1589			WELLHEAD PRESSURE, PSIG.....	4158			WELLHEAD PRESSURE, PSIG.....	3580		
OPEN FLOW, MCFD.....	2502			OPEN FLOW, MCFD.....	6000			OPEN FLOW, MCFD.....	5000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	96.9			METHANE.....	95.5			METHANE.....	95.3		
ETHANE.....	1.3			ETHANE.....	1.4			ETHANE.....	2.6		
PROPANE.....	0.4			PROPANE.....	0.2			PROPANE.....	0.6		
N-BUTANE.....	0.0			N-BUTANE.....	0.0			N-BUTANE.....	0.0		
ISOBUTANE.....	0.0			ISOBUTANE.....	0.0			ISOBUTANE.....	0.0		
N-PENTANE.....	0.0			N-PENTANE.....	0.1			N-PENTANE.....	0.0		
ISOPENTANE.....	0.0			ISOPENTANE.....	0.0			ISOPENTANE.....	0.0		
CYCLOPENTANE.....	0.0			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.0		
HEXANES PLUS.....	0.0			HEXANES PLUS.....	0.3			HEXANES PLUS.....	0.0		
NITROGEN.....	0.1			NITROGEN.....	0.7			NITROGEN.....	0.5		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	TRACE			ARGON.....	0.0			ARGON.....	0.0		
HYDROGEN.....	0.0			HYDROGEN.....	0.1			HYDROGEN.....	0.1		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.9		
HELIUM.....	TRACE			HELIUM.....	0.01			HELIUM.....	0.01		
HEATING VALUE.....	1015			HEATING VALUE.....	1028			HEATING VALUE.....	1028		
SPECIFIC GRAVITY.....	0.576			SPECIFIC GRAVITY.....	0.592			SPECIFIC GRAVITY.....	0.584		
		INDEX SAMPLE	9622 12544			INDEX SAMPLE	9623 12547			INDEX SAMPLE	9624 4652
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	NACOGDOCHES			COUNTY.....	NACOGDOCHES			COUNTY.....	NACOGDOCHES		
FIELD.....	TRAWICK			FIELD.....	TRAWICK			FIELD.....	WILCAT		
WELL NAME.....	TRAWICK G.U. 1 NO. 1			WELL NAME.....	TRAWICK G.U. 1 NO. 1			WELL NAME.....	SARAH B. ADAMS NO. 1		
LOCATION.....	ZIMMERT BENNETT SUR.			LOCATION.....	ZIMMERT BENNETT SUR.			LOCATION.....	HARRISON-GRAHAM SUR. A-222		
OWNER.....	HUMBLE OIL & REFINING CO.			OWNER.....	HUMBLE OIL & REFINING CO.			OWNER.....	ARKANSAS FUEL OIL CO.		
COMPLETED.....	05/25/49			COMPLETED.....	09/25/64			COMPLETED.....	11/04/48		
SAMPLED.....	11/10/70			SAMPLED.....	11/10/70			SAMPLED.....	01/07/49		
FORMATION.....	CRET-PETTIT			FORMATION.....	CRET-RODESSA			FORMATION.....	CRET-PETTIT L		
GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260			GEOLOGIC PROVINCE CODE.....	260		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	6800			DEPTH, FEET.....	7109		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	2940			WELLHEAD PRESSURE, PSIG.....	3185		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	7400			OPEN FLOW, MCFD.....	1300		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	97.2			METHANE.....	97.1			METHANE.....	80.2		
ETHANE.....	0.7			ETHANE.....	0.7			ETHANE.....	16.5		
PROPANE.....	0.3			PROPANE.....	0.1			PROPANE.....	---		
N-BUTANE.....	0.0			N-BUTANE.....	0.0			N-BUTANE.....	---		
ISOBUTANE.....	0.0			ISOBUTANE.....	0.0			ISOBUTANE.....	---		
N-PENTANE.....	0.0			N-PENTANE.....	0.0			N-PENTANE.....	---		
ISOPENTANE.....	0.0			ISOPENTANE.....	0.0			ISOPENTANE.....	---		
CYCLOPENTANE.....	0.0			CYCLOPENTANE.....	0.0			CYCLOPENTANE.....	---		
HEXANES PLUS.....	0.0			HEXANES PLUS.....	0.0			HEXANES PLUS.....	---		
NITROGEN.....	0.6			NITROGEN.....	0.7			NITROGEN.....	2.2		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	0.3		
ARGON.....	0.1			ARGON.....	0.1			ARGON.....	---		
HYDROGEN.....	0.0			HYDROGEN.....	0.0			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	1.1			CARBON DIOXIDE.....	1.1			CARBON DIOXIDE.....	0.8		
HELIUM.....	0.01			HELIUM.....	0.01			HELIUM.....	0.01		
HEATING VALUE.....	1005			HEATING VALUE.....	1004			HEATING VALUE.....	1108		
SPECIFIC GRAVITY.....	0.574			SPECIFIC GRAVITY.....	0.574			SPECIFIC GRAVITY.....	0.655		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9625 4189	INDEX SAMPLE	9626 12431	INDEX SAMPLE	9627 1091
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	NAVARRO			NAVARRO		NAVARRO	
FIELD.....	ANGUS			NA-SU-GAIL		OLD RICHLAND	
WELL NAME.....	J. JACKSON NO. 2			STEWART HUNT NO. 1		ERNEST SWANK NO. 1	
LOCATION.....	JOHN MCNEAL SUR.			20 MI. SE CORSICANA		WM. HUDSON SUR.	
OWNER.....	TEX HARVEY OIL CO.			DELTA DRILLING CO.		SUN OIL CO.	
COMPLETED.....	08/25/46			10/17/61		01/--/25	
SAMPLED.....	11/13/46			10/--/70		07/11/25	
FORMATION.....	CRET-U			CRET-SUB-CLARKSVILLE		CRE-WOODBINE	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	1375			3356		2979	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			400		770	
OPEN FLOW, MCFD.....	25000			5600		6976	
COMPONENT, MOLE PCT							
METHANE.....	88.0			77.8		84.7	
ETHANE.....	11.3			8.0		12.6	
PROpane.....	---			5.8		---	
N-BUTANE.....	---			5.3		---	
ISOBUTANE.....	---			2.0		---	
N-PENTANE.....	---			0.9		---	
ISOPENTANE.....	---			0.4		---	
CYCLOPENTANE.....	---			0.2		---	
HEXANES PLUS.....	0.1			0.7		---	
NITROGEN.....	0.1			0.6		1.7	
OXYGEN.....	---			TRACE		0.5	
ARGON.....	---			0.0		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			0.0		---	
CARBON DIOXIDE.....	0.5			0.1		0.5	
HELIUM.....	0.03			0.02		0.05	
HEATING VALUE.....	1094			1352		1084	
SPECIFIC GRAVITY.....	0.616			0.776		0.631	
		INDEX SAMPLE	9628 931	INDEX SAMPLE	9629 12430	INDEX SAMPLE	9630 11672
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	NAVARRO			NAVARRO		NAVARRO	
FIELD.....	POWELL			REKA		ROUNDHOUSE	
WELL NAME.....	W. J. MCKIE NO. 3			ANDERSON NO. 1		J. B. FORTSON NO. 1	
LOCATION.....	NOT GIVEN			U. ORR SUR. A-625		M. CARADINE SUR. A-139	
OWNER.....	GULF PRODUCTION CO.			DELTA DRILLING CO.		TEXACO INC.	
COMPLETED.....	09/20/62			05/03/69		10/25/67	
SAMPLED.....	09/20/62			07/--/70		10/23/68	
FORMATION.....	NOT GIVEN			JURA-COTTON VALLEY		JURA-HAYNESVILLE	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	3060			10170		10342	
WELLHEAD PRESSURE, PSIG.....	125			2450		4300	
OPEN FLOW, MCFD.....	6000000			6750		17000	
COMPONENT, MOLE PCT							
METHANE.....	83.8			81.7		88.8	
ETHANE.....	14.1			8.8		5.5	
PROpane.....	---			3.9		1.7	
N-BUTANE.....	---			1.2		0.6	
ISOBUTANE.....	---			0.6		0.2	
N-PENTANE.....	---			0.0		0.2	
ISOPENTANE.....	---			0.1		0.1	
CYCLOPENTANE.....	---			0.6		0.3	
HEXANES PLUS.....	1.6			0.9		0.7	
NITROGEN.....	0.0			TRACE		0.0	
ARGON.....	---			0.0		TRACE	
HYDROGEN.....	---			0.1		0.1	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.4			1.2		1.3	
HELIUM.....	0.00			0.02		0.02	
HEATING VALUE.....	1102			1221		1116	
SPECIFIC GRAVITY.....	0.634			0.714		0.647	
		INDEX SAMPLE	9631 15153	INDEX SAMPLE	9632 5256	INDEX SAMPLE	9633 13215
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	NEWTON			NEWTON		NEWTON	
FIELD.....	BLUE MARSH			CALI		CAMP TOWN E	
WELL NAME.....	B. E. QUINN NO. 3			J. H. KURTH, JR. NO. 1		C. A. DYER A NO. 1	
LOCATION.....	GB&CNRR SUR. A-562			NOT GIVEN		4 MI. NW DEWEYVILLE	
OWNER.....	CENTRAL OIL CORP.			HOUSTON OIL CO. OF TEXAS		BIG 6 DRILLING CO.	
COMPLETED.....	04/28/76			03/06/52		08/15/71	
SAMPLED.....	11/19/77			06/21/52		05/19/72	
FORMATION.....	OLIG-FRTO			ECCO-YEGUA		OLIG-FRTO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3882			7462		7195	
WELLHEAD PRESSURE, PSIG.....	500			3262		2350	
OPEN FLOW, MCFD.....	108000			21000		10650	
COMPONENT, MOLE PCT							
METHANE.....	98.5			84.7		93.3	
ETHANE.....	0.2			5.0		4.1	
PROpane.....	0.1			0.3		1.0	
N-BUTANE.....	0.0			0.9		0.2	
ISOBUTANE.....	TRACE			1.1		0.4	
N-PENTANE.....	TRACE			0.1		0.1	
ISOPENTANE.....	0.0			0.2		0.2	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.8			0.1		0.2	
NITROGEN.....	0.0			0.5		0.2	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	TRACE			---		TRACE	
HYDROGEN.....	0.0			---		TRACE	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.0			0.3		0.1	
HELIUM.....	0.01			0.0		0.01	
HEATING VALUE.....	1009			1161		1092	
SPECIFIC GRAVITY.....	0.565			0.681		0.608	
		INDEX SAMPLE	9634 13216	INDEX SAMPLE	9635 12416	INDEX SAMPLE	9636 13554
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	NEWTON			NEWTON		NEWTON	
FIELD.....	CAMP TOWN E			CYPRESS CREEK		DEVIL'S POCKET	
WELL NAME.....	DYER A NO. 1			HANKAMER NO. 1		E. C. HANKAMER NO. 1	
LOCATION.....	4 MI. NW DEWEYVILLE			W. A. SMITH SUR. 32		HT&B RR SUR. 31, A-196	
OWNER.....	BIG 6 DRILLING CO.			BRIGHT & SCHIFF		BUTTES GAS & OIL CO.	
COMPLETED.....	01/25/70			03/15/70		01/25/71	
SAMPLED.....	05/19/72			07/--/70		03/01/73	
FORMATION.....	OLIG-FRTO			ECCO-YEGUA Y-7		ECCO-YEGUA Y-3	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6699			8620		8050	
WELLHEAD PRESSURE, PSIG.....	2500			2784		2790	
OPEN FLOW, MCFD.....	6600			12250		11200	
COMPONENT, MOLE PCT							
METHANE.....	92.6			86.6		89.1	
ETHANE.....	3.4			6.0		3.5	
PROpane.....	1.6			3.4		2.4	
N-BUTANE.....	0.5			0.7		0.9	
ISOBUTANE.....	0.5			1.1		1.1	
N-PENTANE.....	0.2			0.3		0.4	
ISOPENTANE.....	0.2			0.2		0.6	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.2			0.4		0.4	
NITROGEN.....	0.5			---		0.9	
OXYGEN.....	0.0			TRACE		0.1	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	TRACE			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.1			0.4		0.5	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1105			1183		1162	
SPECIFIC GRAVITY.....	0.619			0.673		0.666	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9637 SAMPLE 13555		INDEX 9638 SAMPLE 4467		INDEX 9639 SAMPLE 13748	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	NEWTON	COUNTY.....	NEWTON	COUNTY.....	NEWTON
FIELD.....	DEVIL'S POCKET	FIELD.....	GIST	FIELD.....	GIST
WELL NAME.....	E. C. HANKAMER NO. 2	WELL NAME.....	HARTBURG LUMBER CO. NO. 1	WELL NAME.....	B. E. QUINN ET AL. NO. 8
LOCATION.....	HT&B RR SUR. 31	LOCATION.....	SEC. 3, ABST 235, HT&B SUR.	LOCATION.....	A. W. WYMAN SUR. A-1026
OWNER.....	BUTTES GAS & OIL CO.	OWNER.....	STANDARD OIL CO. OF TEXAS	OWNER.....	CHEVRON OIL CO.
COMPLETED.....	08/26/71	COMPLETED.....	11/13/47	COMPLETED.....	03/17/72
SAMPLED.....	03/01/73	SAMPLED.....	04/21/48	SAMPLED.....	10/09/75
FORMATION.....	EOCE-YEGUA Y-7	FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8507	DEPTH, FEET.....	5611	DEPTH, FEET.....	5242
WELLHEAD PRESSURE, PSIG.....	2350	WELLHEAD PRESSURE, PSIG.....	2533	WELLHEAD PRESSURE, PSIG.....	2035
OPEN FLOW, MCFD.....	2800	OPEN FLOW, MCFD.....	231	OPEN FLOW, MCFD.....	9100
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.7	METHANE.....	96.6	METHANE.....	98.4
ETHANE.....	6.6	ETHANE.....	2.4	ETHANE.....	0.6
PROPANE.....	3.4	PROPANE.....	---	PROPANE.....	0.1
N-BUTANE.....	0.8	N-BUTANE.....	---	N-BUTANE.....	0.0
ISOBUTANE.....	0.9	ISOBUTANE.....	---	ISOBUTANE.....	0.0
N-PENTANE.....	0.2	N-PENTANE.....	---	N-PENTANE.....	0.0
ISOPENTANE.....	0.3	ISOPENTANE.....	---	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.0
NITROGEN.....	0.4	NITROGEN.....	0.3	NITROGEN.....	0.6
OXYGEN.....	0.0	OXYGEN.....	0.3	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1168	HEATING VALUE.....	1022	HEATING VALUE.....	1010
SPECIFIC GRAVITY.....	0.665	SPECIFIC GRAVITY.....	0.575	SPECIFIC GRAVITY.....	0.562

INDEX 9640 SAMPLE 12441		INDEX 9641 SAMPLE 14188		INDEX 9642 SAMPLE 14519	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	NEWTON	COUNTY.....	NEWTON	COUNTY.....	NEWTON
FIELD.....	HARTBURG	FIELD.....	HARTBURG NW	FIELD.....	HARTBURG NW
WELL NAME.....	C. A. MORGAN NO. 2-8	WELL NAME.....	R. A. MOORE NO. 5	WELL NAME.....	E. C. HANKAMER B NO. 9
LOCATION.....	A. SCHMIDT SUR. A-906	LOCATION.....	SEC. 14, HT&B RR SUR. A-264	LOCATION.....	SEC. 14, HT&B RR SUR. 912
OWNER.....	PAN AMERICAN PETROLEUM CORP.	OWNER.....	ATLANTIC RICHFIELD CO.	OWNER.....	ATLANTIC RICHFIELD CO.
COMPLETED.....	09/25/69	COMPLETED.....	06/20/73	COMPLETED.....	03/15/74
SAMPLED.....	10/7/70	SAMPLED.....	10/23/74	SAMPLED.....	10/30/75
FORMATION.....	OLIG-HACKBERRY	FORMATION.....	OLIG-STRUHA	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7490	DEPTH, FEET.....	7245	DEPTH, FEET.....	7347
WELLHEAD PRESSURE, PSIG.....	12799	WELLHEAD PRESSURE, PSIG.....	26743	WELLHEAD PRESSURE, PSIG.....	1367
OPEN FLOW, MCFD.....	---	OPEN FLOW, MCFD.....	31920	OPEN FLOW, MCFD.....	2575
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.6	METHANE.....	94.1	METHANE.....	91.2
ETHANE.....	3.8	ETHANE.....	3.3	ETHANE.....	4.6
PROPANE.....	2.2	PROPANE.....	1.3	PROPANE.....	2.0
N-BUTANE.....	0.7	N-BUTANE.....	0.2	N-BUTANE.....	0.5
ISOBUTANE.....	0.7	ISOBUTANE.....	0.3	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.0	NITROGEN.....	0.3	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1132	HEATING VALUE.....	1080	HEATING VALUE.....	1114
SPECIFIC GRAVITY.....	0.632	SPECIFIC GRAVITY.....	0.602	SPECIFIC GRAVITY.....	0.626

INDEX 9643 SAMPLE 12806		INDEX 9644 SAMPLE 8161		INDEX 9645 SAMPLE 13342	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	NOLAN	COUNTY.....	NOLAN	COUNTY.....	NOLAN
FIELD.....	BLOODWORTH NE	FIELD.....	GRUPE	FIELD.....	HUTCHINS
WELL NAME.....	B. N. C. U. NO. 3-1 UT	WELL NAME.....	ALDERMAN NO. 1	WELL NAME.....	E. P. HUTCHINS EST. NO. 1
LOCATION.....	NOT GIVEN	LOCATION.....	SEC. 65, H&TC SUR.	LOCATION.....	SEC. 188, BLK. 64, H&TC SUR.
OWNER.....	SUN OIL CO.	OWNER.....	LONE STAR GAS CO.	OWNER.....	CLIFTON THOMAS
COMPLETED.....	07/27/68	COMPLETED.....	04/04/57	COMPLETED.....	08/25/71
SAMPLED.....	04/27/71	SAMPLED.....	08/12/61	SAMPLED.....	07/28/72
FORMATION.....	PERM-BLOODWORTH	FORMATION.....	PENN-CISCO	FORMATION.....	CRET-GARDNER
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	5788	DEPTH, FEET.....	4034	DEPTH, FEET.....	5418
WELLHEAD PRESSURE, PSIG.....	525	WELLHEAD PRESSURE, PSIG.....	985	WELLHEAD PRESSURE, PSIG.....	545
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	4167	OPEN FLOW, MCFD.....	5648
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	64.3	METHANE.....	70.1	METHANE.....	69.9
ETHANE.....	14.0	ETHANE.....	10.6	ETHANE.....	11.2
PROPANE.....	8.1	PROPANE.....	5.7	PROPANE.....	6.7
N-BUTANE.....	1.9	N-BUTANE.....	2.1	N-BUTANE.....	2.4
ISOBUTANE.....	1.0	ISOBUTANE.....	0.7	ISOBUTANE.....	1.0
N-PENTANE.....	0.7	N-PENTANE.....	0.2	N-PENTANE.....	0.6
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3
NITROGEN.....	9.1	NITROGEN.....	10.2	NITROGEN.....	7.7
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.12	HELIUM.....	0.25	HELIUM.....	0.18
HEATING VALUE.....	1266	HEATING VALUE.....	1232	HEATING VALUE.....	1232
SPECIFIC GRAVITY.....	0.815	SPECIFIC GRAVITY.....	0.753	SPECIFIC GRAVITY.....	0.778

INDEX 9646 SAMPLE 11564		INDEX 9647 SAMPLE 11565		INDEX 9648 SAMPLE 11566	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	NUECES	COUNTY.....	NUECES	COUNTY.....	NUECES
FIELD.....	AGUA DULCE	FIELD.....	AGUA DULCE	FIELD.....	AGUA DULCE
WELL NAME.....	H. C. PYLE NO. 5	WELL NAME.....	J. O. SPONBERG NO. 3	WELL NAME.....	M. L. RIVERS NO. A-9
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN
OWNER.....	UNION PRODUCING CO.	OWNER.....	UNION PRODUCING CO.	OWNER.....	UNION PRODUCING CO.
COMPLETED.....	07/13/66	COMPLETED.....	12/22/66	COMPLETED.....	06/04/66
SAMPLED.....	07/09/68	SAMPLED.....	07/09/68	SAMPLED.....	07/09/68
FORMATION.....	OLIG-FRIO 5900	FORMATION.....	OLIG-FRIO 6490	FORMATION.....	OLIG-FRIO 2500
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	5903	DEPTH, FEET.....	6497	DEPTH, FEET.....	2542
WELLHEAD PRESSURE, PSIG.....	1134	WELLHEAD PRESSURE, PSIG.....	4700	WELLHEAD PRESSURE, PSIG.....	1033
OPEN FLOW, MCFD.....	650	OPEN FLOW, MCFD.....	---	OPEN FLOW, MCFD.....	30100
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.3	METHANE.....	90.0	METHANE.....	90.7
ETHANE.....	4.7	ETHANE.....	4.9	ETHANE.....	4.6
PROPANE.....	1.8	PROPANE.....	2.8	PROPANE.....	1.5
N-BUTANE.....	0.5	N-BUTANE.....	0.7	N-BUTANE.....	0.4
ISOBUTANE.....	0.6	ISOBUTANE.....	0.7	ISOBUTANE.....	0.7
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.4
ISOPENTANE.....	0.3	ISOPENTANE.....	0.3	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.5
HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.3	HEXANES PLUS.....	1.1
NITROGEN.....	0.6	NITROGEN.....	0.1	NITROGEN.....	0.1
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1143	HEATING VALUE.....	1156	HEATING VALUE.....	1169
SPECIFIC GRAVITY.....	0.642	SPECIFIC GRAVITY.....	0.646	SPECIFIC GRAVITY.....	0.653

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9649 SAMPLE 11567			INDEX 9650 SAMPLE 11568			INDEX 9651 SAMPLE 11569		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	NUECES		NUECES			NUECES		
FIELD.....	AGUA DULCE		AGUA DULCE			AGUA DULCE		
WELL NAME.....	M. L. RIVERS NO. A-8		M. C. PYLE NO. 5			M. L. RIVERS A-10		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	UNION PRODUCING CO.		UNION PRODUCING CO.			UNION PRODUCING CO.		
COMPLETED.....	05/25/66		07/16/66			06/06/66		
SAMPLED.....	07/09/68		07/09/68			07/09/68		
FORMATION.....	FRIO-3300 FT. SAND		OLIG-EAST HARPER			OLIG-FRIO 2600		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3348		5579			2621		
WELLHEAD PRESSURE, PSIG.....	926		1260			970		
OPEN FLOW, MCFD.....	2200		980			3980		
COMPONENT, MOLE PCT.....								
METHANE.....	94.2		90.4			91.7		
ETHANE.....	0.7		4.5			4.3		
PROPANE.....	0.1		1.8			1.5		
N-BUTANE.....	0.0		0.5			0.4		
ISOBUTANE.....	0.0		0.4			0.5		
N-PENTANE.....	0.0		0.2			0.1		
ISOPENTANE.....	0.0		0.3			0.3		
CYCLOPENTANE.....	0.0		0.1			0.2		
HEXANES PLUS.....	0.0		0.2			0.4		
NITROGEN.....	4.4		1.3			0.6		
OXYGEN.....	0.5		0.2			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.0		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	969		1109			1120		
SPECIFIC GRAVITY.....	0.581		0.631			0.628		
INDEX 9652 SAMPLE 4343			INDEX 9653 SAMPLE 15203			INDEX 9654 SAMPLE 15236		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	NUECES		NUECES			NUECES		
FIELD.....	AGUA DULCE W		ARNOLD-DAVID			ARNOLD-DAVID		
WELL NAME.....	LOURTH SMITH RIVER NO. 1		CHAPMAN HEIRS "A" NO. 44-1			CHAPMAN HEIRS "A" NO. 114-1		
LOCATION.....	SEC. 26, RICHARD KING FARM		CHAPMAN RANCH			CORPUS CHRISTI GRANT A-411		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		HNG OIL CO.			HNG OIL CO.		
COMPLETED.....	04/18/47		07/01/47			10/29/77		
SAMPLED.....	08/14/47		01/30/78			03/20/78		
FORMATION.....	TERT-		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5528		10000			10124		
WELLHEAD PRESSURE, PSIG.....	1815		4725			7000		
OPEN FLOW, MCFD.....	7800		7000			20500		
COMPONENT, MOLE PCT.....								
METHANE.....	85.8		91.7			93.1		
ETHANE.....	11.5		4.4			3.9		
PROPANE.....	---		0.6			1.1		
N-BUTANE.....	---		0.3			0.3		
ISOBUTANE.....	---		0.3			0.3		
N-PENTANE.....	---		0.2			0.1		
ISOPENTANE.....	---		0.2			0.1		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.2			0.2		
NITROGEN.....	2.4		0.3			0.3		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	---		TRACE			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.8			0.5		
HELIUM.....	0.02		TRACE			TRACE		
HEATING VALUE.....	1075		1100			1081		
SPECIFIC GRAVITY.....	0.624		0.625			0.608		
INDEX 9655 SAMPLE 5026			INDEX 9656 SAMPLE 14592			INDEX 9657 SAMPLE 13878		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	NUECES		NUECES			NUECES		
FIELD.....	BISHOP		BISHOP W			BLK. 889		
WELL NAME.....	ADOLPH TILL NO. 1		W. BISHOP G.U. NO. 1 NO. 1			T. S. L. 4 1338 NO. B-1		
LOCATION.....	SEC. 16, PALO ALTO GRANT		PALO ALTO GRANT A-116			MUSTANG ISLAND AREA		
OWNER.....	EASTERN STATES PETROLEUM CO.		HOUSTON OIL & MINERALS CORP.			GULF OIL CO.- U.S.		
COMPLETED.....	11/12/50		---/---/00			10/05/72		
SAMPLED.....	03/22/51		02/24/76			01/29/74		
FORMATION.....	OLIG-FRUGER L		OLIG-WICKSBURG			OLIG-MARGINULINA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7240		9087			11432		
WELLHEAD PRESSURE, PSIG.....	3150		4800			3500		
OPEN FLOW, MCFD.....	1400		2250			13300		
COMPONENT, MOLE PCT.....								
METHANE.....	90.8		91.1			90.7		
ETHANE.....	4.6		4.5			4.7		
PROPANE.....	1.8		1.9			2.0		
N-BUTANE.....	0.4		0.4			0.5		
ISOBUTANE.....	0.3		0.4			0.0		
N-PENTANE.....	0.3		0.1			0.1		
ISOPENTANE.....	TRACE		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	1.1		TRACE			0.6		
OXYGEN.....	0.4		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1094		1110			1123		
SPECIFIC GRAVITY.....	0.626		0.630			0.632		
INDEX 9658 SAMPLE 14267			INDEX 9659 SAMPLE 13142			INDEX 9660 SAMPLE 15987		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	NUECES		NUECES			NUECES		
FIELD.....	GRAYTON		CHAPMAN			CHAPMAN RANCH		
WELL NAME.....	DRISCOLL-SEVIER NO. 3		J. O. CHAPMAN NO. 43			CHAPMAN J NO. 1		
LOCATION.....	SEC. 303, PALO ALTO GRANT		SEC. 46, LAURELES FARM TRACTS			SEC. 82, LAURELES FARM TRACT		
OWNER.....	HNG OIL CO.		TEXACO INC.			MORGAN ENTERPRISES, INC.		
COMPLETED.....	07/16/73		04/02/70			01/10/80		
SAMPLED.....	02/17/75		02/03/72			06/20/80		
FORMATION.....	OLIG-FRIO		OLIG-FRIO L-24			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	7429		3170			13668		
WELLHEAD PRESSURE, PSIG.....	2654		600			9025		
OPEN FLOW, MCFD.....	8200		2700			3200		
COMPONENT, MOLE PCT.....								
METHANE.....	89.8		97.4			84.8		
ETHANE.....	5.3		0.2			7.1		
PROPANE.....	2.0		TRACE			1.2		
N-BUTANE.....	0.4		0.0			0.8		
ISOBUTANE.....	0.6		0.0			1.1		
N-PENTANE.....	0.1		0.0			0.2		
ISOPENTANE.....	0.3		0.0			0.3		
CYCLOPENTANE.....	0.3		0.0			0.1		
HEXANES PLUS.....	0.6		0.0			0.5		
NITROGEN.....	0.2		0.0			0.2		
OXYGEN.....	0.0		0.2			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		TRACE			1.6		
HELIUM.....	TRACE		0.0			TRACE		
HEATING VALUE.....	1149		990			1184		
SPECIFIC GRAVITY.....	0.648		0.565			0.690		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

STATE	INDEX	9661	INDEX	9662	INDEX	9663
COUNTY	SAMPLE	4948	SAMPLE	13920	SAMPLE	13921
TEXAS	TEXAS		TEXAS		TEXAS	
NUECES	NUECES		NUECES		NUECES	
CLARKWOOD S	CLARKWOOD S		CORPUS CHANNEL NW		CORPUS CHANNEL NW	
JONAS WEIL NO. 1	JONAS WEIL NO. 1		STATE TRACT 15 NO. 3U		STATE TRACT 15 NO. 3L	
J. H. GALLAGHER SUR. NO. 318	J. H. GALLAGHER SUR. NO. 318		CORPUS CHRISTI BAY		CORPUS CHRISTI BAY	
CHICAGO CORP.	CHICAGO CORP.		CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
06/10/50	06/10/50		06/28/72		06/28/72	
08/04/50	08/04/50		01/31/74		01/31/74	
OLIG-M-FRIO L	OLIG-M-FRIO L		OLIG-M-4		OLIG-M-10	
220	220		220		220	
DEPTH, FEET	9085		9903		11182	
WELLHEAD PRESSURE, PSIG	3912		6115		7325	
OPEN FLOW, MCFD	20000		40000		54000	
COMPONENT, MOLE PCT						
METHANE	92.8		88.9		82.2	
ETHANE	4.1		5.2		6.9	
PROPANE	1.5		2.4		4.5	
N-BUTANE	0.4		0.7		1.2	
ISOBUTANE	0.2		1.2		0.5	
N-PENTANE	0.2		1.2		0.5	
ISOPENTANE	0.0		0.2		0.5	
CYCLOPENTANE	TRACE		TRACE		0.2	
HEXANES PLUS	0.2		0.2		1.0	
NITROGEN	0.0		0.8		0.9	
OXYGEN	0.1		TRACE		0.1	
ARGON	TRACE		0.0		0.0	
HYDROGEN	0.0		0.0		TRACE	
HYDROGEN SULFIDE	---		0.0		0.0	
CARBON DIOXIDE	0.5		0.1		0.2	
HELIUM	TRACE		TRACE		TRACE	
HEATING VALUE	1091		1147		1272	
SPECIFIC GRAVITY	0.613		0.649		0.731	

STATE	INDEX	9664	INDEX	9665	INDEX	9666
COUNTY	SAMPLE	4695	SAMPLE	15919	SAMPLE	10832
TEXAS	TEXAS		TEXAS		TEXAS	
NUECES	NUECES		NUECES		NUECES	
CORPUS CHRISTI W	CORPUS CHRISTI W		COTTON		ENCINAL CHANNEL	
GUARANTY TITLE & TRUST NO. 2	GUARANTY TITLE & TRUST NO. 2		THOMAS L. RUSENLEHNER NO. 1		STATE TRACT 49 NO. 1-UT	
NOT GIVEN	NOT GIVEN		G. FARIAS GRANT A-592		STATE TRACT 49	
TIDEWATER OIL CO.	TIDEWATER OIL CO.		HUGHES & HUGHES OIL & GAS		CITIES SERVICE OIL CO.	
04/12/49	04/12/49		03/13/80		10/15/67	
OLIG-FRIO	OLIG-FRIO		OLIG-VICKSBURG		01/05/67	
220	220		220		OLIG-N-1 & N-2	
DEPTH, FEET	9873		8518		12200	
WELLHEAD PRESSURE, PSIG	3700		3411		7742	
OPEN FLOW, MCFD	2900		31000		750	
COMPONENT, MOLE PCT						
METHANE	89.5		91.4		89.5	
ETHANE	5.6		4.9		5.1	
PROPANE	2.2		1.8		1.8	
N-BUTANE	0.6		0.4		0.4	
ISOBUTANE	0.4		0.4		0.6	
N-PENTANE	0.1		0.1		0.1	
ISOPENTANE	0.4		0.2		0.1	
CYCLOPENTANE	TRACE		0.1		TRACE	
HEXANES PLUS	0.2		0.2		0.2	
NITROGEN	0.4		0.1		0.8	
OXYGEN	0.1		0.0		0.0	
ARGON	TRACE		0.0		TRACE	
HYDROGEN	TRACE		0.0		0.0	
HYDROGEN SULFIDE	---		0.0		0.0	
CARBON DIOXIDE	0.6		0.4		1.3	
HELIUM	TRACE		TRACE		0.01	
HEATING VALUE	1126		1118		1097	
SPECIFIC GRAVITY	0.642		0.628		0.637	

STATE	INDEX	9667	INDEX	9668	INDEX	9669
COUNTY	SAMPLE	10635	SAMPLE	10636	SAMPLE	12104
TEXAS	TEXAS		TEXAS		TEXAS	
NUECES	NUECES		NUECES		NUECES	
INDIAN POINT	INDIAN POINT		INDIAN POINT		INDIAN POINT	
STATE TRACT 786-NO. 8	STATE TRACT 786-NO. 8		STATE TRACT 786-NO. 8		STATE TRACT 786 NO. 8	
NUECES BAY	NUECES BAY		NUECES BAY		NUECES BAY	
FOREST OIL CORP., ET AL.	FOREST OIL CORP., ET AL.		FOREST OIL CORP., ET AL.		FOREST OIL CORP.	
09/06/65	09/06/65		09/06/65		03/29/69	
06/30/66	06/30/66		06/30/66		11/06/69	
OLIG-WATSON	OLIG-WATSON		OLIG-COMMONWEALTH		OLIG-FRIO	
220	220		220		220	
DEPTH, FEET	11562		11784		10210	
WELLHEAD PRESSURE, PSIG	7273		7303		4500	
OPEN FLOW, MCFD	12000		33000		1352	
COMPONENT, MOLE PCT						
METHANE	88.7		87.3		90.8	
ETHANE	5.9		7.0		4.6	
PROPANE	2.1		2.4		1.8	
N-BUTANE	0.6		0.9		0.5	
ISOBUTANE	0.6		0.7		0.2	
N-PENTANE	0.1		0.2		0.2	
ISOPENTANE	0.2		0.3		0.2	
CYCLOPENTANE	0.1		0.1		0.1	
HEXANES PLUS	0.4		0.6		0.2	
NITROGEN	0.0		0.0		0.5	
OXYGEN	0.0		0.0		0.0	
ARGON	TRACE		TRACE		TRACE	
HYDROGEN	0.0		0.0		0.0	
HYDROGEN SULFIDE	0.0		0.0		0.0	
CARBON DIOXIDE	1.3		1.4		0.6	
HELIUM	TRACE		TRACE		TRACE	
HEATING VALUE	1136		1172		1114	
SPECIFIC GRAVITY	0.650		0.680		0.633	

STATE	INDEX	9670	INDEX	9671	INDEX	9672
COUNTY	SAMPLE	4461	SAMPLE	5110	SAMPLE	4873
TEXAS	TEXAS		TEXAS		TEXAS	
NUECES	NUECES		NUECES		NUECES	
J. O. CHAPMAN RANCH	J. O. CHAPMAN RANCH		KNOLLE FARMS		KNOLLE FARMS	
NO. 46 SUR.	NO. 46 SUR.		KNOLLE NO. 1		KNOLLE NO. 1	
SEABOARD OIL CO.	SEABOARD OIL CO.		ORANGE GROVE		ORANGE GROVE	
03/13/48	03/13/48		PANHANDLE PROD. & REF. CO.		PANHANDLE PROD. & REF. CO.	
MIOC-CATAHOULA	MIOC-CATAHOULA		09/25/51		07/09/50	
220	220		OLIG-KOEHLER		05/02/50	
DEPTH, FEET	4560		5160		4834	
WELLHEAD PRESSURE, PSIG	2500		2200		NOT GIVEN	
OPEN FLOW, MCFD	33000		120000		4400	
COMPONENT, MOLE PCT						
METHANE	93.2		95.6		91.8	
ETHANE	5.4		3.0		4.1	
PROPANE	---		0.2		0.2	
N-BUTANE	---		0.1		0.2	
ISOBUTANE	---		TRACE		0.9	
N-PENTANE	---		0.0		0.1	
ISOPENTANE	---		0.0		0.0	
CYCLOPENTANE	---		0.1		0.1	
HEXANES PLUS	---		0.2		0.7	
NITROGEN	0.7		0.7		0.6	
OXYGEN	0.3		0.1		0.1	
ARGON	---		TRACE		TRACE	
HYDROGEN	---		0.0		---	
HYDROGEN SULFIDE	---		---		---	
CARBON DIOXIDE	0.4		0.1		0.5	
HELIUM	0.01		0.01		0.01	
HEATING VALUE	1043		1043		1108	
SPECIFIC GRAVITY	0.590		0.584		0.629	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9673 4354			INDEX SAMPLE	9674 4356			INDEX SAMPLE	9675 4357
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	NUECES			COUNTY.....	NUECES			COUNTY.....	NUECES		
FIELD.....	LUBY			FIELD.....	LUBY			FIELD.....	LUBY		
WELL NAME.....	W. M. SPESSARD NO. 16			WELL NAME.....	JOHN M. LUBY NO. 11			WELL NAME.....	G. H. MCCANN NO. 3		
LOCATION.....	CANTILLO COL. DITCH CO. SUR			LOCATION.....	MARY J. LUBY SUBD.			LOCATION.....	CANTILLO COL. DITCH CO. SUR		
OWNER.....	STANOLIND OIL & GAS CO.			OWNER.....	SEABOARD OIL CO.			OWNER.....	STANOLIND OIL & GAS CO.		
COMPLETED.....	07/07/47			COMPLETED.....	07/13/38			COMPLETED.....	10/26/37		
SAMPLED.....	09/26/47			SAMPLED.....	09/25/47			SAMPLED.....	09/26/47		
FORMATION.....	MIOC-CATAHOULA			FORMATION.....	MIOC-CATAHOULA			FORMATION.....	MIOC-CATAHOULA		
GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	4316			DEPTH, FEET.....	4365			DEPTH, FEET.....	4336		
WELLHEAD PRESSURE, PSIG.....	1450			WELLHEAD PRESSURE, PSIG.....	1200			WELLHEAD PRESSURE, PSIG.....	1382		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	62.0			METHANE.....	36.3			METHANE.....	70.2		
ETHANE.....	36.5			ETHANE.....	52.3			ETHANE.....	27.6		
PROpane.....	---			PROpane.....	---			PROpane.....	---		
N-BUTANE.....	---			N-BUTANE.....	---			N-BUTANE.....	---		
ISOBUTANE.....	---			ISOBUTANE.....	---			ISOBUTANE.....	---		
N-PENTANE.....	---			N-PENTANE.....	---			N-PENTANE.....	---		
ISOPENTANE.....	---			ISOPENTANE.....	---			ISOPENTANE.....	---		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	---			CYCLOPENTANE.....	---		
HEXANES PLUS.....	---			HEXANES PLUS.....	---			HEXANES PLUS.....	---		
NITROGEN.....	0.5			NITROGEN.....	0.7			NITROGEN.....	1.6		
OXYGEN.....	0.6			OXYGEN.....	0.4			OXYGEN.....	0.3		
ARGON.....	---			ARGON.....	---			ARGON.....	---		
HYDROGEN.....	---			HYDROGEN.....	---			HYDROGEN.....	---		
HYDROGEN SULFIDE**.....	---			HYDROGEN SULFIDE**.....	---			HYDROGEN SULFIDE**.....	---		
CARBON DIOXIDE.....	0.4			CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.3		
HELIUM.....	0.01			HELIUM.....	TRACE			HELIUM.....	0.01		
HEATING VALUE*.....	1282			HEATING VALUE*.....	1484			HEATING VALUE*.....	1206		
SPECIFIC GRAVITY.....	0.744			SPECIFIC GRAVITY.....	0.871			SPECIFIC GRAVITY.....	0.702		
		INDEX SAMPLE	9676 4359			INDEX SAMPLE	9677 4360			INDEX SAMPLE	9678 12508
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	NUECES			COUNTY.....	NUECES			COUNTY.....	NUECES		
FIELD.....	LUBY			FIELD.....	LUBY			FIELD.....	LUBY		
WELL NAME.....	JAMES P. LUBY NO. 16			WELL NAME.....	MARY J. LUBY SUBD.			WELL NAME.....	J. M. LUBY NO. 24-J		
LOCATION.....	MARY J. LUBY SUBD.			LOCATION.....	SEABOARD OIL CO.			LOCATION.....	C.C.D. CO. SUR. A-646		
OWNER.....	SEABOARD OIL CO.			OWNER.....	SEABOARD OIL CO.			OWNER.....	TEXACO INC.		
COMPLETED.....	03/21/38			COMPLETED.....	04/24/47			COMPLETED.....	02/13/70		
SAMPLED.....	09/25/47			SAMPLED.....	09/25/47			SAMPLED.....	11/05/70		
FORMATION.....	OLIG-FRIO			FORMATION.....	MIOC-CATAHOULA			FORMATION.....	OLIG-6900		
GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	5062			DEPTH, FEET.....	4354			DEPTH, FEET.....	6950		
WELLHEAD PRESSURE, PSIG.....	2075			WELLHEAD PRESSURE, PSIG.....	1300			WELLHEAD PRESSURE, PSIG.....	2200		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	73.0			METHANE.....	53.9			METHANE.....	92.1		
ETHANE.....	25.6			ETHANE.....	45.5			ETHANE.....	4.1		
PROpane.....	---			PROpane.....	---			PROpane.....	1.6		
N-BUTANE.....	---			N-BUTANE.....	---			N-BUTANE.....	0.3		
ISOBUTANE.....	---			ISOBUTANE.....	---			ISOBUTANE.....	0.6		
N-PENTANE.....	---			N-PENTANE.....	---			N-PENTANE.....	0.1		
ISOPENTANE.....	---			ISOPENTANE.....	---			ISOPENTANE.....	0.0		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	---			CYCLOPENTANE.....	0.1		
HEXANES PLUS.....	---			HEXANES PLUS.....	---			HEXANES PLUS.....	0.3		
NITROGEN.....	1.1			NITROGEN.....	0.1			NITROGEN.....	0.7		
OXYGEN.....	0.2			OXYGEN.....	0.2			OXYGEN.....	0.0		
ARGON.....	---			ARGON.....	---			ARGON.....	TRACE		
HYDROGEN.....	---			HYDROGEN.....	---			HYDROGEN.....	0.1		
HYDROGEN SULFIDE**.....	---			HYDROGEN SULFIDE**.....	---			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	TRACE		
HELIUM.....	0.01			HELIUM.....	TRACE			HELIUM.....	0.01		
HEATING VALUE*.....	1198			HEATING VALUE*.....	1361			HEATING VALUE*.....	1102		
SPECIFIC GRAVITY.....	0.688			SPECIFIC GRAVITY.....	0.784			SPECIFIC GRAVITY.....	0.618		
		INDEX SAMPLE	9679 12094			INDEX SAMPLE	9680 4649			INDEX SAMPLE	9681 12042
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	NUECES			COUNTY.....	NUECES			COUNTY.....	NUECES		
FIELD.....	MINNIE BOCK			FIELD.....	MINNIE BOCK N			FIELD.....	MOBIL-DAVID		
WELL NAME.....	GUARANTY TITLE NO. 1			WELL NAME.....	BICKLER & MOSELEY NO. 1			WELL NAME.....	A. GE. MANLEY NO. 3		
LOCATION.....	NOT GIVEN			LOCATION.....	SEC. 53			LOCATION.....	LAURELES FARM TRACT, SEC. 2		
OWNER.....	MERIDIAN EXPLORATION CO.			OWNER.....	ATLANTIC REFINING CO.			OWNER.....	SUN OIL CO.		
COMPLETED.....	01/11/69			COMPLETED.....	10/09/48			COMPLETED.....	05/25/69		
SAMPLED.....	01/17/69			SAMPLED.....	01/17/49			SAMPLED.....	09/15/69		
FORMATION.....	OLIG-FRIO			FORMATION.....	OLIG-FRIO			FORMATION.....	OLIG-MANLEY		
GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	5962			DEPTH, FEET.....	7956			DEPTH, FEET.....	10409		
WELLHEAD PRESSURE, PSIG.....	2200			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	2395		
OPEN FLOW, MCFD.....	535			OPEN FLOW, MCFD.....	9500			OPEN FLOW, MCFD.....	13000		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	90.0			METHANE.....	75.2			METHANE.....	84.8		
ETHANE.....	4.7			ETHANE.....	22.6			ETHANE.....	7.5		
PROpane.....	2.0			PROpane.....	---			PROpane.....	3.6		
N-BUTANE.....	0.6			N-BUTANE.....	---			N-BUTANE.....	0.6		
ISOBUTANE.....	0.6			ISOBUTANE.....	---			ISOBUTANE.....	0.1		
N-PENTANE.....	0.5			N-PENTANE.....	---			N-PENTANE.....	0.2		
ISOPENTANE.....	0.0			ISOPENTANE.....	---			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	0.2			CYCLOPENTANE.....	---			CYCLOPENTANE.....	0.1		
HEXANES PLUS.....	7.6			HEXANES PLUS.....	---			HEXANES PLUS.....	0.3		
NITROGEN.....	0.8			NITROGEN.....	1.0			NITROGEN.....	1.3		
OXYGEN.....	0.0			OXYGEN.....	0.5			OXYGEN.....	0.1		
ARGON.....	0.0			ARGON.....	---			ARGON.....	0.0		
HYDROGEN.....	0.1			HYDROGEN.....	---			HYDROGEN.....	TRACE		
HYDROGEN SULFIDE**.....	0.0			HYDROGEN SULFIDE**.....	---			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	TRACE			CARBON DIOXIDE.....	0.7			CARBON DIOXIDE.....	0.0		
HELIUM.....	0.01			HELIUM.....	TRACE			HELIUM.....	TRACE		
HEATING VALUE*.....	1148			HEATING VALUE*.....	1167			HEATING VALUE*.....	1184		
SPECIFIC GRAVITY.....	0.647			SPECIFIC GRAVITY.....	0.680			SPECIFIC GRAVITY.....	0.677		
		INDEX SAMPLE	9682 4879			INDEX SAMPLE	9683 2539			INDEX SAMPLE	9684 12565
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	NUECES			COUNTY.....	NUECES			COUNTY.....	NUECES		
FIELD.....	MUSTANG ISLAND			FIELD.....	NOT GIVEN			FIELD.....	PETRONILLA		
WELL NAME.....	STATE NO. 430-1			WELL NAME.....	KING NO. 2			WELL NAME.....	ROBERT LA PRELLE NO. 7		
LOCATION.....	NOT GIVEN			LOCATION.....	SEC. 23, RICHARD KING FARM			LOCATION.....	BLK. 8, CCD CO. SUR. A-464		
OWNER.....	STANOLIND OIL & GAS CO.			OWNER.....	STANOLIND OIL & GAS CO.			OWNER.....	PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	08/29/49			COMPLETED.....	07/15/32			COMPLETED.....	08/20/63		
SAMPLED.....	03/27/50			SAMPLED.....	07/15/32			SAMPLED.....	11/06/70		
FORMATION.....	OLIG-FRIO			FORMATION.....	OLIG-FRIO			FORMATION.....	OLIG-PETRONILLA		
GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220			GEOLOGIC PROVINCE CODE.....	220		
DEPTH, FEET.....	6818			DEPTH, FEET.....	4022			DEPTH, FEET.....	6665		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	1680			WELLHEAD PRESSURE, PSIG.....	1020		
OPEN FLOW, MCFD.....	1500			OPEN FLOW, MCFD.....	20000			OPEN FLOW, MCFD.....	10000		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	92.0			METHANE.....	99.3			METHANE.....	91.7		
ETHANE.....	3.6			ETHANE.....	0.0			ETHANE.....	4.5		
PROpane.....	1.3			PROpane.....	---			PROpane.....	1.5		
N-BUTANE.....	0.4			N-BUTANE.....	---			N-BUTANE.....	0.4		
ISOBUTANE.....	0.5			ISOBUTANE.....	---			ISOBUTANE.....	0.5		
N-PENTANE.....	0.2			N-PENTANE.....	---			N-PENTANE.....	TRACE		
ISOPENTANE.....	0.1			ISOPENTANE.....	---			ISOPENTANE.....	0.1		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	---			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	---			HEXANES PLUS.....	---			HEXANES PLUS.....	0.2		
NITROGEN.....	1.2			NITROGEN.....	0.0			NITROGEN.....	0.9		
OXYGEN.....	0.3			OXYGEN.....	0.4			OXYGEN.....	0.1		
ARGON.....	TRACE			ARGON.....	---			ARGON.....	TRACE		
HYDROGEN.....	---			HYDROGEN.....	---			HYDROGEN.....	0.0		
HYDROGEN SULFIDE**.....	---			HYDROGEN SULFIDE**.....	---			HYDROGEN SULFIDE**.....	0.0		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	TRACE		
HELIUM.....	0.01			HELIUM.....	0.0			HELIUM.....	0.01		
HEATING VALUE*.....	1079			HEATING VALUE*.....	1006			HEATING VALUE*.....	1093		
SPECIFIC GRAVITY.....	0.618			SPECIFIC GRAVITY.....	0.560			SPECIFIC GRAVITY.....	0.616		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9685 13570	INDEX SAMPLE	9686 5175	INDEX SAMPLE	9687 15571
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	NUECES			NUECES		NUECES	
FIELD.....	PETRONILLA			RED FISH BAY		RED FISH BAY	
WELL NAME.....	JOHN LAPRELLE EST. A NO. 12			STATE 411 NO. 1		STATE TRACT 445 NO. 1 LT	
LOCATION.....	CCC COMPANY SUR. A-464			STATE TRACT 411		TEXAS STATE TRACT 445	
OWNER.....	TEACO INC.			ATLANTIC REFINING CO.		GETTY OIL CO.	
COMPLETED.....	05/27/71			10/09/51		01/12/77	
SAMPLED.....	03/26/73			01/15/52		02/26/79	
FORMATION.....	OLIG-PETRONILLA			OLIG-MARGINULINA		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	5294			7125		11540	
WELLHEAD PRESSURE, PSIG.....	1707			3370		7500	
OPEN FLOW, MCFD.....	69000			15000		5784	
COMPONENT, MOLE PCT							
METHANE.....	87.5	---	---	91.6	---	87.1	---
ETHANE.....	5.9	---	---	6.5	---	6.5	---
PROpane.....	2.6	---	---	1.5	---	2.6	---
N-BUTANE.....	0.6	---	---	0.5	---	0.6	---
ISOBUTANE.....	0.3	---	---	0.3	---	1.0	---
N-PENTANE.....	0.1	---	---	0.2	---	0.2	---
ISOPENTANE.....	0.4	---	---	0.2	---	0.2	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.2	---	0.3	---
NITROGEN.....	1.5	---	---	1.1	---	1.1	---
OXYGEN.....	0.1	---	---	0.1	---	0.1	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE**.....	0.0	---	---	---	---	0.0	---
CARBON DIOXIDE.....	TRACE	---	---	0.4	---	0.2	---
HELIUM.....	0.01	---	---	0.01	---	TRACE	---
HEATING VALUE.....	1142	---	---	1089	---	1156	---
SPECIFIC GRAVITY.....	0.653	---	---	0.622	---	0.661	---
		INDEX SAMPLE	9688 15572	INDEX SAMPLE	9689 16094	INDEX SAMPLE	9690 16095
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	NUECES			NUECES		NUECES	
FIELD.....	RED FISH BAY			RED FISH BAY N		RED FISH BAY N	
WELL NAME.....	STATE TRACT 445 NO. 1 UT			STATE TRACT 351 NO. 2		STATE TRACT 342 NO. 2	
LOCATION.....	TEXAS STATE TRACT 445			S. T. 351 CORPUS CHRISTI BAY		3 MI. E OF ENGLSIDE	
OWNER.....	GETTY OIL CO.			MCMORAN EXPLORATION CO.		MCMORAN EXPLORATION CO.	
COMPLETED.....	01/12/77			02/09/79		11/09/79	
SAMPLED.....	02/26/79			10/13/80		10/13/80	
FORMATION.....	OLIG-FRIO			OLIG-FRIO		OLIG-FRIO D-1	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9338			7858		9550	
WELLHEAD PRESSURE, PSIG.....	6200			450		2800	
OPEN FLOW, MCFD.....	1669			3289		4604	
COMPONENT, MOLE PCT							
METHANE.....	72.5	---	---	91.8	---	91.1	---
ETHANE.....	6.6	---	---	3.8	---	3.7	---
PROpane.....	6.2	---	---	1.5	---	1.5	---
N-BUTANE.....	2.9	---	---	0.3	---	0.4	---
ISOBUTANE.....	5.9	---	---	0.6	---	0.6	---
N-PENTANE.....	1.1	---	---	0.1	---	0.1	---
ISOPENTANE.....	1.4	---	---	0.3	---	0.3	---
CYCLOPENTANE.....	0.2	---	---	0.1	---	0.1	---
HEXANES PLUS.....	3.1	---	---	0.3	---	0.2	---
NITROGEN.....	0.4	---	---	0.5	---	1.1	---
OXYGEN.....	TRACE	---	---	TRACE	---	0.2	---
ARGON.....	0.0	---	---	0.0	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE**.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.6	---	0.6	---
HELIUM.....	TRACE	---	---	TRACE	---	TRACE	---
HEATING VALUE.....	1566	---	---	1107	---	1093	---
SPECIFIC GRAVITY.....	0.906	---	---	0.628	---	0.628	---
		INDEX SAMPLE	9691 13969	INDEX SAMPLE	9692 13143	INDEX SAMPLE	9693 15407
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	NUECES			NUECES		NUECES	
FIELD.....	RIVERSIDE			RIVERSIDE-AGUA DULCE		ROCKETT	
WELL NAME.....	E. C. WILSON NO. 10			E. C. WILSON NO. 5		L. R. STANDLEE NO. 1	
LOCATION.....	SHAR 6 OF THE WRIGHT LANDS			ALL ALTO GRANT A-116		V. L. DEHERRERA GT. A-2661	
OWNER.....	SOUTH STATES OIL & GAS CO.			TEACO INC.		MCCORMICK OIL & GAS CORP.	
COMPLETED.....	03/21/74			05/23/70		08/20/77	
SAMPLED.....	03/27/74			02/02/72		10/10/78	
FORMATION.....	OLIG-FRIO			OLIG-FRIO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6749			4660		6800	
WELLHEAD PRESSURE, PSIG.....	2030			1700		2625	
OPEN FLOW, MCFD.....	12700			15000		15000	
COMPONENT, MOLE PCT							
METHANE.....	91.2	---	---	94.8	---	81.6	---
ETHANE.....	4.6	---	---	4.6	---	4.9	---
PROpane.....	2.0	---	---	0.5	---	3.4	---
N-BUTANE.....	0.5	---	---	0.1	---	1.5	---
ISOBUTANE.....	0.6	---	---	0.0	---	2.0	---
N-PENTANE.....	0.1	---	---	0.0	---	0.0	---
ISOPENTANE.....	0.3	---	---	0.2	---	2.1	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.3	---
HEXANES PLUS.....	0.2	---	---	0.1	---	1.8	---
NITROGEN.....	0.3	---	---	0.5	---	1.1	---
OXYGEN.....	0.0	---	---	0.1	---	0.2	---
ARGON.....	0.0	---	---	TRACE	---	0.0	---
HYDROGEN.....	TRACE	---	---	0.0	---	0.1	---
HYDROGEN SULFIDE**.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.1	---	TRACE	---
HELIUM.....	TRACE	---	---	0.01	---	TRACE	---
HEATING VALUE.....	1126	---	---	1059	---	1357	---
SPECIFIC GRAVITY.....	0.632	---	---	0.591	---	0.780	---
		INDEX SAMPLE	9694 15551	INDEX SAMPLE	9695 5292	INDEX SAMPLE	9696 11233
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	NUECES			NUECES		NUECES	
FIELD.....	SOUTH BAY			STEADMAN ISLAND		STEADMAN ISLAND	
WELL NAME.....	STATE TRACT 286 NO. 1			ARANSAS DOCK & CHANNEL NO. 1		ST. OF TEX-53065 TR. 309 NO. 1	
LOCATION.....	CORPUS CHRISTI BAY			SUR. NO. 652		STEADMAN ISLAND BLK. 309	
OWNER.....	TAMARACK PETROLEUM, INC.			ARANSAS DOCK & CHANNEL CO.		MOBIL OIL CORP.	
COMPLETED.....	10/07/76			10/20/52		12/28/65	
SAMPLED.....	12/29/78			10/20/52		11/28/67	
FORMATION.....	OLIG-FRIO			OLIG-FRIO		OLIG-9500 FOOT SAND	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	9865			7300		9406	
WELLHEAD PRESSURE, PSIG.....	6357			NOT GIVEN		5066	
OPEN FLOW, MCFD.....	22000			NOT GIVEN		63000	
COMPONENT, MOLE PCT							
METHANE.....	91.5	---	---	90.4	---	90.3	---
ETHANE.....	4.3	---	---	4.1	---	4.6	---
PROpane.....	2.7	---	---	1.8	---	1.7	---
N-BUTANE.....	0.5	---	---	0.5	---	0.5	---
ISOBUTANE.....	0.6	---	---	0.9	---	0.8	---
N-PENTANE.....	0.2	---	---	0.3	---	0.1	---
ISOPENTANE.....	0.2	---	---	0.2	---	0.2	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.3	---	0.3	---
NITROGEN.....	0.3	---	---	1.0	---	0.6	---
OXYGEN.....	TRACE	---	---	0.1	---	0.0	---
ARGON.....	0.0	---	---	0.0	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	TRACE	---
HYDROGEN SULFIDE**.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.5	---	---	0.3	---	0.6	---
HELIUM.....	TRACE	---	---	0.01	---	TRACE	---
HEATING VALUE.....	1112	---	---	24	---	1117	---
SPECIFIC GRAVITY.....	0.628	---	---	0.640	---	0.636	---

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9697 SAMPLE 11234		INDEX 9698 SAMPLE 15445		INDEX 9699 SAMPLE 17725	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	NUECES	COUNTY.....	NUECES	COUNTY.....	NUECES
FIELD.....	STEDMAN ISLAND	FIELD.....	STRATTON	FIELD.....	STRATTON
WELL NAME.....	ST. OF TEX-53065 TR-309 NO.1	WELL NAME.....	G. P. WARDNER NO. 128	WELL NAME.....	WARDNER NO. 162
LOCATION.....	STEDMAN ISLAND BLK. 309	LOCATION.....	SEC. 14, STRATTON SUBD.	LOCATION.....	PASO ANCHO DE ABAJO GRANT
OWNER.....	MOBIL OIL CORP.	OWNER.....	CHAMPLIN PETROLEUM CO.	OWNER.....	CHAMPLIN PETROLEUM CO.
COMPLETED.....	12/28/65	COMPLETED.....	03/18/77	COMPLETED.....	09/07/84
SAMPLED.....	11/28/67	SAMPLED.....	10/19/78	SAMPLED.....	06/20/85
FORMATION.....	OLIG-C-3 SAND	FORMATION.....	OLIG-VICKSBURG	FORMATION.....	OLIG-VICKSBURG
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8969	DEPTH, FEET.....	8260	DEPTH, FEET.....	8525
WELLHEAD PRESSURE, PSIG.....	2958	WELLHEAD PRESSURE, PSIG.....	2147	WELLHEAD PRESSURE, PSIG.....	2800
OPEN FLOW, MCFD.....	56000	OPEN FLOW, MCFD.....	42000	OPEN FLOW, MCFD.....	1116
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.2	METHANE.....	62.6	METHANE.....	90.7
ETHANE.....	4.5	ETHANE.....	8.2	ETHANE.....	4.1
PROPANE.....	1.5	PROPANE.....	8.4	PROPANE.....	1.8
N-BUTANE.....	0.3	N-BUTANE.....	4.1	N-BUTANE.....	0.6
ISOBUTANE.....	0.6	ISOBUTANE.....	4.2	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	0.5	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	3.5	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.6	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	2.1	HEXANES PLUS.....	0.3
NITROGEN.....	0.5	NITROGEN.....	0.4	NITROGEN.....	0.4
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	4.5	CARBON DIOXIDE.....	1.0
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1101	HEATING VALUE.....	1619	HEATING VALUE.....	1113
SPECIFIC GRAVITY.....	0.626	SPECIFIC GRAVITY.....	1.008	SPECIFIC GRAVITY.....	0.638
INDEX 9700 SAMPLE 17726		INDEX 9701 SAMPLE 5040		INDEX 9702 SAMPLE 4604	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	NUECES	COUNTY.....	NUECES	COUNTY.....	NUECES
FIELD.....	STRATTON	FIELD.....	TURKEY CREEK N	FIELD.....	WILDCAT
WELL NAME.....	DURNO NO. 9	WELL NAME.....	DURNO NO. 1	WELL NAME.....	NUECES BAY STATE NO. 1
LOCATION.....	FRIO E-41	LOCATION.....	BLK. 745, STATE LEASE 30398	LOCATION.....	TEXAS STATE TRACT 706
OWNER.....	CHAMPLIN PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	08/10/84	COMPLETED.....	01/05/51	COMPLETED.....	04/10/48
SAMPLED.....	06/20/85	SAMPLED.....	05/01/51	SAMPLED.....	10/20/48
FORMATION.....	OLIG-VICKSBURG	FORMATION.....	OLIG-VICKSBURG	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	6176	DEPTH, FEET.....	9480	DEPTH, FEET.....	3315
WELLHEAD PRESSURE, PSIG.....	400	WELLHEAD PRESSURE, PSIG.....	6752	WELLHEAD PRESSURE, PSIG.....	1500
OPEN FLOW, MCFD.....	393	OPEN FLOW, MCFD.....	5800	OPEN FLOW, MCFD.....	10050
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.8	METHANE.....	90.8	METHANE.....	98.5
ETHANE.....	4.7	ETHANE.....	4.5	ETHANE.....	1.1
PROPANE.....	2.0	PROPANE.....	1.7	PROPANE.....	---
N-BUTANE.....	0.6	N-BUTANE.....	0.5	N-BUTANE.....	---
ISOBUTANE.....	0.6	ISOBUTANE.....	0.4	ISOBUTANE.....	---
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	---
ISOPENTANE.....	0.3	ISOPENTANE.....	0.1	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.2	HEXANES PLUS.....	---
NITROGEN.....	0.9	NITROGEN.....	0.2	NITROGEN.....	0.0
OXYGEN.....	0.2	OXYGEN.....	0.1	OXYGEN.....	0.2
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	---
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	0.2
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1137	HEATING VALUE.....	1098	HEATING VALUE.....	1018
SPECIFIC GRAVITY.....	0.644	SPECIFIC GRAVITY.....	0.631	SPECIFIC GRAVITY.....	0.563
INDEX 9703 SAMPLE 11263		INDEX 9704 SAMPLE 15291		INDEX 9705 SAMPLE 16895	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	NUECES	COUNTY.....	NUECES	COUNTY.....	NUECES
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	VERONICA D. MCCULLOUGH NO. 1	WELL NAME.....	CHAPMAN RANCH NO. 4	WELL NAME.....	STATE TRACT G NO. 1
LOCATION.....	SEC. 19, AGUA DULCE GRANT A120	LOCATION.....	SEC. 49, LAURELS FARM TR.	LOCATION.....	STATE TRACT G, NUECES BAY
OWNER.....	HAAS BROTHERS	OWNER.....	CHAMPLIN PETROLEUM CO.	OWNER.....	SANCHEZ-O'BRIEN CO.
COMPLETED.....	--/--/00	COMPLETED.....	09/02/76	COMPLETED.....	12/--/81
SAMPLED.....	01/26/68	SAMPLED.....	05/--/78	SAMPLED.....	04/21/83
FORMATION.....	OLIG-FRIO	FORMATION.....	LAGARTO	FORMATION.....	OLIG-COMMONWEALTH
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	5452	DEPTH, FEET.....	3518	DEPTH, FEET.....	9928
WELLHEAD PRESSURE, PSIG.....	1488	WELLHEAD PRESSURE, PSIG.....	1393	WELLHEAD PRESSURE, PSIG.....	3450
OPEN FLOW, MCFD.....	3230	OPEN FLOW, MCFD.....	9000	OPEN FLOW, MCFD.....	4500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.9	METHANE.....	93.6	METHANE.....	83.7
ETHANE.....	5.2	ETHANE.....	0.5	ETHANE.....	6.6
PROPANE.....	1.5	PROPANE.....	0.1	PROPANE.....	3.3
N-BUTANE.....	0.4	N-BUTANE.....	0.0	N-BUTANE.....	1.1
ISOBUTANE.....	0.5	ISOBUTANE.....	0.0	ISOBUTANE.....	1.4
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	1.0
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.6
NITROGEN.....	0.7	NITROGEN.....	5.7	NITROGEN.....	0.4
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.2
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.9
HELIUM.....	0.01	HELIUM.....	0.03	HELIUM.....	TRACE
HEATING VALUE.....	1102	HEATING VALUE.....	960	HEATING VALUE.....	1230
SPECIFIC GRAVITY.....	0.621	SPECIFIC GRAVITY.....	0.582	SPECIFIC GRAVITY.....	0.709
INDEX 9706 SAMPLE 5975		INDEX 9707 SAMPLE 7392		INDEX 9708 SAMPLE 14318	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	OCHILTREE	COUNTY.....	OCHILTREE	COUNTY.....	OCHILTREE
FIELD.....	BARLOW NO. 1	FIELD.....	BARLOW NO. 1	FIELD.....	RULR N
WELL NAME.....	SEC. 929, BLK. 43, H&TC SUR.	WELL NAME.....	C. H. KELLN NO. 2	WELL NAME.....	GLORIA GRIFFIN NO. 1
LOCATION.....	TEXAS CO.	LOCATION.....	SEC. 919, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 67, BLK. 13, T&NO SUR.
OWNER.....	TEXAS CO.	OWNER.....	SHARROCK OIL & GAS CORP.	OWNER.....	COTTON PETROLEUM CORP.
COMPLETED.....	07/15/55	COMPLETED.....	11/06/55	COMPLETED.....	--/--/00
SAMPLED.....	11/23/55	SAMPLED.....	02/02/60	SAMPLED.....	04/16/75
FORMATION.....	PENN-MORROW	FORMATION.....	MISS-	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7962	DEPTH, FEET.....	8498	DEPTH, FEET.....	8501
WELLHEAD PRESSURE, PSIG.....	1415	WELLHEAD PRESSURE, PSIG.....	2200	WELLHEAD PRESSURE, PSIG.....	2102
OPEN FLOW, MCFD.....	1563	OPEN FLOW, MCFD.....	2050	OPEN FLOW, MCFD.....	2620
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.9	METHANE.....	96.2	METHANE.....	85.5
ETHANE.....	5.3	ETHANE.....	1.9	ETHANE.....	6.4
PROPANE.....	1.2	PROPANE.....	0.4	PROPANE.....	0.9
N-BUTANE.....	0.7	N-BUTANE.....	0.2	N-BUTANE.....	0.9
ISOBUTANE.....	0.2	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	0.6	NITROGEN.....	0.0	NITROGEN.....	1.9
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.2
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.4
HELIUM.....	0.13	HELIUM.....	0.10	HELIUM.....	0.08
HEATING VALUE.....	1107	HEATING VALUE.....	1143	HEATING VALUE.....	1143
SPECIFIC GRAVITY.....	0.629	SPECIFIC GRAVITY.....	0.580	SPECIFIC GRAVITY.....	0.665

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9709 SAMPLE 12209			INDEX 9710 SAMPLE 6356			INDEX 9711 SAMPLE 7008		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	CAMBRIDGE		DOUGLAS-NORTHROP			DUDE WILSON		
WELL NAME.....	WOLF CREEK NO. 1		PERC POWERS			LACKEY-WILSON		
LOCATION.....	SEC. 498, BLK. 43, H&TC SUR.		SEC. 632, BLK. 43, H&TC SUR.			SEC. 748, BLK. 43		
OWNER.....	EARL T. SMITH & ASSOC.		BAKER & TAYLOR DRILLING CO.			HORIZON OIL & GAS CO.		
COMPLETED.....	01/26/70		07/08/57			09/23/58		
SAMPLED.....	02/24/70		08/09/57			03/13/59		
FORMATION.....	PENN-MORROW		PENN-DOUGLAS			PENN-CLEVELAND		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9032		5720			7001		
WELLHEAD PRESSURE, PSIG.....	2900		1595			1605		
OPEN FLOW, MCFD.....	14500		19000			5600		
COMPONENT, MOLE PCT								
METHANE.....	81.2		85.4			95.6		
ETHANE.....	8.1		6.1			0.9		
PROPANE.....	5.1		2.9			0.5		
N-BUTANE.....	1.3		0.9			0.5		
ISOBUTANE.....	0.8		0.1			0.1		
N-PENTANE.....	0.5		0.3			0.2		
ISOPENTANE.....	0.6		0.1			0.3		
CYCLOPENTANE.....	0.3		0.1			0.1		
HEXANES PLUS.....	0.6		0.3			0.2		
NITROGEN.....	1.1		2.8			1.1		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.1			0.1		
HELIUM.....	0.05		0.19			0.10		
HEATING VALUE.....	1260		1133			1053		
SPECIFIC GRAVITY.....	0.726		0.663			0.593		
INDEX 9712 SAMPLE 7009			INDEX 9713 SAMPLE 7456			INDEX 9714 SAMPLE 7457		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	DUDE WILSON		DUDE WILSON			DUDE WILSON		
WELL NAME.....	D. C. WILSON A NO. 1-750		J. KIRMSE LEASE NO. 1-839			JIM DODSON NO. 1-834		
LOCATION.....	SEC. 750, BLK. 43		SEC. 839, BLK. 43, H&TC SUR.			SEC. 834, BLK. 43, H&TC SUR.		
OWNER.....	HORIZON OIL & GAS CO.		WATFLO OIL CO.			WATFLO OIL CO.		
COMPLETED.....	11/21/58		11/21/59			01/21/60		
SAMPLED.....	03/13/59		03/26/60			03/26/60		
FORMATION.....	PENN-NOVI		PENN-CLEVELAND			PENN-MORROW B		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7838		6643			7870		
WELLHEAD PRESSURE, PSIG.....	2217		2000			1731		
OPEN FLOW, MCFD.....	5000		560			1400		
COMPONENT, MOLE PCT								
METHANE.....	83.4		84.5			90.6		
ETHANE.....	9.1		6.7			5.7		
PROPANE.....	4.2		1.6			2.0		
N-BUTANE.....	1.0		1.4			0.4		
ISOBUTANE.....	0.4		0.6			0.2		
N-PENTANE.....	0.3		0.3			0.1		
ISOPENTANE.....	0.2		0.1			TRACE		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.4		0.2			0.1		
NITROGEN.....	1.1		1.6			0.4		
OXYGEN.....	0.2		TRACE			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.3		
HELIUM.....	0.10		0.10			0.10		
HEATING VALUE.....	1184		1192			1101		
SPECIFIC GRAVITY.....	0.683		0.688			0.620		
INDEX 9715 SAMPLE 15952			INDEX 9716 SAMPLE 16230			INDEX 9717 SAMPLE 15605		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	DUDE WILSON		DUDE WILSON			DUTCHER		
WELL NAME.....	FIRST NATIONAL TRUST NO. 1		KENT NO. 1			LUTHI "A" NO. 1		
LOCATION.....	SEC. 771, BLK. 43, H&TC SUR.		SEC. 870, BLK. 43, H&TC SUR.			SEC. 401, BLK. 43, H&TC SUR.		
OWNER.....	COURSON OIL & GAS, INC.		COURSON OIL & GAS, INC.			NATOMAS NORTH AMERICA, INC.		
COMPLETED.....	07/30/79		12/19/80			12/19/80		
SAMPLED.....	04/28/80		04/10/81			04/26/79		
FORMATION.....	PENN-CLEVELAND		PENN-CLEVELAND			PENN-CLEVELAND		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6955		6937			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	1604		1666			NOT GIVEN		
OPEN FLOW, MCFD.....	4000		4700			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	83.2		83.5			70.4		
ETHANE.....	6.3		6.6			8.3		
PROPANE.....	4.6		4.6			11.0		
N-BUTANE.....	1.4		1.4			4.0		
ISOBUTANE.....	0.5		0.6			0.3		
N-PENTANE.....	0.3		0.4			0.7		
ISOPENTANE.....	0.4		0.3			0.8		
CYCLOPENTANE.....	0.1		0.1			0.3		
HEXANES PLUS.....	0.2		0.2			0.4		
NITROGEN.....	2.5		2.0			2.1		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.5		
HELIUM.....	0.15		0.14			0.11		
HEATING VALUE.....	1183		1191			1425		
SPECIFIC GRAVITY.....	0.692		0.692			0.845		
INDEX 9718 SAMPLE 7277			INDEX 9719 SAMPLE 7402			INDEX 9720 SAMPLE 7759		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	ELLIS RANCH		ELLIS RANCH			ELLIS RANCH		
WELL NAME.....	W. T. TREGELLAS NO. 1		D. E. KUNKEL NO. 1			DREW ELLIS NO. C-1		
LOCATION.....	SEC. 757, BLK. 43, H&TC SUR.		SEC. 739, BLK. 43, H&TC SUR.			SEC. 842, BLK. 43, H&TC SUR.		
OWNER.....	SHAWROCK OIL & GAS CORP.		SHAWROCK OIL & GAS CORP.			SHAWROCK OIL & GAS CORP.		
COMPLETED.....	09/27/59		12/09/59			07/28/60		
SAMPLED.....	11/09/59		02/02/60			11/02/60		
FORMATION.....	MISS-		PENN-CLEVELAND			PENN-CLEVELAND		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		7196			6783		
WELLHEAD PRESSURE, PSIG.....	2900		1560			1101		
OPEN FLOW, MCFD.....	7500		1590			5700		
COMPONENT, MOLE PCT								
METHANE.....	86.5		85.8			77.9		
ETHANE.....	5.2		6.3			9.0		
PROPANE.....	3.1		1.5			4.7		
N-BUTANE.....	0.6		1.2			1.9		
ISOBUTANE.....	0.6		0.5			1.2		
N-PENTANE.....	0.4		0.3			0.4		
ISOPENTANE.....	0.9		0.3			0.5		
CYCLOPENTANE.....	0.3		0.1			0.1		
HEXANES PLUS.....	1.3		0.5			0.3		
NITROGEN.....	0.3		1.5			3.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		TRACE			0.4		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.4		
HELIUM.....	0.10		0.10			0.10		
HEATING VALUE.....	1234		1170			1236		
SPECIFIC GRAVITY.....	0.701		0.673			0.733		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9721 SAMPLE 12948			INDEX 9722 SAMPLE 16058			INDEX 9723 SAMPLE 16625		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	ELLIS RANCH		ELLIS RANCH			FALCON		
WELL NAME.....	HERNDON NO. 1		ODC #1 NO. 2			OLMSTEAD NO. 2018		
LOCATION.....	SEC. 49, BLK. 43, H&TC SUR.		SEC. 769, BLK. 43, H&TC SUR.			SEC. 1018, BLK. 43, H&TC SUR.		
OWNER.....	AMAREX, INC.		DIAMOND SHAMROCK CORP.			NATURAL GAS ANADARKO, INC.		
COMPLETED.....	01/20/71		07/28/80			05/19/82		
SAMPLED.....	07/04/80		09/04/80			09/26/82		
FORMATION.....	PENN-MORROW		PENN-CLEVELAND			PENN-MORROW U		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7035		7098			8305		
WELLHEAD PRESSURE, PSIG.....	2200		1530			1488		
OPEN FLOW, MCFD.....	60		6100			4150		
COMPONENT, MOLE PCT								
METHANE.....	84.2		88.4			81.0		
ETHANE.....	7.9		6.1			8.4		
PROPANE.....	3.9		2.5			4.8		
N-BUTANE.....	0.6		0.8			1.4		
ISOBUTANE.....	0.8		0.3			0.5		
N-PENTANE.....	0.2		0.2			0.4		
ISOPENTANE.....	0.1		0.2			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.3		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	1.4		0.8			1.2		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.4			0.6		
HELIUM.....	0.02		0.07			0.19		
HEATING VALUE*.....	1161		1138			1204		
SPECIFIC GRAVITY.....	0.679		0.648			0.705		
INDEX 9724 SAMPLE 6474			INDEX 9725 SAMPLE 7192			INDEX 9726 SAMPLE 6557		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	FARNSWORTH		FARNSWORTH			FARNSWORTH E		
WELL NAME.....	CONLEY B NO. 1		E. HIGGINBOTHAM NO. 2			G. E. IRVIN NO. 1		
LOCATION.....	SEC. 18, BLK. JT, TW&G SUR.		TRACT 5, XIMENES SUR.			SEC. 94, BLK. 13, T&NO SUR.		
OWNER.....	J. M. HUBER CORP.		SINCLAIR OIL & GAS CO.			SUN OIL CO.		
COMPLETED.....	01/17/57		09/17/57			01/08/58		
SAMPLED.....	01/13/58		08/28/59			04/15/58		
FORMATION.....	PENN-DES MOINES		PENN-JONES			PENN-MORROW L		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6759		7970			8712		
WELLHEAD PRESSURE, PSIG.....	1620		869			2631		
OPEN FLOW, MCFD.....	17000		3953			15000		
COMPONENT, MOLE PCT								
METHANE.....	83.5		86.0			84.4		
ETHANE.....	4.0		3.9			6.8		
PROPANE.....	1.4		0.8			4.9		
N-BUTANE.....	0.4		0.8			1.3		
ISOBUTANE.....	0.2		TRACE			0.7		
N-PENTANE.....	0.3		TRACE			0.2		
ISOPENTANE.....	0.1		0.5			0.4		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.4			0.3		
NITROGEN.....	2.8		0.7			0.6		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.4			0.6		
HELIUM.....	0.20		0.10			0.10		
HEATING VALUE*.....	1173		1162			1206		
SPECIFIC GRAVITY.....	0.690		0.663			0.692		
INDEX 9727 SAMPLE 7290			INDEX 9728 SAMPLE 7303			INDEX 9729 SAMPLE 10853		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	FARNSWORTH E		FARNSWORTH E			FARNSWORTH N		
WELL NAME.....	RICHMOND NO. 1		WRIGHT			H. NEUFELD NO. 1		
LOCATION.....	SEC. 45, BLK. 13, T&NO SUR.		SEC. 44, BLK. 13, T&NO SUR.			SEC. 10, BLK. 4, GH&H SUR.		
OWNER.....	PHILLIPS PETROLEUM CO.		HORIZON OIL & GAS CO.			TEXAS PACIFIC OIL CO.		
COMPLETED.....	06/04/59		06/04/59			06/28/66		
SAMPLED.....	11/23/59		12/09/59			01/26/67		
FORMATION.....	PENN-MORROW L		MISS-			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8826		NOT GIVEN			7815		
WELLHEAD PRESSURE, PSIG.....	2663		2622			2056		
OPEN FLOW, MCFD.....	11969		9900			15500		
COMPONENT, MOLE PCT								
METHANE.....	92.9		93.2			95.0		
ETHANE.....	3.2		3.4			2.4		
PROPANE.....	1.9		1.6			0.9		
N-BUTANE.....	0.4		0.3			0.3		
ISOBUTANE.....	0.1		0.2			0.1		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.2		0.1			TRACE		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	0.1		0.4			0.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.6		
HELIUM.....	0.10		0.07			0.06		
HEATING VALUE*.....	1105		1086			1056		
SPECIFIC GRAVITY.....	0.620		0.608			0.596		
INDEX 9730 SAMPLE 11639			INDEX 9731 SAMPLE 12167			INDEX 9732 SAMPLE 13598		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	FARNSWORTH N		FARNSWORTH N			FARNSWORTH SE		
WELL NAME.....	FEE 12-1		MASON NO. 1			BLIZZARD NO. 1		
LOCATION.....	7.0, NW FARNSWORTH		G. WOODS SUR.			SEC. 76, BLK. 43, H&TC SUR.		
OWNER.....	OIL DEVELOPMENT CO. OF TEXAS		TEXAS PACIFIC OIL CO., INC.			ALLEN & PARKER		
COMPLETED.....	02/05/68		10/06/69			06/07/72		
SAMPLED.....	07/12/68		01/02/70			05/11/73		
FORMATION.....	PENN-HARMATON		PENN-MORROW			PENN-CLEVELAND		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	6238		7282			6952		
WELLHEAD PRESSURE, PSIG.....	3600		3600			1628		
OPEN FLOW, MCFD.....	3000		9600			5100		
COMPONENT, MOLE PCT								
METHANE.....	71.9		85.0			83.7		
ETHANE.....	7.3		6.9			8.9		
PROPANE.....	6.6		4.0			4.8		
N-BUTANE.....	1.7		0.9			1.3		
ISOBUTANE.....	0.6		0.3			0.5		
N-PENTANE.....	0.5		0.3			0.2		
ISOPENTANE.....	0.1		TRACE			0.3		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.4		0.3			0.1		
NITROGEN.....	9.9		2.4			2.7		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.2			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.2		
HELIUM.....	0.25		0.20			0.16		
HEATING VALUE*.....	1162		1150			1172		
SPECIFIC GRAVITY.....	0.759		0.568			0.687		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9733 SAMPLE 17914			INDEX 9734 SAMPLE 10192			INDEX 9735 SAMPLE 15691		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	FARNSWORTH SE		FRANTZ			HANNA LAKE		
WELL NAME.....	DOC NO. 1-89		R. H. HOLLAND NO. 1			WAGGONER NO. 1		
LOCATION.....	SEC. 89, BLK. 13, T&NO SUR.		H. C. DAY SUR. A-72			SEC. 43, BLK. 10, HT&B SUR.		
OWNER.....	NATURAL GAS ANADARKO, INC.		GULF OIL CORP.			COURSON OIL & GAS, INC.		
COMPLETED.....	07/05/84		12/21/64			08/09/78		
SAMPLED.....	11/26/85		09/06/65			07/12/79		
FORMATION.....	PENN-MORROW U		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8210		7497			8092		
WELLHEAD PRESSURE, PSIG.....	1962		1918			1848		
OPEN FLOW, MCFD.....	3150		7500			5700		
COMPONENT, MOLE PCT.....								
METHANE.....	87.4		95.5			80.3		
ETHANE.....	5.9		2.2			7.3		
PROPANE.....	2.9		0.8			6.0		
N-BUTANE.....	1.0		0.2			1.9		
ISOBUTANE.....	0.1		0.1			0.3		
N-PENTANE.....	0.4		TRACE			0.5		
ISOPENTANE.....	0.2		0.2			0.6		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.4		0.1			0.3		
NITROGEN.....	0.8		0.5			1.8		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.0			0.4		
HELIUM.....	0.11		0.08			0.14		
HEATING VALUE.....	1153		1052			1257		
SPECIFIC GRAVITY.....	0.661		0.587			0.734		

INDEX 9736 SAMPLE 15951			INDEX 9737 SAMPLE 16891			INDEX 9738 SAMPLE 16136		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	HANNA LAKE		HARRIS			HARRIS		
WELL NAME.....	RAY NO. 1		LYNN GAS UNIT NO. 2			HARRIS "G" NO. 1		
LOCATION.....	SEC. 43, BLK. 10, HT&B SUR.		SEC. 44, BLK. 4T, T&NO SUR.			SEC. 1175, BLK. 43, H&TC SUR.		
OWNER.....	COURSON OIL & GAS, INC.		SUN EXPLORATION & PRODUCTION			TEXAS OIL & GAS CORP.		
COMPLETED.....	06/11/79		05/27/82			08/21/80		
SAMPLED.....	04/18/80		04/26/83			12/04/80		
FORMATION.....	PENN-MORROW		PENN-MORROW L			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8068		7664			8319		
WELLHEAD PRESSURE, PSIG.....	1748		1286			2000		
OPEN FLOW, MCFD.....	2570		1560			7000		
COMPONENT, MOLE PCT.....								
METHANE.....	81.1		88.0			79.2		
ETHANE.....	7.2		5.0			9.8		
PROPANE.....	5.7		2.2			5.9		
N-BUTANE.....	1.7		0.7			1.5		
ISOBUTANE.....	0.7		0.2			0.6		
N-PENTANE.....	0.3		0.2			0.3		
ISOPENTANE.....	0.6		0.1			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.3		0.1			0.2		
NITROGEN.....	1.8		2.4			1.5		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.0		0.1			0.0		
HYDROGEN.....	0.0		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.4			0.6		
HELIUM.....	0.14		0.12			0.10		
HEATING VALUE.....	1237		1095			1241		
SPECIFIC GRAVITY.....	0.720		0.639			0.726		

INDEX 9739 SAMPLE 17915			INDEX 9740 SAMPLE 16259			INDEX 9741 SAMPLE 10704		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	HAYWOOD		HUNTON W			KIOWA CREEK		
WELL NAME.....	LATR-WERNISKE NO. 1-89		CONDON "S3" NO. 1			S. L. BRILLHART NO. 2		
LOCATION.....	SEC. 89, BLK. 13, T&NO SUR.		SEC. 93, BLK. 10, HT&B SUR.			SEC. 829, BLK. 43, H&TC SUR.		
OWNER.....	NATURAL GAS ANADARKO, INC.		MEUBOURNE OIL CO.			SHAMROCK OIL & GAS CORP.		
COMPLETED.....	05/15/84		02/27/81			03/25/86		
SAMPLED.....	11/26/85		05/20/81			09/02/66		
FORMATION.....	PENN-ATOKA		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8030		8332			8943		
WELLHEAD PRESSURE, PSIG.....	1883		2230			2620		
OPEN FLOW, MCFD.....	2600		2100			2850		
COMPONENT, MOLE PCT.....								
METHANE.....	81.2		85.3			85.6		
ETHANE.....	10.0		5.9			7.5		
PROPANE.....	4.4		3.3			4.0		
N-BUTANE.....	1.5		1.1			0.8		
ISOBUTANE.....	0.8		0.8			0.3		
N-PENTANE.....	0.6		0.4			0.1		
ISOPENTANE.....	0.2		0.7			0.2		
CYCLOPENTANE.....	0.1		0.2			TRACE		
HEXANES PLUS.....	0.4		0.7			0.1		
NITROGEN.....	0.7		1.2			0.7		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.5			0.7		
HELIUM.....	0.09		0.08			0.06		
HEATING VALUE.....	1232		1210			1161		
SPECIFIC GRAVITY.....	0.708		0.698			0.670		

INDEX 9742 SAMPLE 10851			INDEX 9743 SAMPLE 16379			INDEX 9744 SAMPLE 15689		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OCHILTREE		OCHILTREE			OCHILTREE		
FIELD.....	KIOWA CREEK		LOCKHART			MARSH		
WELL NAME.....	DUKE NO. 1		C. H. LOCKHART NO. 1			PARNELL NO. 1		
LOCATION.....	SEC. 850, BLK. 43, H&TC SUR.		SEC. 1001, BLK. 43, H&TC SUR.			SEC. 474, BLK. 43, H&TC SUR.		
OWNER.....	NATURAL GAS ANADARKO, INC.		AMERICO PETROLEUM, INC.			NATURAL GAS ANADARKO, INC.		
COMPLETED.....	02/15/66		11/11/80			06/02/78		
SAMPLED.....	01/24/67		07/17/82			07/12/79		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-DOUGLAS		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	8900		9375			5826		
WELLHEAD PRESSURE, PSIG.....	2662		1260			1545		
OPEN FLOW, MCFD.....	9200		5450			1980		
COMPONENT, MOLE PCT.....								
METHANE.....	85.1		95.8			76.5		
ETHANE.....	7.6		4.1			4.9		
PROPANE.....	3.9		0.4			4.6		
N-BUTANE.....	1.0		0.1			1.4		
ISOBUTANE.....	0.2		TRACE			0.6		
N-PENTANE.....	0.1		0.1			0.5		
ISOPENTANE.....	0.4		0.1			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.9		0.1			0.2		
NITROGEN.....	0.0		0.0			10.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		1.0			0.1		
HELIUM.....	0.05		0.06			0.28		
HEATING VALUE.....	1166		1028			1098		
SPECIFIC GRAVITY.....	0.676		0.583			0.719		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9745 15953	INDEX SAMPLE	9746 7474	INDEX SAMPLE	9747 8064
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	OCCHILTREE			OCCHILTREE		OCCHILTREE	
FIELD.....	MARSH			MCARRAUGH		NORTHUP	
WELL NAME.....	POWERS NO. 1			C. S. MCARRAUGH B NO. 3-C		J. M. DANIEL NO. 1	
LOCATION.....	SEC. 496, BLK. 43, H&TC SUR.			SEC. 139, BLK. 13, T&NO SUR.		SEC. 585, BLK. 43, H&TC SUR.	
OWNER.....	BELCO PETROLEUM CORP.			TEXACO INC.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	06/25/79			08/20/79		05/06/61	
SAMPLED.....	04/28/80			03/29/60		07/10/61	
FORMATION.....	PENN-DOUGLAS			MISS-		PENN-CLEVELAND	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5802			8096		7351	
WELLHEAD PRESSURE, PSIG.....	1585			1982		1519	
OPEN FLOW, MCFD.....	3250			5200		4200	
COMPONENT, MOLE PCT							
METHANE.....	77.6	-----		85.7	-----	85.4	-----
ETHANE.....	6.1	-----		6.8	-----	6.7	-----
PROPANE.....	4.8	-----		2.7	-----	3.7	-----
N-BUTANE.....	1.4	-----		0.9	-----	1.1	-----
ISOBUTANE.....	0.6	-----		0.4	-----	0.7	-----
N-PENTANE.....	0.3	-----		0.3	-----	0.3	-----
ISOPENTANE.....	0.3	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		2.1	-----	0.2	-----
NITROGEN.....	8.1	-----		0.1	-----	1.3	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.3	-----	0.3	-----
HELIUM.....	0.26	-----		0.10	-----	0.10	-----
HEATING VALUE.....	1127	-----		1150	-----	1173	-----
SPECIFIC GRAVITY.....	0.714	-----		0.667	-----	0.674	-----
		INDEX SAMPLE	9748 11665	INDEX SAMPLE	9749 14194	INDEX SAMPLE	9750 15688
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	OCCHILTREE			OCCHILTREE		OCCHILTREE	
FIELD.....	NORTHUP			NORTHUP		NORTHUP	
WELL NAME.....	AUTHUR MORGAN A NO. 1			CHARLES H. ELLZEY NO. 1		PARNELL NO. 1	
LOCATION.....	SEC. 827, BLK. 43, H&TC SUR.			SEC. 383, BLK. 43, H&TC SUR.		SEC. 474, BLK. 43, H&TC SUR.	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			DIAMOND SHAMROCK CORP.		NATURAL GAS ANADARKO, INC.	
COMPLETED.....	08/13/68			09/13/74		06/02/78	
SAMPLED.....	10/10/68			10/29/74		07/12/78	
FORMATION.....	PENN-DOUGLAS			PENN-CLEVELAND		PENN-CLEVELAND	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	5888			7092		7278	
WELLHEAD PRESSURE, PSIG.....	1499			1717		1728	
OPEN FLOW, MCFD.....	9500			6200		2100	
COMPONENT, MOLE PCT							
METHANE.....	83.6	-----		86.6	-----	85.0	-----
ETHANE.....	6.9	-----		6.2	-----	6.1	-----
PROPANE.....	3.8	-----		3.5	-----	4.0	-----
N-BUTANE.....	1.0	-----		0.9	-----	1.2	-----
ISOBUTANE.....	0.7	-----		0.4	-----	0.8	-----
N-PENTANE.....	0.4	-----		0.2	-----	0.3	-----
ISOPENTANE.....	0.0	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.5	-----		0.1	-----	0.1	-----
NITROGEN.....	2.8	-----		1.5	-----	1.2	-----
ARGON.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.1	-----		TRACE	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.0	-----	0.0	-----
HELIUM.....	0.15	-----		0.3	-----	0.2	-----
HEATING VALUE.....	1163	-----		0.12	-----	0.10	-----
SPECIFIC GRAVITY.....	0.682	-----		0.659	-----	0.676	-----
		INDEX SAMPLE	9751 12804	INDEX SAMPLE	9752 6089	INDEX SAMPLE	9753 6091
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	OCCHILTREE			OCCHILTREE		OCCHILTREE	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	CONNER NO. 1			IRENE CHUNN		GREENER	
LOCATION.....	SEC. 385, BLK. 43, H&TC SUR.			SEC. 764, BLK. 4T, T&NO SUR.		SEC. 52, BLK. 4, T&NO SUR.	
OWNER.....	HOLLETT OIL & GAS, INC.			HOLLETT OIL CORP.		HOLLETT OIL CORP.	
COMPLETED.....	01/31/71			-7-/00		-7-/00	
SAMPLED.....	04/30/71			06/20/56		06/20/56	
FORMATION.....	PENN-MORROW L			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	9932			8078		8341	
WELLHEAD PRESSURE, PSIG.....	3150			1799		2510	
OPEN FLOW, MCFD.....	3300			10400		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	88.9	-----		90.3	-----	93.8	-----
ETHANE.....	5.0	-----		4.6	-----	2.8	-----
PROPANE.....	2.2	-----		2.2	-----	1.3	-----
N-BUTANE.....	0.6	-----		0.6	-----	0.3	-----
ISOBUTANE.....	0.5	-----		0.2	-----	0.2	-----
N-PENTANE.....	0.3	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.2	-----
HEXANES PLUS.....	0.4	-----		0.2	-----	0.2	-----
NITROGEN.....	0.6	-----		0.8	-----	0.9	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.2	-----		0.0	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.6	-----
CARBON DIOXIDE.....	1.1	-----		0.4	-----	0.5	-----
HELIUM.....	0.04	-----		0.12	-----	0.06	-----
HEATING VALUE.....	1126	-----		1074	-----	1074	-----
SPECIFIC GRAVITY.....	0.649	-----		0.625	-----	0.605	-----
		INDEX SAMPLE	9754 7529	INDEX SAMPLE	9755 16234	INDEX SAMPLE	9756 8542
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	OCCHILTREE			OCCHILTREE		OCCHILTREE	
FIELD.....	NOT GIVEN			NOT GIVEN		NOTLA	
WELL NAME.....	WOODEN NO. 1			HARRIS NO. 1		ELAND E. MEKEEL NO. D-1	
LOCATION.....	SEC. 837, BLK. 43, H&TC SUR.			SEC. 1094, BLK. 43, H&TC SUR.		SEC. 140, BLK. 43, H&TC SUR.	
OWNER.....	J. M. HUBER CORP.			H & L OPERATING CO.		SHAMROCK OIL & GAS CORP.	
COMPLETED.....	03/16/60			09/17/80		09/06/61	
SAMPLED.....	04/27/60			04/27/60		05/07/63	
FORMATION.....	MISS-			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8393			NOT GIVEN		10367	
WELLHEAD PRESSURE, PSIG.....	2182			2060		4795	
OPEN FLOW, MCFD.....	6300			12000		5400	
COMPONENT, MOLE PCT							
METHANE.....	94.3	-----		82.5	-----	93.9	-----
ETHANE.....	3.1	-----		8.3	-----	2.7	-----
PROPANE.....	1.0	-----		5.0	-----	1.0	-----
N-BUTANE.....	0.2	-----		0.2	-----	0.2	-----
ISOBUTANE.....	0.2	-----		0.6	-----	0.2	-----
N-PENTANE.....	TRACE	-----		0.3	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.2	-----
NITROGEN.....	0.3	-----		1.1	-----	0	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.7	-----	1.0	-----
HELIUM.....	0.10	-----		0.09	-----	0.04	-----
HEATING VALUE.....	1060	-----		1200	-----	1062	-----
SPECIFIC GRAVITY.....	0.695	-----		0.696	-----	0.604	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂ DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9757 SAMPLE 8544			INDEX 9758 SAMPLE 13206			INDEX 9759 SAMPLE 13165		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OGILTHREE		OGILTHREE			OGILTHREE		
FIELD.....	NOTLA		NOTLA			PAN PETRO		
WELL NAME.....	MARY T. MORRISON NO. 1		HOOPER NO. 1			JINES NO. 1		
LOCATION.....	SEC. 125, BLK. 43, H&C SUR.		SEC. 216, BLK. 43, H&C SUR.			SEC. 100, BLK. 13, T&NO SUR.		
OWNER.....	SHAMROCK OIL & GAS CORP.		PHILCON DEVELOPMENT CO.			COTTON PETROLEUM CORP.		
COMPLETED.....	11/07/61		11/11/71			11/07/71		
SAMPLED.....	05/07/62		05/11/72			03/02/72		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW U		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	10303		10232			8610		
WELLHEAD PRESSURE, PSIG.....	5396		2930			NOT GIVEN		
OPEN FLOW, MCFD.....	15100		7600			1300		
COMPONENT, MOLE PCT								
METHANE.....	97.3		96.4			92.7		
ETHANE.....	0.6		1.6			3.6		
PROPANE.....	0.1		0.3			1.3		
N-BUTANE.....	TRACE		TRACE			0.4		
ISOBUTANE.....	0.0		0.1			0.2		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	0.0		TRACE			0.1		
HEXANES PLUS.....	0.0		0.1			0.1		
NITROGEN.....	0.3		0.6			0.9		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.7		0.9			0.5		
HELIUM.....	0.03		0.04			0.08		
HEATING VALUE.....	999		1021			1075		
SPECIFIC GRAVITY.....	0.576		0.582			0.611		
INDEX 9760 SAMPLE 13223			INDEX 9761 SAMPLE 13306			INDEX 9762 SAMPLE 6111		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OGILTHREE		OGILTHREE			OGILTHREE		
FIELD.....	PAN PETRO		PAN PETRO			PARNELL		
WELL NAME.....	URBAN NO. 1		IRVIN NO. 1			PARNELL NO. 1		
LOCATION.....	SEC. 93, BLK. 13, T&NO SUR.		SEC. 109, BLK. 13, T&NO SUR.			SEC. 494, BLK. 43, H&C SUR.		
OWNER.....	COTTON PETROLEUM CORP.		WESTERN STATES PRODUCTION CO			MAGNOLIA PETROLEUM CO.		
COMPLETED.....	12/15/71		08/11/71			12/12/55		
SAMPLED.....	05/31/72		07/11/72			07/20/56		
FORMATION.....	PENN-MORROW U		PENN-MORROW U			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		8500			8992		
WELLHEAD PRESSURE, PSIG.....	1400		1600			2767		
OPEN FLOW, MCFD.....	10500		5300			900		
COMPONENT, MOLE PCT								
METHANE.....	88.0		92.0			85.9		
ETHANE.....	6.5		3.6			5.4		
PROPANE.....	0.7		0.5			3.1		
N-BUTANE.....	0.6		0.4			0.9		
ISOBUTANE.....	0.2		0.4			0.6		
N-PENTANE.....	0.1		0.3			0.4		
ISOPENTANE.....	0.2		0.0			0.2		
CYCLOPENTANE.....	TRACE		0.2			0.1		
HEXANES PLUS.....	0.1		0.5			0.4		
NITROGEN.....	0.9		0.6			1.9		
OXYGEN.....	TRACE		0.0			0.3		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.07			0.06		
HELIUM.....	0.12		0.07			1148		
HEATING VALUE.....	1123		1108			0.672		
SPECIFIC GRAVITY.....	0.642		0.630					
INDEX 9763 SAMPLE 8516			INDEX 9764 SAMPLE 11580			INDEX 9765 SAMPLE 11976		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OGILTHREE		OGILTHREE			OGILTHREE		
FIELD.....	PARNELL		PARSELL			PARSELL		
WELL NAME.....	LIZZIE E. PINCKARD A-1		EVA PARSELL B NO. 1			FLOWERS NO. 1		
LOCATION.....	SEC. 399, BLK. 43, H&C SUR.		SEC. 58, BLK. 43, H&C SUR.			SEC. 54, BLK. 43, H&C SUR.		
OWNER.....	SHAMROCK OIL & GAS CORP.		PAN AMERICAN PETROLEUM CORP.			MONSANTO CO.		
COMPLETED.....	11/08/61		--/--/00			--/--/00		
SAMPLED.....	04/23/62		07/16/68			07/22/69		
FORMATION.....	PENN-MORROW		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9264		11059			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	2600		2457			4730		
OPEN FLOW, MCFD.....	21000		24100			7000		
COMPONENT, MOLE PCT								
METHANE.....	96.8		97.2			94.0		
ETHANE.....	1.5		1.0			0.4		
PROPANE.....	0.3		0.1			0.1		
N-BUTANE.....	0.1		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.4		0.1			2.7		
OXYGEN.....	0.0		0.0			0.6		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.0			2.0		
HELIUM.....	0.05		0.04			0.03		
HEATING VALUE.....	1019		1005			962		
SPECIFIC GRAVITY.....	0.574		0.575			0.590		
INDEX 9766 SAMPLE 7315			INDEX 9767 SAMPLE 6992			INDEX 9768 SAMPLE 11433		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OGILTHREE		OGILTHREE			OGILTHREE		
FIELD.....	PAUL HARBAUGH		PERRYTON			PERRYTON		
WELL NAME.....	J. E. WILSON A-1		SCHNEIDER NO. 1-LT			H. C. BRILLHART NO. 1		
LOCATION.....	SEC. 45, BLK. 43, H&C SUR.		SEC. 77, BLK. 11, AHRENBECK			SEC. 925, BLK. 43, H&C SUR.		
OWNER.....	SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CO.			TEXAS PACIFIC OIL CO.		
COMPLETED.....	10/20/59		03/06/59			01/15/68		
SAMPLED.....	12/21/59		03/06/59			04/05/68		
FORMATION.....	PENN-MORROW		PENN-MORROW L			DEVO-HUNTON		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	9019		8001			9879		
WELLHEAD PRESSURE, PSIG.....	2343		2094			2182		
OPEN FLOW, MCFD.....	29000		16500			1470		
COMPONENT, MOLE PCT								
METHANE.....	84.8		90.3			82.6		
ETHANE.....	8.4		4.4			7.9		
PROPANE.....	0.2		0.3			2.8		
N-BUTANE.....	0.8		0.7			1.0		
ISOBUTANE.....	0.2		0.3			0.2		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.6		0.0			0.5		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.4			0.2		
HELIUM.....	0.1		0.0			0.17		
HEATING VALUE.....	1166		1105			1114		
SPECIFIC GRAVITY.....	0.666		0.630			0.669		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9769 SAMPLE 9679		INDEX 9770 SAMPLE 7458		INDEX 9771 SAMPLE 7528	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	OCCHILTREE	COUNTY.....	OCCHILTREE	COUNTY.....	OCCHILTREE
FIELD.....	PERRYTON NW	FIELD.....	PERRYTON S	FIELD.....	PERRYTON W
WELL NAME.....	JOE STOREY NO. 1	WELL NAME.....	HELEN ROGERS NO. 1-15	WELL NAME.....	BLACKBURN NO. 1
LOCATION.....	SEC. 52, BLK. 11W, AHRENBECK SUR	LOCATION.....	SEC. 15, BLK. 12, H&GNRR SUR	LOCATION.....	SEC. 1, BLK. 13, T&NO SUR.
OWNER.....	AMBAADOR OIL CORP.	OWNER.....	MAYFIELD OIL CO.	OWNER.....	J. H. HUBER CORP.
COMPLETED.....	10/06/64	COMPLETED.....	03/-/60	COMPLETED.....	01/06/60
SAMPLED.....	12/28/64	SAMPLED.....	03/26/60	SAMPLED.....	04/27/60
FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7877	DEPTH, FEET.....	8716	DEPTH, FEET.....	8542
WELLHEAD PRESSURE, PSIG.....	2100	WELLHEAD PRESSURE, PSIG.....	2135	WELLHEAD PRESSURE, PSIG.....	2052
OPEN FLOW, MCFD.....	14700	OPEN FLOW, MCFD.....	6693	OPEN FLOW, MCFD.....	6700
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.6	METHANE.....	95.5	METHANE.....	96.3
ETHANE.....	4.2	ETHANE.....	2.3	ETHANE.....	1.8
PROpane.....	1.8	PROpane.....	0.8	PROpane.....	0.7
N-BUTANE.....	1.0	N-BUTANE.....	0.2	N-BUTANE.....	0.1
ISOBUTANE.....	0.4	ISOBUTANE.....	0.1	ISOBUTANE.....	0.1
N-PENTANE.....	0.5	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.4	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.8	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.9	NITROGEN.....	0.3	NITROGEN.....	0.2
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.6
HELIUM.....	0.10	HELIUM.....	0.10	HELIUM.....	0.05
HEATING VALUE.....	1154	HEATING VALUE.....	1053	HEATING VALUE.....	1038
SPECIFIC GRAVITY.....	0.657	SPECIFIC GRAVITY.....	0.591	SPECIFIC GRAVITY.....	0.582
INDEX 9772 SAMPLE 15069		INDEX 9773 SAMPLE 8112		INDEX 9774 SAMPLE 17916	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	OCCHILTREE	COUNTY.....	OCCHILTREE	COUNTY.....	OCCHILTREE
FIELD.....	PERRYTON W	FIELD.....	PSHIGG NO. 1	FIELD.....	R. H. F.
WELL NAME.....	MCARTY NO. 1	WELL NAME.....	LINA 8 NO. 1	WELL NAME.....	PATTISON NO. 1-87
LOCATION.....	SEC. 86, BLK. 11, H&TG SUR.	LOCATION.....	SEC. 570, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 87, BLK. 13, T&NO SUR.
OWNER.....	H & L OPERATING CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	NATURAL GAS ANADARKO, INC.
COMPLETED.....	05/23/77	COMPLETED.....	12/19/60	COMPLETED.....	06/30/84
SAMPLED.....	08/04/77	SAMPLED.....	08/09/61	SAMPLED.....	11/26/85
FORMATION.....	PENN-MORROW	FORMATION.....	MISS-CHESTER	FORMATION.....	PENN-CLEVELAND
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	8189	DEPTH, FEET.....	9166	DEPTH, FEET.....	6913
WELLHEAD PRESSURE, PSIG.....	804	WELLHEAD PRESSURE, PSIG.....	2862	WELLHEAD PRESSURE, PSIG.....	1597
OPEN FLOW, MCFD.....	1850	OPEN FLOW, MCFD.....	1335	OPEN FLOW, MCFD.....	2350
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.3	METHANE.....	95.1	METHANE.....	81.6
ETHANE.....	3.0	ETHANE.....	2.4	ETHANE.....	4.7
PROpane.....	1.1	PROpane.....	0.8	PROpane.....	5.4
N-BUTANE.....	0.4	N-BUTANE.....	0.2	N-BUTANE.....	0.0
ISOBUTANE.....	0.1	ISOBUTANE.....	0.1	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	TRACE	N-PENTANE.....	0.6
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	2.0	NITROGEN.....	0.2	NITROGEN.....	3.7
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.5
HELIUM.....	0.08	HELIUM.....	0.10	HELIUM.....	0.18
HEATING VALUE.....	1065	HEATING VALUE.....	1047	HEATING VALUE.....	1201
SPECIFIC GRAVITY.....	0.618	SPECIFIC GRAVITY.....	0.591	SPECIFIC GRAVITY.....	0.720
INDEX 9775 SAMPLE 17077		INDEX 9776 SAMPLE 15312		INDEX 9777 SAMPLE 6767	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	OCCHILTREE	COUNTY.....	OCCHILTREE	COUNTY.....	OCCHILTREE
FIELD.....	SCROGGS	FIELD.....	SHARE	FIELD.....	SPOONY
WELL NAME.....	SCROGGS NO. 1-21	WELL NAME.....	DAVOL NO. 1	WELL NAME.....	HIGHLAND NO. 1
LOCATION.....	SEC. 21, BLK. 45, H&TC SUR.	LOCATION.....	SEC. 22, BLK. 4, GH&H SUR.	LOCATION.....	WILLMUTH SUR
OWNER.....	NATURAL GAS ANADARKO, INC.	OWNER.....	KENNEDY & MITCHELL, INC.	OWNER.....	HORIZON OIL & GAS CO.
COMPLETED.....	09/02/82	COMPLETED.....	08/25/77	COMPLETED.....	10/01/57
SAMPLED.....	09/22/83	SAMPLED.....	06/26/77	SAMPLED.....	07/18/58
FORMATION.....	MISS-CHESTER	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7583	DEPTH, FEET.....	7488	DEPTH, FEET.....	6792
WELLHEAD PRESSURE, PSIG.....	801	WELLHEAD PRESSURE, PSIG.....	800	WELLHEAD PRESSURE, PSIG.....	1205
OPEN FLOW, MCFD.....	1520	OPEN FLOW, MCFD.....	450	OPEN FLOW, MCFD.....	5800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	84.1	METHANE.....	89.9	METHANE.....	96.3
ETHANE.....	4.1	ETHANE.....	2.9	ETHANE.....	2.0
PROpane.....	4.1	PROpane.....	2.2	PROpane.....	0.6
N-BUTANE.....	1.5	N-BUTANE.....	0.7	N-BUTANE.....	0.2
ISOBUTANE.....	0.1	ISOBUTANE.....	0.3	ISOBUTANE.....	TRACE
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	TRACE
ISOPENTANE.....	0.8	ISOPENTANE.....	0.3	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	2.3	NITROGEN.....	0.5	NITROGEN.....	0.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.3	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.2
HELIUM.....	0.15	HELIUM.....	0.04	HELIUM.....	0.10
HEATING VALUE.....	1178	HEATING VALUE.....	1130	HEATING VALUE.....	1047
SPECIFIC GRAVITY.....	0.692	SPECIFIC GRAVITY.....	0.643	SPECIFIC GRAVITY.....	0.582
INDEX 9778 SAMPLE 16391		INDEX 9779 SAMPLE 17587		INDEX 9780 SAMPLE 16247	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	OCCHILTREE	COUNTY.....	OCCHILTREE	COUNTY.....	OCCHILTREE
FIELD.....	TURNER SE	FIELD.....	TURNER SE	FIELD.....	WAKA W
WELL NAME.....	BENNY NO. 1	WELL NAME.....	MEKEEL NO. 1	WELL NAME.....	ARCHER-DENDY NO. 1
LOCATION.....	SEC. 404, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 303, BLK. 43, H&TC SUR.	LOCATION.....	SEC. 25, BLK. 41, T&NO SUR.
OWNER.....	NATURAL GAS ANADARKO, INC.	OWNER.....	TKO PRODUCTION CORP.	OWNER.....	COURSON OIL & GAS, INC.
COMPLETED.....	05/08/81	COMPLETED.....	10/20/84	COMPLETED.....	12/31/80
SAMPLED.....	12/02/81	SAMPLED.....	02/12/85	SAMPLED.....	04/28/81
FORMATION.....	PENN-CLEVELAND	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	7312	DEPTH, FEET.....	9210	DEPTH, FEET.....	7740
WELLHEAD PRESSURE, PSIG.....	1790	WELLHEAD PRESSURE, PSIG.....	1675	WELLHEAD PRESSURE, PSIG.....	1799
OPEN FLOW, MCFD.....	2010	OPEN FLOW, MCFD.....	720	OPEN FLOW, MCFD.....	555
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.5	METHANE.....	83.4	METHANE.....	90.7
ETHANE.....	6.0	ETHANE.....	4.0	ETHANE.....	4.3
PROpane.....	0.7	PROpane.....	1.7	PROpane.....	2.1
N-BUTANE.....	0.7	N-BUTANE.....	1.3	N-BUTANE.....	0.5
ISOBUTANE.....	0.2	ISOBUTANE.....	0.4	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.5	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	1.3	NITROGEN.....	0.6	NITROGEN.....	1.4
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.3
HELIUM.....	0.07	HELIUM.....	0.06	HELIUM.....	0.12
HEATING VALUE.....	1120	HEATING VALUE.....	1091	HEATING VALUE.....	1091
SPECIFIC GRAVITY.....	0.647	SPECIFIC GRAVITY.....	0.696	SPECIFIC GRAVITY.....	0.624

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX		9781	INDEX		9782	INDEX		9783
SAMPLE		5683	SAMPLE		5684	SAMPLE		6255
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OGCHILTREE		OGCHILTREE			OGCHILTREE		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	S. P. DANIEL A NO. 1		S. P. DANIEL A			TERESA WRIGHT NO. 1		
LOCATION.....	SEC. 139, BLK. 4T, T&NO SUR.		SEC. 139, BLK. 4T, T&NO SUR.			SEC. 3, BLK. 13, T&NO SUR.		
OWNER.....	TEXACO CO.		TEXACO CO.			SUN OIL CO.		
COMPLETED.....	07/01/54		07/01/54			01/10/57		
SAMPLED.....	09/03/54		09/03/54			02/19/57		
FORMATION.....	PENN-ATOKA		PENN-MORROW			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	7342		7550			8672		
WELLHEAD PRESSURE, PSIG.....	1796		2129			2000		
OPEN FLOW, MCFD.....	4390		4750			33000		
COMPONENT, MOLE PCT								
METHANE.....	85.8		86.7			87.3		
ETHANE.....	7.3		7.2			6.0		
PROANE.....	3.3		2.9			3.2		
N-BUTANE.....	0.9		0.7			1.1		
ISOBUTANE.....	0.3		0.2			0.6		
N-PENTANE.....	0.2		0.1			0.3		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.3		0.3			0.3		
NITROGEN.....	1.0		1.1			0.4		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.5		
HELIUM.....	0.08		0.08			0.05		
HEATING VALUE.....	1163		1173			1175		
SPECIFIC GRAVITY.....	0.664		0.657			0.667		
INDEX		9784	INDEX		9785	INDEX		9786
SAMPLE		15295	SAMPLE		13487	SAMPLE		13494
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OGCHILTREE		OFFSHORE-OCS			OFFSHORE-OCS		
FIELD.....	WYATT		BRAZOS, BLK. 538L			HIGH ISLAND BLK. 14-L		
WELL NAME.....	LESLIE NO. 1		NO. A1			NO. 1		
LOCATION.....	SEC. 134, BLK. 43, H&TC SUR.		NOT GIVEN			NOT GIVEN		
OWNER.....	HORIZON OIL & GAS CO.		TEXACO INC.			SUPERIOR OIL CO.		
COMPLETED.....	10/23/77		12/04/72			11/30/71		
SAMPLED.....	05/30/78		MIOC-6000 FT. SAND			12/20/72		
FORMATION.....	PENN-MORROW		220			MIOC---		
GEOLOGIC PROVINCE CODE.....	360		220			220		
DEPTH, FEET.....	10072		7059			9426		
WELLHEAD PRESSURE, PSIG.....	3523		2220			3590		
OPEN FLOW, MCFD.....	2800		NOT GIVEN			14700		
COMPONENT, MOLE PCT								
METHANE.....	22.9		94.9			94.5		
ETHANE.....	16.6		1.5			3.1		
PROANE.....	27.0		0.6			0.8		
N-BUTANE.....	14.6		0.2			0.2		
ISOBUTANE.....	4.7		0.4			0.3		
N-PENTANE.....	3.8		0.2			0.1		
ISOPENTANE.....	5.3		TRACE			TRACE		
CYCLOPENTANE.....	0.4		0.1			TRACE		
HEXANES PLUS.....	2.3		0.4			0.1		
NITROGEN.....	0.0		1.5			0.4		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.3			0.5		
HELIUM.....	TRACE		0.01			TRACE		
HEATING VALUE.....	2471		1057			1060		
SPECIFIC GRAVITY.....	1.477		0.602			0.596		
INDEX		9787	INDEX		9788	INDEX		9789
SAMPLE		13495	SAMPLE		13750	SAMPLE		12295
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OFFSHORE-OCS		OFFSHORE-OCS			OFFSHORE-OCS		
FIELD.....	HIGH ISLAND BLK. 14-L		HIGH ISLAND BLK. 140			HIGH ISLAND BLK. 140-L		
WELL NAME.....	NO. 1		NO. C-1			NO. B-1		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	SUPERIOR OIL CO.		CHEVRON OIL CO.			CHEVRON OIL CO.		
COMPLETED.....	11/30/71		10/29/71			10/07/68		
SAMPLED.....	12/20/72		10/09/73			06/14/70		
FORMATION.....	MIOC---		MIOC-M-20			OLIG-FRIO AMP		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	10077		6508			7375		
WELLHEAD PRESSURE, PSIG.....	5405		2600			2775		
OPEN FLOW, MCFD.....	122000		32000			33000		
COMPONENT, MOLE PCT								
METHANE.....	93.0		94.7			94.7		
ETHANE.....	3.1		2.6			2.6		
PROANE.....	0.8		0.1			0.8		
N-BUTANE.....	0.1		0.1			0.2		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	TRACE		0.1			TRACE		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.3		
NITROGEN.....	1.8		0.6			0.6		
OXYGEN.....	0.3		TRACE			0.1		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.3			0.3		
HELIUM.....	TRACE		0.01			0.01		
HEATING VALUE.....	1037		1071			1071		
SPECIFIC GRAVITY.....	0.599		0.598			0.603		
INDEX		9790	INDEX		9791	INDEX		9792
SAMPLE		10900	SAMPLE		13044	SAMPLE		13045
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OFFSHORE-OCS		OFFSHORE-OCS			OFFSHORE-OCS		
FIELD.....	HIGH ISLAND BLK. 160-L		HIGH ISLAND BLK. 52-L			HIGH ISLAND BLK. 52-L		
WELL NAME.....	UNIT NO. 60-1		FED. NO. A6UT			FED. NO. A-6		
LOCATION.....	DE W-4		NOT GIVEN			NOT GIVEN		
OWNER.....	SHELL OIL CO., ET AL.		CHEVRON OIL CO.			CHEVRON OIL CO.		
COMPLETED.....	06/23/61		10/29/69			10/29/69		
SAMPLED.....	03/07/67		09/28/71			09/28/71		
FORMATION.....	MIOC-F		OLIG-FRIO M-54C			OLIG-FRIO M-56C		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8444		8530			9728		
WELLHEAD PRESSURE, PSIG.....	3365		2975			3000		
OPEN FLOW, MCFD.....	43500		11500			43000		
COMPONENT, MOLE PCT								
METHANE.....	94.2		92.6			93.2		
ETHANE.....	2.5		3.4			3.4		
PROANE.....	0.6		1.4			1.2		
N-BUTANE.....	0.2		0.4			0.4		
ISOBUTANE.....	0.3		0.6			0.4		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.4		0.5			0.4		
NITROGEN.....	0.5		0.3			0.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.4			0.4		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	1064		1111			1100		
SPECIFIC GRAVITY.....	0.608		0.625			0.618		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9793 SAMPLE 12359			INDEX 9794 SAMPLE 17865			INDEX 9795 SAMPLE 17866		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OFFSHORE-OCS		OFFSHORE-OCS			OFFSHORE-OCS		
FIELD.....	HIGH ISLAND E BLK. 129		MATAGORDA ISLAND			MATAGORDA ISLAND		
WELL NAME.....	OCS-6-4550 WELL NO. 2		OCS-6-4550 NO. A-1			OCS-6-4550 NO. A-2		
LOCATION.....	NOT GIVEN		BLOCK 712-L			BLOCK 712-L		
OWNER.....	SUN OIL CO.		TENNECO EXP. & PROD. CO.			TENNECO EXP. & PROD. CO.		
COMPLETED.....	09/12/85		03/09/84			03/18/84		
SAMPLED.....	08/13/70		10/11/85			10/11/85		
FORMATION.....	MIOC-J SAND		MIOC-MP-B1			MIOC-MP-B1		
GEOLOGIC PROVINCE CODE.....	220		955			955		
DEPTH, FEET.....	11208		9632			9477		
WELLHEAD PRESSURE, PSIG.....	8450		3416			3452		
OPEN FLOW, MCFD.....	82596		6855			6855		
COMPONENT, MOLE PCT.....								
METHANE.....	93.8		95.1			95.7		
ETHANE.....	2.9		2.0			1.9		
PROPANE.....	0.9		0.4			0.4		
N-BUTANE.....	0.2		0.2			0.1		
ISOBUTANE.....	0.3		0.1			0.1		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	0.4		0.7			0.6		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		1.0			1.0		
HELIUM.....	TRACE		0.02			TRACE		
HEATING VALUE.....	1052		1042			1039		
SPECIFIC GRAVITY.....	0.607		0.596			0.591		
INDEX 9796 SAMPLE 17212			INDEX 9797 SAMPLE 16717			INDEX 9798 SAMPLE 15875		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OFFSHORE-OCS		OLDHAM			OLDHAM		
FIELD.....	OCS-6-4557		HRYPHOR			LAMBERT		
WELL NAME.....	NO. 8-1		AURORA NO. 2			JAY TAYLOR NO. A-1		
LOCATION.....	BR-1 BLK. 578		EA. 316, ST. CAP. LAND SUR.			SEC. 82, BLK. 6MS, WMD LEE SUR.		
OWNER.....	SUPERIOR OIL CO.		BAKER & TAYLOR DRILLING CO.			BAKER & TAYLOR DRILLING CO.		
COMPLETED.....	06/23/82		04/28/82			01/13/79		
SAMPLED.....	09/11/85		11/06/82			11/09/79		
FORMATION.....	MIOC-B-BIG H		PERM-GRANITE WASH			PERM-GRANITE WASH		
GEOLOGIC PROVINCE CODE.....	956		435			435		
DEPTH, FEET.....	11320		7168			6776		
WELLHEAD PRESSURE, PSIG.....	12165		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	14411		150			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	95.3		25.8			33.6		
ETHANE.....	1.6		12.0			10.6		
PROPANE.....	0.3		22.2			14.8		
N-BUTANE.....	0.1		7.0			1.9		
ISOBUTANE.....	TRACE		1.1			1.0		
N-PENTANE.....	TRACE		2.2			0.5		
ISOPENTANE.....	TRACE		0.4			0.1		
CYCLOPENTANE.....	TRACE		0.6			0.2		
HEXANES PLUS.....	0.1		24.8			32.8		
NITROGEN.....	0.9		TRACE			TRACE		
OXYGEN.....	0.0		0.2			0.2		
ARGON.....	TRACE		0.1			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.7		0.32			0.42		
HELIUM.....	TRACE		1583			1181		
HEATING VALUE.....	1010		1.180			1.013		
SPECIFIC GRAVITY.....	0.590							
INDEX 9799 SAMPLE 16636			INDEX 9800 SAMPLE 16637			INDEX 9801 SAMPLE 16649		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OLDHAM		OLDHAM			OLDHAM		
FIELD.....	LAMBERT I		LAMBERT I			LAMBERT I		
WELL NAME.....	JAY TAYLOR NO. A-1 (OIL WELL)		JAY TAYLOR NO. B-1 (OIL WELL)			JAY TAYLOR D-1		
LOCATION.....	SEC. 82, BLK. 6MS, WMD LEE SUR.		SEC. 82, BLK. 6MS, WMD LEE SUR.			SEC. 82, BLK. 6MS, WMD LEE SUR.		
OWNER.....	BAKER & TAYLOR DRILLING CO.		BAKER & TAYLOR DRILLING CO.			BAKER & TAYLOR DRILLING CO.		
COMPLETED.....	03/08/77		02/22/79			09/20/82		
SAMPLED.....	09/13/82		09/13/82			09/20/82		
FORMATION.....	PENN-GRANITE WASH		PENN-GRANITE WASH			PENN-GRANITE WASH		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	6776		6706			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	21.5		26.4			13.7		
ETHANE.....	12.7		8.3			7.4		
PROPANE.....	25.2		15.3			20.0		
N-BUTANE.....	8.7		6.3			8.6		
ISOBUTANE.....	3.8		3.0			3.3		
N-PENTANE.....	1.4		2.6			1.7		
ISOPENTANE.....	2.4		1.2			0.1		
CYCLOPENTANE.....	0.8		1.5			0.2		
HEXANES PLUS.....	1.0		34.0			34.8		
NITROGEN.....	16.2		0.1			TRACE		
OXYGEN.....	TRACE		0.2			0.1		
ARGON.....	0.1		0.2			6.7		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		TRACE			0.0		
CARBON DIOXIDE.....	TRACE		0.44			2.03		
HELIUM.....	0.15		1.0			13.8		
HEATING VALUE.....	1784		1.144			1.137		
SPECIFIC GRAVITY.....	1.210							
INDEX 9802 SAMPLE 16715			INDEX 9803 SAMPLE 6331			INDEX 9804 SAMPLE 6425		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OLDHAM		OLDHAM			OLDHAM		
FIELD.....	LAMBERT II		MANARTE			MANARTE		
WELL NAME.....	MANSEL D NO. A-2		ALAMOSA RANCH NO. A-1			ALAMOSA RANCH B NO. 1		
LOCATION.....	EA. 310 BLK H-3 ST CAP LAND		SEC. 41, BLK. H-3, CL SUR.			SEC. 13, BLK. H-3, CL SUR.		
OWNER.....	BAKER & TAYLOR DRILLING CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	10/17/79		05/13/57			09/10/57		
SAMPLED.....	12/06/82		05/28/57			10/04/57		
FORMATION.....	PENN-MISSOURIAN LIMESTONE		PENN-VIRGIL L			PENN-MISSOURIAN L		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	6075		6101			7122		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			140		
OPEN FLOW, MCFD.....	43		40			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	27.3		30.2			19.9		
ETHANE.....	9.5		12.3			9.7		
PROPANE.....	22.7		21.9			21.7		
N-BUTANE.....	9.7		7.3			8.7		
ISOBUTANE.....	3.5		3.3			4.7		
N-PENTANE.....	2.7		1.1			1.4		
ISOPENTANE.....	1.7		1.5			2.4		
CYCLOPENTANE.....	1.7		0.5			0.3		
HEXANES PLUS.....	2.1		0.7			0.9		
NITROGEN.....	17.0		20.7			27.9		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.3		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.5			0.0		
CARBON DIOXIDE.....	0.2		0.5			1.4		
HELIUM.....	0.16		0.16			0.30		
HEATING VALUE.....	1394		1.159			1617		
SPECIFIC GRAVITY.....	1.302					1.257		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9805			INDEX 9806			INDEX 9807		
SAMPLE 5578			SAMPLE 8059			SAMPLE 9351		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OLDHAM		OLDHAM			OLDHAM		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIVINS NO. A-111		BIVINS NO. 1			BIVINS D NO. 3		
LOCATION.....	SEC. 22, BLK. 2, G&M SUR.		SEC. 69, BLK. 2, G&M SUR.			SEC. 47, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		BIVINS INTERESTS			AMARILLO OIL CO.		
COMPLETED.....	12/07/53		07/07/61			04/06/64		
SAMPLED.....	12/11/53		07/12/61			05/20/64		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	3095		2716			2956		
WELLHEAD PRESSURE, PSIG.....	355		NOT GIVEN			296		
OPEN FLOW, MCFD.....	12800		8500			18000		
COMPONENT, MOLE PCT								
METHANE.....	70.0		70.5			70.6		
ETHANE.....	4.9		5.2			5.1		
PROPANE.....	2.7		2.7			2.4		
N-BUTANE.....	0.8		0.8			0.7		
ISOBUTANE.....	0.2		0.5			0.3		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.1		0.2			0.4		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	18.8		17.5			18.1		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.7			0.7		
HELIUM.....	1.31		1.20			1.28		
HEATING VALUE.....	924		948			933		
SPECIFIC GRAVITY.....	0.708		0.714			0.710		

INDEX 9808			INDEX 9809			INDEX 9810		
SAMPLE 9561			SAMPLE 11893			SAMPLE 16714		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OLDHAM		OLDHAM			OLDHAM		
FIELD.....	PANHANDLE W		PANHANDLE W			SUNDANCE		
WELL NAME.....	CHANNING NO. 1		BIVINS A-111			PARKER CREEK NO. 1		
LOCATION.....	SEC. 69, BLK. 2, G&M SUR.		SEC. 260, BLK. 2, G&M SUR.			LEA, 516 ST. CAP. LAND SUR.		
OWNER.....	BIVINS INTERESTS		COLORADO INTERSTATE GAS CO.			BAKER & TAYLOR DRILLING CO.		
COMPLETED.....	--/--/00		12/07/53			09/02/81		
SAMPLED.....	09/18/64		05/21/69			12/06/82		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-GRANITE WASH U		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	NOT GIVEN		3095			7020		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		12800			146		
COMPONENT, MOLE PCT								
METHANE.....	69.9		68.3			15.1		
ETHANE.....	5.0		5.0			8.2		
PROPANE.....	2.7		2.7			24.9		
N-BUTANE.....	0.9		0.9			15.8		
ISOBUTANE.....	0.3		0.3			6.1		
N-PENTANE.....	0.1		0.1			3.6		
ISOPENTANE.....	0.3		0.1			8.2		
CYCLOPENTANE.....	0.1		0.1			1.6		
HEXANES PLUS.....	0.1		0.1			2.6		
NITROGEN.....	18.8		20.3			13.5		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.5			TRACE		
HELIUM.....	1.24		1.27			0.18		
HEATING VALUE.....	934		918			2383		
SPECIFIC GRAVITY.....	0.715		0.721			1.553		

INDEX 9811			INDEX 9812			INDEX 9813		
SAMPLE 6978			SAMPLE 7226			SAMPLE 7242		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OLDHAM		OLDHAM			OLDHAM		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	TAYLOR NO. 1-H		FULTON NO. 1A-84			FULTON RANCH 1A-84		
LOCATION.....	SEC. 41		SEC. 84, FULTON RANCH SUBDIV			SEC. 84, FULTON RANCH SUBDIV		
OWNER.....	HUMBLE OIL & REFINING CO.		SHELL OIL CO. & ATLANTIC REF.			SHELL OIL CO. & ATLANTIC REF.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	02/21/59		10/01/59			10/03/59		
FORMATION.....	PERM-PEASE RIVER		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	1058		NOT GIVEN			3680		
WELLHEAD PRESSURE, PSIG.....	300		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			7600		
COMPONENT, MOLE PCT								
METHANE.....	0.3		40.2			38.7		
ETHANE.....	0.1		3.1			3.1		
PROPANE.....	0.1		2.1			1.7		
N-BUTANE.....	0.0		0.6			0.6		
ISOBUTANE.....	0.0		0.6			0.4		
N-PENTANE.....	0.0		TRACE			TRACE		
ISOPENTANE.....	0.0		TRACE			TRACE		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	0.0		0.1			TRACE		
NITROGEN.....	99.2		49.4			52.1		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.1		0.1			0.2		
HYDROGEN.....	0.2		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.2			0.7		
HELIUM.....	0.10		2.70			2.30		
HEATING VALUE.....	7		599			534		
SPECIFIC GRAVITY.....	0.965		0.823			0.820		

INDEX 9814			INDEX 9815			INDEX 9816		
SAMPLE 12578			SAMPLE 12579			SAMPLE 12612		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	OLDHAM		OLDHAM			OLDHAM		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	BRAVO NO. 1		BRAVO NO. 1			BRAVO NO. 1		
LOCATION.....	SEC. 41, BLK. 5, GC&FRR SUR.		SEC. 41, BLK. 5, GC&FRR SUR.			SEC. 41, BLK. 5, GC&FRR SUR.		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	01/03/71		01/03/71			01/03/71		
SAMPLED.....	12/16/70		12/16/70			12/21/70		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			2200		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	1.0		1.0			1.1		
ETHANE.....	0.0		0.1			0.0		
PROPANE.....	TRACE		TRACE			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	98.8		98.7			98.6		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			TRACE		
HELIUM.....	0.08		0.07			0.07		
HEATING VALUE.....	10		10			14		
SPECIFIC GRAVITY.....	0.963		0.963			0.963		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9817 SAMPLE 16551		INDEX 9818 SAMPLE 17372		INDEX 9819 SAMPLE 11632	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	OLDHAM	COUNTY.....	OLDHAM	COUNTY.....	ORANGE
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	BRIDGE CITY
WELL NAME.....	OLD HIGH NO. 1	WELL NAME.....	RAFTER O RANCH NO. 1-28	WELL NAME.....	H. J. L. STARK B NCT NO. 1
LOCATION.....	SEC. 76, BLK. GM-5 WMD LEE SR	LOCATION.....	SEC. 28, BLK. 5, CC&SF SUR.	LOCATION.....	J. H. FORSYTH SUR. A-79
OWNER.....	BAKER & TAYLOR DRILLING CO.	OWNER.....	BAKER & TAYLOR DRILLING CO.	OWNER.....	TEXACO INC.
COMPLETED.....	--/7/80	COMPLETED.....	--/7/84	COMPLETED.....	03/29/67
SAMPLED.....	06/22/82	SAMPLED.....	08/12/84	SAMPLED.....	08/19/68
FORMATION.....	PENN-CANYON	FORMATION.....	PENN-CANYON LS	FORMATION.....	OLIG-VICKSBURG
GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	5675	DEPTH, FEET.....	6412	DEPTH, FEET.....	10136
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	870	WELLHEAD PRESSURE, PSIG.....	5980
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	3000	OPEN FLOW, MCFD.....	44800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	12.0	METHANE.....	21.4	METHANE.....	82.6
ETHANE.....	2.1	ETHANE.....	3.6	ETHANE.....	7.7
PROPANE.....	1.9	PROPANE.....	2.2	PROPANE.....	4.9
N-BUTANE.....	0.7	N-BUTANE.....	0.6	N-BUTANE.....	1.4
ISOBUTANE.....	0.5	ISOBUTANE.....	0.3	ISOBUTANE.....	1.1
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.5
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.6
NITROGEN.....	54.7	NITROGEN.....	69.6	NITROGEN.....	0.1
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.4	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	24.9	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.5
HELIUM.....	1.58	HELIUM.....	1.20	HELIUM.....	TRACE
HEATING VALUE.....	302	HEATING VALUE.....	387	HEATING VALUE.....	1259
SPECIFIC GRAVITY.....	1.092	SPECIFIC GRAVITY.....	0.905	SPECIFIC GRAVITY.....	0.718
INDEX 9820 SAMPLE 13575		INDEX 9821 SAMPLE 4308		INDEX 9822 SAMPLE 8126	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ORANGE	COUNTY.....	ORANGE	COUNTY.....	PALO PINTO
FIELD.....	TEN MILE CREEK	FIELD.....	VIDOR DOME	FIELD.....	BRAD SW
WELL NAME.....	MYER FEE GAS UNIT 1 NO. 1	WELL NAME.....	MILLER-VIDOR LAND CO. NO. 1	WELL NAME.....	HART NO. 1
LOCATION.....	SEC. 4, ANN. A-MYER SUR., A-101	LOCATION.....	J. H. SWISHER SUR. NO. 1	LOCATION.....	SEC. 29, BLK. 3, TP SUR.
OWNER.....	ATLANTIC RICHFIELD CO.	OWNER.....	GULF OIL CORP.	OWNER.....	LONG STAR GAS CO.
COMPLETED.....	01/12/71	COMPLETED.....	04/14/47	COMPLETED.....	10/27/27
SAMPLED.....	04/09/73	SAMPLED.....	05/22/47	SAMPLED.....	08/08/61
FORMATION.....	OLIG-MODOSARIA	FORMATION.....	OLIG-M	FORMATION.....	PENN-MARBLE FALLS
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	7084	DEPTH, FEET.....	6932	DEPTH, FEET.....	3890
WELLHEAD PRESSURE, PSIG.....	2192	WELLHEAD PRESSURE, PSIG.....	2600	WELLHEAD PRESSURE, PSIG.....	935
OPEN FLOW, MCFD.....	25600	OPEN FLOW, MCFD.....	2200	OPEN FLOW, MCFD.....	1903
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.0	METHANE.....	91.7	METHANE.....	78.9
ETHANE.....	2.1	ETHANE.....	7.7	ETHANE.....	10.6
PROPANE.....	0.4	PROPANE.....	---	PROPANE.....	4.2
N-BUTANE.....	TRACE	N-BUTANE.....	---	N-BUTANE.....	1.1
ISOBUTANE.....	0.4	ISOBUTANE.....	---	ISOBUTANE.....	0.7
N-PENTANE.....	TRACE	N-PENTANE.....	---	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	---	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	---	HEXANES PLUS.....	0.2
NITROGEN.....	0.5	NITROGEN.....	0.1	NITROGEN.....	3.2
OXYGEN.....	0.0	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.10
HEATING VALUE.....	1051	HEATING VALUE.....	1067	HEATING VALUE.....	1195
SPECIFIC GRAVITY.....	0.587	SPECIFIC GRAVITY.....	0.597	SPECIFIC GRAVITY.....	0.708
INDEX 9823 SAMPLE 8128		INDEX 9824 SAMPLE 12736		INDEX 9825 SAMPLE 15071	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO
FIELD.....	BRAD SW	FIELD.....	BRAD SW	FIELD.....	CAMILLE
WELL NAME.....	S. B. HART NO. 1	WELL NAME.....	B. S. SLEMONS NO. 1	WELL NAME.....	BRANNON NO. 1
LOCATION.....	SEC. 43, BLK. 3, TP SUR.	LOCATION.....	NOT GIVEN	LOCATION.....	LEXIS P. COOKE SUR. A-122
OWNER.....	PAN AMERICAN PETROLEUM CORP.	OWNER.....	CLINTON OIL CO.	OWNER.....	W. L. PENNINGTON
COMPLETED.....	08/07/59	COMPLETED.....	02/09/59	COMPLETED.....	05/20/76
SAMPLED.....	08/08/61	SAMPLED.....	03/08/61	SAMPLED.....	08/10/77
FORMATION.....	PENN-CONG. & BIG SALINE	FORMATION.....	PENN-BIG SALINE	FORMATION.....	PENN-CONGLOMERATE
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	3515	DEPTH, FEET.....	3600	DEPTH, FEET.....	3670
WELLHEAD PRESSURE, PSIG.....	950	WELLHEAD PRESSURE, PSIG.....	380	WELLHEAD PRESSURE, PSIG.....	650
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	80
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	79.1	METHANE.....	76.9	METHANE.....	83.5
ETHANE.....	10.2	ETHANE.....	10.1	ETHANE.....	8.9
PROPANE.....	4.2	PROPANE.....	5.1	PROPANE.....	2.5
N-BUTANE.....	1.2	N-BUTANE.....	0.2	N-BUTANE.....	0.4
ISOBUTANE.....	0.7	ISOBUTANE.....	0.8	ISOBUTANE.....	0.2
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.5	ISOPENTANE.....	0.6	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2
NITROGEN.....	0.6	NITROGEN.....	4.4	NITROGEN.....	3.4
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.4
HELIUM.....	0.10	HELIUM.....	0.10	HELIUM.....	0.12
HEATING VALUE.....	1189	HEATING VALUE.....	1213	HEATING VALUE.....	1117
SPECIFIC GRAVITY.....	0.707	SPECIFIC GRAVITY.....	0.731	SPECIFIC GRAVITY.....	0.663
INDEX 9826 SAMPLE 6615		INDEX 9827 SAMPLE 8129		INDEX 9828 SAMPLE 12646	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO
FIELD.....	EMORY	FIELD.....	EMORY	FIELD.....	EMORY
WELL NAME.....	S. B. CANTEY ESTATE NO. 1	WELL NAME.....	CANTEY C-4	WELL NAME.....	MONTY WATSON CONE NO. 1
LOCATION.....	SEC. 19, BLK. 2, T&P RR SUR.	LOCATION.....	SEC. 24, BLK. 3, TP SUR.	LOCATION.....	NOT GIVEN
OWNER.....	TEXOMA PRODUCTION CO.	OWNER.....	TEXOMA PRODUCTION CO.	OWNER.....	RIODE OIL CO.
COMPLETED.....	05/15/58	COMPLETED.....	10/24/59	COMPLETED.....	12/21/69
SAMPLED.....	06/02/58	SAMPLED.....	08/08/61	SAMPLED.....	01/22/71
FORMATION.....	PENN-LAKE	FORMATION.....	PENN-LAKE	FORMATION.....	PENN-BIG SALINE
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	3673	DEPTH, FEET.....	3738	DEPTH, FEET.....	3738
WELLHEAD PRESSURE, PSIG.....	1650	WELLHEAD PRESSURE, PSIG.....	1220	WELLHEAD PRESSURE, PSIG.....	1600
OPEN FLOW, MCFD.....	7500	OPEN FLOW, MCFD.....	4400	OPEN FLOW, MCFD.....	1920
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	80.8	METHANE.....	80.8	METHANE.....	76.3
ETHANE.....	10.1	ETHANE.....	10.1	ETHANE.....	9.4
PROPANE.....	3.6	PROPANE.....	3.6	PROPANE.....	3.9
N-BUTANE.....	0.7	N-BUTANE.....	0.8	N-BUTANE.....	0.7
ISOBUTANE.....	0.7	ISOBUTANE.....	0.6	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	3.2	NITROGEN.....	3.0	NITROGEN.....	7.0
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.9
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.10	HELIUM.....	0.10	HELIUM.....	0.13
HEATING VALUE.....	1158	HEATING VALUE.....	1171	HEATING VALUE.....	1114
SPECIFIC GRAVITY.....	0.684	SPECIFIC GRAVITY.....	0.691	SPECIFIC GRAVITY.....	0.708

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE DELAY IN GAS DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9829 12647			INDEX SAMPLE	9830 12636			INDEX SAMPLE	9831 7208
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	PALO PINTO			COUNTY.....	PALO PINTO			COUNTY.....	PALO PINTO		
FIELD.....	EMORY			FIELD.....	GRAFORD			FIELD.....	HINKSON RANCH		
WELL NAME.....	STATE OF TEXAS UNIT NO. 1			WELL NAME.....	R. H. GAULDIN NO. 3			WELL NAME.....	R. D. HINKSON NO. 1		
LOCATION.....	NOT GIVEN			LOCATION.....	4 MI. NW GRAFORD			LOCATION.....	SEC. 71, BLK. 3, TP&RR SUR.		
OWNER.....	RIDDLE OIL CO.			OWNER.....	GEORGE MITCHELL & ASSOC. INC			OWNER.....	TEXOMA PRODUCTION CO.		
COMPLETED.....	05/05/70			COMPLETED.....	7/-/70			COMPLETED.....	07/11/58		
SAMPLED.....	01/22/71			SAMPLED.....	01/20/71			SAMPLED.....	09/04/59		
FORMATION.....	PENN-BIG SALINE			FORMATION.....	PENN-ATOKA			FORMATION.....	PENN-BIG SALINE		
GEOLOGIC PROVINCE CODE.....	425			GEOLOGIC PROVINCE CODE.....	425			GEOLOGIC PROVINCE CODE.....	425		
DEPTH, FEET.....	3683			DEPTH, FEET.....	4147			DEPTH, FEET.....	3310		
WELLHEAD PRESSURE, PSIG.....	1220			WELLHEAD PRESSURE, PSIG.....	1405			WELLHEAD PRESSURE, PSIG.....	1103		
OPEN FLOW, MCFD.....	1486			OPEN FLOW, MCFD.....	722			OPEN FLOW, MCFD.....	7400		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	80.0			METHANE.....	79.7			METHANE.....	79.8		
ETHANE.....	9.3			ETHANE.....	9.0			ETHANE.....	10.0		
PROPANE.....	4.4			PROPANE.....	4.1			PROPANE.....	3.5		
N-BUTANE.....	0.9			N-BUTANE.....	0.9			N-BUTANE.....	0.9		
ISOBUTANE.....	0.8			ISOBUTANE.....	0.6			ISOBUTANE.....	0.5		
N-PENTANE.....	0.2			N-PENTANE.....	0.2			N-PENTANE.....	TRACE		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.1			ISOPENTANE.....	0.1		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.2			HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.2		
NITROGEN.....	3.4			NITROGEN.....	4.4			NITROGEN.....	4.1		
OXYGEN.....	0.0			OXYGEN.....	0.3			OXYGEN.....	TRACE		
ARGON.....	0.0			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	0.0			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.1		
HELIUM.....	0.10			HELIUM.....	0.13			HELIUM.....	0.10		
HEATING VALUE.....	1188			HEATING VALUE.....	1163			HEATING VALUE.....	1163		
SPECIFIC GRAVITY.....	0.704			SPECIFIC GRAVITY.....	0.698			SPECIFIC GRAVITY.....	0.693		
		INDEX SAMPLE	9832 10544			INDEX SAMPLE	9833 640			INDEX SAMPLE	9834 643
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	PALO PINTO			COUNTY.....	PALO PINTO			COUNTY.....	PALO PINTO		
FIELD.....	JOHNSTON GAP			FIELD.....	MINERAL WELLS			FIELD.....	MINERAL WELLS		
WELL NAME.....	T. D. WILLIAMS NO. 1			WELL NAME.....	WHARTON NO. 1			WELL NAME.....	KEOWN NO. 9		
LOCATION.....	SEC. 58, BLK. 3, T&P RR SUR.			LOCATION.....	SEC. 40 UPHAM			LOCATION.....	NOT GIVEN		
OWNER.....	E. C. JOHNSTON CO., ET AL.			OWNER.....	D. C. UPHAM			OWNER.....	LONG STAR GAS CO.		
COMPLETED.....	09/12/65			COMPLETED.....	10/-/70			COMPLETED.....	04/28/20		
SAMPLED.....	05/02/66			SAMPLED.....	08/24/21			SAMPLED.....	08/23/21		
FORMATION.....	PENN-ATOKA			FORMATION.....	PENN-HARBLE FALLS			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	425			GEOLOGIC PROVINCE CODE.....	425			GEOLOGIC PROVINCE CODE.....	425		
DEPTH, FEET.....	3717			DEPTH, FEET.....	3665			DEPTH, FEET.....	999		
WELLHEAD PRESSURE, PSIG.....	1600			WELLHEAD PRESSURE, PSIG.....	410			WELLHEAD PRESSURE, PSIG.....	171		
OPEN FLOW, MCFD.....	12200			OPEN FLOW, MCFD.....	4150			OPEN FLOW, MCFD.....	1666		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	78.0			METHANE.....	71.7			METHANE.....	78.5		
ETHANE.....	10.3			ETHANE.....	26.6			ETHANE.....	18.9		
PROPANE.....	4.0			PROPANE.....	---			PROPANE.....	---		
N-BUTANE.....	1.1			N-BUTANE.....	---			N-BUTANE.....	---		
ISOBUTANE.....	0.6			ISOBUTANE.....	---			ISOBUTANE.....	---		
N-PENTANE.....	0.4			N-PENTANE.....	---			N-PENTANE.....	---		
ISOPENTANE.....	0.3			ISOPENTANE.....	---			ISOPENTANE.....	---		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	---			CYCLOPENTANE.....	---		
HEXANES PLUS.....	0.3			HEXANES PLUS.....	---			HEXANES PLUS.....	---		
NITROGEN.....	4.4			NITROGEN.....	1.6			NITROGEN.....	2.3		
OXYGEN.....	0.1			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	0.0			ARGON.....	---			ARGON.....	---		
HYDROGEN.....	0.0			HYDROGEN.....	---			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.3			CARBON DIOXIDE.....	0.0			CARBON DIOXIDE.....	0.2		
HELIUM.....	0.14			HELIUM.....	0.08			HELIUM.....	0.06		
HEATING VALUE.....	1185			HEATING VALUE.....	1203			HEATING VALUE.....	1134		
SPECIFIC GRAVITY.....	0.715			SPECIFIC GRAVITY.....	0.692			SPECIFIC GRAVITY.....	0.659		
		INDEX SAMPLE	9835 644			INDEX SAMPLE	9836 12735			INDEX SAMPLE	9837 14621
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	PALO PINTO			COUNTY.....	PALO PINTO			COUNTY.....	PALO PINTO		
FIELD.....	MINERAL WELLS			FIELD.....	MINERAL WELLS N			FIELD.....	MINERAL WELLS S		
WELL NAME.....	BAKS NO. 1			WELL NAME.....	WAGLEY NO. 1			WELL NAME.....	HART NO. 8-2		
LOCATION.....	DENNIS MAHONEY SUR			LOCATION.....	NOT GIVEN			LOCATION.....	2 MI. SE GRAN		
OWNER.....	LONG STAR GAS CO.			OWNER.....	CLINTON OIL CO.			OWNER.....	DALLAS PRODUCTION, INC.		
COMPLETED.....	10/17/19			COMPLETED.....	03/06/60			COMPLETED.....	05/-/75		
SAMPLED.....	09/07/21			SAMPLED.....	03/-/71			SAMPLED.....	03/23/76		
FORMATION.....	NOT GIVEN			FORMATION.....	PENN-BIG SALINE			FORMATION.....	PENN-CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	425			GEOLOGIC PROVINCE CODE.....	425			GEOLOGIC PROVINCE CODE.....	425		
DEPTH, FEET.....	1055			DEPTH, FEET.....	4700			DEPTH, FEET.....	4800		
WELLHEAD PRESSURE, PSIG.....	200			WELLHEAD PRESSURE, PSIG.....	195			WELLHEAD PRESSURE, PSIG.....	1670		
OPEN FLOW, MCFD.....	1666			OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	3000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	79.9			METHANE.....	77.1			METHANE.....	79.7		
ETHANE.....	17.8			ETHANE.....	9.5			ETHANE.....	10.5		
PROPANE.....	---			PROPANE.....	3.8			PROPANE.....	4.6		
N-BUTANE.....	---			N-BUTANE.....	1.0			N-BUTANE.....	1.3		
ISOBUTANE.....	---			ISOBUTANE.....	0.7			ISOBUTANE.....	0.6		
N-PENTANE.....	---			N-PENTANE.....	0.4			N-PENTANE.....	0.2		
ISOPENTANE.....	---			ISOPENTANE.....	0.3			ISOPENTANE.....	0.5		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	0.6		
HEXANES PLUS.....	---			HEXANES PLUS.....	0.3			HEXANES PLUS.....	0.3		
NITROGEN.....	1.7			NITROGEN.....	5.7			NITROGEN.....	1.6		
OXYGEN.....	0.2			OXYGEN.....	0.7			OXYGEN.....	0.0		
ARGON.....	---			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	---			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	0.1			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.5			CARBON DIOXIDE.....	0.3		
HELIUM.....	0.18			HELIUM.....	0.11			HELIUM.....	0.09		
HEATING VALUE.....	1128			HEATING VALUE.....	1156			HEATING VALUE.....	1232		
SPECIFIC GRAVITY.....	0.652			SPECIFIC GRAVITY.....	0.718			SPECIFIC GRAVITY.....	0.715		
		INDEX SAMPLE	9838 13221			INDEX SAMPLE	9839 13283			INDEX SAMPLE	9840 14109
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	PALO PINTO			COUNTY.....	PALO PINTO			COUNTY.....	PALO PINTO		
FIELD.....	PALO PINTO REGULAR			FIELD.....	PALO PINTO REGULAR			FIELD.....	PALO PINTO REGULAR		
WELL NAME.....	R. J. ANDERSON NO. 1			WELL NAME.....	R. J. ANDERSON NO. 1			WELL NAME.....	LESLIE CRUM NO. 1		
LOCATION.....	WILLIAM PRIEST SUR. A-363			LOCATION.....	WILLIAM PRIEST SUR. A-363			LOCATION.....	SEC. 25&2, TE&L SUR.		
OWNER.....	RHODES DRILLING CO.			OWNER.....	RHODES DRILLING CO.			OWNER.....	UPHAM OIL & GAS CO.		
COMPLETED.....	05/18/71			COMPLETED.....	05/18/71			COMPLETED.....	06/04/73		
SAMPLED.....	05/25/72			SAMPLED.....	06/26/72			SAMPLED.....	07/-/74		
FORMATION.....	-ANDY			FORMATION.....	-ANDY			FORMATION.....	PENN-BEND CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	425			GEOLOGIC PROVINCE CODE.....	425			GEOLOGIC PROVINCE CODE.....	425		
DEPTH, FEET.....	814			DEPTH, FEET.....	813			DEPTH, FEET.....	4602		
WELLHEAD PRESSURE, PSIG.....	420			WELLHEAD PRESSURE, PSIG.....	5368			WELLHEAD PRESSURE, PSIG.....	1750		
OPEN FLOW, MCFD.....	5170			OPEN FLOW, MCFD.....	---			OPEN FLOW, MCFD.....	2200		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	88.9			METHANE.....	88.1			METHANE.....	75.1		
ETHANE.....	4.5			ETHANE.....	4.5			ETHANE.....	10.8		
PROPANE.....	1.2			PROPANE.....	1.3			PROPANE.....	5.8		
N-BUTANE.....	0.2			N-BUTANE.....	0.2			N-BUTANE.....	1.9		
ISOBUTANE.....	0.4			ISOBUTANE.....	0.1			ISOBUTANE.....	0.9		
N-PENTANE.....	TRACE			N-PENTANE.....	0.1			N-PENTANE.....	0.5		
ISOPENTANE.....	0.1			ISOPENTANE.....	0.1			ISOPENTANE.....	1.2		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.1		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.3		
NITROGEN.....	4.3			NITROGEN.....	4.8			NITROGEN.....	2.7		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	TRACE		
ARGON.....	TRACE			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	0.0			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.2			HYDROGEN SULFIDE.....	0.3		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.17			CARBON DIOXIDE.....	0.12		
HELIUM.....	0.17			HELIUM.....	1041			HELIUM.....	1301		
HEATING VALUE.....	1042			HEATING VALUE.....	0.626			HEATING VALUE.....	0.769		
SPECIFIC GRAVITY.....	0.620			SPECIFIC GRAVITY.....	---			SPECIFIC GRAVITY.....	---		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9841 SAMPLE 14767		INDEX 9842 SAMPLE 12934		INDEX 9843 SAMPLE 12635	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO
FIELD.....	PENNINGTON	FIELD.....	SANTO S	FIELD.....	STRAWN N
WELL NAME.....	T&PR NO. 1-29	WELL NAME.....	GEORGE POTTER NO. 1	WELL NAME.....	JOHN RITCHIE NO. 1
LOCATION.....	SEC. 1, T&NO SUR. A-694	LOCATION.....	L. A. BRADLEY SUR. A-1956	LOCATION.....	1 MI. S METCALF GAP
OWNER.....	W. L. PENNINGTON	OWNER.....	LONG STAR PRODUCING CO.	OWNER.....	GEORGE MITCHELL & ASSOC. INC
COMPLETED.....	05/09/75	COMPLETED.....	01/21/70	COMPLETED.....	--/--/00
SAMPLED.....	09/20/76	SAMPLED.....	07/19/71	SAMPLED.....	01/20/71
FORMATION.....	PENN-CONGLOMERATE	FORMATION.....	MISS-REEF	FORMATION.....	PENN-BEND CONGLOMERATE
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	3436	DEPTH, FEET.....	4191	DEPTH, FEET.....	3751
WELLHEAD PRESSURE, PSIG.....	1650	WELLHEAD PRESSURE, PSIG.....	1810	WELLHEAD PRESSURE, PSIG.....	660
OPEN FLOW, MCFD.....	3500	OPEN FLOW, MCFD.....	12051	OPEN FLOW, MCFD.....	204
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.8	METHANE.....	76.9	METHANE.....	77.5
ETHANE.....	11.2	ETHANE.....	12.0	ETHANE.....	9.7
PROPANE.....	5.0	PROPANE.....	5.2	PROPANE.....	3.9
N-BUTANE.....	1.3	N-BUTANE.....	1.1	N-BUTANE.....	1.0
ISOBUTANE.....	0.7	ISOBUTANE.....	0.7	ISOBUTANE.....	0.6
N-PENTANE.....	0.3	N-PENTANE.....	0.4	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	2.8	NITROGEN.....	2.8	NITROGEN.....	5.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.4
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.5
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3
HELIUM.....	0.10	HELIUM.....	0.12	HELIUM.....	0.14
HEATING VALUE.....	1230	HEATING VALUE.....	1229	HEATING VALUE.....	1151
SPECIFIC GRAVITY.....	0.724	SPECIFIC GRAVITY.....	0.723	SPECIFIC GRAVITY.....	0.706

INDEX 9844 SAMPLE 11590		INDEX 9845 SAMPLE 11591		INDEX 9846 SAMPLE 12642	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO
FIELD.....	STRAWN NW	FIELD.....	STUART	FIELD.....	STUART
WELL NAME.....	ELLEN G. STUART B NO. 1	WELL NAME.....	J. N. STUART NO. 167	WELL NAME.....	ELLEN G. STUART B NO. 1
LOCATION.....	SEC 73, BLK 8, T&P SUR.	LOCATION.....	SEC 74, BLK. 4, T&PRR SUR.	LOCATION.....	T&P R&R SUR.
OWNER.....	TEXAS PACIFIC OIL CO.	OWNER.....	TEXAS PACIFIC OIL CO.	OWNER.....	TEXAS PACIFIC OIL CO., INC.
COMPLETED.....	03/16/59	COMPLETED.....	03/18/58	COMPLETED.....	03/16/59
SAMPLED.....	07/22/68	SAMPLED.....	07/26/68	SAMPLED.....	01/27/71
FORMATION.....	PENN-MARBLE FALLS	FORMATION.....	PENN-MARBLE FALLS	FORMATION.....	PENN-MARBLE FALLS
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	3859	DEPTH, FEET.....	3513	DEPTH, FEET.....	3870
WELLHEAD PRESSURE, PSIG.....	708	WELLHEAD PRESSURE, PSIG.....	708	WELLHEAD PRESSURE, PSIG.....	340
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	2000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	78.6	METHANE.....	77.7	METHANE.....	78.7
ETHANE.....	10.3	ETHANE.....	10.3	ETHANE.....	10.2
PROPANE.....	4.2	PROPANE.....	5.1	PROPANE.....	4.6
N-BUTANE.....	1.2	N-BUTANE.....	1.3	N-BUTANE.....	1.1
ISOBUTANE.....	0.3	ISOBUTANE.....	0.4	ISOBUTANE.....	0.6
N-PENTANE.....	0.4	N-PENTANE.....	0.5	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	4.4	NITROGEN.....	3.8	NITROGEN.....	3.6
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2
HELIUM.....	0.12	HELIUM.....	0.10	HELIUM.....	0.11
HEATING VALUE.....	1169	HEATING VALUE.....	1209	HEATING VALUE.....	1196
SPECIFIC GRAVITY.....	0.704	SPECIFIC GRAVITY.....	0.722	SPECIFIC GRAVITY.....	0.711

INDEX 9847 SAMPLE 7051		INDEX 9848 SAMPLE 14754		INDEX 9849 SAMPLE 16237	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	J. B. RHODES NO. 1	WELL NAME.....	M. J. RHODES NO. 1	WELL NAME.....	MITCHELL KAHLBAU NO. 2
LOCATION.....	SEC. 11, BLK. 1, T&P SUR.	LOCATION.....	SEC. 2593, T&L SUR., A664	LOCATION.....	SEC. 1785, T&L SUR. A-560
OWNER.....	SKELLY OIL CO.	OWNER.....	TIPPERARY OIL & GAS CORP.	OWNER.....	THREE B OPERATING, INC.
COMPLETED.....	02/17/55	COMPLETED.....	04/26/75	COMPLETED.....	02/19/80
SAMPLED.....	04/29/59	SAMPLED.....	09/13/76	SAMPLED.....	04/20/81
FORMATION.....	PENN-MARBLE FALLS	FORMATION.....	PENN-ATOKA	FORMATION.....	PENN-CONGLOMERATE
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	4254	DEPTH, FEET.....	4944	DEPTH, FEET.....	4010
WELLHEAD PRESSURE, PSIG.....	1766	WELLHEAD PRESSURE, PSIG.....	1320	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	76.6	METHANE.....	81.0	METHANE.....	77.5
ETHANE.....	10.9	ETHANE.....	9.5	ETHANE.....	9.5
PROPANE.....	3.5	PROPANE.....	4.4	PROPANE.....	4.7
N-BUTANE.....	1.2	N-BUTANE.....	1.8	N-BUTANE.....	1.3
ISOBUTANE.....	0.0	ISOBUTANE.....	0.4	ISOBUTANE.....	0.5
N-PENTANE.....	0.7	N-PENTANE.....	0.1	N-PENTANE.....	0.4
ISOPENTANE.....	0.0	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.5	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	1.9	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	1.3	NITROGEN.....	0.9	NITROGEN.....	4.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.3
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3
HELIUM.....	0.10	HELIUM.....	0.14	HELIUM.....	0.10
HEATING VALUE.....	1151	HEATING VALUE.....	1167	HEATING VALUE.....	1187
SPECIFIC GRAVITY.....	0.783	SPECIFIC GRAVITY.....	0.686	SPECIFIC GRAVITY.....	0.720

INDEX 9850 SAMPLE 15078		INDEX 9851 SAMPLE 12126		INDEX 9852 SAMPLE 12127	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PANOLA	COUNTY.....	PANOLA	COUNTY.....	PANOLA
FIELD.....	BECKVILLE W	FIELD.....	BELLE BOWER	FIELD.....	BELLE BOWER
WELL NAME.....	ELVE TOMKINS NO. 1	WELL NAME.....	J. D. ADAMS ET AL. NO. 1	WELL NAME.....	REED ROYALTY TRUST NO. 1
LOCATION.....	W. G. ADAMS SUR. A-64	LOCATION.....	W. G. ADAMS SUR. A-281	LOCATION.....	W. G. BOOKER SUR. A-87
OWNER.....	MCCORMICK OIL & GAS CORP.	OWNER.....	MARSHALL EXPLORATION, INC.	OWNER.....	MARSHALL EXPLORATION, INC.
COMPLETED.....	12/23/75	COMPLETED.....	02/25/68	COMPLETED.....	04/01/68
SAMPLED.....	08/01/75	SAMPLED.....	12/02/69	SAMPLED.....	12/02/69
FORMATION.....	JURA-COTTON VALLEY	FORMATION.....	CRET-PALUXY	FORMATION.....	CRET-PALUXY
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	9864	DEPTH, FEET.....	3211	DEPTH, FEET.....	3201
WELLHEAD PRESSURE, PSIG.....	4010	WELLHEAD PRESSURE, PSIG.....	1348	WELLHEAD PRESSURE, PSIG.....	1410
OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	18750	OPEN FLOW, MCFD.....	10500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.8	METHANE.....	86.0	METHANE.....	85.5
ETHANE.....	5.0	ETHANE.....	2.7	ETHANE.....	2.7
PROPANE.....	1.4	PROPANE.....	0.9	PROPANE.....	1.0
N-BUTANE.....	0.4	N-BUTANE.....	0.2	N-BUTANE.....	0.3
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	0.3	NITROGEN.....	2.2	NITROGEN.....	9.7
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	0.04	HELIUM.....	0.04
HEATING VALUE.....	1092	HEATING VALUE.....	970	HEATING VALUE.....	980
SPECIFIC GRAVITY.....	0.628	SPECIFIC GRAVITY.....	0.629	SPECIFIC GRAVITY.....	0.637

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	9853 958		INDEX SAMPLE	9854 2068		INDEX SAMPLE	9855 2476
STATE.....	TEXAS		TEXAS	PANOLA		TEXAS	PANOLA	
COUNTY.....	PANOLA		PANOLA	BETHANY		PANOLA	BETHANY	
FIELD.....	BETHANY		BETHANY	BETHANY		BETHANY	BETHANY	
WELL NAME.....	J. D. FUNK NO. 1		H. L. BRUMBLE NO. 4		U. C. AGURS NO. 5		U. C. AGURS NO. 5	
LOCATION.....	COORDINATES 2-14		E. F. MITCHESON SUR.		JACOB WOMAC SUR.		JACOB WOMAC SUR.	
OWNER.....	MAGNOLIA PETROLEUM CO.		TEXAS CO.		F. W. TUNNIN		F. W. TUNNIN	
COMPLETED.....	07/-/24		03/01/30		07/26/29		07/26/29	
SAMPLED.....	12/30/24		06/19/30		--/--/00		--/--/00	
FORMATION.....	CRET-WOODBINE		NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	260		260		260		260	
DEPTH, FEET.....	1923		2250		2990		2990	
WELLHEAD PRESSURE, PSIG.....	350		125		1200		1200	
OPEN FLOW, MCFD.....	65000		1120		26000		26000	
COMPONENT, MOLE PCT								
METHANE.....	88.0	-----	84.0	-----	84.7	-----	84.7	-----
ETHANE.....	6.2	-----	9.9	-----	10.3	-----	10.3	-----
PROpane.....	---	-----	---	-----	---	-----	---	-----
N-BUTANE.....	---	-----	---	-----	---	-----	---	-----
ISOBUTANE.....	---	-----	---	-----	---	-----	---	-----
N-PENTANE.....	---	-----	---	-----	---	-----	---	-----
ISOPENTANE.....	---	-----	---	-----	---	-----	---	-----
CYCLOPENTANE.....	---	-----	---	-----	---	-----	---	-----
HEXANES PLUS.....	---	-----	---	-----	---	-----	---	-----
NITROGEN.....	5.4	-----	5.4	-----	4.2	-----	4.2	-----
OXYGEN.....	0.2	-----	0.0	-----	0.3	-----	0.3	-----
ARGON.....	---	-----	---	-----	---	-----	---	-----
HYDROGEN.....	---	-----	---	-----	---	-----	---	-----
HYDROGEN SULFIDE**.....	---	-----	---	-----	---	-----	---	-----
CARBON DIOXIDE.....	0.2	-----	0.7	-----	0.4	-----	0.4	-----
HELIUM.....	0.05	-----	0.06	-----	0.05	-----	0.05	-----
HEATING VALUE.....	1003	-----	1028	-----	1043	-----	1043	-----
SPECIFIC GRAVITY.....	0.610	-----	0.633	-----	0.628	-----	0.628	-----
	INDEX	9856		INDEX	9857		INDEX	9858
	SAMPLE	3940		SAMPLE	4276		SAMPLE	4277
STATE.....	TEXAS		TEXAS	PANOLA		TEXAS	PANOLA	
COUNTY.....	PANOLA		PANOLA	BETHANY		PANOLA	BETHANY	
FIELD.....	BETHANY		BETHANY	BETHANY		BETHANY	BETHANY	
WELL NAME.....	H. L. BRUMBLE NO. 13		E. JOHNSON NO. 1		E. JOHNSON NO. 1		E. JOHNSON NO. 1	
LOCATION.....	MITCHESON SUR.		HESSER FAIN SUR.		HESSER FAIN SUR.		HESSER FAIN SUR.	
OWNER.....	TEXAS CO.		ROBERTS & MURPHY, ET AL.		ROBERTS & MURPHY		ROBERTS & MURPHY	
COMPLETED.....	12/29/44		10/02/45		10/02/45		10/02/45	
SAMPLED.....	12/29/44		12/30/46		12/30/46		12/30/46	
FORMATION.....	CRET-PETTIT		CRET----		CRET----		CRET----	
GEOLOGIC PROVINCE CODE.....	260		260		260		260	
DEPTH, FEET.....	5778		6093		5706		5706	
WELLHEAD PRESSURE, PSIG.....	1900		2186		2304		2304	
OPEN FLOW, MCFD.....	NOT GIVEN		4000		8000		8000	
COMPONENT, MOLE PCT								
METHANE.....	90.4	-----	86.1	-----	82.2	-----	82.2	-----
ETHANE.....	8.2	-----	11.0	-----	14.7	-----	14.7	-----
PROpane.....	---	-----	---	-----	---	-----	---	-----
N-BUTANE.....	---	-----	---	-----	---	-----	---	-----
ISOBUTANE.....	---	-----	---	-----	---	-----	---	-----
N-PENTANE.....	---	-----	---	-----	---	-----	---	-----
ISOPENTANE.....	---	-----	---	-----	---	-----	---	-----
CYCLOPENTANE.....	---	-----	---	-----	---	-----	---	-----
HEXANES PLUS.....	---	-----	---	-----	---	-----	---	-----
NITROGEN.....	---	-----	1.3	-----	1.9	-----	1.9	-----
OXYGEN.....	0.4	-----	0.5	-----	0.2	-----	0.2	-----
ARGON.....	---	-----	---	-----	---	-----	---	-----
HYDROGEN.....	---	-----	---	-----	---	-----	---	-----
HYDROGEN SULFIDE**.....	---	-----	---	-----	---	-----	---	-----
CARBON DIOXIDE.....	1.0	-----	1.1	-----	1.0	-----	1.0	-----
HELIUM.....	0.03	-----	0.03	-----	0.03	-----	0.03	-----
HEATING VALUE.....	1063	-----	1069	-----	1096	-----	1096	-----
SPECIFIC GRAVITY.....	0.607	-----	0.628	-----	0.646	-----	0.646	-----
	INDEX	9859		INDEX	9860		INDEX	9861
	SAMPLE	10016		SAMPLE	12455		SAMPLE	14153
STATE.....	TEXAS		TEXAS	PANOLA		TEXAS	PANOLA	
COUNTY.....	PANOLA		PANOLA	BETHANY		PANOLA	BETHANY	
FIELD.....	BETHANY		BETHANY	BETHANY		BETHANY	BETHANY	
WELL NAME.....	ROQUEMORE NO. A-3		T. C. ADAMS NO. 1-C		B. CRENSHAW G U 1 NO. 1		B. CRENSHAW G U 1 NO. 1	
LOCATION.....	BEN C. JORDAN SUR. A-348		EZEKIEL JONES SUR.		BEN C. JORDAN SUR. A-348		BEN C. JORDAN SUR. A-348	
OWNER.....	TENNECO OIL CO.		TENNECO OIL CO.		TEXACO INC.		TEXACO INC.	
COMPLETED.....	11/08/63		05/17/77		05/07/74		05/07/74	
SAMPLED.....	07/28/65		10/15/70		09/23/74		09/23/74	
FORMATION.....	CRET-GLEN ROSE		CRET-PETTIT		JURA-COTTON VALLEY		JURA-COTTON VALLEY	
GEOLOGIC PROVINCE CODE.....	260		260		260		260	
DEPTH, FEET.....	3558		5660		8096		8096	
WELLHEAD PRESSURE, PSIG.....	803		460		1150		1150	
OPEN FLOW, MCFD.....	10050		910		9380		9380	
COMPONENT, MOLE PCT								
METHANE.....	88.5	-----	90.9	-----	85.7	-----	85.7	-----
ETHANE.....	2.4	-----	1.4	-----	7.5	-----	7.5	-----
PROpane.....	0.9	-----	0.4	-----	0.7	-----	0.7	-----
N-BUTANE.....	0.5	-----	0.4	-----	0.7	-----	0.7	-----
ISOBUTANE.....	0.3	-----	0.4	-----	0.7	-----	0.7	-----
N-PENTANE.....	0.3	-----	0.3	-----	0.2	-----	0.2	-----
ISOPENTANE.....	TRACE	-----	0.0	-----	0.3	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----	0.1	-----	0.1	-----	0.1	-----
HEXANES PLUS.....	0.4	-----	0.3	-----	0.3	-----	0.3	-----
NITROGEN.....	6.3	-----	1.2	-----	0.5	-----	0.5	-----
OXYGEN.....	0.0	-----	0.0	-----	TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----	TRACE	-----	0.0	-----	0.0	-----
HYDROGEN.....	TRACE	-----	TRACE	-----	0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----	0.5	-----	1.3	-----	1.3	-----
HELIUM.....	0.05	-----	0.03	-----	0.01	-----	0.01	-----
HEATING VALUE.....	1023	-----	1095	-----	1160	-----	1160	-----
SPECIFIC GRAVITY.....	0.631	-----	0.627	-----	0.673	-----	0.673	-----
	INDEX	9862		INDEX	9863		INDEX	9864
	SAMPLE	12456		SAMPLE	3775		SAMPLE	4150
STATE.....	TEXAS		TEXAS	PANOLA		TEXAS	PANOLA	
COUNTY.....	PANOLA		PANOLA	CARTHAGE		PANOLA	CARTHAGE	
FIELD.....	BETHANY NE		C. BLACK ESTATE NO. 1		LOUIS WERNER B NO. 1-C		LOUIS WERNER B NO. 1-C	
WELL NAME.....	EZEKIEL JONES SUR.		BLACK SUR.		NOT GIVEN		NOT GIVEN	
LOCATION.....	TENNECO OIL CO.		UNION PRODUCING CO.		SKELLY OIL CO.		SKELLY OIL CO.	
OWNER.....	07/19/65		06/23/43		09/26/45		09/26/45	
COMPLETED.....	10/15/77		04/05/77		10/29/46		10/29/46	
SAMPLED.....	CRET-PALUXY		CRET-PETTIT		CRET-PETTIT		CRET-PETTIT	
FORMATION.....	260		260		260		260	
GEOLOGIC PROVINCE CODE.....	260		260		260		260	
DEPTH, FEET.....	2639		5695		5760		5760	
WELLHEAD PRESSURE, PSIG.....	165		2635		2706		2706	
OPEN FLOW, MCFD.....	586		22		1118		1118	
COMPONENT, MOLE PCT								
METHANE.....	86.8	-----	80.0	-----	83.4	-----	83.4	-----
ETHANE.....	2.5	-----	17.9	-----	14.8	-----	14.8	-----
PROpane.....	0.9	-----	---	-----	---	-----	---	-----
N-BUTANE.....	0.2	-----	---	-----	---	-----	---	-----
ISOBUTANE.....	0.4	-----	---	-----	---	-----	---	-----
N-PENTANE.....	0.1	-----	---	-----	---	-----	---	-----
ISOPENTANE.....	0.0	-----	---	-----	---	-----	---	-----
CYCLOPENTANE.....	0.1	-----	---	-----	---	-----	---	-----
HEXANES PLUS.....	0.3	-----	---	-----	---	-----	---	-----
NITROGEN.....	8.4	-----	1.1	-----	0.9	-----	0.9	-----
OXYGEN.....	0.0	-----	0.4	-----	0.2	-----	0.2	-----
ARGON.....	TRACE	-----	---	-----	---	-----	---	-----
HYDROGEN.....	0.1	-----	---	-----	---	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----	---	-----	---	-----	---	-----
CARBON DIOXIDE.....	0.2	-----	0.6	-----	0.7	-----	0.7	-----
HELIUM.....	0.06	-----	0.00	-----	0.02	-----	0.02	-----
HEATING VALUE.....	993	-----	1131	-----	1110	-----	1110	-----
SPECIFIC GRAVITY.....	0.632	-----	0.656	-----	0.639	-----	0.639	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE	9865 4151	INDEX SAMPLE	9866 12445	INDEX SAMPLE	9867 12446
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	PANOLA	PANOLA	PANOLA	PANOLA	PANOLA
FIELD.....	CARTHAGE	CARTHAGE	CARTHAGE	CARTHAGE	CARTHAGE
WELL NAME.....	LOUIS WERNER B NO. 1-T	A. R. CURTIS NO. 1	WERNER SHAW NO. 1	WERNER SMITH NO. 2	WERNER SMITH NO. 2
LOCATION.....	3 MI. S OF DEADWOOD	CARTHAGE	CARTHAGE	CARTHAGE	CARTHAGE
OWNER.....	SKELLY OIL CO.	SKELLY OIL CO.	SKELLY OIL CO.	SKELLY OIL CO.	SKELLY OIL CO.
COMPLETED.....	09/26/45	03/12/52	09/13/66	02/05/64	02/05/64
SAMPLED.....	10/29/46	10/14/70	10/14/70	10/14/70	10/14/70
FORMATION.....	CRET-PETTIT	CRET-HILL SOUTHEAST	CRET-HILL SOUTHEAST	CRET-HILL SOUTHEAST	CRET-BLOSSOM
GEOLOGIC PROVINCE CODE.....	260	260	260	260	260
DEPTH, FEET.....	6008	6247	5152	5152	2100
WELLHEAD PRESSURE, PSIG.....	2753	250	500	317	400
OPEN FLOW, MCFD.....	17116	3950	1020	100	1375
COMPONENT, MOLE PCT					
METHANE.....	82.2	87.6	85.7	82.5	89.8
ETHANE.....	15.4	4.3	2.9	4.4	2.3
PROpane.....	---	1.9	1.0	1.6	0.7
N-BUTANE.....	---	0.7	0.3	0.6	0.3
ISOBUTANE.....	---	0.7	0.4	0.5	0.2
N-PENTANE.....	---	0.5	0.2	0.3	0.1
ISOPENTANE.....	---	0.0	0.1	0.1	0.0
CYCLOPENTANE.....	---	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	---	0.5	0.3	0.4	0.2
NITROGEN.....	1.2	3.0	8.9	8.6	6.0
OXYGEN.....	0.4	0.0	0.0	0.0	0.0
ARGON.....	0.0	0.0	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.1	0.1	0.1
HYDROGEN SULFIDE**.....	0.8	0.0	0.0	1.0	0.0
CARBON DIOXIDE.....	0.02	0.03	0.06	0.06	0.1
HELIUM.....	1109	1112	998	1031	0.07
HEATING VALUE.....	0.646	0.656	0.641	0.672	1001
SPECIFIC GRAVITY.....					0.611
INDEX SAMPLE	9868 12447	INDEX SAMPLE	9869 12448	INDEX SAMPLE	9870 12476
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	PANOLA	PANOLA	PANOLA	PANOLA	PANOLA
FIELD.....	CARTHAGE	CARTHAGE	CARTHAGE	CARTHAGE	CARTHAGE
WELL NAME.....	PENN-SIKES	WERNER SHAW NO. 1	WERNER SHAW NO. 1	CARTHAGE GAS UNIT NO. 35	CARTHAGE GAS UNIT NO. 35
LOCATION.....	CARTHAGE	CARTHAGE	CARTHAGE	CARTHAGE	CARTHAGE
OWNER.....	SKELLY OIL CO.	SKELLY OIL CO.	SKELLY OIL CO.	HAMPTON-WEST SUR. A-697	HAMPTON-WEST SUR. A-697
COMPLETED.....	09/13/66	09/13/66	09/13/66	02/16/50	02/16/50
SAMPLED.....	10/14/70	10/14/70	10/14/70	10/21/70	10/21/70
FORMATION.....	CRET-PALUXY	CRET-GLEN ROSE	CRET-GLEN ROSE	CRET-GLEN ROSE	CRET-HILL SOUTH
GEOLOGIC PROVINCE CODE.....	260	260	260	260	260
DEPTH, FEET.....	3218	6056	5152	5152	5152
WELLHEAD PRESSURE, PSIG.....	300	500	317	317	317
OPEN FLOW, MCFD.....	4650	1020	100	100	100
COMPONENT, MOLE PCT					
METHANE.....	86.2	85.7	82.5	82.5	82.5
ETHANE.....	2.1	2.9	4.4	4.4	4.4
PROpane.....	0.7	1.0	1.6	1.6	1.6
N-BUTANE.....	0.2	0.3	0.6	0.6	0.6
ISOBUTANE.....	0.3	0.4	0.5	0.5	0.5
N-PENTANE.....	0.1	0.2	0.3	0.3	0.3
ISOPENTANE.....	0.0	0.1	0.1	0.1	0.1
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.2	0.3	0.4	0.4	0.4
NITROGEN.....	9.9	8.9	8.6	8.6	8.6
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.1	0.1	0.1	0.1	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.2	1.0	1.0	1.0
HELIUM.....	0.06	0.06	0.06	0.06	0.06
HEATING VALUE.....	961	998	1031	1031	1031
SPECIFIC GRAVITY.....	0.629	0.641	0.672	0.672	0.672
INDEX SAMPLE	9871 12497	INDEX SAMPLE	9872 12500	INDEX SAMPLE	9873 12461
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	PANOLA	PANOLA	PANOLA	PANOLA	PANOLA
FIELD.....	CARTHAGE	CARTHAGE	CARTHAGE	CARTHAGE	CARTHAGE
WELL NAME.....	BURNETT BROS. NO. 3-T	BURNETT BROS. NO. 6-C	BURNETT BROS. NO. 6-C	MANGHAM NO. 2	MANGHAM NO. 2
LOCATION.....	H243 SUR. A-530	J. F. CHEATERS SUR.	J. F. CHEATERS SUR.	NOT GIVEN	NOT GIVEN
OWNER.....	PAN AMERICAN PETROLEUM CORP.	PAN AMERICAN PETROLEUM CORP.	PAN AMERICAN PETROLEUM CORP.	PENNZOIL PRODUCING CO.	PENNZOIL PRODUCING CO.
COMPLETED.....	03/19/48	12/05/49	12/05/49	08/31/66	08/31/66
SAMPLED.....	10/26/70	10/26/70	10/26/70	10/19/70	10/19/70
FORMATION.....	CRET-TRAVIS PEAK	CRET-HILL NORTH	CRET-HILL NORTH	CRET-GLEN ROSE	CRET-GLEN ROSE
GEOLOGIC PROVINCE CODE.....	260	260	260	260	260
DEPTH, FEET.....	6051	4999	3817	3817	3817
WELLHEAD PRESSURE, PSIG.....	2921	2921	175	175	175
OPEN FLOW, MCFD.....	7600	10500	320	320	320
COMPONENT, MOLE PCT					
METHANE.....	88.2	77.4	87.9	87.9	87.9
ETHANE.....	4.6	5.1	3.5	3.5	3.5
PROpane.....	1.7	5.1	1.8	1.8	1.8
N-BUTANE.....	0.6	2.4	0.5	0.5	0.5
ISOBUTANE.....	0.7	2.4	0.7	0.7	0.7
N-PENTANE.....	0.5	1.4	0.4	0.4	0.4
ISOPENTANE.....	0.0	0.2	0.0	0.0	0.0
CYCLOPENTANE.....	0.2	0.5	0.1	0.1	0.1
HEXANES PLUS.....	0.7	0.5	0.5	0.5	0.5
NITROGEN.....	1.9	0.6	4.4	4.4	4.4
OXYGEN.....	0.1	TRACE	0.0	0.0	0.0
ARGON.....	0.0	0.0	TRACE	TRACE	TRACE
HYDROGEN.....	0.1	0.1	0.1	0.1	0.1
HYDROGEN SULFIDE**.....	0.0	0.1	0.0	0.0	0.0
CARBON DIOXIDE.....	0.0	0.6	0.2	0.2	0.2
HELIUM.....	0.02	0.01	0.05	0.05	0.05
HEATING VALUE.....	1129	1396	1087	1087	1087
SPECIFIC GRAVITY.....	0.659	0.810	0.650	0.650	0.650
INDEX SAMPLE	9874 15357	INDEX SAMPLE	9875 2350	INDEX SAMPLE	9876 4720
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	PANOLA	PANOLA	PANOLA	PANOLA	PANOLA
FIELD.....	CARTHAGE SE	CARTHAGE SE	CARTHAGE SE	CARTHAGE SE	CARTHAGE SE
WELL NAME.....	KNIGHT-STRONG GU NO. 1	WERNER NO. 13	WERNER NO. 13	J. D. WOOLWORTH NO. 1-C	J. D. WOOLWORTH NO. 1-C
LOCATION.....	GEORGE GILLASPY SUR. A-222	BEN C. JORDAN SUR.	BEN C. JORDAN SUR.	NOT GIVEN	NOT GIVEN
OWNER.....	DELTA DRILLING CO.	ARKANSAS LOUISIANA GAS CO.	ARKANSAS LOUISIANA GAS CO.	BERT FIELDS	BERT FIELDS
COMPLETED.....	03/7/77	04/28/31	04/28/31	11/29/48	11/29/48
SAMPLED.....	08/30/78	05/23/31	05/23/31	04/30/49	04/30/49
FORMATION.....	JURA-COTTON VALLEY	CRET-	CRET-	CRET-RODESSA	CRET-RODESSA
GEOLOGIC PROVINCE CODE.....	260	260	260	260	260
DEPTH, FEET.....	9030	4718	4910	4910	4910
WELLHEAD PRESSURE, PSIG.....	3500	1800	2445	2445	2445
OPEN FLOW, MCFD.....	9800	26000	10800	10800	10800
COMPONENT, MOLE PCT					
METHANE.....	85.1	89.2	89.7	89.7	89.7
ETHANE.....	7.7	6.9	3.6	3.6	3.6
PROpane.....	0.6	---	0.0	0.0	0.0
N-BUTANE.....	0.7	---	0.9	0.9	0.9
ISOBUTANE.....	0.6	---	0.0	0.0	0.0
N-PENTANE.....	0.2	---	0.3	0.3	0.3
ISOPENTANE.....	0.2	---	0.0	0.0	0.0
CYCLOPENTANE.....	0.1	---	0.1	0.1	0.1
HEXANES PLUS.....	0.2	---	0.4	0.4	0.4
NITROGEN.....	0.8	3.0	3.1	3.1	3.1
OXYGEN.....	0.0	0.1	0.1	0.1	0.1
ARGON.....	0.0	---	0.0	0.0	0.0
HYDROGEN.....	0.0	---	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	---	---	---	---
CARBON DIOXIDE.....	1.7	0.8	0.8	0.8	0.8
HELIUM.....	0.01	1027	0.03	0.03	0.03
HEATING VALUE.....	1143	1027	1067	1067	1067
SPECIFIC GRAVITY.....	0.672	0.609	0.634	0.634	0.634

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 9877 12459	INDEX SAMPLE 9878 14804	INDEX SAMPLE 9879 14805
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	PANDOLA		PARKER	PARKER
FIELD.....	WASKOM		ALEDO	ALEDO
WELL NAME.....	JERNIGAN A UNIT NO. 1		WINSTON NO. 2	WINSTON NO. 1
LOCATION.....	NOT GIVEN		NOT GIVEN	J. W. JONES SUR. A-2010
OWNER.....	PENNZOIL PRODUCING CO.		W. A. MONCRIEF	W. A. MONCRIEF
COMPLETED.....	05/14/56		03/08/75	03/08/75
SAMPLED.....	10/19/70		10/05/76	10/05/76
FORMATION.....	JURA-COTTON VALLEY		PENN-BIG SALINE	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	260		420	420
DEPTH, FEET.....	8474		5500	1286
WELLHEAD PRESSURE, PSIG.....	765		1985	580
OPEN FLOW, MCFD.....	213		NOT GIVEN	2800
COMPONENT, MOLE PCT.....				
METHANE.....	87.5	76.6	86.8	
ETHANE.....	2.2	11.2	5.7	
PROpane.....	6.2	5.8	2.7	
N-BUTANE.....	0.6	1.3	0.6	
ISOBUTANE.....	0.8	1.0	0.4	
N-PENTANE.....	0.9	0.3	0.1	
ISOPENTANE.....	0.0	0.4	0.2	
CYCLOPENTANE.....	0.2	TRACE	0.0	
HEXANES PLUS.....	0.7	0.2	0.1	
NITROGEN.....	0.2	1.5	3.1	
OXYGEN.....	0.0	0.1	TRACE	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.1	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.2	1.5	TRACE	
HELIUM.....	0.01	0.06	0.24	
HEATING VALUE.....	1164	1245	1103	
SPECIFIC GRAVITY.....	0.670	0.742	0.644	
		INDEX SAMPLE 9880 15546	INDEX SAMPLE 9881 15324	INDEX SAMPLE 9882 15344
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	PARKER		PARKER	PARKER
FIELD.....	COYLE		LAKE MINERAL WELLS	LAKE MINERAL WELLS
WELL NAME.....	GROLEAU NO. 1		N. W. WATKINS NO. 1	T. H. CHRISTIAN NO. 1
LOCATION.....	6 W. COLE SUR. A-333		NEPSPR SUR. 357, A-1543	SEC. 35, T&P RR CO. SUR.
OWNER.....	WORLD PRODUCERS, INC.		MITCHELL ENERGY CORP.	TEXAS PACIFIC OIL CO., INC.
COMPLETED.....	12/02/77		10/11/77	04/01/77
SAMPLED.....	12/28/78		08/02/78	08/12/78
FORMATION.....	PENN-ATOKA		PENN-ATOKA	PENN-CONGLOMERATE
GEOLOGIC PROVINCE CODE.....	420		420	420
DEPTH, FEET.....	4201	4178	4086	
WELLHEAD PRESSURE, PSIG.....	1727	1650	1471	
OPEN FLOW, MCFD.....	4600	25750	3389	
COMPONENT, MOLE PCT.....				
METHANE.....	77.4	75.9	74.8	
ETHANE.....	11.0	10.6	11.0	
PROpane.....	5.1	6.7	7.1	
N-BUTANE.....	1.3	1.6	1.7	
ISOBUTANE.....	1.9	1.0	1.0	
N-PENTANE.....	0.5	0.3	0.4	
ISOPENTANE.....	0.2	0.5	0.6	
CYCLOPENTANE.....	0.2	0.1	0.1	
HEXANES PLUS.....	0.6	0.2	0.3	
NITROGEN.....	2.4	2.9	2.5	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	0.0	TRACE	0.0	
HYDROGEN.....	TRACE	TRACE	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	0.2	
HELIUM.....	0.11	0.11	0.11	
HEATING VALUE.....	1256	1268	1292	
SPECIFIC GRAVITY.....	0.736	0.750	0.760	
		INDEX SAMPLE 9883 16065	INDEX SAMPLE 9884 15881	INDEX SAMPLE 9885 8368
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	PARKER		PARKER	PARKER
FIELD.....	LAKE MINERAL WELLS		LAKE WATHERFORD	MEEKER
WELL NAME.....	J. C. PEIPELMAN NO. 2-C		YEARLY NO. 1	BOYD UNIT NO. 1-A
LOCATION.....	MEP SUR. NO. 341, A1493		W. FRANKLIN SUR. A-468	SEC. 35, HT&B RR SUR.
OWNER.....	MITCHELL ENERGY CORP.		DALLAS PRODUCTION, INC.	J. MEKKER
COMPLETED.....	06/11/79		06/11/79	12/21/60
SAMPLED.....	09/12/80		01/16/80	01/17/62
FORMATION.....	PENN-ATOKA		PENN-CONGLOMERATE	PENN-ATOKA L
GEOLOGIC PROVINCE CODE.....	420		420	420
DEPTH, FEET.....	4191	5600	3960	
WELLHEAD PRESSURE, PSIG.....	1516	1500	1212	
OPEN FLOW, MCFD.....	4300	2106	6200	
COMPONENT, MOLE PCT.....				
METHANE.....	77.7	83.3	83.0	
ETHANE.....	11.7	9.6	6.8	
PROpane.....	4.9	6.9	5.8	
N-BUTANE.....	1.3	0.5	1.0	
ISOBUTANE.....	0.8	0.5	0.6	
N-PENTANE.....	0.5	0.2	0.2	
ISOPENTANE.....	0.5	0.1	0.1	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.3	0.2	0.1	
NITROGEN.....	2.0	2.3	5.6	
OXYGEN.....	TRACE	0.1	0.1	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.3	0.3	
HELIUM.....	0.10	0.10	0.15	
HEATING VALUE.....	1248	1145	1145	
SPECIFIC GRAVITY.....	0.729	0.668	0.682	
		INDEX SAMPLE 9886 8369	INDEX SAMPLE 9887 12653	INDEX SAMPLE 9888 12654
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	PARKER		PARKER	PARKER
FIELD.....	MEEKER		MEEKER	MEEKER
WELL NAME.....	O. E. DOSS NO. 1-B		O. E. DOSS	ED. W. PEARSON
LOCATION.....	SEC. 2591, TEL SUR.		NOT GIVEN	NOT GIVEN
OWNER.....	J. R. MEKKER		MEKKER & CO.	MEKKER & CO.
COMPLETED.....	08/09/59		01/30/70	01/30/70
SAMPLED.....	01/17/62		01/30/71	01/30/70
FORMATION.....	PENN-ATOKA L		PENN-ATOKA U	PENN-BRYSON
GEOLOGIC PROVINCE CODE.....	420		420	420
DEPTH, FEET.....	3998	3850	2200	
WELLHEAD PRESSURE, PSIG.....	1212	500	500	
OPEN FLOW, MCFD.....	4800	NOT GIVEN	600	
COMPONENT, MOLE PCT.....				
METHANE.....	81.4	79.2	86.1	
ETHANE.....	7.9	8.1	4.1	
PROpane.....	3.9	5.5	2.1	
N-BUTANE.....	1.1	1.9	0.6	
ISOBUTANE.....	0.6	0.9	0.3	
N-PENTANE.....	0.4	0.5	0.1	
ISOPENTANE.....	TRACE	0.3	0.1	
CYCLOPENTANE.....	0.1	0.1	TRACE	
HEXANES PLUS.....	0.2	0.3	0.1	
NITROGEN.....	3.5	3.2	6.0	
OXYGEN.....	TRACE	TRACE	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.4	0.2	
HELIUM.....	0.15	0.14	0.25	
HEATING VALUE.....	1156	1221	1044	
SPECIFIC GRAVITY.....	0.691	0.726	0.642	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9889 SAMPLE 12655			INDEX 9890 SAMPLE 5104			INDEX 9891 SAMPLE 16284		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PARKER		PARKER			PARKER		
FIELD.....	MEZUR		NOT GIVEN			SPRINGTOWN		
WELL NAME.....	A. F. BOYD NO. 8		SCOTT-WOOD NO. 1			MATHIS NO. 1		
LOCATION.....	NOT GIVEN		T&P SUR. NO. 121			M. THOMAS SUR., A-1304		
OWNER.....	NEEKER & CO.		LVO CORP.			SPINDLETOP OIL & GAS CO.		
COMPLETED.....	7/7/00		7/7/00			07/30/80		
SAMPLED.....	01/30/71		11/29/51			06/12/81		
FORMATION.....	PENN-ATOKA L		NOT GIVEN			PENN-BEND CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	4000		NOT GIVEN			5445		
WELLHEAD PRESSURE, PSIG.....	600		NOT GIVEN			1790		
OPEN FLOW, MCFD.....	200		NOT GIVEN			3000		
COMPONENT, MOLE PCT								
METHANE.....	81.5		81.5			84.6		
ETHANE.....	8.0		7.6			8.2		
PROPANE.....	4.8		4.2			3.0		
N-BUTANE.....	1.0		1.2			0.6		
ISOBUTANE.....	0.5		0.4			0.5		
N-PENTANE.....	0.3		0.3			0.1		
ISOPENTANE.....	0.1		0.0			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	3.3		3.9			1.9		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.5		
HELIUM.....	0.75		0.75			0.10		
HEATING VALUE.....	1156		1156			1112		
SPECIFIC GRAVITY.....	0.694		0.688			0.664		
INDEX 9892 SAMPLE 16294			INDEX 9893 SAMPLE 15362			INDEX 9894 SAMPLE 12255		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PARKER		PARKER			PECOS		
FIELD.....	STRAWN		WEATHERFORD			ABELL		
WELL NAME.....	LEONARD NO. 2		MONCRIEF RANCH NO. 1			BOYS RANCH NO. 1		
LOCATION.....	JOHN COLE SUR. A-218		T. H. WOOLEY SUR. A-1674			SEC. 32, BLK. 9, H&GN SUR.		
OWNER.....	WORLD PRODUCERS, INC.		W. A. MONCRIEF, JR.			TEXAS OIL & GAS CORP.		
COMPLETED.....	01/17/81		05/19/75			01/28/69		
SAMPLED.....	07/13/81		07/24/78			05/05/78		
FORMATION.....	PENN-STRAWN		PENN-STRAWN			PERM-CLEARFORK		
GEOLOGIC PROVINCE CODE.....	420		420			430		
DEPTH, FEET.....	2525		2768			3455		
WELLHEAD PRESSURE, PSIG.....	842		880			1615		
OPEN FLOW, MCFD.....	7775		8000			2750		
COMPONENT, MOLE PCT								
METHANE.....	90.0		89.2			90.2		
ETHANE.....	2.8		3.8			5.0		
PROPANE.....	1.1		1.6			2.1		
N-BUTANE.....	0.3		0.4			0.6		
ISOBUTANE.....	0.2		0.2			0.2		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	4.8		3.8			1.5		
OXYGEN.....	0.1		TRACE			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.34		0.31			0.01		
HEATING VALUE.....	1017		1047			1098		
SPECIFIC GRAVITY.....	0.611		0.618			0.625		
INDEX 9895 SAMPLE 14305			INDEX 9896 SAMPLE 13268			INDEX 9897 SAMPLE 12095		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	APACHE CAMP		APCO-WARNER			CARDINAL		
WELL NAME.....	WHITE ESTATE A NO. 1		CRACKETT STATE NO. 2			CARDINAL UNIVERSITY NO. 1		
LOCATION.....	SEC. 97, BLK. 194, 64R SUR.		SEC. A-2, PINK PHELPS SUR.			SEC. 4, BLK. 17, UNIV. LDS SUR.		
OWNER.....	STANDARD OIL & GAS CORP.		STANDARD OIL CO.			ADORE OIL & GAS CORP.		
COMPLETED.....	02/15/74		01/04/71			11/25/67		
SAMPLED.....	03/13/75		06/16/72			11/03/69		
FORMATION.....	ORDO-ELLENBURGER		PERM-CLEARFORK			PERM-QUEEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	9534		3149			1543		
WELLHEAD PRESSURE, PSIG.....	2740		1285			568		
OPEN FLOW, MCFD.....	3250		1560			3480		
COMPONENT, MOLE PCT								
METHANE.....	83.8		83.9			88.6		
ETHANE.....	5.3		5.3			3.3		
PROPANE.....	3.4		2.7			1.7		
N-BUTANE.....	1.2		0.6			0.5		
ISOBUTANE.....	0.5		0.5			0.2		
N-PENTANE.....	0.2		0.2			TRACE		
ISOPENTANE.....	0.4		0.1			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.4		0.1			0.1		
NITROGEN.....	3.2		3.6			1.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.1			1.1		
CARBON DIOXIDE.....	1.2		0.4			3.2		
HELIUM.....	0.08		0.05			TRACE		
HEATING VALUE.....	1152		1115			1045		
SPECIFIC GRAVITY.....	0.695		0.664			0.646		
INDEX 9898 SAMPLE 7701			INDEX 9899 SAMPLE 8442			INDEX 9900 SAMPLE 11027		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	CHELOT		COYANOSA			COYANOSA		
WELL NAME.....	SOUTHLAND ROYALTY ET AL NO.1		EFFIE POTTS SIBLEY NO. 1			EFFIE POTTS SIBLEY NO. 2C		
LOCATION.....	SEC. 76, BLK. 11, H&GN SUR.		SEC. 48, BLK. 0W			SEC. 19, BLK. C-2, PSL SUR.		
OWNER.....	STANDARD OIL CO. OF TEXAS		SOCONY MOBIL OIL CO., INC.			MOBIL OIL CORP.		
COMPLETED.....	02/12/58		02/12/58			07/23/66		
SAMPLED.....	09/26/60		02/18/62			07/10/67		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			MISS-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	4936		9657			10475		
WELLHEAD PRESSURE, PSIG.....	1925		4172			4673		
OPEN FLOW, MCFD.....	14250		240200			16300		
COMPONENT, MOLE PCT								
METHANE.....	96.1		83.9			83.0		
ETHANE.....	1.7		8.1			8.8		
PROPANE.....	0.4		0.0			3.0		
N-BUTANE.....	0.1		0.8			1.1		
ISOBUTANE.....	0.1		0.6			0.5		
N-PENTANE.....	0.1		0.3			0.2		
ISOPENTANE.....	TRACE		0.3			TRACE		
CYCLOPENTANE.....	TRACE		0.3			0.1		
HEXANES PLUS.....	0.1		0.7			0.3		
NITROGEN.....	1.9		1.5			1.4		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.4		
HELIUM.....	0.05		0.02			0.01		
HEATING VALUE.....	1130		1113			1192		
SPECIFIC GRAVITY.....	0.581		0.694			0.688		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9901 14260	INDEX SAMPLE	9902 14261	INDEX SAMPLE	9903 14501
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	PECOS			PECOS		PECOS	
FIELD.....	COYANOSA			COYANOSA		COYANOSA	
WELL NAME.....	J. O. NEAL 42 NO. 4			J. O. NEAL 42 NO. 4		J. O. NEAL 42 NO. 5	
LOCATION.....	SEC. 42, BLK. 04, T1RR SUR.			SEC. 42, BLK. 04, T1RR SUR.		SEC. 42, BLK. 04, T1RR CO. SUR.	
OWNER.....	ATLANTIC RICHFIELD CO.			ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	06/24/74			06/24/74		04/16/75	
SAMPLED.....	02/13/75			02/13/75		10/14/75	
FORMATION.....	DEV0-			NISS-		PERM-BELL CANYON	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	11996			11156		5172	
WELLHEAD PRESSURE, PSIG.....	1613			5552		2350	
OPEN FLOW, MCFD.....	4056			24000		14975	
COMPONENT, MOLE PCT							
METHANE.....	92.9			92.7		89.8	
ETHANE.....	3.1			5.9		4.4	
PROPANE.....	1.0			1.2		1.5	
N-BUTANE.....	0.2			0.3		0.4	
ISOBUTANE.....	0.2			0.2		0.4	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	0.8			0.9		2.9	
OXYGEN.....	TRACE			0.1		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.4			0.4		0.1	
HELIUM.....	0.01			0.02		0.03	
HEATING VALUE.....	1050			1071		1072	
SPECIFIC GRAVITY.....	0.609			0.608		0.624	
		INDEX SAMPLE	9904 14638	INDEX SAMPLE	9905 12423	INDEX SAMPLE	9906 15320
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	PECOS			PECOS		PECOS	
FIELD.....	DAMERON			EL CINCO		EL CINCO	
WELL NAME.....	SIDLO NO. 2			RUTH MARY PRICE NO. 1		MONTGOMERY-FULK NO. 11	
LOCATION.....	SEC. 18, BLK. 3, H&TC SUR.			SEC. 9, BLK. 12, H&GN SUR.		SEC. 9, BLK. 170, T1RR CO.	
OWNER.....	GEORGE H. MITCHELL			J. M. HUBER CORP.		TEXAS PACIFIC OIL CO., INC.	
COMPLETED.....	08/13/74			05/15/69		01/15/79	
SAMPLED.....	04/19/76			08/28/70		07/19/78	
FORMATION.....	PERM-CLEARFORK			PERM-LEONARD L		SILU-FUSSELMAN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	3227			4678		13365	
WELLHEAD PRESSURE, PSIG.....	1000			1862		1868	
OPEN FLOW, MCFD.....	3800			4650		89536	
COMPONENT, MOLE PCT							
METHANE.....	89.5			80.2		51.9	
ETHANE.....	5.2			9.4		0.2	
PROPANE.....	1.7			4.3		0.1	
N-BUTANE.....	0.5			0.3		TRACE	
ISOBUTANE.....	0.2			0.7		TRACE	
N-PENTANE.....	0.1			0.3		TRACE	
ISOPENTANE.....	0.1			0.4		TRACE	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	0.8			2.3		0.8	
OXYGEN.....	0.0			0.1		TRACE	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.1		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.0		46.6	
HELIUM.....	0.01			0.03		0.03	
HEATING VALUE.....	1088			1220		541	
SPECIFIC GRAVITY.....	0.630			0.710		1.017	
		INDEX SAMPLE	9907 14505	INDEX SAMPLE	9908 11789	INDEX SAMPLE	9909 12142
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	PECOS			PECOS		PECOS	
FIELD.....	GMW			GMW		GOMEZ	
WELL NAME.....	ALLISON RANCH 3-170 NO. 1			W. M. PALMER NO. 1		ABELL EAST UNIT NO. 1	
LOCATION.....	SEC. 3, BLK. 170, T1RR CO. SUR.			SEC. 3, BLK. 04, T1RR SUR.		JEFFERSON RICHARDS SUR. 222	
OWNER.....	CONTINENTAL OIL CO.			FOREST OIL CORP.		GULF OIL CORP.	
COMPLETED.....	08/05/74			11/21/68		01/05/68	
SAMPLED.....	10/1/75			03/07/69		12/15/69	
FORMATION.....	ORDO-MONTOYA			ORDO-ELLENBURGER		ORDO-ELLENBURGER	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	12994			21539		21018	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			7400		7209	
OPEN FLOW, MCFD.....	21000			40000		130000	
COMPONENT, MOLE PCT							
METHANE.....	56.1			95.5		96.5	
ETHANE.....	0.2			0.1		0.1	
PROPANE.....	0.1			0.1		TRACE	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	1.1			3.3		0.4	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	42.5			0.0		2.9	
HELIUM.....	0.03			0.01		0.02	
HEATING VALUE.....	574			972		980	
SPECIFIC GRAVITY.....	0.975			0.579		0.584	
		INDEX SAMPLE	9910 14128	INDEX SAMPLE	9911 15522	INDEX SAMPLE	9912 16450
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	PECOS			PECOS		PECOS	
FIELD.....	GOMEZ			GOMEZ		GOMEZ SE	
WELL NAME.....	DIXEL RESOURCES NO. 2			RAYNAL EAGLE NO. 1		M. COMB GAS UNIT NO. 1	
LOCATION.....	SEC. 1, BLK. 203, SA HOPSON SUR			SEC. 3, BLK. 142, T&STL SUR.		SEC. 2, BLK. 198, TUNNELL SUR	
OWNER.....	LADY PETROLEUM CORP.			GIFFORD-MITCHELL-WISENBAKER		EXXON CO., U.S.A.	
COMPLETED.....	04/27/73			11/23/78		11/23/81	
SAMPLED.....	08/12/74			11/22/78		03/16/82	
FORMATION.....	PENN-ATOKA			DEV0-		ORDO-ELLENBURGER	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	16250			18900		25404	
WELLHEAD PRESSURE, PSIG.....	11792			7039		6400	
OPEN FLOW, MCFD.....	14096			15100		4850	
COMPONENT, MOLE PCT							
METHANE.....	96.2			95.1		95.8	
ETHANE.....	0.1			0.3		0.0	
PROPANE.....	TRACE			TRACE		0.0	
N-BUTANE.....	0.0			TRACE		0.0	
ISOBUTANE.....	0.0			TRACE		0.0	
N-PENTANE.....	0.0			TRACE		0.0	
ISOPENTANE.....	0.0			TRACE		0.0	
CYCLOPENTANE.....	0.0			TRACE		0.0	
HEXANES PLUS.....	0.0			0.1		0.0	
NITROGEN.....	0.4			0.7		0.4	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	3.3			0.6		3.6	
HELIUM.....	0.02			0.0		0.02	
HEATING VALUE.....	976			974		972	
SPECIFIC GRAVITY.....	0.589			0.595		0.592	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9913 SAMPLE 12742			INDEX 9914 SAMPLE 13296			INDEX 9915 SAMPLE 17474		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	GREY RANCH		GREY RANCH W			HEINER S		
WELL NAME.....	BLACKSTONE-SLAUGHTER G NO. 1		BLACKSTONE-SLAUGHTER NO. 1			CROWLEY STATE NO. 1		
LOCATION.....	SEC. 16, BLK. 129, T&STL SUR.		SEC. 1, BLK. 131, T&STL SUR.			SEC. 590-B1-102 GC & SFRR		
OWNER.....	SUPERIOR OIL CO.		CHEVRON OIL CO.			WAY, RALPH L., INC.		
COMPLETED.....	10/31/67		09/20/71			05/17/83		
SAMPLED.....	03/27/71		07/11/72			10/04/84		
FORMATION.....	ORDO-ELLENBURGER		ORDO-ELLENBURGER			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	14567		18348			4380		
WELLHEAD PRESSURE, PSIG.....	2360		4000			1584		
OPEN FLOW, MCFD.....	24164		184000			7400		
COMPONENT, MOLE PCT								
METHANE.....	95.6		51.6			94.7		
ETHANE.....	1.1		TRACE			2.0		
PROPANE.....	0.2		TRACE			0.5		
N-BUTANE.....	TRACE		0.0			0.2		
ISOBUTANE.....	TRACE		0.0			0.1		
N-PENTANE.....	TRACE		0.0			0.1		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.1		0.0			0.1		
NITROGEN.....	0.6		0.5			0.7		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.2		
CARBON DIOXIDE.....	2.4		47.7			1.4		
HELIUM.....	0.02		0.03			0.02		
HEATING VALUE.....	998		523			1029		
SPECIFIC GRAVITY.....	0.590		1.020			0.596		

INDEX 9916 SAMPLE 12780			INDEX 9917 SAMPLE 12781			INDEX 9918 SAMPLE 12782		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	HERSHEY		HERSHEY			HERSHEY		
WELL NAME.....	ELIZABETH LOUIS STATE		AUDIE LUCAS			J. C. KELLY		
LOCATION.....	SEC. 15, BLK. 50, T&P SUR.		SEC. 8, BLK. 50, T&P SUR.			SEC. 8, BLK. 51, T&P SUR.		
OWNER.....	ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.			ATLANTIC RICHFIELD CO.		
COMPLETED.....	03/05/62		06/16/61			07/08/60		
SAMPLED.....	04/21/71		04/21/71			04/21/71		
FORMATION.....	SILU-FUSSELMAN & DEVO-MONTOYA		SILU-FUSSELMAN & DEVO-MONTOYA			SILU-FUSSELMAN & DEVO-MONTOYA		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	15936		16030			15831		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	95.2		94.8			94.0		
ETHANE.....	0.4		0.4			0.3		
PROPANE.....	0.1		TRACE			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.7		0.6			1.6		
OXYGEN.....	0.0		0.0			0.2		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.7		4.2			3.8		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	974		967			958		
SPECIFIC GRAVITY.....	0.597		0.600			0.600		

INDEX 9919 SAMPLE 15328			INDEX 9920 SAMPLE 14175			INDEX 9921 SAMPLE 14266		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	HOKIT W		HOKIT			HOKIT E		
WELL NAME.....	HERSHENSON NO. 1		HELLON-HOKIT NO. 1			HARRAL NO. 23 NO. 1		
LOCATION.....	SEC. 8, BLK. 51, T&PRR SUR.		SEC. 17, BLK. 127, T&STL SUR			SEC. 23, BLK. 127, T&STL SUR		
OWNER.....	NORTHERN NATURAL GAS CO.		AMERICAN CHEMICAL CORP.			UNION TEXAS PETROLEUM CORP.		
COMPLETED.....	09/25/77		12/06/73			06/04/74		
SAMPLED.....	08/01/78		10/04/74			02/--/75		
FORMATION.....	ORDO-MONTOYA		NOT GIVEN			PENN-STRAWN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	15445		11038			9777		
WELLHEAD PRESSURE, PSIG.....	4926		3200			3250		
OPEN FLOW, MCFD.....	20500		65000			23000		
COMPONENT, MOLE PCT								
METHANE.....	94.9		77.1			49.8		
ETHANE.....	0.4		3.2			13.7		
PROPANE.....	0.0		1.4			14.3		
N-BUTANE.....	0.1		0.5			9.3		
ISOBUTANE.....	0.0		0.3			3.5		
N-PENTANE.....	0.2		0.3			3.3		
ISOPENTANE.....	TRACE		0.2			3.0		
CYCLOPENTANE.....	TRACE		TRACE			0.4		
HEXANES PLUS.....	0.1		0.2			1.6		
NITROGEN.....	0.6		2.1			0.2		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.7		14.7			0.8		
HELIUM.....	0.01		0.08			TRACE		
HEATING VALUE.....	986		929			1919		
SPECIFIC GRAVITY.....	0.603		0.762			1.137		

INDEX 9922 SAMPLE 10366			INDEX 9923 SAMPLE 10367			INDEX 9924 SAMPLE 13272		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	HOKIT NW		HOKIT NW			HUBER		
WELL NAME.....	MARY MCKENZIE NO. 1-UT		MARY MCKENZIE NO. 1-LT			SEC. 6, NEVILLE-STATE NO. 1		
LOCATION.....	SEC. 2, BLK. 180-1/2, TCRR SUR.		SEC. 2, BLK. 180-1/2, TC RR SUR.			SEC. 70, BLK. 194, GC+SF RR		
OWNER.....	REDCO CORP.		REDCO CORP.			GULF OIL CO.- U.S.		
COMPLETED.....	01/12/64		01/12/63			07/21/71		
SAMPLED.....	01/14/66		01/14/66			06/20/72		
FORMATION.....	PERM-WICHITA-ALBANY		PENN-			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	6572		6936			5070		
WELLHEAD PRESSURE, PSIG.....	2163		2150			2049		
OPEN FLOW, MCFD.....	3000		19915			28000		
COMPONENT, MOLE PCT								
METHANE.....	84.6		86.0			71.0		
ETHANE.....	7.5		7.2			8.7		
PROPANE.....	2.8		2.6			4.8		
N-BUTANE.....	0.0		0.0			1.5		
ISOBUTANE.....	0.2		0.4			0.7		
N-PENTANE.....	0.5		0.3			0.4		
ISOPENTANE.....	0.2		0.1			0.2		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.6		0.5			0.2		
NITROGEN.....	1.4		0.0			10.7		
OXYGEN.....	0.0		0.0			1.7		
ARGON.....	0.0		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.0		0.9			0.1		
HELIUM.....	0.04		0.05			0.07		
HEATING VALUE.....	917		1177			1114		
SPECIFIC GRAVITY.....	0.685		0.674			0.754		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9925			INDEX 9926			INDEX 9927		
SAMPLE 12820			SAMPLE 5640			SAMPLE 13006		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	LEHN-APCO N		LEON VALLEY			LEON VALLEY		
WELL NAME.....	SHEARER NO. 1		STATE D.U. NO. 1			STATE NO. 2-DV		
LOCATION.....	SEC. 37, BLK. 10, H&GN SUR.		SEC. 7, BLK. 28			SEC. 7, BLK. 28, UNIV.LD.SUR.		
OWNER.....	LARIO OIL & GAS CO.		GULF OIL CORP.			COMANCHE GAS CO.		
COMPLETED.....	09/23/70		02/11/54			04/06/55		
SAMPLED.....	05/13/71		06/18/54			08/30/71		
FORMATION.....	ORDO-MONTOYA		PERM-YATES			PERM-YATES		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	4963		2552			2690		
WELLHEAD PRESSURE, PSIG.....	1970		NOT GIVEN			150		
OPEN FLOW, MCFD.....	9500		6500			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	80.0		96.4			94.1		
ETHANE.....	9.0		0.5			2.1		
PROPANE.....	3.8		0.0			0.9		
N-BUTANE.....	1.1		0.1			0.4		
ISOBUTANE.....	0.7		0.0			0.2		
N-PENTANE.....	0.4		0.0			0.1		
ISOPENTANE.....	0.2		0.0			0.1		
CYCLOPENTANE.....	0.2		0.0			TRACE		
HEXANES PLUS.....	0.5		TRACE			0.1		
NITROGEN.....	3.4		2.2			1.3		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.2			0.0		
HYDROGEN SULFIDE.....	0.1		0.0			0.3		
CARBON DIOXIDE.....	0.5		0.6			0.4		
HELIUM.....	0.04		0.03			0.02		
HEATING VALUE.....	1190		990			1050		
SPECIFIC GRAVITY.....	0.712		0.572			0.600		

INDEX 9928			INDEX 9929			INDEX 9930		
SAMPLE 10726			SAMPLE 16387			SAMPLE 12115		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	LINTERNA		MANZANITA			NOT GIVEN		
WELL NAME.....	CHARLES J. WALKER NO. 1		MANZANITA G.U. NO. 1			NEAL ESTATE NO. 1		
LOCATION.....	SEC. 19, BLK. 49, T&P SUR.		SEC. 169, BLK. 3, T&P SUR.			SEC. 14, BLK. 142, T&STL SUR		
OWNER.....	FOREST OIL CORP.		TEXACO INC.			WM. MOSS PROPERTIES, INC.		
COMPLETED.....	03/09/66		04/01/81			12/11/68		
SAMPLED.....	09/20/66		10/27/81			11/15/69		
FORMATION.....	ORDO-ELLENBURGER		DEVO-MANZANITA			PERM-CAPITAN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	21526		13834			3060		
WELLHEAD PRESSURE, PSIG.....	3984		4800			1200		
OPEN FLOW, MCFD.....	30000		5364			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	89.7		94.8			88.8		
ETHANE.....	0.1		0.4			3.5		
PROPANE.....	TRACE		TRACE			0.1		
N-BUTANE.....	0.0		0.0			0.2		
ISOBUTANE.....	0.0		0.0			0.1		
N-PENTANE.....	0.0		0.0			0.2		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			0.2		
NITROGEN.....	0.7		0.6			5.2		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	9.4		4.0			0.4		
HELIUM.....	0.03		0.03			0.04		
HEATING VALUE.....	910		207			1020		
SPECIFIC GRAVITY.....	0.650		0.597			0.620		

INDEX 9931			INDEX 9932			INDEX 9933		
SAMPLE 12116			SAMPLE 16052			SAMPLE 17880		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	NEAL ESTATE NO. 1		UNIV. 23-15 NO. 1			PAGE HANKS NO. 1		
LOCATION.....	SEC. 14, BLK. 142, T&STL SUR		SEC. 15, BLK. 23, U L SUR.			SEC. 17, BLK. 125, T&STL SUR		
OWNER.....	WM. MOSS PROPERTIES, INC.		EXXON CO. U.S.A.			HARVEY E. YATES CO.		
COMPLETED.....	12/11/68		7/7/80			07/16/84		
SAMPLED.....	11/15/69		08/21/80			10/24/85		
FORMATION.....	PERM-YATES		PENN-HORROW			PENN-BARBASAL		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2846		17916			6800		
WELLHEAD PRESSURE, PSIG.....	1300		9950			1867		
OPEN FLOW, MCFD.....	6000		2692			1610		
COMPONENT, MOLE PCT.....								
METHANE.....	87.7		96.6			75.3		
ETHANE.....	3.6		0.6			5.0		
PROPANE.....	1.5		0.1			2.1		
N-BUTANE.....	0.4		0.0			0.8		
ISOBUTANE.....	TRACE		0.0			0.3		
N-PENTANE.....	0.4		0.0			0.5		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	0.2		0.0			0.3		
HEXANES PLUS.....	0.1		0.0			0.7		
NITROGEN.....	6.0		0.4			11.0		
OXYGEN.....	0.0		0.0			2.7		
ARGON.....	0.0		TRACE			0.1		
HYDROGEN.....	0.1		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			1.1		
HELIUM.....	0.05		0.01			0.03		
HEATING VALUE.....	1035		992			1017		
SPECIFIC GRAVITY.....	0.632		0.582			0.723		

INDEX 9934			INDEX 9935			INDEX 9936		
SAMPLE 16888			SAMPLE 11664			SAMPLE 11752		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	NUZ		OATES NE			OATES NE		
WELL NAME.....	NUZZ NO. 1-16		C. E. MCINTYRE NO. 1			PAUL DAVIS NO. 1		
LOCATION.....	SEC. 16, BLK. 125, T&STL SUR.		SEC. 139, BLK 3, T&PRR SUR.			BLK. 3, T&PRR SUR.		
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	10/05/82		03/22/67			11/05/68		
SAMPLED.....	04/22/83		10/08/67			02/03/69		
FORMATION.....	PERM-WOLFCAHP		ORDO-ELLENBURGER			DEVO-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	6576		15466			13302		
WELLHEAD PRESSURE, PSIG.....	1573		4093			4492		
OPEN FLOW, MCFD.....	4200		36500			27000		
COMPONENT, MOLE PCT.....								
METHANE.....	91.1		60.2			85.7		
ETHANE.....	3.6		0.1			0.2		
PROPANE.....	3.5		TRACE			0.0		
N-BUTANE.....	0.5		0.0			0.1		
ISOBUTANE.....	0.1		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.2		
ISOPENTANE.....	0.3		0.0			0.0		
CYCLOPENTANE.....	0.1		0.0			0.2		
HEXANES PLUS.....	0.1		0.0			0.1		
NITROGEN.....	2.0		0.4			0.7		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.2		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		38.3			12.7		
HELIUM.....	0.07		0.0			TRACE		
HEATING VALUE.....	1073		612			897		
SPECIFIC GRAVITY.....	0.621		0.934			0.693		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9937			INDEX 9938			INDEX 9939		
SAMPLE 12760			SAMPLE 12761			SAMPLE 12762		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	OWEGO		OWEGO			OWEGO		
WELL NAME.....	VALLEY A NO. 2		VALLEY B NO. 1			VALLEY A NO. 2		
LOCATION.....	SEC. 115, BLK. 11, H&GN SUR.		SEC. 115, BLK. 11, H&GN SUR.			SEC. 115, BLK. 11, H&GN SUR.		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	07/24/58		07/29/59			12/07/66		
SAMPLED.....	04/12/71		04/12/71			04/12/71		
FORMATION.....	PERM-TUBB		PERM-GLORIETA			PERM-CLEARFORK		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	2900		2250			2439		
WELLHEAD PRESSURE, PSIG.....	215		375			495		
OPEN FLOW, MCFD.....	2425		2232			3014		
COMPONENT, MOLE PCT								
METHANE.....	86.9		86.1			87.6		
ETHANE.....	5.6		6.5			6.0		
PROPANE.....	2.1		2.7			2.4		
N-BUTANE.....	0.6		0.7			0.7		
ISOBUTANE.....	0.1		0.6			0.4		
N-PENTANE.....	0.0		0.2			0.3		
ISOPENTANE.....	0.5		TRACE			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	1.7		1.9			1.6		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.4		0.3			0.3		
CARBON DIOXIDE.....	1.6		0.5			0.5		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1097		1118			1118		
SPECIFIC GRAVITY.....	0.654		0.653			0.648		
INDEX 9940			INDEX 9941			INDEX 9942		
SAMPLE 5642			SAMPLE 9976			SAMPLE 16249		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	PAYTON		PAYTON			PECOS GRANDE		
WELL NAME.....	H. J. EATON NO. 1		PAYTON NO. 1			8004 JV-P GRANDE NO. 1		
LOCATION.....	SEC. 1, BLK. 9, H&GN SUR.		SEC. 99, BLK. 8, H&GN SUR.			SEC. 2, BLK. 49, T-10 T&PRR SU		
OWNER.....	EL PASO NATURAL GAS CO.		CITIE SERVICE OIL CO.			BITA OIL PRODUCERS		
COMPLETED.....	02/04/54		07/09/64			08/04/80		
SAMPLED.....	06/22/54		07/16/65			04/29/81		
FORMATION.....	MISS-		ORDO-SIMPSON			ORDO-ELLENBURGER		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	6598		9814			21517		
WELLHEAD PRESSURE, PSIG.....	1734		600			6400		
OPEN FLOW, MCFD.....	3100		197			17922		
COMPONENT, MOLE PCT								
METHANE.....	84.9		86.6			90.9		
ETHANE.....	2.9		5.7			0.1		
PROPANE.....	0.9		1.3			TRACE		
N-BUTANE.....	0.7		0.4			TRACE		
ISOBUTANE.....	0.2		0.4			0.0		
N-PENTANE.....	0.1		TRACE			TRACE		
ISOPENTANE.....	0.1		TRACE			0.0		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.7			TRACE		
NITROGEN.....	0.9		1.0			0.6		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			8.2		
HELIUM.....	0.03		0.10			0.03		
HEATING VALUE.....	1153		1193			923		
SPECIFIC GRAVITY.....	0.656		0.680			0.636		
INDEX 9943			INDEX 9944			INDEX 9945		
SAMPLE 2034			SAMPLE 2035			SAMPLE 5091		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	PECOS VALLEY		PECOS VALLEY			PECOS VALLEY		
WELL NAME.....	SEC. 22, BLK. 10, H&GN		BUELL & HAGAN NO. 1			SEC. 27, BLK. 3, H&C SUR.		
LOCATION.....	SEC. 22, BLK. 10, H&GN		BUELL & HAGAN			CALLERY & HURT, INC.		
OWNER.....	BUELL & HAGAN		BUELL & HAGAN			17/18/50		
COMPLETED.....	03/01/29		05/06/30			07/30/51		
SAMPLED.....	06/09/30		06/12/30			PERM-WOLFCAMP		
FORMATION.....	PERM-YATES		PERM-YATES			430		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	1612		1528			5340		
WELLHEAD PRESSURE, PSIG.....	15		500			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		7770			24000		
COMPONENT, MOLE PCT								
METHANE.....	67.7		85.4			84.5		
ETHANE.....	27.9		13.6			7.0		
PROPANE.....	---		---			3.0		
N-BUTANE.....	---		---			1.0		
ISOBUTANE.....	---		---			0.7		
N-PENTANE.....	---		---			0.5		
ISOPENTANE.....	---		---			0.0		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.4		
NITROGEN.....	2.9		0.6			2.3		
OXYGEN.....	1.1		0.2			0.1		
ARGON.....	---		---			0.0		
HYDROGEN.....	---		---			0.0		
HYDROGEN SULFIDE.....	---		0.2			0.4		
CARBON DIOXIDE.....	0.4		TRACE			0.04		
HELIUM.....	0.00		1109			1160		
HEATING VALUE.....	1186		0.627			0.680		
SPECIFIC GRAVITY.....	0.714							
INDEX 9946			INDEX 9947			INDEX 9948		
SAMPLE 10023			SAMPLE 13493			SAMPLE 11647		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	PECOS VALLEY		PECOS VALLEY			PERRY BASS		
WELL NAME.....	BERTHA D. YOUNG NO. 2		BYRNE NO. 1			TEXAS AMERICAN SYND. NO. 1		
LOCATION.....	SEC. 49, BLK. 10, H&GN SUR.		SEC. 49, BLK. 10 H&GNRR SUR.			SEC. 21, BLK. 10, GH&SARR SUR.		
OWNER.....	HUMBLE OIL & REFINING CO.		HANSON OIL CO.			PERRY R. BASS		
COMPLETED.....	08/14/64		07/15/71			02/21/68		
SAMPLED.....	07/31/65		12/23/72			09/18/68		
FORMATION.....	DEVIO-		ORDO-ELLENBURGER			DEVIO-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	5223		7099			13260		
WELLHEAD PRESSURE, PSIG.....	35000		2000			4300		
OPEN FLOW, MCFD.....	---		11500			85000		
COMPONENT, MOLE PCT								
METHANE.....	86.1		87.7			91.1		
ETHANE.....	5.9		5.3			2.9		
PROPANE.....	3.0		2.6			0.6		
N-BUTANE.....	0.9		1.0			0.2		
ISOBUTANE.....	0.5		0.4			TRACE		
N-PENTANE.....	0.3		0.6			0.3		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.3			0.3		
NITROGEN.....	1.6		1.3			1.0		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.1			0.0		
CARBON DIOXIDE.....	0.1		0.3			3.9		
HELIUM.....	0.04		0.05			0.02		
HEATING VALUE.....	1157		1149			1025		
SPECIFIC GRAVITY.....	0.664		0.659			0.635		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9949 SAMPLE 13091		INDEX 9950 SAMPLE 13092		INDEX 9951 SAMPLE 12287	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PECOS	COUNTY.....	PECOS	COUNTY.....	PECOS
FIELD.....	PETCO	FIELD.....	PETCO	FIELD.....	PIKES PEAK
WELL NAME.....	NEAL ESTATE NO. 1	WELL NAME.....	NEAL ESTATE NO. 1	WELL NAME.....	ELLSINORE CATTLE CO. NO. 1
LOCATION.....	SEC. 28, BLK. 142, T&STL RR SUR.	LOCATION.....	SEC. 28, BLK. 142, T&STL RR SUR.	LOCATION.....	SEC. 10, BLK. 6, GC&SF SUR.
OWNER.....	PETROLEUM CORP.	OWNER.....	PETROLEUM CORP.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	05/17/70	COMPLETED.....	05/17/70	COMPLETED.....	03/20/70
SAMPLED.....	10/21/71	SAMPLED.....	10/21/71	SAMPLED.....	06/05/70
FORMATION.....	DEVO-NOT GIVEN	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	ORDO-MONTOYA
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	11128	DEPTH, FEET.....	13717	DEPTH, FEET.....	14172
WELLHEAD PRESSURE, PSIG.....	4031	WELLHEAD PRESSURE, PSIG.....	4818	WELLHEAD PRESSURE, PSIG.....	4593
OPEN FLOW, MCFD.....	15500	OPEN FLOW, MCFD.....	22200	OPEN FLOW, MCFD.....	20200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.7	METHANE.....	96.1	METHANE.....	87.8
ETHANE.....	3.0	ETHANE.....	1.6	ETHANE.....	0.9
PROpane.....	1.0	PROpane.....	0.5	PROpane.....	TRACE
N-BUTANE.....	0.4	N-BUTANE.....	0.2	N-BUTANE.....	0.0
ISOBUTANE.....	0.1	ISOBUTANE.....	0.1	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	1.6	NITROGEN.....	0.7	NITROGEN.....	0.9
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	10.7
HELIUM.....	0.02	HELIUM.....	0.03	HELIUM.....	0.03
HEATING VALUE.....	1049	HEATING VALUE.....	1039	HEATING VALUE.....	897
SPECIFIC GRAVITY.....	0.605	SPECIFIC GRAVITY.....	0.587	SPECIFIC GRAVITY.....	0.663
INDEX 9952 SAMPLE 13557		INDEX 9953 SAMPLE 5284		INDEX 9954 SAMPLE 5644	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PECOS	COUNTY.....	PECOS	COUNTY.....	PUCKETT
FIELD.....	PIKES PEAK E	FIELD.....	PUCKETT	FIELD.....	PUCKETT K-1
WELL NAME.....	ELLSINORE CATTLE CO. NO. 1	WELL NAME.....	GLENNA NO. 1	WELL NAME.....	SEC. 39, BLK. 101, TCRR SUR.
LOCATION.....	SEC. 25, BLK. 6, GC&SF SUR.	LOCATION.....	SEC. 28, BLK. 101, TCRR SUR.	LOCATION.....	SEC. 39, BLK. 101, TCRR SUR.
OWNER.....	TEXAS PACIFIC OIL CO., INC.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	09/01/72	COMPLETED.....	08/01/52	COMPLETED.....	04/10/54
SAMPLED.....	03/01/73	SAMPLED.....	10/10/62	SAMPLED.....	06/22/54
FORMATION.....	DEVO-	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	ORDO-ELLENBURGER
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	12654	DEPTH, FEET.....	13600	DEPTH, FEET.....	12358
WELLHEAD PRESSURE, PSIG.....	2950	WELLHEAD PRESSURE, PSIG.....	4550	WELLHEAD PRESSURE, PSIG.....	4558
OPEN FLOW, MCFD.....	28000	OPEN FLOW, MCFD.....	50000	OPEN FLOW, MCFD.....	33000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	56.6	METHANE.....	69.6	METHANE.....	70.9
ETHANE.....	0.3	ETHANE.....	1.1	ETHANE.....	1.0
PROpane.....	0.1	PROpane.....	0.8	PROpane.....	0.2
N-BUTANE.....	0.1	N-BUTANE.....	0.0	N-BUTANE.....	0.1
ISOBUTANE.....	0.1	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	1.0	NITROGEN.....	0.6	NITROGEN.....	0.5
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	41.6	CARBON DIOXIDE.....	28.0	CARBON DIOXIDE.....	26.9
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.03
HEATING VALUE.....	597	HEATING VALUE.....	747	HEATING VALUE.....	754
SPECIFIC GRAVITY.....	0.975	SPECIFIC GRAVITY.....	0.845	SPECIFIC GRAVITY.....	0.830
INDEX 9955 SAMPLE 12848		INDEX 9956 SAMPLE 12849		INDEX 9957 SAMPLE 14685	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PECOS	COUNTY.....	PECOS	COUNTY.....	PECOS
FIELD.....	PUCKETT	FIELD.....	PUCKETT	FIELD.....	PUCKETT E
WELL NAME.....	ROBBINS 1A NO. 5-D	WELL NAME.....	MITCHELL-THOMAS 1 NO. 1	WELL NAME.....	MITCHELL "E" NO. 1
LOCATION.....	SEC. 24, BLK. 126, T&STL RR SUR.	LOCATION.....	SEC. 23, BLK. 100, ELRR SUR.	LOCATION.....	SEC. 9, BLK. 102, J. GIBSON
OWNER.....	CHEVRON OIL CO.	OWNER.....	CHEVRON OIL CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	--/759	COMPLETED.....	--/758	COMPLETED.....	09/09/75
SAMPLED.....	06/10/71	SAMPLED.....	06/10/71	SAMPLED.....	05/28/76
FORMATION.....	DEVO-	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	11650	DEPTH, FEET.....	14500	DEPTH, FEET.....	11328
WELLHEAD PRESSURE, PSIG.....	1700	WELLHEAD PRESSURE, PSIG.....	2215	WELLHEAD PRESSURE, PSIG.....	3722
OPEN FLOW, MCFD.....	48000	OPEN FLOW, MCFD.....	66000	OPEN FLOW, MCFD.....	67500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.0	METHANE.....	70.6	METHANE.....	84.4
ETHANE.....	2.5	ETHANE.....	0.9	ETHANE.....	3.2
PROpane.....	0.6	PROpane.....	0.4	PROpane.....	3.3
N-BUTANE.....	0.1	N-BUTANE.....	TRACE	N-BUTANE.....	0.7
ISOBUTANE.....	0.1	ISOBUTANE.....	0.1	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	0.6	NITROGEN.....	0.8	NITROGEN.....	0.9
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.8	CARBON DIOXIDE.....	26.0	CARBON DIOXIDE.....	0.7
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.03
HEATING VALUE.....	1023	HEATING VALUE.....	766	HEATING VALUE.....	1157
SPECIFIC GRAVITY.....	0.612	SPECIFIC GRAVITY.....	0.837	SPECIFIC GRAVITY.....	0.666
INDEX 9958 SAMPLE 12756		INDEX 9959 SAMPLE 16419		INDEX 9960 SAMPLE 7885	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PECOS	COUNTY.....	PECOS	COUNTY.....	PUTNAM
FIELD.....	PUCKETT W	FIELD.....	PUCKETT W	FIELD.....	PUTNAM
WELL NAME.....	H. A. WIMBERLY NO. 2	WELL NAME.....	EMMA LOU UNIT NO. 1	WELL NAME.....	MCDONALD NO. 1
LOCATION.....	SEC. 4, BLK. 100	LOCATION.....	SEC. 58, BLK. 101, AB&M SUR.	LOCATION.....	SEC. 124, BLK. 11, H&GN SUR.
OWNER.....	HASSIE HUNT TRUST	OWNER.....	GULF OIL CORP.	OWNER.....	CLARK OIL CO.
COMPLETED.....	--/762	COMPLETED.....	11/25/77	COMPLETED.....	02/7/61
SAMPLED.....	04/06/71	SAMPLED.....	01/29/82	SAMPLED.....	05/01/61
FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	PENN-BEND CONGLOMERATE	FORMATION.....	PERM-WOLFCAMP L
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	10004	DEPTH, FEET.....	22156	DEPTH, FEET.....	5076
WELLHEAD PRESSURE, PSIG.....	2750	WELLHEAD PRESSURE, PSIG.....	14707	WELLHEAD PRESSURE, PSIG.....	2100
OPEN FLOW, MCFD.....	11400	OPEN FLOW, MCFD.....	8800	OPEN FLOW, MCFD.....	5200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.9	METHANE.....	94.7	METHANE.....	87.4
ETHANE.....	2.6	ETHANE.....	0.2	ETHANE.....	5.4
PROpane.....	1.0	PROpane.....	TRACE	PROpane.....	2.1
N-BUTANE.....	0.3	N-BUTANE.....	TRACE	N-BUTANE.....	0.7
ISOBUTANE.....	0.2	ISOBUTANE.....	0.0	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	TRACE	N-PENTANE.....	0.2
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	1.7	NITROGEN.....	0.3	NITROGEN.....	3.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.8	CARBON DIOXIDE.....	4.6	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.05	HELIUM.....	0.01	HELIUM.....	0.10
HEATING VALUE.....	1039	HEATING VALUE.....	1057	HEATING VALUE.....	1057
SPECIFIC GRAVITY.....	0.618	SPECIFIC GRAVITY.....	0.603	SPECIFIC GRAVITY.....	0.642

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9961 SAMPLE 7789			INDEX 9962 SAMPLE 13834			INDEX 9963 SAMPLE 4835		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	ROJO CABALLOS		ROJO CABALLOS S			SANTA ROSA		
WELL NAME.....	IUV B. WEATHERBY NO. 1		FRED SCHLOSSER ESTATE NO. 1			PEERLESS NO. 1		
LOCATION.....	SEC. 20, BLK. 48, T&PRR SUR.		SEC. 25, BLK. 49, T&PRR SUR.			SEC. 106, BLK. 8, H&GN SUR.		
OWNER.....	MOBIL OIL CO.		SULF OIL CO.- U.S.			SLICK-MOORMAN OIL CO.		
COMPLETED.....	12/05/60		03/31/73			04/28/49		
SAMPLED.....	12/05/60		12/05/73			12/07/49		
FORMATION.....	PERM-		ORDO-ELLENBURGER			ORDO-ELLENBURGER		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	15117		21630			8995		
WELLHEAD PRESSURE, PSIG.....	10460		6505			4390		
OPEN FLOW, MCFD.....	NOT GIVEN		84000			28250		
COMPONENT, MOLE PCT								
METHANE.....	91.4		98.0			91.4		
ETHANE.....	4.8		0.1			3.4		
PROPANE.....	1.3		TRACE			1.4		
N-BUTANE.....	0.3		0.0			0.7		
ISOBUTANE.....	0.4		0.0			0.2		
N-PENTANE.....	0.2		0.0			0.5		
ISOPENTANE.....	TRACE		0.0			0.1		
CYCLOPENTANE.....	0.1		0.0			0.1		
HEXANES PLUS.....	0.3		0.0			0.5		
NITROGEN.....	0.4		0.3			1.0		
OXYGEN.....	TRACE		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.7		1.5			0.4		
HELIUM.....	0.01		0.02			0.03		
HEATING VALUE.....	1097		995			1117		
SPECIFIC GRAVITY.....	0.623		0.570			0.632		

INDEX 9964 SAMPLE 9977			INDEX 9965 SAMPLE 15302			INDEX 9966 SAMPLE 12953		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	SHEFFIELD		SIERRA MADERA			SURVEY 16		
WELL NAME.....	CANON 10-1		SIERRA MADERA NO. 1			COYANOSA GAS NO.2, WELL NO.3		
LOCATION.....	SEC. 10, BLK 178, TCRR SUR.		SEC. 68, BLK. D, GS&SF SUR.			SEC. 46, BLK. 0W, T&RR SUR.		
OWNER.....	SHELL OIL CO.		L. R. FRENCH, JR.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	10/07/63		03/12/77			10/13/69		
SAMPLED.....	07/09/65		06/01/78			08/17/71		
FORMATION.....	ORDO-MCKEE		DEVO-			PERM-WOLFCAMP		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	8328		12700			10998		
WELLHEAD PRESSURE, PSIG.....	2166		3000			3736		
OPEN FLOW, MCFD.....	3600		8000			85000		
COMPONENT, MOLE PCT								
METHANE.....	78.0		92.0			83.6		
ETHANE.....	9.7		0.2			8.4		
PROPANE.....	4.2		0.0			0.1		
N-BUTANE.....	0.5		0.0			0.9		
ISOBUTANE.....	0.5		0.0			0.6		
N-PENTANE.....	0.3		0.0			0.4		
ISOPENTANE.....	0.7		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.1		
HEXANES PLUS.....	0.2		0.0			0.2		
NITROGEN.....	3.4		1.1			1.6		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		6.6			TRACE		
HELIUM.....	0.03		0.02			0.02		
HEATING VALUE.....	1220		0.338			1185		
SPECIFIC GRAVITY.....	0.730		0.625			0.680		

INDEX 9967 SAMPLE 2036			INDEX 9968 SAMPLE 2038			INDEX 9969 SAMPLE 2039		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	TAYLOR-LINK		TAYLOR-LINK			TAYLOR-LINK		
WELL NAME.....	UNIV. NO. 1		UNIV. C-3			BOUWERS UE NO. 1		
LOCATION.....	SEC. 36, BLK. 18, UNIV. LAND		SEC. 31, BLK. 16, UNIV. LAND			SEC. 31, BLK. 16, UNIV. LAND		
OWNER.....	BUELL & HAGAN		LANDRETH PRODUCTION CORP.			SHELL OIL CO.		
COMPLETED.....	05/31/29		11/16/29			05/01/30		
SAMPLED.....	06/13/30		06/12/30			06/13/30		
FORMATION.....	PERM-		NOT GIVEN			PERM-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	1313		915			1651		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		2000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	38.6		60.9			44.7		
ETHANE.....	3.8		33.9			49.2		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	29.0		4.5			0.4		
OXYGEN.....	0.3		0.4			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.06			5.5		
HELIUM.....	0.17		1224			0.02		
HEATING VALUE.....	961		0.744			1334		
SPECIFIC GRAVITY.....	0.835					0.854		

INDEX 9970 SAMPLE 2040			INDEX 9971 SAMPLE 12812			INDEX 9972 SAMPLE 13968		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PECOS		PECOS			PECOS		
FIELD.....	TAYLOR-LINK		WILLIAMS NET-11			THUNDERBIRD		
WELL NAME.....	BOUWERS U NO. 2		SEC. 13, BLK. 3, H&TC SUR.			BLOWING SAND NO. 1		
LOCATION.....	SEC. 31, BLK. 16		TEXACO INC.			SEC. 37, BLK. 3, H&TC SUR.		
OWNER.....	SHELL OIL CO.		---			THUNDERBIRD OIL CO.		
COMPLETED.....	11/19/29		04/30/71			---		
SAMPLED.....	06/13/30		PERM-GRAYBURG			---		
FORMATION.....	PERM-		430			DEVO-		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	1633		2084			5600		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		376			1200		
OPEN FLOW, MCFD.....	NOT GIVEN		340			20600		
COMPONENT, MOLE PCT								
METHANE.....	63.9		85.1			81.7		
ETHANE.....	31.8		6.7			8.8		
PROPANE.....	---		0.2			4.0		
N-BUTANE.....	---		0.7			1.1		
ISOBUTANE.....	---		0.2			0.4		
N-PENTANE.....	---		0.3			0.2		
ISOPENTANE.....	---		0.1			0.3		
CYCLOPENTANE.....	---		0.1			TRACE		
HEXANES PLUS.....	---		1.8			0.1		
NITROGEN.....	0.3		TRACE			2.9		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	---		0.0			TRACE		
HYDROGEN.....	---		1.2			TRACE		
HYDROGEN SULFIDE.....	---		1.1			0.0		
CARBON DIOXIDE.....	4.0		0.02			0.3		
HELIUM.....	0.00		116			0.05		
HEATING VALUE.....	1217		0.667			1166		
SPECIFIC GRAVITY.....	0.753					0.687		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 9973	INDEX SAMPLE 9974	INDEX SAMPLE 9975
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	PECOS		PECOS	PECOS
FIELD.....	WAMA		WAMA	WAMA
WELL NAME.....	WAYNE MOORE NO. 6		WAYNE MOORE NO. 3	J. H. HODGE NO. 2
LOCATION.....	SEC. 5, BLK. C-3, PSL SUR.		SEC. 6, BLK. C-3, PSL SUR.	SEC. 8, BLK. C-3, PSL SUR.
OWNER.....	MOBIL OIL CO.		MOBIL OIL CORP.	MOBIL OIL CORP.
COMPLETED.....	10/04/65		11/26/62	06/04/68
SAMPLED.....	10/05/65		04/02/71	04/02/71
FORMATION.....	DEV0-		PERM-DELAWARE	MISS-
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	11025		4918	9937
WELLHEAD PRESSURE, PSIG.....	6029		898	3673
OPEN FLOW, MCFD.....	6190		433	15925
COMPONENT, MOLE PCT				
METHANE.....	92.0	89.6	86.5	
ETHANE.....	3.0	4.9	7.6	
PROPANE.....	1.1	1.6	2.7	
N-BUTANE.....	0.3	0.5	0.8	
ISOBUTANE.....	0.2	0.4	0.4	
N-PENTANE.....	0.2	TRACE	0.3	
ISOPENTANE.....	0.1	0.3	0.2	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.2	0.1	0.2	
NITROGEN.....	1.8	2.6	0.9	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.1	0.1	0.3	
HELIUM.....	0.02	0.03	0.01	
HEATING VALUE.....	1054	1085	1158	
SPECIFIC GRAVITY.....	0.617	0.629	0.660	
		INDEX SAMPLE 9976	INDEX SAMPLE 9977	INDEX SAMPLE 9978
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	PECOS		PECOS	PECOS
FIELD.....	WAMA		WILDCAT	WILDCAT
WELL NAME.....	WAYNE MOORE NO. 14		MAC DER NO. 4	OMEGA NO. 1
LOCATION.....	SEC. 6, BLK. C-3, PSL SUR.		SEC. 36, BLK. 144, T&SL SUR.	SEC. 11, BLK. 134, T&SL RY SUR
OWNER.....	MOBIL OIL CORP.		STANDARD OIL CO. OF TEXAS	PHILLIPS PETROLEUM CO.
COMPLETED.....	04/16/68		03/15/44	10/28/47
SAMPLED.....	04/02/71		04/27/44	04/08/48
FORMATION.....	DEV0-		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	12147		4706	1460
WELLHEAD PRESSURE, PSIG.....	3853		1900	NOT GIVEN
OPEN FLOW, MCFD.....	10610		17300	687
COMPONENT, MOLE PCT				
METHANE.....	93.9	90.8	89.4	
ETHANE.....	2.3	3.7	0.0	
PROPANE.....	0.7	---	---	
N-BUTANE.....	0.1	---	---	
ISOBUTANE.....	0.2	---	---	
N-PENTANE.....	0.1	---	---	
ISOPENTANE.....	0.0	---	---	
CYCLOPENTANE.....	TRACE	---	---	
HEXANES PLUS.....	0.1	---	---	
NITROGEN.....	0.7	4.7	8.0	
OXYGEN.....	0.0	0.3	1.0	
ARGON.....	0.0	---	---	
HYDROGEN.....	0.0	---	---	
HYDROGEN SULFIDE.....	0.0	---	---	
CARBON DIOXIDE.....	1.8	0.5	1.5	
HELIUM.....	0.01	0.00	0.08	
HEATING VALUE.....	1030	906	906	
SPECIFIC GRAVITY.....	0.602	0.599	0.607	
		INDEX SAMPLE 9979	INDEX SAMPLE 9980	INDEX SAMPLE 9981
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	PECOS		PECOS	PECOS
FIELD.....	WILDCAT		WILDCAT	WILDCAT
WELL NAME.....	LILLIAN RUDICIL NO. 1		E. P. SIBLEY B NO. 1	W. C. TYRRELL NO. 1
LOCATION.....	H&M SUR. NO. 541		SEC. 45, BLK. 0W, T&TRR SUR.	SEC. 2, BLK. 115, GC&SF SUR.
OWNER.....	TEXAS CO.		MOBIL OIL CO.	PURE OIL CO.
COMPLETED.....	10/19/52		01/06/63	---/---/00
SAMPLED.....	01/07/53		01/13/63	07/24/63
FORMATION.....	PERM-YATES		ORDO-ELLENBURGER	ORDO-ELLENBURGER
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	3007		15000	19826
WELLHEAD PRESSURE, PSIG.....	1225		5398	7400
OPEN FLOW, MCFD.....	1110		21730	66000
COMPONENT, MOLE PCT				
METHANE.....	90.8	95.6	97.0	
ETHANE.....	2.6	1.6	0.1	
PROPANE.....	0.5	0.3	0.1	
N-BUTANE.....	0.1	0.1	TRACE	
ISOBUTANE.....	0.1	TRACE	---	
N-PENTANE.....	TRACE	0.1	0.0	
ISOPENTANE.....	0.0	0.1	0.0	
CYCLOPENTANE.....	TRACE	0.1	0.0	
HEXANES PLUS.....	0.1	0.1	0.0	
NITROGEN.....	4.6	0.6	0.2	
OXYGEN.....	0.1	0.6	0.0	
ARGON.....	TRACE	0.0	0.0	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE.....	0.2	0.0	0.0	
CARBON DIOXIDE.....	0.7	1.3	2.5	
HELIUM.....	0.03	0.03	0.01	
HEATING VALUE.....	993	1022	987	
SPECIFIC GRAVITY.....	0.604	0.587	0.581	
		INDEX SAMPLE 9982	INDEX SAMPLE 9983	INDEX SAMPLE 9984
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	PECOS		PECOS	PECOS
FIELD.....	WILDCAT		WILDCAT	WILDCAT
WELL NAME.....	ARCO-TERRAZAS NO. 1		YATES NO. 11	YATES H NO. 2
LOCATION.....	SEC. 1, BLK. 105 W.P. HOWARD		SEC. 61, BLK. 1, I&GN	SEC. 32, BLK. 194, GC&SF SUR.
OWNER.....	C & K PETROLEUM, INC.		WID-KANSAS & TRANSCONTINENTAL	WID-KANSAS OIL & GAS CO.
COMPLETED.....	07/30/76		02/08/28	08/05/28
SAMPLED.....	06/22/77		06/13/30	06/14/30
FORMATION.....	PERM-WOLFCAMP		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	9660		1305	1558
WELLHEAD PRESSURE, PSIG.....	3836		20	500
OPEN FLOW, MCFD.....	7606		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	85.4	84.6	47.0	
ETHANE.....	7.1	9.9	46.4	
PROPANE.....	2.6	---	---	
N-BUTANE.....	1.0	---	---	
ISOBUTANE.....	0.3	---	---	
N-PENTANE.....	0.2	---	---	
ISOPENTANE.....	0.3	---	---	
CYCLOPENTANE.....	0.1	---	---	
HEXANES PLUS.....	0.1	---	---	
NITROGEN.....	0.7	1.1	0.2	
OXYGEN.....	TRACE	0.2	0.2	
ARGON.....	TRACE	---	---	
HYDROGEN.....	0.0	---	---	
HYDROGEN SULFIDE.....	0.0	---	---	
CARBON DIOXIDE.....	0.3	4.3	6.2	
HELIUM.....	11.02	11.00	0.01	
HEATING VALUE.....	1160	1034	1308	
SPECIFIC GRAVITY.....	0.670	0.652	0.846	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 9985 SAMPLE 12766		INDEX 9986 SAMPLE 13638		INDEX 9987 SAMPLE 17412	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PECOS	COUNTY.....	PECOS	COUNTY.....	POLK
FIELD.....	YUCCA BUTTE	FIELD.....	YUCCA BUTTE	FIELD.....	ALABAMA-COUSHATTA
WELL NAME.....	BLACKSTONE-SLAUGHTER	WELL NAME.....	SLAUGHTER 66 NO. 1	WELL NAME.....	CHIEF COLABE NO. 1
LOCATION.....	SEC. 19, BLK. 9-2, TCRR SUR.	LOCATION.....	SEC. 66, BLK. A-2, TCRR SUR.	LOCATION.....	NOT GIVEN
OWNER.....	SHELL OIL CO.	OWNER.....	SHELL OIL CO.	OWNER.....	UNION OIL CO. OF CALIF.
COMPLETED.....	09/12/60	COMPLETED.....	02/10/73	COMPLETED.....	11/21/83
SAMPLED.....	04/15/71	SAMPLED.....	07/03/73	SAMPLED.....	09/11/84
FORMATION.....	PENN-DETRITAL	FORMATION.....	PENN-DETRITAL	FORMATION.....	CRET-WOODBINE L
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8190	DEPTH, FEET.....	8800	DEPTH, FEET.....	15400
WELLHEAD PRESSURE, PSIG.....	2182	WELLHEAD PRESSURE, PSIG.....	2450	WELLHEAD PRESSURE, PSIG.....	5000
OPEN FLOW, MCFD.....	5600	OPEN FLOW, MCFD.....	3000	OPEN FLOW, MCFD.....	70000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	88.7	METHANE.....	82.7	METHANE.....	90.8
ETHANE.....	5.6	ETHANE.....	8.1	ETHANE.....	0.7
PROpane.....	1.7	PROpane.....	4.0	PROpane.....	0.1
N-BUTANE.....	0.5	N-BUTANE.....	1.2	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.5	ISOBUTANE.....	0.1
N-PENTANE.....	TRACE	N-PENTANE.....	0.3	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	2.1	NITROGEN.....	0.7	NITROGEN.....	0.1
OXYGEN.....	0.2	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	7.7
HELIUM.....	0.4	HELIUM.....	0.04	HELIUM.....	TRACE
HEATING VALUE.....	1084	HEATING VALUE.....	1184	HEATING VALUE.....	56
SPECIFIC GRAVITY.....	0.632	SPECIFIC GRAVITY.....	0.693	SPECIFIC GRAVITY.....	0.644
INDEX 9988 SAMPLE 15984		INDEX 9989 SAMPLE 14980		INDEX 9990 SAMPLE 11292	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POLK	COUNTY.....	POLK	COUNTY.....	POLK
FIELD.....	DAMASCUS	FIELD.....	MORTENSE	FIELD.....	LIVINGSTON
WELL NAME.....	AN. 0.0. 1	WELL NAME.....	SOUTHLAND PAPER MILLS H NO.	WELL NAME.....	C. B. GRANBURY NO. 56
LOCATION.....	T&G SUR. A-337	LOCATION.....	J. A. CUMMINGS SUR. A-647	LOCATION.....	A. VIESCA SUR. A-77
OWNER.....	HINTON PRODUCTION CO.	OWNER.....	BELOCO PETROLEUM CORP.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	06/1/70	COMPLETED.....	04/16/77	COMPLETED.....	03/29/67
SAMPLED.....	06/1/80	SAMPLED.....	04/16/77	SAMPLED.....	02/15/68
FORMATION.....	CRET-WOODBINE	FORMATION.....	CRET-WOODBINE	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	9175	DEPTH, FEET.....	12578	DEPTH, FEET.....	2863
WELLHEAD PRESSURE, PSIG.....	3467	WELLHEAD PRESSURE, PSIG.....	4400	WELLHEAD PRESSURE, PSIG.....	677
OPEN FLOW, MCFD.....	37000	OPEN FLOW, MCFD.....	7526	OPEN FLOW, MCFD.....	180
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.2	METHANE.....	76.3	METHANE.....	98.0
ETHANE.....	1.8	ETHANE.....	7.1	ETHANE.....	0.0
PROpane.....	0.6	PROpane.....	5.2	PROpane.....	TRACE
N-BUTANE.....	0.3	N-BUTANE.....	0.7	N-BUTANE.....	0.0
ISOBUTANE.....	0.1	ISOBUTANE.....	1.5	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.6	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.7	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.0
NITROGEN.....	0.3	NITROGEN.....	0.2	NITROGEN.....	1.7
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.5	CARBON DIOXIDE.....	4.9	CARBON DIOXIDE.....	0.2
HELIUM.....	0.00	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1034	HEATING VALUE.....	929	HEATING VALUE.....	993
SPECIFIC GRAVITY.....	0.636	SPECIFIC GRAVITY.....	0.790	SPECIFIC GRAVITY.....	0.563
INDEX 9991 SAMPLE 14515		INDEX 9992 SAMPLE 15138		INDEX 9993 SAMPLE 14554	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LIVINGSTON	COUNTY.....	LIVINGSTON	COUNTY.....	POLK
FIELD.....	DR. H. J. PRATT NO. 16	FIELD.....	DR. H. J. PRATT NO. 16	FIELD.....	R. B. WOODBINE
WELL NAME.....	SWABB CITY	WELL NAME.....	M. SE OF LIVINGSTON	WELL NAME.....	SOUTHLAND PAPER MILLS NO. 1
LOCATION.....	SUN OIL CO.	LOCATION.....	SUN OIL CO.	LOCATION.....	JAMES CUMMINGS SUR. A-647
OWNER.....	SUN OIL CO.	OWNER.....	SUN OIL CO.	OWNER.....	BELOCO PETROLEUM CORP.
COMPLETED.....	08/20/75	COMPLETED.....	01/17/77	COMPLETED.....	10/01/75
SAMPLED.....	10/30/75	SAMPLED.....	11/03/77	SAMPLED.....	12/23/75
FORMATION.....	EOCE-YEGUA	FORMATION.....	EOCE-YEGUA	FORMATION.....	CRET-WOODBINE
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	4614	DEPTH, FEET.....	4614	DEPTH, FEET.....	12577
WELLHEAD PRESSURE, PSIG.....	900	WELLHEAD PRESSURE, PSIG.....	1740	WELLHEAD PRESSURE, PSIG.....	6443
OPEN FLOW, MCFD.....	356	OPEN FLOW, MCFD.....	5867	OPEN FLOW, MCFD.....	7526
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.3	METHANE.....	77.9	METHANE.....	89.6
ETHANE.....	0.3	ETHANE.....	5.5	ETHANE.....	4.0
PROpane.....	1.7	PROpane.....	1.6	PROpane.....	1.6
N-BUTANE.....	0.3	N-BUTANE.....	0.5	N-BUTANE.....	0.3
ISOBUTANE.....	0.0	ISOBUTANE.....	0.3	ISOBUTANE.....	0.4
N-PENTANE.....	TRACE	N-PENTANE.....	0.2	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	3.1	NITROGEN.....	12.8	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	2.4	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.1	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	3.4
HELIUM.....	0.02	HELIUM.....	0.02	HELIUM.....	0.01
HEATING VALUE.....	1048	HEATING VALUE.....	951	HEATING VALUE.....	1058
SPECIFIC GRAVITY.....	0.622	SPECIFIC GRAVITY.....	0.685	SPECIFIC GRAVITY.....	0.642
INDEX 9994 SAMPLE 13783		INDEX 9995 SAMPLE 14239		INDEX 9996 SAMPLE 15152	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POLK	COUNTY.....	POLK	COUNTY.....	POLK
FIELD.....	SEVEN OAKS N	FIELD.....	SEVEN OAKS N	FIELD.....	SEVEN OAKS N
WELL NAME.....	SOUTHLAND PAPER MILLS NO.8-2	WELL NAME.....	J. E. JONES UNIT NO. 1	WELL NAME.....	SEVEN OAKS TOWNSITE NO. 1
LOCATION.....	H&TC RR SUR. A-314	LOCATION.....	JOS W. SCARES SUR. A-69	LOCATION.....	B.J. HARPER SUR. A-36
OWNER.....	GEORGE MITCHELL & ASSOC. INC	OWNER.....	MITCHELL ENERGY CORP.	OWNER.....	MITCHELL ENERGY CORP.
COMPLETED.....	06/08/72	COMPLETED.....	12/03/74	COMPLETED.....	09/13/77
SAMPLED.....	10/26/73	SAMPLED.....	12/03/74	SAMPLED.....	11/21/77
FORMATION.....	CRET-WOODBINE	FORMATION.....	CRET-WOODBINE	FORMATION.....	CRET-WOODBINE
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	12450	DEPTH, FEET.....	12270	DEPTH, FEET.....	12332
WELLHEAD PRESSURE, PSIG.....	2200	WELLHEAD PRESSURE, PSIG.....	5215	WELLHEAD PRESSURE, PSIG.....	3700
OPEN FLOW, MCFD.....	3425	OPEN FLOW, MCFD.....	6000	OPEN FLOW, MCFD.....	1750
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.5	METHANE.....	56.2	METHANE.....	84.3
ETHANE.....	8.2	ETHANE.....	13.9	ETHANE.....	7.4
PROpane.....	2.2	PROpane.....	10.9	PROpane.....	2.7
N-BUTANE.....	0.3	N-BUTANE.....	4.8	N-BUTANE.....	0.7
ISOBUTANE.....	1.9	ISOBUTANE.....	3.5	ISOBUTANE.....	0.4
N-PENTANE.....	1.1	N-PENTANE.....	1.7	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.4	CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	1.4	HEXANES PLUS.....	1.6	HEXANES PLUS.....	0.1
NITROGEN.....	0.3	NITROGEN.....	0.2	NITROGEN.....	0.2
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	3.3	CARBON DIOXIDE.....	4.5	CARBON DIOXIDE.....	3.7
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1367	HEATING VALUE.....	1367	HEATING VALUE.....	1116
SPECIFIC GRAVITY.....	0.831	SPECIFIC GRAVITY.....	1.029	SPECIFIC GRAVITY.....	0.681

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	9997 7559	INDEX SAMPLE	9998 911	INDEX SAMPLE	9999 1141
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	BROOKESMITH			BUSH DOME		BUSH DOME	
WELL NAME.....	BIVINS NO. 1-207			BIVINS A-1		BUSH A-1	
LOCATION.....	SEC. 207, BLK. 2, AB&M SUR.			SEC. 26, BLK. 6, BS&F SUR.		SEC. 23, BLK. 6, BS&F SUR.	
OWNER.....	SHELL OIL CO.			U.S. BUREAU OF MINES		AMARILLO OIL CO.	
COMPLETED.....	05/18/60			--/--/00		06/20/25	
SAMPLED.....	05/21/60			--/--/00		08/--/25	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3420			3161		3248	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			400		700	
OPEN FLOW, MCFD.....	491			8000		15000	
COMPONENT, MOLE PCT							
METHANE.....	63.3	-----		59.4	-----	56.7	-----
ETHANE.....	3.6	-----		13.5	-----	14.1	-----
PROPANE.....	2.4	-----		---	-----	---	-----
N-BUTANE.....	0.4	-----		---	-----	---	-----
ISOBUTANE.....	0.1	-----		---	-----	---	-----
N-PENTANE.....	0.1	-----		---	-----	---	-----
ISOPENTANE.....	TRACE	-----		---	-----	---	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	---	-----
HEXANES PLUS.....	0.1	-----		---	-----	---	-----
NITROGEN.....	22.7	-----		25.6	-----	27.6	-----
OXYGEN.....	0.0	-----		0.3	-----	0.8	-----
ARGON.....	0.1	-----		---	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	5.6	-----		0.9	-----	0.8	-----
HELIUM.....	1.48	-----		1.78	-----	1.78	-----
HEATING VALUE*.....	794	-----		844	-----	827	-----
SPECIFIC GRAVITY.....	0.750	-----		0.738	-----	0.753	-----
		INDEX SAMPLE	10000 1286	INDEX SAMPLE	10001 1330	INDEX SAMPLE	10002 1592
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	BUSH DOME			BUSH DOME		BUSH DOME	
WELL NAME.....	BIVINS A-1			BIVINS A-1		FUQUA A-1	
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.			SEC. 26, BLK. 6, BS&F SUR.		SEC. 18, BLK. 6, BS&F SUR.	
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		AMARILLO OIL CO.	
COMPLETED.....	06/30/24			06/30/24		--/--/00	
SAMPLED.....	08/18/26			12/09/26		03/15/28	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-BLAINE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3160			3160		905	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	8000			8000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	58.5	-----		56.5	-----	1.7	-----
ETHANE.....	14.2	-----		14.5	-----	1.2	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	25.0	-----		27.9	-----	96.3	-----
OXYGEN.....	0.6	-----		0.3	-----	0.8	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.8	-----		0.8	-----	0.0	-----
HELIUM.....	1.75	-----		1.74	-----	0.05	-----
HEATING VALUE*.....	847	-----		832	-----	39	-----
SPECIFIC GRAVITY.....	0.746	-----		0.753	-----	0.962	-----
		INDEX SAMPLE	10003 1663	INDEX SAMPLE	10004 1680	INDEX SAMPLE	10005 2664
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	BUSH DOME			BUSH DOME		BUSH DOME	
WELL NAME.....	BUSH B-1			BUSH B-1		BIVINS A-1	
LOCATION.....	SEC. 19, BLK. 6, BS&F SUR.			SEC. 19, BLK. 6, BS&F SUR.		SEC. 26, BLK. 6, BS&F SUR.	
OWNER.....	AMARILLO OIL CO.			AMARILLO OIL CO.		U.S. BUREAU OF MINES	
COMPLETED.....	--/--/00			--/--/00		09/15/23	
SAMPLED.....	07/31/28			10/04/28		03/11/34	
FORMATION.....	PERM-BLAINE			PERM-WICHITA-ALBANY		PERM-BLAINE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	590			3227		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			219		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	0.0	-----		58.2	-----	6.7	-----
ETHANE.....	1.0	-----		14.7	-----	0.0	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	95.6	-----		24.1	-----	93.0	-----
OXYGEN.....	0.5	-----		0.6	-----	0.1	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.5	-----		0.7	-----	0.1	-----
HELIUM.....	0.26	-----		1.72	-----	0.10	-----
HEATING VALUE*.....	18	-----		853	-----	67	-----
SPECIFIC GRAVITY.....	0.949	-----		0.730	-----	0.939	-----
		INDEX SAMPLE	10006 2689	INDEX SAMPLE	10007 2690	INDEX SAMPLE	10008 2691
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	BUSH DOME			BUSH DOME		BUSH DOME	
WELL NAME.....	BIVINS A-2			BIVINS A-2		BIVINS A-2	
LOCATION.....	SEC. 22, BLK. 6, BS&F SUR.			SEC. 22, BLK. 6, BS&F SUR.		SEC. 22, BLK. 6, BS&F SUR.	
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	
COMPLETED.....	--/--/00			--/--/00		01/15/35	
SAMPLED.....	01/03/35			01/11/35		03/19/35	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3208			3261		3261	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		710	
OPEN FLOW, MCFD.....	25			4400		12000	
COMPONENT, MOLE PCT							
METHANE.....	65.9	-----		59.7	-----	63.9	-----
ETHANE.....	9.2	-----		10.3	-----	10.1	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	22.1	-----		25.9	-----	23.5	-----
OXYGEN.....	0.1	-----		1.4	-----	0.0	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.9	-----		0.9	-----	0.7	-----
HELIUM.....	1.79	-----		1.82	-----	1.79	-----
HEATING VALUE*.....	832	-----		789	-----	828	-----
SPECIFIC GRAVITY.....	0.693	-----		0.721	-----	0.701	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10009 SAMPLE 2699	INDEX 10010 SAMPLE 2705	INDEX 10011 SAMPLE 2800
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	BUSH DOME		BUSH DOME	BUSH DOME
WELL NAME.....	CROSS BAR RANCH NO. 1		BUSH A-1	BUSH A-1
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.		SEC. 23, BLK. 6, BS&F SUR.	SEC. 23, BLK. 6, BS&F SUR.
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	SINCLAIR-PRAIRIE OIL CO.
COMPLETED.....	04/29/20		--/--/00	--/--/00
SAMPLED.....	07/09/35		12/13/35	10/08/38
FORMATION.....	PERM-GLAINE		PERM-GLAINE	PERM-GLAINE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	547		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	1.2	0.5	0.0	
ETHANE.....	1.0	1.0	3.5	
PROPANE.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	97.6	98.3	95.7	
OXYGEN.....	0.0	0.1	0.6	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.1	0.3	0.2	
HELIUM.....	0.07	0.06	0.07	
HEATING VALUE.....	30	33	63	
SPECIFIC GRAVITY.....	0.963	0.907	0.972	
		INDEX 10012 SAMPLE 2802	INDEX 10013 SAMPLE 2803	INDEX 10014 SAMPLE 2804
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	BUSH DOME		BUSH DOME	BUSH DOME
WELL NAME.....	BUSH NO. 1		BUSH NO. 1	BUSH NO. 1
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.		SEC. 23, BLK. 6, BS&F SUR.	SEC. 23, BLK. 6, BS&F SUR.
OWNER.....	SINCLAIR-PRAIRIE OIL CO.		SINCLAIR-PRAIRIE OIL CO.	SINCLAIR-PRAIRIE OIL CO.
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	10/24/38		11/02/38	11/09/38
FORMATION.....	PENN-		PENN-	PENN-
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	3700		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	0.0	0.0	0.0	
ETHANE.....	3.2	2.6	2.9	
PROPANE.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	84.0	82.3	80.8	
OXYGEN.....	12.8	14.8	16.1	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.0	0.3	0.2	
HELIUM.....	0.00	0.00	0.00	
HEATING VALUE.....	57	47	52	
SPECIFIC GRAVITY.....	0.988	0.991	0.993	
		INDEX 10015 SAMPLE 2805	INDEX 10016 SAMPLE 2808	INDEX 10017 SAMPLE 2809
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	BUSH DOME		BUSH DOME	BUSH DOME
WELL NAME.....	BUSH NO. 1		BUSH NO. 1	BUSH NO. 1
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.		SEC. 23, BLK. 6, BS&F SUR.	SEC. 23, BLK. 6, BS&F SUR.
OWNER.....	SINCLAIR-PRAIRIE OIL CO.		SINCLAIR-PRAIRIE OIL CO.	SINCLAIR-PRAIRIE OIL CO.
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	12/20/38		12/11/38	02/05/39
FORMATION.....	PENN-		PENN-	PENN-
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	0.0	0.0	0.0	
ETHANE.....	1.8	1.8	1.2	
PROPANE.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	38.9	81.1	85.2	
OXYGEN.....	6.0	16.5	13.5	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	3.3	0.2	0.1	
HELIUM.....	0.00	0.00	0.00	
HEATING VALUE.....	32	32	22	
SPECIFIC GRAVITY.....	0.996	0.993	0.987	
		INDEX 10018 SAMPLE 2810	INDEX 10019 SAMPLE 2813	INDEX 10020 SAMPLE 2814
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	BUSH DOME		BUSH DOME	BUSH DOME
WELL NAME.....	BUSH NO. 1		BUSH A-1	BUSH A-1
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.		SEC. 23, BLK. 6, BS&F SUR.	SEC. 23, BLK. 6, BS&F SUR.
OWNER.....	SINCLAIR-PRAIRIE OIL CO.		SINCLAIR-PRAIRIE OIL CO.	SINCLAIR-PRAIRIE OIL CO.
COMPLETED.....	--/--/00		02/05/39	02/05/39
SAMPLED.....	01/02/39		04/06/39	04/06/39
FORMATION.....	PENN-		PERM-GLAINE	PERM-GLAINE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	0.0	0.0	0.0	
ETHANE.....	2.2	1.5	2.1	
PROPANE.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	97.2	98.0	97.0	
OXYGEN.....	9.8	0.5	0.6	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.8	0.0	0.3	
HELIUM.....	0.00	0.00	0.11	
HEATING VALUE.....	39	27	38	
SPECIFIC GRAVITY.....	0.987	0.969	0.972	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10021 SAMPLE 2823			INDEX 10022 SAMPLE 2824			INDEX 10023 SAMPLE 2889		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BUSH A-2		BUSH NO. A-2			BIVINS A-3		
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.		SEC. 23, BLK. 6, BS&F SUR.			SEC. 26, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	10/17/39		10/17/39			--/--/00		
SAMPLED.....	10/06/39		10/27/39			09/01/41		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	3210		3210			2500		
WELLHEAD PRESSURE, PSIG.....	709		709			NOT GIVEN		
OPEN FLOW, MCFD.....	10110		10110			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	62.0		59.4			60.9		
ETHANE.....	10.1		11.4			10.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	26.3		28.1			24.9		
OXYGEN.....	0.7		0.5			0.5		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.9		0.6			0.9		
HELIUM.....	1.80		1.53			1.85		
HEATING VALUE.....	809		805			812		
SPECIFIC GRAVITY.....	0.728		0.738			0.715		
INDEX 10024 SAMPLE 2891			INDEX 10025 SAMPLE 3070			INDEX 10026 SAMPLE 3071		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BIVINS A-3		BUSH A-2			BIVINS A-4		
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.		SEC. 26, BLK. 6, BS&F SUR.			SEC. 22, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	09/20/41		10/05/39			01/03/42		
SAMPLED.....	02/22/41		02/21/42			02/02/42		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	3005		3220			3412		
WELLHEAD PRESSURE, PSIG.....	7031		700			701		
OPEN FLOW, MCFD.....	21524		NOT GIVEN			8000		
COMPONENT, MOLE PCT								
METHANE.....	60.5		61.5			62.3		
ETHANE.....	10.3		10.4			11.7		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	26.4		25.5			23.2		
OXYGEN.....	0.2		0.2			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.7		0.6			0.8		
HELIUM.....	1.85		1.84			1.76		
HEATING VALUE.....	797		809			841		
SPECIFIC GRAVITY.....	0.714		0.711			0.709		
INDEX 10027 SAMPLE 3079			INDEX 10028 SAMPLE 3104			INDEX 10029 SAMPLE 3293		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BIVINS A-5		BIVINS A-5			BIVINS A-5		
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.		SEC. 26, BLK. 6, BS&F SUR.			SEC. 26, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	03/06/42		03/06/42			--/--/00		
SAMPLED.....	02/26/42		03/06/42			02/29/42		
FORMATION.....	PERM-BLAINE		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1490		3275			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		21800			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	3.4		62.8			61.6		
ETHANE.....	1.3		9.7			11.1		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	94.5		24.7			24.5		
OXYGEN.....	0.5		0.4			0.3		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.6			0.6		
HELIUM.....	0.08		1.82			1.86		
HEATING VALUE.....	825		825			825		
SPECIFIC GRAVITY.....	0.955		0.705			0.710		
INDEX 10030 SAMPLE 3294			INDEX 10031 SAMPLE 3295			INDEX 10032 SAMPLE 3296		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BIVINS A-4		BIVINS A-2			BUSH B-1		
LOCATION.....	SEC. 22, BLK. 6, BS&F SUR.		SEC. 22, BLK. 6, BS&F SUR.			SEC. 19, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	05/01/42		05/01/42			05/01/42		
FORMATION.....	PERM-WICHITA-ALBANY		NOT GIVEN			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	61.3		60.9			61.7		
ETHANE.....	11.4		11.3			11.3		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	24.4		24.8			24.1		
OXYGEN.....	0.3		0.5			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.8		0.7			0.7		
HELIUM.....	1.78		1.81			1.82		
HEATING VALUE.....	825		825			825		
SPECIFIC GRAVITY.....	0.713		0.715			0.711		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ADSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10033 SAMPLE 3400		INDEX 10034 SAMPLE 3416		INDEX 10035 SAMPLE 3576	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	BUSH DOME	FIELD.....	BUSH DOME	FIELD.....	BUSH DOME
WELL NAME.....	BUSH A-3	WELL NAME.....	BUSH A-3	WELL NAME.....	BUSH A-3
LOCATION.....	SEC. 27, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 27, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 27, BLK. 6, BS&F SUR.
OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	06/05/42
SAMPLED.....	--/--/00	SAMPLED.....	--/--/00	SAMPLED.....	07/31/42
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	68.5	METHANE.....	61.8	METHANE.....	60.8
ETHANE.....	7.5	ETHANE.....	10.9	ETHANE.....	12.1
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	21.2	NITROGEN.....	24.4	NITROGEN.....	24.2
OXYGEN.....	0.4	OXYGEN.....	0.4	OXYGEN.....	0.3
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.8
HELIUM.....	1.56	HELIUM.....	1.84	HELIUM.....	1.80
HEATING VALUE.....	828	HEATING VALUE.....	821	HEATING VALUE.....	833
SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.711	SPECIFIC GRAVITY.....	0.716
INDEX 10036 SAMPLE 3588		INDEX 10037 SAMPLE 3609		INDEX 10038 SAMPLE 3610	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	BUSH DOME	FIELD.....	BUSH DOME	FIELD.....	BUSH DOME
WELL NAME.....	BIVINS A-1	WELL NAME.....	BIVINS A-6	WELL NAME.....	BIVINS A-6
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.
OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES
COMPLETED.....	06/30/24	COMPLETED.....	12/15/42	COMPLETED.....	12/15/42
SAMPLED.....	--/--/00	SAMPLED.....	--/--/00	SAMPLED.....	--/--/00
FORMATION.....	PERM-BLAINE	FORMATION.....	PERM-BLAINE	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	0.5	METHANE.....	5.4	METHANE.....	59.1
ETHANE.....	1.7	ETHANE.....	1.0	ETHANE.....	11.0
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	97.2	NITROGEN.....	93.2	NITROGEN.....	26.4
OXYGEN.....	0.4	OXYGEN.....	0.1	OXYGEN.....	1.3
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3
HELIUM.....	0.05	HELIUM.....	0.10	HELIUM.....	1.88
HEATING VALUE.....	96	HEATING VALUE.....	73	HEATING VALUE.....	796
SPECIFIC GRAVITY.....	0.967	SPECIFIC GRAVITY.....	0.946	SPECIFIC GRAVITY.....	0.720
INDEX 10039 SAMPLE 3631		INDEX 10040 SAMPLE 5197		INDEX 10041 SAMPLE 5198	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	BUSH DOME	FIELD.....	BUSH DOME	FIELD.....	BUSH DOME
WELL NAME.....	BIVINS A-4	WELL NAME.....	BIVINS A-5	WELL NAME.....	BIVINS A-3
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.
OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES
COMPLETED.....	--/--/00	COMPLETED.....	03/13/42	COMPLETED.....	09/27/41
SAMPLED.....	--/--/00	SAMPLED.....	02/04/52	SAMPLED.....	02/06/52
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	3274	DEPTH, FEET.....	3117
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	680	WELLHEAD PRESSURE, PSIG.....	677
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	11900	OPEN FLOW, MCFD.....	14800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	61.7	METHANE.....	66.1	METHANE.....	65.9
ETHANE.....	10.8	ETHANE.....	3.5	ETHANE.....	3.5
PROPANE.....	---	PROPANE.....	1.8	PROPANE.....	1.8
N-BUTANE.....	---	N-BUTANE.....	0.5	N-BUTANE.....	0.5
ISOBUTANE.....	---	ISOBUTANE.....	0.2	ISOBUTANE.....	0.1
N-PENTANE.....	---	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	---	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	---	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	25.1	NITROGEN.....	24.3	NITROGEN.....	22.5
OXYGEN.....	0.1	OXYGEN.....	0.2	OXYGEN.....	0.1
ARGON.....	---	ARGON.....	0.2	ARGON.....	0.1
HYDROGEN.....	---	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	0.5
HELIUM.....	1.84	HELIUM.....	1.80	HELIUM.....	1.84
HEATING VALUE.....	819	HEATING VALUE.....	815	HEATING VALUE.....	810
SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.711	SPECIFIC GRAVITY.....	0.679
INDEX 10042 SAMPLE 5199		INDEX 10043 SAMPLE 5200		INDEX 10044 SAMPLE 5201	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	BUSH DOME	FIELD.....	BUSH DOME	FIELD.....	BUSH DOME
WELL NAME.....	BIVINS A-4	WELL NAME.....	BUSH A-2	WELL NAME.....	FUQUA A-1
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 18, BLK. 6, BS&F SUR.
OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES
COMPLETED.....	01/11/42	COMPLETED.....	10/24/39	COMPLETED.....	05/17/28
SAMPLED.....	04/16/52	SAMPLED.....	01/30/52	SAMPLED.....	01/25/52
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	3212	DEPTH, FEET.....	3290	DEPTH, FEET.....	3595
WELLHEAD PRESSURE, PSIG.....	679	WELLHEAD PRESSURE, PSIG.....	679	WELLHEAD PRESSURE, PSIG.....	684
OPEN FLOW, MCFD.....	10700	OPEN FLOW, MCFD.....	12200	OPEN FLOW, MCFD.....	2000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	66.9	METHANE.....	66.2	METHANE.....	64.7
ETHANE.....	0.6	ETHANE.....	1.9	ETHANE.....	3.6
PROPANE.....	1.7	PROPANE.....	0.6	PROPANE.....	1.9
N-BUTANE.....	0.5	N-BUTANE.....	0.2	N-BUTANE.....	0.4
ISOBUTANE.....	0.2	ISOBUTANE.....	0.1	ISOBUTANE.....	0.2
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	24.0	NITROGEN.....	24.3	NITROGEN.....	26.4
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	0.2	ARGON.....	0.2	ARGON.....	0.2
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.4
HELIUM.....	1.76	HELIUM.....	1.77	HELIUM.....	1.83
HEATING VALUE.....	816	HEATING VALUE.....	826	HEATING VALUE.....	802
SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.712	SPECIFIC GRAVITY.....	0.714

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10045 SAMPLE 5202			INDEX 10046 SAMPLE 5203			INDEX 10047 SAMPLE 5204		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BUSH A-4		BIVINS A-2			BUSH A-5		
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.		SEC. 23, BLK. 6, BS&F SUR.			SEC. 23, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	04/15/43		02/02/35			10/11/43		
SAMPLED.....	01/31/52		01/28/52			02/06/52		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	3290		3297			3350		
WELLHEAD PRESSURE, PSIG.....	678		677			674		
OPEN FLOW, MCFD.....	7800		10600			27000		
COMPONENT, MOLE PCT								
METHANE.....	65.3		66.7			65.6		
ETHANE.....	3.6		3.6			3.6		
PROPANE.....	1.8		1.8			1.9		
N-BUTANE.....	0.4		0.5			0.3		
ISOBUTANE.....	0.2		0.3			0.3		
N-PENTANE.....	0.2		0.0			TRACE		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			0.1		
NITROGEN.....	25.6		24.1			25.3		
OXYGEN.....	0.1		0.1			0.1		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.6		0.9			0.5		
CARBON DIOXIDE.....	1.83		1.72			1.79		
HEATING VALUE.....	815		822			819		
SPECIFIC GRAVITY.....	0.715		0.709			0.713		
INDEX 10048 SAMPLE 5205			INDEX 10049 SAMPLE 5206			INDEX 10050 SAMPLE 5664		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BUSH A-3		BUSH B-1			BIVINS A-4		
LOCATION.....	SEC. 27, BLK. 6, BS&F SUR.		SEC. 19, BLK. 6, BS&F SUR.			SEC. 22, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	06/05/42		11/13/28			01/11/42		
SAMPLED.....	02/01/52		01/25/52			07/30/54		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	3313		3261			3387		
WELLHEAD PRESSURE, PSIG.....	672		679			NOT GIVEN		
OPEN FLOW, MCFD.....	15300		5300			11920		
COMPONENT, MOLE PCT								
METHANE.....	66.4		66.8			66.5		
ETHANE.....	3.6		3.6			3.9		
PROPANE.....	1.8		1.9			1.9		
N-BUTANE.....	0.5		0.4			0.5		
ISOBUTANE.....	0.2		0.4			0.2		
N-PENTANE.....	0.1		TRACE			0.2		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			0.1		
NITROGEN.....	24.9		23.9			23.8		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.8		1.0			0.9		
CARBON DIOXIDE.....	1.80		1.77			1.72		
HEATING VALUE.....	821		823			814		
SPECIFIC GRAVITY.....	0.710		0.708			0.712		
INDEX 10051 SAMPLE 5665			INDEX 10052 SAMPLE 5666			INDEX 10053 SAMPLE 5667		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BUSH A-4		BUSH A-3			BIVINS A-5		
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.		SEC. 27, BLK. 6, BS&F SUR.			SEC. 26, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	04/15/43		06/05/42			03/13/42		
SAMPLED.....	07/30/54		07/30/54			07/30/54		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	3196		3222			3165		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	11300		16930			15000		
COMPONENT, MOLE PCT								
METHANE.....	65.8		66.2			65.8		
ETHANE.....	3.9		3.9			3.9		
PROPANE.....	1.7		1.6			1.8		
N-BUTANE.....	0.5		0.6			0.5		
ISOBUTANE.....	0.3		0.6			0.3		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	24.9		24.4			24.8		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.8			0.6		
HEATING VALUE.....	1.79		1.75			1.77		
SPECIFIC GRAVITY.....	0.711		0.711			0.714		
INDEX 10054 SAMPLE 5668			INDEX 10055 SAMPLE 5669			INDEX 10056 SAMPLE 5670		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BUSH A-5		BUSH A-2			BUSH B-1		
LOCATION.....	SEC. 25, BLK. 6, BS&F SUR.		SEC. 23, BLK. 6, BS&F SUR.			SEC. 19, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	10/11/43		10/24/39			11/13/28		
SAMPLED.....	07/30/54		07/30/54			07/30/54		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	3265		3190			3227		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	22500		12000			3002		
COMPONENT, MOLE PCT								
METHANE.....	65.5		65.7			67.1		
ETHANE.....	3.9		3.7			3.8		
PROPANE.....	1.8		1.8			1.7		
N-BUTANE.....	0.5		0.5			0.5		
ISOBUTANE.....	0.4		0.2			0.3		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			0.1		
NITROGEN.....	25.2		25.2			23.6		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.5			0.8		
HEATING VALUE.....	1.78		1.70			1.71		
SPECIFIC GRAVITY.....	0.716		0.711			0.707		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10057 SAMPLE 5671			INDEX 10058 SAMPLE 5672			INDEX 10059 SAMPLE 5673		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BIVINS A-2		BIVINS A-3			FUQUA A-1		
LOCATION.....	SEC. 22, BLK. 6, BS&F SUR.		SEC. 26, BLK. 6, BS&F SUR.			SEC. 18, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	02/02/35		09/27/41			05/17/28		
SAMPLED.....	07/30/54		07/30/54			07/30/54		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	3208		3005			3502		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	11400		21524			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	66.5		65.3			66.6		
ETHANE.....	3.8		3.8			3.9		
PROPANE.....	2.0		1.8			1.5		
N-BUTANE.....	0.5		0.5			0.4		
ISOBUTANE.....	0.3		0.4			0.2		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	24.1		25.4			24.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.0			0.4		
HELIUM.....	1.70		1.30			1.78		
HEATING VALUE.....	830		820			817		
SPECIFIC GRAVITY.....	0.709		0.714			0.704		

INDEX 10060 SAMPLE 7928			INDEX 10061 SAMPLE 8911			INDEX 10062 SAMPLE 8912		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BIVINS A-7		BIVINS A-5			BUSH A-2		
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.		SEC. 26, BLK. 6, BS&F SUR.			SEC. 23, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	08/16/58		03/13/42			10/24/39		
SAMPLED.....	05/16/61		04/10/63			04/10/63		
FORMATION.....	PERM--		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	3360		NOT GIVEN			3287		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	1.9		66.8			66.6		
ETHANE.....	0.1		3.5			3.6		
PROPANE.....	TRACE		0.7			1.6		
N-BUTANE.....	TRACE		0.6			0.6		
ISOBUTANE.....	TRACE		0.2			0.2		
N-PENTANE.....	0.0		0.1			0.1		
ISOPENTANE.....	0.0		0.1			0.2		
CYCLOPENTANE.....	0.0		0.1			0.1		
HEXANES PLUS.....	0.0		0.1			0.1		
NITROGEN.....	97.6		24.2			24.4		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.2		0.1			0.1		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.7			0.6		
HELIUM.....	0.10		1.86			1.92		
HEATING VALUE.....	827		827			827		
SPECIFIC GRAVITY.....	0.960		0.712			0.711		

INDEX 10063 SAMPLE 8913			INDEX 10064 SAMPLE 8914			INDEX 10065 SAMPLE 8915		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BIVINS A-7		BIVINS A-4			BUSH B-1		
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.		SEC. 26, BLK. 6, BS&F SUR.			SEC. 19, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	08/16/58		01/11/42			11/13/28		
SAMPLED.....	04/10/63		04/10/63			04/10/63		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		3413			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	65.7		66.2			67.6		
ETHANE.....	3.5		3.6			3.8		
PROPANE.....	1.6		1.7			1.7		
N-BUTANE.....	0.7		0.6			0.7		
ISOBUTANE.....	0.2		0.2			0.2		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.3		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	25.3		24.3			22.9		
OXYGEN.....	0.0		0.3			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.9			0.8		
HELIUM.....	1.95		1.72			1.78		
HEATING VALUE.....	818		826			845		
SPECIFIC GRAVITY.....	0.716		0.717			0.713		

INDEX 10066 SAMPLE 8916			INDEX 10067 SAMPLE 8917			INDEX 10068 SAMPLE 8918		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	BUSH DOME		BUSH DOME			BUSH DOME		
WELL NAME.....	BUSH A-5		BUSH A-3			BIVINS A-2		
LOCATION.....	SEC. 25, BLK. 6, BS&F SUR.		SEC. 27, BLK. 6, BS&F SUR.			SEC. 22, BLK. 6, BS&F SUR.		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
COMPLETED.....	03/13/42		06/05/42			02/02/35		
SAMPLED.....	04/10/63		04/10/63			04/10/63		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	3394		3334			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	64.0		65.2			67.2		
ETHANE.....	3.6		3.8			3.4		
PROPANE.....	1.6		1.7			1.7		
N-BUTANE.....	0.7		0.6			0.6		
ISOBUTANE.....	0.2		0.2			0.2		
N-PENTANE.....	TRACE		0.1			0.1		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	26.7		25.2			23.7		
OXYGEN.....	0.7		0.1			0.0		
ARGON.....	0.1		0.0			0.4		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.8			0.8		
HELIUM.....	1.65		1.83			1.80		
HEATING VALUE.....	802		824			834		
SPECIFIC GRAVITY.....	0.725		0.721			0.709		

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10069 8919			INDEX SAMPLE	10070 8923			INDEX SAMPLE	10071 8926
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	BUSH DOME			BUSH DOME				BUSH DOME			
WELL NAME.....	BUSH A-4			BUSH A-2				BUSH A-3			
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.			SEC. 23, BLK. 6, BS&F SUR.				SEC. 27, BLK. 6, BS&F SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				U.S. BUREAU OF MINES			
COMPLETED.....	04/15/43			10/24/39				06/05/62			
SAMPLED.....	04/17/63			04/17/63				04/17/63			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	66.3			66.7				66.8			
ETHANE.....	3.6			3.6				3.6			
PROPANE.....	1.7			1.7				1.7			
N-BUTANE.....	0.7			0.6				0.6			
ISOBUTANE.....	0.2			0.2				0.2			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	0.3			0.2				0.2			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	24.6			24.5				23.9			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE**.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.5			0.5				0.7			
HELIUM.....	1.85			1.87				1.86			
HEATING VALUE*.....	830			824				834			
SPECIFIC GRAVITY.....	0.715			0.709				0.710			
		INDEX SAMPLE	10072 8927			INDEX SAMPLE	10073 8928			INDEX SAMPLE	10074 8929
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	BUSH DOME			BUSH DOME				BUSH DOME			
WELL NAME.....	BUSH A-4			BUSH A-2				BIVINS A-2			
LOCATION.....	SEC. 23, BLK. 6, BS&F SUR.			SEC. 25, BLK. 6, BS&F SUR.				SEC. 22, BLK. 6, BS&F SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				U.S. BUREAU OF MINES			
COMPLETED.....	04/15/43			10/11/43				12/02/35			
SAMPLED.....	04/17/63			04/17/63				04/17/63			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3300			NOT GIVEN				3313			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	66.3			66.1				67.3			
ETHANE.....	3.6			3.6				3.6			
PROPANE.....	1.7			1.7				1.9			
N-BUTANE.....	0.7			0.6				0.2			
ISOBUTANE.....	TRACE			0.2				0.2			
N-PENTANE.....	TRACE			0.1				0.1			
ISOPENTANE.....	0.4			0.3				0.2			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	24.7			24.8				23.3			
OXYGEN.....	TRACE			0.0				0.1			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE**.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.5			0.5				0.8			
HELIUM.....	1.83			1.87				1.78			
HEATING VALUE*.....	829			829				839			
SPECIFIC GRAVITY.....	0.712			0.714				0.712			
		INDEX SAMPLE	10075 8930			INDEX SAMPLE	10076 8931			INDEX SAMPLE	10077 8932
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	BUSH DOME			BUSH DOME				BUSH DOME			
WELL NAME.....	BIVINS A-4			BIVINS A-5				BIVINS A-7			
LOCATION.....	SEC. 22, BLK. 6, BS&F SUR.			SEC. 26, BLK. 6, BS&F SUR.				SEC. 26, BLK. 6, BS&F SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				U.S. BUREAU OF MINES			
COMPLETED.....	01/11/42			03/13/42				08/16/58			
SAMPLED.....	04/17/63			04/17/63				04/17/63			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			3267				3360			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	67.4			66.4				65.3			
ETHANE.....	3.7			3.6				3.6			
PROPANE.....	1.7			1.7				1.6			
N-BUTANE.....	0.6			0.6				0.6			
ISOBUTANE.....	0.2			0.2				0.2			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	0.2			0.2				0.2			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	23.1			24.4				25.6			
OXYGEN.....	0.1			TRACE				TRACE			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE**.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.9			0.7				0.5			
HELIUM.....	1.79			1.79				1.97			
HEATING VALUE*.....	840			830				816			
SPECIFIC GRAVITY.....	0.711			0.712				0.714			
		INDEX SAMPLE	10078 8939			INDEX SAMPLE	10079 8940			INDEX SAMPLE	10080 8941
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	BUSH DOME			BUSH DOME				BUSH DOME			
WELL NAME.....	BIVINS A-2			BIVINS A-4				BIVINS A-5			
LOCATION.....	SEC. 22, BLK. 6, BS&F SUR.			SEC. 22, BLK. 6, BS&F SUR.				SEC. 26, BLK. 6, BS&F SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				U.S. BUREAU OF MINES			
COMPLETED.....	07/10/63			07/10/63				03/06/42			
SAMPLED.....	07/10/63			07/10/63				07/10/63			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3300			3412				3275			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	65.9			67.3				66.6			
ETHANE.....	3.7			3.6				4.0			
PROPANE.....	1.4			1.7				1.7			
N-BUTANE.....	0.7			0.7				0.6			
ISOBUTANE.....	0.2			0.1				0.2			
N-PENTANE.....	0.0			0.0				0.1			
ISOPENTANE.....	0.3			0.1				0.2			
CYCLOPENTANE.....	0.1			0.0				0.1			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	24.7			23.3				23.8			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE**.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.7			0.9				0.7			
HELIUM.....	1.87			1.78				1.88			
HEATING VALUE*.....	822			837				837			
SPECIFIC GRAVITY.....	0.713			0.707				0.712			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10081 8942			INDEX SAMPLE	10082 8943			INDEX SAMPLE	10083 8944
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	BUSH DOME			BUSH DOME				BUSH DOME			
WELL NAME.....	BIVINS A-7			BIVINS A-2				BIVINS A-3			
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.			SEC. 23, BLK. 6, BS&F SUR.				SEC. 27, BLK. 6, BS&F SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				U.S. BUREAU OF MINES			
COMPLETED.....	08/16/58			10/24/39				06/05/62			
SAMPLED.....	07/10/63			07/15/63				07/16/63			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3360			3320				3334			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	65.5			67.3				66.9			
ETHANE.....	3.6			3.6				3.6			
PROPANE.....	1.7			2.1				1.7			
N-BUTANE.....	0.6			0.6				0.7			
ISOBUTANE.....	0.3			0.2				0.2			
N-PENTANE.....	0.0			0.1				0.0			
ISOPENTANE.....	0.3			0.2				0.3			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	25.5			23.3				23.8			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.5			0.7				0.7			
HELIUM.....	1.88			1.79				1.83			
HEATING VALUE.....	818			845				834			
SPECIFIC GRAVITY.....	0.717			0.713				0.711			
		INDEX SAMPLE	10084 8945			INDEX SAMPLE	10085 9007			INDEX SAMPLE	10086 9858
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	BUSH DOME			BUSH DOME				BUSH DOME			
WELL NAME.....	BIVINS A-4			BIVINS A-8R				BIVINS A-2			
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.			SEC. 26, BLK. 6, BS&F SUR.				SEC. 22, BLK. 6, BS&F SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				U.S. BUREAU OF MINES			
COMPLETED.....	04/15/43			05/15/63				02/02/35			
SAMPLED.....	07/16/63			06/07/63				04/01/65			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-RED CAVE				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3300			2408				3300			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			482				610			
OPEN FLOW, MCFD.....	NOT GIVEN			20				6100			
COMPONENT, MOLE PCT											
METHANE.....	65.6			66.3				66.6			
ETHANE.....	3.5			3.5				3.7			
PROPANE.....	1.5			1.6				1.9			
N-BUTANE.....	0.6			0.5				0.6			
ISOBUTANE.....	0.2			0.3				0.2			
N-PENTANE.....	0.1			TRACE				TRACE			
ISOPENTANE.....	0.3			0.1				0.3			
CYCLOPENTANE.....	0.1			TRACE				0.1			
HEXANES PLUS.....	0.1			TRACE				0.1			
NITROGEN.....	25.4			25.4				23.8			
OXYGEN.....	0.2			0.0				0.0			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.5			0.2				0.8			
HELIUM.....	1.83			1.40				1.83			
HEATING VALUE.....	817			807				837			
SPECIFIC GRAVITY.....	0.715			0.701				0.713			
		INDEX SAMPLE	10087 9859			INDEX SAMPLE	10088 9860			INDEX SAMPLE	10089 9861
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	BUSH DOME			BUSH DOME				BUSH DOME			
WELL NAME.....	BIVINS A-4			BIVINS A-5				BIVINS A-7			
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.			SEC. 26, BLK. 6, BS&F SUR.				SEC. 26, BLK. 6, BS&F SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				U.S. BUREAU OF MINES			
COMPLETED.....	02/01/65			03/14/62				08/16/58			
SAMPLED.....	02/01/65			03/16/65				02/01/65			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3412			3275				3360			
WELLHEAD PRESSURE, PSIG.....	610			612				615			
OPEN FLOW, MCFD.....	3700			6400				7000			
COMPONENT, MOLE PCT											
METHANE.....	66.9			66.1				65.2			
ETHANE.....	3.6			3.7				3.5			
PROPANE.....	1.7			0.8				1.7			
N-BUTANE.....	0.6			0.5				0.6			
ISOBUTANE.....	0.3			0.4				0.3			
N-PENTANE.....	0.1			TRACE				TRACE			
ISOPENTANE.....	0.1			0.2				0.2			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	25.6			24.6				25.0			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.9			0.7				0.5			
HELIUM.....	1.82			1.87				1.96			
HEATING VALUE.....	819			836				819			
SPECIFIC GRAVITY.....	0.710			0.715				0.713			
		INDEX SAMPLE	10090 9862			INDEX SAMPLE	10091 9864			INDEX SAMPLE	10092 9865
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	BUSH DOME			BUSH DOME				BUSH DOME			
WELL NAME.....	BIVINS A-8R			BUSH NO. A-3				BUSH A-4			
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.			SEC. 26, BLK. 6, BS&F SUR.				SEC. 23, BLK. 6, BS&F SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				U.S. BUREAU OF MINES			
COMPLETED.....	05/15/63			06/05/62				04/15/43			
SAMPLED.....	02/01/65			02/01/65				04/01/65			
FORMATION.....	PERM-RED CAVE			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2408			3334				3300			
WELLHEAD PRESSURE, PSIG.....	482			614				612			
OPEN FLOW, MCFD.....	20			6800				3600			
COMPONENT, MOLE PCT											
METHANE.....	65.9			66.9				65.4			
ETHANE.....	3.7			3.7				3.7			
PROPANE.....	1.7			1.8				1.7			
N-BUTANE.....	0.3			0.3				0.6			
ISOBUTANE.....	0.3			0.3				0.3			
N-PENTANE.....	0.1			0.1				0.1			
ISOPENTANE.....	0.2			0.2				0.2			
CYCLOPENTANE.....	TRACE			0.1				0.1			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	25.6			23.7				25.3			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.9				0.5			
HELIUM.....	1.86			1.82				1.90			
HEATING VALUE.....	819			836				822			
SPECIFIC GRAVITY.....	0.711			0.713				0.716			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10093 9867	INDEX SAMPLE	10094 9868	INDEX SAMPLE	10095 9869
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	BUSH DOME			BUSH DOME		BUSH DOME	
WELL NAME.....	BUSH A-7			BUSH A-8		BUSH A-9	
LOCATION.....	SEC. 25, BLK. 6, BS&F SUR.			SEC. 25, BLK. 6, BS&F SUR.		SEC. 25, BLK. 6, BS&F SUR.	
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	
COMPLETED.....	06/05/63			06/25/63		03/09/65	
SAMPLED.....	07/15/64			02/01/65		03/31/65	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3477			3500		3436	
WELLHEAD PRESSURE, PSIG.....	684			618		525	
OPEN FLOW, MCFD.....	240			2200		5600	
COMPONENT, MOLE PCT.....							
METHANE.....	69.9			66.7		66.0	
ETHANE.....	3.7			3.5		3.0	
PROPANE.....	1.8			1.9		2.0	
N-BUTANE.....	0.6			0.6		0.7	
ISOBUTANE.....	0.2			0.3		0.3	
N-PENTANE.....	TRACE			0.1		0.2	
ISOPENTANE.....	0.2			0.1		0.4	
CYCLOPENTANE.....	TRACE			0.1		0.3	
HEXANES PLUS.....	0.1			0.1		0.5	
NITROGEN.....	21.2			23.5		23.6	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.6			1.4		0.5	
HELIUM.....	1.50			1.84		1.71	
HEATING VALUE.....	864			833		880	
SPECIFIC GRAVITY.....	0.697			0.713		0.734	
		INDEX SAMPLE	10096 9870	INDEX SAMPLE	10097 9872	INDEX SAMPLE	10098 9873
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	BUSH DOME			BUSH DOME		BUSH DOME	
WELL NAME.....	BUSH B-1			FLUGA A-1		FLUGA A-2	
LOCATION.....	SEC. 19, BLK. 6, BS&F SUR.			SEC. 18, BLK. 6, BS&F SUR.		SEC. 24, BLK. 6, BS&F SUR.	
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	
COMPLETED.....	07/12/28			03/22/65		03/22/65	
SAMPLED.....	03/24/65			03/22/65		03/22/65	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3342			3585		3475	
WELLHEAD PRESSURE, PSIG.....	567			594		604	
OPEN FLOW, MCFD.....	2300			1950		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	67.2			64.4		65.1	
ETHANE.....	3.8			3.7		3.7	
PROPANE.....	1.9			1.8		1.9	
N-BUTANE.....	0.6			0.7		0.6	
ISOBUTANE.....	0.3			0.3		0.3	
N-PENTANE.....	0.1			0.1		TRACE	
ISOPENTANE.....	0.2			0.3		0.2	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	23.2			25.9		25.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.4		1.0	
HELIUM.....	1.77			1.96		1.84	
HEATING VALUE.....	848			832		820	
SPECIFIC GRAVITY.....	0.714			0.726		0.721	
		INDEX SAMPLE	10099 10799	INDEX SAMPLE	10100 10800	INDEX SAMPLE	10101 10801
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	BUSH DOME			BUSH DOME		BUSH DOME	
WELL NAME.....	BUSH A-9			BIVINS A-7		BIVINS A-5	
LOCATION.....	SEC. 25, BLK. 6, BS&F SUR.			SEC. 26, BLK. 6, BS&F SUR.		SEC. 26, BLK. 6, BS&F SUR.	
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	
COMPLETED.....	02/04/65			08/16/58		03/06/42	
SAMPLED.....	12/05/66			12/05/66		12/05/66	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3436			3360		3275	
WELLHEAD PRESSURE, PSIG.....	1600			6470		630	
OPEN FLOW, MCFD.....	5400			7000		6400	
COMPONENT, MOLE PCT.....							
METHANE.....	65.3			64.6		65.7	
ETHANE.....	4.7			3.7		3.7	
PROPANE.....	1.8			1.9		1.9	
N-BUTANE.....	0.6			0.5		0.5	
ISOBUTANE.....	0.2			0.5		0.4	
N-PENTANE.....	0.1			TRACE		0.1	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	25.5			26.0		24.7	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.5		0.9	
HELIUM.....	1.90			1.96		1.90	
HEATING VALUE.....	823			817		829	
SPECIFIC GRAVITY.....	0.714			0.718		0.714	
		INDEX SAMPLE	10102 10802	INDEX SAMPLE	10103 10804	INDEX SAMPLE	10104 10838
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	BUSH DOME			BUSH DOME		BUSH DOME	
WELL NAME.....	BIVINS A-9			BIVINS A-4		BUSH B-1	
LOCATION.....	SEC. 2, BLK. 6, BS&F SUR.			SEC. 22, BLK. 6, BS&F SUR.		SEC. 19, BLK. 6, BS&F SUR.	
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	
COMPLETED.....	03/20/65			03/11/42		11/01/28	
SAMPLED.....	12/05/66			12/05/66		01/17/67	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	3464			3412		3340	
WELLHEAD PRESSURE, PSIG.....	607			629		633	
OPEN FLOW, MCFD.....	17000			3700		2300	
COMPONENT, MOLE PCT.....							
METHANE.....	64.5			66.3		66.2	
ETHANE.....	3.6			3.7		3.7	
PROPANE.....	1.9			1.9		1.8	
N-BUTANE.....	0.6			0.6		0.6	
ISOBUTANE.....	0.3			0.3		0.3	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	25.9			24.1		24.1	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.9		0.9	
HELIUM.....	1.93			1.78		1.78	
HEATING VALUE.....	819			828		831	
SPECIFIC GRAVITY.....	0.722			0.716		0.714	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

861

INDEX 10105 SAMPLE 10839		INDEX 10106 SAMPLE 10840		INDEX 10107 SAMPLE 10844	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	BUSH DOME	FIELD.....	BUSH DOME	FIELD.....	BUSH DOME
WELL NAME.....	FUQUA A-1	WELL NAME.....	FUQUA A-2	WELL NAME.....	BUSH A-8
LOCATION.....	SEC. 18, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 24, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 20, BLK. 6, BS&F SUR.
OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES
COMPLETED.....	05/01/78	COMPLETED.....	05/01/65	COMPLETED.....	06/01/63
SAMPLED.....	01/17/67	SAMPLED.....	01/17/67	SAMPLED.....	01/20/67
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	3585	DEPTH, FEET.....	3475	DEPTH, FEET.....	3500
WELLHEAD PRESSURE, PSIG.....	626	WELLHEAD PRESSURE, PSIG.....	640	WELLHEAD PRESSURE, PSIG.....	614
OPEN FLOW, MCFD.....	1950	OPEN FLOW, MCFD.....	2000	OPEN FLOW, MCFD.....	2200
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	66.2	METHANE.....	65.1	METHANE.....	65.5
ETHANE.....	3.8	ETHANE.....	3.8	ETHANE.....	3.7
PROPANE.....	1.6	PROPANE.....	1.9	PROPANE.....	1.8
N-BUTANE.....	0.4	N-BUTANE.....	0.5	N-BUTANE.....	0.6
ISOBUTANE.....	0.2	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	24.9	NITROGEN.....	24.5	NITROGEN.....	24.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.7
HELIUM.....	1.87	HELIUM.....	1.89	HELIUM.....	1.91
HEATING VALUE.....	818	HEATING VALUE.....	831	HEATING VALUE.....	829
SPECIFIC GRAVITY.....	0.706	SPECIFIC GRAVITY.....	0.720	SPECIFIC GRAVITY.....	0.716
INDEX 10108 SAMPLE 11487		INDEX 10109 SAMPLE 11491		INDEX 10110 SAMPLE 11492	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	BUSH DOME	FIELD.....	BUSH DOME	FIELD.....	BUSH DOME
WELL NAME.....	BIVINS A-4	WELL NAME.....	BIVINS A-9	WELL NAME.....	BUSH A-8
LOCATION.....	SEC. 22, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 2, BLK. JAD, BS&F SUR.	LOCATION.....	SEC. 28, BLK. 6, BS&F SUR.
OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES
COMPLETED.....	01/11/42	COMPLETED.....	05/04/65	COMPLETED.....	05/25/63
SAMPLED.....	05/14/68	SAMPLED.....	05/16/68	SAMPLED.....	05/16/68
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	3412	DEPTH, FEET.....	3378	DEPTH, FEET.....	3500
WELLHEAD PRESSURE, PSIG.....	646	WELLHEAD PRESSURE, PSIG.....	615	WELLHEAD PRESSURE, PSIG.....	604
OPEN FLOW, MCFD.....	13000	OPEN FLOW, MCFD.....	17000	OPEN FLOW, MCFD.....	2400
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	66.3	METHANE.....	65.0	METHANE.....	65.2
ETHANE.....	3.8	ETHANE.....	3.8	ETHANE.....	3.7
PROPANE.....	1.7	PROPANE.....	1.9	PROPANE.....	1.8
N-BUTANE.....	0.6	N-BUTANE.....	0.6	N-BUTANE.....	0.6
ISOBUTANE.....	0.1	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	23.9	NITROGEN.....	25.1	NITROGEN.....	24.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.2	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	1.2
HELIUM.....	1.92	HELIUM.....	1.84	HELIUM.....	1.77
HEATING VALUE.....	829	HEATING VALUE.....	828	HEATING VALUE.....	835
SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.720	SPECIFIC GRAVITY.....	0.726
INDEX 10111 SAMPLE 11493		INDEX 10112 SAMPLE 11494		INDEX 10113 SAMPLE 11495	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	BUSH DOME	FIELD.....	BUSH DOME	FIELD.....	BUSH DOME
WELL NAME.....	BUSH A-9	WELL NAME.....	BUSH B-1	WELL NAME.....	FUQUA A-1
LOCATION.....	SEC. 19, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 19, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 18, BLK. 6, BS&F SUR.
OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES
COMPLETED.....	03/09/65	COMPLETED.....	07/12/78	COMPLETED.....	05/17/78
SAMPLED.....	05/16/68	SAMPLED.....	05/16/68	SAMPLED.....	05/16/68
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	3436	DEPTH, FEET.....	3342	DEPTH, FEET.....	3585
WELLHEAD PRESSURE, PSIG.....	631	WELLHEAD PRESSURE, PSIG.....	616	WELLHEAD PRESSURE, PSIG.....	637
OPEN FLOW, MCFD.....	5700	OPEN FLOW, MCFD.....	2300	OPEN FLOW, MCFD.....	2000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	65.3	METHANE.....	67.3	METHANE.....	64.2
ETHANE.....	3.9	ETHANE.....	3.8	ETHANE.....	3.9
PROPANE.....	1.8	PROPANE.....	1.8	PROPANE.....	1.8
N-BUTANE.....	0.6	N-BUTANE.....	0.6	N-BUTANE.....	0.6
ISOBUTANE.....	0.1	ISOBUTANE.....	0.2	ISOBUTANE.....	0.1
N-PENTANE.....	0.5	N-PENTANE.....	0.3	N-PENTANE.....	0.1
ISOPENTANE.....	0.4	ISOPENTANE.....	0.0	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	25.1	NITROGEN.....	23.0	NITROGEN.....	25.9
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	0.2	ARGON.....	0.2
HYDROGEN.....	0.1	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.3
HELIUM.....	1.82	HELIUM.....	1.74	HELIUM.....	1.89
HEATING VALUE.....	830	HEATING VALUE.....	845	HEATING VALUE.....	830
SPECIFIC GRAVITY.....	0.717	SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.723
INDEX 10114 SAMPLE 11525		INDEX 10115 SAMPLE 13364		INDEX 10116 SAMPLE 13365	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	BUSH DOME	FIELD.....	BUSH DOME	FIELD.....	BUSH DOME
WELL NAME.....	BIVINS A-8R	WELL NAME.....	BIVINS A-9	WELL NAME.....	BIVINS A-11
LOCATION.....	SEC. 26, BLK. 6, BS&F SUR.	LOCATION.....	SEC. 2, BLK. JAD, BS&F SUR.	LOCATION.....	SEC. 2, BLK. JAD, BS&F SUR.
OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES	OWNER.....	U.S. BUREAU OF MINES
COMPLETED.....	05/15/63	COMPLETED.....	04/01/65	COMPLETED.....	01/06/67
SAMPLED.....	06/03/68	SAMPLED.....	08/31/72	SAMPLED.....	08/31/72
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2408	DEPTH, FEET.....	3401	DEPTH, FEET.....	3340
WELLHEAD PRESSURE, PSIG.....	449	WELLHEAD PRESSURE, PSIG.....	666	WELLHEAD PRESSURE, PSIG.....	660
OPEN FLOW, MCFD.....	600	OPEN FLOW, MCFD.....	20000	OPEN FLOW, MCFD.....	8500
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	65.2	METHANE.....	64.4	METHANE.....	64.3
ETHANE.....	3.7	ETHANE.....	3.7	ETHANE.....	3.9
PROPANE.....	0.5	PROPANE.....	0.5	PROPANE.....	1.9
N-BUTANE.....	0.5	N-BUTANE.....	0.5	N-BUTANE.....	0.6
ISOBUTANE.....	0.2	ISOBUTANE.....	0.6	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	26.2	NITROGEN.....	27.7	NITROGEN.....	25.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.2
HYDROGEN.....	0.2	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.9
HELIUM.....	1.79	HELIUM.....	1.93	HELIUM.....	1.88
HEATING VALUE.....	814	HEATING VALUE.....	814	HEATING VALUE.....	815
SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.717	SPECIFIC GRAVITY.....	0.722

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10117 13367			INDEX SAMPLE	10118 13699			INDEX SAMPLE	10119 13702
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	BUSH DOME			BUSH DOME				BUSH DOME			
WELL NAME.....	BIVINS B-2			BIVINS A-11				BIVINS A-9			
LOCATION.....	SEC. 29, BLK. 6, BS&F SUR.			SEC. 2, BLK. JAD, BS&F SUR.				SEC. 2, BLK. 6, BS&F SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				U.S. BUREAU OF MINES			
COMPLETED.....	10/24/67			01/01/67				03/20/65			
SAMPLED.....	08/31/72			08/30/73				08/30/73			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3484			3340				3464			
WELLHEAD PRESSURE, PSIG.....	650			677				694			
OPEN FLOW, MCFD.....	6800			8600				18500			
COMPONENT, MOLE PCT											
METHANE.....	63.2			64.9				65.0			
ETHANE.....	3.8			3.8				3.7			
PROPANE.....	1.8			2.2				1.9			
N-BUTANE.....	0.4			0.0				0.5			
ISOBUTANE.....	0.3			0.1				0.4			
N-PENTANE.....	0.1			0.2				TRACE			
ISOPENTANE.....	TRACE			0.0				0.2			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	27.0			25.3				25.6			
OXYGEN.....	0.0			0.0				0.0			
ARGON.....	0.2			0.1				0.1			
HYDROGEN.....	0.0			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.51			0.6				0.6			
HELIUM.....	1.51			1.91				1.94			
HEATING VALUE.....	788			823				818			
SPECIFIC GRAVITY.....	0.723			0.716				0.716			
		INDEX SAMPLE	10120 9008			INDEX SAMPLE	10121 11526			INDEX SAMPLE	10122 16027
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	HORSE CREEK DOME			HORSE CREEK DOME				LAMBERT III			
WELL NAME.....	BUSH A-7			BUSH A-7				EMENY-O'BRIEN NO. 1			
LOCATION.....	SEC. 25, BLK. 6, BS&F SUR.			SEC. 25, BLK. 6, BS&F SUR.				SEC. 30, BLK. M-19, G&M SUR.			
OWNER.....	U.S. BUREAU OF MINES			U.S. BUREAU OF MINES				BAKER & TAYLOR DRILLING CO.			
COMPLETED.....	06/05/63			06/05/63				--/70			
SAMPLED.....	06/06/63			06/03/68				08/09/80			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3477			3477				3412			
WELLHEAD PRESSURE, PSIG.....	774			692				65			
OPEN FLOW, MCFD.....	NOT GIVEN			200				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	70.0			69.7				63.4			
ETHANE.....	3.9			3.8				3.9			
PROPANE.....	1.7			1.7				1.8			
N-BUTANE.....	0.7			0.6				0.5			
ISOBUTANE.....	0.2			0.1				0.3			
N-PENTANE.....	0.2			0.1				0.1			
ISOPENTANE.....	0.1			0.3				0.1			
CYCLOPENTANE.....	0.1			TRACE				0.1			
HEXANES PLUS.....	0.1			0.1				0.1			
NITROGEN.....	20.5			21.3				27.6			
OXYGEN.....	0.0			0.0				0.1			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.8			0.7				TRACE			
HELIUM.....	1.42			1.44				1.83			
HEATING VALUE.....	880			864				803			
SPECIFIC GRAVITY.....	0.704			0.700				0.719			
		INDEX SAMPLE	10123 16028			INDEX SAMPLE	10124 16029			INDEX SAMPLE	10125 16716
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	LAMBERT III			LAMBERT III				LAMBERT IV			
WELL NAME.....	EMENY-O'BRIEN NO. 1			EMENY-O'BRIEN NO. 1				BUSH #2-A# NO. 1			
LOCATION.....	SEC. 30, BLK. M-19, G&M SUR.			SEC. 30, BLK. M-19, G&M SUR.				SEC. 2, BLK. 88, ORTMAN SUR.			
OWNER.....	BAKER & TAYLOR DRILLING CO.			BAKER & TAYLOR DRILLING CO.				BAKER & TAYLOR DRILLING CO.			
COMPLETED.....	--/70			--/70				10/18/80			
SAMPLED.....	08/-/80			08/-/80				12/06/82			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PENN-CISCO			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	3412			3412				6028			
WELLHEAD PRESSURE, PSIG.....	65			65				NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				5			
COMPONENT, MOLE PCT											
METHANE.....	63.3			63.2				31.6			
ETHANE.....	3.9			3.9				4.3			
PROPANE.....	1.8			1.8				3.8			
N-BUTANE.....	0.6			0.6				1.2			
ISOBUTANE.....	0.3			0.3				0.2			
N-PENTANE.....	0.1			0.1				0.5			
ISOPENTANE.....	0.2			0.2				0.3			
CYCLOPENTANE.....	0.1			0.1				0.4			
HEXANES PLUS.....	0.1			0.1				0.6			
NITROGEN.....	27.5			27.6				54.6			
OXYGEN.....	0.1			0.1				0.2			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	TRACE			0.0				0.3			
HELIUM.....	1.81			1.85				1.17			
HEATING VALUE.....	810			809				647			
SPECIFIC GRAVITY.....	0.722			0.724				0.909			
		INDEX SAMPLE	10126 16030			INDEX SAMPLE	10127 4067			INDEX SAMPLE	10128 7838
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	LAMBERT NO. 3			NOT GIVEN				NOT GIVEN			
WELL NAME.....	EMENY-O'BRIEN NO. 1			WATER WELL				BARNES ESTATE R NO. 1			
LOCATION.....	SEC. 30, BLK. M-19, G&M SUR.			NOT GIVEN				SEC. 7, WARRICK SUR.			
OWNER.....	BAKER & TAYLOR DRILLING CO.			L. H. LUCKETT				H. N. BURNETT			
COMPLETED.....	--/70			--/70				--/70			
SAMPLED.....	08/09/80			--/70				02/03/61			
FORMATION.....	PERM-WICHITA-ALBANY			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			NOT GIVEN				440			
DEPTH, FEET.....	3412			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	65			NOT GIVEN				291			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	63.4			0.0				81.3			
ETHANE.....	3.8			0.0				7.2			
PROPANE.....	1.9			---				2.8			
N-BUTANE.....	0.5			---				0.6			
ISOBUTANE.....	0.3			---				0.3			
N-PENTANE.....	0.1			---				0.1			
ISOPENTANE.....	0.2			---				0.1			
CYCLOPENTANE.....	0.1			---				TRACE			
HEXANES PLUS.....	0.1			---				0.1			
NITROGEN.....	27.4			2.6				7.2			
OXYGEN.....	0.1			0.0				TRACE			
ARGON.....	0.1			---				TRACE			
HYDROGEN.....	0.0			---				TRACE			
HYDROGEN SULFIDE.....	0.0			---				0.0			
CARBON DIOXIDE.....	TRACE			97.2				0.1			
HELIUM.....	1.83			0.15				0.10			
HEATING VALUE.....	808			0				1069			
SPECIFIC GRAVITY.....	0.720			1.512				0.668			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10129 209	INDEX SAMPLE	10130 214	INDEX SAMPLE	10131 1031
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MASTERTSON NO. 4			RANCH CREEK NO. 1		WARRICK NO. 1	
LOCATION.....	SEC. 10, BLK. 0-18, D&P SUR.			SEC. 2, BLK. 8-11, ELRR SUR.		SEC. 16, BLK. Y-2	
OWNER.....	AMARILLO OIL CO.			RANCH CREEK OIL & GAS CO.		AMARILLO OIL CO.	
COMPLETED.....	09/-/19			-/-/00		-/-/00	
SAMPLED.....	04/15/20			04/16/20		04/20/25	
FORMATION.....	PERM-LIME			PERM-BLUE GRANITE		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1600			2363		2930	
WELLHEAD PRESSURE, PSIG.....	435			650		430	
OPEN FLOW, MCFD.....	107000			3000		70000	
COMPONENT, MOLE PCT							
METHANE.....	76.4	---	---	72.3	---	68.4	---
ETHANE.....	15.0	---	---	15.6	---	20.6	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	7.5	---	---	11.0	---	9.9	---
OXYGEN.....	0.6	---	---	0.4	---	0.5	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.4	---
CARBON DIOXIDE.....	0.49	---	---	0.60	---	0.50	---
HELIUM.....	1043	---	---	1012	---	1062	---
HEATING VALUE.....	0.661	---	---	0.676	---	0.701	---
SPECIFIC GRAVITY.....							
		INDEX SAMPLE	10132 1259	INDEX SAMPLE	10133 1896	INDEX SAMPLE	10134 2335
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS NO. A-4			BIVINS 8-1		TUCK-TRIGG NO. 1	
LOCATION.....	SEC. 24, BLK. 0-18, D&P SUR.			SEC. 39, BLK. M-20, G&M SUR.		SEC. 37, BLK. 5, G&M SUR.	
OWNER.....	AMARILLO OIL CO.			CANADIAN RIVER GAS CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	12/-/25			11/15/29		04/29/20	
SAMPLED.....	04/08/26			11/15/29		05/25/31	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			2640		2560	
WELLHEAD PRESSURE, PSIG.....	4500			4150		NOT GIVEN	
OPEN FLOW, MCFD.....	4500			56957		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	68.0	---	---	71.3	---	67.0	---
ETHANE.....	20.4	---	---	17.6	---	15.0	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	9.7	---	---	9.7	---	17.2	---
OXYGEN.....	1.8	---	---	0.6	---	0.2	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.2	---	---	0.3	---	0.0	---
HELIUM.....	0.25	---	---	0.45	---	0.64	---
HEATING VALUE.....	1052	---	---	1038	---	948	---
SPECIFIC GRAVITY.....	0.729	---	---	0.686	---	0.698	---
		INDEX SAMPLE	10135 2883	INDEX SAMPLE	10136 3287	INDEX SAMPLE	10137 3297
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MASTERTSON NO. A-1			MASTERTSON NO. J-2		MASTERTSON NO. N-1	
LOCATION.....	SEC. 1, BLK. 0-18, D&P SUR.			SEC. 69, BLK. 0-18, D&P SUR.		SEC. 17, BLK. 3, G&M SUR.	
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	08/22/41			-/-/00		-/-/00	
SAMPLED.....	08/22/41			-/-/00		-/-/00	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2326			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	20100			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	62.4	---	---	67.2	---	70.1	---
ETHANE.....	21.7	---	---	17.7	---	18.9	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	14.9	---	---	13.8	---	10.1	---
OXYGEN.....	0.0	---	---	---	---	0.4	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.2	---	---	0.2	---	0.0	---
HELIUM.....	0.77	---	---	0.90	---	0.54	---
HEATING VALUE.....	1049	---	---	1049	---	1049	---
SPECIFIC GRAVITY.....	0.722	---	---	0.698	---	0.690	---
		INDEX SAMPLE	10138 3333	INDEX SAMPLE	10139 3347	INDEX SAMPLE	10140 3355
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MASTERTSON NO. G-2			MASTERTSON NO. E-2		BIVINS NO. D-3	
LOCATION.....	NOT GIVEN			SEC. 70, BLK. 0-18, D&P SUR.		SEC. 15, BLK. M-20, G&M SUR.	
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.		CANADIAN RIVER GAS CO.	
COMPLETED.....	-/-/00			-/-/00		-/-/00	
SAMPLED.....	-/-/00			-/-/00		-/-/00	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	67.8	---	---	73.5	---	71.8	---
ETHANE.....	18.8	---	---	19.5	---	17.8	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	12.2	---	---	6.3	---	9.2	---
OXYGEN.....	0.4	---	---	0.3	---	0.4	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.3	---
HELIUM.....	0.74	---	---	0.25	---	0.54	---
HEATING VALUE.....	1024	---	---	1094	---	1046	---
SPECIFIC GRAVITY.....	0.698	---	---	0.678	---	0.684	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10141 3361			INDEX SAMPLE	10142 3366			INDEX SAMPLE	10143 3741
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	POTTER			COUNTY.....	POTTER			COUNTY.....	POTTER		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
WELL NAME.....	BIVINS NO. A-20			WELL NAME.....	BIVINS NO. A-16			WELL NAME.....	BIVINS NO. A-30		
LOCATION.....	SEC. 35, BLK. M-20, G&M SUR.			LOCATION.....	SEC. 33, BLK. M-20, G&M SUR.			LOCATION.....	SEC. 192, BLK. 2, AB&M SUR.		
OWNER.....	CANADIAN RIVER GAS CO.			OWNER.....	CANADIAN RIVER GAS CO.			OWNER.....	CANADIAN RIVER GAS CO.		
COMPLETED.....	--/--/00			COMPLETED.....	--/--/00			COMPLETED.....	--/--/00		
SAMPLED.....	04/06/44			SAMPLED.....	04/06/44			SAMPLED.....	04/06/44		
FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	3668		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	NOT GIVEN			OPEN FLOW, MCFD.....	31		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	72.5	-----		METHANE.....	71.7	-----		METHANE.....	41.1	-----	
ETHANE.....	16.6	-----		ETHANE.....	17.9	-----		ETHANE.....	7.9	-----	
PROpane.....	---	-----		PROpane.....	---	-----		PROpane.....	---	-----	
N-BUTANE.....	---	-----		N-BUTANE.....	---	-----		N-BUTANE.....	---	-----	
ISOBUTANE.....	---	-----		ISOBUTANE.....	---	-----		ISOBUTANE.....	---	-----	
N-PENTANE.....	---	-----		N-PENTANE.....	---	-----		N-PENTANE.....	---	-----	
ISOPENTANE.....	---	-----		ISOPENTANE.....	---	-----		ISOPENTANE.....	---	-----	
CYCLOPENTANE.....	---	-----		CYCLOPENTANE.....	---	-----		CYCLOPENTANE.....	---	-----	
HEXANES PLUS.....	---	-----		HEXANES PLUS.....	---	-----		HEXANES PLUS.....	---	-----	
NITROGEN.....	9.6	-----		NITROGEN.....	9.2	-----		NITROGEN.....	37.1	-----	
OXYGEN.....	0.4	-----		OXYGEN.....	0.5	-----		OXYGEN.....	0.2	-----	
ARGON.....	---	-----		ARGON.....	---	-----		ARGON.....	---	-----	
HYDROGEN.....	---	-----		HYDROGEN.....	---	-----		HYDROGEN.....	---	-----	
HYDROGEN SULFIDE.....	---	-----		HYDROGEN SULFIDE.....	---	-----		HYDROGEN SULFIDE.....	---	-----	
CARBON DIOXIDE.....	0.3	-----		CARBON DIOXIDE.....	0.2	-----		CARBON DIOXIDE.....	11.7	-----	
HELIUM.....	0.56	-----		HELIUM.....	0.54	-----		HELIUM.....	1.95	-----	
HEATING VALUE.....	1032	-----		HEATING VALUE.....	1047	-----		HEATING VALUE.....	558	-----	
SPECIFIC GRAVITY.....	0.679	-----		SPECIFIC GRAVITY.....	0.684	-----		SPECIFIC GRAVITY.....	0.853	-----	
		INDEX SAMPLE	10144 5059			INDEX SAMPLE	10145 5196			INDEX SAMPLE	10146 5410
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	POTTER			COUNTY.....	POTTER			COUNTY.....	POTTER		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
WELL NAME.....	BIVINS A-77			WELL NAME.....	BIVINS NO. A-83			WELL NAME.....	BIVINS A-92		
LOCATION.....	SEC. 71, BLK. 2, G&M SUR.			LOCATION.....	SEC. 45, BLK. 0-18, D&P SUR.			LOCATION.....	SEC. 34, BLK. B-11, EL&RR SUR.		
OWNER.....	CANADIAN RIVER GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.		
COMPLETED.....	07/02/51			COMPLETED.....	03/20/52			COMPLETED.....	03/10/53		
SAMPLED.....	07/17/51			SAMPLED.....	05/01/52			SAMPLED.....	03/11/53		
FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	2725			DEPTH, FEET.....	2383			DEPTH, FEET.....	2230		
WELLHEAD PRESSURE, PSIG.....	366			WELLHEAD PRESSURE, PSIG.....	352			WELLHEAD PRESSURE, PSIG.....	310		
OPEN FLOW, MCFD.....	37400			OPEN FLOW, MCFD.....	11975			OPEN FLOW, MCFD.....	3000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	71.2	-----		METHANE.....	72.5	-----		METHANE.....	72.9	-----	
ETHANE.....	5.1	-----		ETHANE.....	4.8	-----		ETHANE.....	4.9	-----	
PROpane.....	2.7	-----		PROpane.....	2.9	-----		PROpane.....	2.9	-----	
N-BUTANE.....	0.6	-----		N-BUTANE.....	0.9	-----		N-BUTANE.....	0.8	-----	
ISOBUTANE.....	0.4	-----		ISOBUTANE.....	0.2	-----		ISOBUTANE.....	0.5	-----	
N-PENTANE.....	0.1	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	0.1	-----	
ISOPENTANE.....	0.3	-----		ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.1	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.0	-----		HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.1	-----	
NITROGEN.....	17.9	-----		NITROGEN.....	16.6	-----		NITROGEN.....	16.3	-----	
OXYGEN.....	0.3	-----		OXYGEN.....	TRACE	-----		OXYGEN.....	0.0	-----	
ARGON.....	0.0	-----		ARGON.....	0.1	-----		ARGON.....	0.1	-----	
HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	---	-----		HYDROGEN SULFIDE.....	---	-----		HYDROGEN SULFIDE.....	---	-----	
CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.4	-----		CARBON DIOXIDE.....	0.3	-----	
HELIUM.....	1.05	-----		HELIUM.....	1.04	-----		HELIUM.....	0.97	-----	
HEATING VALUE.....	936	-----		HEATING VALUE.....	959	-----		HEATING VALUE.....	960	-----	
SPECIFIC GRAVITY.....	0.704	-----		SPECIFIC GRAVITY.....	0.705	-----		SPECIFIC GRAVITY.....	0.701	-----	
		INDEX SAMPLE	10147 5411			INDEX SAMPLE	10148 5412			INDEX SAMPLE	10149 5425
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	POTTER			COUNTY.....	POTTER			COUNTY.....	POTTER		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
WELL NAME.....	BIVINS A-89			WELL NAME.....	BIVINS A-88			WELL NAME.....	BIVINS A-91		
LOCATION.....	SEC. 21, BLK. 2, G&M SUR.			LOCATION.....	SEC. 21, BLK. 0-18, D&P SUR.			LOCATION.....	SEC. 58, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.		
COMPLETED.....	11/12/52			COMPLETED.....	10/18/52			COMPLETED.....	03/20/53		
SAMPLED.....	03/11/53			SAMPLED.....	03/11/53			SAMPLED.....	03/25/53		
FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	2640			DEPTH, FEET.....	2427			DEPTH, FEET.....	2272		
WELLHEAD PRESSURE, PSIG.....	349			WELLHEAD PRESSURE, PSIG.....	342			WELLHEAD PRESSURE, PSIG.....	360		
OPEN FLOW, MCFD.....	10900			OPEN FLOW, MCFD.....	62000			OPEN FLOW, MCFD.....	10200		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	72.1	-----		METHANE.....	72.6	-----		METHANE.....	72.7	-----	
ETHANE.....	4.7	-----		ETHANE.....	5.2	-----		ETHANE.....	4.6	-----	
PROpane.....	2.7	-----		PROpane.....	3.0	-----		PROpane.....	2.7	-----	
N-BUTANE.....	0.8	-----		N-BUTANE.....	0.8	-----		N-BUTANE.....	0.8	-----	
ISOBUTANE.....	0.4	-----		ISOBUTANE.....	0.4	-----		ISOBUTANE.....	0.3	-----	
N-PENTANE.....	0.1	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	0.2	-----	
ISOPENTANE.....	0.1	-----		ISOPENTANE.....	0.1	-----		ISOPENTANE.....	0.1	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.1	-----	
NITROGEN.....	17.4	-----		NITROGEN.....	16.3	-----		NITROGEN.....	17.2	-----	
OXYGEN.....	0.0	-----		OXYGEN.....	0.0	-----		OXYGEN.....	0.1	-----	
ARGON.....	0.1	-----		ARGON.....	0.1	-----		ARGON.....	0.1	-----	
HYDROGEN.....	TRACE	-----		HYDROGEN.....	TRACE	-----		HYDROGEN.....	TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.3	-----		CARBON DIOXIDE.....	0.2	-----		CARBON DIOXIDE.....	0.1	-----	
HELIUM.....	1.03	-----		HELIUM.....	0.99	-----		HELIUM.....	1.06	-----	
HEATING VALUE.....	943	-----		HEATING VALUE.....	969	-----		HEATING VALUE.....	948	-----	
SPECIFIC GRAVITY.....	0.702	-----		SPECIFIC GRAVITY.....	0.705	-----		SPECIFIC GRAVITY.....	0.700	-----	
		INDEX SAMPLE	10150 5468			INDEX SAMPLE	10151 5469			INDEX SAMPLE	10152 5568
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	POTTER			COUNTY.....	POTTER			COUNTY.....	POTTER		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
WELL NAME.....	BIVINS A-95			WELL NAME.....	BIVINS NO. A-96			WELL NAME.....	BIVINS NO. A-98		
LOCATION.....	SEC. 37, BLK. 0-18, D&P SUR.			LOCATION.....	SEC. 16, BLK. 0-18, D&P SUR.			LOCATION.....	SEC. 39, BLK. 2, G&M SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.		
COMPLETED.....	04/24/53			COMPLETED.....	04/25/53			COMPLETED.....	08/18/53		
SAMPLED.....	05/15/53			SAMPLED.....	05/15/53			SAMPLED.....	12/01/53		
FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	2438			DEPTH, FEET.....	2462			DEPTH, FEET.....	2431		
WELLHEAD PRESSURE, PSIG.....	302			WELLHEAD PRESSURE, PSIG.....	320			WELLHEAD PRESSURE, PSIG.....	367		
OPEN FLOW, MCFD.....	12000			OPEN FLOW, MCFD.....	19200			OPEN FLOW, MCFD.....	7400		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	72.7	-----		METHANE.....	72.5	-----		METHANE.....	72.0	-----	
ETHANE.....	4.4	-----		ETHANE.....	3.6	-----		ETHANE.....	3.1	-----	
PROpane.....	2.8	-----		PROpane.....	3.1	-----		PROpane.....	2.7	-----	
N-BUTANE.....	0.9	-----		N-BUTANE.....	0.9	-----		N-BUTANE.....	0.8	-----	
ISOBUTANE.....	0.3	-----		ISOBUTANE.....	0.3	-----		ISOBUTANE.....	0.3	-----	
N-PENTANE.....	0.2	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	0.2	-----	
ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.2	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.1	-----	
NITROGEN.....	16.0	-----		NITROGEN.....	15.7	-----		NITROGEN.....	17.1	-----	
OXYGEN.....	0.0	-----		OXYGEN.....	TRACE	-----		OXYGEN.....	TRACE	-----	
ARGON.....	0.1	-----		ARGON.....	0.1	-----		ARGON.....	0.1	-----	
HYDROGEN.....	0.0	-----		HYDROGEN.....	TRACE	-----		HYDROGEN.....	TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.2	-----		CARBON DIOXIDE.....	0.2	-----		CARBON DIOXIDE.....	0.2	-----	
HELIUM.....	0.98	-----		HELIUM.....	0.96	-----		HELIUM.....	1.09	-----	
HEATING VALUE.....	972	-----		HEATING VALUE.....	978	-----		HEATING VALUE.....	954	-----	
SPECIFIC GRAVITY.....	0.704	-----		SPECIFIC GRAVITY.....	0.704	-----		SPECIFIC GRAVITY.....	0.704	-----	

* CALCULATED GROSS

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10153 5569	INDEX SAMPLE	10154 5570	INDEX SAMPLE	10155 5571
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS NO. A-99			BIVINS NO. A-100		BIVINS NO. A-101	
LOCATION.....	SEC. 44, BLK. 0-18, D&P SUR.			SEC. 36, BLK. 0-18, D&P SUR.		SEC. 34, BLK. 0-18, D&P SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	10/02/53			09/10/53		09/30/53	
SAMPLED.....	12/01/53			12/01/53		12/01/53	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2295			2550		2605	
WELLHEAD PRESSURE, PSIG.....	326			313		333	
OPEN FLOW, MCFD.....	4400			10600		27800	
COMPONENT, MOLE PCT							
METHANE.....	72.2			72.7		72.6	
ETHANE.....	5.1			5.4		5.4	
PROPANE.....	2.8			2.9		2.9	
N-BUTANE.....	0.9			0.9		0.9	
ISOBUTANE.....	0.3			0.4		0.3	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	16.8			15.9		15.9	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.1	
HELIUM.....	1.05			0.97		0.98	
HEATING VALUE.....	958			974		974	
SPECIFIC GRAVITY.....	0.704			0.704		0.703	
		INDEX SAMPLE	10156 5572	INDEX SAMPLE	10157 5573	INDEX SAMPLE	10158 5574
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS NO. A-102			BIVINS NO. A-103		BIVINS NO. A-104	
LOCATION.....	SEC. 31, BLK. 0-18, D&P SUR.			SEC. 81, BLK. 2, G&M SUR.		SEC. 57, BLK. 2, G&M SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	09/10/53			10/02/53		09/28/53	
SAMPLED.....	12/01/53			12/01/53		12/01/53	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2370			2409		2350	
WELLHEAD PRESSURE, PSIG.....	335			325		349	
OPEN FLOW, MCFD.....	36000			7300		7800	
COMPONENT, MOLE PCT							
METHANE.....	72.6			72.6		72.2	
ETHANE.....	5.0			5.4		5.2	
PROPANE.....	3.0			2.9		2.8	
N-BUTANE.....	0.9			0.9		0.8	
ISOBUTANE.....	0.3			0.3		0.3	
N-PENTANE.....	0.3			0.2		0.3	
ISOPENTANE.....	0.1			0.2		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	15.7			15.9		16.7	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.99			0.99		1.13	
HEATING VALUE.....	979			974		960	
SPECIFIC GRAVITY.....	0.705			0.704		0.704	
		INDEX SAMPLE	10159 5575	INDEX SAMPLE	10160 5576	INDEX SAMPLE	10161 5577
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS NO. A-105			BIVINS NO. A-106		BIVINS NO. 109	
LOCATION.....	SEC. 38, BLK. 0-18, D&P SUR.			SEC. 30, BLK. 8-11, EL&RR SUR.		SEC. 70, BLK. 2, G&M SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	10/23/53			10/26/53		12/06/53	
SAMPLED.....	12/01/53			12/01/53		12/01/53	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2430			2355		2475	
WELLHEAD PRESSURE, PSIG.....	317			348		371	
OPEN FLOW, MCFD.....	23000			20800		12600	
COMPONENT, MOLE PCT							
METHANE.....	72.6			71.8		71.3	
ETHANE.....	5.6			5.0		5.1	
PROPANE.....	3.0			2.8		2.7	
N-BUTANE.....	0.9			0.9		0.9	
ISOBUTANE.....	0.4			0.2		0.2	
N-PENTANE.....	0.2			0.3		0.2	
ISOPENTANE.....	0.1			0.1		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	15.6			17.2		17.6	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.3		0.3	
HELIUM.....	0.96			1.14		1.17	
HEATING VALUE.....	984			950		943	
SPECIFIC GRAVITY.....	0.707			0.704		0.704	
		INDEX SAMPLE	10162 5579	INDEX SAMPLE	10163 5580	INDEX SAMPLE	10164 5581
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	COUGHLIN NO. A-2			BIVINS NO. 108		BIVINS NO. 110	
LOCATION.....	SEC. 77, BLK. 0-18, D&P SUR.			SEC. 17, BLK. 0-18, D&P SUR.		SEC. 8, BLK. 0-18, G&M SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	12/12/53			--/--/00		12/10/53	
SAMPLED.....	12/15/53			12/15/53		12/15/53	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2385			2605		2500	
WELLHEAD PRESSURE, PSIG.....	300			300		328	
OPEN FLOW, MCFD.....	6800			3000		7800	
COMPONENT, MOLE PCT							
METHANE.....	74.3			71.8		72.8	
ETHANE.....	5.0			5.0		5.9	
PROPANE.....	3.4			2.9		3.3	
N-BUTANE.....	1.0			0.8		1.0	
ISOBUTANE.....	0.5			0.3		0.3	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.3			0.1		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	13.2			16.4		15.0	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.5		0.2	
HELIUM.....	0.76			1.11		0.94	
HEATING VALUE.....	1029			960		1000	
SPECIFIC GRAVITY.....	0.708			0.706		0.711	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10165 SAMPLE 5747			INDEX 10166 SAMPLE 5748			INDEX 10167 SAMPLE 5760		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	MASTERTON NO. 8-32		BIUVINS NO. A-124			BIUVINS A-5		
LOCATION.....	SEC. 64, BLK. 47, H&TC SUR.		SEC. 23, BLK. 5, G&M SUR.			SEC. 25, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	7/7/00		7/7/00			10/10/26		
SAMPLED.....	01/03/55		01/03/55			02/16/55		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2500		2500			2374		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	76.3		74.4			73.4		
ETHANE.....	5.8		5.2			5.2		
PROPANE.....	2.8		2.6			2.9		
N-BUTANE.....	0.7		0.7			0.9		
ISOBUTANE.....	0.4		0.3			0.4		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.0			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	12.6		14.9			15.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.6			0.1		
HELIUM.....	0.60		0.60			0.96		
HEATING VALUE.....	1000		962			982		
SPECIFIC GRAVITY.....	0.687		0.692			0.702		
INDEX 10168 SAMPLE 5764			INDEX 10169 SAMPLE 5770			INDEX 10170 SAMPLE 5824		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIUVINS E-1		BIUVINS A-13			MASTERTON NO. A-25		
LOCATION.....	SEC. 27, BLK. 0-18, D&P SUR.		SEC. 7, BLK. 0-18, D&P SUR.			SEC. 12, BLK. 8-11, EL&RR SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	07/07/28		09/15/30			7/7/00		
SAMPLED.....	01/26/55		01/26/55			05/03/55		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2175		NOT GIVEN			2802		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			310		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			28300		
COMPONENT, MOLE PCT								
METHANE.....	73.6		73.1			73.7		
ETHANE.....	5.4		5.6			5.8		
PROPANE.....	2.6		3.3			3.0		
N-BUTANE.....	0.8		0.8			0.8		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	15.3		15.1			14.3		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.3		
HELIUM.....	0.96		0.98			0.89		
HEATING VALUE.....	969		985			994		
SPECIFIC GRAVITY.....	0.694		0.704			0.702		
INDEX 10171 SAMPLE 5921			INDEX 10172 SAMPLE 5922			INDEX 10173 SAMPLE 5923		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIUVINS A-129		BIUVINS A-128			MASTERTON A-26		
LOCATION.....	SEC. 32, BLK. 0-18, D&P SUR.		SEC. 6, BLK. 0-18, D&P SUR.			SEC. 83, BLK. 2, G&M SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	06/11/55		7/7/00			7/7/00		
SAMPLED.....	08/23/55		08/24/55			08/24/55		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2882		2622			2545		
WELLHEAD PRESSURE, PSIG.....	316		312			309		
OPEN FLOW, MCFD.....	63000		136000			34000		
COMPONENT, MOLE PCT								
METHANE.....	72.5		73.0			73.4		
ETHANE.....	5.4		5.8			5.5		
PROPANE.....	2.9		3.0			3.0		
N-BUTANE.....	0.8		0.8			0.8		
ISOBUTANE.....	0.5		0.5			0.4		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.4		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	16.0		15.0			15.0		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	0.97		0.91			0.87		
HEATING VALUE.....	972		991			991		
SPECIFIC GRAVITY.....	0.706		0.704			0.706		
INDEX 10174 SAMPLE 5930			INDEX 10175 SAMPLE 5931			INDEX 10176 SAMPLE 5932		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	MASTERTON J-4		MASTERTON J-2			CRAWFORD D-1		
LOCATION.....	SEC. 9, BLK. 0-11, EL&RR SUR.		SEC. 6, BLK. 0-18, D&P SUR.			SEC. 68, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	05/16/53		09/16/27			12/05/48		
SAMPLED.....	7/7/00		7/7/00			7/7/00		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2686		2388			2915		
WELLHEAD PRESSURE, PSIG.....	299		295			31		
OPEN FLOW, MCFD.....	6144		2728			2286		
COMPONENT, MOLE PCT								
METHANE.....	73.2		73.5			73.6		
ETHANE.....	5.7		6.0			6.2		
PROPANE.....	3.4		3.2			3.2		
N-BUTANE.....	1.0		0.9			1.0		
ISOBUTANE.....	0.3		0.4			0.4		
N-PENTANE.....	0.3		0.2			0.3		
ISOPENTANE.....	0.1		0.2			TRACE		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	14.7		14.3			13.9		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.88		0.86			0.82		
HEATING VALUE.....	1002		1008			1009		
SPECIFIC GRAVITY.....	0.709		0.708			0.705		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10177 SAMPLE 5933		INDEX 10178 SAMPLE 5934		INDEX 10179 SAMPLE 5936	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MASTERTON B-44	WELL NAME.....	MASTERTON J-5	WELL NAME.....	BRADLEY A-1
LOCATION.....	SEC. 81, BLK. B-3, G&M SUR.	LOCATION.....	SEC. 11, BLK. B-3, G&M SUR.	LOCATION.....	SEC. 8, BLK. B-11, EL&RR SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	09/10/53	COMPLETED.....	10/02/53	COMPLETED.....	08/11/42
SAMPLED.....	--/--/00	SAMPLED.....	--/--/00	SAMPLED.....	--/--/00
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2318	DEPTH, FEET.....	2665	DEPTH, FEET.....	2345
WELLHEAD PRESSURE, PSIG.....	312	WELLHEAD PRESSURE, PSIG.....	255	WELLHEAD PRESSURE, PSIG.....	306
OPEN FLOW, MCFD.....	1390	OPEN FLOW, MCFD.....	424	OPEN FLOW, MCFD.....	16446
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.5	METHANE.....	74.2	METHANE.....	72.6
ETHANE.....	6.2	ETHANE.....	6.9	ETHANE.....	6.0
PROpane.....	3.3	PROpane.....	3.4	PROpane.....	3.8
N-BUTANE.....	1.0	N-BUTANE.....	1.0	N-BUTANE.....	1.0
ISOBUTANE.....	0.3	ISOBUTANE.....	0.4	ISOBUTANE.....	0.2
N-PENTANE.....	0.2	N-PENTANE.....	0.4	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	14.0	NITROGEN.....	12.4	NITROGEN.....	14.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.84	HELIUM.....	0.70	HELIUM.....	0.93
HEATING VALUE.....	1016	HEATING VALUE.....	104	HEATING VALUE.....	1008
SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.713	SPECIFIC GRAVITY.....	0.712

INDEX 10180 SAMPLE 5937		INDEX 10181 SAMPLE 6015		INDEX 10182 SAMPLE 6023	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MASTERTON B-38	WELL NAME.....	MASTERTON T-1	WELL NAME.....	COUGHLAN A-1
LOCATION.....	SEC. 57, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 20, BLK. 3, G&M SUR.	LOCATION.....	SEC. 1, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	04/09/53	COMPLETED.....	12/13/22	COMPLETED.....	12/26/36
SAMPLED.....	05/08/56	SAMPLED.....	01/17/56	SAMPLED.....	02/10/56
FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-LINE & DOLOMITE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2443	DEPTH, FEET.....	1920	DEPTH, FEET.....	2326
WELLHEAD PRESSURE, PSIG.....	382	WELLHEAD PRESSURE, PSIG.....	308	WELLHEAD PRESSURE, PSIG.....	308
OPEN FLOW, MCFD.....	663	OPEN FLOW, MCFD.....	16000	OPEN FLOW, MCFD.....	7848
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.7	METHANE.....	76.5	METHANE.....	73.9
ETHANE.....	6.5	ETHANE.....	6.6	ETHANE.....	6.0
PROpane.....	3.5	PROpane.....	3.7	PROpane.....	3.4
N-BUTANE.....	1.0	N-BUTANE.....	0.9	N-BUTANE.....	1.0
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	13.3	NITROGEN.....	9.6	NITROGEN.....	13.6
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.2	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.79	HELIUM.....	0.44	HELIUM.....	0.80
HEATING VALUE.....	1032	HEATING VALUE.....	1070	HEATING VALUE.....	1023
SPECIFIC GRAVITY.....	0.711	SPECIFIC GRAVITY.....	0.694	SPECIFIC GRAVITY.....	0.709

INDEX 10183 SAMPLE 6228		INDEX 10184 SAMPLE 6229		INDEX 10185 SAMPLE 6231	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MASTERTON B NO. 66	WELL NAME.....	BIVINS A NO. 130	WELL NAME.....	BIVINS A NO. 139
LOCATION.....	SEC. 104, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 33, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 14, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	05/08/56	COMPLETED.....	07/17/55	COMPLETED.....	04/30/56
SAMPLED.....	01/23/57	SAMPLED.....	01/23/57	SAMPLED.....	01/23/57
FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1850	DEPTH, FEET.....	2453	DEPTH, FEET.....	2196
WELLHEAD PRESSURE, PSIG.....	304	WELLHEAD PRESSURE, PSIG.....	345	WELLHEAD PRESSURE, PSIG.....	297
OPEN FLOW, MCFD.....	21	OPEN FLOW, MCFD.....	22700	OPEN FLOW, MCFD.....	110000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	76.4	METHANE.....	72.6	METHANE.....	73.5
ETHANE.....	7.0	ETHANE.....	5.3	ETHANE.....	5.8
PROpane.....	3.4	PROpane.....	3.6	PROpane.....	2.9
N-BUTANE.....	0.8	N-BUTANE.....	0.6	N-BUTANE.....	0.6
ISOBUTANE.....	0.6	ISOBUTANE.....	0.5	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	10.5	NITROGEN.....	16.5	NITROGEN.....	15.0
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.1
HELIUM.....	0.63	HELIUM.....	1.03	HELIUM.....	0.95
HEATING VALUE.....	1057	HEATING VALUE.....	1057	HEATING VALUE.....	986
SPECIFIC GRAVITY.....	0.696	SPECIFIC GRAVITY.....	0.703	SPECIFIC GRAVITY.....	0.700

INDEX 10186 SAMPLE 6232		INDEX 10187 SAMPLE 6287		INDEX 10188 SAMPLE 6288	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	BIVINS A NO. 143	WELL NAME.....	MASTERTON G-4	WELL NAME.....	MASTERTON G-4
LOCATION.....	SEC. 25, BLK. 2, G&M SUR.	LOCATION.....	SEC. 79, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 79, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	05/27/56	COMPLETED.....	12/14/50	COMPLETED.....	07/26/51
SAMPLED.....	01/02/57	SAMPLED.....	01/02/57	SAMPLED.....	01/02/57
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2590	DEPTH, FEET.....	2322	DEPTH, FEET.....	2310
WELLHEAD PRESSURE, PSIG.....	315	WELLHEAD PRESSURE, PSIG.....	295	WELLHEAD PRESSURE, PSIG.....	285
OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	18300	OPEN FLOW, MCFD.....	20000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.1	METHANE.....	73.3	METHANE.....	73.7
ETHANE.....	5.5	ETHANE.....	6.0	ETHANE.....	5.6
PROpane.....	2.7	PROpane.....	3.1	PROpane.....	3.1
N-BUTANE.....	0.6	N-BUTANE.....	0.9	N-BUTANE.....	0.9
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	15.9	NITROGEN.....	14.5	NITROGEN.....	14.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2
HELIUM.....	1.03	HELIUM.....	0.94	HELIUM.....	0.89
HEATING VALUE.....	968	HEATING VALUE.....	996	HEATING VALUE.....	1001
SPECIFIC GRAVITY.....	0.699	SPECIFIC GRAVITY.....	0.703	SPECIFIC GRAVITY.....	0.703

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10189 SAMPLE 6289			INDEX 10190 SAMPLE 6290			INDEX 10191 SAMPLE 6291		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	MASTERTON A-23		MASTERTON J-3			MASTERTON J-6		
LOCATION.....	SEC. 84, BLK. 2, G&M SUR.		SEC. 10, BLK. B-11, EL&RRSUR			SEC. 80, BLK. 2, G&M SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	05/25/53		06/09/51			10/18/56		
SAMPLED.....	03/02/57		03/02/57			03/02/57		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2187		2225			2859		
WELLHEAD PRESSURE, PSIG.....	297		295			234		
OPEN FLOW, MCFD.....	18260		17000			1680		
COMPONENT, MOLE PCT.....								
METHANE.....	73.1		73.6			71.4		
ETHANE.....	5.9		6.0			5.4		
PROPANE.....	3.1		3.2			2.5		
N-BUTANE.....	0.9		1.0			0.6		
ISOBUTANE.....	0.5		0.5			0.3		
N-PENTANE.....	0.2		0.3			0.1		
ISOPENTANE.....	0.2		0.0			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	14.8		14.2			17.2		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.0			0.1		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.7		
HELIUM.....	0.96		0.93			1.18		
HEATING VALUE.....	1000		1008			933		
SPECIFIC GRAVITY.....	0.709		0.706			0.701		
INDEX 10192 SAMPLE 6292			INDEX 10193 SAMPLE 6308			INDEX 10194 SAMPLE 6309		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	MASTERTON A-28		MASTERTON B-61			MASTERTON C-1		
LOCATION.....	SEC. 13, BLK. B-11, EL&RRSUR		SEC. 70, BLK. 0-18, D&P SUR.			SEC. 65, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	10/09/56		11/11/55			12/08/18		
SAMPLED.....	03/02/57		05/09/57			05/09/57		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY&GR. WASH			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2713		2227			1780		
WELLHEAD PRESSURE, PSIG.....	272		292			295		
OPEN FLOW, MCFD.....	11800		5128			12067		
COMPONENT, MOLE PCT.....								
METHANE.....	71.7		74.2			74.0		
ETHANE.....	5.8		6.2			6.3		
PROPANE.....	2.9		3.3			3.4		
N-BUTANE.....	0.7		0.9			0.9		
ISOBUTANE.....	0.5		0.6			0.6		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	16.1		13.1			13.3		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.0			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.1		
HELIUM.....	1.07		0.83			0.82		
HEATING VALUE.....	973		1026			1028		
SPECIFIC GRAVITY.....	0.711		0.704			0.708		
INDEX 10195 SAMPLE 6310			INDEX 10196 SAMPLE 6311			INDEX 10197 SAMPLE 6312		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	BIVINS A-50		CRAWFORD B-2			BIVINS A-70		
LOCATION.....	SEC. 28, BLK. 0-18, D&P SUR.		SEC. 80, BLK. 0-18, D&P SUR.			SEC. 9, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	05/23/49		01/31/51			01/22/51		
SAMPLED.....	05/09/57		05/09/57			05/09/57		
FORMATION.....	-RED GRANITE		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2633		2270			2350		
WELLHEAD PRESSURE, PSIG.....	903		288			299		
OPEN FLOW, MCFD.....	7855		7634			10903		
COMPONENT, MOLE PCT.....								
METHANE.....	72.8		73.3			73.0		
ETHANE.....	5.6		5.9			5.9		
PROPANE.....	2.8		3.1			3.0		
N-BUTANE.....	0.9		0.9			0.8		
ISOBUTANE.....	0.5		0.6			0.6		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	15.5		14.3			14.9		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	1.04		0.92			0.97		
HEATING VALUE.....	979		1005			997		
SPECIFIC GRAVITY.....	0.704		0.704			0.708		
INDEX 10198 SAMPLE 6313			INDEX 10199 SAMPLE 6314			INDEX 10200 SAMPLE 6316		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	CRAWFORD D-2		BIVINS A-149			BIVINS A-69		
LOCATION.....	SEC. 4, BLK. 0-18, D&P SUR.		SEC. 20, BLK. 0-18, D&P SUR.			SEC. 5, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	11/06/49		10/29/56			11/17/50		
SAMPLED.....	05/09/57		05/09/57			05/09/57		
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2330		2580			2390		
WELLHEAD PRESSURE, PSIG.....	300		292			301		
OPEN FLOW, MCFD.....	26724		3100			26871		
COMPONENT, MOLE PCT.....								
METHANE.....	72.7		72.6			73.0		
ETHANE.....	5.9		5.4			5.7		
PROPANE.....	3.0		2.9			3.0		
N-BUTANE.....	0.9		0.8			0.9		
ISOBUTANE.....	0.6		0.5			0.6		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	15.0		15.8			15.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.2		
HELIUM.....	1.97		1.51			0.98		
HEATING VALUE.....	988		988			993		
SPECIFIC GRAVITY.....	0.704		0.704			0.707		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10201 SAMPLE 6317		INDEX 10202 SAMPLE 6318		INDEX 10203 SAMPLE 6319	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	BIVINS A-38	WELL NAME.....	BIVINS A-32	WELL NAME.....	BIVINS A-31
LOCATION.....	SEC. 10, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 22, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 15, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	05/09/49	COMPLETED.....	01/30/47	COMPLETED.....	12/18/45
SAMPLED.....	05/09/57	SAMPLED.....	05/09/57	SAMPLED.....	05/09/57
FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2260	DEPTH, FEET.....	2290	DEPTH, FEET.....	2145
MELLHEAD PRESSURE, PSIG.....	296	MELLHEAD PRESSURE, PSIG.....	371	MELLHEAD PRESSURE, PSIG.....	297
OPEN FLOW, MCFD.....	11343	OPEN FLOW, MCFD.....	519	OPEN FLOW, MCFD.....	3594
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.0	METHANE.....	73.0	METHANE.....	73.0
ETHANE.....	5.9	ETHANE.....	5.8	ETHANE.....	5.9
PROPANE.....	0.2	PROPANE.....	3.0	PROPANE.....	3.1
N-BUTANE.....	0.9	N-BUTANE.....	0.0	N-BUTANE.....	0.9
ISOBUTANE.....	0.7	ISOBUTANE.....	0.5	ISOBUTANE.....	0.6
N-PENTANE.....	0.0	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	14.6	NITROGEN.....	14.8	NITROGEN.....	14.7
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.31	HELIUM.....	0.96	HELIUM.....	0.95
HEATING VALUE.....	1000	HEATING VALUE.....	908	HEATING VALUE.....	998
SPECIFIC GRAVITY.....	0.707	SPECIFIC GRAVITY.....	0.712	SPECIFIC GRAVITY.....	0.708

INDEX 10204 SAMPLE 7073		INDEX 10205 SAMPLE 7096		INDEX 10206 SAMPLE 7097	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	BIVINS A-158	WELL NAME.....	STATE NO. 1	WELL NAME.....	BRITAIN WEYMOUTH NO. 5-6
LOCATION.....	SEC. 5 W. T. PALMER SUR.	LOCATION.....	S OF 65-47 IN RIVER BED	LOCATION.....	SEC. 6, BLK. R&B, R&B SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	12/23/58	COMPLETED.....	01/16/58	COMPLETED.....	08/24/54
SAMPLED.....	05/23/59	SAMPLED.....	05/23/59	SAMPLED.....	06/02/59
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2685	DEPTH, FEET.....	2266	DEPTH, FEET.....	1975
MELLHEAD PRESSURE, PSIG.....	246	MELLHEAD PRESSURE, PSIG.....	407	MELLHEAD PRESSURE, PSIG.....	280
OPEN FLOW, MCFD.....	8200	OPEN FLOW, MCFD.....	17800	OPEN FLOW, MCFD.....	8984
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.0	METHANE.....	74.3	METHANE.....	76.7
ETHANE.....	6.4	ETHANE.....	8.8	ETHANE.....	7.3
PROPANE.....	3.3	PROPANE.....	1.7	PROPANE.....	3.6
N-BUTANE.....	1.0	N-BUTANE.....	0.4	N-BUTANE.....	1.0
ISOBUTANE.....	0.5	ISOBUTANE.....	0.3	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	10.3	NITROGEN.....	15.3	NITROGEN.....	9.7
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.6	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.50	HELIUM.....	0.80	HELIUM.....	0.50
HEATING VALUE.....	1059	HEATING VALUE.....	938	HEATING VALUE.....	1074
SPECIFIC GRAVITY.....	0.697	SPECIFIC GRAVITY.....	0.696	SPECIFIC GRAVITY.....	0.698

INDEX 10207 SAMPLE 7098		INDEX 10208 SAMPLE 7099		INDEX 10209 SAMPLE 7100	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MASTERTON A-29	WELL NAME.....	MASTERTON B-6	WELL NAME.....	MASTERTON B-27
LOCATION.....	SEC. 13, BLK. 3, G&M SUR.	LOCATION.....	SEC. 19, BLK. 3, G&M SUR.	LOCATION.....	SEC. 27, BLK. 3, G&M SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	08/23/56	COMPLETED.....	12/23/52	COMPLETED.....	08/23/51
SAMPLED.....	06/02/59	SAMPLED.....	06/02/59	SAMPLED.....	--/--/00
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PENN-TOPEKA
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2502	DEPTH, FEET.....	2140	DEPTH, FEET.....	2195
MELLHEAD PRESSURE, PSIG.....	364	MELLHEAD PRESSURE, PSIG.....	282	MELLHEAD PRESSURE, PSIG.....	276
OPEN FLOW, MCFD.....	900	OPEN FLOW, MCFD.....	32980	OPEN FLOW, MCFD.....	3358
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.5	METHANE.....	76.4	METHANE.....	77.6
ETHANE.....	6.1	ETHANE.....	7.3	ETHANE.....	6.6
PROPANE.....	2.2	PROPANE.....	0.7	PROPANE.....	3.3
N-BUTANE.....	0.8	N-BUTANE.....	0.9	N-BUTANE.....	0.9
ISOBUTANE.....	0.5	ISOBUTANE.....	0.6	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	0.6	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	12.9	NITROGEN.....	0.9	NITROGEN.....	10.0
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1
HELIUM.....	0.70	HELIUM.....	0.50	HELIUM.....	0.50
HEATING VALUE.....	1093	HEATING VALUE.....	969	HEATING VALUE.....	1060
SPECIFIC GRAVITY.....	0.694	SPECIFIC GRAVITY.....	0.696	SPECIFIC GRAVITY.....	0.692

INDEX 10210 SAMPLE 7101		INDEX 10211 SAMPLE 7102		INDEX 10212 SAMPLE 7103	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MASTERTON B-29	WELL NAME.....	MASTERTON B-31	WELL NAME.....	MASTERTON B-32
LOCATION.....	SEC. 28, BLK. 3, G&M SUR.	LOCATION.....	SEC. 6, BLK. 47, H&TC SUR.	LOCATION.....	SEC. 6, BLK. 47, H&TC SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	09/17/51	COMPLETED.....	03/05/52	COMPLETED.....	04/23/52
SAMPLED.....	05/11/58	SAMPLED.....	05/11/58	SAMPLED.....	05/11/58
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1796	DEPTH, FEET.....	1820	DEPTH, FEET.....	2230
MELLHEAD PRESSURE, PSIG.....	242	MELLHEAD PRESSURE, PSIG.....	273	MELLHEAD PRESSURE, PSIG.....	201
OPEN FLOW, MCFD.....	921	OPEN FLOW, MCFD.....	15241	OPEN FLOW, MCFD.....	2293
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.5	METHANE.....	77.5	METHANE.....	76.4
ETHANE.....	6.4	ETHANE.....	6.9	ETHANE.....	5.9
PROPANE.....	3.8	PROPANE.....	3.3	PROPANE.....	2.6
N-BUTANE.....	0.9	N-BUTANE.....	0.9	N-BUTANE.....	0.7
ISOBUTANE.....	0.6	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.3	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.2	NITROGEN.....	0.8	NITROGEN.....	12.5
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.3
HELIUM.....	0.50	HELIUM.....	0.50	HELIUM.....	0.60
HEATING VALUE.....	1094	HEATING VALUE.....	1064	HEATING VALUE.....	1006
SPECIFIC GRAVITY.....	0.705	SPECIFIC GRAVITY.....	0.694	SPECIFIC GRAVITY.....	0.689

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10213 7104	INDEX SAMPLE	10214 7105	INDEX SAMPLE	10215 7106
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MASTERTON B-33			MASTERTON B-26		MASTERTON B-37	
LOCATION.....	SEC. 18, BLK. 3, G&M SUR.			SEC. 63, BLK. 26, H&TC SUR.		SEC. 66, BLK. 47, H&TC SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	06/05/52			08/18/51		01/13/53	
SAMPLED.....	05/--/58			05/--/58		05/--/58	
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH			PERM-WICHITA-ALBANY&GR. WASH		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2129			1810		2640	
WELLHEAD PRESSURE, PSIG.....	271			274		237	
OPEN FLOW, MCFD.....	31856			7370		236	
COMPONENT, MOLE PCT							
METHANE.....	76.5			77.6		77.2	
ETHANE.....	7.2			6.4		6.4	
PROPANE.....	3.7			3.5		3.1	
N-BUTANE.....	0.9			1.1		0.9	
ISOBUTANE.....	0.6			0.7		0.4	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.2			0.3		0.2	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	9.8			9.6		10.9	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		0.1	
HELIUM.....	0.50			10.60		0.60	
HEATING VALUE.....	1078			1078		1039	
SPECIFIC GRAVITY.....	0.700			0.700		0.689	
		INDEX SAMPLE	10216 7107	INDEX SAMPLE	10217 7108	INDEX SAMPLE	10218 7109
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MASTERTON B-34			MASTERTON B-39		MASTERTON B-57	
LOCATION.....	SEC. 15, BLK. 3, G&M SUR.			SEC. 107, BLK. 0-18, D&P SUR		SEC. 68, BLK. 47, H&TC SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	07/14/52			05/04/53		03/23/55	
SAMPLED.....	05/--/58			05/--/58		05/--/58	
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH			PERM-GRANITE WASH		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2015			2402		2230	
WELLHEAD PRESSURE, PSIG.....	271			275		272	
OPEN FLOW, MCFD.....	1302			3413		5316	
COMPONENT, MOLE PCT							
METHANE.....	76.9			75.5		71.7	
ETHANE.....	7.2			6.8		7.4	
PROPANE.....	3.6			3.6		3.7	
N-BUTANE.....	0.9			1.0		1.1	
ISOBUTANE.....	0.6			0.6		0.7	
N-PENTANE.....	0.2			0.2		0.4	
ISOPENTANE.....	0.2			0.2		0.4	
CYCLOPENTANE.....	TRACE			0.1		0.2	
HEXANES PLUS.....	0.1			0.1		0.6	
NITROGEN.....	9.8			11.2		13.4	
OXYGEN.....	TRACE			0.1		0.0	
ARGON.....	TRACE			0.1		0.3	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		0.1	
HELIUM.....	0.50			0.60		0.20	
HEATING VALUE.....	1074			1060		1088	
SPECIFIC GRAVITY.....	0.697			0.707		0.748	
		INDEX SAMPLE	10219 7111	INDEX SAMPLE	10220 7112	INDEX SAMPLE	10221 7113
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MASTERTON B-58			MASTERTON B-59		MASTERTON B-69	
LOCATION.....	SEC. 67, BLK. 47, H&TC SUR.			SEC. 10, BLK. 3, G&M SUR.		SEC. 21, BLK. 3, G&M SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	03/17/55			04/27/55		09/01/56	
SAMPLED.....	05/--/58			05/--/58		05/--/58	
FORMATION.....	PERM-GRANITE WASH			PERM-GRANITE WASH		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2444			1920		2100	
WELLHEAD PRESSURE, PSIG.....	258			251		285	
OPEN FLOW, MCFD.....	214			2731		28374	
COMPONENT, MOLE PCT							
METHANE.....	77.2			77.2		75.9	
ETHANE.....	7.2			7.0		7.1	
PROPANE.....	3.3			3.4		3.7	
N-BUTANE.....	0.9			0.9		1.0	
ISOBUTANE.....	0.6			0.6		0.6	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.3			0.2		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	9.9			9.7		10.5	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		0.1	
HELIUM.....	0.50			0.40		0.60	
HEATING VALUE.....	1074			1068		1068	
SPECIFIC GRAVITY.....	0.698			0.694		0.703	
		INDEX SAMPLE	10222 7114	INDEX SAMPLE	10223 7115	INDEX SAMPLE	10224 7116
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	MASTERTON B-60			MASTERTON B-71		MASTERTON B-70	
LOCATION.....	SEC. 106, BLK. 0-18, D&P SUR			SEC. 70, BLK. 47, H&TC SUR.		SEC. 4, BLK. 8-11, EL&RR SUR	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	04/24/55			07/29/56		09/14/56	
SAMPLED.....	05/--/58			05/--/58		05/--/58	
FORMATION.....	PERM-GRANITE WASH			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY&GR. WASH	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2067			2301		2110	
WELLHEAD PRESSURE, PSIG.....	291			320		273	
OPEN FLOW, MCFD.....	2534			133		2539	
COMPONENT, MOLE PCT							
METHANE.....	76.6			75.6		76.4	
ETHANE.....	6.8			6.1		7.7	
PROPANE.....	3.5			3.9		3.8	
N-BUTANE.....	0.9			0.8		1.0	
ISOBUTANE.....	0.6			0.5		0.6	
N-PENTANE.....	0.2			0.1		0.1	
ISOPENTANE.....	0.2			0.3		0.3	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	10.4			12.5		9.5	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.2		TRACE	
HELIUM.....	0.50			0.70		0.40	
HEATING VALUE.....	1070			1016		1087	
SPECIFIC GRAVITY.....	0.701			0.694		0.702	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10225 SAMPLE 7117			INDEX 10226 SAMPLE 7118			INDEX 10227 SAMPLE 7119		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	MASTERTON B-79		MASTERTON B-72			MASTERTON F-1		
LOCATION.....	SEC. 22, BLK. 3, G&P SUR.		SEC. 5, BLK. 8-11, EL&RR SUR.			SEC. 14, BLK. 3, G&M SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	01/10/58		09/22/56			10/01/21		
SAMPLED.....	05/--/58		05/--/58			05/--/58		
FORMATION.....	PERM-GRANITE WASH		PERM-WICHITA-ALBANY&GR. WASH			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	2176		2370			1787		
WELLHEAD PRESSURE, PSIG.....	279		251			272		
OPEN FLOW, MCFD.....	77000		1945			8690		
COMPONENT, MOLE PCT								
METHANE.....	76.7		74.2			76.3		
ETHANE.....	7.1		6.3			7.2		
PROPANE.....	3.6		2.7			3.2		
N-BUTANE.....	0.9		0.9			1.0		
ISOBUTANE.....	0.6		0.5			0.5		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.2		0.0			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	9.9		13.5			10.1		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.5			0.1		
HELIUM.....	0.51		0.80			0.50		
HEATING VALUE.....	1075					1073		
SPECIFIC GRAVITY.....	0.699		0.703			0.701		
INDEX 10228 SAMPLE 7120			INDEX 10229 SAMPLE 7121			INDEX 10230 SAMPLE 7122		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	MASTERTON B-80		MASTERTON T-1			MASTERTON T-1		
LOCATION.....	SEC. 62, BLK. 47, H&TC SUR.		SEC. 20, BLK. 3, G&M SUR.			SEC. 82, BLK. 3, G&M SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	01/31/58		12/13/22			11/--/20		
SAMPLED.....	05/--/58		05/--/58			05/--/58		
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH		PERM-GRANITE WASH			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1996		1610			1605		
WELLHEAD PRESSURE, PSIG.....	274		276			276		
OPEN FLOW, MCFD.....	10700		14319			805		
COMPONENT, MOLE PCT								
METHANE.....	77.7		76.5			77.5		
ETHANE.....	6.5		7.2			7.3		
PROPANE.....	3.8		3.0			3.7		
N-BUTANE.....	1.0		0.0			1.0		
ISOBUTANE.....	0.5		0.6			0.5		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	9.3		10.0			9.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		TRACE			0.0		
CARBON DIOXIDE.....	0.0		0.1			TRACE		
HELIUM.....	0.50		0.50			0.40		
HEATING VALUE.....	1078		1077			1081		
SPECIFIC GRAVITY.....	0.695		0.697			0.695		
INDEX 10231 SAMPLE 7123			INDEX 10232 SAMPLE 7124			INDEX 10233 SAMPLE 7288		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	MASTERTON H-1		MASTERTON N-1			MASTERTON B-82		
LOCATION.....	SEC. 2, BLK. 8-11, EL&RR SUR.		SEC. 7, BLK. 3, G&M SUR.			SEC. 66, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	07/01/21		05/24/30			--/--/00		
SAMPLED.....	05/--/58		05/--/58			11/24/59		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY&GR. WASH			PERM-WICHITA-ALBANY&GR. WASH		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1767		1980			2045		
WELLHEAD PRESSURE, PSIG.....	377		262			260		
OPEN FLOW, MCFD.....	330		7626			5100		
COMPONENT, MOLE PCT								
METHANE.....	76.7		76.9			74.1		
ETHANE.....	6.0		6.2			6.1		
PROPANE.....	3.8		3.6			3.3		
N-BUTANE.....	1.0		0.9			0.9		
ISOBUTANE.....	0.6		0.6			0.5		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.2		0.3			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	8.9		9.6			13.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.1		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			TRACE		
HELIUM.....	0.40		0.50			0.80		
HEATING VALUE.....	1088		1084			1016		
SPECIFIC GRAVITY.....	0.698		0.702			0.701		
INDEX 10234 SAMPLE 7562			INDEX 10235 SAMPLE 7612			INDEX 10236 SAMPLE 7730		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
WELL NAME.....	MASTERTON B-84		MASTERTON B-83			MASTERTON B-86		
LOCATION.....	SEC. 105, BLK. 0-18, D&P SUR.		SEC. 93, BLK. 0-18, D&P SUR.			SEC. 82, BLK. 3, G&M SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	06/03/60		06/03/60			09/08/60		
SAMPLED.....	05/03/60		07/18/60			10/12/60		
FORMATION.....	PERM-GRANITE WASH		PERM-GRANITE WASH			PERM-GRANITE WASH		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1610		2175			1926		
WELLHEAD PRESSURE, PSIG.....	248		2528			258		
OPEN FLOW, MCFD.....	3000		69000			32		
COMPONENT, MOLE PCT								
METHANE.....	75.8		73.4			74.8		
ETHANE.....	6.8		6.9			7.8		
PROPANE.....	3.5		1.1			1.0		
N-BUTANE.....	0.7		1.4			1.1		
ISOBUTANE.....	0.6		0.3			0.6		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.2		0.4			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	11.1		12.1			10.4		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	TRACE		0.1			0.1		
HYDROGEN.....	0.0		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.60		0.70			0.50		
HEATING VALUE.....	1057					1092		
SPECIFIC GRAVITY.....	0.698		0.717			0.717		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10237 SAMPLE 7731		INDEX 10238 SAMPLE 7770		INDEX 10239 SAMPLE 8195	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MASTERTON B-88	WELL NAME.....	BIVINS A-159	WELL NAME.....	WARRICK NO. 1-R
LOCATION.....	SEC. 11, BLK. 8-11, EL&RR SUR	LOCATION.....	SEC. 13, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 16, BLK. Y-2, TT&RR SUR
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	10/10/60	COMPLETED.....	10/27/60	COMPLETED.....	--/--/00
SAMPLED.....	10/14/60	SAMPLED.....	11/10/60	SAMPLED.....	09/16/61
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-TUBB
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2390	DEPTH, FEET.....	2240	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	252	WELLHEAD PRESSURE, PSIG.....	252	WELLHEAD PRESSURE, PSIG.....	312
OPEN FLOW, MCFD.....	5600	OPEN FLOW, MCFD.....	11100	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	70.8	METHANE.....	64.9	METHANE.....	81.2
ETHANE.....	7.8	ETHANE.....	5.4	ETHANE.....	6.1
PROPANE.....	4.3	PROPANE.....	2.9	PROPANE.....	2.4
N-BUTANE.....	1.3	N-BUTANE.....	0.9	N-BUTANE.....	0.6
ISOBUTANE.....	0.8	ISOBUTANE.....	0.4	ISOBUTANE.....	0.3
N-PENTANE.....	0.3	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	12.9	NITROGEN.....	23.4	NITROGEN.....	8.9
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.70	HELIUM.....	0.60	HELIUM.....	0.15
HEATING VALUE.....	1093	HEATING VALUE.....	900	HEATING VALUE.....	1038
SPECIFIC GRAVITY.....	0.745	SPECIFIC GRAVITY.....	0.742	SPECIFIC GRAVITY.....	0.664

INDEX 10240 SAMPLE 8253		INDEX 10241 SAMPLE 8440		INDEX 10242 SAMPLE 8441	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	STATE OF TEXAS NO. 1	WELL NAME.....	MASTERTON B-90	WELL NAME.....	MASTERTON B-91
LOCATION.....	CANADIAN RIVER BED	LOCATION.....	SEC. 10, BLK. 3, G&M SUR.	LOCATION.....	SEC. 10B, BLK. 0-18, D&P SUR
OWNER.....	AMARILLO OIL CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	06/22/57	COMPLETED.....	06/30/61	COMPLETED.....	07/19/61
SAMPLED.....	09/06/61	SAMPLED.....	03/09/62	SAMPLED.....	03/09/62
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2158	DEPTH, FEET.....	2106	DEPTH, FEET.....	2030
WELLHEAD PRESSURE, PSIG.....	292	WELLHEAD PRESSURE, PSIG.....	240	WELLHEAD PRESSURE, PSIG.....	249
OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	7100	OPEN FLOW, MCFD.....	3100
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	76.6	METHANE.....	74.1	METHANE.....	74.4
ETHANE.....	6.3	ETHANE.....	7.3	ETHANE.....	6.7
PROPANE.....	3.1	PROPANE.....	7.9	PROPANE.....	6.2
N-BUTANE.....	0.8	N-BUTANE.....	1.2	N-BUTANE.....	1.0
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	11.6	NITROGEN.....	11.4	NITROGEN.....	12.3
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.54	HELIUM.....	0.65	HELIUM.....	0.69
HEATING VALUE.....	1032	HEATING VALUE.....	1075	HEATING VALUE.....	1040
SPECIFIC GRAVITY.....	0.691	SPECIFIC GRAVITY.....	0.717	SPECIFIC GRAVITY.....	0.707

INDEX 10243 SAMPLE 8443		INDEX 10244 SAMPLE 8444		INDEX 10245 SAMPLE 8452	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MASTERTON B-89	WELL NAME.....	BIVINS A-162	WELL NAME.....	BIVINS A-163
LOCATION.....	SEC. 8S, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 2A, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 103, BLK. 46, H&TC SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	08/04/61	COMPLETED.....	07/21/61	COMPLETED.....	09/01/61
SAMPLED.....	03/07/62	SAMPLED.....	03/17/62	SAMPLED.....	03/16/62
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2130	DEPTH, FEET.....	2450	DEPTH, FEET.....	2260
WELLHEAD PRESSURE, PSIG.....	219	WELLHEAD PRESSURE, PSIG.....	244	WELLHEAD PRESSURE, PSIG.....	233
OPEN FLOW, MCFD.....	5300	OPEN FLOW, MCFD.....	19100	OPEN FLOW, MCFD.....	8000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	76.1	METHANE.....	71.9	METHANE.....	76.9
ETHANE.....	6.4	ETHANE.....	5.7	ETHANE.....	6.2
PROPANE.....	4.0	PROPANE.....	3.3	PROPANE.....	3.5
N-BUTANE.....	1.3	N-BUTANE.....	1.0	N-BUTANE.....	1.2
ISOBUTANE.....	0.7	ISOBUTANE.....	0.5	ISOBUTANE.....	0.5
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.4	ISOPENTANE.....	0.3	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	10.0	NITROGEN.....	15.6	NITROGEN.....	10.3
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.50	HELIUM.....	0.99	HELIUM.....	0.21
HEATING VALUE.....	1101	HEATING VALUE.....	1002	HEATING VALUE.....	1069
SPECIFIC GRAVITY.....	0.718	SPECIFIC GRAVITY.....	0.718	SPECIFIC GRAVITY.....	0.702

INDEX 10246 SAMPLE 8892		INDEX 10247 SAMPLE 9218		INDEX 10248 SAMPLE 9284	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	BIVINS NO. A-46	WELL NAME.....	MASTERTON NO. J-7	WELL NAME.....	BIVINS A-166
LOCATION.....	SEC. 11, BLK. 5, G&M SUR.	LOCATION.....	SEC. 9, BLK. 3, G&M SUR.	LOCATION.....	SEC. 106, BLK. 46, H&TC SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	07/10/49	COMPLETED.....	01/17/64	COMPLETED.....	09/16/63
SAMPLED.....	03/13/63	SAMPLED.....	01/17/64	SAMPLED.....	04/09/64
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1870	DEPTH, FEET.....	2767	DEPTH, FEET.....	1911
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	181	WELLHEAD PRESSURE, PSIG.....	213
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	6245	OPEN FLOW, MCFD.....	37000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.0	METHANE.....	71.8	METHANE.....	76.8
ETHANE.....	6.0	ETHANE.....	6.6	ETHANE.....	6.4
PROPANE.....	3.4	PROPANE.....	3.5	PROPANE.....	6.2
N-BUTANE.....	1.3	N-BUTANE.....	1.2	N-BUTANE.....	1.2
ISOBUTANE.....	0.4	ISOBUTANE.....	0.4	ISOBUTANE.....	0.5
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.4	ISOPENTANE.....	0.3	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2
NITROGEN.....	10.3	NITROGEN.....	14.1	NITROGEN.....	10.0
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.2
HELIUM.....	0.51	HELIUM.....	0.86	HELIUM.....	0.50
HEATING VALUE.....	1077	HEATING VALUE.....	1075	HEATING VALUE.....	1075
SPECIFIC GRAVITY.....	0.707	SPECIFIC GRAVITY.....	0.726	SPECIFIC GRAVITY.....	0.704

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10249 9285	INDEX SAMPLE	10250 9286	INDEX SAMPLE	10251 9349
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS A-165			MCBRIDE A-2		BIVINS D NO. 1	
LOCATION.....	SEC. 39, BLK. 46, H&TC SUR.			SEC. 39, BLK. 46, H&TC SUR.		SEC. 48, BLK. 0-18, D&P SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		AMARILLO OIL CO.	
COMPLETED.....	09/09/63			08/21/63		03/18/64	
SAMPLED.....	04/10/64			04/09/64		05/20/64	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2023			1990		2534	
WELLHEAD PRESSURE, PSIG.....	194			192		289	
OPEN FLOW, MCFD.....	235000			41000		11800	
COMPONENT, MOLE PCT							
METHANE.....	77.3	---	---	76.3	---	71.6	---
ETHANE.....	6.7	---	---	6.3	---	5.1	---
PROPANE.....	3.9	---	---	3.5	---	2.4	---
N-BUTANE.....	1.3	---	---	1.3	---	0.8	---
ISOBUTANE.....	0.5	---	---	0.5	---	0.3	---
N-PENTANE.....	0.2	---	---	0.3	---	0.1	---
ISOPENTANE.....	0.4	---	---	0.5	---	0.2	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.2	---	0.1	---
NITROGEN.....	8.7	---	---	10.2	---	17.3	---
OXYGEN.....	TRACE	---	---	TRACE	---	TRACE	---
ARGON.....	TRACE	---	---	TRACE	---	0.1	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.3	---	0.6	---
HELIUM.....	0.50	---	---	0.51	---	1.26	---
HEATING VALUE.....	1105	---	---	1082	---	938	---
SPECIFIC GRAVITY.....	0.708	---	---	0.711	---	0.703	---
		INDEX SAMPLE	10252 9350	INDEX SAMPLE	10253 9352	INDEX SAMPLE	10254 9651
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS D NO. 2			BIVINS D NO. 4		BIVINS 50	
LOCATION.....	SEC. 56, BLK. 2, G&M SUR.			SEC. 50, BLK. 2, G&M SUR.		SEC. 30, BLK. 0-18, D&P SUR.	
OWNER.....	AMARILLO OIL CO.			AMARILLO OIL CO.		AMARILLO OIL CO.	
COMPLETED.....	03/18/64			04/06/64		08/26/64	
SAMPLED.....	05/20/64			05/20/64		12/09/64	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	44			44		440	
DEPTH, FEET.....	2624			2428		2686	
WELLHEAD PRESSURE, PSIG.....	284			280		282	
OPEN FLOW, MCFD.....	13500			24000		17250	
COMPONENT, MOLE PCT							
METHANE.....	72.4	---	---	72.1	---	71.9	---
ETHANE.....	5.1	---	---	5.1	---	5.3	---
PROPANE.....	2.6	---	---	2.6	---	2.6	---
N-BUTANE.....	0.8	---	---	0.8	---	0.8	---
ISOBUTANE.....	0.4	---	---	0.3	---	0.3	---
N-PENTANE.....	0.1	---	---	TRACE	---	0.1	---
ISOPENTANE.....	0.3	---	---	0.5	---	0.3	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	TRACE	---
HEXANES PLUS.....	0.1	---	---	0.1	---	0.1	---
NITROGEN.....	16.5	---	---	16.8	---	16.6	---
OXYGEN.....	TRACE	---	---	TRACE	---	TRACE	---
ARGON.....	0.1	---	---	0.1	---	0.1	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.5	---	---	0.4	---	0.7	---
HELIUM.....	1.12	---	---	1.19	---	1.12	---
HEATING VALUE.....	923	---	---	950	---	950	---
SPECIFIC GRAVITY.....	0.703	---	---	0.704	---	0.705	---
		INDEX SAMPLE	10255 9652	INDEX SAMPLE	10256 9653	INDEX SAMPLE	10257 9654
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS 6D			BIVINS 7D		BIVINS 8D	
LOCATION.....	SEC. 29, BLK. 0-18, D&P SUR.			SEC. 4, BLK. B-2, G&M SUR.		SEC. 4, BLK. B-2, G&M SUR.	
OWNER.....	AMARILLO OIL CO.			AMARILLO OIL CO.		AMARILLO OIL CO.	
COMPLETED.....	08/26/64			08/27/64		08/26/64	
SAMPLED.....	12/09/64			12/09/64		12/09/64	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2999			2440		2831	
WELLHEAD PRESSURE, PSIG.....	276			240		887	
OPEN FLOW, MCFD.....	8800			8400		11000	
COMPONENT, MOLE PCT							
METHANE.....	70.8	---	---	71.4	---	71.7	---
ETHANE.....	5.0	---	---	5.3	---	5.1	---
PROPANE.....	2.6	---	---	2.7	---	2.5	---
N-BUTANE.....	0.7	---	---	0.8	---	0.8	---
ISOBUTANE.....	0.3	---	---	0.4	---	0.3	---
N-PENTANE.....	0.1	---	---	0.2	---	0.2	---
ISOPENTANE.....	0.1	---	---	0.2	---	0.2	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	TRACE	---
HEXANES PLUS.....	0.1	---	---	0.1	---	0.1	---
NITROGEN.....	17.9	---	---	17.0	---	17.2	---
OXYGEN.....	0.1	---	---	TRACE	---	TRACE	---
ARGON.....	0.0	---	---	0.1	---	0.1	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	1.1	---	---	0.5	---	0.6	---
HELIUM.....	1.16	---	---	1.16	---	1.16	---
HEATING VALUE.....	922	---	---	955	---	942	---
SPECIFIC GRAVITY.....	0.707	---	---	0.709	---	0.704	---
		INDEX SAMPLE	10258 9798	INDEX SAMPLE	10259 9799	INDEX SAMPLE	10260 9801
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
WELL NAME.....	BIVINS A-167			MASTERSON B-93		MASTERSON B-93	
LOCATION.....	SEC. 15, BLK. M-20, G&M SUR.			SEC. 58, BLK. 47, H&TC SUR.		SEC. 28, BLK. 46, H&TC SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	12/10/64			10/02/63		08/21/63	
SAMPLED.....	03/15/65			03/15/65		03/16/65	
FORMATION.....	PERM-WICHITA-ALBANY&GR. WASH			PERM-WICHITA-ALBANY&GR. WASH		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	2133			2060		1990	
WELLHEAD PRESSURE, PSIG.....	193			193		192	
OPEN FLOW, MCFD.....	34500			72000		41000	
COMPONENT, MOLE PCT							
METHANE.....	76.7	---	---	76.2	---	77.0	---
ETHANE.....	5.6	---	---	5.4	---	6.1	---
PROPANE.....	3.6	---	---	3.8	---	3.5	---
N-BUTANE.....	1.2	---	---	1.3	---	1.2	---
ISOBUTANE.....	0.3	---	---	0.6	---	0.7	---
N-PENTANE.....	0.3	---	---	0.3	---	0.3	---
ISOPENTANE.....	0.3	---	---	0.3	---	0.3	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.2	---	---	0.3	---	0.3	---
NITROGEN.....	10.2	---	---	9.8	---	9.8	---
OXYGEN.....	TRACE	---	---	TRACE	---	TRACE	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.2	---	0.2	---
HELIUM.....	0.52	---	---	0.45	---	0.50	---
HEATING VALUE.....	1080	---	---	1101	---	1089	---
SPECIFIC GRAVITY.....	0.708	---	---	0.717	---	0.710	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10261 10026			INDEX SAMPLE	10262 10031			INDEX SAMPLE	10263 10658
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	BIVINS A-166			WARRICK A-6				BIVINS A-98			
LOCATION.....	SEC. 106, BLK 46, H&TC SUR.			SEC. 16, BLK Y-2, AB&M SUR.				SEC. 59, BLK. 2, G&M SUR.			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	09/16/63			07/29/65				08/18/53			
SAMPLED.....	02/26/65			08/05/65				07/21/66			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	1911			2331				2431			
WELLHEAD PRESSURE, PSIG.....	212			162				232			
OPEN FLOW, MCFD.....	37000			64000				2894			
COMPONENT, MOLE PCT											
METHANE.....	76.9			76.3				69.4			
ETHANE.....	6.3			6.6				4.9			
PROPANE.....	3.7			4.2				2.7			
N-BUTANE.....	1.1			1.3				0.8			
ISOBUTANE.....	0.6			0.9				0.4			
N-PENTANE.....	0.3			0.2				0.0			
ISOPENTANE.....	0.2			0.5				0.8			
CYCLOPENTANE.....	TRACE			0.1				0.1			
HEXANES PLUS.....	0.2			0.2				0.1			
NITROGEN.....	10.1			9.0				18.9			
OXYGEN.....	0.0			0.0				0.4			
ARGON.....	TRACE			TRACE				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.3				0.2			
HELIUM.....	0.51			0.44				1.16			
HEATING VALUE.....	1077			1118				944			
SPECIFIC GRAVITY.....	0.704			0.721				0.720			
		INDEX SAMPLE	10264 10661			INDEX SAMPLE	10265 10662			INDEX SAMPLE	10266 10665
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	BIVINS A-13			BIVINS A-143				BIVINS A-14			
LOCATION.....	SEC. 7, BLK. 018, D&P SUR.			SEC. 55, BLK. 2, G&M SUR.				SEC. 2, BLK. 018, D&P SUR.			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	09/15/30			05/27/56				11/09/35			
SAMPLED.....	07/21/66			07/21/66				07/21/66			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2820			2190				2347			
WELLHEAD PRESSURE, PSIG.....	205			252				202			
OPEN FLOW, MCFD.....	1202			3855				13336			
COMPONENT, MOLE PCT											
METHANE.....	70.2			70.7				71.4			
ETHANE.....	5.4			5.2				5.8			
PROPANE.....	3.0			3.1				3.6			
N-BUTANE.....	0.0			0.9				1.0			
ISOBUTANE.....	0.3			0.3				0.6			
N-PENTANE.....	0.1			0.1				0.2			
ISOPENTANE.....	0.4			0.4				0.3			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.2			0.2				0.2			
NITROGEN.....	17.6			17.3				15.6			
OXYGEN.....	0.0			0.2				0.0			
ARGON.....	0.1			0.1				0.1			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.6			0.3				0.1			
HELIUM.....	1.08			1.06				0.95			
HEATING VALUE.....	965			966				1010			
SPECIFIC GRAVITY.....	0.720			0.720				0.720			
		INDEX SAMPLE	10267 10666			INDEX SAMPLE	10268 10667			INDEX SAMPLE	10269 11898
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	MASTERSON J-2			MASTERSON C-1				BIVINS A-153			
LOCATION.....	SEC. 69, BLK. 018, D&P SUR.			SEC. 65, BLK. 018, D&P SUR.				SEC. 33, BLK. 8-11, EL&RR SUR			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	09/16/27			07/21/66				06/08/57			
SAMPLED.....	07/21/66			07/21/66				05/23/69			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2388			NOT GIVEN				2320			
WELLHEAD PRESSURE, PSIG.....	184			190				NOT GIVEN			
OPEN FLOW, MCFD.....	1810			7744				12700			
COMPONENT, MOLE PCT											
METHANE.....	72.3			73.1				69.8			
ETHANE.....	6.9			6.8				5.6			
PROPANE.....	4.2			4.0				3.1			
N-BUTANE.....	1.2			1.1				1.2			
ISOBUTANE.....	0.7			0.6				0.3			
N-PENTANE.....	0.2			0.2				0.2			
ISOPENTANE.....	0.4			0.4				0.5			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.2			0.2				0.1			
NITROGEN.....	13.0			12.8				17.7			
OXYGEN.....	0.0			0.0				0.1			
ARGON.....	0.1			TRACE				0.1			
HYDROGEN.....	0.0			0.0				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.1				0.3			
HELIUM.....	0.75			0.75				1.03			
HEATING VALUE.....	1069			1063				969			
SPECIFIC GRAVITY.....	0.730			0.720				0.723			
		INDEX SAMPLE	10270 11899			INDEX SAMPLE	10271 11900			INDEX SAMPLE	10272 12414
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	POTTER			POTTER				POTTER			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
WELL NAME.....	BIVINS A-36			BIVINS A-33				MASTERSON T-1			
LOCATION.....	SEC. 43, BLK. 0-18, D&P SUR.			SEC. 35, BLK. 0-18, D&P SUR.				SEC. 20, BLK. 3, G&M SUR.			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
COMPLETED.....	02/25/49			07/22/47				12/13/22			
SAMPLED.....	05/23/69			05/23/69				09/16/70			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY				PERM-WICHITA-ALBANY			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	2630			2420				1920			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				163			
OPEN FLOW, MCFD.....	9200			17000				130			
COMPONENT, MOLE PCT											
METHANE.....	70.2			71.1				75.3			
ETHANE.....	5.7			6.0				8.6			
PROPANE.....	3.3			3.2				5.1			
N-BUTANE.....	1.2			1.2				1.1			
ISOBUTANE.....	0.6			0.5				0.7			
N-PENTANE.....	0.3			0.3				0.3			
ISOPENTANE.....	0.2			0.1				0.1			
CYCLOPENTANE.....	0.1			0.1				TRACE			
HEXANES PLUS.....	0.2			0.2				0.1			
NITROGEN.....	16.6			16.4				8.1			
OXYGEN.....	0.1			0.0				TRACE			
ARGON.....	0.1			0.1				TRACE			
HYDROGEN.....	0.0			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.5			0.3				0.0			
HELIUM.....	0.93			0.95				0.35			
HEATING VALUE.....	995			980				1132			
SPECIFIC GRAVITY.....	0.730			0.720				0.716			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

865

INDEX 10273 SAMPLE 12816		INDEX 10274 SAMPLE 12845		INDEX 10275 SAMPLE 12881	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
WELL NAME.....	MASTERTSON	WELL NAME.....	BIVINS A-169	WELL NAME.....	BIVINS A-170
LOCATION.....	SEC. 29, BLK. 018, D&P SUR.	LOCATION.....	SEC. 29, BLK. 018, D&P SUR.	LOCATION.....	SEC. 22, BLK. 018, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	03/22/71	COMPLETED.....	06/06/71	COMPLETED.....	06/22/71
SAMPLED.....	05/14/75	SAMPLED.....	06/06/71	SAMPLED.....	06/22/71
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	2394	DEPTH, FEET.....	2343
WELLHEAD PRESSURE, PSIG.....	145	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	180
OPEN FLOW, MCFD.....	11000	OPEN FLOW, MCFD.....	849	OPEN FLOW, MCFD.....	2610
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	69.6	METHANE.....	68.5	METHANE.....	72.3
ETHANE.....	7.1	ETHANE.....	6.5	ETHANE.....	5.7
PROPANE.....	4.6	PROPANE.....	4.3	PROPANE.....	3.7
N-BUTANE.....	1.4	N-BUTANE.....	1.3	N-BUTANE.....	1.1
ISOBUTANE.....	0.8	ISOBUTANE.....	0.9	ISOBUTANE.....	0.5
N-PENTANE.....	0.3	N-PENTANE.....	0.6	N-PENTANE.....	0.3
ISOPENTANE.....	0.4	ISOPENTANE.....	0.0	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2
NITROGEN.....	14.7	NITROGEN.....	16.4	NITROGEN.....	14.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2
HELIUM.....	0.81	HELIUM.....	0.93	HELIUM.....	0.96
HEATING VALUE.....	1070	HEATING VALUE.....	1041	HEATING VALUE.....	1020
SPECIFIC GRAVITY.....	0.750	SPECIFIC GRAVITY.....	0.751	SPECIFIC GRAVITY.....	0.721
INDEX 10276 SAMPLE 12954		INDEX 10277 SAMPLE 2312		INDEX 10278 SAMPLE 5935	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	PANHANDLE W/RED CAVE	COUNTY.....	PANHANDLE W/RED CAVE
FIELD.....	PANHANDLE W	FIELD.....	CRAWFORD NO. 8-1	FIELD.....	MASTERTSON E-2R
WELL NAME.....	BIVINS A-171	WELL NAME.....	SEC. 78, BLK. 0-18, D&P SUR.	WELL NAME.....	SEC. 70, BLK. 0-18, D&P SUR.
LOCATION.....	SEC. 23, BLK. 0-18, D&P SUR.	LOCATION.....	CANADIAN RIVER GAS CO.	LOCATION.....	COLORADO INTERSTATE GAS CO.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	PERM-WICHITA-ALBANY	OWNER.....	PERM-WICHITA-ALBANY
COMPLETED.....	07/26/71	COMPLETED.....	04/14/71	COMPLETED.....	04/14/71
SAMPLED.....	08/19/71	SAMPLED.....	04/14/71	SAMPLED.....	04/14/71
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2270	DEPTH, FEET.....	1845	DEPTH, FEET.....	1755
WELLHEAD PRESSURE, PSIG.....	147	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	13880	OPEN FLOW, MCFD.....	2000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.9	METHANE.....	75.4	METHANE.....	78.2
ETHANE.....	3.5	ETHANE.....	18.1	ETHANE.....	8.6
PROPANE.....	0.9	PROPANE.....	---	PROPANE.....	3.8
N-BUTANE.....	0.6	N-BUTANE.....	---	N-BUTANE.....	0.9
ISOBUTANE.....	0.4	ISOBUTANE.....	---	ISOBUTANE.....	0.4
N-PENTANE.....	0.0	N-PENTANE.....	---	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	---	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	---	HEXANES PLUS.....	0.2
NITROGEN.....	14.0	NITROGEN.....	5.6	NITROGEN.....	7.1
OXYGEN.....	0.0	OXYGEN.....	0.4	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.1	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.17	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.98	HELIUM.....	1090	HELIUM.....	0.23
HEATING VALUE.....	1016	HEATING VALUE.....	0.669	HEATING VALUE.....	1116
SPECIFIC GRAVITY.....	0.707	SPECIFIC GRAVITY.....	0.669	SPECIFIC GRAVITY.....	0.695
INDEX 10279 SAMPLE 5983		INDEX 10280 SAMPLE 5984		INDEX 10281 SAMPLE 6000	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	PANHANDLE W/RED CAVE	COUNTY.....	PANHANDLE W/RED CAVE
FIELD.....	PANHANDLE W	FIELD.....	BIVINS A-138	FIELD.....	MASTERTSON B-64R
WELL NAME.....	SEC. 25, BLK. 5, G&M SUR.	WELL NAME.....	SEC. 25, BLK. 5, G&M SUR.	WELL NAME.....	SEC. 95, BLK. 0-18, D&P SUR.
LOCATION.....	COLORADO INTERSTATE GAS CO.	LOCATION.....	COLORADO INTERSTATE GAS CO.	LOCATION.....	COLORADO INTERSTATE GAS CO.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	12/1/56	COMPLETED.....	12/1/56	COMPLETED.....	01/19/56
SAMPLED.....	01/19/56	SAMPLED.....	01/19/56	SAMPLED.....	01/19/56
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1988	DEPTH, FEET.....	1988	DEPTH, FEET.....	1800
WELLHEAD PRESSURE, PSIG.....	279	WELLHEAD PRESSURE, PSIG.....	279	WELLHEAD PRESSURE, PSIG.....	250
OPEN FLOW, MCFD.....	155	OPEN FLOW, MCFD.....	155	OPEN FLOW, MCFD.....	600
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	75.1	METHANE.....	75.1	METHANE.....	78.0
ETHANE.....	8.7	ETHANE.....	9.1	ETHANE.....	6.5
PROPANE.....	5.1	PROPANE.....	5.2	PROPANE.....	3.4
N-BUTANE.....	1.3	N-BUTANE.....	1.3	N-BUTANE.....	0.9
ISOBUTANE.....	0.6	ISOBUTANE.....	0.7	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	7.9	NITROGEN.....	7.7	NITROGEN.....	9.1
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3
HELIUM.....	0.30	HELIUM.....	0.26	HELIUM.....	0.39
HEATING VALUE.....	114	HEATING VALUE.....	1157	HEATING VALUE.....	1057
SPECIFIC GRAVITY.....	0.726	SPECIFIC GRAVITY.....	0.727	SPECIFIC GRAVITY.....	0.687
INDEX 10282 SAMPLE 6002		INDEX 10283 SAMPLE 6003		INDEX 10284 SAMPLE 6006	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	PANHANDLE W/RED CAVE	COUNTY.....	PANHANDLE W/RED CAVE
FIELD.....	PANHANDLE W	FIELD.....	MASTERTSON B-64R	FIELD.....	MASTERTSON B-64R
WELL NAME.....	SEC. 95, BLK. 0-18, D&P SUR.	WELL NAME.....	SEC. 95, BLK. 0-18, D&P SUR.	WELL NAME.....	SEC. 95, BLK. 0-18, D&P SUR.
LOCATION.....	COLORADO INTERSTATE GAS CO.	LOCATION.....	COLORADO INTERSTATE GAS CO.	LOCATION.....	COLORADO INTERSTATE GAS CO.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	02/12/56	COMPLETED.....	02/12/56	COMPLETED.....	02/12/56
SAMPLED.....	01/22/56	SAMPLED.....	01/22/56	SAMPLED.....	01/22/56
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1754	DEPTH, FEET.....	1718	DEPTH, FEET.....	1630
WELLHEAD PRESSURE, PSIG.....	195	WELLHEAD PRESSURE, PSIG.....	79	WELLHEAD PRESSURE, PSIG.....	190
OPEN FLOW, MCFD.....	416	OPEN FLOW, MCFD.....	29	OPEN FLOW, MCFD.....	120
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	78.5	METHANE.....	78.9	METHANE.....	79.3
ETHANE.....	6.5	ETHANE.....	6.7	ETHANE.....	6.8
PROPANE.....	3.1	PROPANE.....	3.2	PROPANE.....	3.1
N-BUTANE.....	0.9	N-BUTANE.....	0.9	N-BUTANE.....	0.8
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	0.2	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.4	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	9.6	NITROGEN.....	9.1	NITROGEN.....	8.6
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.2	HYDROGEN.....	0.3	HYDROGEN.....	0.3
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3
HELIUM.....	0.38	HELIUM.....	0.37	HELIUM.....	0.34
HEATING VALUE.....	1050	HEATING VALUE.....	1047	HEATING VALUE.....	1057
SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.677	SPECIFIC GRAVITY.....	0.678

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10285 SAMPLE 6014			INDEX 10286 SAMPLE 6016			INDEX 10287 SAMPLE 6024		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	MASTERSON I-1		MASTERSON D-4R			COUGHLIN A-1		
LOCATION.....	SEC. 10, BLK. 3, G&M SUR.		SEC. 108, BLK. 0-18, D&P SUR.			SEC. 1, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	12/13/22		11/29/19			12/26/36		
SAMPLED.....	01/31/56		01/31/56			02/10/56		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1540		1640			1780		
WELLHEAD PRESSURE, PSIG.....	342		331			308		
OPEN FLOW, MCFD.....	16000		30000			7848		
COMPONENT, MOLE PCT								
METHANE.....	76.9		77.5			78.5		
ETHANE.....	7.6		8.0			8.4		
PROPANE.....	3.5		3.7			3.9		
N-BUTANE.....	0.3		0.3			0.9		
ISOBUTANE.....	0.3		0.3			0.4		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	9.5		8.3			6.5		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.2		0.2			0.4		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.1		0.32			0.16		
HEATING VALUE.....	1069		1097			1123		
SPECIFIC GRAVITY.....	0.692		0.697			0.694		
INDEX 10288 SAMPLE 6026			INDEX 10289 SAMPLE 6039			INDEX 10290 SAMPLE 6041		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	MASTERSON D-4R		MASTERSON H-1			BIVINS A-25		
LOCATION.....	SEC. 108, BLK. 0-18, D&P SUR.		SEC. 2, BLK. 11, EL&RR SUR.			SEC. 2, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	11/29/19		07/01/21			05/21/39		
SAMPLED.....	02/10/56		02/24/56			02/24/56		
FORMATION.....	PERM-RED CAVE		PERM-WICHITA-ALBANY&RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1640		1767			1843		
WELLHEAD PRESSURE, PSIG.....	324		312			303		
OPEN FLOW, MCFD.....	29000		408			6970		
COMPONENT, MOLE PCT								
METHANE.....	76.9		75.4			78.4		
ETHANE.....	7.8		8.1			8.7		
PROPANE.....	3.5		3.2			3.9		
N-BUTANE.....	0.3		1.3			0.9		
ISOBUTANE.....	0.3		0.6			0.4		
N-PENTANE.....	0.2		0.3			0.2		
ISOPENTANE.....	0.2		0.4			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	8.9		8.9			6.5		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.3		0.1			0.4		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.37		0.37			0.18		
HEATING VALUE.....	1087		1126			1123		
SPECIFIC GRAVITY.....	0.697		0.721			0.693		
INDEX 10291 SAMPLE 6042			INDEX 10292 SAMPLE 7125			INDEX 10293 SAMPLE 7126		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	BIVINS A-2R		MASTERSON B-75R			MASTERSON B-76R		
LOCATION.....	SEC. 13, BLK. 0-18, D&P SUR.		SEC. 33, BLK. 0-18, D&P SUR.			SEC. 66, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	02/16/56		01/02/58			01/07/58		
SAMPLED.....	02/14/56		05/-/58			05/-/58		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1865		1706			1628		
WELLHEAD PRESSURE, PSIG.....	811		353			303		
OPEN FLOW, MCFD.....	8282		13600			14000		
COMPONENT, MOLE PCT								
METHANE.....	78.7		80.5			79.4		
ETHANE.....	8.7		8.6			7.8		
PROPANE.....	3.7		3.4			3.6		
N-BUTANE.....	0.3		0.8			0.9		
ISOBUTANE.....	0.4		0.5			0.5		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	6.4		6.6			7.0		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.4		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	0.16		0.20			0.30		
HEATING VALUE.....	1116		1098			1103		
SPECIFIC GRAVITY.....	0.689		0.678			0.686		
INDEX 10294 SAMPLE 7127			INDEX 10295 SAMPLE 7175			INDEX 10296 SAMPLE 7657		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	MASTERSON B-78R		NOT GIVEN			BIVINS A NO. 10R		
LOCATION.....	SEC. 105, BLK. 78, D&P SUR.		SEC. 43, BLK. M-20, G&M SUR.			SEC. 43, BLK. M-20, G&M SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		BRAUN-WEYMOUTH			AWARILLO OIL CO.		
COMPLETED.....	12/3/57		7/-/00			08/09/60		
SAMPLED.....	05/-/58		08/22/59			08/29/60		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1620		NOT GIVEN			1645		
WELLHEAD PRESSURE, PSIG.....	296		NOT GIVEN			266		
OPEN FLOW, MCFD.....	8500		NOT GIVEN			1260		
COMPONENT, MOLE PCT								
METHANE.....	78.8		76.9			80.0		
ETHANE.....	7.3		6.9			7.3		
PROPANE.....	3.5		3.2			3.3		
N-BUTANE.....	0.9		0.7			1.0		
ISOBUTANE.....	0.4		0.2			0.2		
N-PENTANE.....	0.2		TRACE			0.2		
ISOPENTANE.....	0.2		0.3			0.2		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.1		0.0			0.2		
NITROGEN.....	8.1		11.3			7.2		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.1		
HELIUM.....	0.30		0.0			0.20		
HEATING VALUE.....	1082		1029			1095		
SPECIFIC GRAVITY.....	0.684		0.683			0.684		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10297 SAMPLE 7707		INDEX 10298 SAMPLE 7708		INDEX 10299 SAMPLE 7741	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	MASTERTON B-86	WELL NAME.....	BIVINS A NO. 11	WELL NAME.....	MASTERTON B-87R
LOCATION.....	SEC. 82, BLK. 3, G&M SUR.	LOCATION.....	SEC. 42, G&M SUR.	LOCATION.....	SEC. 16, BLK. 3, G&M SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	AMARILLO OIL CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	7/700	COMPLETED.....	10/04/60	COMPLETED.....	09/29/60
SAMPLED.....	10/07/60	SAMPLED.....	10/07/60	SAMPLED.....	10/21/60
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1604	DEPTH, FEET.....	1524	DEPTH, FEET.....	1468
WELLHEAD PRESSURE, PSIG.....	257	WELLHEAD PRESSURE, PSIG.....	312	WELLHEAD PRESSURE, PSIG.....	354
OPEN FLOW, MCFD.....	8700	OPEN FLOW, MCFD.....	3200	OPEN FLOW, MCFD.....	2900
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	76.8	METHANE.....	79.3	METHANE.....	78.0
ETHANE.....	7.2	ETHANE.....	7.8	ETHANE.....	8.3
PROPANE.....	3.6	PROPANE.....	0.1	PROPANE.....	3.7
N-BUTANE.....	0.9	N-BUTANE.....	0.8	N-BUTANE.....	0.8
ISOBUTANE.....	0.6	ISOBUTANE.....	0.4	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	9.7	NITROGEN.....	7.9	NITROGEN.....	8.0
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.50	HELIUM.....	0.10	HELIUM.....	0.30
HEATING VALUE.....	1074	HEATING VALUE.....	1087	HEATING VALUE.....	1089
SPECIFIC GRAVITY.....	0.698	SPECIFIC GRAVITY.....	0.686	SPECIFIC GRAVITY.....	0.688

INDEX 10300 SAMPLE 7898		INDEX 10301 SAMPLE 7981		INDEX 10302 SAMPLE 8051	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	STATE NO. 2R	WELL NAME.....	EX-L-SHELL NO. 1	WELL NAME.....	MASTERTON B
LOCATION.....	TRACT 7, CANADIAN RIVER SUR.	LOCATION.....	SEC. 30, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 67, BLK. 0-18, D&P SUR.
OWNER.....	AMARILLO OIL CO.	OWNER.....	BIVINS INTERESTS	OWNER.....	ANADARKO PRODUCTION CO.
COMPLETED.....	02/23/61	COMPLETED.....	7/700	COMPLETED.....	04/13/61
SAMPLED.....	02/23/61	SAMPLED.....	05/23/61	SAMPLED.....	07/05/61
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1414	DEPTH, FEET.....	2160	DEPTH, FEET.....	1746
WELLHEAD PRESSURE, PSIG.....	356	WELLHEAD PRESSURE, PSIG.....	395	WELLHEAD PRESSURE, PSIG.....	271
OPEN FLOW, MCFD.....	4600	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	15000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	77.5	METHANE.....	77.2	METHANE.....	77.5
ETHANE.....	8.6	ETHANE.....	8.3	ETHANE.....	8.9
PROPANE.....	3.6	PROPANE.....	3.0	PROPANE.....	4.1
N-BUTANE.....	0.8	N-BUTANE.....	0.9	N-BUTANE.....	0.9
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	8.2	NITROGEN.....	9.6	NITROGEN.....	6.7
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.2	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.2	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.20	HELIUM.....	0.20	HELIUM.....	0.20
HEATING VALUE.....	1090	HEATING VALUE.....	1060	HEATING VALUE.....	1135
SPECIFIC GRAVITY.....	0.695	SPECIFIC GRAVITY.....	0.687	SPECIFIC GRAVITY.....	0.702

INDEX 10303 SAMPLE 8254		INDEX 10304 SAMPLE 8388		INDEX 10305 SAMPLE 8424	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	STATE OF TEXAS NO. 2-R	WELL NAME.....	BIVINS NO. 2R	WELL NAME.....	ALLISON NO. 1R
LOCATION.....	CANADIAN RIVER BED	LOCATION.....	SEC. 21, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 15, BLK. 0-18, D&P SUR.
OWNER.....	AMARILLO OIL CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	02/24/61	COMPLETED.....	7/700	COMPLETED.....	08/11/61
SAMPLED.....	09/06/61	SAMPLED.....	01/31/62	SAMPLED.....	03/05/62
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1414	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	1463
WELLHEAD PRESSURE, PSIG.....	356	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	271
OPEN FLOW, MCFD.....	4600	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	3950
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	77.8	METHANE.....	77.4	METHANE.....	81.2
ETHANE.....	8.2	ETHANE.....	8.2	ETHANE.....	6.7
PROPANE.....	4.0	PROPANE.....	3.8	PROPANE.....	2.8
N-BUTANE.....	0.9	N-BUTANE.....	0.8	N-BUTANE.....	0.7
ISOBUTANE.....	0.5	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	7.6	NITROGEN.....	8.3	NITROGEN.....	7.6
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.23	HELIUM.....	0.30	HELIUM.....	0.19
HEATING VALUE.....	1108	HEATING VALUE.....	1087	HEATING VALUE.....	1067
SPECIFIC GRAVITY.....	0.695	SPECIFIC GRAVITY.....	0.689	SPECIFIC GRAVITY.....	0.669

INDEX 10306 SAMPLE 8428		INDEX 10307 SAMPLE 8429		INDEX 10308 SAMPLE 8479	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS NO. 6R	WELL NAME.....	WARRICK NO. 1R	WELL NAME.....	MASTERTON B-1-R
LOCATION.....	SEC. 40, M-20, G&M SUR.	LOCATION.....	SEC. 16, BLK. Y-2, TT&R SUR	LOCATION.....	SEC. 67, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	ANADARKO PRODUCTION CO.
COMPLETED.....	08/12/61	COMPLETED.....	10/23/61	COMPLETED.....	04/13/61
SAMPLED.....	03/05/62	SAMPLED.....	03/02/62	SAMPLED.....	03/21/62
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1513	DEPTH, FEET.....	1506	DEPTH, FEET.....	1746
WELLHEAD PRESSURE, PSIG.....	269	WELLHEAD PRESSURE, PSIG.....	2732	WELLHEAD PRESSURE, PSIG.....	250
OPEN FLOW, MCFD.....	3400	OPEN FLOW, MCFD.....	6500	OPEN FLOW, MCFD.....	9367
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	80.7	METHANE.....	80.7	METHANE.....	77.4
ETHANE.....	6.8	ETHANE.....	6.8	ETHANE.....	8.6
PROPANE.....	3.2	PROPANE.....	3.9	PROPANE.....	3.2
N-BUTANE.....	0.8	N-BUTANE.....	0.8	N-BUTANE.....	1.0
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.5
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	7.6	NITROGEN.....	7.5	NITROGEN.....	7.2
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.16	HELIUM.....	0.15	HELIUM.....	0.26
HEATING VALUE.....	1073	HEATING VALUE.....	1053	HEATING VALUE.....	1124
SPECIFIC GRAVITY.....	0.674	SPECIFIC GRAVITY.....	0.679	SPECIFIC GRAVITY.....	0.703

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10309 SAMPLE 8481			INDEX 10310 SAMPLE 8848			INDEX 10311 SAMPLE 8850		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	MASTERSON 1-1R		BIVINS NO. 10R			MASTERSON 8-32R		
LOCATION.....	SEC. 69, BLK. 47, H&TC SUR.		SEC. 95, BLK. 46, H&TC SUR.			SEC. 26, BLK. 3, G&M SUR.		
OWNER.....	ANADARKO PRODUCTION CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	09/22/61		08/16/62			09/25/62		
SAMPLED.....	--/--/00		02/05/63			02/07/63		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1772		1531			1384		
WELLHEAD PRESSURE, PSIG.....	287		241			277		
OPEN FLOW, MCFD.....	1254		1150			5600		
COMPONENT, MOLE PCT.....								
METHANE.....	75.8		80.0			78.6		
ETHANE.....	8.3		7.2			7.7		
PROPANE.....	4.4		3.6			3.8		
N-BUTANE.....	1.1		0.8			1.0		
ISOBUTANE.....	0.6		0.4			0.3		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.3		0.2			0.3		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	8.2		7.1			7.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	0.30		0.10			0.30		
HEATING VALUE.....	1118		1081			1099		
SPECIFIC GRAVITY.....	0.716		0.680			0.691		
INDEX 10312 SAMPLE 8851			INDEX 10313 SAMPLE 8853			INDEX 10314 SAMPLE 8855		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	BIVINS NO. 14R		MASTERSON NO. 7R			BIVINS NO. 13R		
LOCATION.....	SEC. 103, BLK. 46, H&TC SUR.		SEC. 65, BLK. 0-18, D&P SUR.			SEC. 33, BLK. M-20, G&M SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	09/17/62		09/14/62			10/03/62		
SAMPLED.....	02/05/63		02/07/63			02/15/63		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1637		1700			1650		
WELLHEAD PRESSURE, PSIG.....	311		9600			195		
OPEN FLOW, MCFD.....	540					1700		
COMPONENT, MOLE PCT.....								
METHANE.....	79.0		78.9			79.7		
ETHANE.....	5.9		5.3			5.7		
PROPANE.....	5.2		3.8			2.9		
N-BUTANE.....	0.9		1.0			1.0		
ISOBUTANE.....	0.1		0.3			0.1		
N-PENTANE.....	TRACE		0.1			0.1		
ISOPENTANE.....	0.4		0.3			0.3		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.0		0.1			0.2		
NITROGEN.....	9.1		6.8			8.4		
OXYGEN.....	TRACE		0.0			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.2		
CARBON DIOXIDE.....	TRACE		0.20			0.30		
HELIUM.....	0.30		1113			1067		
HEATING VALUE.....	1058		0.691			0.682		
SPECIFIC GRAVITY.....	0.679							
INDEX 10315 SAMPLE 8858			INDEX 10316 SAMPLE 8859			INDEX 10317 SAMPLE 8860		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	HARRICK NO. 3R		BIVINS NO. 11R			BIVINS NO. 15R		
LOCATION.....	SEC. 96, BLK. 46, H&TC SUR.		SEC. 41, BLK. M-20, G&M SUR.			SEC. 108, BLK. 46, H&TC SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	08/31/62		08/23/62			09/13/62		
SAMPLED.....	02/14/63		02/14/63			02/14/63		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1502		1480			1714		
WELLHEAD PRESSURE, PSIG.....	263		261			333		
OPEN FLOW, MCFD.....	6300		7100			2900		
COMPONENT, MOLE PCT.....								
METHANE.....	81.2		81.5			77.8		
ETHANE.....	6.7		6.8			8.5		
PROPANE.....	2.9		2.8			3.9		
N-BUTANE.....	1.0		0.8			1.0		
ISOBUTANE.....	0.1		0.1			0.3		
N-PENTANE.....	0.1		TRACE			0.1		
ISOPENTANE.....	0.1		0.1			0.4		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	7.4		7.2			7.4		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.20		0.10			0.20		
HEATING VALUE.....	1077		1073			1119		
SPECIFIC GRAVITY.....	0.675		0.670			0.701		
INDEX 10318 SAMPLE 8862			INDEX 10319 SAMPLE 9251			INDEX 10320 SAMPLE 9310		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			COUGHLAN NO. 1R		
WELL NAME.....	BIVINS NO. 12R		BIVINS NO. 2R			SEC. 77, BLK. 0-18, D&P SUR.		
LOCATION.....	SEC. 32, BLK. M-20, G&M SUR.		SEC. 23, BLK. 0-18, D&P SUR.			COLORADO INTERSTATE GAS CO.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	08/31/62		10/02/60			11/10/63		
SAMPLED.....	02/15/63		03/06/64			08/14/64		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1542		1817			1892		
WELLHEAD PRESSURE, PSIG.....	333		231			317		
OPEN FLOW, MCFD.....	4150		2392			8700		
COMPONENT, MOLE PCT.....								
METHANE.....	80.7		76.1			78.9		
ETHANE.....	6.9		7.2			9.0		
PROPANE.....	2.2		4.2			3.9		
N-BUTANE.....	0.9		1.2			1.0		
ISOBUTANE.....	0.3		0.2			0.2		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.3		0.4			0.3		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	8.0		8.0			6.2		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			TRACE		
HELIUM.....	0.20		0.40			0.16		
HEATING VALUE.....	1066		1122			1129		
SPECIFIC GRAVITY.....	0.673		0.709			0.693		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10321 SAMPLE 9622			INDEX 10322 SAMPLE 9623			INDEX 10323 SAMPLE 9756		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	CRANFORD NO. 3-R		MASTERTON NO. 11-R			CRANFORD 2R		
LOCATION.....	SEC. 64, BLK. 0-18, D&P SUR.		SEC. 61, BLK. 0-18, D&P SUR.			SEC. 34, BLK. PM, EL&RR SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	09/28/64		09/28/64			09/30/64		
SAMPLED.....	11/04/64		11/04/64			02/18/65		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1704		1747			1887		
WELLHEAD PRESSURE, PSIG.....	277		228			327		
OPEN FLOW, MCFD.....	7200		6100			8200		
COMPONENT, MOLE PCT								
METHANE.....	77.6		76.5			78.4		
ETHANE.....	9.0		9.0			8.9		
PROPANE.....	3.9		4.4			4.1		
N-BUTANE.....	0.9		1.1			0.9		
ISOBUTANE.....	0.5		0.6			0.6		
N-PENTANE.....	0.1		0.3			0.1		
ISOPENTANE.....	0.5		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	7.0		7.3			6.4		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.31		0.24			0.20		
HEATING VALUE.....	1122		1129			1129		
SPECIFIC GRAVITY.....	0.700		0.714			0.697		
INDEX 10324 SAMPLE 9757			INDEX 10325 SAMPLE 9758			INDEX 10326 SAMPLE 9760		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	MASTERTON 9R		MASTERTON 12R			MASTERTON 10R		
LOCATION.....	SEC. 64, BLK. 0-18, D&P SUR.		SEC. 35, BLK. 8-10, EL&RR SUR			SEC. 104, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	09/02/64		09/03/64			09/10/64		
SAMPLED.....	02/18/65		02/19/65			02/19/65		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1824		1518			1448		
WELLHEAD PRESSURE, PSIG.....	308		295			222		
OPEN FLOW, MCFD.....	9900		4900			7700		
COMPONENT, MOLE PCT								
METHANE.....	79.1		78.4			77.6		
ETHANE.....	8.0		8.4			7.1		
PROPANE.....	3.9		4.5			4.1		
N-BUTANE.....	1.0		1.0			0.9		
ISOBUTANE.....	0.4		0.5			0.6		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.3		0.2			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	6.8		8.8			8.6		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.0		
HELIUM.....	0.1		0.38			0.36		
HEATING VALUE.....	1115		1081			1093		
SPECIFIC GRAVITY.....	0.691		0.692			0.696		
INDEX 10327 SAMPLE 9802			INDEX 10328 SAMPLE 10024			INDEX 10329 SAMPLE 10025		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	MASTERTON 1R		MASTERTON 15R			MASTERTON 13R		
LOCATION.....	SEC. 98, BLK. 46, H&TC SUR.		SEC. 103, BLK. 0-18, D&P SUR.			SEC. 63, BLK. 0-18, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	08/16/65		07/16/65			07/16/65		
SAMPLED.....	08/16/65		08/05/65			08/04/65		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1370		1603			1844		
WELLHEAD PRESSURE, PSIG.....	208		249			292		
OPEN FLOW, MCFD.....	3100		7900			17500		
COMPONENT, MOLE PCT								
METHANE.....	80.1		77.9			78.0		
ETHANE.....	7.2		8.1			8.4		
PROPANE.....	3.3		4.3			3.8		
N-BUTANE.....	0.9		0.9			0.9		
ISOBUTANE.....	0.3		0.6			0.6		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.2		0.1			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.2		
HEXANES PLUS.....	0.2		0.2			0.4		
NITROGEN.....	7.4		7.4			6.7		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.1		
HELIUM.....	0.16		0.27			0.19		
HEATING VALUE.....	1090		1139			1139		
SPECIFIC GRAVITY.....	0.681		0.700			0.709		
INDEX 10330 SAMPLE 10027			INDEX 10331 SAMPLE 10659			INDEX 10332 SAMPLE 10660		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		
WELL NAME.....	MASTERTON 16R		BIVINS 2R			BIVINS A-150R		
LOCATION.....	SEC. 22, BLK. 3, G&M SUR.		SEC. 21, BLK. 018, D&P SUR.			SEC. 18, BLK. 018, D&P SUR.		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
COMPLETED.....	07/13/65		10/02/60			11/08/56		
SAMPLED.....	08/04/65		07/21/66			07/22/66		
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE			PERM-RED CAVE		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	1639		1817			2284		
WELLHEAD PRESSURE, PSIG.....	519		519			190		
OPEN FLOW, MCFD.....	2200		2252			161		
COMPONENT, MOLE PCT								
METHANE.....	77.8		76.0			76.4		
ETHANE.....	7.2		9.2			7.1		
PROPANE.....	3.8		4.3			3.3		
N-BUTANE.....	0.9		1.0			0.8		
ISOBUTANE.....	0.4		0.6			0.4		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.3		0.3			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	8.9		8.2			11.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.38		0.31			0.31		
HEATING VALUE.....	1082		1122			1053		
SPECIFIC GRAVITY.....	0.694		0.710			0.700		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10333 SAMPLE 10663		INDEX 10334 SAMPLE 10664		INDEX 10335 SAMPLE 10668	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS A-2R	WELL NAME.....	BIVINS A-4R	WELL NAME.....	CRAWFORD 3R
LOCATION.....	SEC. 13, BLK. 018, D&P SUR.	LOCATION.....	SEC. 24, BLK. 018, D&P SUR.	LOCATION.....	SEC. 68, BLK. 018, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	07/16/24	COMPLETED.....	7/7/00	COMPLETED.....	09/28/64
SAMPLED.....	07/21/66	SAMPLED.....	07/21/66	SAMPLED.....	07/21/66
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1865	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	1704
WELLHEAD PRESSURE, PSIG.....	317	WELLHEAD PRESSURE, PSIG.....	305	WELLHEAD PRESSURE, PSIG.....	248
OPEN FLOW, MCFD.....	4676	OPEN FLOW, MCFD.....	562	OPEN FLOW, MCFD.....	1945
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	78.1	METHANE.....	77.3	METHANE.....	76.6
ETHANE.....	8.9	ETHANE.....	9.5	ETHANE.....	9.3
PROPANE.....	4.1	PROPANE.....	4.5	PROPANE.....	4.6
N-BUTANE.....	1.0	N-BUTANE.....	1.1	N-BUTANE.....	1.1
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.3	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	6.6	NITROGEN.....	5.2	NITROGEN.....	7.1
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.17	HELIUM.....	0.19	HELIUM.....	0.22
HEATING VALUE.....	1130	HEATING VALUE.....	1150	HEATING VALUE.....	1150
SPECIFIC GRAVITY.....	0.700	SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.720

INDEX 10336 SAMPLE 10699		INDEX 10337 SAMPLE 10723		INDEX 10338 SAMPLE 10724	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS 23R	WELL NAME.....	MASTERSON 19R	WELL NAME.....	MASTERSON 20R
LOCATION.....	SEC. 12, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 33, BLK. 3, G&M SUR.	LOCATION.....	SEC. 97, BLK. 46, H&TC SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	08/01/66	COMPLETED.....	09/13/66	COMPLETED.....	09/31/66
SAMPLED.....	08/19/66	SAMPLED.....	09/14/66	SAMPLED.....	09/14/66
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1880	DEPTH, FEET.....	1521	DEPTH, FEET.....	1625
WELLHEAD PRESSURE, PSIG.....	324	WELLHEAD PRESSURE, PSIG.....	181	WELLHEAD PRESSURE, PSIG.....	199
OPEN FLOW, MCFD.....	9000	OPEN FLOW, MCFD.....	1110	OPEN FLOW, MCFD.....	780
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.3	METHANE.....	76.9	METHANE.....	75.0
ETHANE.....	9.4	ETHANE.....	9.0	ETHANE.....	7.1
PROPANE.....	5.9	PROPANE.....	4.3	PROPANE.....	4.5
N-BUTANE.....	0.8	N-BUTANE.....	1.3	N-BUTANE.....	1.4
ISOBUTANE.....	0.4	ISOBUTANE.....	0.6	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	8.0	HEXANES PLUS.....	8.8	HEXANES PLUS.....	10.2
NITROGEN.....	0.2	NITROGEN.....	0.1	NITROGEN.....	0.0
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.1	HYDROGEN SULFIDE.....	0.1
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.34	CARBON DIOXIDE.....	0.49
HELIUM.....	1098	HELIUM.....	1103	HELIUM.....	1099
HEATING VALUE.....	1098	HEATING VALUE.....	1103	HEATING VALUE.....	1099
SPECIFIC GRAVITY.....	0.700	SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.720

INDEX 10339 SAMPLE 10736		INDEX 10340 SAMPLE 10737		INDEX 10341 SAMPLE 10757	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	MASTERSON	WELL NAME.....	BIVINS 20R	WELL NAME.....	MASTERSON 21R
LOCATION.....	SEC. 10, BLK. 3, G&M SUR.	LOCATION.....	SEC. 97, BLK. 46, H&TC SUR.	LOCATION.....	SEC. 107, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	09/20/66	COMPLETED.....	09/23/66	COMPLETED.....	09/16/66
SAMPLED.....	09/23/66	SAMPLED.....	09/26/66	SAMPLED.....	10/25/66
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1680	DEPTH, FEET.....	1454	DEPTH, FEET.....	1631
WELLHEAD PRESSURE, PSIG.....	231	WELLHEAD PRESSURE, PSIG.....	192	WELLHEAD PRESSURE, PSIG.....	197
OPEN FLOW, MCFD.....	7800	OPEN FLOW, MCFD.....	3750	OPEN FLOW, MCFD.....	6500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	76.5	METHANE.....	79.5	METHANE.....	74.8
ETHANE.....	9.0	ETHANE.....	7.4	ETHANE.....	7.5
PROPANE.....	4.6	PROPANE.....	3.5	PROPANE.....	4.2
N-BUTANE.....	1.2	N-BUTANE.....	1.1	N-BUTANE.....	1.1
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.5
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	7.4	NITROGEN.....	7.5	NITROGEN.....	10.5
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.26	HELIUM.....	0.16	HELIUM.....	0.43
HEATING VALUE.....	1132	HEATING VALUE.....	1092	HEATING VALUE.....	1095
SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.690	SPECIFIC GRAVITY.....	0.720

INDEX 10342 SAMPLE 11042		INDEX 10343 SAMPLE 11044		INDEX 10344 SAMPLE 11045	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS 26R	WELL NAME.....	CRAWFORD 4R	WELL NAME.....	BIVINS 25R
LOCATION.....	SEC. 81, BLK. 2, G&M SUR.	LOCATION.....	SEC. 78, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 27, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	07/24/67	COMPLETED.....	07/21/67	COMPLETED.....	07/21/67
SAMPLED.....	07/28/67	SAMPLED.....	07/26/67	SAMPLED.....	07/26/67
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1825	DEPTH, FEET.....	1873	DEPTH, FEET.....	1780
WELLHEAD PRESSURE, PSIG.....	391	WELLHEAD PRESSURE, PSIG.....	324	WELLHEAD PRESSURE, PSIG.....	352
OPEN FLOW, MCFD.....	4300	OPEN FLOW, MCFD.....	5900	OPEN FLOW, MCFD.....	12000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.8	METHANE.....	78.3	METHANE.....	77.4
ETHANE.....	8.8	ETHANE.....	8.1	ETHANE.....	9.1
PROPANE.....	4.3	PROPANE.....	3.7	PROPANE.....	4.0
N-BUTANE.....	1.0	N-BUTANE.....	0.9	N-BUTANE.....	0.9
ISOBUTANE.....	0.6	ISOBUTANE.....	0.4	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	9.4	NITROGEN.....	6.9	NITROGEN.....	7.0
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.4	HYDROGEN.....	0.2	HYDROGEN.....	0.3
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.13	HELIUM.....	0.17	HELIUM.....	0.21
HEATING VALUE.....	1108	HEATING VALUE.....	1114	HEATING VALUE.....	1121
SPECIFIC GRAVITY.....	0.715	SPECIFIC GRAVITY.....	0.694	SPECIFIC GRAVITY.....	0.698

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10345 SAMPLE 11079	INDEX 10346 SAMPLE 11080	INDEX 10347 SAMPLE 11081
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	MASTERTON 27R		MASTERTON 24R	MASTERTON 23R
LOCATION.....	SEC. 27, BLK. 3, G&N SUR.		SEC. 69, BLK. 0-18, D&P SUR.	SEC. 71, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	08/12/67		08/07/67	08/07/67
SAMPLED.....	08/15/67		08/14/67	08/14/67
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	1659		1763	1842
WELLHEAD PRESSURE, PSIG.....	219		204	285
OPEN FLOW, MCFD.....	920		3100	6700
COMPONENT, MOLE PCT				
METHANE.....	76.1	75.5	77.3	77.3
ETHANE.....	10.3	9.0	8.9	8.9
PROpane.....	4.0	4.4	3.9	3.9
N-BUTANE.....	1.1	1.1	1.0	1.0
ISOBUTANE.....	0.6	0.6	0.4	0.4
N-PENTANE.....	0.1	0.1	0.2	0.2
ISOPENTANE.....	0.3	0.3	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE
HEXANES PLUS.....	0.1	0.2	0.1	0.1
NITROGEN.....	6.9	7.9	7.3	7.3
OXYGEN.....	TRACE	0.0	0.1	0.1
ARGON.....	TRACE	0.3	0.3	0.3
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.1	0.1	0.1
CARBON DIOXIDE.....	0.2	0.26	0.18	0.18
HELIUM.....	0.20	1139	1114	1114
HEATING VALUE.....	1139	0.714	0.698	0.698
SPECIFIC GRAVITY.....	0.710			

		INDEX 10348 SAMPLE 11082	INDEX 10349 SAMPLE 11096	INDEX 10350 SAMPLE 11548
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	MASTERTON 25R		BIVINS 27R	BIVINS 29R
LOCATION.....	SEC. 106, BLK. 0-18, D&P SUR.		SEC. 55, BLK. 2, G&H SUR.	SEC. 57, BLK. 2, G&H SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	08/12/67		08/29/67	06/18/68
SAMPLED.....	08/15/67		09/07/67	06/18/68
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	1631		2114	1742
WELLHEAD PRESSURE, PSIG.....	180		372	NOT GIVEN
OPEN FLOW, MCFD.....	2050		630	128
COMPONENT, MOLE PCT				
METHANE.....	75.2	72.8	77.2	77.2
ETHANE.....	7.4	8.1	8.7	8.7
PROpane.....	3.0	2.9	4.9	4.9
N-BUTANE.....	1.0	1.4	1.1	1.1
ISOBUTANE.....	0.6	0.9	0.8	0.8
N-PENTANE.....	0.2	0.5	0.5	0.5
ISOPENTANE.....	0.2	0.5	0.0	0.0
CYCLOPENTANE.....	TRACE	0.2	0.1	0.1
HEXANES PLUS.....	0.2	0.4	0.2	0.2
NITROGEN.....	10.5	0.8	6.3	6.3
OXYGEN.....	0.0	0.1	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.1	0.0	0.0
CARBON DIOXIDE.....	0.1	0.22	0.18	0.18
HELIUM.....	0.47	1170	1.64	1.64
HEATING VALUE.....	1077	0.749	0.717	0.717
SPECIFIC GRAVITY.....	0.708			

		INDEX 10351 SAMPLE 11549	INDEX 10352 SAMPLE 11562	INDEX 10353 SAMPLE 11571
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS 30R		BIVINS 30R	BIVINS 31R
LOCATION.....	SEC. 31, BLK. 0-18, D&P SUR.		SEC. 31, BLK. 0-18, D&P SUR.	SEC. 30, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	--/700		--/700	--/700
SAMPLED.....	06/23/68		07/07/68	07/12/68
FORMATION.....	NOT GIVEN		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	700		1800	1800
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	800		NOT GIVEN	2350
COMPONENT, MOLE PCT				
METHANE.....	72.2	76.7	77.4	77.4
ETHANE.....	5.1	9.3	9.3	9.3
PROpane.....	3.1	4.7	4.4	4.4
N-BUTANE.....	1.0	1.1	1.1	1.1
ISOBUTANE.....	0.4	0.6	0.5	0.5
N-PENTANE.....	0.1	0.4	0.2	0.2
ISOPENTANE.....	0.3	0.0	0.1	0.1
CYCLOPENTANE.....	0.1	0.3	0.1	0.1
HEXANES PLUS.....	0.1	0.2	0.2	0.2
NITROGEN.....	16.4	6.6	6.2	6.2
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	0.1	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	0.1	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.0	TRACE	TRACE
HELIUM.....	1.02	0.18	0.20	0.20
HEATING VALUE.....	976	1154	1146	1146
SPECIFIC GRAVITY.....	0.709	0.715	0.705	0.705

		INDEX 10354 SAMPLE 11572	INDEX 10355 SAMPLE 11768	INDEX 10356 SAMPLE 11769
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	MASTERTON NO. 28R		BIVINS 33R	BIVINS 34R
LOCATION.....	SEC. 2, BLK. 0-18, D&P SUR.		SEC. 2, BLK. 0-18, D&P SUR.	SEC. 15, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	--/700		02/13/69	02/18/69
SAMPLED.....	07/14/68		02/26/69	02/26/69
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	1750		1820	1755
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		319	333
OPEN FLOW, MCFD.....	NOT GIVEN		5600	9200
COMPONENT, MOLE PCT				
METHANE.....	77.6	77.7	77.8	77.8
ETHANE.....	9.3	7.0	9.0	9.0
PROpane.....	4.5	4.1	4.1	4.1
N-BUTANE.....	1.1	1.1	1.1	1.1
ISOBUTANE.....	0.1	0.3	0.3	0.3
N-PENTANE.....	0.3	0.3	0.3	0.3
ISOPENTANE.....	TRACE	0.1	0.1	0.1
CYCLOPENTANE.....	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.2	0.2	0.2
NITROGEN.....	6.1	6.4	6.5	6.5
OXYGEN.....	0.0	0.1	0.0	0.0
ARGON.....	TRACE	0.2	TRACE	TRACE
HYDROGEN.....	0.2	0.2	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.0	0.21	0.1	0.1
HELIUM.....	0.20	1137	1135	1135
HEATING VALUE.....	1151	0.703	0.702	0.702
SPECIFIC GRAVITY.....	0.706			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10357 SAMPLE 11770	INDEX 10358 SAMPLE 11773	INDEX 10359 SAMPLE 11774
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS 35R		BIVINS 30R	BIVINS 29R
LOCATION.....	SEC. 16, BLK. 0-18, D&P SUR.		SEC. 31, BLK. 0-18, D&P SUR.	SEC. 57, BLK. 2, G&M SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	02/19/69		7/7/70	7/7/70
SAMPLED.....	02/28/69		02/28/69	02/28/69
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	1905		1859	1764
WELLHEAD PRESSURE, PSIG.....	333		350	356
OPEN FLOW, MCFD.....	8000		7400	2800
COMPONENT, MOLE PCT				
METHANE.....	76.3	78.6	77.9	
ETHANE.....	9.2	9.1	8.7	
PROPANE.....	4.3	3.9	4.3	
N-BUTANE.....	1.1	0.8	1.1	
ISOBUTANE.....	0.5	0.3	0.5	
N-PENTANE.....	0.3	0.2	0.2	
ISOPENTANE.....	0.1	0.1	0.1	
CYCLOPENTANE.....	0.1	0.1	TRACE	
HEXANES PLUS.....	0.3	0.1	0.2	
NITROGEN.....	7.3	6.4	6.6	
ARGON.....	0.1	0.0	TRACE	
HYDROGEN.....	TRACE	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	
HELIUM.....	0.23	0.17	0.16	
HEATING VALUE.....	1140	1134	1134	
SPECIFIC GRAVITY.....	0.715	0.691	0.702	
		INDEX 10360 SAMPLE 11775	INDEX 10361 SAMPLE 11776	INDEX 10362 SAMPLE 11777
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS 31R		BIVINS 32R	BIVINS 33R
LOCATION.....	SEC. 10, BLK. 0-18, D&P SUR.		SEC. 11, BLK. 0-18, D&P SUR.	SEC. 72, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	7/7/70		02/14/69	02/13/69
SAMPLED.....	02/28/69		02/27/69	02/27/69
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	1823		1851	2069
WELLHEAD PRESSURE, PSIG.....	338		327	319
OPEN FLOW, MCFD.....	7600		9090	5600
COMPONENT, MOLE PCT				
METHANE.....	78.0	77.8	72.8	
ETHANE.....	8.9	8.9	9.2	
PROPANE.....	3.9	4.1	5.9	
N-BUTANE.....	0.9	1.0	2.2	
ISOBUTANE.....	0.4	0.4	1.3	
N-PENTANE.....	0.2	0.2	1.0	
ISOPENTANE.....	0.1	TRACE	0.4	
CYCLOPENTANE.....	0.1	TRACE	0.3	
HEXANES PLUS.....	0.1	0.1	0.7	
NITROGEN.....	6.8	5.8	5.8	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	TRACE	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.2	
HELIUM.....	0.19	0.19	0.00	
HEATING VALUE.....	1117	1116	1281	
SPECIFIC GRAVITY.....	0.694	0.691	0.787	
		INDEX 10363 SAMPLE 11778	INDEX 10364 SAMPLE 11779	INDEX 10365 SAMPLE 11780
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS 34R		BIVINS 35R	MASTERTSON 35R
LOCATION.....	SEC. 19, BLK. 0-18, D&P SUR.		SEC. 16, BLK. 0-18, D&P SUR.	SEC. 3, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	02/18/69		02/19/69	7/7/70
SAMPLED.....	02/27/69		02/28/69	02/28/69
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	1755		1905	1779
WELLHEAD PRESSURE, PSIG.....	342		333	325
OPEN FLOW, MCFD.....	9200		8000	8000
COMPONENT, MOLE PCT				
METHANE.....	78.1	76.7	78.3	
ETHANE.....	8.9	9.0	8.8	
PROPANE.....	4.0	4.1	4.0	
N-BUTANE.....	0.0	1.1	0.8	
ISOBUTANE.....	0.5	0.4	0.5	
N-PENTANE.....	0.2	0.2	0.2	
ISOPENTANE.....	0.1	0.1	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	6.5	7.7	6.8	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.2	0.2	0.2	
CARBON DIOXIDE.....	0.0	0.0	0.0	
HELIUM.....	0.1	0.1	TRACE	
HEATING VALUE.....	0.18	0.22	0.19	
SPECIFIC GRAVITY.....	1124	1114	1113	
	0.695	0.701	0.690	
		INDEX 10366 SAMPLE 11781	INDEX 10367 SAMPLE 11782	INDEX 10368 SAMPLE 11805
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	CRAWFORD 5R		GAGE 1R	MASTERTSON 35R
LOCATION.....	SEC. 4, BLK. 0-18, D&P SUR.		SEC. 7, BLK. 8-11, EL&RR SUR	SEC. 101, BLK. 0-18, D&P SUR
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	02/26/69		02/26/69	02/27/69
SAMPLED.....	02/28/69		02/28/69	04/02/69
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	1836		1738	1523
WELLHEAD PRESSURE, PSIG.....	341		NOT GIVEN	230
OPEN FLOW, MCFD.....	6800		2820	4100
COMPONENT, MOLE PCT				
METHANE.....	76.5	76.9	76.9	
ETHANE.....	9.1	9.2	7.9	
PROPANE.....	4.5	4.6	7.2	
N-BUTANE.....	1.1	1.1	1.1	
ISOBUTANE.....	0.7	0.7	0.5	
N-PENTANE.....	0.4	0.2	0.3	
ISOPENTANE.....	0.0	0.1	0.0	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.3	0.1	0.2	
NITROGEN.....	6.7	6.6	7.8	
ARGON.....	0.1	0.0	0.1	
HYDROGEN.....	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.2	0.0	0.2	
CARBON DIOXIDE.....	0.2	TRACE	0.1	
HELIUM.....	0.19	0.1	0.61	
HEATING VALUE.....	1152	1146	1111	
SPECIFIC GRAVITY.....	0.718	0.709	0.703	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10369 SAMPLE 11806		INDEX 10370 SAMPLE 11807		INDEX 10371 SAMPLE 11808	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	MASTERTON NO. 34R	WELL NAME.....	GAGE 1R	WELL NAME.....	MASTERTON 32R
LOCATION.....	SEC. 94, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 7, BLK. 0-11, EL&RR SUR.	LOCATION.....	SEC. 74, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	02/21/69	COMPLETED.....	02/26/69	COMPLETED.....	--/--/00
SAMPLED.....	04/02/69	SAMPLED.....	04/07/69	SAMPLED.....	04/07/69
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1636	DEPTH, FEET.....	1738	DEPTH, FEET.....	1934
WELLHEAD PRESSURE, PSIG.....	266	WELLHEAD PRESSURE, PSIG.....	291	WELLHEAD PRESSURE, PSIG.....	314
OPEN FLOW, MCFD.....	7100	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	77.9	METHANE.....	77.5	METHANE.....	78.2
ETHANE.....	8.1	ETHANE.....	9.1	ETHANE.....	8.9
PROPANE.....	3.7	PROPANE.....	4.6	PROPANE.....	4.1
N-BUTANE.....	1.1	N-BUTANE.....	1.1	N-BUTANE.....	1.0
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	7.5	NITROGEN.....	6.3	NITROGEN.....	6.3
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.2	HYDROGEN.....	0.2	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1
HELIUM.....	0.24	HELIUM.....	0.19	HELIUM.....	0.16
HEATING VALUE.....	1113	HEATING VALUE.....	1142	HEATING VALUE.....	1136
SPECIFIC GRAVITY.....	0.700	SPECIFIC GRAVITY.....	0.704	SPECIFIC GRAVITY.....	0.702

INDEX 10372 SAMPLE 11878		INDEX 10373 SAMPLE 11879		INDEX 10374 SAMPLE 11951	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	CRANFORD 5R	WELL NAME.....	BIVINS 33R	WELL NAME.....	MASTERTON 33R
LOCATION.....	SEC. 4, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 2, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 72, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	02/16/69	COMPLETED.....	03/13/69	COMPLETED.....	03/13/69
SAMPLED.....	05/28/69	SAMPLED.....	05/14/69	SAMPLED.....	07/08/69
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1836	DEPTH, FEET.....	1820	DEPTH, FEET.....	1895
WELLHEAD PRESSURE, PSIG.....	341	WELLHEAD PRESSURE, PSIG.....	319	WELLHEAD PRESSURE, PSIG.....	292
OPEN FLOW, MCFD.....	6800	OPEN FLOW, MCFD.....	5600	OPEN FLOW, MCFD.....	4100
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	77.8	METHANE.....	76.4	METHANE.....	77.1
ETHANE.....	8.9	ETHANE.....	9.4	ETHANE.....	8.9
PROPANE.....	4.4	PROPANE.....	4.5	PROPANE.....	4.7
N-BUTANE.....	0.9	N-BUTANE.....	1.1	N-BUTANE.....	0.9
ISOBUTANE.....	0.4	ISOBUTANE.....	0.7	ISOBUTANE.....	0.6
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	6.7	NITROGEN.....	6.5	NITROGEN.....	6.0
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.2	HYDROGEN.....	0.2	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0
HELIUM.....	0.19	HELIUM.....	0.18	HELIUM.....	0.16
HEATING VALUE.....	1128	HEATING VALUE.....	1157	HEATING VALUE.....	1135
SPECIFIC GRAVITY.....	0.698	SPECIFIC GRAVITY.....	0.715	SPECIFIC GRAVITY.....	0.705

INDEX 10375 SAMPLE 12279		INDEX 10376 SAMPLE 12297		INDEX 10377 SAMPLE 12299	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	BIVINS 36R	WELL NAME.....	CRANFORD 6R	WELL NAME.....	BIVINS 37R
LOCATION.....	SEC. 25, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 80, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 26, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	05/24/70	COMPLETED.....	06/12/70	COMPLETED.....	05/28/70
SAMPLED.....	05/24/70	SAMPLED.....	06/12/70	SAMPLED.....	06/15/70
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1848	DEPTH, FEET.....	1745	DEPTH, FEET.....	1716
WELLHEAD PRESSURE, PSIG.....	27	WELLHEAD PRESSURE, PSIG.....	208	WELLHEAD PRESSURE, PSIG.....	361
OPEN FLOW, MCFD.....	57	OPEN FLOW, MCFD.....	2500	OPEN FLOW, MCFD.....	480
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	77.6	METHANE.....	76.8	METHANE.....	77.2
ETHANE.....	8.7	ETHANE.....	9.0	ETHANE.....	9.4
PROPANE.....	4.1	PROPANE.....	4.9	PROPANE.....	5.0
N-BUTANE.....	0.7	N-BUTANE.....	0.9	N-BUTANE.....	0.9
ISOBUTANE.....	0.6	ISOBUTANE.....	0.6	ISOBUTANE.....	0.9
N-PENTANE.....	0.1	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	6.7	NITROGEN.....	6.9	NITROGEN.....	6.2
OXYGEN.....	0.6	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.3	HYDROGEN.....	0.2	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0
HELIUM.....	0.11	HELIUM.....	0.17	HELIUM.....	0.18
HEATING VALUE.....	1108	HEATING VALUE.....	1140	HEATING VALUE.....	1149
SPECIFIC GRAVITY.....	0.692	SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.706

INDEX 10378 SAMPLE 12300		INDEX 10379 SAMPLE 12301		INDEX 10380 SAMPLE 12302	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE	FIELD.....	PANHANDLE W/RED CAVE
WELL NAME.....	MASTERTON 36R	WELL NAME.....	BIVINS 38R	WELL NAME.....	BIVINS 39R
LOCATION.....	SEC. 10, BLK. 8-11, EL&RR SUR.	LOCATION.....	SEC. 22, BLK. 0-18, D&P SUR.	LOCATION.....	SEC. 14, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	06/18/70	COMPLETED.....	06/04/70	COMPLETED.....	06/08/70
SAMPLED.....	06/18/70	SAMPLED.....	06/19/70	SAMPLED.....	06/08/70
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	1650	DEPTH, FEET.....	1738	DEPTH, FEET.....	1721
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	345	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	3000	OPEN FLOW, MCFD.....	1900	OPEN FLOW, MCFD.....	12900
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	76.2	METHANE.....	76.8	METHANE.....	77.8
ETHANE.....	9.0	ETHANE.....	9.0	ETHANE.....	8.7
PROPANE.....	4.8	PROPANE.....	4.6	PROPANE.....	4.4
N-BUTANE.....	1.0	N-BUTANE.....	0.9	N-BUTANE.....	0.8
ISOBUTANE.....	0.6	ISOBUTANE.....	0.6	ISOBUTANE.....	0.6
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	7.5	NITROGEN.....	7.2	NITROGEN.....	6.8
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.2	HYDROGEN.....	0.2	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.20	HELIUM.....	0.18	HELIUM.....	0.18
HEATING VALUE.....	1140	HEATING VALUE.....	1127	HEATING VALUE.....	1124
SPECIFIC GRAVITY.....	0.713	SPECIFIC GRAVITY.....	0.704	SPECIFIC GRAVITY.....	0.698

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10381 12755	INDEX SAMPLE	10382 12815	INDEX SAMPLE	10383 12817
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	
WELL NAME.....	MASTERTON NO. 41 R			MASTERTON #2R		MASTERTON #9R	
LOCATION.....	SEC. 79, BLK. 018, D&P SUR.			SEC. 70, BLK. 018, D&P SUR.		SEC. 36, BLK. 3, G&M SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	04/09/71			04/12/71		05/08/71	
SAMPLED.....	04/09/71			04/12/71		05/14/71	
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1750			1724		1804	
WELLHEAD PRESSURE, PSIG.....	300			NOT GIVEN		131	
OPEN FLOW, MCFD.....	2000			1040		1618	
COMPONENT, MOLE PCT							
METHANE.....	74.5			74.8		69.1	
ETHANE.....	10.7			10.1		7.6	
PROPANE.....	5.6			5.2		5.1	
N-BUTANE.....	1.3			1.3		1.4	
ISOBUTANE.....	0.3			0.9		1.4	
N-PENTANE.....	0.3			0.3		0.2	
ISOPENTANE.....	0.3			0.1		0.3	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	6.1			6.9		9.3	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		5.4	
HELIUM.....	0.18			0.19		0.36	
HEATING VALUE.....	1199			1179		1078	
SPECIFIC GRAVITY.....	0.736			0.734		0.782	
		INDEX SAMPLE	10384 12825	INDEX SAMPLE	10385 12826	INDEX SAMPLE	10386 12836
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	
WELL NAME.....	BIVINS 40R			BIVINS 41R		MASTERTON #9R	
LOCATION.....	SEC. 30, BLK. B-11, EL&RR SUR.			SEC. 44, BLK. 018, D&P SUR.		SEC. 36, BLK. 3, G&M SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	05/19/71			05/23/71		05/25/71	
SAMPLED.....	05/19/71			05/23/71		05/25/71	
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1650			1660		1866	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		131	
OPEN FLOW, MCFD.....	41			435		2600	
COMPONENT, MOLE PCT							
METHANE.....	75.5			75.4		74.7	
ETHANE.....	9.8			9.5		8.0	
PROPANE.....	5.1			5.2		5.2	
N-BUTANE.....	1.1			1.2		1.4	
ISOBUTANE.....	0.6			0.6		0.8	
N-PENTANE.....	0.3			0.2		0.2	
ISOPENTANE.....	0.3			0.3		0.5	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	7.0			7.4		8.5	
OXYGEN.....	TRACE			0.0		0.1	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.0		0.1	
HELIUM.....	0.14			0.16		0.39	
HEATING VALUE.....	1170			1162		1149	
SPECIFIC GRAVITY.....	0.727			0.727		0.733	
		INDEX SAMPLE	10387 12844	INDEX SAMPLE	10388 12846	INDEX SAMPLE	10389 12882
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	
WELL NAME.....	BIVINS 42R			BIVINS 43R		BIVINS 44R	
LOCATION.....	SEC. 38, BLK. 0-18, D&P SUR.			SEC. 13, BLK. 0-18, D&P SUR.		SEC. 28, BLK. 018, D&P SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	05/27/71			06/09/71		06/12/71	
SAMPLED.....	06/01/71			06/09/71		06/12/71	
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1801			1865		1783	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1900		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			1900		1750	
COMPONENT, MOLE PCT							
METHANE.....	72.2			74.5		77.0	
ETHANE.....	8.8			10.8		9.0	
PROPANE.....	5.0			5.4		4.5	
N-BUTANE.....	1.5			1.2		1.7	
ISOBUTANE.....	0.7			0.8		1.0	
N-PENTANE.....	0.3			0.4		0.0	
ISOPENTANE.....	0.3			0.0		0.0	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	10.8			6.6		6.8	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		0.1	
HELIUM.....	0.14			0.17		0.25	
HEATING VALUE.....	1133			1142		1142	
SPECIFIC GRAVITY.....	0.752			0.751		0.710	
		INDEX SAMPLE	10390 12893	INDEX SAMPLE	10391 12895	INDEX SAMPLE	10392 12956
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W/RED CAVE			PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	
WELL NAME.....	BIVINS NO. 46R			BIVINS A-169R		BIVINS 45R	
LOCATION.....	SEC. 9, BLK. 018, D&P SUR.			SEC. 23, BLK. 018, D&P SUR.		SEC. 17, BLK. 0-18, D&P SUR.	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
COMPLETED.....	06/30/71			07/05/71		06/29/71	
SAMPLED.....	06/30/71			07/07/71		08/23/71	
FORMATION.....	PERM-RED CAVE			PERM-RED CAVE		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	1760			1858		1978	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			348		390	
OPEN FLOW, MCFD.....	3600			2400		200	
COMPONENT, MOLE PCT							
METHANE.....	78.1			78.9		64.0	
ETHANE.....	8.9			9.0		16.3	
PROPANE.....	5.3			5.5		11.2	
N-BUTANE.....	0.9			0.8		2.2	
ISOBUTANE.....	0.4			0.9		1.5	
N-PENTANE.....	0.2			0.0		0.3	
ISOPENTANE.....	0.2			0.0		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.5			0.1		0.1	
NITROGEN.....	0.5			0.1		4.1	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.1			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.0		TRACE	
HELIUM.....	0.22			0.17		0.07	
HEATING VALUE.....	1128			1157		1378	
SPECIFIC GRAVITY.....	0.698			0.700		0.830	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10393 SAMPLE 13261	INDEX 10394 SAMPLE 13262	INDEX 10395 SAMPLE 13265
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	SIVINS 49R		BIVINS 53R	BIVINS 52R
LOCATION.....	SEC. 5, BLK. 0-18, D&P SUR.		SEC. 58, BLK. 2, G&M SUR.	SEC. 36, BLK. 0-18, D&P SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	04/15/72		05/26/72	06/04/72
SAMPLED.....	04/15/72		05/26/72	06/04/72
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	1843		1702	1830
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	21000		240	550
COMPONENT, MOLE PCT.....				
METHANE.....	76.8	76.2	76.6	
ETHANE.....	9.8	9.1	9.1	
PROPANE.....	4.5	5.0	5.0	
N-BUTANE.....	0.9	1.2	1.2	
ISOBUTANE.....	0.5	0.7	0.7	
N-PENTANE.....	0.2	0.3	0.2	
ISOPENTANE.....	0.1	0.2	0.2	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	6.5	6.8	6.5	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	
HELIUM.....	0.22	0.16	0.16	
HEATING VALUE.....	1136	1151	1155	
SPECIFIC GRAVITY.....	0.701	0.713	0.713	
		INDEX 10396 SAMPLE 13663	INDEX 10397 SAMPLE 13664	INDEX 10398 SAMPLE 13676
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PANHANDLE W/RED CAVE	PANHANDLE W/RED CAVE
WELL NAME.....	MASTERSON 63 R		MASTERSON 61 R	MASTERSON 61 R
LOCATION.....	SEC. 81, BLK. 0-18, D&P SUR.		SEC. 81, BLK. 3, G&M SUR.	SEC. 81, BLK. 3, G&M SUR.
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
COMPLETED.....	--/7/00		--/7/00	--/7/00
SAMPLED.....	06/11/73		06/11/73	08/08/73
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	295		195	182
OPEN FLOW, MCFD.....	4140		NOT GIVEN	124
COMPONENT, MOLE PCT.....				
METHANE.....	77.5	66.7	74.0	
ETHANE.....	9.7	9.2	10.2	
PROPANE.....	4.5	4.9	5.6	
N-BUTANE.....	0.8	1.0	1.4	
ISOBUTANE.....	0.5	0.6	0.8	
N-PENTANE.....	TRACE	0.1	0.3	
ISOPENTANE.....	0.2	0.3	0.5	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	TRACE	0.1	0.3	
NITROGEN.....	6.4	14.2	6.3	
OXYGEN.....	0.0	2.2	0.0	
ARGON.....	TRACE	0.1	TRACE	
HYDROGEN.....	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.4	TRACE	
HELIUM.....	0.21	0.15	0.22	
HEATING VALUE.....	1129	1044	1205	
SPECIFIC GRAVITY.....	0.696	0.758	0.743	
		INDEX 10399 SAMPLE 14282	INDEX 10400 SAMPLE 7552	INDEX 10401 SAMPLE 7570
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PANHANDLE W/RED CAVE		PEDROSA	PEDROSA
WELL NAME.....	SIVINS 53R		SIVINS No. 1	PEDROSA No. 1
LOCATION.....	SEC. 34, BLK. 0-18, D&P SUR.		SEC. 3, BLK. 4, ACH&B SUR.	SEC. 3, BLK. 4, ACH&B SUR.
OWNER.....	CIG EXPLORATION, INC.		LEE T. BIVINS	LEE T. BIVINS
COMPLETED.....	--/7/00		--/7/00	--/7/00
SAMPLED.....	02/28/75		05/12/60	06/06/60
FORMATION.....	PERM-RED CAVE		PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	1816		3310	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	256		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	724		NOT GIVEN	107
COMPONENT, MOLE PCT.....				
METHANE.....	79.3	64.2	67.7	
ETHANE.....	7.2	3.8	4.0	
PROPANE.....	3.7	3.0	0.5	
N-BUTANE.....	0.3	0.5	0.4	
ISOBUTANE.....	0.3	0.3	0.6	
N-PENTANE.....	TRACE	0.2	0.0	
ISOPENTANE.....	TRACE	TRACE	0.4	
CYCLOPENTANE.....	TRACE	0.1	0.1	
HEXANES PLUS.....	TRACE	0.2	0.1	
NITROGEN.....	8.4	19.7	21.5	
OXYGEN.....	0.5	TRACE	TRACE	
ARGON.....	TRACE	0.1	0.1	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	6.5	3.2	
HELIUM.....	0.16	1.40	1.40	
HEATING VALUE.....	1048	939	930	
SPECIFIC GRAVITY.....	0.672	0.768	0.721	
		INDEX 10402 SAMPLE 7583	INDEX 10403 SAMPLE 8074	INDEX 10404 SAMPLE 1310
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	PEDROSA		PEDROSA	TUCK TRIGG DOME
WELL NAME.....	PEDROSA No. 1		PEDROSA No. 2	CROSS BAR RANCH No. 1
LOCATION.....	SEC. 37, BLK. 4, ACH&B SUR.		SEC. 3, BLK. 4, ACH&B SUR.	SEC. 37, BLK. 5, G&M SUR.
OWNER.....	LEE T. BIVINS		PIONEER NATURAL GAS CO.	POTTER COUNTY OIL & GAS CO.
COMPLETED.....	--/7/00		09/29/60	--/7/00
SAMPLED.....	07/20/66		07/20/66	09/24/66
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	2692		2671	3920
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		519	182
OPEN FLOW, MCFD.....	2000		675	NOT GIVEN
COMPONENT, MOLE PCT.....				
METHANE.....	73.6	74.3	56.8	
ETHANE.....	6.0	6.4	13.8	
PROPANE.....	2.6	2.8	---	
N-BUTANE.....	0.6	0.6	---	
ISOBUTANE.....	0.4	0.4	---	
N-PENTANE.....	0.1	0.1	---	
ISOPENTANE.....	0.1	0.1	---	
CYCLOPENTANE.....	TRACE	TRACE	---	
HEXANES PLUS.....	0.1	0.1	---	
NITROGEN.....	15.0	14.2	28.5	
OXYGEN.....	0.5	0.4	0.2	
ARGON.....	0.1	0.1	---	
HYDROGEN.....	0.1	0.0	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	0.1	TRACE	0.8	
HELIUM.....	0.50	0.50	1.72	
HEATING VALUE.....	972	787	823	
SPECIFIC GRAVITY.....	0.697	0.695	0.752	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 10405 2477	INDEX SAMPLE 10406 9871	INDEX SAMPLE 10407 10808
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	TUCK TRIGG DOME		TUCK TRIGG DOME	TUCK TRIGG DOME
WELL NAME.....	CROSS BAR RANCH NO. 1		BUSH 8-2R	BUSH 8-3R
LOCATION.....	SEC. 37, BLK. 5, G&M SUR.		SEC. 30, BLK. M-19, G&M SUR.	SEC. 29, BLK. M-19, G&M SUR.
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	U.S. BUREAU OF MINES
COMPLETED.....	04/29/20		01/~/65	12/02/66
SAMPLED.....	03/15/32		03/09/65	12/06/66
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	2560		2540	2450
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		501	515
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	65.0	71.2	70.5	
ETHANE.....	15.5	5.6	5.6	
PROPANE.....	---	2.7	2.9	
N-BUTANE.....	---	0.8	0.7	
ISOBUTANE.....	---	0.4	0.3	
N-PENTANE.....	---	0.1	0.1	
ISOPENTANE.....	---	0.2	0.1	
CYCLOPENTANE.....	---	TRACE	TRACE	
HEXANES PLUS.....	---	0.2	0.1	
NITROGEN.....	18.3	18.1	19.0	
OXYGEN.....	0.3	0.0	0.0	
ARGON.....	---	0.1	0.1	
HYDROGEN.....	---	TRACE	TRACE	
HYDROGEN SULFIDE.....	---	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.2	0.0	
HELIUM.....	0.64	0.62	0.62	
HEATING VALUE.....	936	952	937	
SPECIFIC GRAVITY.....	0.709	0.713	0.709	

		INDEX SAMPLE 10408 10811	INDEX SAMPLE 10409 10875	INDEX SAMPLE 10410 10885
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	TUCK TRIGG DOME		TUCK TRIGG DOME	TUCK TRIGG DOME
WELL NAME.....	BUSH 8-2R		U.S. 8-H, 1R	U.S. 8-H, 1R
LOCATION.....	SEC. 30, BLK. M-19, G&M SUR.		SEC. 37, BLK. 5, G&M SUR.	SEC. 37, BLK. 5, G&M SUR.
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	U.S. BUREAU OF MINES
COMPLETED.....	01/01/65		11/02/66	11/04/66
SAMPLED.....	12/14/66		02/23/67	03/08/67
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	2540		2507	2499
WELLHEAD PRESSURE, PSIG.....	497		508	486
OPEN FLOW, MCFD.....	7500		8300	2900
COMPONENT, MOLE PCT				
METHANE.....	70.1	70.1	70.8	
ETHANE.....	5.6	5.7	5.7	
PROPANE.....	3.0	3.0	2.9	
N-BUTANE.....	0.7	0.7	0.7	
ISOBUTANE.....	0.3	0.2	0.4	
N-PENTANE.....	0.1	0.2	0.1	
ISOPENTANE.....	0.2	0.1	0.1	
CYCLOPENTANE.....	TRACE	0.1	0.1	
HEXANES PLUS.....	0.1	0.2	0.1	
NITROGEN.....	19.0	18.8	18.4	
OXYGEN.....	0.1	0.0	0.0	
ARGON.....	0.1	0.1	0.1	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	
HELIUM.....	0.63	0.63	0.66	
HEATING VALUE.....	940	958	949	
SPECIFIC GRAVITY.....	0.712	0.720	0.711	

		INDEX SAMPLE 10411 11489	INDEX SAMPLE 10412 12408	INDEX SAMPLE 10413 12409
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	TUCK TRIGG DOME		TUCK TRIGG DOME	TUCK TRIGG DOME
WELL NAME.....	BUSH 8-3R		U.S. 8-H, 1R	BUSH 8-3R
LOCATION.....	SEC. 29, BLK. M-19, G&M SUR.		SEC. 37, BLK. 5, G&M SUR.	SEC. 29, BLK. M-19, G&M SUR.
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	U.S. BUREAU OF MINES
COMPLETED.....	12/01/66		11/04/66	02/01/66
SAMPLED.....	05/14/68		09/11/70	09/11/70
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-RED CAVE
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	2443		2499	2450
WELLHEAD PRESSURE, PSIG.....	515		498	528
OPEN FLOW, MCFD.....	8100		2900	8100
COMPONENT, MOLE PCT				
METHANE.....	70.9	70.7	70.6	
ETHANE.....	5.6	5.4	5.4	
PROPANE.....	3.0	2.9	2.9	
N-BUTANE.....	0.7	0.7	0.6	
ISOBUTANE.....	0.3	0.4	0.3	
N-PENTANE.....	0.1	0.2	0.2	
ISOPENTANE.....	0.0	TRACE	TRACE	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.1	0.1	
NITROGEN.....	18.0	18.8	19.0	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.1	TRACE	TRACE	
HYDROGEN.....	0.2	0.2	0.2	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.0	0.0	
HELIUM.....	0.65	0.65	0.64	
HEATING VALUE.....	958	940	932	
SPECIFIC GRAVITY.....	0.712	0.707	0.705	

		INDEX SAMPLE 10414 12410	INDEX SAMPLE 10415 12411	INDEX SAMPLE 10416 2834
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	POTTER		POTTER	POTTER
FIELD.....	TUCK TRIGG DOME		TUCK TRIGG DOME	WILDCAT
WELL NAME.....	BUSH 8-2R		U.S. 8-2R	CITY OF AMARILLO NO. 1
LOCATION.....	SEC. 30, BLK. M-19, G&M SUR.		SEC. 37, BLK. 5, G&M SUR.	SEC. 167, BLK. 2, AB&M SUR.
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES	CANADIAN RIVER GAS CO.
COMPLETED.....	01/01/65		11/02/66	06/10/40
SAMPLED.....	09/11/70		09/11/70	03/11/40
FORMATION.....	PERM-RED CAVE		PERM-RED CAVE	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440		440	440
DEPTH, FEET.....	2540		2507	3750
WELLHEAD PRESSURE, PSIG.....	514		521	NOT GIVEN
OPEN FLOW, MCFD.....	7400		8300	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	70.8	70.5	24.2	
ETHANE.....	5.4	5.5	11.3	
PROPANE.....	2.9	2.0	---	
N-BUTANE.....	0.7	0.6	---	
ISOBUTANE.....	0.3	0.4	---	
N-PENTANE.....	0.2	0.2	---	
ISOPENTANE.....	0.0	0.0	---	
CYCLOPENTANE.....	TRACE	TRACE	---	
HEXANES PLUS.....	0.1	0.1	---	
NITROGEN.....	18.8	18.8	52.7	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	TRACE	0.1	---	
HYDROGEN.....	0.1	0.1	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	0.0	0.0	9.8	
HELIUM.....	0.65	0.64	2.24	
HEATING VALUE.....	937	948	448	
SPECIFIC GRAVITY.....	0.706	0.707	0.915	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10417 SAMPLE 3606		INDEX 10418 SAMPLE 7150		INDEX 10419 SAMPLE 7560	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	STANLIND NO. 1 GRIFFIN	WELL NAME.....	CAROLINE BUSH EMERY NO. 1	WELL NAME.....	BIVINS NO. 1-207
LOCATION.....	SEC. 9, BLK. 2, AB&M SUR.	LOCATION.....	SEC. 9, BLK. M-19, G&M SUR.	LOCATION.....	SEC. 207, BLK. 2, AB&M SUR.
OWNER.....	STANLIND OIL & GAS CO.	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	SHELL OIL CO.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	05/18/60
SAMPLED.....	09/28/42	SAMPLED.....	07/24/59	SAMPLED.....	05/18/60
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	NOT GIVEN	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	4205	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	3420
WELLHEAD PRESSURE, PSIG.....	125	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	670
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	57
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	1.2	METHANE.....	1.0	METHANE.....	63.7
ETHANE.....	0.0	ETHANE.....	0.1	ETHANE.....	3.6
PROPANE.....	---	PROPANE.....	0.2	PROPANE.....	2.6
N-BUTANE.....	---	N-BUTANE.....	0.0	N-BUTANE.....	0.5
ISOBUTANE.....	---	ISOBUTANE.....	0.0	ISOBUTANE.....	0.1
N-PENTANE.....	---	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	---	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	98.2	HEXANES PLUS.....	98.2	HEXANES PLUS.....	0.1
NITROGEN.....	0.4	NITROGEN.....	TRACE	NITROGEN.....	22.7
OXYGEN.....	---	OXYGEN.....	---	OXYGEN.....	TRACE
ARGON.....	---	ARGON.....	---	ARGON.....	0.1
HYDROGEN.....	---	HYDROGEN.....	0.3	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	5.1
HELIUM.....	0.24	HELIUM.....	0.20	HELIUM.....	1.42
HEATING VALUE.....	12	HEATING VALUE.....	18	HEATING VALUE.....	807
SPECIFIC GRAVITY.....	0.961	SPECIFIC GRAVITY.....	0.961	SPECIFIC GRAVITY.....	0.750
INDEX 10420 SAMPLE 7561		INDEX 10421 SAMPLE 7563		INDEX 10422 SAMPLE 7566	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	BIVINS RANCH NO. 1-207	WELL NAME.....	BIVINS RANCH NO. 1-207	WELL NAME.....	BIVINS RANCH NO. 1-207
LOCATION.....	SEC. 207, BLK. 2, AB&M SUR.	LOCATION.....	SEC. 207, BLK. 2, AB&M SUR.	LOCATION.....	SEC. 207, BLK. 2, AB&M SUR.
OWNER.....	SHELL OIL CO.	OWNER.....	SHELL OIL CO.	OWNER.....	SHELL OIL CO.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	05/24/60	SAMPLED.....	05/27/60	SAMPLED.....	05/31/60
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	3420	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	3420
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	300	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	200
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	58.9	METHANE.....	63.6	METHANE.....	64.5
ETHANE.....	3.1	ETHANE.....	3.1	ETHANE.....	3.5
PROPANE.....	0.4	PROPANE.....	0.3	PROPANE.....	0.7
N-BUTANE.....	0.4	N-BUTANE.....	0.5	N-BUTANE.....	0.3
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	20.9	NITROGEN.....	20.9	NITROGEN.....	23.4
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	12.5	CARBON DIOXIDE.....	4.5	CARBON DIOXIDE.....	5.3
HELIUM.....	1.30	HELIUM.....	1.50	HELIUM.....	1.40
HEATING VALUE.....	1.41	HEATING VALUE.....	0.72	HEATING VALUE.....	772
SPECIFIC GRAVITY.....	0.809	SPECIFIC GRAVITY.....	0.762	SPECIFIC GRAVITY.....	0.738
INDEX 10423 SAMPLE 7926		INDEX 10424 SAMPLE 9874		INDEX 10425 SAMPLE 12001	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	BIVINS RANCH NO. 1-207	WELL NAME.....	FUQUA NO. D-1	WELL NAME.....	MASTERTSON A-33
LOCATION.....	SEC. 207, BLK. 2, AB&M SUR.	LOCATION.....	SEC. 13, BLK. 21W, EL&RR SUR.	LOCATION.....	SEC. 78, BLK. 47, H&TC SUR.
OWNER.....	SHELL OIL CO.	OWNER.....	U.S. BUREAU OF MINES	OWNER.....	COLORADO INTERSTATE GAS CO.
COMPLETED.....	03/27/61	COMPLETED.....	02/01/65	COMPLETED.....	--/--/00
SAMPLED.....	07/13/61	SAMPLED.....	08/23/65	SAMPLED.....	08/21/69
FORMATION.....	PERM-RED CAVE	FORMATION.....	PERM-RED CAVE	FORMATION.....	PENN-LIMESTONE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	2510	DEPTH, FEET.....	2630	DEPTH, FEET.....	6818
WELLHEAD PRESSURE, PSIG.....	520	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	225
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	20
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	74.1	METHANE.....	0.1	METHANE.....	54.9
ETHANE.....	4.9	ETHANE.....	0.0	ETHANE.....	10.3
PROPANE.....	2.1	PROPANE.....	0.0	PROPANE.....	17.1
N-BUTANE.....	0.5	N-BUTANE.....	0.0	N-BUTANE.....	4.1
ISOBUTANE.....	0.4	ISOBUTANE.....	0.0	ISOBUTANE.....	1.3
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.4
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.7
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	16.6	NITROGEN.....	95.7	NITROGEN.....	10.6
OXYGEN.....	TRACE	OXYGEN.....	3.0	OXYGEN.....	0.1
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0
HELIUM.....	0.70	HELIUM.....	0.01	HELIUM.....	0.17
HEATING VALUE.....	937	HEATING VALUE.....	1	HEATING VALUE.....	1419
SPECIFIC GRAVITY.....	0.689	SPECIFIC GRAVITY.....	0.976	SPECIFIC GRAVITY.....	0.925
INDEX 10426 SAMPLE 15990		INDEX 10427 SAMPLE 16000		INDEX 10428 SAMPLE 16080	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	POTTER	COUNTY.....	POTTER	COUNTY.....	POTTER
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	EMERY NO. 1	WELL NAME.....	EMERY NO. 1	WELL NAME.....	EMERY NO. 1
LOCATION.....	SEC. 29, BLK. M-19, G&M SUR.	LOCATION.....	SEC. 29, BLK. M-19, G&M SUR.	LOCATION.....	SEC. 29, BLK. M-19, G&M SUR.
OWNER.....	BAKER & TAYLOR DRILLING CO.	OWNER.....	BAKER & TAYLOR DRILLING CO.	OWNER.....	BAKER & TAYLOR DRILLING CO.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	06/28/80	SAMPLED.....	07/09/80	SAMPLED.....	07/09/80
FORMATION.....	PENN-GRANITE WASH	FORMATION.....	PENN-GRANITE WASH	FORMATION.....	PENN-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	5700	DEPTH, FEET.....	5700	DEPTH, FEET.....	5700
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	36.9	METHANE.....	43.6	METHANE.....	37.3
ETHANE.....	2.9	ETHANE.....	3.6	ETHANE.....	2.7
PROPANE.....	4.4	PROPANE.....	0.4	PROPANE.....	3.1
N-BUTANE.....	5.0	N-BUTANE.....	2.6	N-BUTANE.....	2.4
ISOBUTANE.....	2.4	ISOBUTANE.....	1.3	ISOBUTANE.....	1.3
N-PENTANE.....	0.1	N-PENTANE.....	0.9	N-PENTANE.....	0.6
ISOPENTANE.....	2.6	ISOPENTANE.....	1.0	ISOPENTANE.....	0.8
CYCLOPENTANE.....	0.5	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.5
HEXANES PLUS.....	40.7	HEXANES PLUS.....	40.6	HEXANES PLUS.....	0.7
NITROGEN.....	TRACE	NITROGEN.....	40.1	NITROGEN.....	49.4
OXYGEN.....	0.3	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.4
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.0
HELIUM.....	0.65	HELIUM.....	0.61	HELIUM.....	0.58
HEATING VALUE.....	1081	HEATING VALUE.....	871	HEATING VALUE.....	747
SPECIFIC GRAVITY.....	1.028	SPECIFIC GRAVITY.....	0.904	SPECIFIC GRAVITY.....	0.912

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10429 SAMPLE 10691	INDEX 10430 SAMPLE 12495	INDEX 10431 SAMPLE 10434
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	RAINS		RAINS	RANDALL
FIELD.....	DUNBAR		YANTIS W	PALO DURO CREEK
WELL NAME.....	EARL REYNOLDS GAS UNIT NO. 1		SENTRY G. U. NO. 1	PALO DURO OIL CO. NO. 1
LOCATION.....	BONIFACIO DE OSINEA SUR.		O. P. SELLS SUR.	SEC. 125, BLK. 1&6N SUR.
OWNER.....	TEXACO INC.		PAN AMERICAN PETROLEUM CORP.	PALO DURO OIL CO.
COMPLETED.....	12/11/64		08/05/62	07/21/19
SAMPLED.....	08/09/66		10/25/70	07/24/19
FORMATION.....	JURA-SHACKOVER		JURA-SHACKOVER	PERM-
GEOLOGIC PROVINCE CODE.....	260		260	435
DEPTH, FEET.....	13075		12522	400
WELLHEAD PRESSURE, PSIG.....	3510		3834	NOT GIVEN
OPEN FLOW, MCFD.....	41000		24000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	46.6	59.4	0.9	
ETHANE.....	11.6	6.2	1.2	
PROPANE.....	5.6	4.0		
N-BUTANE.....	1.9	1.3		
ISOBUTANE.....	2.0	1.4		
N-PENTANE.....	0.4	0.9		
ISOPENTANE.....	0.8	0.3		
CYCLOPENTANE.....	0.1	TRACE		
HEXANES PLUS.....	0.3	0.3		
NITROGEN.....	22.2	18.4	97.3	
OXYGEN.....	0.0	0.0	0.3	
ARGON.....	TRACE	TRACE		
HYDROGEN.....	0.0	0.1		
HYDROGEN SULFIDE**.....	3.1	4.7		
CARBON DIOXIDE.....	5.3	7.4	0.3	
HELIUM.....	0.10	0.05	0.09	
HEATING VALUE.....	1047	983	31	
SPECIFIC GRAVITY.....	0.920	0.847	0.967	
		INDEX 10432 SAMPLE 16547	INDEX 10433 SAMPLE 1734	INDEX 10434 SAMPLE 2047
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	REAGAN		REAGAN	REAGAN
FIELD.....	BENEDUM NE		BIG LAKE	BIG LAKE
WELL NAME.....	BRANCH NO. 1C		UNIV. NO. 8-1	UNIV. NO. 12
LOCATION.....	HE&WT SUR.		SEC. 36, BLK. 9	SEC. 36, BLK. 9, UNIV. LAND
OWNER.....	SAXON OIL CO.		TEXON OIL & LAND CO.	W. E. BEYHAN
COMPLETED.....	05/15/82		12/01/28	12/01/25
SAMPLED.....	06/17/82		04/06/29	06/17/30
FORMATION.....	PENN-BEND LIME		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	10380		8523	2937
WELLHEAD PRESSURE, PSIG.....	1433		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	10410		22000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	82.3	42.7	34.4	
ETHANE.....	10.0	53.2	55.1	
PROPANE.....	3.5			
N-BUTANE.....	0.9			
ISOBUTANE.....	0.7			
N-PENTANE.....	0.4			
ISOPENTANE.....	0.1			
CYCLOPENTANE.....	0.1			
HEXANES PLUS.....	0.3			
NITROGEN.....	0.8	3.8	6.2	
OXYGEN.....	0.0	0.2	0.2	
ARGON.....	0.0			
HYDROGEN.....	0.1			
HYDROGEN SULFIDE**.....	0.0			
CARBON DIOXIDE.....	0.8	0.2	4.2	
HELIUM.....	0.03	0.06	0.09	
HEATING VALUE.....	1198	1386	1336	
SPECIFIC GRAVITY.....	0.693	0.837	0.895	
		INDEX 10435 SAMPLE 2048	INDEX 10436 SAMPLE 12686	INDEX 10437 SAMPLE 5993
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	REAGAN		REAGAN	REAGAN
FIELD.....	BIG LAKE		BIG LAKE	CENTRALIA DRAW
WELL NAME.....	UNIV. NO. 65		UNIV. 3955 NO. 1-2	W. H. DIXON NO. 1
LOCATION.....	SEC. 36, BLK. 9, UNIV. LAND		SEC. 2, BLK. 2	SEC. 1, A. ROACH SUR. A-4875
OWNER.....	W. E. BEYHAN		MARATHON OIL CO.	TEXAS CO.
COMPLETED.....	01/01/27		01/28/55	05/17/55
SAMPLED.....	06/19/30		02/16/71	12/29/55
FORMATION.....	NOT GIVEN		PENN-STRAWN	PERM-DEAN
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	2975		8350	7846
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		246	55
OPEN FLOW, MCFD.....	NOT GIVEN		5606	30
COMPONENT, MOLE PCT				
METHANE.....	33.1	65.7	67.8	
ETHANE.....	53.1	16.2	12.5	
PROPANE.....		3.0	11.2	
N-BUTANE.....		1.5	3.8	
ISOBUTANE.....		0.9	0.8	
N-PENTANE.....		0.4	0.7	
ISOPENTANE.....		0.1	0.8	
CYCLOPENTANE.....		0.1	0.1	
HEXANES PLUS.....		0.4	0.3	
NITROGEN.....	3.2	0.4	1.3	
OXYGEN.....	0.3	0.1	0.0	
ARGON.....		0.0	0.0	
HYDROGEN.....		0.0	0.1	
HYDROGEN SULFIDE**.....		0.0	0.0	
CARBON DIOXIDE.....	10.3	0.3	0.3	
HELIUM.....	0.06	0.04	0.03	
HEATING VALUE.....	1287	1431	1441	
SPECIFIC GRAVITY.....	0.933	0.846	0.849	
		INDEX 10438 SAMPLE 2049	INDEX 10439 SAMPLE 16548	INDEX 10440 SAMPLE 9585
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	REAGAN		REAGAN	REAGAN
FIELD.....	GRAYSON		REAGAN	TEXON
WELL NAME.....	GRAYSON NO. 1		BRANCH NO. 1T	UNIV. AA NO. 1
LOCATION.....	SEC. 33, BLK. 8, UNIV. LAND		HE&WT SUR.	SEC. 2, BLK. 5, UNIV. LANDS SUR
OWNER.....	SKELLY OIL CO.		SAXON OIL CO.	GREAT WESTERN DRILLING CO.
COMPLETED.....	02/11/28		09/20/84	07/23/64
SAMPLED.....	06/18/30		06/17/82	10/06/64
FORMATION.....	PERM-SAN ANDRES		SILU-FUSSELMAN	SILU-FUSSELMAN
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	3131		11494	9972
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2831	2619
OPEN FLOW, MCFD.....	NOT GIVEN		3021	8150
COMPONENT, MOLE PCT				
METHANE.....	9.7	78.9	76.7	
ETHANE.....	67.2	11.2	12.3	
PROPANE.....		4.4	4.9	
N-BUTANE.....		0.3	1.6	
ISOBUTANE.....		0.7	0.7	
N-PENTANE.....		0.3	0.5	
ISOPENTANE.....		0.0	0.4	
CYCLOPENTANE.....		0.1	0.1	
HEXANES PLUS.....		0.4	0.4	
NITROGEN.....	9.4	1.7	1.9	
OXYGEN.....	0.4	0.0	0.0	
ARGON.....		0.0	TRACE	
HYDROGEN.....		0.0	0.0	
HYDROGEN SULFIDE**.....		0.0	0.0	
CARBON DIOXIDE.....	13.2	0.3	0.4	
HELIUM.....	0.14	0.09	0.06	
HEATING VALUE.....	1.052	0.716	1.265	
SPECIFIC GRAVITY.....	1.056	0.718	0.740	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10441 SAMPLE 7145			INDEX 10442 SAMPLE 15560			INDEX 10443 SAMPLE 10626
STATE.....	TEXAS		TEXAS		TEXAS		TEXAS	
COUNTY.....	REAGAN		REEVES		REEVES		REEVES	
FIELD.....	WILCOAT		ADAM		AMBLER		AMBLER	
WELL NAME.....	L. PROCTER B NO. 6		ADAM ESTATE NO. 1		LANGFORD NO. 1		LANGFORD NO. 1	
LOCATION.....	SEC. 23, T37, T&P RR SUR.		SEC. 11, BLK. 3, H&GN SUR.		SEC. 9, BLK. 4, H&GN SUR.		SEC. 9, BLK. 4, H&GN SUR.	
OWNER.....	PAN AMERICAN PETROLEUM CORP.		ATAPO		HARLAN PRODUCTION CO.		HARLAN PRODUCTION CO.	
COMPLETED.....	--/--/00		09/18/78		12/18/66		12/18/66	
SAMPLED.....	07/--/59		01/29/79		06/23/66		06/23/66	
FORMATION.....	NOT GIVEN		PENN-MORROW		PERM-DELAWARE		PERM-DELAWARE	
GEOLOGIC PROVINCE CODE.....	430		430		430		430	
DEPTH, FEET.....	10600		17208		4335		4335	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		10812		2225		2225	
OPEN FLOW, MCFD.....	NOT GIVEN		12100		3800		3800	
COMPONENT, MOLE PCT								
METHANE.....	85.1	92.2	96.9					
ETHANE.....	4.9	0.4	1.6					
PROPANE.....	0.8	TRACE	0.1					
N-BUTANE.....	0.0	0.1	0.1					
ISOBUTANE.....	0.2	TRACE	TRACE					
N-PENTANE.....	TRACE	0.0	TRACE					
ISOPENTANE.....	0.1	0.1	0.1					
CYCLOPENTANE.....	TRACE	0.1	TRACE					
HEXANES PLUS.....	0.0	0.1	TRACE					
NITROGEN.....	7.8	4.1	0.9					
OXYGEN.....	0.8	0.8	0.0					
ARGON.....	0.1	TRACE	0.0					
HYDROGEN.....	0.1	TRACE	0.0					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	0.1	2.2	0.2					
HELIUM.....	TRACE	0.01	0.02					
HEATING VALUE.....	982	954	1021					
SPECIFIC GRAVITY.....	0.630	0.605	0.572					

		INDEX 10444 SAMPLE 13588			INDEX 10445 SAMPLE 15104			INDEX 10446 SAMPLE 15105
STATE.....	TEXAS		TEXAS		TEXAS		TEXAS	
COUNTY.....	REEVES		REEVES		REEVES		REEVES	
FIELD.....	ATHEN		CASEY DRAW		CASEY DRAW		CASEY DRAW	
WELL NAME.....	SPENCER NO. 1		JOHNSON NO. 1		JOHNSON NO. 2		JOHNSON NO. 2	
LOCATION.....	SEC. 33, BLK. 55, T&P SUR.		SEC. 22, BLK. C-11, PSL SUR.		SEC. 22, BLK. C-11, PSL SUR.		SEC. 22, BLK. C-11, PSL SUR.	
OWNER.....	COASTAL STATES GAS PROD. CO.		MONSANTO CO.		MONSANTO CO.		MONSANTO CO.	
COMPLETED.....	12/06/72		03/09/76		08/23/76		08/23/76	
SAMPLED.....	04/20/73		09/--/77		09/--/77		09/--/77	
FORMATION.....	NOT GIVEN		PERM-DELAWARE		PERM-DELAWARE		PERM-DELAWARE	
GEOLOGIC PROVINCE CODE.....	430		430		430		430	
DEPTH, FEET.....	12911		3836		3886		3886	
WELLHEAD PRESSURE, PSIG.....	4600		1550		1515		1515	
OPEN FLOW, MCFD.....	22000		2400		2200		2200	
COMPONENT, MOLE PCT								
METHANE.....	88.7	95.9	96.0					
ETHANE.....	0.3	0.7	0.7					
PROPANE.....	0.1	0.1	0.1					
N-BUTANE.....	0.0	TRACE	0.1					
ISOBUTANE.....	0.0	TRACE	0.0					
N-PENTANE.....	0.0	0.1	0.1					
ISOPENTANE.....	0.0	0.1	TRACE					
CYCLOPENTANE.....	0.0	TRACE	TRACE					
HEXANES PLUS.....	0.0	TRACE	TRACE					
NITROGEN.....	1.0	2.2	2.0					
OXYGEN.....	0.0	0.0	0.0					
ARGON.....	0.0	TRACE	TRACE					
HYDROGEN.....	0.0	0.0	0.0					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	9.9	0.9	1.0					
HELIUM.....	0.02	0.03	0.03					
HEATING VALUE.....	906	995	995					
SPECIFIC GRAVITY.....	0.657	0.581	0.580					

		INDEX 10447 SAMPLE 14687			INDEX 10448 SAMPLE 14688			INDEX 10449 SAMPLE 12375
STATE.....	TEXAS		TEXAS		TEXAS		TEXAS	
COUNTY.....	REEVES		REEVES		REEVES		REEVES	
FIELD.....	CHAPMAN		CHAPMAN		GREASEWOOD		GREASEWOOD	
WELL NAME.....	A. T. RANDOLPH G.U. NO. 1		A. T. RANDOLPH G.U. NO. 1		CORNELL KNIGHT NO. 1		CORNELL KNIGHT NO. 1	
LOCATION.....	SEC. 34, BLK. 57, T-2 T&P SR		SEC. 34, BLK. 57, T-2 T&P SR		SEC. 9, BLK. C-19, PSL SUR.		SEC. 9, BLK. C-19, PSL SUR.	
OWNER.....	ENERGY & MINERALS CO.		ENERGY & MINERALS CO.		TEXACO INC.		TEXACO INC.	
COMPLETED.....	09/22/74		09/22/74		09/22/68		09/22/68	
SAMPLED.....	06/04/76		06/04/76		08/19/70		08/19/70	
FORMATION.....	SILU-FUSSELMAN		PENN-ATOKA		DEVO-		DEVO-	
GEOLOGIC PROVINCE CODE.....	430		430		430		430	
DEPTH, FEET.....	15499		12884		16293		16293	
WELLHEAD PRESSURE, PSIG.....	5353		6664		5800		5800	
OPEN FLOW, MCFD.....	19600		25025		37000		37000	
COMPONENT, MOLE PCT								
METHANE.....	96.6	98.0	93.3					
ETHANE.....	0.3	0.6	0.4					
PROPANE.....	TRACE	0.1	TRACE					
N-BUTANE.....	TRACE	0.0	0.0					
ISOBUTANE.....	0.0	0.0	0.0					
N-PENTANE.....	TRACE	0.0	0.0					
ISOPENTANE.....	TRACE	0.0	0.0					
CYCLOPENTANE.....	TRACE	0.0	0.0					
HEXANES PLUS.....	TRACE	0.0	0.0					
NITROGEN.....	0.3	0.5	0.6					
OXYGEN.....	0.0	0.0	0.0					
ARGON.....	TRACE	TRACE	TRACE					
HYDROGEN.....	0.0	0.0	0.0					
HYDROGEN SULFIDE.....	0.1	0.0	0.0					
CARBON DIOXIDE.....	2.0	1.0	5.6					
HELIUM.....	0.03	0.01	0.02					
HEATING VALUE.....	985	1006	952					
SPECIFIC GRAVITY.....	0.579	0.569	0.613					

		INDEX 10450 SAMPLE 12422			INDEX 10451 SAMPLE 12551			INDEX 10452 SAMPLE 10612
STATE.....	TEXAS		TEXAS		TEXAS		TEXAS	
COUNTY.....	REEVES		REEVES		REEVES		REEVES	
FIELD.....	GREASEWOOD		GREASEWOOD		HAMON		HAMON	
WELL NAME.....	CORNELL KNIGHT NO. 1		CORNELL KNIGHT NO. 1		HAMON PLATTER		HAMON PLATTER	
LOCATION.....	SEC. 9, BLK. C19, PSL SUR.		SEC. 9, BLK. C19, P&L SUR.		SEC. 22, BLK. 50, T1S		SEC. 22, BLK. 50, T1S	
OWNER.....	TEXACO INC.		TEXACO INC.		JAKE L. HAMON		JAKE L. HAMON	
COMPLETED.....	09/22/68		09/22/68		--/--/65		--/--/65	
SAMPLED.....	09/23/70		11/19/70		06/14/66		06/14/66	
FORMATION.....	DEVO-		SILU-DEVO		ORDO-ELLENBURGER		ORDO-ELLENBURGER	
GEOLOGIC PROVINCE CODE.....	430		430		430		430	
DEPTH, FEET.....	16293		16293		20450		20450	
WELLHEAD PRESSURE, PSIG.....	5777		5777		6700		6700	
OPEN FLOW, MCFD.....	37000		37000		50000		50000	
COMPONENT, MOLE PCT								
METHANE.....	93.6	93.4	90.0					
ETHANE.....	0.4	0.4	0.3					
PROPANE.....	TRACE	TRACE	0.0					
N-BUTANE.....	0.0	0.0	0.0					
ISOBUTANE.....	0.0	0.0	0.0					
N-PENTANE.....	0.0	0.0	0.0					
ISOPENTANE.....	0.0	0.0	0.0					
CYCLOPENTANE.....	0.0	0.0	0.0					
HEXANES PLUS.....	0.0	0.0	0.0					
NITROGEN.....	0.9	0.9	0.7					
OXYGEN.....	0.0	TRACE	0.0					
ARGON.....	0.0	0.0	TRACE					
HYDROGEN.....	0.1	0.1	0.0					
HYDROGEN SULFIDE.....	0.0	0.0	0.0					
CARBON DIOXIDE.....	5.0	5.0	9.0					
HELIUM.....	0.02	0.02	0.02					
HEATING VALUE.....	956	954	947					
SPECIFIC GRAVITY.....	0.608	0.612	0.647					

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE	10453 14473	INDEX SAMPLE	10454 15719	INDEX SAMPLE	10455 15336
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	REEVES	REEVES	REEVES	REEVES	REEVES
FIELD.....	L.N.D.	LOCKRIDGE S	LOCKRIDGE S	MARSH S	MARSH S
WELL NAME.....	PECOS UNIT NO. 1	SAM J. DWYER NO. 1	SAM J. DWYER NO. 1	REEVES STATE NO. 1-22	REEVES STATE NO. 1-22
LOCATION.....	SEC. 29, BLK. 4, H&G NR SUR.	BLK. 57, HERNANDEZ SUR.	BLK. 57, HERNANDEZ SUR.	SEC. 22, BLK. 45, PSL SUR.	SEC. 22, BLK. 45, PSL SUR.
OWNER.....	TEXAS WEST OIL & GAS CORP.	GETTY OIL CO.	GETTY OIL CO.	CHEVRON U.S.A., INC.	CHEVRON U.S.A., INC.
COMPLETED.....	04/21/75	08/06/79	08/06/79	08/27/77	08/27/77
SAMPLED.....	10/03/75	08/06/79	08/06/79	07/31/78	07/31/78
FORMATION.....	PENN-ATOKA	DEVO	DEVO	PERM-DELAWARE	PERM-DELAWARE
GEOLOGIC PROVINCE CODE.....	430	430	430	430	430
DEPTH, FEET.....	15218	16760	16760	2688	2688
WELLHEAD PRESSURE, PSIG.....	3950	6800	6800	1149	1149
OPEN FLOW, MCFD.....	44000	6000	6000	2900	2900
COMPONENT, MOLE PCT					
METHANE.....	95.2	93.9	93.9	98.6	98.6
ETHANE.....	0.4	2.8	2.8	0.1	0.1
PROPANE.....	0.1	0.7	0.7	TRACE	TRACE
N-BUTANE.....	TRACE	0.2	0.2	TRACE	TRACE
ISOBUTANE.....	TRACE	0.1	0.1	TRACE	TRACE
N-PENTANE.....	TRACE	0.1	0.1	TRACE	TRACE
ISOPENTANE.....	TRACE	TRACE	TRACE	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.1	0.1	0.1	0.1
NITROGEN.....	0.4	0.6	0.6	0.7	0.7
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	TRACE	0.0	0.0	TRACE	TRACE
HYDROGEN.....	TRACE	0.0	0.0	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	3.9	1.3	1.3	0.4	0.4
HELIUM.....	0.01	0.01	0.01	0.01	0.01
HEATING VALUE.....	974	1039	1039	1006	1006
SPECIFIC GRAVITY.....	0.597	0.598	0.598	0.564	0.564
INDEX SAMPLE	10456 13391	INDEX SAMPLE	10457 13392	INDEX SAMPLE	10458 15353
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	REEVES	REEVES	REEVES	REEVES	REEVES
FIELD.....	MI VIDA	MI VIDA	MI VIDA	NOT GIVEN	NOT GIVEN
WELL NAME.....	CAMP UNIT NO. 1	CAMP UNIT NO. 1	CAMP UNIT NO. 1	J. B. YOUNG NO. 1	J. B. YOUNG NO. 1
LOCATION.....	SEC. 3, BLK. 4, H&G NR SUR.	SEC. 3, BLK. 4, H&G NR SUR.	SEC. 3, BLK. 4, H&G NR SUR.	SEC. 2, BLK. 50, T-7, P&RR SUR.	SEC. 2, BLK. 50, T-7, P&RR SUR.
OWNER.....	SUPERIOR OIL CO.	SUPERIOR OIL CO.	SUPERIOR OIL CO.	W. A. BUCHANAN	W. A. BUCHANAN
COMPLETED.....	10/24/71	09/22/71	09/22/71	10/16/77	10/16/77
SAMPLED.....	09/22/72	09/22/72	09/22/72	08/28/78	08/28/78
FORMATION.....	ORDO-ELLENBURGER	SILU-FUSSELMAN	SILU-FUSSELMAN	PERM-DELAWARE	PERM-DELAWARE
GEOLOGIC PROVINCE CODE.....	430	430	430	430	430
DEPTH, FEET.....	18444	16332	16332	5103	5103
WELLHEAD PRESSURE, PSIG.....	2990	5515	5515	2206	2206
OPEN FLOW, MCFD.....	4585	512305	512305	3240	3240
COMPONENT, MOLE PCT					
METHANE.....	47.0	92.5	92.5	90.4	90.4
ETHANE.....	0.1	0.4	0.4	4.0	4.0
PROPANE.....	TRACE	TRACE	TRACE	0.5	0.5
N-BUTANE.....	0.0	0.0	0.0	0.2	0.2
ISOBUTANE.....	0.0	0.0	0.0	0.3	0.3
N-PENTANE.....	0.0	0.0	0.0	TRACE	TRACE
ISOPENTANE.....	0.0	0.0	0.0	0.2	0.2
CYCLOPENTANE.....	0.0	0.0	0.0	0.1	0.1
HEXANES PLUS.....	0.0	0.0	0.0	0.1	0.1
NITROGEN.....	0.4	0.4	0.4	4.0	4.0
OXYGEN.....	TRACE	TRACE	TRACE	0.0	0.0
ARGON.....	0.0	0.0	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	52.0	6.4	6.4	0.1	0.1
HELIUM.....	0.03	0.01	0.01	0.06	0.06
HEATING VALUE.....	981	946	946	1035	1035
SPECIFIC GRAVITY.....	1.067	0.622	0.622	0.612	0.612
INDEX SAMPLE	10459 14897	INDEX SAMPLE	10460 11886	INDEX SAMPLE	10461 12811
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	REEVES	REEVES	REEVES	REEVES	REEVES
FIELD.....	RIPPLINGER	ROJO CABALLOS W	ROJO CABALLOS W	ROJO CABALLOS W	ROJO CABALLOS W
WELL NAME.....	WORSHAM UNIT NO. 1	MILLWEE STATE NO. 1	MILLWEE STATE NO. 1	TXL REEVES STATE UNIT	TXL REEVES STATE UNIT
LOCATION.....	SEC. 4, BLK. C-7, PSL SUR.	SEC. 18, BLK. 49, T&P SUR.	SEC. 18, BLK. 49, T&P SUR.	SEC. 20, BLK. 49, T&P SUR.	SEC. 20, BLK. 49, T&P SUR.
OWNER.....	UNION OIL CO. OF CALIF.	FOREST OIL CORP.	FOREST OIL CORP.	TEXACO INC.	TEXACO INC.
COMPLETED.....	08/09/75	09/30/68	09/30/68	06/19/66	06/19/66
SAMPLED.....	02/04/77	05/15/69	05/15/69	-/-/00	-/-/00
FORMATION.....	DEVO	PERM-WOLFCAMP	PERM-WOLFCAMP	ORDO-ELLENBURGER	ORDO-ELLENBURGER
GEOLOGIC PROVINCE CODE.....	430	430	430	430	430
DEPTH, FEET.....	18147	15257	15257	20520	20520
WELLHEAD PRESSURE, PSIG.....	6340	6595	6595	6877	6877
OPEN FLOW, MCFD.....	2565	2900	2900	375000	375000
COMPONENT, MOLE PCT					
METHANE.....	96.4	94.9	94.9	94.9	94.9
ETHANE.....	0.9	3.0	3.0	0.3	0.3
PROPANE.....	0.1	0.6	0.6	0.1	0.1
N-BUTANE.....	0.0	0.2	0.2	0.0	0.0
ISOBUTANE.....	0.0	TRACE	TRACE	0.0	0.0
N-PENTANE.....	0.0	0.2	0.2	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.2	0.2	0.0	0.0
NITROGEN.....	0.5	0.7	0.7	0.7	0.7
OXYGEN.....	0.0	TRACE	TRACE	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	TRACE	TRACE	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	2.1	0.6	0.6	4.0	4.0
HELIUM.....	0.01	0.01	0.01	0.02	0.02
HEATING VALUE.....	995	1055	1055	969	969
SPECIFIC GRAVITY.....	0.582	0.598	0.598	0.599	0.599
INDEX SAMPLE	10462 15538	INDEX SAMPLE	10463 13073	INDEX SAMPLE	10464 10813
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	REEVES	REEVES	REEVES	REEVES	REEVES
FIELD.....	SAN MARTINE	SAND LAKE	SAND LAKE	YORO	YORO
WELL NAME.....	CALDWELL STATE NO. 1	T. A. KIRK G-U. NO. 1	T. A. KIRK G-U. NO. 1	REEVES TXL FEE UNIT NO. 1	REEVES TXL FEE UNIT NO. 1
LOCATION.....	SEC. 9, BLK. 71, PSL SUR.	SEC. 25, BLK. C-18, PSL SUR.	SEC. 25, BLK. C-18, PSL SUR.	SEC. 46, B50, T7, T&P SUR.	SEC. 46, B50, T7, T&P SUR.
OWNER.....	DYCO PETROLEUM CORP.	ULF OIL CO. - U.S.	ULF OIL CO. - U.S.	TEXACO INC.	TEXACO INC.
COMPLETED.....	08/15/77	02/01/71	02/01/71	07/26/66	07/26/66
SAMPLED.....	12/13/78	10/07/71	10/07/71	12/13/66	12/13/66
FORMATION.....	DEVO	PENN-ATOKA	PENN-ATOKA	ORDO-ELLENBURGER	ORDO-ELLENBURGER
GEOLOGIC PROVINCE CODE.....	430	430	430	430	430
DEPTH, FEET.....	10680	14590	14590	18955	18955
WELLHEAD PRESSURE, PSIG.....	3600	8553	8553	6661	6661
OPEN FLOW, MCFD.....	2900	19400	19400	170000	170000
COMPONENT, MOLE PCT					
METHANE.....	90.5	97.6	97.6	96.6	96.6
ETHANE.....	3.2	0.5	0.5	0.2	0.2
PROPANE.....	0.6	0.1	0.1	0.1	0.1
N-BUTANE.....	0.2	0.0	0.0	0.0	0.0
ISOBUTANE.....	TRACE	0.0	0.0	0.0	0.0
N-PENTANE.....	0.1	0.0	0.0	0.0	0.0
ISOPENTANE.....	TRACE	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	TRACE	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0	0.0
NITROGEN.....	0.8	0.3	0.3	0.8	0.8
OXYGEN.....	0.0	0.0	0.0	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	TRACE	TRACE	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	4.4	1.5	1.5	2.3	2.3
HELIUM.....	0.01	0.01	0.01	0.01	0.01
HEATING VALUE.....	1006	1000	1000	985	985
SPECIFIC GRAVITY.....	0.629	0.574	0.574	0.583	0.583

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10465 SAMPLE 5809		INDEX 10466 SAMPLE 12720		INDEX 10467 SAMPLE 12721	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	REEVES	COUNTY.....	REEVES	COUNTY.....	REEVES
WELL NAME.....	TOYAH	WELL NAME.....	TOYAH	WELL NAME.....	TOYAH
LOCATION.....	SEC. 20, BLK. C-17, PSL SUR.	LOCATION.....	TOYAH NO. 3 SEC. 24, BLK. C17	LOCATION.....	TOYAH NO. 2 SEC. 23, BLK. C-17
OWNER.....	GULF OIL CORP. & PHILLIPS PET.	OWNER.....	TEXAS OIL & GAS CORP.	OWNER.....	TEXAS OIL & GAS CORP.
COMPLETED.....	09/75	COMPLETED.....	7/70	COMPLETED.....	7/70
SAMPLED.....	04/22/55	SAMPLED.....	03/19/71	SAMPLED.....	03/19/71
FORMATION.....	SILU-	FORMATION.....	PENN-	FORMATION.....	DEVON-
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	12570	DEPTH, FEET.....	11354	DEPTH, FEET.....	12460
WELLHEAD PRESSURE, PSIG.....	4600	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	56000	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.5	METHANE.....	97.2	METHANE.....	91.2
ETHANE.....	0.4	ETHANE.....	1.0	ETHANE.....	0.4
PROpane.....	0.0	PROpane.....	0.2	PROpane.....	TRACE
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.6	NITROGEN.....	0.5	NITROGEN.....	0.6
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	7.4	CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	7.6
HELIUM.....	0.02	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	934	HEATING VALUE.....	1008	HEATING VALUE.....	931
SPECIFIC GRAVITY.....	0.631	SPECIFIC GRAVITY.....	0.574	SPECIFIC GRAVITY.....	0.632

INDEX 10468 SAMPLE 10629		INDEX 10469 SAMPLE 11072		INDEX 10470 SAMPLE 11073	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	REEVES	COUNTY.....	REEVES	COUNTY.....	REEVES
WELL NAME.....	WABA W	WELL NAME.....	WABA W	WELL NAME.....	WABA W
LOCATION.....	RAPE NO. 2	LOCATION.....	W. T. BARBER NO. 9-U	LOCATION.....	W. T. BARBER NO. 9
OWNER.....	SEC. 2, BLK. C-4, P.S.L. SUR.	OWNER.....	SEC. 21, BLK7, H&GN RR CO. SUR	OWNER.....	SEC. 21, BLK7, H&GN RR CO. SUR
COMPLETED.....	02/11/65	COMPLETED.....	01/17/67	COMPLETED.....	01/17/67
SAMPLED.....	06/23/66	SAMPLED.....	08/17/67	SAMPLED.....	08/17/67
FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	PERM-DELAWARE	FORMATION.....	PERM-DELAWARE
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	16071	DEPTH, FEET.....	5826	DEPTH, FEET.....	6213
WELLHEAD PRESSURE, PSIG.....	5735	WELLHEAD PRESSURE, PSIG.....	2310	WELLHEAD PRESSURE, PSIG.....	2520
OPEN FLOW, MCFD.....	38000	OPEN FLOW, MCFD.....	183	OPEN FLOW, MCFD.....	16500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	94.5	METHANE.....	88.5	METHANE.....	89.3
ETHANE.....	1.3	ETHANE.....	2.3	ETHANE.....	5.0
PROpane.....	0.8	PROpane.....	0.2	PROpane.....	1.8
N-BUTANE.....	0.2	N-BUTANE.....	0.6	N-BUTANE.....	0.6
ISOBUTANE.....	TRACE	ISOBUTANE.....	0.4	ISOBUTANE.....	0.4
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	0.2
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	0.2	NITROGEN.....	2.3	NITROGEN.....	1.7
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.8	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	0.02	HELIUM.....	0.02
HEATING VALUE.....	1013	HEATING VALUE.....	1044	HEATING VALUE.....	1119
SPECIFIC GRAVITY.....	0.602	SPECIFIC GRAVITY.....	0.637	SPECIFIC GRAVITY.....	0.640

INDEX 10471 SAMPLE 12748		INDEX 10472 SAMPLE 14040		INDEX 10473 SAMPLE 14041	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	REEVES	COUNTY.....	REEVES	COUNTY.....	REEVES
WELL NAME.....	WABA W	WELL NAME.....	WABA W	WELL NAME.....	WABA W
LOCATION.....	MOORE NO. 12	LOCATION.....	"19" NO. 1	LOCATION.....	"19" NO. 1
OWNER.....	SEC. 3, BLK. C-3, PSL SUR.	OWNER.....	SEC. 19, BLK. 6, H&GN SUR.	OWNER.....	SEC. 19, BLK. 6, H&GN SUR.
COMPLETED.....	12/09/66	COMPLETED.....	11/30/73	COMPLETED.....	11/30/73
SAMPLED.....	04/02/71	SAMPLED.....	07/08/74	SAMPLED.....	07/08/74
FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	DEVON-	FORMATION.....	DEVON-
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	16499	DEPTH, FEET.....	17110	DEPTH, FEET.....	16611
WELLHEAD PRESSURE, PSIG.....	2642	WELLHEAD PRESSURE, PSIG.....	5126	WELLHEAD PRESSURE, PSIG.....	5740
OPEN FLOW, MCFD.....	4126	OPEN FLOW, MCFD.....	9600	OPEN FLOW, MCFD.....	12800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.5	METHANE.....	96.3	METHANE.....	95.6
ETHANE.....	1.6	ETHANE.....	0.6	ETHANE.....	0.7
PROpane.....	0.4	PROpane.....	0.1	PROpane.....	0.1
N-BUTANE.....	0.1	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.1	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.6	NITROGEN.....	0.6	NITROGEN.....	0.6
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	3.5	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	3.0
HELIUM.....	0.02	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1002	HEATING VALUE.....	989	HEATING VALUE.....	984
SPECIFIC GRAVITY.....	0.610	SPECIFIC GRAVITY.....	0.584	SPECIFIC GRAVITY.....	0.591

INDEX 10474 SAMPLE 15835		INDEX 10475 SAMPLE 10949		INDEX 10476 SAMPLE 12268	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	REEVES	COUNTY.....	REEVES	COUNTY.....	REEVES
WELL NAME.....	WORSHAM E	WELL NAME.....	WORSHAM-BAYER	WELL NAME.....	WORSHAM-BAYER
LOCATION.....	S. E. LIGON-STATE NO. 6	LOCATION.....	STATE SCHOOL BOARD ZZ NO. 4	LOCATION.....	WRAY NO. 1
OWNER.....	SEC. 16, BLK. 7, H&GN RR SUR	OWNER.....	SEC. 15, BLK. C-4, PSL SUR.	OWNER.....	SEC. 4 BLK. 7, H&GN SUR.
COMPLETED.....	07/25/79	COMPLETED.....	06/01/66	COMPLETED.....	04/21/69
SAMPLED.....	11/14/79	SAMPLED.....	05/02/67	SAMPLED.....	05/22/70
FORMATION.....	PERM-CHERRY CANYON	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	DEVON-
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	6154	DEPTH, FEET.....	16748	DEPTH, FEET.....	14456
WELLHEAD PRESSURE, PSIG.....	2405	WELLHEAD PRESSURE, PSIG.....	5696	WELLHEAD PRESSURE, PSIG.....	3013
OPEN FLOW, MCFD.....	13000	OPEN FLOW, MCFD.....	33000	OPEN FLOW, MCFD.....	2115
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.9	METHANE.....	92.4	METHANE.....	89.9
ETHANE.....	4.4	ETHANE.....	1.0	ETHANE.....	5.6
PROpane.....	1.2	PROpane.....	0.2	PROpane.....	1.6
N-BUTANE.....	0.4	N-BUTANE.....	0.0	N-BUTANE.....	0.4
ISOBUTANE.....	0.3	ISOBUTANE.....	0.0	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	1.2	NITROGEN.....	0.6	NITROGEN.....	1.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	5.8	CARBON DIOXIDE.....	0.5
HELIUM.....	0.01	HELIUM.....	0.02	HELIUM.....	0.01
HEATING VALUE.....	1086	HEATING VALUE.....	959	HEATING VALUE.....	1096
SPECIFIC GRAVITY.....	0.613	SPECIFIC GRAVITY.....	0.620	SPECIFIC GRAVITY.....	0.627

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10477 SAMPLE 10182			INDEX 10478 SAMPLE 4683			INDEX 10479 SAMPLE 4684		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	REFUGIO		REFUGIO			REFUGIO		
FIELD.....	BAYSIDE		BLANCO CREEK			BLANCO CREEK		
WELL NAME.....	A. L. COLE NO. 1		W. S. PERRYMAN NO. 1-T			W. S. PERRYMAN NO. 1C		
LOCATION.....	JUAN POBEDANO GRANT A-49		NOT GIVEN			NOT GIVEN		
OWNER.....	SUN OIL CO.		SOUTHERN MINERALS CORP.			SOUTHERN MINERALS CORP.		
COMPLETED.....	~7-/00		09/17/48			09/17/48		
SAMPLED.....	09/30/65		02/14/49			02/14/49		
FORMATION.....	OLIG-FRIO 8000		OLIG-FRIO & VICKSBURG			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8005		7114			6630		
WELLHEAD PRESSURE, PSIG.....	750		3023			2393		
OPEN FLOW, MCFD.....	10600		9250			27000		
COMPONENT, MOLE PCT								
METHANE.....	94.5		91.3			71.2		
ETHANE.....	2.6		4.1			9.2		
PROPANE.....	0.9		1.8			11.7		
N-BUTANE.....	0.3		0.5			1.1		
ISOBUTANE.....	0.3		0.5			3.8		
N-PENTANE.....	0.1		0.3			0.9		
ISOPENTANE.....	0.2		0.0			TRACE		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.6			1.4		
NITROGEN.....	0.6		0.3			0.1		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.1		0.4			0.4		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	1079		1124			1467		
SPECIFIC GRAVITY.....	0.604		0.636			0.854		

INDEX 10480 SAMPLE 13545			INDEX 10481 SAMPLE 14319			INDEX 10482 SAMPLE 2566		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	REFUGIO		REFUGIO			REFUGIO		
FIELD.....	FAGAN		FAGAN			GOLIAD		
WELL NAME.....	FAGAN "L" NO. 2		FAGAN ESTATE M NO. 4			J. O'CONNOR NO. 2		
LOCATION.....	MICHAEL RILEY SUR. A-57		MARY BRYNE SUR. A-8			NO. 40, C.E.P.I.E.M.SUR.		
OWNER.....	TEXAS OIL & GAS CORP.		TEXAS OIL & GAS CORP.			GULF PRODUCTION CO.		
COMPLETED.....	03/29/72		08/30/73			09/18/32		
SAMPLED.....	02/20/73		03/25/75			10/14/32		
FORMATION.....	OLIG-FRIO		NOT GIVEN			OLIG-FRIO L		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	2072		8030			5704		
WELLHEAD PRESSURE, PSIG.....	225		2230			2240		
OPEN FLOW, MCFD.....	8300		18000			20800		
COMPONENT, MOLE PCT								
METHANE.....	98.7		88.7			83.4		
ETHANE.....	1.1		4.8			15.6		
PROPANE.....	TRACE		3.0			---		
N-BUTANE.....	0.0		1.0			---		
ISOBUTANE.....	0.0		0.6			---		
N-PENTANE.....	0.0		0.3			---		
ISOPENTANE.....	0.0		0.5			---		
CYCLOPENTANE.....	0.0		0.1			---		
HEXANES PLUS.....	0.0		0.2			---		
NITROGEN.....	1.1		0.5			0.5		
OXYGEN.....	0.1		0.0			0.4		
ARGON.....	TRACE		0.0			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.1		0.3			0.1		
HELIUM.....	0.01		0.01			0.00		
HEATING VALUE.....	1002		1164			1124		
SPECIFIC GRAVITY.....	0.562		0.660			0.637		

INDEX 10483 SAMPLE 4042			INDEX 10484 SAMPLE 4043			INDEX 10485 SAMPLE 12466		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	REFUGIO		REFUGIO			REFUGIO		
FIELD.....	GRETA		GRETA			GRETA W		
WELL NAME.....	J. O'BRIEN G NO. 1		O'CONNOR NO. 5			J. FOX NO. 1		
LOCATION.....	WINFIELD SUR.		N. S. CRUNK SUR.			WILLIAM HEWS SUR. A-33		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.			DUER WAGNER & CO.		
COMPLETED.....	11/25/61		10/06/63			07/27/63		
SAMPLED.....	05/30/65		~7-/00			10/21/70		
FORMATION.....	MIOC		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3432		5050			5701		
WELLHEAD PRESSURE, PSIG.....	1300		2050			1610		
OPEN FLOW, MCFD.....	200		180000			8500		
COMPONENT, MOLE PCT								
METHANE.....	95.2		93.0			90.9		
ETHANE.....	4.6		6.7			4.4		
PROPANE.....	---		---			2.3		
N-BUTANE.....	---		---			0.5		
ISOBUTANE.....	---		---			0.7		
N-PENTANE.....	---		---			0.1		
ISOPENTANE.....	---		---			0.2		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.2		
NITROGEN.....	0.0		0.0			0.4		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	---		---			0.0		
HYDROGEN.....	---		---			0.1		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1047		1062			1127		
SPECIFIC GRAVITY.....	0.579		0.590			0.632		

INDEX 10486 SAMPLE 11589			INDEX 10487 SAMPLE 10648			INDEX 10488 SAMPLE 13535		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	REFUGIO		REFUGIO			REFUGIO		
FIELD.....	HUFF		LAKE PASTURE			MARY ELLEN O'CONNOR		
WELL NAME.....	O'CONNOR NO. 44L		MAUDE WILLIAMS A NO. D-5C			M. E. O'CONNOR NO.4		
LOCATION.....	FLORENTINE RIOS SUR. A-59		H.C. SWEET A-393			BBC RR CO. SUR. A-382		
OWNER.....	T-C OIL CO.		QUINTANA PETROLEUM CORP.			AMOCO PRODUCTION CO.		
COMPLETED.....	06/09/67		08/29/65			04/10/71		
SAMPLED.....	07/26/68		07/07/66			02/15/73		
FORMATION.....	MIOC-HUFF		OLIG-FS-509			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	2619		5117			3138		
WELLHEAD PRESSURE, PSIG.....	310		1700			535		
OPEN FLOW, MCFD.....	30200		100000			3011		
COMPONENT, MOLE PCT								
METHANE.....	97.8		93.3			99.1		
ETHANE.....	0.2		3.6			0.1		
PROPANE.....	TRACE		0.3			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.4			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.5			0.0		
CYCLOPENTANE.....	0.0		0.3			0.0		
HEXANES PLUS.....	0.0		0.4			0.0		
NITROGEN.....	1.7		0.8			0.7		
OXYGEN.....	0.3		0.1			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			TRACE		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	994		1084			1006		
SPECIFIC GRAVITY.....	0.566		0.610			0.557		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10489 SAMPLE 4466		INDEX 10490 SAMPLE 4587		INDEX 10491 SAMPLE 4839	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	REFUGIO	COUNTY.....	REFUGIO	COUNTY.....	REFUGIO
FIELD.....	NOT GIVEN	FIELD.....	REFUGIO	FIELD.....	REFUGIO E
WELL NAME.....	C. T. MOLEMAN B-1	WELL NAME.....	JAMIE HYNES NO. 4-A	WELL NAME.....	J. J. O'BRIEN NO. A-1
LOCATION.....	NOT GIVEN	LOCATION.....	O'BRIEN SUR.	LOCATION.....	REFUGIO TOWN TR. SUR. ABS-56
OWNER.....	SOUTHERN MINERALS CORP.	OWNER.....	LA GLORIA CORP. & SKELLY OIL	OWNER.....	UNION PRODUCING CO.
COMPLETED.....	12/14/47	COMPLETED.....	03/20/48	COMPLETED.....	09/10/49
SAMPLED.....	04/29/48	SAMPLED.....	10/08/48	SAMPLED.....	12/28/49
FORMATION.....	M10C-OAKVILLE	FORMATION.....	OL16-SINTON	FORMATION.....	OL16-FR10
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	2354	DEPTH, FEET.....	5295	DEPTH, FEET.....	5826
WELLHEAD PRESSURE, PSIG.....	1000	WELLHEAD PRESSURE, PSIG.....	11400	WELLHEAD PRESSURE, PSIG.....	1058
OPEN FLOW, MCFD.....	14500	OPEN FLOW, MCFD.....	15000	OPEN FLOW, MCFD.....	13000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	99.3	METHANE.....	90.4	METHANE.....	90.8
ETHANE.....	0.3	ETHANE.....	9.0	ETHANE.....	4.7
PROPANE.....	---	PROPANE.....	---	PROPANE.....	1.9
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	0.6
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	0.4
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	TRACE
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	0.5
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	0.1
NITROGEN.....	0.0	NITROGEN.....	0.0	NITROGEN.....	0.6
OXYGEN.....	0.2	OXYGEN.....	0.2	OXYGEN.....	0.1
ARGON.....	---	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.3
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1011	HEATING VALUE.....	1077	HEATING VALUE.....	1118
SPECIFIC GRAVITY.....	0.559	SPECIFIC GRAVITY.....	0.604	SPECIFIC GRAVITY.....	0.630

INDEX 10492 SAMPLE 15410		INDEX 10493 SAMPLE 12043		INDEX 10494 SAMPLE 4648	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	REFUGIO	COUNTY.....	REFUGIO	COUNTY.....	REFUGIO
FIELD.....	TAMU CONNER	FIELD.....	VIDAURI	FIELD.....	VIDAURI W
WELL NAME.....	FANNIE V. W. HEARD NO. 70	WELL NAME.....	JAMES F. WELDER NO. 1	WELL NAME.....	J. F. WELDER HEIRS NO. 6
LOCATION.....	THOMAS H. WEBB SUR. A-298	LOCATION.....	NOT GIVEN	LOCATION.....	JOSEPH FARLEY SUR.
OWNER.....	QUINTANA PETROLEUM CORP.	OWNER.....	MERIDIAN EXPLORATION CO.	OWNER.....	P. R. RUTHERFORD, ET AL.
COMPLETED.....	01/16/47	COMPLETED.....	01/16/48	COMPLETED.....	09/06/48
SAMPLED.....	10/09/78	SAMPLED.....	09/16/69	SAMPLED.....	01/10/49
FORMATION.....	M10C-CATAHOULA	FORMATION.....	OL16-FR10	FORMATION.....	OL16-FR10 U
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	4044	DEPTH, FEET.....	4760	DEPTH, FEET.....	4530
WELLHEAD PRESSURE, PSIG.....	1505	WELLHEAD PRESSURE, PSIG.....	1932	WELLHEAD PRESSURE, PSIG.....	2060
OPEN FLOW, MCFD.....	27800	OPEN FLOW, MCFD.....	15000	OPEN FLOW, MCFD.....	37500
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	98.3	METHANE.....	95.9	METHANE.....	92.6
ETHANE.....	0.6	ETHANE.....	2.3	ETHANE.....	6.9
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	TRACE	N-BUTANE.....	0.1	N-BUTANE.....	---
ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE	ISOBUTANE.....	---
N-PENTANE.....	TRACE	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	0.5	NITROGEN.....	0.5	NITROGEN.....	0.1
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1018	HEATING VALUE.....	1047	HEATING VALUE.....	1062
SPECIFIC GRAVITY.....	0.566	SPECIFIC GRAVITY.....	0.584	SPECIFIC GRAVITY.....	0.592

INDEX 10495 SAMPLE 4444		INDEX 10496 SAMPLE 14402		INDEX 10497 SAMPLE 15373	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	REFUGIO	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	WILDCAT	FIELD.....	ROBERTS	FIELD.....	ROBERTS
WELL NAME.....	J. F. WELDER HEIRS NO. 1	WELL NAME.....	CARRIE KILLEBREW	WELL NAME.....	CARRIE KILLEBREW
LOCATION.....	NOT GIVEN	LOCATION.....	KILLEBREW A NO. 1	LOCATION.....	MORRISON NO. 1
OWNER.....	P. R. RUTHERFORD, ET AL.	OWNER.....	SEC. 22, BLK. 42, H&TC SUR.	OWNER.....	SEC. 22, BLK. 42, H&TC SUR.
COMPLETED.....	11/16/47	COMPLETED.....	08/09/74	COMPLETED.....	04/-/78
SAMPLED.....	06/16/48	SAMPLED.....	06/19/75	SAMPLED.....	09/12/78
FORMATION.....	OL16-FR10	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	4869	DEPTH, FEET.....	8536	DEPTH, FEET.....	8618
WELLHEAD PRESSURE, PSIG.....	2010	WELLHEAD PRESSURE, PSIG.....	2550	WELLHEAD PRESSURE, PSIG.....	1440
OPEN FLOW, MCFD.....	5875	OPEN FLOW, MCFD.....	58500	OPEN FLOW, MCFD.....	59000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	91.3	METHANE.....	80.3	METHANE.....	81.5
ETHANE.....	6.8	ETHANE.....	10.4	ETHANE.....	10.7
PROPANE.....	---	PROPANE.....	3.9	PROPANE.....	4.3
N-BUTANE.....	---	N-BUTANE.....	0.7	N-BUTANE.....	0.9
ISOBUTANE.....	---	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	---	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	---	ISOPENTANE.....	0.5	ISOPENTANE.....	0.3
CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	---	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	1.3	NITROGEN.....	2.2	NITROGEN.....	0.7
OXYGEN.....	0.3	OXYGEN.....	0.2	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	1.4	CARBON DIOXIDE.....	0.8
HELIUM.....	0.01	HELIUM.....	0.05	HELIUM.....	0.05
HEATING VALUE.....	1047	HEATING VALUE.....	1155	HEATING VALUE.....	1205
SPECIFIC GRAVITY.....	0.598	SPECIFIC GRAVITY.....	0.693	SPECIFIC GRAVITY.....	0.696

INDEX 10498 SAMPLE 15395		INDEX 10499 SAMPLE 16923		INDEX 10500 SAMPLE 7334	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	CARRIE KILLEBREW	FIELD.....	CAT CREEK	FIELD.....	FREE-FLOWERS
WELL NAME.....	MORRISON NO. 2	WELL NAME.....	MORRISON NO. 3-8	WELL NAME.....	FLOWERS BROS. 3
LOCATION.....	SEC. 213, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 8, BLK. 44-W-J-SIMS SUR.	LOCATION.....	SEC. 70, BLK. C, G&M SUR.
OWNER.....	EASTON OIL CO.	OWNER.....	EASTON OIL CO.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	7-/00	COMPLETED.....	06/-/81	COMPLETED.....	10/20/59
SAMPLED.....	09/-/78	SAMPLED.....	05/03/83	SAMPLED.....	01/11/60
FORMATION.....	NOT GIVEN	FORMATION.....	PENN-GRANITE WASH	FORMATION.....	PENN-WOLFCAMP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	181	DEPTH, FEET.....	3869
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	2100	WELLHEAD PRESSURE, PSIG.....	896
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	2900	OPEN FLOW, MCFD.....	6800
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	74.2	METHANE.....	75.5	METHANE.....	80.2
ETHANE.....	9.8	ETHANE.....	11.8	ETHANE.....	14.8
PROPANE.....	3.8	PROPANE.....	6.5	PROPANE.....	4.3
N-BUTANE.....	0.8	N-BUTANE.....	1.9	N-BUTANE.....	1.2
ISOBUTANE.....	0.2	ISOBUTANE.....	0.5	ISOBUTANE.....	0.2
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.7	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	5.5	NITROGEN.....	1.7	NITROGEN.....	5.0
OXYGEN.....	0.5	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	---	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	0.2	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.4	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	4.1	CARBON DIOXIDE.....	0.09	CARBON DIOXIDE.....	0.1
HELIUM.....	0.03	HELIUM.....	1.283	HELIUM.....	0.10
HEATING VALUE.....	1096	HEATING VALUE.....	1283	HEATING VALUE.....	1148
SPECIFIC GRAVITY.....	0.737	SPECIFIC GRAVITY.....	0.749	SPECIFIC GRAVITY.....	0.694

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10501 SAMPLE 7739		INDEX 10502 SAMPLE 7746		INDEX 10503 SAMPLE 12347	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	CREE-FLOWERS	FIELD.....	CREE-FLOWERS	FIELD.....	CREE-FLOWERS
WELL NAME.....	MILLS NO. A-1	WELL NAME.....	MILLS NO. 1	WELL NAME.....	FLOWERS BROS. NO. 4
LOCATION.....	CLAY CO. SCHOOL LAND	LOCATION.....	CLAY CO. SCHOOL LAND	LOCATION.....	SEC. 74, BLK. C, G&M SUR.
OWNER.....	JAMES F. SMITH, ET AL.	OWNER.....	JAMES F. SMITH, ET AL.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	05/31/70
SAMPLED.....	10/25/60	SAMPLED.....	10/25/60	SAMPLED.....	08/10/70
FORMATION.....	PERM-WOLFCAMP	FORMATION.....	PERM-WOLFCAMP	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	3620	DEPTH, FEET.....	3608	DEPTH, FEET.....	8611
WELLHEAD PRESSURE, PSIG.....	888	WELLHEAD PRESSURE, PSIG.....	879	WELLHEAD PRESSURE, PSIG.....	1947
OPEN FLOW, MCFD.....	4000	OPEN FLOW, MCFD.....	6000	OPEN FLOW, MCFD.....	2600
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.5	METHANE.....	86.0	METHANE.....	78.7
ETHANE.....	6.6	ETHANE.....	6.9	ETHANE.....	11.6
PROPANE.....	2.5	PROPANE.....	2.6	PROPANE.....	5.5
N-BUTANE.....	0.7	N-BUTANE.....	0.8	N-BUTANE.....	1.2
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	2.2	NITROGEN.....	2.4	NITROGEN.....	1.3
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.4
HELIUM.....	0.10	HELIUM.....	0.10	HELIUM.....	0.05
HEATING VALUE.....	1124	HEATING VALUE.....	1133	HEATING VALUE.....	1232
SPECIFIC GRAVITY.....	0.656	SPECIFIC GRAVITY.....	0.657	SPECIFIC GRAVITY.....	0.715
INDEX 10504 SAMPLE 13185		INDEX 10505 SAMPLE 13542		INDEX 10506 SAMPLE 8347	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	CREE-FLOWERS	FIELD.....	CREE-FLOWERS	FIELD.....	CREE-FLOWERS W
WELL NAME.....	D. D. PAYNE A NO. 1	WELL NAME.....	FLOWERS "A" NO. 1	WELL NAME.....	CREE-FLOWERS NO. 1
LOCATION.....	BLK. A-50, CLAY CO. SCH. LD.	LOCATION.....	SEC. 79, BLK. C, G&M SUR.	LOCATION.....	SEC. 5, BS&F SUR.
OWNER.....	HELMERICH & PAYNE, INC.	OWNER.....	HELMERICH & PAYNE, INC.	OWNER.....	TEXACO INC.
COMPLETED.....	12/21/71	COMPLETED.....	07/05/72	COMPLETED.....	06/13/61
SAMPLED.....	04/04/72	SAMPLED.....	02/19/75	SAMPLED.....	12/22/61
FORMATION.....	PENN-DOUGLAS	FORMATION.....	PENN-DOUGLAS	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	5868	DEPTH, FEET.....	6287	DEPTH, FEET.....	4168
WELLHEAD PRESSURE, PSIG.....	1622	WELLHEAD PRESSURE, PSIG.....	1645	WELLHEAD PRESSURE, PSIG.....	1050
OPEN FLOW, MCFD.....	2500	OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	1200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.1	METHANE.....	79.9	METHANE.....	83.7
ETHANE.....	8.9	ETHANE.....	8.7	ETHANE.....	6.8
PROPANE.....	4.9	PROPANE.....	5.1	PROPANE.....	3.5
N-BUTANE.....	1.3	N-BUTANE.....	1.3	N-BUTANE.....	1.0
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.6
N-PENTANE.....	0.4	N-PENTANE.....	0.3	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	1.1	NITROGEN.....	3.6	NITROGEN.....	0.1
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.4
HELIUM.....	0.10	HELIUM.....	0.16	HELIUM.....	0.14
HEATING VALUE.....	1224	HEATING VALUE.....	1189	HEATING VALUE.....	1136
SPECIFIC GRAVITY.....	0.699	SPECIFIC GRAVITY.....	0.705	SPECIFIC GRAVITY.....	0.674
INDEX 10507 SAMPLE 17200		INDEX 10508 SAMPLE 16068		INDEX 10509 SAMPLE 5515	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	HALE RANCH	FIELD.....	LEDRIK RANCH	FIELD.....	LIPS
WELL NAME.....	R. D. MILLS NO. 1	WELL NAME.....	LEDRIK NO. 2-55	WELL NAME.....	CHAS. LIPS NO. 11
LOCATION.....	TRACT 1-B, CLAY CO. SCH. LD SUR	LOCATION.....	SEC. 5, BLK. C, G&M SUR.	LOCATION.....	SEC. 4, BLK. 44, TE WHITE SUR
OWNER.....	AMAX PETROLEUM CORP.	OWNER.....	TENNECO OIL CO.	OWNER.....	SINCLAIR OIL & GAS CO.
COMPLETED.....	05/15/83	COMPLETED.....	06/24/80	COMPLETED.....	05/26/53
SAMPLED.....	02/20/84	SAMPLED.....	09/18/80	SAMPLED.....	07/09/53
FORMATION.....	MISS-KINDERHOOK L	FORMATION.....	PENN-MORROW	FORMATION.....	PENN-ATOKA
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	12478	DEPTH, FEET.....	9285	DEPTH, FEET.....	8510
WELLHEAD PRESSURE, PSIG.....	2900	WELLHEAD PRESSURE, PSIG.....	1200	WELLHEAD PRESSURE, PSIG.....	2032
OPEN FLOW, MCFD.....	1900	OPEN FLOW, MCFD.....	2500	OPEN FLOW, MCFD.....	2500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	88.4	METHANE.....	76.9	METHANE.....	89.7
ETHANE.....	6.6	ETHANE.....	16.6	ETHANE.....	6.6
PROPANE.....	2.2	PROPANE.....	5.4	PROPANE.....	2.1
N-BUTANE.....	0.6	N-BUTANE.....	1.3	N-BUTANE.....	0.5
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.1
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.2
NITROGEN.....	0.6	NITROGEN.....	1.4	NITROGEN.....	0.5
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.0
HELIUM.....	0.05	HELIUM.....	0.02	HELIUM.....	0.06
HEATING VALUE.....	1122	HEATING VALUE.....	1239	HEATING VALUE.....	1125
SPECIFIC GRAVITY.....	0.638	SPECIFIC GRAVITY.....	0.720	SPECIFIC GRAVITY.....	0.630
INDEX 10510 SAMPLE 6113		INDEX 10511 SAMPLE 13172		INDEX 10512 SAMPLE 17601	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	LIPS	FIELD.....	LOCKE	FIELD.....	MCNORDIE RANCH
WELL NAME.....	LIPS II	WELL NAME.....	TEPE NO. 1	WELL NAME.....	MCNORDIE NO.127-C-2
LOCATION.....	SEC. 31, BLK. A, H&G SUR.	LOCATION.....	SEC. 17, BLK. 44 KIVLEHEN SUR	LOCATION.....	SEC. 127, C&G SUR.
OWNER.....	STANOLIND OIL & GAS CO.	OWNER.....	J. M. HUBER CORP.	OWNER.....	FLAINS RESOURCES, INC.
COMPLETED.....	05/16/56	COMPLETED.....	03/24/72	COMPLETED.....	08/05/83
SAMPLED.....	07/26/56	SAMPLED.....	03/24/72	SAMPLED.....	--/--/00
FORMATION.....	PENN-MORROW	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	8494	DEPTH, FEET.....	4346	DEPTH, FEET.....	7475
WELLHEAD PRESSURE, PSIG.....	2000	WELLHEAD PRESSURE, PSIG.....	1120	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	15000	OPEN FLOW, MCFD.....	3650	OPEN FLOW, MCFD.....	1832
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.4	METHANE.....	87.5	METHANE.....	77.2
ETHANE.....	4.2	ETHANE.....	6.6	ETHANE.....	12.9
PROPANE.....	1.1	PROPANE.....	2.8	PROPANE.....	5.7
N-BUTANE.....	0.8	N-BUTANE.....	0.7	N-BUTANE.....	1.0
ISOBUTANE.....	0.6	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.5	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.7	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	0.8	NITROGEN.....	1.0	NITROGEN.....	1.2
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.8
HELIUM.....	0.14	HELIUM.....	0.04	HELIUM.....	0.05
HEATING VALUE.....	1156	HEATING VALUE.....	1194	HEATING VALUE.....	1200
SPECIFIC GRAVITY.....	0.659	SPECIFIC GRAVITY.....	0.655	SPECIFIC GRAVITY.....	0.720

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10513 SAMPLE 10538		INDEX 10514 SAMPLE 14634		INDEX 10515 SAMPLE 16140	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	MENDOTA	FIELD.....	MENDOTA NW	FIELD.....	MENDOTA NW
WELL NAME.....	FLOWERS LISTON NO. 1	WELL NAME.....	R. A. FLOWERS NO. 3	WELL NAME.....	FLOWERS TRUST "B" NO. 3
LOCATION.....	SEC. 62, BLK. 4, H&GN SUR.	LOCATION.....	SEC. 4, B&F SUR.	LOCATION.....	SEC. C, B&F SUR.
OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	AMARILLO OIL CO.	OWNER.....	EXXON CO., U.S.A.
COMPLETED.....	11/15/65	COMPLETED.....	03/01/76	COMPLETED.....	--/--/00
SAMPLED.....	04/19/66	SAMPLED.....	04/13/76	SAMPLED.....	12/08/80
FORMATION.....	PENN-MORROW	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	11308	DEPTH, FEET.....	9596	DEPTH, FEET.....	10102
WELLHEAD PRESSURE, PSIG.....	4252	WELLHEAD PRESSURE, PSIG.....	2397	WELLHEAD PRESSURE, PSIG.....	1835
OPEN FLOW, MCFD.....	23600	OPEN FLOW, MCFD.....	30000	OPEN FLOW, MCFD.....	21500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.0	METHANE.....	83.0	METHANE.....	77.5
ETHANE.....	7.2	ETHANE.....	9.6	ETHANE.....	8.3
PROPANE.....	1.6	PROPANE.....	3.9	PROPANE.....	7.4
N-BUTANE.....	0.2	N-BUTANE.....	0.9	N-BUTANE.....	1.9
ISOBUTANE.....	0.1	ISOBUTANE.....	0.7	ISOBUTANE.....	0.7
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.4	NITROGEN.....	1.1	NITROGEN.....	3.5
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1
HELIUM.....	0.04	HELIUM.....	0.04	HELIUM.....	0.12
HEATING VALUE.....	1100	HEATING VALUE.....	1183	HEATING VALUE.....	1231
SPECIFIC GRAVITY.....	0.631	SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.732
INDEX 10516 SAMPLE 11969		INDEX 10517 SAMPLE 14401		INDEX 10518 SAMPLE 7505	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	MORRISON RANCH	FIELD.....	MORRISON RANCH	FIELD.....	NOT GIVEN
WELL NAME.....	MARY T. MORRISON D NO. 1	WELL NAME.....	CONRAD NO. 1	WELL NAME.....	MARION OSPORNE NO. 2
LOCATION.....	SEC. 180, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 192, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 26, BLK. B-1, H&GN SUR.
OWNER.....	UNITED OIL CO. OF CALIF.	OWNER.....	DYCO PETROLEUM CORP.	OWNER.....	GULF OIL CORP.
COMPLETED.....	09/23/68	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	07/17/69	SAMPLED.....	06/19/75	SAMPLED.....	04/20/60
FORMATION.....	PENN-MORROW U	FORMATION.....	NOT GIVEN	FORMATION.....	PENN-G PAY U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	NOT GIVEN	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	10594	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	9570
WELLHEAD PRESSURE, PSIG.....	2913	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	3157
OPEN FLOW, MCFD.....	2800	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	79.9	METHANE.....	74.1	METHANE.....	86.6
ETHANE.....	9.9	ETHANE.....	5.3	ETHANE.....	6.8
PROPANE.....	4.9	PROPANE.....	2.0	PROPANE.....	3.3
N-BUTANE.....	0.8	N-BUTANE.....	0.4	N-BUTANE.....	0.8
ISOBUTANE.....	0.4	ISOBUTANE.....	0.6	ISOBUTANE.....	0.4
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3
NITROGEN.....	2.5	NITROGEN.....	12.9	NITROGEN.....	0.0
OXYGEN.....	0.4	OXYGEN.....	1.8	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.1	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	1.3
HELIUM.....	0.05	HELIUM.....	0.03	HELIUM.....	0.03
HEATING VALUE.....	1172	HEATING VALUE.....	954	HEATING VALUE.....	1161
SPECIFIC GRAVITY.....	0.698	SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.669
INDEX 10519 SAMPLE 4834		INDEX 10520 SAMPLE 7475		INDEX 10521 SAMPLE 7650	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	PANHANDLE W	FIELD.....	PARSELL	FIELD.....	PARSELL
WELL NAME.....	LIPPS NO. 2	WELL NAME.....	NO. 1-147	WELL NAME.....	NO. 1-153
LOCATION.....	SEC. 15, BLK. 13, T&NO RR SUR	LOCATION.....	SEC. 147, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 153, BLK. 42, H&TC SUR.
OWNER.....	SINCLAIR OIL & GAS CO.	OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	CITIES SERVICE OIL CO.
COMPLETED.....	09/20/49	COMPLETED.....	04/07/58	COMPLETED.....	10/24/59
SAMPLED.....	01/27/50	SAMPLED.....	03/27/60	SAMPLED.....	08/27/60
FORMATION.....	QUARTZ WASH	FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	8098	DEPTH, FEET.....	9996	DEPTH, FEET.....	9853
WELLHEAD PRESSURE, PSIG.....	2041	WELLHEAD PRESSURE, PSIG.....	3864	WELLHEAD PRESSURE, PSIG.....	3777
OPEN FLOW, MCFD.....	41000	OPEN FLOW, MCFD.....	1200	OPEN FLOW, MCFD.....	2060
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.7	METHANE.....	87.0	METHANE.....	85.4
ETHANE.....	2.6	ETHANE.....	8.0	ETHANE.....	8.8
PROPANE.....	0.9	PROPANE.....	2.5	PROPANE.....	3.4
N-BUTANE.....	0.3	N-BUTANE.....	0.4	N-BUTANE.....	0.7
ISOBUTANE.....	0.1	ISOBUTANE.....	0.4	ISOBUTANE.....	TRACE
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	1.0	NITROGEN.....	0.5	NITROGEN.....	0.0
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	1.7
HELIUM.....	0.07	HELIUM.....	0.05	HELIUM.....	0.04
HEATING VALUE.....	1047	HEATING VALUE.....	1135	HEATING VALUE.....	1157
SPECIFIC GRAVITY.....	0.602	SPECIFIC GRAVITY.....	0.648	SPECIFIC GRAVITY.....	0.664
INDEX 10522 SAMPLE 11579		INDEX 10523 SAMPLE 14176		INDEX 10524 SAMPLE 7152	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	PARSELL	FIELD.....	PARSELL S	FIELD.....	PRITCHETT
WELL NAME.....	W. B. PARSELL NO. E-2	WELL NAME.....	J. BRUSCE WATERFIELD NO. D-1	WELL NAME.....	W. H. MARTIN NO. 1
LOCATION.....	SEC. 157, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 157, BLK. C, G&M SUR.	LOCATION.....	SEC. 83, BLK. C, G&M SUR.
OWNER.....	DIAMOND SHAHROCK CORP.	OWNER.....	DIAMOND SHAHROCK CORP.	OWNER.....	BAKER & TAYLOR DRILLING CO.
COMPLETED.....	06/05/68	COMPLETED.....	05/20/74	COMPLETED.....	07/22/59
SAMPLED.....	07/23/68	SAMPLED.....	10/09/74	SAMPLED.....	07/29/59
FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-CHEROKEE
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	10935	DEPTH, FEET.....	11773	DEPTH, FEET.....	9250
WELLHEAD PRESSURE, PSIG.....	4383	WELLHEAD PRESSURE, PSIG.....	4342	WELLHEAD PRESSURE, PSIG.....	1930
OPEN FLOW, MCFD.....	60500	OPEN FLOW, MCFD.....	16000	OPEN FLOW, MCFD.....	6000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.9	METHANE.....	96.3	METHANE.....	78.0
ETHANE.....	0.5	ETHANE.....	0.5	ETHANE.....	1.7
PROPANE.....	0.1	PROPANE.....	0.1	PROPANE.....	3.0
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	1.2
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.9
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	1.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.4
NITROGEN.....	0.4	NITROGEN.....	0.4	NITROGEN.....	2.5
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	1.0
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.05
HEATING VALUE.....	993	HEATING VALUE.....	987	HEATING VALUE.....	1223
SPECIFIC GRAVITY.....	0.580	SPECIFIC GRAVITY.....	0.583	SPECIFIC GRAVITY.....	0.729

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10525 5341	INDEX SAMPLE	10526 5638	INDEX SAMPLE	10527 5639
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	ROBERTS			ROBERTS		ROBERTS	
FIELD.....	QUINDUNO			QUINDUNO		QUINDUNO	
WELL NAME.....	J. HAGGARD NO. 5			AGATHA NO. 1		GAY NO. 1	
LOCATION.....	SEC. 6, BLK. 2, I&GN SUR.			SEC. 8, BLK. 2, I&GN SUR.		SEC. 201, BLK. M-2, BS&F SUR	
OWNER.....	SULF OIL CORP.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	12/04/52			02/01/54		02/17/54	
SAMPLED.....	12/04/52			06/15/54		06/15/54	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-		PENN-ATOKA BYNUM	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4101			4004		3890	
MELLHEAD PRESSURE, PSIG.....	1019			881		883	
OPEN FLOW, MCFD.....	NOT GIVEN			27870		75000	
COMPONENT, MOLE PCT							
METHANE.....	59.7			80.5		79.9	
ETHANE.....	14.1			7.6		7.7	
PROPANE.....	13.3			3.5		3.6	
N-BUTANE.....	4.7			0.9		0.9	
ISOBUTANE.....	2.6			0.2		0.5	
N-PENTANE.....	1.2			0.2		0.3	
ISOPENTANE.....	0.7			0.2		0.1	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.6			0.1		0.2	
NITROGEN.....	2.9			6.2		6.4	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.2		0.2	
HYDROGEN SULFIDE**.....	0.0			0.1		0.0	
CARBON DIOXIDE.....	0.1			0.14		TRACE	
HELIUM.....	0.06			0.14		0.14	
HEATING VALUE.....	1558			1112		1116	
SPECIFIC GRAVITY.....	0.930			0.685		0.687	
		INDEX SAMPLE	10528 6605	INDEX SAMPLE	10529 7019	INDEX SAMPLE	10530 7357
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	ROBERTS			ROBERTS		ROBERTS	
FIELD.....	QUINDUNO			QUINDUNO		QUINDUNO	
WELL NAME.....	FATE BEAN NO. 1			PENNINGTON B NO. 1		W. R. CONAN TRACT C NO. 6	
LOCATION.....	SEC. 164, BLK. M-2, BS&F SUR			SEC. 17, BLK. 2, I&GN SUR.		SEC. 165, BLK. M-2, BS&F SUR	
OWNER.....	CONSOLIDATED GAS & MINING			PHILLIPS PETROLEUM CO.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	04/26/58			02/16/59		11/02/59	
SAMPLED.....	05/03/58			04/03/59		01/21/60	
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	4032			4128		4067	
MELLHEAD PRESSURE, PSIG.....	850			NOT GIVEN		870	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		3800	
COMPONENT, MOLE PCT							
METHANE.....	80.4			79.9		84.4	
ETHANE.....	6.9			7.7		6.7	
PROPANE.....	2.9			4.0		2.9	
N-BUTANE.....	0.8			0.6		0.6	
ISOBUTANE.....	0.6			0.5		0.5	
N-PENTANE.....	0.1			0.3		0.1	
ISOPENTANE.....	0.3			0.0		0.4	
CYCLOPENTANE.....	0.1			0.5		0.1	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	7.5			9.7		4.3	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.1		0.2	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.0		0.1	
HELIUM.....	0.20			0.14		0.10	
HEATING VALUE.....	1092			1139		1113	
SPECIFIC GRAVITY.....	0.685			0.695		0.664	
		INDEX SAMPLE	10531 15529	INDEX SAMPLE	10532 15867	INDEX SAMPLE	10533 14757
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	ROBERTS			ROBERTS		ROBERTS	
FIELD.....	RED DEER CREEK			RED DEER NE		RULER	
WELL NAME.....	VOLLMEIT NO. 1			EARP NO. 1		JONES "A" NO. 1	
LOCATION.....	SEC. 32, BLK. B1 H&GN SUR.			SEC. 59, BLK. 1, H&GN SUR.		SEC. 1, BLK. A-2, EL&RR SUR.	
OWNER.....	DEVIS OIL CO.			DEVIS OIL CO.		AMARILLO OIL CO.	
COMPLETED.....	--/--/00			08/02/79		09/06/75	
SAMPLED.....	12/--/78			12/18/79		09/16/76	
FORMATION.....	NOT GIVEN			PENN-MORROW		PENN-MORROW U	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			11039		9632	
MELLHEAD PRESSURE, PSIG.....	NOT GIVEN			3687		2200	
OPEN FLOW, MCFD.....	NOT GIVEN			12640		11000	
COMPONENT, MOLE PCT							
METHANE.....	89.1			89.7		90.0	
ETHANE.....	6.8			6.3		6.4	
PROPANE.....	1.6			1.5		1.5	
N-BUTANE.....	0.2			0.2		0.2	
ISOBUTANE.....	0.1			0.1		0.1	
N-PENTANE.....	0.1			TRACE		0.0	
ISOPENTANE.....	0.1			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			TRACE		0.1	
NITROGEN.....	0.4			0.6		0.5	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	TRACE			0.9		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.3			1.3		0.9	
HELIUM.....	0.04			0.04		0.06	
HEATING VALUE.....	1090			1075		1085	
SPECIFIC GRAVITY.....	0.628			0.621		0.620	
		INDEX SAMPLE	10534 14797	INDEX SAMPLE	10535 14388	INDEX SAMPLE	10536 14470
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	ROBERTS			ROBERTS		ROBERTS	
FIELD.....	RULER			SHREIKEY		SHREIKEY	
WELL NAME.....	MCARDIE BROS. B-1			ETTA GILL NO. 1		BOB MCCOY B. NO. 2	
LOCATION.....	SEC. 5, BLK. A-2, EL&RR SUR.			SEC. 16, BLK. M-2, H&GN SUR.		SEC. 14, BLK. M-2, H&GN SUR.	
OWNER.....	EXXON CO., U.S.A.			SIDWELL OIL & GAS, INC.		J. M. HUBER CORP.	
COMPLETED.....	09/29/76			01/19/75		09/16/74	
SAMPLED.....	09/21/76			06/17/75		09/24/75	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	9663			11401		11076	
MELLHEAD PRESSURE, PSIG.....	2390			3200		3217	
OPEN FLOW, MCFD.....	3150			10000		13800	
COMPONENT, MOLE PCT							
METHANE.....	89.8			82.0		94.6	
ETHANE.....	6.7			8.5		2.3	
PROPANE.....	1.4			3.7		0.6	
N-BUTANE.....	0.3			3.2		0.2	
ISOBUTANE.....	0.0			0.7		0.1	
N-PENTANE.....	0.2			0.4		TRACE	
ISOPENTANE.....	0.3			0.9		0.1	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.5		0.1	
NITROGEN.....	0.6			TRACE		0.8	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.0			0.9		1.1	
HELIUM.....	0.07			0.03		0.03	
HEATING VALUE.....	1084			1094		1035	
SPECIFIC GRAVITY.....	0.628			0.714		0.594	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10537 SAMPLE 14537		INDEX 10538 SAMPLE 14686		INDEX 10539 SAMPLE 14571	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	SHREINKEY	FIELD.....	SHREINKEY	FIELD.....	ST. CLAIR
WELL NAME.....	BYUM-KOFFEE NO. 1	WELL NAME.....	BYUM-KOFFEE NO. 1-36	WELL NAME.....	JONES NO. 1
LOCATION.....	SEC. 12, BLK. M-2, H&GN SUR.	LOCATION.....	SEC. 36, BLK. M-2, H&GN SUR.	LOCATION.....	SEC. 85, BLK. C, G&M SUR.
OWNER.....	MOORE & BRACKEN, INC.	OWNER.....	GULF ENERGY & MINERALS CO.	OWNER.....	PENNZOIL CO.
COMPLETED.....	05/25/74	COMPLETED.....	03/22/76	COMPLETED.....	04/17/75
SAMPLED.....	11/23/75	SAMPLED.....	06/04/76	SAMPLED.....	01/29/76
FORMATION.....	PENN-MORROW	FORMATION.....	PENN-MORROW	FORMATION.....	PERM-GRANITE WASH
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	10844	DEPTH, FEET.....	10800	DEPTH, FEET.....	10200
WELLHEAD PRESSURE, PSIG.....	3600	WELLHEAD PRESSURE, PSIG.....	3025	WELLHEAD PRESSURE, PSIG.....	2026
OPEN FLOW, MCFD.....	150000	OPEN FLOW, MCFD.....	11200	OPEN FLOW, MCFD.....	16000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.2	METHANE.....	92.2	METHANE.....	77.7
ETHANE.....	3.7	ETHANE.....	3.7	ETHANE.....	12.2
PROpane.....	0.8	PROpane.....	0.8	PROpane.....	3.4
N-BUTANE.....	0.2	N-BUTANE.....	0.2	N-BUTANE.....	1.2
ISOBUTANE.....	0.1	ISOBUTANE.....	0.1	ISOBUTANE.....	0.6
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.5
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	0.7	NITROGEN.....	1.4	NITROGEN.....	1.4
OXYGEN.....	0.0	OXYGEN.....	0.2	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	0.4
HELIUM.....	0.04	HELIUM.....	0.04	HELIUM.....	0.05
HEATING VALUE.....	1051	HEATING VALUE.....	1041	HEATING VALUE.....	1250
SPECIFIC GRAVITY.....	0.603	SPECIFIC GRAVITY.....	0.607	SPECIFIC GRAVITY.....	0.726

INDEX 10540 SAMPLE 14593		INDEX 10541 SAMPLE 15574		INDEX 10542 SAMPLE 3068	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	ST. CLAIR	FIELD.....	ST. CLAIR	FIELD.....	WILDCAT
WELL NAME.....	CHRISTIE-TIPPS A NO. 1	WELL NAME.....	CHRISTIE-TIPPS NO. 1	WELL NAME.....	CUNNINGHAM AAA
LOCATION.....	SEC. 70, BLK. D-1, H&GN SUR.	LOCATION.....	SEC. 70, BLK. D-1, H&GN SUR.	LOCATION.....	SEC. 74, BLK. 17-2
OWNER.....	ANADARKO PRODUCTION CO.	OWNER.....	PARADOX PETROLEUM CO.	OWNER.....	J. T. WHITLOCK
COMPLETED.....	06/16/75	COMPLETED.....	--/--/00	COMPLETED.....	04/13/39
SAMPLED.....	03/05/76	SAMPLED.....	03/07/79	SAMPLED.....	02/02/42
FORMATION.....	PERM-GRANITE WASH	FORMATION.....	PERM-GRANITE WASH	FORMATION.....	- DOLOMITE
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	9529	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	4400
WELLHEAD PRESSURE, PSIG.....	2114	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	11856	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	71.3	METHANE.....	82.7	METHANE.....	2.7
ETHANE.....	12.7	ETHANE.....	4.0	ETHANE.....	0.0
PROpane.....	6.1	PROpane.....	1.1	PROpane.....	---
N-BUTANE.....	1.6	N-BUTANE.....	0.5	N-BUTANE.....	---
ISOBUTANE.....	0.5	ISOBUTANE.....	0.3	ISOBUTANE.....	---
N-PENTANE.....	0.4	N-PENTANE.....	0.3	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	0.3	ISOPENTANE.....	---
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	5.4	NITROGEN.....	0.7	NITROGEN.....	96.9
OXYGEN.....	1.2	OXYGEN.....	0.0	OXYGEN.....	0.2
ARGON.....	0.1	ARGON.....	0.0	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.00
HELIUM.....	0.05	HELIUM.....	0.04	HELIUM.....	27
HEATING VALUE.....	1208	HEATING VALUE.....	1209	HEATING VALUE.....	0.958
SPECIFIC GRAVITY.....	0.760	SPECIFIC GRAVITY.....	0.693	SPECIFIC GRAVITY.....	0.958

INDEX 10543 SAMPLE 5800		INDEX 10544 SAMPLE 6334		INDEX 10545 SAMPLE 6408	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	PARSELL-FLOWERS NO. 1	WELL NAME.....	PARSELL ESTATE NO. 1	WELL NAME.....	HILL NO. 1-A
LOCATION.....	SEC. 75, BLK. C, G&M SUR.	LOCATION.....	SEC. 155, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 146, BLK. 146, H&TC SUR.
OWNER.....	CREE DRILLING CO.	OWNER.....	SUN OIL CO.	OWNER.....	PARKER PETROLEUM CO., INC.
COMPLETED.....	11/20/54	COMPLETED.....	06/05/57	COMPLETED.....	09/30/57
SAMPLED.....	04/06/55	SAMPLED.....	06/05/57	SAMPLED.....	10/04/57
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	3742	DEPTH, FEET.....	11000	DEPTH, FEET.....	9832
WELLHEAD PRESSURE, PSIG.....	886	WELLHEAD PRESSURE, PSIG.....	4310	WELLHEAD PRESSURE, PSIG.....	3378
OPEN FLOW, MCFD.....	4500	OPEN FLOW, MCFD.....	8000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	79.5	METHANE.....	96.0	METHANE.....	89.9
ETHANE.....	5.6	ETHANE.....	1.5	ETHANE.....	6.5
PROpane.....	0.7	PROpane.....	0.2	PROpane.....	1.7
N-BUTANE.....	0.7	N-BUTANE.....	0.2	N-BUTANE.....	0.2
ISOBUTANE.....	0.3	ISOBUTANE.....	0.1	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.1	NITROGEN.....	0.2	NITROGEN.....	0.2
OXYGEN.....	1.5	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	1.7	CARBON DIOXIDE.....	0.9
HELIUM.....	0.06	HELIUM.....	0.04	HELIUM.....	0.10
HEATING VALUE.....	1016	HEATING VALUE.....	1016	HEATING VALUE.....	1101
SPECIFIC GRAVITY.....	0.601	SPECIFIC GRAVITY.....	0.586	SPECIFIC GRAVITY.....	0.627

INDEX 10546 SAMPLE 6411		INDEX 10547 SAMPLE 13567		INDEX 10548 SAMPLE 15106	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ROBERTS	COUNTY.....	ROBERTS	COUNTY.....	ROBERTS
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	HILL NO. 1-A	WELL NAME.....	R. A. FLOWERS NO. 1	WELL NAME.....	BRAINARD NO. 2
LOCATION.....	SEC. 146, BLK. 42, H&TC SUR.	LOCATION.....	SEC. 4, BLK. C, B&EF SUR.	LOCATION.....	SEC. 4, BLK. A, H&GN SUR.
OWNER.....	PARKER PETROLEUM CO., INC.	OWNER.....	AMARILLO OIL CO.	OWNER.....	PARAMOUNT PRODUCING, INC.
COMPLETED.....	09/30/57	COMPLETED.....	12/23/72	COMPLETED.....	--/--/00
SAMPLED.....	03/20/77	SAMPLED.....	03/20/73	SAMPLED.....	09/23/77
FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW L	FORMATION.....	PENN-MORROW
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	9832	DEPTH, FEET.....	11994	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	3378	WELLHEAD PRESSURE, PSIG.....	4771	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	7800	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.6	METHANE.....	96.0	METHANE.....	90.0
ETHANE.....	3.4	ETHANE.....	0.8	ETHANE.....	4.1
PROpane.....	1.3	PROpane.....	0.1	PROpane.....	1.7
N-BUTANE.....	0.3	N-BUTANE.....	TRACE	N-BUTANE.....	0.5
ISOBUTANE.....	0.1	ISOBUTANE.....	0.0	ISOBUTANE.....	0.1
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	0.0	NITROGEN.....	0.3	NITROGEN.....	2.6
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.6	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.18
HEATING VALUE.....	1083	HEATING VALUE.....	989	HEATING VALUE.....	1071
SPECIFIC GRAVITY.....	0.624	SPECIFIC GRAVITY.....	0.585	SPECIFIC GRAVITY.....	0.624

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10549 SAMPLE 15107	INDEX 10550 SAMPLE 16293	INDEX 10551 SAMPLE 4916
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	ROBERTS		RUNNELS	RUNNELS
FIELD.....	WILLOW CREEK		COLLON	ELM CREEK
WELL NAME.....	BRAINARD NO. 1		A. J. COLLON A NO. 1	J. P. KNIGHT NO. 1
LOCATION.....	SEC. 4, BLK. E, H&GN SUR.		JULIANA V. CABRERA SUR. 514	BB&C SUR. NO. 346
OWNER.....	PARAMOUNT PRODUCING, INC.		HARKIN OIL & GAS, INC.	KILLAM & HURD, LTD.
COMPLETED.....	7/77/00		12/20/80	06/03/50
SAMPLED.....	09/23/77		07/16/81	08/07/50
FORMATION.....	PENN-MORROW		ORDO-ELLENBURGER	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	425		425	425
DEPTH, FEET.....	NOT GIVEN		4352	3950
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1750	945
OPEN FLOW, MCFD.....	NOT GIVEN		6000	20000
COMPONENT, MOLE PCT				
METHANE.....	89.6	69.4	5.8	37.3
ETHANE.....	4.4	10.1	37.3	34.1
PROPANE.....	2.1	5.5	11.4	11.4
N-BUTANE.....	0.7	1.5	4.9	2.5
ISOBUTANE.....	0.2	0.7	1.6	0.1
N-PENTANE.....	0.2	0.4	1.0	0.0
ISOPENTANE.....	0.1	0.4	0.0	0.0
CYCLOPENTANE.....	0.1	0.2	0.0	0.0
HEXANES PLUS.....	0.2	0.3	0.0	0.0
NITROGEN.....	1.9	11.0	0.0	0.0
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	0.0	0.0
HYDROGEN.....	0.0	TRACE	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.2	0.0	0.0
HELIUM.....	0.15	0.38	0.0	0.0
HEATING VALUE.....	1098	1154	0.0	0.0
SPECIFIC GRAVITY.....	0.633	0.763	0.0	0.0
		INDEX 10552 SAMPLE 13671	INDEX 10553 SAMPLE 12174	INDEX 10554 SAMPLE 13796
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	RUNNELS		RUNNELS	RUNNELS
FIELD.....	LOVE		ROWENA	ROWENA
WELL NAME.....	WILLEKE NO. 2		ROWENA-GARDENER NO. 1	CHARLES MATSCHEK NO. 1
LOCATION.....	WILLIAM WILSON SUR. 1		SEC. 113, PETER ZOBEL SUR.	FRANCIS HELMER SUR. 417
OWNER.....	JAMES K. ANDERSON		HUMBLE OIL & REFINING, ET AL	J. FRANK STRINGER
COMPLETED.....	07/24/72		12/22/67	06/19/72
SAMPLED.....	08/04/73		01/22/70	11/01/73
FORMATION.....	PENN-FRY		CRET-GARDNER	EOCE-JENNINGS
GEOLOGIC PROVINCE CODE.....	425		425	425
DEPTH, FEET.....	3146	4041	4066	
WELLHEAD PRESSURE, PSIG.....	1060	1465	1576	
OPEN FLOW, MCFD.....	2600	6400	4200	
COMPONENT, MOLE PCT				
METHANE.....	78.5	71.3	75.1	
ETHANE.....	6.6	8.9	7.3	
PROPANE.....	3.4	6.2	4.8	
N-BUTANE.....	0.9	1.4	1.6	
ISOBUTANE.....	0.5	0.6	0.7	
N-PENTANE.....	0.2	0.2	0.2	
ISOPENTANE.....	0.3	0.6	0.4	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	9.0	10.1	9.0	
OXYGEN.....	0.0	TRACE	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.3	
HELIUM.....	0.37	0.27	0.30	
HEATING VALUE.....	1075	1153	1124	
SPECIFIC GRAVITY.....	0.691	0.752	0.725	
		INDEX 10555 SAMPLE 5120	INDEX 10556 SAMPLE 12257	INDEX 10557 SAMPLE 5112
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	RUNNELS		RUNNELS	RUNNELS
FIELD.....	SYKES		WILDCAT	WINTERS
WELL NAME.....	B. R. THETFORD WELL NO. 1		REBECCA MILLER NO. 12	SEC. 353, H&TC SUR.
LOCATION.....	WHARTON CO. SUR. NO. 509		GEORGE SUR.	ANTON OIL CORP.
OWNER.....	MID-CONTINENT PETROLEUM CORP		TEXAS PACIFIC OIL CO., INC.	06/04/51
COMPLETED.....	08/02/51		10/22/69	10/17/51
SAMPLED.....	11/19/51		05/12/70	06/04/51
FORMATION.....	PENN-SYKES MORRIS		PENN-MORRIS	PENN-CADDO
GEOLOGIC PROVINCE CODE.....	425		425	425
DEPTH, FEET.....	3682	3845	4444	
WELLHEAD PRESSURE, PSIG.....	1516	1114	NOT GIVEN	
OPEN FLOW, MCFD.....	7200	2700	NOT GIVEN	
COMPONENT, MOLE PCT				
METHANE.....	69.9	69.9	66.3	
ETHANE.....	8.1	8.4	8.5	
PROPANE.....	4.7	5.4	4.5	
N-BUTANE.....	0.3	0.2	1.2	
ISOBUTANE.....	0.4	0.7	0.5	
N-PENTANE.....	0.4	0.3	0.3	
ISOPENTANE.....	0.1	0.1	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.3	0.2	0.3	
NITROGEN.....	14.0	13.3	10.7	
OXYGEN.....	0.1	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.1	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.0	7.2	
HELIUM.....	0.34	0.35	0.34	
HEATING VALUE.....	1069	1090	1030	
SPECIFIC GRAVITY.....	0.745	0.744	0.795	
		INDEX 10558 SAMPLE 12658	INDEX 10559 SAMPLE 15092	INDEX 10560 SAMPLE 5621
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	RUNNELS		RUSK	RUSK
FIELD.....	WINTERS SW		BIG BARNETT	CARTAGE
WELL NAME.....	D. S. VANCIL NO. 1		DR. JOSEPH L. GOLDMAN NO. 1	TURLINGTON NO. 1
LOCATION.....	NOT GIVEN		E. TAYLOR SUR. A-771	NOT GIVEN
OWNER.....	HUMBLE OIL & REFINING CO.		LAWO PETROLEUM CO.	CARTER-JONES DRILLING CO.
COMPLETED.....	10/30/61		05/10/75	04/03/54
SAMPLED.....	02/05/71		09/09/77	05/25/54
FORMATION.....	PENN-STRAWN		CRET-RODESSA	CRET-PETTIT L
GEOLOGIC PROVINCE CODE.....	425		260	260
DEPTH, FEET.....	4415	6993	6830	
WELLHEAD PRESSURE, PSIG.....	1435	3057	3023	
OPEN FLOW, MCFD.....	3350	3800	95000	
COMPONENT, MOLE PCT				
METHANE.....	72.2	93.7	87.5	
ETHANE.....	2.6	2.4	5.1	
PROPANE.....	1.1	0.5	2.2	
N-BUTANE.....	1.4	0.2	0.8	
ISOBUTANE.....	0.6	0.1	0.7	
N-PENTANE.....	0.4	0.1	0.4	
ISOPENTANE.....	0.4	TRACE	0.2	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.2	0.1	0.5	
NITROGEN.....	9.8	2.7	1.5	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	1.0	1.0	
HELIUM.....	0.2	0.02	0.03	
HEATING VALUE.....	1151	1025	1141	
SPECIFIC GRAVITY.....	0.745	0.596	0.666	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10561 SAMPLE 16482		INDEX 10562 SAMPLE 12477		INDEX 10563 SAMPLE 2473	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	RUSK	COUNTY.....	RUSK	COUNTY.....	RUSK
FIELD.....	CYRIL	FIELD.....	DANVILLE	FIELD.....	EAST TEXAS
WELL NAME.....	PEARL BARRON NO. 1	WELL NAME.....	C. V. LEE NO. 1-U	WELL NAME.....	RAS LACY NO. 1
LOCATION.....	JAMES SMITH SUR., A-709	LOCATION.....	HENRY WELLS SUR.	LOCATION.....	J. W. SPARKS SUR.
OWNER.....	MCGOLDRICK OIL CO.	OWNER.....	TEXACO INC.	OWNER.....	STANOLIND OIL & GAS CO.
COMPLETED.....	03/-/81	COMPLETED.....	08/19/59	COMPLETED.....	02/11/32
SAMPLED.....	04/06/82	SAMPLED.....	10/23/70	SAMPLED.....	02/29/32
FORMATION.....	JURA-COTTON VALLEY	FORMATION.....	CRET-PEITIT	FORMATION.....	CRET-WOODBINE
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	10700	DEPTH, FEET.....	7372	DEPTH, FEET.....	3604
WELLHEAD PRESSURE, PSIG.....	4800	WELLHEAD PRESSURE, PSIG.....	975	WELLHEAD PRESSURE, PSIG.....	1570
OPEN FLOW, MCFD.....	500	OPEN FLOW, MCFD.....	1305	OPEN FLOW, MCFD.....	40000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.1	METHANE.....	93.6	METHANE.....	75.5
ETHANE.....	6.2	ETHANE.....	2.9	ETHANE.....	11.8
PROPANE.....	1.8	PROPANE.....	0.8	PROPANE.....	---
N-BUTANE.....	0.5	N-BUTANE.....	0.5	N-BUTANE.....	---
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	---
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	---
ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE	ISOPENTANE.....	---
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3	HEXANES PLUS.....	---
NITROGEN.....	0.3	NITROGEN.....	0.4	NITROGEN.....	11.4
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.7
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	0.6
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1117	HEATING VALUE.....	1058	HEATING VALUE.....	976
SPECIFIC GRAVITY.....	0.641	SPECIFIC GRAVITY.....	0.606	SPECIFIC GRAVITY.....	0.670

INDEX 10564 SAMPLE 10740		INDEX 10565 SAMPLE 12469		INDEX 10566 SAMPLE 12470	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	RUSK	COUNTY.....	RUSK	COUNTY.....	RUSK
FIELD.....	GARRISON NE	FIELD.....	HENDERSON	FIELD.....	HENDERSON
WELL NAME.....	HAIRGROVE GAS UNIT NO. 1	WELL NAME.....	FREEMAN MILLER NO. 1	WELL NAME.....	T. V. BENNETT NO. 1
LOCATION.....	H. GRAHAM SUR. A-222	LOCATION.....	5 MI. N OF HENDERSON	LOCATION.....	4 MI. N OF HENDERSON
OWNER.....	PAN AMERICAN PETROLEUM CORP.	OWNER.....	AMERICAN PETROFINA CO.	OWNER.....	AMERICAN PETROFINA CO.
COMPLETED.....	05/28/65	COMPLETED.....	--/-/00	COMPLETED.....	--/-/00
SAMPLED.....	10/06/66	SAMPLED.....	10/22/70	SAMPLED.....	10/22/70
FORMATION.....	CRET-RODESSA	FORMATION.....	CRET-TRAVIS PEAK	FORMATION.....	CRET-PEITIT
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	6012	DEPTH, FEET.....	7450	DEPTH, FEET.....	7250
WELLHEAD PRESSURE, PSIG.....	2626	WELLHEAD PRESSURE, PSIG.....	550	WELLHEAD PRESSURE, PSIG.....	600
OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	350	OPEN FLOW, MCFD.....	55
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.4	METHANE.....	88.4	METHANE.....	87.7
ETHANE.....	1.7	ETHANE.....	3.7	ETHANE.....	5.5
PROPANE.....	0.8	PROPANE.....	1.0	PROPANE.....	2.2
N-BUTANE.....	0.1	N-BUTANE.....	0.6	N-BUTANE.....	0.6
ISOBUTANE.....	0.3	ISOBUTANE.....	0.8	ISOBUTANE.....	0.5
N-PENTANE.....	0.1	N-PENTANE.....	0.6	N-PENTANE.....	0.2
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.3
NITROGEN.....	0.6	NITROGEN.....	0.5	NITROGEN.....	0.8
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.7	CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	1.0
HELIUM.....	TRACE	HELIUM.....	0.03	HELIUM.....	0.02
HEATING VALUE.....	1041	HEATING VALUE.....	1111	HEATING VALUE.....	1109
SPECIFIC GRAVITY.....	0.606	SPECIFIC GRAVITY.....	0.656	SPECIFIC GRAVITY.....	0.650

INDEX 10567 SAMPLE 12437		INDEX 10568 SAMPLE 14816		INDEX 10569 SAMPLE 17543	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	RUSK	COUNTY.....	RUSK	COUNTY.....	RUSK
FIELD.....	HENDERSON S	FIELD.....	JARRELL CREEK	FIELD.....	KILGORE S
WELL NAME.....	ALFORD HARVEY NO. 1	WELL NAME.....	2 MI. E OF HENDERSON	WELL NAME.....	PAT. CHRISTIAN MCCROY NO. 1-P
LOCATION.....	SESCO PRODUCTION CO.	LOCATION.....	FAIR OIL CO., LTD	LOCATION.....	H. FARMER SURVEY A-287
OWNER.....	SESCO PRODUCTION CO.	OWNER.....	FAIR OIL CO., LTD	OWNER.....	RAINBOW RESOURCES, INC.
COMPLETED.....	12/31/75	COMPLETED.....	12/31/75	COMPLETED.....	09/23/83
SAMPLED.....	10/13/70	SAMPLED.....	--/-/00	SAMPLED.....	--/-/00
FORMATION.....	CRET-TRAVIS PEAK	FORMATION.....	CRET-TRAVIS PEAK	FORMATION.....	CRET-TRAVIS PEAK
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	7506	DEPTH, FEET.....	7458	DEPTH, FEET.....	7518
WELLHEAD PRESSURE, PSIG.....	2907	WELLHEAD PRESSURE, PSIG.....	2878	WELLHEAD PRESSURE, PSIG.....	2633
OPEN FLOW, MCFD.....	14750	OPEN FLOW, MCFD.....	5600	OPEN FLOW, MCFD.....	2330
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.2	METHANE.....	89.7	METHANE.....	75.1
ETHANE.....	2.8	ETHANE.....	3.0	ETHANE.....	4.2
PROPANE.....	1.3	PROPANE.....	1.7	PROPANE.....	1.6
N-BUTANE.....	0.1	N-BUTANE.....	0.7	N-BUTANE.....	0.7
ISOBUTANE.....	0.9	ISOBUTANE.....	0.7	ISOBUTANE.....	0.4
N-PENTANE.....	0.5	N-PENTANE.....	0.5	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.7	HEXANES PLUS.....	0.4
NITROGEN.....	1.8	NITROGEN.....	1.8	NITROGEN.....	13.1
OXYGEN.....	0.0	OXYGEN.....	0.6	OXYGEN.....	2.9
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.1
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.7
HELIUM.....	0.04	HELIUM.....	0.03	HELIUM.....	0.03
HEATING VALUE.....	1099	HEATING VALUE.....	1127	HEATING VALUE.....	969
SPECIFIC GRAVITY.....	0.646	SPECIFIC GRAVITY.....	0.655	SPECIFIC GRAVITY.....	0.711

INDEX 10570 SAMPLE 14315		INDEX 10571 SAMPLE 16418		INDEX 10572 SAMPLE 15351	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	RUSK	COUNTY.....	RUSK	COUNTY.....	RUSK
FIELD.....	MINDEN	FIELD.....	MOUNT ENTERPRISE	FIELD.....	OAKHILL
WELL NAME.....	C. C. BURKS NO. 1	WELL NAME.....	TEMPLE NO. 2	WELL NAME.....	G. W. BIRD NO. 1
LOCATION.....	DANIEL WOODLAND SUR. A-845	LOCATION.....	S. DANIEL WOODLAND SUR., A-926	LOCATION.....	JAMES MCALAIN SUR. A-19
OWNER.....	JONES-O'BRIEN, INC.	OWNER.....	HINTON PRODUCTION CO.	OWNER.....	MCCORMICK OIL & GAS CORP.
COMPLETED.....	01/29/73	COMPLETED.....	08/01/81	COMPLETED.....	11/18/76
SAMPLED.....	03/28/75	SAMPLED.....	01/29/82	SAMPLED.....	08/25/78
FORMATION.....	CRET-TRAVIS PEAK	FORMATION.....	CRET-PEITIT	FORMATION.....	JURA-COTTON VALLEY
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	7108	DEPTH, FEET.....	7700	DEPTH, FEET.....	9075
WELLHEAD PRESSURE, PSIG.....	4271	WELLHEAD PRESSURE, PSIG.....	1700	WELLHEAD PRESSURE, PSIG.....	3200
OPEN FLOW, MCFD.....	4400	OPEN FLOW, MCFD.....	1000	OPEN FLOW, MCFD.....	4792
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	88.3	METHANE.....	91.3	METHANE.....	95.3
ETHANE.....	2.1	ETHANE.....	1.5	ETHANE.....	1.6
PROPANE.....	2.2	PROPANE.....	1.5	PROPANE.....	0.3
N-BUTANE.....	0.7	N-BUTANE.....	0.6	N-BUTANE.....	0.1
ISOBUTANE.....	0.4	ISOBUTANE.....	0.7	ISOBUTANE.....	0.1
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	TRACE
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	1.2	NITROGEN.....	1.2	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	2.1
HELIUM.....	0.02	HELIUM.....	0.02	HELIUM.....	0.01
HEATING VALUE.....	1122	HEATING VALUE.....	1096	HEATING VALUE.....	1014
SPECIFIC GRAVITY.....	0.652	SPECIFIC GRAVITY.....	0.629	SPECIFIC GRAVITY.....	0.593

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10573 12440	INDEX SAMPLE	10574 12540	INDEX SAMPLE	10575 15077
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	RUSK			RUSK		RUSK	
FIELD	PENN-GRIFFIN			PONE		RUFUS	
WELL NAME	PRIOR NO. 1			PONE GAS UNIT NO. 3		KANGERGA NO. 1	
LOCATION	HENDERSON			JOHN PILBURN SUR.		JOHN H. WHITE SUR. A-813	
OWNER	W. R. HUGHEY OPERATING CO.			HUMBLE OIL & REFINING CO.		HINTON PRODUCTION CO.	
COMPLETED	11/27/63			06/13/61		10/01/75	
SAMPLED	10/10/70			11/11/70		08/12/77	
FORMATION	CRET-PETTIT			CRET-PETTIT		CRET-PETTIT	
GEOLOGIC PROVINCE CODE	260			260		260	
DEPTH, FEET	7360			7430		7256	
WELLHEAD PRESSURE, PSIG	1800			1787		2581	
OPEN FLOW, MCFD	897			6200		14000	
COMPONENT, MOLE PCT							
METHANE	89.2			89.5		85.0	
ETHANE	3.1			3.4		5.2	
PROPANE	0.6			1.6		2.5	
N-BUTANE	0.2			0.7		1.3	
ISOBUTANE	0.3			1.6		1.1	
N-PENTANE	0.1			0.3		0.9	
ISOPENTANE	0.0			TRACE		0.2	
CYCLOPENTANE	0.1			0.1		0.1	
HEXANES PLUS	0.3			0.4		0.9	
NITROGEN	4.2			2.5		1.5	
OXYGEN	0.5			0.8		0.0	
ARGON	TRACE			TRACE		0.0	
HYDROGEN	0.1			0.1		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.0			0.0		1.1	
HELIUM	0.03			0.03		0.02	
HEATING VALUE	1015			1090		1197	
SPECIFIC GRAVITY	0.627			0.643		0.702	

		INDEX SAMPLE	10576 15349	INDEX SAMPLE	10577 12439	INDEX SAMPLE	10578 13734
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	RUSK			RUSK		TRAWICK NE	
FIELD	RUFUS			SMITH		TRAWICK NE G.U. NO. 1-1	
WELL NAME	PRIOR UNIT NO. 1			MARLIN HARDIN NO. 1-C		MARIA F. HEUJAS SUR. A-14	
LOCATION	4 MI. E OF HENDERSON			MARLIN HARDIN LEASE		EXXON CO., U.S.A.	
OWNER	HINTON PRODUCTION CO.			W. R. HUGHEY OPERATING CO.		10/26/72	
COMPLETED	08/05/77			10/11/70		10/02/73	
SAMPLED	08/16/78			10/11/70		10/02/73	
FORMATION	CRET-PETTIT			CRET-PETTIT		CRET-PETTIT	
GEOLOGIC PROVINCE CODE	260			260		260	
DEPTH, FEET	7036			6400		7174	
WELLHEAD PRESSURE, PSIG	2300			900		3135	
OPEN FLOW, MCFD	9100			5540		7800	
COMPONENT, MOLE PCT							
METHANE	87.0			87.9		92.3	
ETHANE	5.5			5.0		2.4	
PROPANE	0.8			1.9		0.8	
N-BUTANE	0.6			0.6		0.2	
ISOBUTANE	0.5			0.7		0.3	
N-PENTANE	0.3			0.4		0.1	
ISOPENTANE	0.2			0.0		0.1	
CYCLOPENTANE	0.1			0.1		TRACE	
HEXANES PLUS	0.3			0.5		0.1	
NITROGEN	0.2			0.0		2.8	
OXYGEN	0.0			0.2		TRACE	
ARGON	TRACE			0.0		TRACE	
HYDROGEN	0.1			0.1		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	1.2			0.8		0.9	
HELIUM	0.02			0.02		0.03	
HEATING VALUE	1122			1120		1029	
SPECIFIC GRAVITY	0.662			0.655		0.608	

		INDEX SAMPLE	10579 14178	INDEX SAMPLE	10580 16436	INDEX SAMPLE	10581 11971
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	RUSK			RUSK		SAN JACINTO	
FIELD	TRAWICK NE			TRAWICK NW		MERCY S	
WELL NAME	GAS UNIT 2 NO. 1			M-66 MOORE NO. 1		CENTRAL COAL&COKE CORP. NO.1	
LOCATION	JOSE DURST SUR. A-8			JOSEPH E. PETTON, A-639		J. ROBINSON SUR. A-45	
OWNER	EXXON CO., U.S.A.			PETRUS OPERATING CO., INC.		COASTAL STATES GAS PROD. CO.	
COMPLETED	01/23/73			02/25/82		05/05/68	
SAMPLED	10/11/74			02/25/82		07/15/69	
FORMATION	CRET-PETTIT			CRET-PETTIT		EDGEWILCOX	
GEOLOGIC PROVINCE CODE	260			260		220	
DEPTH, FEET	7494			7854		9464	
WELLHEAD PRESSURE, PSIG	2175			3250		2212	
OPEN FLOW, MCFD	1738			NOT GIVEN		6650	
COMPONENT, MOLE PCT							
METHANE	91.4			88.4		81.6	
ETHANE	3.2			1.8		6.4	
PROPANE	1.2			1.8		6.0	
N-BUTANE	0.4			0.8		1.0	
ISOBUTANE	0.6			0.8		0.7	
N-PENTANE	0.1			0.7		0.2	
ISOPENTANE	0.2			0.5		0.4	
CYCLOPENTANE	TRACE			0.2		0.1	
HEXANES PLUS	0.1			0.2		0.2	
NITROGEN	2.0			2.3		1.8	
OXYGEN	0.0			0.0		0.1	
ARGON	0.0			0.0		0.0	
HYDROGEN	0.0			0.0		TRACE	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.9			0.7		1.2	
HELIUM	0.03			0.02		0.01	
HEATING VALUE	1059			1154		1204	
SPECIFIC GRAVITY	0.619			0.677		0.714	

		INDEX SAMPLE	10582 16106	INDEX SAMPLE	10583 4344	INDEX SAMPLE	10584 13721
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	SAN PATRICIO			SAN PATRICIO		SAN PATRICIO	
FIELD	BRANNON			BRANNON		HARVEY DEEP	
WELL NAME	J. R. C. BRANNON NO. 1			MCGLOIN NO. 1		J. H. HARVEY NO. 4	
LOCATION	P. BRYDYS SUR. A-52			NOT GIVEN		GEORGE SARGENT SUR. A-231	
OWNER	WAINOCO OIL & GAS CO.			SOUTHERN MINERALS CORP.		JAKE L. HARSH	
COMPLETED	01/11/79			06/09/47		03/16/72	
SAMPLED	10/21/80			08/13/47		09/19/73	
FORMATION	OLIG-FRIO			OLIG-		OLIG-FRIO GRIMSHAW	
GEOLOGIC PROVINCE CODE	220			220		220	
DEPTH, FEET	10521			5956		10510	
WELLHEAD PRESSURE, PSIG	6755			2300		2500	
OPEN FLOW, MCFD	3537			330000		8100	
COMPONENT, MOLE PCT							
METHANE	88.8			84.9		84.8	
ETHANE	6.2			14.8		6.8	
PROPANE	2.5			---		1.2	
N-BUTANE	0.5			---		1.0	
ISOBUTANE	0.6			---		0.9	
N-PENTANE	0.1			---		0.3	
ISOPENTANE	0.1			---		0.9	
CYCLOPENTANE	TRACE			---		0.2	
HEXANES PLUS	0.1			---		0.7	
NITROGEN	0.2			0.0		0.1	
OXYGEN	TRACE			0.2		0.0	
ARGON	0.0			---		0.0	
HYDROGEN	0.0			---		TRACE	
HYDROGEN SULFIDE	0.0			---		0.0	
CARBON DIOXIDE	0.8			0.1		1.0	
HELIUM	TRACE			0.1		TRACE	
HEATING VALUE	1126			1125		1222	
SPECIFIC GRAVITY	0.641			0.630		0.702	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10585 SAMPLE 13720		INDEX 10586 SAMPLE 6027		INDEX 10587 SAMPLE 13110	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO
FIELD.....	MIDWAY S	FIELD.....	MIDWAY S	FIELD.....	MIDWAY S
WELL NAME.....	J. H. HARVEY NO. 6	WELL NAME.....	STARK NO. 1	WELL NAME.....	GLADYS HOSKINSON ET AL. NO.1
LOCATION.....	GEORGE SARGENT SUR. A-231	LOCATION.....	SEC. 92, 6. H. PAUL SUBD.	LOCATION.....	SEC. 80, GEORGE H. PAUL
OWNER.....	JACK L. HAMON	OWNER.....	REPUBLIC NATURAL GAS CO.	OWNER.....	GULF COAST PRODUCING CO.
COMPLETED.....	12/24/71	COMPLETED.....	11/09/55	COMPLETED.....	08/01/70
SAMPLED.....	09/19/73	SAMPLED.....	02/17/56	SAMPLED.....	12/09/71
FORMATION.....	OLIG-FRIO M-2	FORMATION.....	OLIG-STARK	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8970	DEPTH, FEET.....	9431	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1500	WELLHEAD PRESSURE, PSIG.....	3300	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	4800	OPEN FLOW, MCFD.....	7100	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.3	METHANE.....	89.3	METHANE.....	88.8
ETHANE.....	6.6	ETHANE.....	5.1	ETHANE.....	5.0
PROPANE.....	3.4	PROPANE.....	2.6	PROPANE.....	2.7
N-BUTANE.....	0.9	N-BUTANE.....	0.8	N-BUTANE.....	0.7
ISOBUTANE.....	1.0	ISOBUTANE.....	0.9	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.4	ISOPENTANE.....	0.3	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2
NITROGEN.....	0.4	NITROGEN.....	0.2	NITROGEN.....	0.9
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.2	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.6
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1189	HEATING VALUE.....	1157	HEATING VALUE.....	1134
SPECIFIC GRAVITY.....	0.676	SPECIFIC GRAVITY.....	0.650	SPECIFIC GRAVITY.....	0.650

INDEX 10588 SAMPLE 15455		INDEX 10589 SAMPLE 4682		INDEX 10590 SAMPLE 5171	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO
FIELD.....	MIDWAY S	FIELD.....	MORGAN	FIELD.....	NOT GIVEN
WELL NAME.....	SHELL A NO. 1	WELL NAME.....	T. C. HILL NO. 2	WELL NAME.....	E. H. WELDER NO. F-8
LOCATION.....	SAN PAT SEM LAND NO.3, A-235	LOCATION.....	NOT GIVEN	LOCATION.....	SEC. 31, WELDER RANCH SUBD.
OWNER.....	CITIES SERVICE CO.	OWNER.....	SOUTHERN MINERALS CORP.	OWNER.....	PLYMOUTH OIL CO.
COMPLETED.....	01/29/77	COMPLETED.....	11/14/48	COMPLETED.....	---/---/70
SAMPLED.....	10/19/78	SAMPLED.....	04/15/49	SAMPLED.....	02/27/52
FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO	FORMATION.....	MIOC-OAKVILLE
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	13112	DEPTH, FEET.....	6684	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1375	WELLHEAD PRESSURE, PSIG.....	2555	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	3550	OPEN FLOW, MCFD.....	10000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.1	METHANE.....	93.5	METHANE.....	97.9
ETHANE.....	5.8	ETHANE.....	3.4	ETHANE.....	0.1
PROPANE.....	2.0	PROPANE.....	1.2	PROPANE.....	0.1
N-BUTANE.....	0.5	N-BUTANE.....	0.6	N-BUTANE.....	0.1
ISOBUTANE.....	0.4	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.0
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0
NITROGEN.....	0.3	NITROGEN.....	0.7	NITROGEN.....	1.5
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.2
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1120	HEATING VALUE.....	1079	HEATING VALUE.....	999
SPECIFIC GRAVITY.....	0.644	SPECIFIC GRAVITY.....	0.605	SPECIFIC GRAVITY.....	0.966

INDEX 10591 SAMPLE 11897		INDEX 10592 SAMPLE 4095		INDEX 10593 SAMPLE 12731	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO
FIELD.....	ODEM	FIELD.....	ONEIL	FIELD.....	PLYMOUTH
WELL NAME.....	J. F. WELDER C-10	WELL NAME.....	WELDER RANCH LANDS NO. 2	WELL NAME.....	E. H. WELDER C NO. 151
LOCATION.....	JOHN HART & SONS SUR. A-10	LOCATION.....	NOT GIVEN	LOCATION.....	SEC. 48, WELDER RANCH S/D
OWNER.....	TEXACO INC.	OWNER.....	STANOLIND OIL & GAS CO.	OWNER.....	MARATHON OIL CO.
COMPLETED.....	09/13/68	COMPLETED.....	02/18/45	COMPLETED.....	12/11/68
SAMPLED.....	05/20/69	SAMPLED.....	06/11/45	SAMPLED.....	03/23/71
FORMATION.....	OLIG-VICKSBURG	FORMATION.....	MIOC-	FORMATION.....	OLIG-S820 FT.
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	7890	DEPTH, FEET.....	3368	DEPTH, FEET.....	5789
WELLHEAD PRESSURE, PSIG.....	5439	WELLHEAD PRESSURE, PSIG.....	1470	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	7600	OPEN FLOW, MCFD.....	7400	OPEN FLOW, MCFD.....	5180
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.6	METHANE.....	98.3	METHANE.....	91.2
ETHANE.....	1.7	ETHANE.....	1.2	ETHANE.....	1.3
PROPANE.....	1.0	PROPANE.....	---	PROPANE.....	1.4
N-BUTANE.....	0.7	N-BUTANE.....	---	N-BUTANE.....	0.3
ISOBUTANE.....	0.5	ISOBUTANE.....	---	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	---	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	---	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	---	HEXANES PLUS.....	0.3
NITROGEN.....	0.3	NITROGEN.....	0.0	NITROGEN.....	1.1
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.2
ARGON.....	0.0	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.2
HELIUM.....	TRACE	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1141	HEATING VALUE.....	1017	HEATING VALUE.....	1099
SPECIFIC GRAVITY.....	0.643	SPECIFIC GRAVITY.....	0.565	SPECIFIC GRAVITY.....	0.626

INDEX 10594 SAMPLE 14271		INDEX 10595 SAMPLE 15406		INDEX 10596 SAMPLE 15056	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO
FIELD.....	PORTILLA	FIELD.....	PORTILLA	FIELD.....	PORTLAND N
WELL NAME.....	M. S. WELDER NO. 40	WELL NAME.....	M. S. WELDER NO 55	WELL NAME.....	STIMONS G. U. NO. 8-2
LOCATION.....	SEC. 23, PORTILLA GRANT	LOCATION.....	E. PORTILLA GR. A-25	LOCATION.....	W. B. RHEM SUR. A-318
OWNER.....	SUPERIOR OIL CO.	OWNER.....	SUPERIOR OIL CO.	OWNER.....	GALAXY OIL CO.
COMPLETED.....	01/09/75	COMPLETED.....	01/09/75	COMPLETED.....	01/09/75
SAMPLED.....	02/20/75	SAMPLED.....	01/11/78	SAMPLED.....	07/19/77
FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	6974	DEPTH, FEET.....	7052	DEPTH, FEET.....	10550
WELLHEAD PRESSURE, PSIG.....	930	WELLHEAD PRESSURE, PSIG.....	1531	WELLHEAD PRESSURE, PSIG.....	5600
OPEN FLOW, MCFD.....	291	OPEN FLOW, MCFD.....	8808	OPEN FLOW, MCFD.....	18000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.7	METHANE.....	90.1	METHANE.....	88.5
ETHANE.....	4.7	ETHANE.....	4.8	ETHANE.....	6.2
PROPANE.....	2.7	PROPANE.....	2.4	PROPANE.....	2.3
N-BUTANE.....	0.7	N-BUTANE.....	0.6	N-BUTANE.....	0.5
ISOBUTANE.....	0.7	ISOBUTANE.....	0.6	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.5	NITROGEN.....	0.1	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.8
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1140	HEATING VALUE.....	1129	HEATING VALUE.....	1123
SPECIFIC GRAVITY.....	0.647	SPECIFIC GRAVITY.....	0.636	SPECIFIC GRAVITY.....	0.643

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10597 SAMPLE 11194		INDEX 10598 SAMPLE 3871		INDEX 10599 SAMPLE 11195	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO
FIELD.....	SODKE	FIELD.....	SINTON	FIELD.....	SINTON
WELL NAME.....	WELDER F NO. 1	WELL NAME.....	SAN ANTONIO LOAN&TRUST NO. 1	WELL NAME.....	R. H. WELDER C NO. 5
LOCATION.....	SEC. 40, E.H. WELDER F LEASE	LOCATION.....	3 MI. SW OF SINTON	LOCATION.....	2 MI. N SINTON, TEX.
OWNER.....	MARATHON OIL CO.	OWNER.....	TIOGATER ASSOC. OIL CO.	OWNER.....	J. RAY McDERMOTT & CO., INC.
COMPLETED.....	06/16/66	COMPLETED.....	12/22/71	COMPLETED.....	--/--/00
SAMPLED.....	10/27/66	SAMPLED.....	08/27/74	SAMPLED.....	10/31/67
FORMATION.....	MIOC-6100 FT. SAND	FORMATION.....	OLIG-FRIO	FORMATION.....	MIOC-2300 FT. SAND
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	6210	DEPTH, FEET.....	6663	DEPTH, FEET.....	2300
WELLHEAD PRESSURE, PSIG.....	1880	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	920
OPEN FLOW, MCFD.....	33000	OPEN FLOW, MCFD.....	2530	OPEN FLOW, MCFD.....	58000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.6	METHANE.....	91.4	METHANE.....	99.0
ETHANE.....	4.0	ETHANE.....	7.5	ETHANE.....	0.2
PROpane.....	2.0	PROpane.....	---	PROpane.....	TRACE
N-BUTANE.....	0.7	N-BUTANE.....	---	N-BUTANE.....	0.0
ISOBUTANE.....	0.6	ISOBUTANE.....	---	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	---	N-PENTANE.....	0.0
ISOPENTANE.....	0.3	ISOPENTANE.....	---	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.3	HEXANES PLUS.....	---	HEXANES PLUS.....	0.0
NITROGEN.....	0.8	NITROGEN.....	---	NITROGEN.....	0.7
OXYGEN.....	0.1	OXYGEN.....	0.4	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	---	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	---	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	0.02	HELIUM.....	0.0
HEATING VALUE.....	1122	HEATING VALUE.....	1060	HEATING VALUE.....	1005
SPECIFIC GRAVITY.....	0.634	SPECIFIC GRAVITY.....	0.601	SPECIFIC GRAVITY.....	0.558

INDEX 10600 SAMPLE 14275		INDEX 10601 SAMPLE 15206		INDEX 10602 SAMPLE 13868	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO
FIELD.....	TAFT NO. 1	FIELD.....	TRIPLE A	FIELD.....	WHITE POINT E
WELL NAME.....	MAYO NO. 1	WELL NAME.....	OL. MCCANN NO. 1	WELL NAME.....	SOLAR FICKE DEEP G.U. NO. 1
LOCATION.....	T. T. WILLIAMSON SUR. A-151	LOCATION.....	J. GARCIA SUR. A-129	LOCATION.....	SEC. 47, GEO. H. PAUL SUBD.
OWNER.....	EDWIN L. COX	OWNER.....	C & K PETROLEUM, INC.	OWNER.....	MARATHON OIL CO.
COMPLETED.....	01/22/73	COMPLETED.....	01/25/76	COMPLETED.....	02/13/72
SAMPLED.....	02/10/75	SAMPLED.....	01/25/76	SAMPLED.....	01/17/74
FORMATION.....	MIOC-CATAHOULA	FORMATION.....	OLIG-FRIO	FORMATION.....	TERT-8750 FT. SAND
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	9300	DEPTH, FEET.....	9211	DEPTH, FEET.....	8736
WELLHEAD PRESSURE, PSIG.....	1447	WELLHEAD PRESSURE, PSIG.....	3866	WELLHEAD PRESSURE, PSIG.....	1700
OPEN FLOW, MCFD.....	3000	OPEN FLOW, MCFD.....	4700	OPEN FLOW, MCFD.....	6200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.3	METHANE.....	79.8	METHANE.....	89.1
ETHANE.....	0.1	ETHANE.....	4.2	ETHANE.....	5.0
PROpane.....	0.1	PROpane.....	4.2	PROpane.....	2.4
N-BUTANE.....	0.1	N-BUTANE.....	0.6	N-BUTANE.....	0.8
ISOBUTANE.....	TRACE	ISOBUTANE.....	2.4	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	0.8	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	1.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.6	CYCLOPENTANE.....	0.3
HEXANES PLUS.....	0.1	HEXANES PLUS.....	1.7	HEXANES PLUS.....	0.5
NITROGEN.....	1.0	NITROGEN.....	2.5	NITROGEN.....	0.0
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.6
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1017	HEATING VALUE.....	1322	HEATING VALUE.....	1142
SPECIFIC GRAVITY.....	0.569	SPECIFIC GRAVITY.....	0.784	SPECIFIC GRAVITY.....	0.651

INDEX 10603 SAMPLE 13869		INDEX 10604 SAMPLE 13874		INDEX 10605 SAMPLE 13875	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO	COUNTY.....	SAN PATRICIO
FIELD.....	WHITE POINT E	FIELD.....	WHITE POINT E	FIELD.....	WHITE POINT E
WELL NAME.....	F. H. FICKE NO. 11J	WELL NAME.....	MAYO-OWENS G.U. NO. 1	WELL NAME.....	MAYO-OWENS G.U. NO. 1
LOCATION.....	SEC. 50, G.H. PAUL SUBD.	LOCATION.....	SEC. 62, H.S. DAY SUR. A-102	LOCATION.....	SEC. 62, H.S. DAY SUR. A-102
OWNER.....	MARATHON OIL CO.	OWNER.....	MOBIL OIL CORP.	OWNER.....	MOBIL OIL CORP.
COMPLETED.....	03/14/72	COMPLETED.....	02/04/72	COMPLETED.....	02/04/72
SAMPLED.....	01/17/74	SAMPLED.....	01/18/74	SAMPLED.....	01/18/74
FORMATION.....	TERT-2850 FT. SAND	FORMATION.....	OLIG-FRIO (OWENS)	FORMATION.....	OLIG-FRIO (MAYO)
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	2837	DEPTH, FEET.....	10294	DEPTH, FEET.....	10158
WELLHEAD PRESSURE, PSIG.....	1107	WELLHEAD PRESSURE, PSIG.....	5038	WELLHEAD PRESSURE, PSIG.....	5692
OPEN FLOW, MCFD.....	35000	OPEN FLOW, MCFD.....	6800	OPEN FLOW, MCFD.....	16500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.8	METHANE.....	89.3	METHANE.....	87.7
ETHANE.....	0.1	ETHANE.....	5.6	ETHANE.....	6.1
PROpane.....	TRACE	PROpane.....	2.7	PROpane.....	0.9
N-BUTANE.....	0.0	N-BUTANE.....	0.5	N-BUTANE.....	0.6
ISOBUTANE.....	0.0	ISOBUTANE.....	0.5	ISOBUTANE.....	1.0
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	1.0	NITROGEN.....	0.3	NITROGEN.....	0.9
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	0.8
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1003	HEATING VALUE.....	1122	HEATING VALUE.....	1149
SPECIFIC GRAVITY.....	0.558	SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.657

INDEX 10606 SAMPLE 15174		INDEX 10607 SAMPLE 14105		INDEX 10608 SAMPLE 11187	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SAN PATRICIO	COUNTY.....	SCHLEICHER	COUNTY.....	SCHLEICHER
FIELD.....	WHITE POINT E	FIELD.....	BLK. 56	FIELD.....	CODY BELL
WELL NAME.....	MAYO KOONCE UNIT NO. 1	WELL NAME.....	UNIV. LANDS Y NO. 1	WELL NAME.....	C. M. BELL NO. 1
LOCATION.....	H. S. DAY SUR. A-102	LOCATION.....	SEC. 5, BLK. 56, U.L. SUR.	LOCATION.....	SEC. 5, BLK. LL, TCRR SUR.
OWNER.....	MARATHON OIL CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	SKELLY OIL CO.
COMPLETED.....	09/11/76	COMPLETED.....	08/14/73	COMPLETED.....	08/23/67
SAMPLED.....	12/22/77	SAMPLED.....	07/09/74	SAMPLED.....	10/23/67
FORMATION.....	OLIG-FRIO	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	PENN-CANYON D
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	10994	DEPTH, FEET.....	8264	DEPTH, FEET.....	6445
WELLHEAD PRESSURE, PSIG.....	1100	WELLHEAD PRESSURE, PSIG.....	2480	WELLHEAD PRESSURE, PSIG.....	2122
OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	600	OPEN FLOW, MCFD.....	3000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.0	METHANE.....	76.1	METHANE.....	74.7
ETHANE.....	5.6	ETHANE.....	12.1	ETHANE.....	8.9
PROpane.....	2.4	PROpane.....	5.1	PROpane.....	5.8
N-BUTANE.....	0.6	N-BUTANE.....	1.3	N-BUTANE.....	1.2
ISOBUTANE.....	0.5	ISOBUTANE.....	0.3	ISOBUTANE.....	0.9
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.4	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	0.5	NITROGEN.....	3.2	NITROGEN.....	6.6
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.9
HELIUM.....	TRACE	HELIUM.....	0.08	HELIUM.....	0.12
HEATING VALUE.....	1129	HEATING VALUE.....	1228	HEATING VALUE.....	1173
SPECIFIC GRAVITY.....	0.645	SPECIFIC GRAVITY.....	0.729	SPECIFIC GRAVITY.....	0.741

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10609 SAMPLE 12946		INDEX 10610 SAMPLE 9589		INDEX 10611 SAMPLE 11033	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SCHLEICHER	COUNTY.....	SCHLEICHER	COUNTY.....	SCHLEICHER
FIELD.....	CODY BELL E	FIELD.....	ELDORADO	FIELD.....	ELDORADO
WELL NAME.....	MORA LEE WEST ET AL. NO. 1	WELL NAME.....	PARKER NO. 1	WELL NAME.....	L. I. WHITTEN NO. 1
LOCATION.....	SEC. 43, BLK. TT, TCRR SUR.	LOCATION.....	SEC. 40, BLK. 11, TCRR SUR.	LOCATION.....	SEC. 25, BLK. LL, TCRR SUR.
OWNER.....	WESLEY WEST	OWNER.....	DELTA DRILLING CO., ET AL.	OWNER.....	SKELLY OIL CO.
COMPLETED.....	09/20/70	COMPLETED.....	08/02/64	COMPLETED.....	06/23/66
SAMPLED.....	08/05/71	SAMPLED.....	09/25/64	SAMPLED.....	07/19/67
FORMATION.....	PENN-CANYON	FORMATION.....	PENN-CANYON	FORMATION.....	PENN-CANYON A
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	6075	DEPTH, FEET.....	6296	DEPTH, FEET.....	6199
WELLHEAD PRESSURE, PSIG.....	2200	WELLHEAD PRESSURE, PSIG.....	2100	WELLHEAD PRESSURE, PSIG.....	1960
OPEN FLOW, MCFD.....	3300	OPEN FLOW, MCFD.....	1900	OPEN FLOW, MCFD.....	6600
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.5	METHANE.....	73.3	METHANE.....	31.1
ETHANE.....	7.8	ETHANE.....	9.8	ETHANE.....	20.4
PROPANE.....	5.5	PROPANE.....	6.3	PROPANE.....	29.9
N-BUTANE.....	1.0	N-BUTANE.....	1.9	N-BUTANE.....	6.7
ISOBUTANE.....	0.7	ISOBUTANE.....	0.8	ISOBUTANE.....	4.1
N-PENTANE.....	0.1	N-PENTANE.....	0.4	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.7	ISOPENTANE.....	2.6
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.3
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.7
NITROGEN.....	6.6	NITROGEN.....	5.2	NITROGEN.....	2.8
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.8
HELIUM.....	0.14	HELIUM.....	0.11	HELIUM.....	0.04
HEATING VALUE.....	1152	HEATING VALUE.....	1258	HEATING VALUE.....	1991
SPECIFIC GRAVITY.....	0.715	SPECIFIC GRAVITY.....	0.773	SPECIFIC GRAVITY.....	1.215

INDEX 10612 SAMPLE 12457		INDEX 10613 SAMPLE 10852		INDEX 10614 SAMPLE 11032	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SCHLEICHER	COUNTY.....	SCHLEICHER	COUNTY.....	SCHLEICHER
FIELD.....	ELDORADO E	FIELD.....	ELDORADO N	FIELD.....	ELDORADO N
WELL NAME.....	JOHN E. DYER NO. 1	WELL NAME.....	MATTIE ROYSTER NO. 1	WELL NAME.....	L. I. WHITTEN NO. 1
LOCATION.....	SEC. 20, BLK. A, HEWTRY SUR.	LOCATION.....	SEC. 23, BLK. LL, TCRR SUR.	LOCATION.....	SEC. 25, BLK. LL, TCRR SUR.
OWNER.....	TUCKER DRILLING CO., INC.	OWNER.....	SKELLY OIL CO.	OWNER.....	SKELLY OIL CO.
COMPLETED.....	06/04/69	COMPLETED.....	08/18/66	COMPLETED.....	08/13/66
SAMPLED.....	10/15/70	SAMPLED.....	01/25/67	SAMPLED.....	07/19/67
FORMATION.....	PENN-CANYON	FORMATION.....	PENN-CANYON A	FORMATION.....	PENN-CANYON B
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	5982	DEPTH, FEET.....	6295	DEPTH, FEET.....	6380
WELLHEAD PRESSURE, PSIG.....	800	WELLHEAD PRESSURE, PSIG.....	2114	WELLHEAD PRESSURE, PSIG.....	2050
OPEN FLOW, MCFD.....	5100	OPEN FLOW, MCFD.....	7700	OPEN FLOW, MCFD.....	920
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.5	METHANE.....	75.5	METHANE.....	74.2
ETHANE.....	6.2	ETHANE.....	8.2	ETHANE.....	8.6
PROPANE.....	5.2	PROPANE.....	5.9	PROPANE.....	5.9
N-BUTANE.....	1.3	N-BUTANE.....	1.3	N-BUTANE.....	1.8
ISOBUTANE.....	0.2	ISOBUTANE.....	0.2	ISOBUTANE.....	1.1
N-PENTANE.....	0.4	N-PENTANE.....	0.6	N-PENTANE.....	0.6
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.9
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.3
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.8
NITROGEN.....	5.4	NITROGEN.....	5.6	NITROGEN.....	5.3
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.3
HELIUM.....	0.14	HELIUM.....	0.13	HELIUM.....	0.13
HEATING VALUE.....	1214	HEATING VALUE.....	1200	HEATING VALUE.....	1273
SPECIFIC GRAVITY.....	0.743	SPECIFIC GRAVITY.....	0.743	SPECIFIC GRAVITY.....	0.778

INDEX 10615 SAMPLE 13780		INDEX 10616 SAMPLE 12691		INDEX 10617 SAMPLE 12695	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SCHLEICHER	COUNTY.....	SCHLEICHER	COUNTY.....	SCHLEICHER
FIELD.....	ELDORADO N	FIELD.....	FORT MCKAVETT	FIELD.....	FORT MCKAVETT
WELL NAME.....	PAGE BROS. NO. 1	WELL NAME.....	SHEEN NO. 1-C	WELL NAME.....	ANGLE WEBSTER NO. 1
LOCATION.....	LGE. 2, CONCHO CSL SUR.	LOCATION.....	NOT GIVEN	LOCATION.....	SEC. 2, BLK. 8, TWANG SUR.
OWNER.....	TUCKER DRILLING CO., INC.	OWNER.....	EL PASO NATURAL GAS CO.	OWNER.....	SKELLY OIL CO.
COMPLETED.....	07/03/72	COMPLETED.....	09/11/64	COMPLETED.....	09/23/65
SAMPLED.....	10/-/73	SAMPLED.....	02/23/71	SAMPLED.....	03/01/71
FORMATION.....	PENN-CANYON	FORMATION.....	PENN-CANYON	FORMATION.....	PENN-4270 FT. LIME
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	5543	DEPTH, FEET.....	4058	DEPTH, FEET.....	4172
WELLHEAD PRESSURE, PSIG.....	2100	WELLHEAD PRESSURE, PSIG.....	1186	WELLHEAD PRESSURE, PSIG.....	750
OPEN FLOW, MCFD.....	3800	OPEN FLOW, MCFD.....	3675	OPEN FLOW, MCFD.....	7000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.5	METHANE.....	79.2	METHANE.....	79.3
ETHANE.....	9.8	ETHANE.....	6.3	ETHANE.....	5.9
PROPANE.....	6.2	PROPANE.....	3.3	PROPANE.....	2.7
N-BUTANE.....	1.8	N-BUTANE.....	0.8	N-BUTANE.....	0.6
ISOBUTANE.....	0.9	ISOBUTANE.....	0.6	ISOBUTANE.....	0.5
N-PENTANE.....	0.5	N-PENTANE.....	0.2	N-PENTANE.....	0.0
ISOPENTANE.....	0.6	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	4.6	NITROGEN.....	9.0	NITROGEN.....	9.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	1.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.13	HELIUM.....	0.20	HELIUM.....	0.27
HEATING VALUE.....	1253	HEATING VALUE.....	1071	HEATING VALUE.....	1029
SPECIFIC GRAVITY.....	0.761	SPECIFIC GRAVITY.....	0.688	SPECIFIC GRAVITY.....	0.663

INDEX 10618 SAMPLE 7557		INDEX 10619 SAMPLE 14317		INDEX 10620 SAMPLE 10721	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SCHLEICHER	COUNTY.....	SCHLEICHER	COUNTY.....	SCHLEICHER
FIELD.....	HULLDALE	FIELD.....	HULLDALE W	FIELD.....	JUDYALICE
WELL NAME.....	THOMSON	WELL NAME.....	BYARS NO. 1	WELL NAME.....	WHITEHEAD CO. NO. 2
LOCATION.....	NOT GIVEN	LOCATION.....	T. J. ALLCORN SUR. 79-1/2	LOCATION.....	SEC. 14, BLK. H, GHSARR CO. SUR.
OWNER.....	OHIO OIL CO.	OWNER.....	JOE LOVELADY, INC.	OWNER.....	JAMES K. ANDERSON, ET AL.
COMPLETED.....	--/--/52	COMPLETED.....	07/23/74	COMPLETED.....	03/25/65
SAMPLED.....	05/17/60	SAMPLED.....	04/09/75	SAMPLED.....	09/13/66
FORMATION.....	PENN-STRAWN	FORMATION.....	PENN-HARKEY	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	5800	DEPTH, FEET.....	5462	DEPTH, FEET.....	4489
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1850	WELLHEAD PRESSURE, PSIG.....	1459
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	5880	OPEN FLOW, MCFD.....	5000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	54.5	METHANE.....	77.1	METHANE.....	75.3
ETHANE.....	19.2	ETHANE.....	6.4	ETHANE.....	5.5
PROPANE.....	13.2	PROPANE.....	4.5	PROPANE.....	3.2
N-BUTANE.....	4.5	N-BUTANE.....	1.0	N-BUTANE.....	0.9
ISOBUTANE.....	2.6	ISOBUTANE.....	0.7	ISOBUTANE.....	0.4
N-PENTANE.....	0.8	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	1.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	1.2	NITROGEN.....	9.5	NITROGEN.....	13.5
OXYGEN.....	0.2	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	TRACE
CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	0.25	CARBON DIOXIDE.....	0.29
HELIUM.....	0.02	HELIUM.....	1.092	HELIUM.....	1029
HEATING VALUE.....	1598	HEATING VALUE.....	0.705	HEATING VALUE.....	0.710
SPECIFIC GRAVITY.....	0.968	SPECIFIC GRAVITY.....		SPECIFIC GRAVITY.....	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10621 SAMPLE 10722	INDEX 10622 SAMPLE 15348	INDEX 10623 SAMPLE 15555
STATE.....	TEXAS			
COUNTY.....	SCHLEICHER			
FIELD.....	JUDYALICE			
WELL NAME.....	WHITEHEAD CO. NO. 2			
LOCATION.....	SEC. 18, BLK. 2, GH&SARR CO. SUR.			
OWNER.....	JAMES K. ANDERSON, ET AL.			
COMPLETED.....	06/08/65			
SAMPLED.....	09/13/66			
FORMATION.....	PENN-GOEN			
GEOLOGIC PROVINCE CODE.....	430			
DEPTH, FEET.....	4772			
WELLHEAD PRESSURE, PSIG.....	1468			
OPEN FLOW, MCFD.....	4200			
COMPONENT, MOLE PCT				
METHANE.....	73.5			
ETHANE.....	7.4			
PROPANE.....	4.5			
N-BUTANE.....	0.2			
ISOBUTANE.....	0.2			
N-PENTANE.....	0.3			
ISOPENTANE.....	0.3			
CYCLOPENTANE.....	0.1			
HEXANES PLUS.....	0.3			
NITROGEN.....	10.5			
OXYGEN.....	0.1			
ARGON.....	TRACE			
HYDROGEN.....	0.0			
HYDROGEN SULFIDE**.....	0.0			
CARBON DIOXIDE.....	1.1			
HELIUM.....	0.38			
HEATING VALUE.....	1096			
SPECIFIC GRAVITY.....	0.740			
		INDEX 10624 SAMPLE 14674	INDEX 10625 SAMPLE 5722	INDEX 10626 SAMPLE 7176
STATE.....	TEXAS			
COUNTY.....	SCHLEICHER			
FIELD.....	O'HARROW			
WELL NAME.....	O'HARROW NO. 1			
LOCATION.....	SEC. 68, BLK. H, GH&S SUR.			
OWNER.....	KEE LOVELADY, INC.			
COMPLETED.....	03/09/55			
SAMPLED.....	05/17/76			
FORMATION.....	PENN-CANYON			
GEOLOGIC PROVINCE CODE.....	430			
DEPTH, FEET.....	5056			
WELLHEAD PRESSURE, PSIG.....	1460			
OPEN FLOW, MCFD.....	3150			
COMPONENT, MOLE PCT				
METHANE.....	77.4			
ETHANE.....	6.0			
PROPANE.....	0.8			
N-BUTANE.....	0.4			
ISOBUTANE.....	0.2			
N-PENTANE.....	0.2			
ISOPENTANE.....	0.1			
CYCLOPENTANE.....	0.1			
HEXANES PLUS.....	0.2			
NITROGEN.....	11.0			
OXYGEN.....	0.0			
ARGON.....	TRACE			
HYDROGEN.....	0.0			
HYDROGEN SULFIDE.....	0.0			
CARBON DIOXIDE.....	0.2			
HELIUM.....	0.31			
HEATING VALUE.....	1050			
SPECIFIC GRAVITY.....	0.697			
		INDEX 10627 SAMPLE 12768	INDEX 10628 SAMPLE 12769	INDEX 10629 SAMPLE 10472
STATE.....	TEXAS			
COUNTY.....	SCHLEICHER			
FIELD.....	TOE NAIL			
WELL NAME.....	A. B. THOMERSON NO. 2			
LOCATION.....	20 MI. NE OF ELDORADO			
OWNER.....	ATLANTIC RICHFIELD CO.			
COMPLETED.....	--/--/54			
SAMPLED.....	04/19/71			
FORMATION.....	PENN-HARKEY			
GEOLOGIC PROVINCE CODE.....	430			
DEPTH, FEET.....	4590			
WELLHEAD PRESSURE, PSIG.....	490			
OPEN FLOW, MCFD.....	800			
COMPONENT, MOLE PCT				
METHANE.....	72.2			
ETHANE.....	9.8			
PROPANE.....	5.2			
N-BUTANE.....	1.3			
ISOBUTANE.....	0.7			
N-PENTANE.....	0.2			
ISOPENTANE.....	0.6			
CYCLOPENTANE.....	0.1			
HEXANES PLUS.....	0.3			
NITROGEN.....	9.1			
OXYGEN.....	0.1			
ARGON.....	TRACE			
HYDROGEN.....	0.0			
HYDROGEN SULFIDE**.....	0.0			
CARBON DIOXIDE.....	0.3			
HELIUM.....	0.25			
HEATING VALUE.....	1163			
SPECIFIC GRAVITY.....	0.749			
		INDEX 10630 SAMPLE 15129	INDEX 10631 SAMPLE 15148	INDEX 10632 SAMPLE 10394
STATE.....	TEXAS			
COUNTY.....	SCHLEICHER			
FIELD.....	UNIVERSITY 53			
WELL NAME.....	STATE "TH" NO. 18-53			
LOCATION.....	SEC. 18, BLK. 53, UL SUR.			
OWNER.....	GULF ENERGY & MINERALS CO.			
COMPLETED.....	10/25/76			
SAMPLED.....	10/25/77			
FORMATION.....	ORDO-ELLENBURGER			
GEOLOGIC PROVINCE CODE.....	430			
DEPTH, FEET.....	7806			
WELLHEAD PRESSURE, PSIG.....	2315			
OPEN FLOW, MCFD.....	16000			
COMPONENT, MOLE PCT				
METHANE.....	75.8			
ETHANE.....	11.8			
PROPANE.....	5.1			
N-BUTANE.....	1.4			
ISOBUTANE.....	0.5			
N-PENTANE.....	0.3			
ISOPENTANE.....	0.3			
CYCLOPENTANE.....	0.1			
HEXANES PLUS.....	0.2			
NITROGEN.....	3.8			
OXYGEN.....	0.0			
ARGON.....	TRACE			
HYDROGEN.....	0.0			
HYDROGEN SULFIDE**.....	0.0			
CARBON DIOXIDE.....	0.09			
HELIUM.....	1215			
HEATING VALUE.....	1251			
SPECIFIC GRAVITY.....	0.731			
		INDEX 10633 SAMPLE 15148	INDEX 10634 SAMPLE 15148	INDEX 10635 SAMPLE 15148
STATE.....	TEXAS			
COUNTY.....	SCHLEICHER			
FIELD.....	UNIVERSITY 53			
WELL NAME.....	STATE "TH" NO. 18-53			
LOCATION.....	SEC. 18, BLK. 53, UL SUR.			
OWNER.....	GULF ENERGY & MINERALS CO.			
COMPLETED.....	10/25/76			
SAMPLED.....	11/17/77			
FORMATION.....	PENN-CANYON			
GEOLOGIC PROVINCE CODE.....	430			
DEPTH, FEET.....	7046			
WELLHEAD PRESSURE, PSIG.....	1140			
OPEN FLOW, MCFD.....	2600			
COMPONENT, MOLE PCT				
METHANE.....	77.0			
ETHANE.....	9.1			
PROPANE.....	5.7			
N-BUTANE.....	2.6			
ISOBUTANE.....	0.9			
N-PENTANE.....	0.3			
ISOPENTANE.....	0.1			
CYCLOPENTANE.....	TRACE			
HEXANES PLUS.....	0.1			
NITROGEN.....	0.0			
OXYGEN.....	TRACE			
ARGON.....	TRACE			
HYDROGEN.....	0.0			
HYDROGEN SULFIDE**.....	0.0			
CARBON DIOXIDE.....	0.0			
HELIUM.....	0.0			
HEATING VALUE.....	1236			
SPECIFIC GRAVITY.....	0.739			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10633 SAMPLE 10395			INDEX 10634 SAMPLE 15147			INDEX 10635 SAMPLE 10564		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SCHLEICHER		SCHLEICHER			SCHLEICHER		
FIELD.....	VELREX SW		VELREX SW			Y-BAR		
WELL NAME.....	J. 1, CASE NO. 1		W. E. DELONG NO. 1			C. L. MEADOR NO. 1		
LOCATION.....	SEC. 25, BLK. TT, TC RR SUR.		SEC. 6, BLK. TT, TCRR SUR.			SEC. 66, BLK. D, GC&SF SUR.		
OWNER.....	TUCKER DRILLING CO., INC.		GULF ENERGY & MINERALS CO.			CABOT CORP.		
COMPLETED.....	10/05/65		10/10/76			08/12/64		
SAMPLED.....	02/11/66		11/01/77			05/12/66		
FORMATION.....	PENN-CANYON		PENN-STRAWN			PENN-CANYON		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	6616		7257			6652		
WELLHEAD PRESSURE, PSIG.....	1983		1870			1502		
OPEN FLOW, MCFD.....	1475		4800			2000		
COMPONENT, MOLE PCT								
METHANE.....	75.7		78.2			83.5		
ETHANE.....	9.6		9.7			8.0		
PROPANE.....	4.6		4.6			3.1		
N-BUTANE.....	1.5		1.4			0.8		
ISOBUTANE.....	0.7		0.4			0.2		
N-PENTANE.....	0.4		0.4			0.2		
ISOPENTANE.....	0.9		0.3			0.4		
CYCLOPENTANE.....	0.4		0.1			0.1		
HEXANES PLUS.....	0.9		0.3			0.2		
NITROGEN.....	4.2		3.7			2.7		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.0		0.8			0.7		
HELIUM.....	0.10		0.09			0.14		
HEATING VALUE.....	149		1195			1139		
SPECIFIC GRAVITY.....	0.763		0.721			0.675		

INDEX 10636 SAMPLE 3764			INDEX 10637 SAMPLE 8151			INDEX 10638 SAMPLE 3766		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHACKELFORD		SHACKELFORD			SHACKELFORD		
FIELD.....	BLUFF CREEK		CHASTAIN			HENDRICK		
WELL NAME.....	J. P. MORRIS EST. NO. 28		R. B. HEDDINGTON NO. 1			T. G. HENDRICK NO. 1		
LOCATION.....	SEC. 16		UNIVERSITY LAND SUR.			SEC. 1, BLK. A, AB&M SUR.		
OWNER.....	KLEINER & HELTZEL		BEN WIRKKALA			KITTERY OIL CO.		
COMPLETED.....	08/31/43		09/11/49			10/16/40		
SAMPLED.....	03/27/44		08/10/61			04/08/44		
FORMATION.....	PENN-CISCO		PENN-LAKE			PENN-COOK		
GEOLOGIC PROVINCE CODE.....	425		425			425		
DEPTH, FEET.....	1498		3703			1598		
WELLHEAD PRESSURE, PSIG.....	400		NOT GIVEN			145		
OPEN FLOW, MCFD.....	1860		1300			500		
COMPONENT, MOLE PCT								
METHANE.....	70.6		71.0			66.8		
ETHANE.....	5.4		10.7			7.5		
PROPANE.....	---		5.6			---		
N-BUTANE.....	---		2.2			---		
ISOBUTANE.....	---		1.1			---		
N-PENTANE.....	---		0.5			---		
ISOPENTANE.....	---		0.8			---		
CYCLOPENTANE.....	---		0.2			---		
HEXANES PLUS.....	---		0.6			---		
NITROGEN.....	22.4		6.8			24.4		
OXYGEN.....	0.4		TRACE			0.2		
ARGON.....	---		0.0			---		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.2		0.0			0.2		
HELIUM.....	1.01		0.25			0.91		
HEATING VALUE.....	812		1261			811		
SPECIFIC GRAVITY.....	0.674		0.787			0.692		

INDEX 10639 SAMPLE 12717			INDEX 10640 SAMPLE 12282			INDEX 10641 SAMPLE 12283		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHACKELFORD		SHACKELFORD			SHACKELFORD		
FIELD.....	IBEX		LEA ANNE			LEA ANNE		
WELL NAME.....	GURNEY NO. 1		WALKER-BUCKLER NO. 2			WALKER-BUCKLER NO. 2		
LOCATION.....	SEC. 49, BAL SUR.		SEC. 380, TE&L SUR.			SEC. 380, TE&L SUR.		
OWNER.....	PETROLEUM CORP. OF TEXAS		A. V. JONES & SONS			A. V. JONES & SONS		
COMPLETED.....	10/27/66		03/29/69			03/29/69		
SAMPLED.....	---/---/00		06/---/70			06/---/70		
FORMATION.....	PENN-CADDO		PENN-CADDO			PENN-MARBLE FALLS		
GEOLOGIC PROVINCE CODE.....	425		425			425		
DEPTH, FEET.....	3498		3902			4158		
WELLHEAD PRESSURE, PSIG.....	100		1246			1566		
OPEN FLOW, MCFD.....	1600		21000			14500		
COMPONENT, MOLE PCT								
METHANE.....	64.8		70.5			66.5		
ETHANE.....	16.6		17.7			11.7		
PROPANE.....	16.0		7.5			8.3		
N-BUTANE.....	3.3		1.8			2.7		
ISOBUTANE.....	1.4		0.6			1.0		
N-PENTANE.....	0.7		TRACE			0.6		
ISOPENTANE.....	0.9		1.1			0.8		
CYCLOPENTANE.....	0.3		TRACE			0.2		
HEXANES PLUS.....	0.6		7.4			0.4		
NITROGEN.....	4.9		0.0			7.2		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.4		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		TRACE			0.3		
HELIUM.....	0.15		0.16			0.12		
HEATING VALUE.....	1411		1228			1313		
SPECIFIC GRAVITY.....	0.862		0.768			0.824		

INDEX 10642 SAMPLE 12284			INDEX 10643 SAMPLE 116			INDEX 10644 SAMPLE 13279		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHACKELFORD		SHACKELFORD			SHACKELFORD		
FIELD.....	LEA ANNE		MORAN E			MORAN E		
WELL NAME.....	WALKER-BUCKLER NO. 2		J. D. FITE NO. 1			TERRY JENNINGS NO. 1		
LOCATION.....	SEC. 380, TE&L SUR.		SEC. 37			SEC. 56, UNIV. LAND		
OWNER.....	A. V. JONES & SONS		TEXAS CO.			O. P. LEONARD		
COMPLETED.....	03/27/69		1/7/71			---/---/00		
SAMPLED.....	06/---/70		03/04/70			06/24/72		
FORMATION.....	MISS-		PENN-STRAWN			EOCE-JENNINGS		
GEOLOGIC PROVINCE CODE.....	425		425			425		
DEPTH, FEET.....	4590		2865			2300		
WELLHEAD PRESSURE, PSIG.....	700		125			600		
OPEN FLOW, MCFD.....	NOT GIVEN		962			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	65.6		75.6			70.1		
ETHANE.....	16.4		9.1			8.9		
PROPANE.....	9.0		---			5.9		
N-BUTANE.....	3.4		---			1.6		
ISOBUTANE.....	0.5		---			0.8		
N-PENTANE.....	0.1		---			0.5		
ISOPENTANE.....	0.8		---			0.1		
CYCLOPENTANE.....	0.1		---			0.1		
HEXANES PLUS.....	0.1		---			0.3		
NITROGEN.....	5.5		12.6			11.4		
OXYGEN.....	0.3		2.0			TRACE		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.3		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		0.4			0.1		
HELIUM.....	0.02		0.22			0.30		
HEATING VALUE.....	1408		929			11409		
SPECIFIC GRAVITY.....	0.801		0.665			0.762		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10645 14127	INDEX SAMPLE	10646 11884	INDEX SAMPLE	10647 11885
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHACKELFORD			SHACKELFORD		SHACKELFORD	
FIELD.....	MORAN-BURTON			ONE TA		ONE TA	
WELL NAME.....	ALTON BURTON NO. 1			TRICE NO. 1		TRICE NO. 1	
LOCATION.....	SEC. 71-UNIV. LAND SUR.			SEC. 817, TE&L SUR.		SEC. 817, TE&L SUR.	
OWNER.....	PREWITT OIL CORP.			PREWITT & CHANCELLOR		PREWITT & CHANCELLOR	
COMPLETED.....	02/22/73			05/17/68		05/17/68	
SAMPLED.....	07/31/74			05/15/69		05/15/69	
FORMATION.....	PENN-CONGLOMERATE			PENN-HARBLE FALLS		MISS-	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	3944			4158		4330	
WELLHEAD PRESSURE, PSIG.....	1577			2080		520	
OPEN FLOW, MCFD.....	3950			5390		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	74.7			74.3		73.1	
ETHANE.....	9.6			9.2		9.7	
PROPANE.....	4.1			5.2		4.4	
N-BUTANE.....	1.1			1.5		1.3	
ISOBUTANE.....	0.4			0.6		0.3	
N-PENTANE.....	0.2			0.5		0.2	
ISOPENTANE.....	0.3			0.2		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.3		0.2	
NITROGEN.....	8.8			7.6		9.8	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.3	
HELIUM.....	0.34			0.21		0.25	
HEATING VALUE.....	1121			1172		1114	
SPECIFIC GRAVITY.....	0.718			0.740		0.727	
		INDEX SAMPLE	10648 10849	INDEX SAMPLE	10649 10850	INDEX SAMPLE	10650 16091
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHACKELFORD			SHACKELFORD		SHACKELFORD	
FIELD.....	PALM			PALM		ROCKWELL S	
WELL NAME.....	F. N. PALM NO. 2			F. N. PALM NO. 2		WALKER BUCKLER 78 NO. 1	
LOCATION.....	SEC. 67, LAL SUR.			SEC. 67, LAL SUR.		SEC. 78, BLK. 12, T&PRR SUR.	
OWNER.....	H. R. STASNEY			H. R. STASNEY		JONES CO.	
COMPLETED.....	07/22/66			01/23/67		10/11/79	
SAMPLED.....	01/23/67			10/10/80		10/10/80	
FORMATION.....	MISS-			PENN-CADDO		PENN-CONGLOMERATE	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	4060			3511		4578	
WELLHEAD PRESSURE, PSIG.....	1700			1550		1383	
OPEN FLOW, MCFD.....	NOT GIVEN			3800		7500	
COMPONENT, MOLE PCT.....							
METHANE.....	71.8			72.0		70.6	
ETHANE.....	10.0			8.7		10.5	
PROPANE.....	4.6			5.0		5.5	
N-BUTANE.....	1.2			1.4		1.4	
ISOBUTANE.....	0.5			0.5		0.6	
N-PENTANE.....	0.3			0.4		0.4	
ISOPENTANE.....	0.2			0.4		0.3	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.3	
NITROGEN.....	10.5			10.8		10.0	
OXYGEN.....	0.0			0.1		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.4		0.1	
HELIUM.....	0.31			0.25		0.27	
HEATING VALUE.....	1119			1143		1162	
SPECIFIC GRAVITY.....	0.737			0.743		0.757	
		INDEX SAMPLE	10651 4173	INDEX SAMPLE	10652 5680	INDEX SAMPLE	10653 11932
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHELBY			SHELBY		SHELBY	
FIELD.....	HUXLEY			JOAQUIN		JOAQUIN	
WELL NAME.....	SHACKLING LUMBER CORP. NO. 1			HANS NO. 1		PICKERING LBR. CO. NO. 8-4	
LOCATION.....	ST. FRANCES SUR.			NOT GIVEN		DAN S. HAIGHT SUR. A-354	
OWNER.....	HUMBLE OIL & REFINING CO.			LION OIL CO.		SOUTHERN NATURAL GAS CO.	
COMPLETED.....	03/26/46			11/1/50		07/06/68	
SAMPLED.....	11/26/46			06/25/54		06/13/69	
FORMATION.....	CRET-L			CRET-PETTIT		CRET-TRAVIS PEAK	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	6606			6176		6299	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1240	
OPEN FLOW, MCFD.....	NOT GIVEN			1000		24000	
COMPONENT, MOLE PCT.....							
METHANE.....	96.0			71.9		94.9	
ETHANE.....	2.6			9.8		1.9	
PROPANE.....	---			4.2		0.3	
N-BUTANE.....	---			0.9		0.1	
ISOBUTANE.....	---			2.8		0.1	
N-PENTANE.....	---			2.3		0.1	
ISOPENTANE.....	---			0.4		0.0	
CYCLOPENTANE.....	---			0.4		TRACE	
HEXANES PLUS.....	---			3.0		0.1	
NITROGEN.....	0.0			0.8		1.8	
OXYGEN.....	0.5			TRACE		0.0	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			TRACE		TRACE	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.9			0.3		0.7	
HELIUM.....	0.03			TRACE		0.02	
HEATING VALUE.....	1019			1497		1019	
SPECIFIC GRAVITY.....	0.579			0.879		0.588	
		INDEX SAMPLE	10654 12449	INDEX SAMPLE	10655 15531	INDEX SAMPLE	10656 15532
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHELBY			SHELBY		SHELBY	
FIELD.....	JOAQUIN			JOAQUIN		JOAQUIN	
WELL NAME.....	J. S. PRICE UNIT NO. 1			W. M. TAYLOR NO. 1		W. M. TAYLOR NO. 1	
LOCATION.....	J. H. WHITE SUR.			S. O. PENNINGTON SUR. A-555		S. O. PENNINGTON SUR. A-555	
OWNER.....	ATLANTIC RICHFIELD CO.			KEY PRODUCTION CO.		KEY PRODUCTION CO.	
COMPLETED.....	02/09/41			10/05/76		10/05/76	
SAMPLED.....	10/15/70			12/06/78		12/06/78	
FORMATION.....	CRET-JETER			CRET-TRAVIS PEAK		CRET-PETTIT & TRAVIS PEAK	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	4935			6192		6192	
WELLHEAD PRESSURE, PSIG.....	1965			2763		2763	
OPEN FLOW, MCFD.....	1985			1500		1500	
COMPONENT, MOLE PCT.....							
METHANE.....	89.2			93.8		94.0	
ETHANE.....	2.5			2.0		2.0	
PROPANE.....	0.7			0.4		0.4	
N-BUTANE.....	0.1			0.1		0.2	
ISOBUTANE.....	0.1			0.1		0.1	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.0			0.0		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	5.4			2.3		2.3	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.3			0.7		0.8	
HELIUM.....	0.05			10.02		0.02	
HEATING VALUE.....	995			1018		1018	
SPECIFIC GRAVITY.....	0.621			0.593		0.595	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10657 SAMPLE 17207		INDEX 10658 SAMPLE 14955		INDEX 10659 SAMPLE 10523	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SHELBY	COUNTY.....	SHELBY	COUNTY.....	SHELBY
FIELD.....	MEI	FIELD.....	STOCKMAN	FIELD.....	TENAH
WELL NAME.....	HOWARD NO. 1	WELL NAME.....	GRANT NO. 1	WELL NAME.....	K. POLLARD NO. 1
LOCATION.....	J. E. HYRICK SUR., A-472	LOCATION.....	ARCADIA, TEXAS	LOCATION.....	JESSE SULLINS SUR. A-636
OWNER.....	MARSHALL EXPLORATION, INC.	OWNER.....	ARKLA EXPLORATION CO.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	09/08/83	COMPLETED.....	01/14/77	COMPLETED.....	09/27/65
SAMPLED.....	03/13/84	SAMPLED.....	03/24/77	SAMPLED.....	03/06/66
FORMATION.....	CRET-PEITIT	FORMATION.....	JURA-COTTON VALLEY	FORMATION.....	JURA-SHACKOVER
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	5508	DEPTH, FEET.....	10281	DEPTH, FEET.....	10745
WELLHEAD PRESSURE, PSIG.....	3340	WELLHEAD PRESSURE, PSIG.....	4100	WELLHEAD PRESSURE, PSIG.....	4775
OPEN FLOW, MCFD.....	14628	OPEN FLOW, MCFD.....	757	OPEN FLOW, MCFD.....	7500
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	96.6	METHANE.....	92.6	METHANE.....	88.6
ETHANE.....	0.8	ETHANE.....	3.6	ETHANE.....	2.4
PROPANE.....	0.2	PROPANE.....	0.6	PROPANE.....	0.2
N-BUTANE.....	0.1	N-BUTANE.....	0.2	N-BUTANE.....	0.0
ISOBUTANE.....	0.2	ISOBUTANE.....	0.2	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	0.8	NITROGEN.....	0.2	NITROGEN.....	5.1
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	2.4	CARBON DIOXIDE.....	3.4
HELIUM.....	0.02	HELIUM.....	TRACE	HELIUM.....	0.04
HEATING VALUE.....	1023	HEATING VALUE.....	946	HEATING VALUE.....	946
SPECIFIC GRAVITY.....	0.582	SPECIFIC GRAVITY.....	0.613	SPECIFIC GRAVITY.....	0.624

INDEX 10660 SAMPLE 16689		INDEX 10661 SAMPLE 6998		INDEX 10662 SAMPLE 14548	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SHELBY	COUNTY.....	SHERMAN	COUNTY.....	SHERMAN
FIELD.....	TENAH	FIELD.....	CATBOR	FIELD.....	COLD WATER CREEK
WELL NAME.....	SPRING VALLEY RANCH NO. 1	WELL NAME.....	CLARINE F. BROWN NO. 1	WELL NAME.....	MURPHY NO. G-1
LOCATION.....	JESSE SULLINS SUR., A-636	LOCATION.....	SEC. 75, BLK. 3-T, T&NO SUR.	LOCATION.....	SEC. 128, BLK. 1C, GH&H SUR.
OWNER.....	SUN PRODUCTION CO.	OWNER.....	SHAMROCK OIL & GAS CORP.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	04/10/82	COMPLETED.....	03/10/59	COMPLETED.....	08/28/75
SAMPLED.....	10/-/82	SAMPLED.....	03/12/59	SAMPLED.....	12/17/75
FORMATION.....	CRET-PALUXY SD	FORMATION.....	PERM-TUBB	FORMATION.....	PENN-HARMATON
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	3480	DEPTH, FEET.....	1925	DEPTH, FEET.....	5338
WELLHEAD PRESSURE, PSIG.....	1620	WELLHEAD PRESSURE, PSIG.....	600	WELLHEAD PRESSURE, PSIG.....	1291
OPEN FLOW, MCFD.....	8100	OPEN FLOW, MCFD.....	600	OPEN FLOW, MCFD.....	42000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	84.0	METHANE.....	62.2	METHANE.....	73.7
ETHANE.....	2.3	ETHANE.....	3.9	ETHANE.....	8.8
PROPANE.....	0.7	PROPANE.....	0.1	PROPANE.....	0.5
N-BUTANE.....	0.2	N-BUTANE.....	0.5	N-BUTANE.....	1.5
ISOBUTANE.....	0.2	ISOBUTANE.....	0.3	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	11.8	NITROGEN.....	30.2	NITROGEN.....	8.8
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1
HELIUM.....	0.07	HELIUM.....	0.40	HELIUM.....	0.22
HEATING VALUE.....	952	HEATING VALUE.....	791	HEATING VALUE.....	1153
SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.733	SPECIFIC GRAVITY.....	0.737

INDEX 10663 SAMPLE 3482		INDEX 10664 SAMPLE 3483		INDEX 10665 SAMPLE 3484	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SHERMAN	COUNTY.....	SHERMAN	COUNTY.....	SHERMAN
FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
WELL NAME.....	SEC. 369, BLK. 1-A	WELL NAME.....	J. CALVERD NO. 1	WELL NAME.....	WOLFE DAVIS NO. 1
LOCATION.....	SEC. 369, BLK. 1-T, T&NO SUR.	LOCATION.....	SEC. 382, BLK. 1-T, T&NO SUR.	LOCATION.....	SEC. 404, BLK. 1-T, T&NO SUR.
OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	CITIES SERVICE OIL CO.
COMPLETED.....	08/12/40	COMPLETED.....	09/27/41	COMPLETED.....	04/18/38
SAMPLED.....	06/02/42	SAMPLED.....	06/02/42	SAMPLED.....	06/02/42
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	2270	DEPTH, FEET.....	2088	DEPTH, FEET.....	2550
WELLHEAD PRESSURE, PSIG.....	450	WELLHEAD PRESSURE, PSIG.....	430	WELLHEAD PRESSURE, PSIG.....	430
OPEN FLOW, MCFD.....	27500	OPEN FLOW, MCFD.....	48000	OPEN FLOW, MCFD.....	43000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	61.4	METHANE.....	62.8	METHANE.....	62.2
ETHANE.....	20.7	ETHANE.....	19.4	ETHANE.....	20.3
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	16.4	NITROGEN.....	16.3	NITROGEN.....	15.9
OXYGEN.....	0.5	OXYGEN.....	0.4	OXYGEN.....	0.5
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2
HELIUM.....	0.82	HELIUM.....	0.81	HELIUM.....	0.85
HEATING VALUE.....	993	HEATING VALUE.....	984	HEATING VALUE.....	994
SPECIFIC GRAVITY.....	0.726	SPECIFIC GRAVITY.....	0.720	SPECIFIC GRAVITY.....	0.721

INDEX 10666 SAMPLE 3835		INDEX 10667 SAMPLE 4111		INDEX 10668 SAMPLE 4112	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SHERMAN	COUNTY.....	SHERMAN	COUNTY.....	SHERMAN
FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
WELL NAME.....	SEELEY NO. 1	WELL NAME.....	FLOREY NO. 1	WELL NAME.....	PRICE NO. 3
LOCATION.....	SEC. 413, BLK. 1-T, T&NO SUR.	LOCATION.....	SEC. 8, BLK. 2-T, T&NO SUR.	LOCATION.....	SEC. 20, BLK. 2-B, GH&H SUR.
OWNER.....	KERLYN OIL CO.	OWNER.....	SHAMROCK OIL & GAS CORP.	OWNER.....	SHAMROCK OIL & GAS CORP.
COMPLETED.....	--/--/00	COMPLETED.....	04/25/45	COMPLETED.....	--/--/00
SAMPLED.....	05/18/44	SAMPLED.....	08/--/46	SAMPLED.....	08/--/46
FORMATION.....	NOT GIVEN	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	3713	DEPTH, FEET.....	3290	DEPTH, FEET.....	3220
WELLHEAD PRESSURE, PSIG.....	4800	WELLHEAD PRESSURE, PSIG.....	4213	WELLHEAD PRESSURE, PSIG.....	418
OPEN FLOW, MCFD.....	---	OPEN FLOW, MCFD.....	26000	OPEN FLOW, MCFD.....	11500
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	63.4	METHANE.....	65.2	METHANE.....	61.0
ETHANE.....	20.2	ETHANE.....	21.2	ETHANE.....	20.8
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	15.1	NITROGEN.....	12.6	NITROGEN.....	17.2
OXYGEN.....	0.4	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.4
HELIUM.....	0.76	HELIUM.....	0.82	HELIUM.....	0.61
HEATING VALUE.....	1004	HEATING VALUE.....	1040	HEATING VALUE.....	991
SPECIFIC GRAVITY.....	0.718	SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.730

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10669 4309	INDEX SAMPLE	10670 4310	INDEX SAMPLE	10671 4311
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	T. E. DURHAM NO. 1			H. BASKIN NO. 1		MAUD SEATON NO. 1	
LOCATION.....	SEC. 335, BLK. 1-T, TENORR SUR.			SEC. 414, BLK. 1-T, TENORR SUR.		SEC. 5, BLK. 2-T, TENORR SUR.	
OWNER.....	HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	12/17/46			01/14/47		01/13/47	
SAMPLED.....	05/28/47			05/28/47		05/28/47	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2435			2905		2930	
WELLHEAD PRESSURE, PSIG.....	424			424		424	
OPEN FLOW, MCFD.....	31600			14200		22700	
COMPONENT, MOLE PCT							
METHANE.....	60.9	---	---	60.0	---	61.0	---
ETHANE.....	21.9	---	---	22.5	---	22.5	---
PROpane.....	---	---	---	---	---	---	---
N-BUTANE.....	0.0	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	15.8	---	---	16.1	---	15.2	---
OXYGEN.....	0.3	---	---	0.3	---	0.3	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.3	---	---	0.3	---	0.2	---
HELIUM.....	0.78	---	---	0.81	---	0.77	---
HEATING VALUE.....	1009	---	---	1011	---	1021	---
SPECIFIC GRAVITY.....	0.729	---	---	0.733	---	0.729	---
		INDEX SAMPLE	10672 4314	INDEX SAMPLE	10673 4857	INDEX SAMPLE	10674 4858
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	C. E. RANDSDELL NO. 1			W. RANDSDELL NO. 1		WALTER CASLEY NO. 1	
LOCATION.....	SEC. 5, BLK. 3-B, GH&H SUR.			SEC. 125, BLK. 1-C, GH&H SUR		SEC. 125, BLK. 1-C, GH&H SUR	
OWNER.....	PHILLIPS PETROLEUM CO.			STANOLIND OIL & GAS CO.		STANOLIND OIL & GAS CO.	
COMPLETED.....	-/-/47			01/21/50		01/21/50	
SAMPLED.....	05/22/47			03/24/50		03/24/50	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3015			2893		2992	
WELLHEAD PRESSURE, PSIG.....	428			416		423	
OPEN FLOW, MCFD.....	9700			2		3	
COMPONENT, MOLE PCT							
METHANE.....	61.6	---	---	72.3	---	73.0	---
ETHANE.....	21.8	---	---	6.3	---	6.4	---
PROpane.....	---	---	---	3.6	---	3.7	---
N-BUTANE.....	---	---	---	SEC. 1	---	1.1	---
ISOBUTANE.....	---	---	---	0.2	---	0.4	---
N-PENTANE.....	---	---	---	0.2	---	0.3	---
ISOPENTANE.....	---	---	---	0.2	---	TRACE	---
CYCLOPENTANE.....	---	---	---	TRACE	---	0.1	---
HEXANES PLUS.....	---	---	---	0.1	---	0.2	---
NITROGEN.....	14.8	---	---	15.0	---	13.9	---
OXYGEN.....	0.1	---	---	0.1	---	0.1	---
ARGON.....	---	---	---	0.1	---	0.1	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.9	---	---	0.1	---	0.3	---
HELIUM.....	0.82	---	---	0.68	---	0.58	---
HEATING VALUE.....	1015	---	---	1007	---	1026	---
SPECIFIC GRAVITY.....	0.729	---	---	0.713	---	0.719	---
		INDEX SAMPLE	10675 5049	INDEX SAMPLE	10676 5278	INDEX SAMPLE	10677 5279
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	RAY NO. 1			DOOLEY NO. 3		POLLAN NO. 1	
LOCATION.....	SEC. 66, BLK. 1-C, GH&H SUR.			SEC. 66, BLK. 3-T, T&NO SUR.		BLK. 3-T, T&NO SUR.	
OWNER.....	TASCOS GAS CO.			SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.	
COMPLETED.....	-/-/700			09/20/52		05/08/52	
SAMPLED.....	04/23/51			09/30/52		09/19/52	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	1870			3335		3136	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			417		417	
OPEN FLOW, MCFD.....	NOT GIVEN			482		1367	
COMPONENT, MOLE PCT							
METHANE.....	2.4	---	---	70.3	---	70.8	---
ETHANE.....	0.2	---	---	6.6	---	6.7	---
PROpane.....	0.2	---	---	3.8	---	3.8	---
N-BUTANE.....	0.2	---	---	0.9	---	0.9	---
ISOBUTANE.....	TRACE	---	---	0.6	---	0.4	---
N-PENTANE.....	0.1	---	---	0.1	---	0.2	---
ISOPENTANE.....	0.0	---	---	0.1	---	0.1	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	0.1	---	---	0.1	---	0.1	---
NITROGEN.....	95.8	---	---	16.5	---	16.1	---
OXYGEN.....	0.1	---	---	TRACE	---	TRACE	---
ARGON.....	0.1	---	---	0.1	---	0.1	---
HYDROGEN.....	TRACE	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.6	---	---	0.1	---	0.1	---
HELIUM.....	0.20	---	---	0.76	---	0.74	---
HEATING VALUE.....	48	---	---	993	---	998	---
SPECIFIC GRAVITY.....	0.967	---	---	0.721	---	0.719	---
		INDEX SAMPLE	10678 5281	INDEX SAMPLE	10679 5282	INDEX SAMPLE	10680 5294
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	PRICE NO. B-1			AMEND NO. 1		DOOLEY NO. 1	
LOCATION.....	SEC. 25, BLK. 2-B, GH&H SUR.			SEC. 2, BLK. 3, GH&H SUR.		SEC. 67, BLK. 3-T, T&NO SUR.	
OWNER.....	SHAMROCK OIL & GAS CORP.			SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.	
COMPLETED.....	05/21/52			06/18/52		08/05/52	
SAMPLED.....	09/19/52			09/30/52		09/30/52	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3205			3170		3350	
WELLHEAD PRESSURE, PSIG.....	368			419		425	
OPEN FLOW, MCFD.....	1407			363		2579	
COMPONENT, MOLE PCT							
METHANE.....	67.1	---	---	75.7	---	70.5	---
ETHANE.....	6.3	---	---	6.6	---	6.5	---
PROpane.....	3.7	---	---	3.3	---	3.7	---
N-BUTANE.....	0.9	---	---	0.9	---	1.0	---
ISOBUTANE.....	0.6	---	---	0.3	---	0.5	---
N-PENTANE.....	0.1	---	---	0.3	---	0.1	---
ISOPENTANE.....	0.2	---	---	0.1	---	0.2	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	0.1	---	---	0.1	---	0.1	---
NITROGEN.....	19.6	---	---	11.7	---	16.4	---
OXYGEN.....	0.2	---	---	TRACE	---	TRACE	---
ARGON.....	0.1	---	---	TRACE	---	0.1	---
HYDROGEN.....	0.0	---	---	---	---	TRACE	---
HYDROGEN SULFIDE.....	---	---	---	---	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.2	---
HELIUM.....	0.96	---	---	0.76	---	0.77	---
HEATING VALUE.....	1095	---	---	1097	---	1097	---
SPECIFIC GRAVITY.....	0.733	---	---	0.694	---	0.722	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

899

		INDEX SAMPLE	10681 5311	INDEX SAMPLE	10682 5326	INDEX SAMPLE	10683 5362
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	DOOLEY NO. 4			CAPROCK NO. 1		PRONGER NO. A-1	
LOCATION.....	SEC. 83, BLK. 3-T, T&NO SUR.			SEC. 173, BLK. 1-T, T&NO SUR		SEC. 350, BLK. 1-T, T&NO SUR	
OWNER.....	SHAMROCK OIL & GAS CORP.			TASCOSA GAS CO.		AMERICAN GAS PRODUCTION CO.	
COMPLETED.....	08/14/52			02/14/51		09/15/52	
SAMPLED.....	11/13/52			11/19/52		12/18/52	
FORMATION.....	PERM-CHASE GROUP			NOT GIVEN		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3167			2838		2430	
WELLHEAD PRESSURE, PSIG.....	410			398		357	
OPEN FLOW, MCFD.....	636			NOT GIVEN		31803	
COMPONENT, MOLE PCT							
METHANE.....	50.3			64.9		68.8	
ETHANE.....	4.4			5.7		6.1	
PROPANE.....	6.0			3.8		4.0	
N-BUTANE.....	0.7			0.2		1.1	
ISOBUTANE.....	0.0			0.3		0.4	
N-PENTANE.....	0.1			0.3		0.3	
ISOPENTANE.....	0.0			0.1		0.1	
CYCLOPENTANE.....	0.0			TRACE		TRACE	
HEXANES PLUS.....	0.0			0.1		0.1	
NITROGEN.....	33.6			22.0		17.5	
OXYGEN.....	0.4			0.3		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.1		0.3	
HELIUM.....	0.29			0.78		0.83	
HEATING VALUE.....	772			938		990	
SPECIFIC GRAVITY.....	0.814			0.747		0.732	
		INDEX SAMPLE	10684 5365	INDEX SAMPLE	10685 5423	INDEX SAMPLE	10686 5424
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	COFFMAN NO. 1			A. D. FOREMAN NO. 1		PRYNECK NO. 1	
LOCATION.....	SEC. 181, BLK. 1-C, GH&H SUR			SEC. 146, BLK. 1-T, T&NO SUR		SEC. 122, BLK. 1-C, GH&H SUR	
OWNER.....	UNITED PRODUCING CO., INC.			STANOLIND OIL & GAS CO.		KERR-MCGEE OIL IND., INC.	
COMPLETED.....	07/01/52			01/02/53		10/31/52	
SAMPLED.....	01/10/53			03/23/53		03/23/53	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2851			2965		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	364			362		392	
OPEN FLOW, MCFD.....	2176			9927		943	
COMPONENT, MOLE PCT							
METHANE.....	70.5			72.1		70.9	
ETHANE.....	6.1			6.5		3.7	
PROPANE.....	4.1			1.0		3.0	
N-BUTANE.....	1.2			0.9		1.1	
ISOBUTANE.....	0.5			0.7		0.3	
N-PENTANE.....	0.4			0.3		0.3	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	15.9			15.5		16.9	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.1		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.4		0.0	
HELIUM.....	0.77			0.70		0.84	
HEATING VALUE.....	1023			1001		986	
SPECIFIC GRAVITY.....	0.733			0.719		0.719	
		INDEX SAMPLE	10687 5783	INDEX SAMPLE	10688 5784	INDEX SAMPLE	10689 6477
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	BRIDGES A-1			EDEN NO. 1		GIVINS NO. 2	
LOCATION.....	SEC. 54, BLK. 3-T, T&NO SUR.			SEC. 38, BLK. 3-T, T&NO SUR.		SEC. 30, BLK. 3B, GH&H SUR.	
OWNER.....	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		SMITH & CREE	
COMPLETED.....	11/11/53			07/06/54		--/--/00	
SAMPLED.....	03/01/55			03/01/55		01/17/58	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3110			3166		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	404			399		NOT GIVEN	
OPEN FLOW, MCFD.....	6944			2030		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	70.6			69.7		68.5	
ETHANE.....	6.3			6.2		5.7	
PROPANE.....	3.5			3.1		4.6	
N-BUTANE.....	0.7			0.7		1.1	
ISOBUTANE.....	0.6			0.5		0.4	
N-PENTANE.....	0.1			TRACE		0.3	
ISOPENTANE.....	0.2			0.2		TRACE	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.1			TRACE		0.1	
NITROGEN.....	16.7			18.2		18.2	
OXYGEN.....	TRACE			TRACE		0.1	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.0	
HELIUM.....	0.83			0.95		0.90	
HEATING VALUE.....	988			947		984	
SPECIFIC GRAVITY.....	0.721			0.712		0.732	
		INDEX SAMPLE	10690 6657	INDEX SAMPLE	10691 7857	INDEX SAMPLE	10692 7858
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	BAYSHORE NO. 1			EDEN NO. 1		ROSS NO. 1	
LOCATION.....	NOT GIVEN			SEC. 101		SEC. 66	
OWNER.....	PHILLIPS PETROLEUM CO.			J. M. OIL CORP.		J. M. OIL CORP.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	06/--/58			02/15/61		02/15/61	
FORMATION.....	PERM-CHASE GROUP			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			248		262	
OPEN FLOW, MCFD.....	NOT GIVEN			452		187	
COMPONENT, MOLE PCT							
METHANE.....	80.9			63.9		60.5	
ETHANE.....	5.4			6.0		5.7	
PROPANE.....	3.8			3.8		4.0	
N-BUTANE.....	1.2			1.2		1.2	
ISOBUTANE.....	0.8			0.7		0.7	
N-PENTANE.....	0.3			0.3		0.3	
ISOPENTANE.....	0.4			0.3		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	5.6			22.6		26.5	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.1			0.0		0.0	
CARBON DIOXIDE.....	0.20			1.00		0.1	
HELIUM.....	1.14			945		0.60	
HEATING VALUE.....	0.698			0.758		914	
SPECIFIC GRAVITY.....						0.775	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10693 7891	INDEX SAMPLE	10694 8709	INDEX SAMPLE	10695 8711
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	JOHNSON NO. 1			BASKIN NO. 1		PRONGER C NO. 1	
LOCATION.....	SEC. 3, T3N, T&NO SUR.			SEC. 444, BLK. 1-T, T&NO SUR		SEC. 299, BLK. 1T, T&NO SUR.	
OWNER.....	HOLBERT OPERATING CO.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	02/30/61			01/14/47		01/08/48	
SAMPLED.....	05/04/61			10/10/62		10/10/62	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3198			2905		2504	
WELLHEAD PRESSURE, PSIG.....	410			155		165	
OPEN FLOW, MCFD.....	500			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	57.0	---	---	69.2	---	64.8	---
ETHANE.....	4.6	---	---	6.6	---	5.7	---
PROPANE.....	1.8	---	---	4.3	---	3.8	---
N-BUTANE.....	0.2	---	---	1.4	---	1.3	---
ISOBUTANE.....	0.3	---	---	0.7	---	0.6	---
N-PENTANE.....	TRACE	---	---	0.2	---	0.2	---
ISOPENTANE.....	TRACE	---	---	0.4	---	0.4	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	0.1	---
HEXANES PLUS.....	11/06/48	---	---	0.2	---	0.2	---
NITROGEN.....	33.9	---	---	15.8	---	20.8	---
OXYGEN.....	0.0	---	---	0.3	---	1.2	---
ARGON.....	0.1	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.1	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.2	---
HELIUM.....	1.90	---	---	0.71	---	0.65	---
HEATING VALUE.....	1.723	---	---	1038	---	961	---
SPECIFIC GRAVITY.....	0.736	---	---	0.743	---	0.761	---
		INDEX SAMPLE	10696 8712	INDEX SAMPLE	10697 8713	INDEX SAMPLE	10698 8714
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	R. C. BUCKLES NO. 1			T. H. DURHAM NO. 1		LH PRICE NO. 1	
LOCATION.....	SEC. 453, BLK. 1-T, T&NO SUR			SEC. 335, BLK. 1-T, T&NO SUR		SEC. 372, BLK. 1-T, T&NO SUR	
OWNER.....	HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	11/06/48			12/17/46		11/07/47	
SAMPLED.....	10/10/62			10/10/62		10/10/62	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2849			2435		2726	
WELLHEAD PRESSURE, PSIG.....	155			160		165	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	69.5	---	---	65.0	---	68.4	---
ETHANE.....	6.5	---	---	5.9	---	6.5	---
PROPANE.....	4.3	---	---	3.8	---	4.4	---
N-BUTANE.....	1.4	---	---	1.1	---	1.5	---
ISOBUTANE.....	0.7	---	---	0.6	---	0.9	---
N-PENTANE.....	0.2	---	---	0.2	---	0.3	---
ISOPENTANE.....	0.4	---	---	0.3	---	0.4	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.1	---	---	0.1	---	0.2	---
NITROGEN.....	15.6	---	---	20.4	---	16.2	---
OXYGEN.....	TRACE	---	---	0.3	---	TRACE	---
ARGON.....	0.1	---	---	0.1	---	0.1	---
HYDROGEN.....	0.1	---	---	TRACE	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.2	---	0.3	---
HELIUM.....	0.75	---	---	0.69	---	0.73	---
HEATING VALUE.....	1038	---	---	950	---	1049	---
SPECIFIC GRAVITY.....	0.741	---	---	0.752	---	0.755	---
		INDEX SAMPLE	10699 11858	INDEX SAMPLE	10700 11860	INDEX SAMPLE	10701 11861
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	W. A. SPURLOCK NO. 2			W. A. WHORTON NO. 2		W. A. SPURLOCK NO. 2	
LOCATION.....	SEC. 309, BLK. 1T, T&NO SUR.			SEC. 104, BLK. 1T, T&NO SUR.		SEC. 25, BLK. 2B, GH&H SUR.	
OWNER.....	ASHLAND OIL & REFINING CO.			ASHLAND OIL & REFINING CO.		ASHLAND OIL & REFINING CO.	
COMPLETED.....	11/29/47			11/29/48		12/06/47	
SAMPLED.....	05/13/69			05/13/69		05/13/69	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	2960			2805		3303	
WELLHEAD PRESSURE, PSIG.....	106			158		100	
OPEN FLOW, MCFD.....	511			104		698	
COMPONENT, MOLE PCT							
METHANE.....	68.2	---	---	65.8	---	67.6	---
ETHANE.....	6.5	---	---	6.0	---	6.5	---
PROPANE.....	4.6	---	---	4.1	---	4.4	---
N-BUTANE.....	1.4	---	---	1.2	---	1.1	---
ISOBUTANE.....	0.8	---	---	0.7	---	0.7	---
N-PENTANE.....	0.5	---	---	0.2	---	0.3	---
ISOPENTANE.....	0.2	---	---	0.3	---	TRACE	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.3	---	---	0.2	---	0.2	---
NITROGEN.....	16.3	---	---	20.4	---	18.4	---
OXYGEN.....	0.0	---	---	0.1	---	0.0	---
ARGON.....	TRACE	---	---	0.0	---	0.1	---
HYDROGEN.....	0.0	---	---	TRACE	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	TRACE	---
HELIUM.....	0.76	---	---	0.87	---	0.99	---
HEATING VALUE.....	1050	---	---	980	---	998	---
SPECIFIC GRAVITY.....	0.754	---	---	0.754	---	0.742	---
		INDEX SAMPLE	10702 11862	INDEX SAMPLE	10703 11863	INDEX SAMPLE	10704 11865
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SHERMAN			SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
WELL NAME.....	W. A. SPURLOCK NO. 1			W. A. COLLIER NO. 1		W. A. PRICE NO. 1	
LOCATION.....	SEC. 26, BLK. 2B, GH&H SUR.			SEC. 179, BLK. 1C, SH&H SUR.		SEC. 60, BLK. 2B, GH&H SUR.	
OWNER.....	ASHLAND OIL & REFINING CO.			ASHLAND OIL & REFINING CO.		ASHLAND OIL & REFINING CO.	
COMPLETED.....	11/22/69			09/08/50		02/21/48	
SAMPLED.....	05/13/69			05/13/69		05/13/69	
FORMATION.....	PERM-CHASE GROUP			PERM-CHASE GROUP		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	3041			2932		2990	
WELLHEAD PRESSURE, PSIG.....	234			100		100	
OPEN FLOW, MCFD.....	289			499		444	
COMPONENT, MOLE PCT							
METHANE.....	70.6	---	---	68.8	---	68.0	---
ETHANE.....	6.5	---	---	6.7	---	6.6	---
PROPANE.....	3.5	---	---	5.0	---	4.3	---
N-BUTANE.....	1.0	---	---	1.0	---	1.5	---
ISOBUTANE.....	0.4	---	---	1.2	---	0.6	---
N-PENTANE.....	0.2	---	---	0.8	---	0.3	---
ISOPENTANE.....	0.2	---	---	0.0	---	0.5	---
CYCLOPENTANE.....	TRACE	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.1	---	---	0.4	---	0.3	---
NITROGEN.....	16.5	---	---	14.7	---	16.8	---
OXYGEN.....	0.0	---	---	TRACE	---	0.0	---
ARGON.....	0.1	---	---	TRACE	---	0.1	---
HYDROGEN.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	TRACE	---	0.2	---
HELIUM.....	0.88	---	---	0.60	---	0.91	---
HEATING VALUE.....	982	---	---	982	---	1043	---
SPECIFIC GRAVITY.....	0.720	---	---	0.763	---	0.756	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	10705 11866		INDEX SAMPLE	10706 11867		INDEX SAMPLE	10707 11869
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHERMAN		SHERMAN			SHERMAN		
FIELD.....	HUGOTON, TEXAS		HUGOTON, TEXAS			HUGOTON, TEXAS		
WELL NAME.....	W. A. WHARTON NO. 1		R. H. COFFMAN NO. 1			W. WHORTON NO. 1		
LOCATION.....	SEC. 137, BLK. 1T, T&NO SUR.		SEC. 181, BLK. 1C, GH&H SUR.			SEC. 188, BLK. 1C, GH&H SUR.		
OWNER.....	TERRELL & STALLTER		ASHLAND OIL & REFINING CO.			ASHLAND OIL & REFINING CO.		
COMPLETED.....	10/15/48		07/01/52			10/29/48		
SAMPLED.....	05/13/69		05/13/69			05/13/69		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		2851			2840		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		98			119		
OPEN FLOW, MCFD.....	NOT GIVEN		288			298		
COMPONENT, MOLE PCT								
METHANE.....	66.4		69.2			69.7		
ETHANE.....	6.0		6.5			6.3		
PROPANE.....	4.0		4.1			3.9		
N-BUTANE.....	1.2		1.3			1.3		
ISOBUTANE.....	0.6		0.6			0.4		
N-PENTANE.....	0.4		0.5			0.2		
ISOPENTANE.....	0.1		0.1			0.4		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	19.9		16.2			16.7		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.1		
HELIUM.....	0.87		0.75			0.69		
HEATING VALUE.....	977		1036			1017		
SPECIFIC GRAVITY.....	0.746		0.746			0.737		

	INDEX SAMPLE	10708 11870		INDEX SAMPLE	10709 11871		INDEX SAMPLE	10710 11872
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHERMAN		SHERMAN			SHERMAN		
FIELD.....	HUGOTON, TEXAS		HUGOTON, TEXAS			HUGOTON, TEXAS		
WELL NAME.....	J. W. STERL NO. 1		L. B. HAILE NO. 1			NANNIE NO. 1		
LOCATION.....	SEC. 135, BLK. 1T, T&NO SUR.		SEC. 182, BLK. 1C, GH&H SUR.			SEC. 207, BLK. 1T, T&NO SUR.		
OWNER.....	ASHLAND OIL & REFINING CO.		ASHLAND OIL & REFINING CO.			ASHLAND OIL & REFINING CO.		
COMPLETED.....	02/07/69		10/10/50			05/21/51		
SAMPLED.....	05/13/69		05/13/69			05/13/69		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2802		2862			2878		
WELLHEAD PRESSURE, PSIG.....	174		35			80		
OPEN FLOW, MCFD.....	112		221			366		
COMPONENT, MOLE PCT								
METHANE.....	63.9		69.0			65.1		
ETHANE.....	5.9		6.6			6.4		
PROPANE.....	4.2		5.0			4.8		
N-BUTANE.....	1.3		1.6			1.6		
ISOBUTANE.....	0.7		1.1			1.1		
N-PENTANE.....	0.4		0.7			0.6		
ISOPENTANE.....	0.2		TRACE			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.5			0.3		
NITROGEN.....	22.0		14.4			18.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.53		0.64			0.72		
HEATING VALUE.....	974		1101			1047		
SPECIFIC GRAVITY.....	0.766		0.764			0.778		

	INDEX SAMPLE	10711 11873		INDEX SAMPLE	10712 11874		INDEX SAMPLE	10713 11875
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHERMAN		SHERMAN			SHERMAN		
FIELD.....	HUGOTON, TEXAS		HUGOTON, TEXAS			HUGOTON, TEXAS		
WELL NAME.....	W. HASS NO. 1		W. LASLEY NO. 1			W. LASLEY NO. 1		
LOCATION.....	SEC. 215, BLK. 1C, GH&H SUR.		SEC. 172, BLK. 1C, GH&H SUR.			SEC. 184, BLK. 1C, GH&H SUR.		
OWNER.....	ASHLAND OIL & REFINING CO.		ASHLAND OIL & REFINING CO.			ASHLAND OIL & REFINING CO.		
COMPLETED.....	01/20/48		12/17/48			01/06/48		
SAMPLED.....	05/13/69		05/13/69			05/13/69		
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP			PERM-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	2769		NOT GIVEN			8		
WELLHEAD PRESSURE, PSIG.....	84		186			76		
OPEN FLOW, MCFD.....	154		249			389		
COMPONENT, MOLE PCT								
METHANE.....	64.1		67.9			66.7		
ETHANE.....	6.2		6.4			7.3		
PROPANE.....	4.3		4.0			3.5		
N-BUTANE.....	1.7		1.2			1.3		
ISOBUTANE.....	0.5		0.8			1.3		
N-PENTANE.....	0.5		0.3			0.8		
ISOPENTANE.....	0.1		0.1			0.4		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.4		0.2			0.6		
NITROGEN.....	20.6		18.1			14.4		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.82		0.70			0.52		
HEATING VALUE.....	1059		1156			1156		
SPECIFIC GRAVITY.....	0.775		0.746			0.799		

	INDEX SAMPLE	10714 13022		INDEX SAMPLE	10715 7836		INDEX SAMPLE	10716 7843
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHERMAN		SHERMAN			SHERMAN		
FIELD.....	HUGOTON, TEXAS		PALO DURO CREEK			PALO DURO CREEK		
WELL NAME.....	DEAR NO. 1		WILLCLO NO. 2			KATHRYN A NO. 1		
LOCATION.....	SEC. 1, BLK. 2T, T&NO SUR.		SEC. 15, BLK. 3, T&NO SUR.			SEC. 8, BLK. 3-B, GH&H SUR.		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--7-/00		06/05/50			04/08/49		
SAMPLED.....	02/07/61		02/07/61			02/07/61		
FORMATION.....	PERM-CHASE GROUP		PENN-KATHRYN			PENN-LIME		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		5343			5312		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1241			110		
OPEN FLOW, MCFD.....	NOT GIVEN		27984			25000		
COMPONENT, MOLE PCT								
METHANE.....	70.3		77.3			77.2		
ETHANE.....	6.2		8.1			7.6		
PROPANE.....	4.6		3.9			3.7		
N-BUTANE.....	1.3		0.9			0.2		
ISOBUTANE.....	0.1		0.3			0.3		
N-PENTANE.....	0.5		0.6			0.1		
ISOPENTANE.....	0.1		0.4			0.1		
CYCLOPENTANE.....	0.2		1.2			0.1		
HEXANES PLUS.....	15.2		5.5			8.9		
NITROGEN.....	0.0		0.0			0.0		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	0.1		0.0			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.2		
CARBON DIOXIDE.....	0.73		0.20			0.30		
HELIUM.....	1043		1212			1098		
HEATING VALUE.....	0.738		0.740			0.706		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10717	INDEX 10718	INDEX 10719
		SAMPLE 8228	SAMPLE 17387	SAMPLE 5609
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	SHERMAN		SHERMAN	SHERMAN
FIELD.....	PALO DURO CREEK		PALO DURO CREEK	STRATFORD
WELL NAME.....	MORRIS C NO. 1		KATHRYN "A" NO. 2	STRATFORD G.U. NO. 2
LOCATION.....	SEC. 23, BLK. 2, GH&H SUR.		SEC. 1, BLK. 38, GH&H SUR.	SEC. 61, BLK. 1-T, T&NO SUR.
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	06/11/61		01/16/84	04/23/54
SAMPLED.....	10/02/61		08/21/84	04/20/54
FORMATION.....	PENN-LIME		MISS-ST. LOUIS	PENN-CISCO
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	5364		6062	3260
WELLHEAD PRESSURE, PSIG.....	1223		1315	473
OPEN FLOW, MCFD.....	64529		1300	14000
COMPONENT, MOLE PCT				
METHANE.....	72.8		87.8	72.4
ETHANE.....	8.2		3.8	5.9
PROPANE.....	4.2		1.9	3.7
N-BUTANE.....	1.1		0.7	1.3
ISOBUTANE.....	0.1		0.2	0.3
N-PENTANE.....	0.2		0.2	0.3
ISOPENTANE.....	0.2		0.3	0.1
CYCLOPENTANE.....	0.3		0.2	0.1
HEXANES PLUS.....	0.3		0.3	0.2
NITROGEN.....	11.6		4.1	14.8
OXYGEN.....	TRACE		TRACE	TRACE
ARGON.....	TRACE		TRACE	0.1
HYDROGEN.....	TRACE		0.9	0.1
HYDROGEN SULFIDE**.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.4		0.0	0.1
HELIUM.....	0.27		0.23	0.55
HEATING VALUE.....	1084		1088	1027
SPECIFIC GRAVITY.....	0.728		0.647	0.723
		INDEX 10720	INDEX 10721	INDEX 10722
		SAMPLE 5610	SAMPLE 7044	SAMPLE 7163
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	SHERMAN		SHERMAN	SHERMAN
FIELD.....	STRATFORD		STRATFORD	STRATFORD
WELL NAME.....	STRATFORD G.U. NO. 1		LUDD A NO. 1	LEROY JUDD NO. 1
LOCATION.....	SEC. 79, BLK. 1-T, T&NO SUR.		SEC. 3, BLK. 1, PSL SUR.	SEC. 13, BLK. 1-T, T&NO SUR.
OWNER.....	HUMBLE OIL & REFINING CO.		PHILLIPS PETROLEUM CO.	SHAMROCK OIL & GAS CORP.
COMPLETED.....	04/23/54		02/06/59	06/12/59
SAMPLED.....	04/20/54		04/27/59	08/06/59
FORMATION.....	PENN-CISCO		PENN-CISCO	PENN-CISCO
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	3273		3272	3500
WELLHEAD PRESSURE, PSIG.....	468		464	398
OPEN FLOW, MCFD.....	21500		1340	3160
COMPONENT, MOLE PCT				
METHANE.....	71.8		76.1	74.3
ETHANE.....	6.0		5.4	5.7
PROPANE.....	3.7		3.3	3.3
N-BUTANE.....	1.3		1.3	1.2
ISOBUTANE.....	0.6		0.6	0.6
N-PENTANE.....	0.3		0.3	0.1
ISOPENTANE.....	0.2		0.2	0.6
CYCLOPENTANE.....	TRACE		0.1	0.1
HEXANES PLUS.....	0.1		0.2	0.2
NITROGEN.....	15.2		11.8	13.2
OXYGEN.....	TRACE		0.0	0.0
ARGON.....	0.1		TRACE	TRACE
HYDROGEN.....	TRACE		0.0	0.0
HYDROGEN SULFIDE**.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.1		0.1	0.1
HELIUM.....	0.57		0.60	0.60
HEATING VALUE.....	1021		1053	1045
SPECIFIC GRAVITY.....	0.724		0.707	0.716
		INDEX 10723	INDEX 10724	INDEX 10725
		SAMPLE 7236	SAMPLE 7297	SAMPLE 7307
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	SHERMAN		SHERMAN	SHERMAN
FIELD.....	STRATFORD		STRATFORD	STRATFORD
WELL NAME.....	O'BRIEN NO. 1		W. G. O'BRIEN ESTATE NO. 1	MORRIS SMITH NO. 1
LOCATION.....	SEC. 6, BLK. 1-T, T&NORR SUR.		SEC. 29, BLK. 1-T, T&NO SUR.	SEC. 24, BLK. 1-T, T&NO SUR.
OWNER.....	SHAMROCK OIL & GAS CORP.		HUMBLE OIL & REFINING CO.	SHAMROCK OIL & GAS CORP.
COMPLETED.....	07/30/59		06/18/58	10/20/59
SAMPLED.....	10/08/59		12/04/59	12/10/59
FORMATION.....	PENN-CISCO		PENN-CISCO	PENN-CISCO
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	3328		3291	3518
WELLHEAD PRESSURE, PSIG.....	456		472	398
OPEN FLOW, MCFD.....	2800		820	117
COMPONENT, MOLE PCT				
METHANE.....	77.7		76.5	73.1
ETHANE.....	2.8		0.1	3.6
PROPANE.....	2.6		0.1	3.5
N-BUTANE.....	1.0		1.2	1.3
ISOBUTANE.....	0.5		0.6	0.6
N-PENTANE.....	0.2		0.3	0.4
ISOPENTANE.....	0.6		0.3	0.1
CYCLOPENTANE.....	0.1		TRACE	TRACE
HEXANES PLUS.....	0.2		0.1	0.1
NITROGEN.....	11.1		11.9	14.5
OXYGEN.....	TRACE		TRACE	TRACE
ARGON.....	TRACE		TRACE	TRACE
HYDROGEN.....	0.0		0.1	0.1
HYDROGEN SULFIDE**.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.3		0.1	0.1
HELIUM.....	0.50		0.60	0.60
HEATING VALUE.....	1043		1041	1028
SPECIFIC GRAVITY.....	0.696		0.700	0.719
		INDEX 10726	INDEX 10727	INDEX 10728
		SAMPLE 7427	SAMPLE 12171	SAMPLE 13754
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	SHERMAN		SHERMAN	SHERMAN
FIELD.....	STRATFORD		STRATFORD	WILDCAT
WELL NAME.....	O'BRIEN NO. 2-A		W. DORTCH NO. 1	CALVINO-A NO. 2
LOCATION.....	SEC. 7, BLK. 1-T, T&NO SUR.		SEC. 25, BLK. 1-T, T&NO SUR.	SEC. 382, BLK. 1T, T&NO SUR.
OWNER.....	SHAMROCK OIL & GAS CORP.		W. V. HARLOW, ET AL.	CITIES SERVICE OIL CO.
COMPLETED.....	02/23/59		02/23/59	08/09/73
SAMPLED.....	02/29/60		01/17/70	10/16/73
FORMATION.....	PENN-CISCO		PERM-RED CAVE	PENN-LIME
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	3361		1720	3010
WELLHEAD PRESSURE, PSIG.....	462		400	84
OPEN FLOW, MCFD.....	1140		206	13300
COMPONENT, MOLE PCT				
METHANE.....	76.3		40.3	68.0
ETHANE.....	5.2		4.6	6.6
PROPANE.....	3.0		3.6	4.8
N-BUTANE.....	1.2		1.2	1.2
ISOBUTANE.....	0.5		0.3	0.7
N-PENTANE.....	0.2		0.1	0.4
ISOPENTANE.....	0.2		0.3	0.4
CYCLOPENTANE.....	TRACE		TRACE	0.1
HEXANES PLUS.....	0.1		0.1	0.2
NITROGEN.....	12.1		48.9	16.0
OXYGEN.....	TRACE		0.0	0.0
ARGON.....	0.1		0.2	0.1
HYDROGEN.....	0.0		0.0	TRACE
HYDROGEN SULFIDE**.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.1		0.0	0.4
HELIUM.....	0.50		0.75	0.80
HEATING VALUE.....	1046		1047	1054
SPECIFIC GRAVITY.....	0.696		0.842	0.758

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10729 SAMPLE 4141		INDEX 10730 SAMPLE 12442		INDEX 10731 SAMPLE 12443	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SMITH	COUNTY.....	SMITH	COUNTY.....	SMITH
FIELD.....	CHAPEL HILL	FIELD.....	CHAPEL HILL	FIELD.....	CHAPEL HILL
WELL NAME.....	B. MOSLEY NO. 1	WELL NAME.....	1. RUDMAN NO. 1	WELL NAME.....	BISHOP MOSLEY NO. 1
LOCATION.....	LEVI HINDS SUR.	LOCATION.....	THOMAS PAYNE SUR.	LOCATION.....	LEVI HINDS SUR.
OWNER.....	SHELL OIL CO.	OWNER.....	ATLANTIC RICHFIELD CO.	OWNER.....	ATLANTIC RICHFIELD CO.
COMPLETED.....	10/13/40	COMPLETED.....	09/10/43	COMPLETED.....	03/05/41
SAMPLED.....	09/18/46	SAMPLED.....	10/14/70	SAMPLED.....	10/14/70
FORMATION.....	CRET-PALUXY	FORMATION.....	CRET-RODESSA	FORMATION.....	CRET-PALUXY
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	5785	DEPTH, FEET.....	7295	DEPTH, FEET.....	5778
WELLHEAD PRESSURE, PSIG.....	1725	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	837
OPEN FLOW, MCFD.....	6600	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	2250
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.4	METHANE.....	78.7	METHANE.....	74.9
ETHANE.....	24.2	ETHANE.....	8.5	ETHANE.....	13.6
PROpane.....	---	PROpane.....	5.0	PROpane.....	6.9
N-BUTANE.....	---	N-BUTANE.....	1.9	N-BUTANE.....	0.6
ISOBUTANE.....	---	ISOBUTANE.....	1.5	ISOBUTANE.....	0.6
N-PENTANE.....	---	N-PENTANE.....	0.9	N-PENTANE.....	0.1
ISOPENTANE.....	---	ISOPENTANE.....	0.4	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	---	HEXANES PLUS.....	1.2	HEXANES PLUS.....	0.2
NITROGEN.....	1.0	NITROGEN.....	0.5	NITROGEN.....	2.2
OXYGEN.....	0.6	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	0.7
HELIUM.....	0.05	HELIUM.....	0.02	HELIUM.....	0.04
HEATING VALUE.....	1177	HEATING VALUE.....	1319	HEATING VALUE.....	1240
SPECIFIC GRAVITY.....	0.688	SPECIFIC GRAVITY.....	0.767	SPECIFIC GRAVITY.....	0.733

INDEX 10732 SAMPLE 12480		INDEX 10733 SAMPLE 14177		INDEX 10734 SAMPLE 14794	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SMITH	COUNTY.....	SMITH	COUNTY.....	SMITH
FIELD.....	CHAPEL HILL W	FIELD.....	OVERTON	FIELD.....	OVERTON
WELL NAME.....	THEOTIS WARREN G.U. NO. 1	WELL NAME.....	OVERTON G.U. 1 NO. 1	WELL NAME.....	OVERTON G.U. 2 NO. 1
LOCATION.....	J. A. BROCK SUR.	LOCATION.....	J. A. HERRIQUEZ SUR.	LOCATION.....	E. DANIELS SUR. A-329
OWNER.....	TEXACO INC.	OWNER.....	EXXON CO., U.S.A.	OWNER.....	EXXON CO., U.S.A.
COMPLETED.....	06/07/60	COMPLETED.....	10/1/77	COMPLETED.....	12/03/74
SAMPLED.....	10/22/70	SAMPLED.....	10/1/77	SAMPLED.....	10/01/76
FORMATION.....	CRET-PALUXY	FORMATION.....	JURA-HAYNESVILLE	FORMATION.....	JURA-HAYNESVILLE
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	5910	DEPTH, FEET.....	12000	DEPTH, FEET.....	12034
WELLHEAD PRESSURE, PSIG.....	840	WELLHEAD PRESSURE, PSIG.....	5205	WELLHEAD PRESSURE, PSIG.....	5400
OPEN FLOW, MCFD.....	1200	OPEN FLOW, MCFD.....	7800	OPEN FLOW, MCFD.....	16000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	81.4	METHANE.....	95.9	METHANE.....	96.5
ETHANE.....	8.6	ETHANE.....	0.7	ETHANE.....	1.1
PROpane.....	4.8	PROpane.....	0.1	PROpane.....	0.2
N-BUTANE.....	1.6	N-BUTANE.....	TRACE	N-BUTANE.....	0.1
ISOBUTANE.....	0.3	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.1
N-PENTANE.....	0.7	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.3	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.5	NITROGEN.....	1.2	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	2.0	CARBON DIOXIDE.....	1.4
HELIUM.....	0.02	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1254	HEATING VALUE.....	992	HEATING VALUE.....	1019
SPECIFIC GRAVITY.....	0.720	SPECIFIC GRAVITY.....	0.586	SPECIFIC GRAVITY.....	0.585

INDEX 10735 SAMPLE 14803		INDEX 10736 SAMPLE 12550		INDEX 10737 SAMPLE 12605	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SMITH	COUNTY.....	SMITH	COUNTY.....	SMITH
FIELD.....	OVERTON	FIELD.....	RED SPRINGS	FIELD.....	TYLER
WELL NAME.....	OVERTON G.U. NO. 1	WELL NAME.....	RED SPRINGS G.U. 6 NO. 1	WELL NAME.....	ELKTON GAS UNIT NO. 2
LOCATION.....	M. G. HERRIQUEZ A-11 SUR.	LOCATION.....	CASSEY GREENE & G. ESTRADA SUR	LOCATION.....	1-1/2 MI. S TYLER
OWNER.....	U.S.A.	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	10/17/74	COMPLETED.....	12/30/50	COMPLETED.....	09/09/63
SAMPLED.....	10/08/76	SAMPLED.....	12/21/70	SAMPLED.....	12/17/70
FORMATION.....	JURA-HAYNESVILLE A-11	FORMATION.....	CRET-RODESSA L	FORMATION.....	CRET-RODESSA
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260
DEPTH, FEET.....	12012	DEPTH, FEET.....	9564	DEPTH, FEET.....	9600
WELLHEAD PRESSURE, PSIG.....	5190	WELLHEAD PRESSURE, PSIG.....	430	WELLHEAD PRESSURE, PSIG.....	4600
OPEN FLOW, MCFD.....	7800	OPEN FLOW, MCFD.....	684	OPEN FLOW, MCFD.....	6515
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.3	METHANE.....	85.0	METHANE.....	93.7
ETHANE.....	0.9	ETHANE.....	0.8	ETHANE.....	2.8
PROpane.....	0.1	PROpane.....	2.9	PROpane.....	0.7
N-BUTANE.....	0.0	N-BUTANE.....	1.0	N-BUTANE.....	0.2
ISOBUTANE.....	0.0	ISOBUTANE.....	1.0	ISOBUTANE.....	0.3
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.7	HEXANES PLUS.....	0.1
NITROGEN.....	1.1	NITROGEN.....	0.0	NITROGEN.....	0.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.6	CARBON DIOXIDE.....	1.9	CARBON DIOXIDE.....	1.4
HELIUM.....	0.01	HELIUM.....	0.02	HELIUM.....	0.01
HEATING VALUE.....	994	HEATING VALUE.....	1181	HEATING VALUE.....	1048
SPECIFIC GRAVITY.....	0.580	SPECIFIC GRAVITY.....	0.699	SPECIFIC GRAVITY.....	0.605

INDEX 10738 SAMPLE 4675		INDEX 10739 SAMPLE 13340		INDEX 10740 SAMPLE 15204	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SMITH	COUNTY.....	SMITH	COUNTY.....	STARR
FIELD.....	TYLER S	FIELD.....	WILDCAT	FIELD.....	ARKANSAS CITY
WELL NAME.....	W. H. LONG NO. 1	WELL NAME.....	WILDCAT RHODES NO. 1-A	WELL NAME.....	P. H. LONGORIA NO. 1
LOCATION.....	M. M. LONG SUR.	LOCATION.....	THOMAS QUEVEDO SUR. A-18	LOCATION.....	J. WOODRIDGE SUR. 286, A-273
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	FAIR OIL CO., LTD	OWNER.....	HARKINS & CO.
COMPLETED.....	04/25/49	COMPLETED.....	10/05/71	COMPLETED.....	06/29/76
SAMPLED.....	04/25/49	SAMPLED.....	07/31/72	SAMPLED.....	01/24/78
FORMATION.....	CRET-RODESSA	FORMATION.....	CRET-PALUXY	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	260	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	9550	DEPTH, FEET.....	7498	DEPTH, FEET.....	5106
WELLHEAD PRESSURE, PSIG.....	2390	WELLHEAD PRESSURE, PSIG.....	2900	WELLHEAD PRESSURE, PSIG.....	1546
OPEN FLOW, MCFD.....	1700	OPEN FLOW, MCFD.....	16000	OPEN FLOW, MCFD.....	13000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.9	METHANE.....	90.1	METHANE.....	84.1
ETHANE.....	3.8	ETHANE.....	4.2	ETHANE.....	4.5
PROpane.....	1.4	PROpane.....	2.5	PROpane.....	2.0
N-BUTANE.....	0.5	N-BUTANE.....	0.5	N-BUTANE.....	0.7
ISOBUTANE.....	0.2	ISOBUTANE.....	0.6	ISOBUTANE.....	0.8
N-PENTANE.....	0.3	N-PENTANE.....	0.4	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.2
NITROGEN.....	0.3	NITROGEN.....	1.3	NITROGEN.....	5.4
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	2.3
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.1
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.3
HELIUM.....	0.01	HELIUM.....	0.02	HELIUM.....	TRACE
HEATING VALUE.....	1189	HEATING VALUE.....	1188	HEATING VALUE.....	1075
SPECIFIC GRAVITY.....	0.628	SPECIFIC GRAVITY.....	0.641	SPECIFIC GRAVITY.....	0.672

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX	10741		INDEX	10742		INDEX	10743
		SAMPLE	17913		SAMPLE	13451		SAMPLE	13526
STATE.....	TEXAS				TEXAS			TEXAS	
COUNTY.....	STARR				STARR			STARR	
FIELD.....	BAYLOR				BOROSA S			BOROSA S	
WELL NAME.....	R. GUERRA NO. 1				T. B. SLICK EST. "A" NO. 2			T. B. SLICK EST. "A" NO. 1	
LOCATION.....	SAN JOSE GRANT A-78				16 MI. NE RIO GRANDE CITY			SEC. 531, CCSD-RGN RR SUR.	
OWNER.....	MARK IV ENERGY				TENNECO OIL CO.			TENNECO OIL CO.	
COMPLETED.....	01/05/85				--/--/00			12/04/71	
SAMPLED.....	11/15/85				10/16/72			02/07/73	
FORMATION.....	OLIG-VICKSBURG				OLIG-VICKSBURG			OLIG-VICKSBURG	
GEOLOGIC PROVINCE CODE.....	220				220			220	
DEPTH, FEET.....	6657				NOT GIVEN			6300	
WELLHEAD PRESSURE, PSIG.....	600				NOT GIVEN			2473	
OPEN FLOW, MCFD.....	25200				72000			16400	
COMPONENT, MOLE PCT									
METHANE.....	36.7				89.6			84.5	
ETHANE.....	2.5				0.2			6.3	
PROpane.....	0.9				2.2			3.9	
N-BUTANE.....	0.3				0.5			1.3	
ISOBUTANE.....	0.2				0.2			1.5	
N-PENTANE.....	0.2				0.2			0.4	
ISOPENTANE.....	0.1				0.1			0.9	
CYCLOPENTANE.....	0.1				TRACE			0.1	
HEXANES PLUS.....	0.3				0.2			0.7	
NITROGEN.....	45.5				0.2			0.3	
OXYGEN.....	12.3				TRACE			0.0	
ARGON.....	0.6				0.0			0.0	
HYDROGEN.....	0.0				0.0			0.0	
HYDROGEN SULFIDE**.....	0.0				0.0			0.0	
CARBON DIOXIDE.....	0.0				0.0			0.0	
HELIUM.....	TRACE				TRACE			TRACE	
HEATING VALUE.....	489				1137			1259	
SPECIFIC GRAVITY.....	0.860				0.638			0.713	
		INDEX	10744		INDEX	10745		INDEX	10746
		SAMPLE	4586		SAMPLE	13928		SAMPLE	16775
STATE.....	TEXAS				TEXAS			TEXAS	
COUNTY.....	STARR				STARR			STARR	
FIELD.....	BOYLE				CAMERON NW			CAPRICORN	
WELL NAME.....	H. P. GARCIA D-14				DALLAS LAND BANK NO. 1			BARRERA EST. NCT-1 NO. 1	
LOCATION.....	SEC. 908				CCSD & RGN SUR. 509			F. DE LA GARZA 78, A-92	
OWNER.....	CONTINENTAL OIL CO.				TENNECO OIL CO.			TEXACO INC.	
COMPLETED.....	03/25/48				11/15/71			05/20/82	
SAMPLED.....	10/12/48				02/27/74			02/22/83	
FORMATION.....	OLIG-FRIO				OLIG-FRIO			EOCE-QUEEN CITY 1ST	
GEOLOGIC PROVINCE CODE.....	220				220			220	
DEPTH, FEET.....	3782				4480			6240	
WELLHEAD PRESSURE, PSIG.....	1450				470			4025	
OPEN FLOW, MCFD.....	1750				270			7505	
COMPONENT, MOLE PCT									
METHANE.....	79.2				86.0			91.7	
ETHANE.....	19.5				6.6			3.7	
PROpane.....	---				0.7			1.8	
N-BUTANE.....	---				0.9			0.3	
ISOBUTANE.....	---				1.4			0.3	
N-PENTANE.....	---				0.3			0.0	
ISOPENTANE.....	---				0.5			0.4	
CYCLOPENTANE.....	---				0.1			0.1	
HEXANES PLUS.....	---				0.4			0.1	
NITROGEN.....	1.3				0.1			0.5	
OXYGEN.....	0.0				TRACE			0.2	
ARGON.....	---				0.0			TRACE	
HYDROGEN.....	---				0.0			0.5	
HYDROGEN SULFIDE**.....	---				0.0			0.0	
CARBON DIOXIDE.....	0.0				TRACE			1.0	
HELIUM.....	TRACE				0.01			TRACE	
HEATING VALUE.....	1152				1221			1076	
SPECIFIC GRAVITY.....	0.656				0.686			0.618	
		INDEX	10747		INDEX	10748		INDEX	10749
		SAMPLE	3677		SAMPLE	4689		SAMPLE	10533
STATE.....	TEXAS				TEXAS			TEXAS	
COUNTY.....	STARR				STARR			STARR	
FIELD.....	COMEYON				DOSS			EL BENADITO	
WELL NAME.....	W. I. COMEYON NO. 2				AUSTIN ESTATE NO. 1			F. W. HEARD NO. 1	
LOCATION.....	SEC. 139, G. T. SMITH SUR.				SEC. 21, BLK. 4, MELTONS SUB.			X. ZAMORA PORCIAN #1, A-77	
OWNER.....	CONTINENTAL OIL CO.				SUN OIL CO.			LANDA OIL CO.	
COMPLETED.....	09/23/43				10/30/48			09/12/63	
SAMPLED.....	10/08/43				02/07/49			04/20/66	
FORMATION.....	OLIG-FRIO				OLIG-FRIO			OLIG-VICKSBURG	
GEOLOGIC PROVINCE CODE.....	220				220			220	
DEPTH, FEET.....	4126				3723			9264	
WELLHEAD PRESSURE, PSIG.....	1716				1716			6653	
OPEN FLOW, MCFD.....	NOT GIVEN				9000			4500	
COMPONENT, MOLE PCT									
METHANE.....	62.7				93.4			91.2	
ETHANE.....	36.8				0.2			4.8	
PROpane.....	---				1.1			1.7	
N-BUTANE.....	---				0.3			0.4	
ISOBUTANE.....	---				0.2			0.4	
N-PENTANE.....	---				0.0			0.2	
ISOPENTANE.....	---				0.3			0.1	
CYCLOPENTANE.....	---				TRACE			0.3	
HEXANES PLUS.....	---				0.2			0.3	
NITROGEN.....	0.1				0.2			0.3	
OXYGEN.....	0.3				TRACE			0.0	
ARGON.....	---				0.5			TRACE	
HYDROGEN.....	---				0.1			0.0	
HYDROGEN SULFIDE**.....	---				---			0.0	
CARBON DIOXIDE.....	0.1				TRACE			0.3	
HELIUM.....	TRACE				0.01			0.01	
HEATING VALUE.....	1295				1089			1120	
SPECIFIC GRAVITY.....	0.740				0.605			0.629	
		INDEX	10750		INDEX	10751		INDEX	10752
		SAMPLE	5116		SAMPLE	15399		SAMPLE	13910
STATE.....	TEXAS				TEXAS			TEXAS	
COUNTY.....	STARR				STARR			STARR	
FIELD.....	EL JAVALI				EL STAGG			FLORES	
WELL NAME.....	BESSIE H. COCKE NO. 1				RAFAEL A GUERRA NO. 1			S. D. BLOOMBERG NO. 1	
LOCATION.....	NOT GIVEN				SAN JOSE GRANT A-78			X. ZAMORA PORCIAN #1, A-77	
OWNER.....	CHICAGO CORP.				GEORGE H. COATES ESTATE			TEXACO INC.	
COMPLETED.....	06/06/51				09/23/76			04/09/58	
SAMPLED.....	11/02/51				10/--/78			02/--/74	
FORMATION.....	EOCE-COCKFIELD				OLIG-VICKSBURG			OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220				220			220	
DEPTH, FEET.....	2223				7320			5627	
WELLHEAD PRESSURE, PSIG.....	915				3575			500	
OPEN FLOW, MCFD.....	8200				19000			300	
COMPONENT, MOLE PCT									
METHANE.....	97.0				88.2			90.6	
ETHANE.....	0.8				5.7			5.3	
PROpane.....	0.1				0.2			1.9	
N-BUTANE.....	0.1				0.5			0.4	
ISOBUTANE.....	0.1				0.6			0.6	
N-PENTANE.....	0.0				0.2			0.1	
ISOPENTANE.....	0.1				0.2			0.3	
CYCLOPENTANE.....	TRACE				0.1			0.1	
HEXANES PLUS.....	TRACE				0.2			0.3	
NITROGEN.....	0.4				1.3			0.3	
OXYGEN.....	0.1				0.3			0.0	
ARGON.....	TRACE				TRACE			0.0	
HYDROGEN.....	0.0				TRACE			0.0	
HYDROGEN SULFIDE**.....	---				0.0			0.0	
CARBON DIOXIDE.....	0.9				0.7			0.0	
HELIUM.....	0.0				TRACE			TRACE	
HEATING VALUE.....	1010				1118			1132	
SPECIFIC GRAVITY.....	0.574				0.649			0.634	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

905

INDEX 10753 SAMPLE 3815		INDEX 10754 SAMPLE 2658		INDEX 10755 SAMPLE 2659	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	STARR	COUNTY.....	STARR	COUNTY.....	STARR
FIELD.....	GARCIA	FIELD.....	GUERRA	FIELD.....	GUERRA
WELL NAME.....	2-1 SOLIS A NO. 1	WELL NAME.....	GUERRA NO. 1-C	WELL NAME.....	NO. C-2
LOCATION.....	2 MI. S OF FROST FIELD	LOCATION.....	SACATOSA GRANT	LOCATION.....	SACATOSA GRANT
OWNER.....	SUN OIL CO.	OWNER.....	SUN OIL CO.	OWNER.....	SUN OIL CO.
COMPLETED.....	02/13/44	COMPLETED.....	09/21/33	COMPLETED.....	11/01/33
SAMPLED.....	04/20/44	SAMPLED.....	11/14/33	SAMPLED.....	11/14/33
FORMATION.....	OLIG-FRIO	FORMATION.....	EOCE-JACKSON L	FORMATION.....	EOCE-JACKSON L
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	4070	DEPTH, FEET.....	2141	DEPTH, FEET.....	2160
WELLHEAD PRESSURE, PSIG.....	1500	WELLHEAD PRESSURE, PSIG.....	810	WELLHEAD PRESSURE, PSIG.....	800
OPEN FLOW, MCFD.....	2000	OPEN FLOW, MCFD.....	10000	OPEN FLOW, MCFD.....	3000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	80.6	METHANE.....	92.6	METHANE.....	91.0
ETHANE.....	14.2	ETHANE.....	5.9	ETHANE.....	7.5
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	4.7	NITROGEN.....	0.4	NITROGEN.....	1.1
OXYGEN.....	0.4	OXYGEN.....	0.4	OXYGEN.....	0.3
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.1
HELIUM.....	0.00	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1071	HEATING VALUE.....	1044	HEATING VALUE.....	1056
SPECIFIC GRAVITY.....	0.647	SPECIFIC GRAVITY.....	0.594	SPECIFIC GRAVITY.....	0.599

INDEX 10756 SAMPLE 5126		INDEX 10757 SAMPLE 4956		INDEX 10758 SAMPLE 13549	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	STARR	COUNTY.....	STARR	COUNTY.....	STARR
FIELD.....	JAY SIMMONS S	FIELD.....	KELSEY S	FIELD.....	L.A. REFORMA
WELL NAME.....	MINAJOSA NO. 1	WELL NAME.....	ALVAREZ NO. 1	WELL NAME.....	C. V. DE LOPEZ "A" NO. 2
LOCATION.....	SANTA CRUZ GRANT	LOCATION.....	SANTA TERSEA GRANT	LOCATION.....	SANTA CRUZ SUR. A-79
OWNER.....	SUN OIL CO.	OWNER.....	HUGH KIRKPATRICK, ET AL.	OWNER.....	SUN OIL CO.
COMPLETED.....	08/18/51	COMPLETED.....	06/17/50	COMPLETED.....	03/27/71
SAMPLED.....	11/24/51	SAMPLED.....	11/23/50	SAMPLED.....	02/23/73
FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-VICKSBURG
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	6137	DEPTH, FEET.....	4590	DEPTH, FEET.....	7989
WELLHEAD PRESSURE, PSIG.....	2810	WELLHEAD PRESSURE, PSIG.....	2110	WELLHEAD PRESSURE, PSIG.....	3065
OPEN FLOW, MCFD.....	11000	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	7255
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	89.8	METHANE.....	88.8	METHANE.....	88.8
ETHANE.....	3.2	ETHANE.....	3.7	ETHANE.....	5.4
PROPANE.....	0.6	PROPANE.....	0.6	PROPANE.....	2.4
N-BUTANE.....	0.6	N-BUTANE.....	0.6	N-BUTANE.....	0.7
ISOBUTANE.....	0.6	ISOBUTANE.....	0.5	ISOBUTANE.....	0.7
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.4
NITROGEN.....	0.9	NITROGEN.....	0.7	NITROGEN.....	0.8
OXYGEN.....	0.1	OXYGEN.....	0.2	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1123	HEATING VALUE.....	1138	HEATING VALUE.....	1151
SPECIFIC GRAVITY.....	0.636	SPECIFIC GRAVITY.....	0.646	SPECIFIC GRAVITY.....	0.652

INDEX 10759 SAMPLE 3727		INDEX 10760 SAMPLE 16097		INDEX 10761 SAMPLE 3676	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	STARR	COUNTY.....	STARR	COUNTY.....	STARR
FIELD.....	LOCKHART	FIELD.....	NOT GIVEN	FIELD.....	RINCON
WELL NAME.....	DOMIN-GARZA NO. 2	WELL NAME.....	I. V. MONTALVO "C" NO. 39L	WELL NAME.....	T. B. SLICK E 9
LOCATION.....	SEC. 80	LOCATION.....	LOS RETACHEZ GRANT A-347	LOCATION.....	SEC. 37, CCSD & RGNG SUR.
OWNER.....	LOCKHART & DAVENPORT	OWNER.....	SUN GAS CO.	OWNER.....	CONTINENTAL OIL CO.
COMPLETED.....	09/02/43	COMPLETED.....	11/1/80	COMPLETED.....	08/19/43
SAMPLED.....	03/22/44	SAMPLED.....	10/14/80	SAMPLED.....	10/05/43
FORMATION.....	EOCE-	FORMATION.....	OLIG-VICKSBURG	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	4014	DEPTH, FEET.....	7140	DEPTH, FEET.....	3830
WELLHEAD PRESSURE, PSIG.....	1500	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	3222	OPEN FLOW, MCFD.....	17000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	81.4	METHANE.....	91.1	METHANE.....	87.0
ETHANE.....	17.8	ETHANE.....	4.6	ETHANE.....	12.5
PROPANE.....	---	PROPANE.....	2.0	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	0.6	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	0.5	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	0.2	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	0.3	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	0.3	HEXANES PLUS.....	---
NITROGEN.....	0.4	NITROGEN.....	0.2	NITROGEN.....	0.1
OXYGEN.....	0.3	OXYGEN.....	TRACE	OXYGEN.....	0.4
ARGON.....	---	ARGON.....	0.0	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0
HELIUM.....	0.00	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1144	HEATING VALUE.....	1135	HEATING VALUE.....	1105
SPECIFIC GRAVITY.....	0.647	SPECIFIC GRAVITY.....	0.633	SPECIFIC GRAVITY.....	0.619

INDEX 10762 SAMPLE 4646		INDEX 10763 SAMPLE 12056		INDEX 10764 SAMPLE 4669	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	STARR	COUNTY.....	STARR	COUNTY.....	STARR
FIELD.....	RINCON	FIELD.....	RINCON	FIELD.....	RINCON
WELL NAME.....	DEE DAVENPORT NO. 5	WELL NAME.....	M. M. GARCIA 8538 NO. 20	WELL NAME.....	R. J. MOORE NO. 1
LOCATION.....	SEC. 280, S-2	LOCATION.....	CCSD SUR. NO. 538	LOCATION.....	SEC. 513
OWNER.....	CONTINENTAL OIL CO.	OWNER.....	CONTINENTAL OIL CO.	OWNER.....	LA GLORIA CORP.
COMPLETED.....	10/31/48	COMPLETED.....	01/24/68	COMPLETED.....	09/10/48
SAMPLED.....	12/30/48	SAMPLED.....	10/01/69	SAMPLED.....	01/19/49
FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-VICKSBURG	FORMATION.....	OLIG-
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	4245	DEPTH, FEET.....	6860	DEPTH, FEET.....	3287
WELLHEAD PRESSURE, PSIG.....	1500	WELLHEAD PRESSURE, PSIG.....	1500	WELLHEAD PRESSURE, PSIG.....	1500
OPEN FLOW, MCFD.....	14000	OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	12000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	58.2	METHANE.....	74.3	METHANE.....	97.0
ETHANE.....	39.9	ETHANE.....	5.8	ETHANE.....	1.5
PROPANE.....	---	PROPANE.....	5.6	PROPANE.....	0.3
N-BUTANE.....	---	N-BUTANE.....	2.4	N-BUTANE.....	0.1
ISOBUTANE.....	---	ISOBUTANE.....	1.5	ISOBUTANE.....	0.2
N-PENTANE.....	---	N-PENTANE.....	1.4	N-PENTANE.....	TRACE
ISOPENTANE.....	---	ISOPENTANE.....	1.3	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.8	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	---	HEXANES PLUS.....	2.9	HEXANES PLUS.....	0.2
NITROGEN.....	0.8	NITROGEN.....	0.4	NITROGEN.....	0.6
OXYGEN.....	0.6	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	---	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	---	HYDROGEN.....	0.1	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	---	CARBON DIOXIDE.....	---
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1305	HEATING VALUE.....	1519	HEATING VALUE.....	1038
SPECIFIC GRAVITY.....	0.763	SPECIFIC GRAVITY.....	0.873	SPECIFIC GRAVITY.....	0.580

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10765 SAMPLE 15379	INDEX 10766 SAMPLE 3757	INDEX 10767 SAMPLE 12212
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	STARR		STARR	STARR
FIELD.....	RINCON N		ROSS	ROSS N
WELL NAME.....	F. C. MARTINEZ NO. 1		GAZAR NO. 2	D. L. GARZA B NO. 1
LOCATION.....	E. RANGEL SUR. 546, A-1015		SEC. 44, PORCION 88	11 MI. NE RIO GRANDE CITY
OWNER.....	HARKINS & CO.		W. L. GOLDSTON	SOUTH STATES OIL & GAS CO.
COMPLETED.....	07/07/77		12/03/43	05/12/56
SAMPLED.....	09/19/78		03/31/44	02/25/70
FORMATION.....	OLIG-VICKSBURG		OLIG-VICKSBURG	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	7074		2775	2453
WELLHEAD PRESSURE, PSIG.....	3690		900	287
OPEN FLOW, MCFD.....	5000		NOT GIVEN	2000
COMPONENT, MOLE PCT.....				
METHANE.....	81.9	96.0	90.7	
ETHANE.....	7.6	1.6	4.1	
PROPANE.....	3.9	---	0.5	
N-BUTANE.....	0.9	---	0.2	
ISOBUTANE.....	1.0	---	0.0	
N-PENTANE.....	0.2	---	0.3	
ISOPENTANE.....	---	---	0.1	
CYCLOPENTANE.....	TRACE	---	0.1	
HEXANES PLUS.....	0.2	---	0.1	
NITROGEN.....	3.1	1.9	0.7	
OXYGEN.....	0.3	0.4	0.0	
ARGON.....	TRACE	---	0.0	
HYDROGEN.....	0.1	---	0.1	
HYDROGEN SULFIDE**.....	0.0	---	0.0	
CARBON DIOXIDE.....	TRACE	0.1	3.1	
HELIUM.....	TRACE	0.00	TRACE	
HEATING VALUE.....	1163	1001	1038	
SPECIFIC GRAVITY.....	0.690	0.573	0.627	
		INDEX 10768 SAMPLE 12213	INDEX 10769 SAMPLE 11169	INDEX 10770 SAMPLE 13547
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	STARR		STARR	STARR
FIELD.....	ROSS N		SAN ROMAN W	SUN
WELL NAME.....	D. L. GARZA B NO. 3		H. P. GUERRA NO. 2	LEE M. GREEN NO. 1
LOCATION.....	10 MI. NE RIO GRANDE CITY		PORCION 109, SUR. A-97	SANTA TERESA GRANT A-220
OWNER.....	SOUTH STATES OIL & GAS CO.		MOOREN OIL CO.	COASTAL STATES GAS PROD. CO.
COMPLETED.....	01/23/69		09/28/66	01/30/71
SAMPLED.....	02/25/70		10/15/67	02/21/73
FORMATION.....	OLIG-FRIO		OLIG-FRIO	OLIG-VICKSBURG I-4
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	2488	4012	6773	
WELLHEAD PRESSURE, PSIG.....	498	1014	2615	
OPEN FLOW, MCFD.....	1720	6000	7400	
COMPONENT, MOLE PCT.....				
METHANE.....	95.1	95.8	89.1	
ETHANE.....	2.8	3.6	4.2	
PROPANE.....	0.6	1.6	0.5	
N-BUTANE.....	0.1	0.0	0.4	
ISOBUTANE.....	0.0	0.0	0.5	
N-PENTANE.....	0.0	0.0	0.1	
ISOPENTANE.....	0.0	0.0	0.1	
CYCLOPENTANE.....	0.0	0.0	TRACE	
HEXANES PLUS.....	0.0	0.0	0.1	
NITROGEN.....	0.8	0.3	3.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	TRACE	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	0.1	0.5	
HELIUM.....	TRACE	0.03	0.01	
HEATING VALUE.....	1028	1038	1063	
SPECIFIC GRAVITY.....	0.583	0.575	0.630	
		INDEX 10771 SAMPLE 13548	INDEX 10772 SAMPLE 13524	INDEX 10773 SAMPLE 13525
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	STARR		STARR	STARR
FIELD.....	SUN		SUN E	SUN E
WELL NAME.....	LEE M. GREEN NO. 1		LAUREL NO. 1	LAUREL NO. 1
LOCATION.....	SANTA TERESA GRANT A-220		CCSD&RGNG RR SUR NO 241, A202	CCSD&RGNG RR SUR, A-202
OWNER.....	COASTAL STATES GAS PROD. CO.		BOBBY M. BURNS, ET AL.	BOBBY M. BURNS, ET AL.
COMPLETED.....	01/30/71		10/16/71	10/16/71
SAMPLED.....	02/21/73		02/04/73	02/04/73
FORMATION.....	OLIG-VICKSBURG J-1		OLIG-VICKSBURG	OLIG-VICKSBURG
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	7417	6390	6390	
WELLHEAD PRESSURE, PSIG.....	2865	2380	2380	
OPEN FLOW, MCFD.....	8500	2500	2500	
COMPONENT, MOLE PCT.....				
METHANE.....	88.8	93.2	93.0	
ETHANE.....	4.1	3.8	3.8	
PROPANE.....	1.6	1.4	1.5	
N-BUTANE.....	0.4	0.3	0.3	
ISOBUTANE.....	0.5	0.4	0.4	
N-PENTANE.....	0.1	0.1	0.1	
ISOPENTANE.....	0.1	0.1	0.1	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.1	0.2	0.2	
NITROGEN.....	3.5	0.4	0.5	
OXYGEN.....	0.0	TRACE	TRACE	
ARGON.....	TRACE	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.6	0.0	0.0	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1058	1095	1091	
SPECIFIC GRAVITY.....	0.630	0.610	0.609	
		INDEX 10774 SAMPLE 4305	INDEX 10775 SAMPLE 4491	INDEX 10776 SAMPLE 12525
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	STARR		STARR	STARR
FIELD.....	SUN N		SUN N	SUN N
WELL NAME.....	LEE M. GREEN NO. 4		RAMON OLIVARES NO. 1	D. JUAREZ NO. 2
LOCATION.....	SANTA TERESA GRANT		3 MI. SE OF SANTA ELENA	SANTA TERESA GRANT A-220
OWNER.....	SUN OIL CO.		SUN OIL CO.	SUN OIL CO.
COMPLETED.....	02/20/47		01/07/48	01/11/69
SAMPLED.....	05/09/47		03/30/48	01/06/69
FORMATION.....	OLIG-FRIO		OLIG-FRIO	OLIG-FRIO F.2
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	6460	4500	5500	
WELLHEAD PRESSURE, PSIG.....	2918	2402	1200	
OPEN FLOW, MCFD.....	7800	10500	10200	
COMPONENT, MOLE PCT.....				
METHANE.....	84.7	84.0	91.5	
ETHANE.....	14.9	15.0	4.5	
PROPANE.....	---	---	1.8	
N-BUTANE.....	---	---	0.5	
ISOBUTANE.....	---	---	0.5	
N-PENTANE.....	---	---	0.2	
ISOPENTANE.....	---	---	0.2	
CYCLOPENTANE.....	---	---	0.1	
HEXANES PLUS.....	---	---	0.2	
NITROGEN.....	0.0	0.2	0.4	
OXYGEN.....	0.3	0.3	0.0	
ARGON.....	---	---	TRACE	
HYDROGEN.....	---	---	0.1	
HYDROGEN SULFIDE**.....	---	---	0.0	
CARBON DIOXIDE.....	0.1	---	TRACE	
HELIUM.....	0.01	0.5	TRACE	
HEATING VALUE.....	1125	1119	1119	
SPECIFIC GRAVITY.....	0.631	0.636	0.626	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10777 SAMPLE 4820			INDEX 10778 SAMPLE 10143			INDEX 10779 SAMPLE 10144		
STATE.....	TEXAS		STATE.....	TEXAS		STATE.....	TEXAS	
COUNTY.....	STARR		COUNTY.....	STEPHENS		COUNTY.....	STEPHENS	
FIELD.....	YZAGUIRRE		FIELD.....	AKIN		FIELD.....	AKIN	
WELL NAME.....	T. B. SLICK NO. 2		WELL NAME.....	N. J. BROOKS 13-F		WELL NAME.....	N. J. BROOKS 13-D	
LOCATION.....	SEC. 230		LOCATION.....	SEC. 3390 T&E&L SUR.		LOCATION.....	SEC. 3390 T&E&L SUR.	
OWNER.....	BRITISH AMERICAN OIL CO. LTD		OWNER.....	TEXACO INC.		OWNER.....	TEXACO INC.	
COMPLETED.....	05/12/49		COMPLETED.....	05/27/63		COMPLETED.....	05/27/63	
SAMPLED.....	12/30/49		SAMPLED.....	09/22/65		SAMPLED.....	09/22/65	
FORMATION.....	OLIG-FRIO		FORMATION.....	PENN-BUCK CREEK		FORMATION.....	PENN-BRANNONBRIDGE	
GEOLOGIC PROVINCE CODE.....	220		GEOLOGIC PROVINCE CODE.....	425		GEOLOGIC PROVINCE CODE.....	425	
DEPTH, FEET.....	4889		DEPTH, FEET.....	2020		DEPTH, FEET.....	2366	
WELLHEAD PRESSURE, PSIG.....	2103		WELLHEAD PRESSURE, PSIG.....	940		WELLHEAD PRESSURE, PSIG.....	680	
OPEN FLOW, MCFD.....	5800		OPEN FLOW, MCFD.....	2200		OPEN FLOW, MCFD.....	1050	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	90.2		METHANE.....	84.6		METHANE.....	83.9	
ETHANE.....	5.4		ETHANE.....	0.5		ETHANE.....	3.3	
PROPANE.....	2.0		PROPANE.....	0.4		PROPANE.....	2.7	
N-BUTANE.....	0.5		N-BUTANE.....	0.3		N-BUTANE.....	1.0	
ISOBUTANE.....	0.4		ISOBUTANE.....	0.1		ISOBUTANE.....	0.4	
N-PENTANE.....	0.1		N-PENTANE.....	0.1		N-PENTANE.....	0.2	
ISOPENTANE.....	0.4		ISOPENTANE.....	TRACE		ISOPENTANE.....	0.3	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.3		HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.2	
NITROGEN.....	0.5		NITROGEN.....	13.4		NITROGEN.....	7.4	
OXYGEN.....	TRACE		OXYGEN.....	TRACE		OXYGEN.....	TRACE	
ARGON.....	0.0		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.3	
HELIUM.....	TRACE		HELIUM.....	0.30		HELIUM.....	0.18	
HEATING VALUE.....	1134		HEATING VALUE.....	899		HEATING VALUE.....	1062	
SPECIFIC GRAVITY.....	0.634		SPECIFIC GRAVITY.....	0.627		SPECIFIC GRAVITY.....	0.668	
INDEX 10780 SAMPLE 10145			INDEX 10781 SAMPLE 139			INDEX 10782 SAMPLE 140		
STATE.....	TEXAS		STATE.....	TEXAS		STATE.....	TEXAS	
COUNTY.....	STEPHENS		COUNTY.....	STEPHENS		COUNTY.....	STEPHENS	
FIELD.....	AKIN		FIELD.....	BRECKENRIDGE		FIELD.....	BRECKENRIDGE	
WELL NAME.....	N. J. BROOKS 13-G		WELL NAME.....	J. M. PARKS NO. A6		WELL NAME.....	J. C. CURRY NO. 2	
LOCATION.....	SEC. 3390 T&E&L SUR.		LOCATION.....	SEC. 3373, T.L.&E. CO. LEASE		LOCATION.....	SEC. 3391	
OWNER.....	TEXACO INC.		OWNER.....	TEXAS CO.		OWNER.....	TEXAS CO.	
COMPLETED.....	05/27/63		COMPLETED.....	01/21/20		COMPLETED.....	07/01/19	
SAMPLED.....	09/22/65		SAMPLED.....	03/12/20		SAMPLED.....	03/12/20	
FORMATION.....	PENN-MARBLE FALLS		FORMATION.....	-BLACK LIME		FORMATION.....	-GREY LIME	
GEOLOGIC PROVINCE CODE.....	425		GEOLOGIC PROVINCE CODE.....	425		GEOLOGIC PROVINCE CODE.....	425	
DEPTH, FEET.....	3908		DEPTH, FEET.....	3088		DEPTH, FEET.....	3286	
WELLHEAD PRESSURE, PSIG.....	1680		WELLHEAD PRESSURE, PSIG.....	1150		WELLHEAD PRESSURE, PSIG.....	800	
OPEN FLOW, MCFD.....	2800		OPEN FLOW, MCFD.....	18578		OPEN FLOW, MCFD.....	10000	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	76.0		METHANE.....	73.2		METHANE.....	72.7	
ETHANE.....	9.8		ETHANE.....	21.6		ETHANE.....	21.3	
PROPANE.....	4.4		PROPANE.....	---		PROPANE.....	---	
N-BUTANE.....	1.3		N-BUTANE.....	---		N-BUTANE.....	---	
ISOBUTANE.....	0.6		ISOBUTANE.....	---		ISOBUTANE.....	---	
N-PENTANE.....	0.4		N-PENTANE.....	---		N-PENTANE.....	---	
ISOPENTANE.....	0.2		ISOPENTANE.....	---		ISOPENTANE.....	---	
CYCLOPENTANE.....	0.2		CYCLOPENTANE.....	---		CYCLOPENTANE.....	---	
HEXANES PLUS.....	0.4		HEXANES PLUS.....	---		HEXANES PLUS.....	---	
NITROGEN.....	6.2		NITROGEN.....	4.5		NITROGEN.....	4.0	
OXYGEN.....	0.0		OXYGEN.....	0.4		OXYGEN.....	0.8	
ARGON.....	TRACE		ARGON.....	---		ARGON.....	---	
HYDROGEN.....	0.0		HYDROGEN.....	---		HYDROGEN.....	---	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---	
CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.0	
HELIUM.....	0.20		HELIUM.....	0.17		HELIUM.....	0.14	
HEATING VALUE.....	1177		HEATING VALUE.....	1129		HEATING VALUE.....	1118	
SPECIFIC GRAVITY.....	0.729		SPECIFIC GRAVITY.....	0.682		SPECIFIC GRAVITY.....	0.674	
INDEX 10783 SAMPLE 143			INDEX 10784 SAMPLE 1791			INDEX 10785 SAMPLE 4575		
STATE.....	TEXAS		STATE.....	TEXAS		STATE.....	TEXAS	
COUNTY.....	STEPHENS		COUNTY.....	STEPHENS		COUNTY.....	STEPHENS	
FIELD.....	BRECKENRIDGE		FIELD.....	BRECKENRIDGE		FIELD.....	BRECKENRIDGE	
WELL NAME.....	J. R. SMITH NO. 1		WELL NAME.....	ROSS ELLIOTT NO. 2		WELL NAME.....	J. M. MOON NO. 1	
LOCATION.....	SEC. 1		LOCATION.....	NOT GIVEN		LOCATION.....	SEC. 1306, T.E.&L. SUR.	
OWNER.....	TEXAS CO.		OWNER.....	LONE STAR GAS CO.		OWNER.....	TEXAS CO.	
COMPLETED.....	06/14/80		COMPLETED.....	-7/1/80		COMPLETED.....	04/01/48	
SAMPLED.....	03/12/20		SAMPLED.....	06/07/29		SAMPLED.....	10/11/48	
FORMATION.....	-GREY GAS SAND		FORMATION.....	NOT GIVEN		FORMATION.....	PENN-MARBLE FALLS	
GEOLOGIC PROVINCE CODE.....	425		GEOLOGIC PROVINCE CODE.....	425		GEOLOGIC PROVINCE CODE.....	425	
DEPTH, FEET.....	3099		DEPTH, FEET.....	2187		DEPTH, FEET.....	4130	
WELLHEAD PRESSURE, PSIG.....	820		WELLHEAD PRESSURE, PSIG.....	840		WELLHEAD PRESSURE, PSIG.....	1583	
OPEN FLOW, MCFD.....	8000		OPEN FLOW, MCFD.....	9000		OPEN FLOW, MCFD.....	11000	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	76.5		METHANE.....	69.3		METHANE.....	69.6	
ETHANE.....	19.7		ETHANE.....	18.7		ETHANE.....	25.1	
PROPANE.....	---		PROPANE.....	---		PROPANE.....	---	
N-BUTANE.....	---		N-BUTANE.....	---		N-BUTANE.....	---	
ISOBUTANE.....	---		ISOBUTANE.....	---		ISOBUTANE.....	---	
N-PENTANE.....	---		N-PENTANE.....	---		N-PENTANE.....	---	
ISOPENTANE.....	---		ISOPENTANE.....	---		ISOPENTANE.....	---	
CYCLOPENTANE.....	---		CYCLOPENTANE.....	---		CYCLOPENTANE.....	---	
HEXANES PLUS.....	---		HEXANES PLUS.....	---		HEXANES PLUS.....	---	
NITROGEN.....	3.5		NITROGEN.....	11.4		NITROGEN.....	4.6	
OXYGEN.....	0.1		OXYGEN.....	0.2		OXYGEN.....	0.3	
ARGON.....	---		ARGON.....	---		ARGON.....	---	
HYDROGEN.....	---		HYDROGEN.....	---		HYDROGEN.....	---	
HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	---	
CARBON DIOXIDE.....	0.0		CARBON DIOXIDE.....	0.2		CARBON DIOXIDE.....	0.2	
HELIUM.....	0.21		HELIUM.....	0.40		HELIUM.....	0.21	
HEATING VALUE.....	1128		HEATING VALUE.....	1037		HEATING VALUE.....	1155	
SPECIFIC GRAVITY.....	0.666		SPECIFIC GRAVITY.....	0.697		SPECIFIC GRAVITY.....	0.700	
INDEX 10786 SAMPLE 3732			INDEX 10787 SAMPLE 8122			INDEX 10788 SAMPLE 8123		
STATE.....	TEXAS		STATE.....	TEXAS		STATE.....	TEXAS	
COUNTY.....	STEPHENS		COUNTY.....	STEPHENS		COUNTY.....	STEPHENS	
FIELD.....	BROWNSVILLE		FIELD.....	ECHOLS		FIELD.....	ECHOLS	
WELL NAME.....	JESSE BROWN C NO. 2		WELL NAME.....	M. O. KENNEDY		WELL NAME.....	WEST NO. 8	
LOCATION.....	SEC. 114, GARRETT SUR. A-68		LOCATION.....	SEC. 0, 13, SPRR SUR.		LOCATION.....	ED. ROMERSHAURSER SUR.	
OWNER.....	TEXAS PACIFIC COAL & OIL CO.		OWNER.....	AMBASSADOR OIL CORP.		OWNER.....	K. WEST	
COMPLETED.....	12/11/43		COMPLETED.....	01/14/55		COMPLETED.....	05/23/60	
SAMPLED.....	03/25/44		SAMPLED.....	08/08/61		SAMPLED.....	08/08/61	
FORMATION.....	NOT GIVEN		FORMATION.....	PENN-MARBLE FALLS		FORMATION.....	PENN-MARBLE FALLS	
GEOLOGIC PROVINCE CODE.....	425		GEOLOGIC PROVINCE CODE.....	425		GEOLOGIC PROVINCE CODE.....	425	
DEPTH, FEET.....	3978		DEPTH, FEET.....	3914		DEPTH, FEET.....	4032	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		WELLHEAD PRESSURE, PSIG.....	1410		WELLHEAD PRESSURE, PSIG.....	1550	
OPEN FLOW, MCFD.....	5700		OPEN FLOW, MCFD.....	2777		OPEN FLOW, MCFD.....	2416	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	67.6		METHANE.....	81.8		METHANE.....	79.2	
ETHANE.....	24.3		ETHANE.....	9.0		ETHANE.....	9.2	
PROPANE.....	---		PROPANE.....	3.7		PROPANE.....	4.1	
N-BUTANE.....	---		N-BUTANE.....	1.1		N-BUTANE.....	1.1	
ISOBUTANE.....	---		ISOBUTANE.....	0.5		ISOBUTANE.....	0.6	
N-PENTANE.....	---		N-PENTANE.....	0.2		N-PENTANE.....	0.2	
ISOPENTANE.....	---		ISOPENTANE.....	0.3		ISOPENTANE.....	0.2	
CYCLOPENTANE.....	---		CYCLOPENTANE.....	0.2		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	---		HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.2	
NITROGEN.....	7.4		NITROGEN.....	2.7		NITROGEN.....	4.1	
OXYGEN.....	0.4		OXYGEN.....	TRACE		OXYGEN.....	TRACE	
ARGON.....	---		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	---		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	---		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.3		CARBON DIOXIDE.....	0.10		CARBON DIOXIDE.....	0.3	
HELIUM.....	0.26		HELIUM.....	0.10		HELIUM.....	0.10	
HEATING VALUE.....	1120		HEATING VALUE.....	1175		HEATING VALUE.....	1171	
SPECIFIC GRAVITY.....	0.711		SPECIFIC GRAVITY.....	0.689		SPECIFIC GRAVITY.....	0.702	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10789 8124	INDEX SAMPLE	10790 8118	INDEX SAMPLE	10791 5370
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	STEPHENS			STEPHENS		STEPHENS	
FIELD.....	ECHOLS			ELIASVILLE N		FLUX E	
WELL NAME.....	SEC. 9, BLK. 3, SPRR SUR.			PRATT A-20-T.		L. T. WILD NO. 1	
LOCATION.....	GEORGE W. GRAHAM			SEC. 1119, TE&L SUR.		SEC. 58, B&L SUR.	
OWNER.....	07/31/51			CURRY OIL CO.		IBEX CO.	
COMPLETED.....	03/08/61			11/09/60		09/29/52	
SAMPLED.....	PENN-LAKE			08/08/61		01/05/53	
FORMATION.....	425			PENN-CONGLOMERATE		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	3850			425		425	
DEPTH, FEET.....	950			3992		2383	
WELLHEAD PRESSURE, PSIG.....	1337			1360		955	
OPEN FLOW, MCFD.....				1650		2000	
COMPONENT, MOLE PCT							
METHANE.....	79.5			78.1		76.9	
ETHANE.....	9.6			8.8		2.8	
PROPANE.....	4.1			4.2		1.3	
N-BUTANE.....	1.2			1.2		0.2	
ISOBUTANE.....	0.5			0.5		0.1	
N-PENTANE.....	0.2			0.2		0.1	
ISOPENTANE.....	0.3			0.3		0.0	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	4.1			0.9		17.6	
OXYGEN.....	TRACE			TRACE		0.2	
ARGON.....	0.0			TRACE		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.2	
HELIUM.....	0.10			0.20		0.46	
HEATING VALUE.....	1173			1150		885	
SPECIFIC GRAVITY.....	0.702			0.707		0.665	
		INDEX SAMPLE	10792 4973	INDEX SAMPLE	10793 8143	INDEX SAMPLE	10794 8145
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	STEPHENS			STEPHENS		STEPHENS	
FIELD.....	GREEN CADDO			LEE RAY		LEE RAY	
WELL NAME.....	W. H. GREEN NO. 1			J. S. MCKEE NO. 1		R. W. BROOKS NO. 3	
LOCATION.....	A. B. ROE SUR.			SEC. 41, TP&R SUR.		SEC. 54, BLK. 7, TP&R SUR.	
OWNER.....	G. B. CREE			LOVE STAR GAS CO.		LOVE STAR GAS CO.	
COMPLETED.....	03/27/50			08/07/38		04/24/59	
SAMPLED.....	09/28/50			08/10/61		08/30/61	
FORMATION.....	PENN-CADDO			PENN-CADDO		PENN-LAKE	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	3572			3723		3562	
WELLHEAD PRESSURE, PSIG.....	1470			325		325	
OPEN FLOW, MCFD.....	3000			415		5500	
COMPONENT, MOLE PCT							
METHANE.....	71.3			74.1		72.4	
ETHANE.....	6.9			10.6		10.9	
PROPANE.....	4.5			5.3		6.2	
N-BUTANE.....	1.1			1.5		1.8	
ISOBUTANE.....	0.4			0.7		1.0	
N-PENTANE.....	0.3			0.3		0.4	
ISOPENTANE.....	TRACE			0.4		0.3	
CYCLOPENTANE.....	TRACE			0.1		0.2	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	14.2			6.5		5.9	
OXYGEN.....	0.4			TRACE		TRACE	
ARGON.....	0.1			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.2		0.2	
HELIUM.....	0.21			0.20		0.20	
HEATING VALUE.....	1038			1196		1242	
SPECIFIC GRAVITY.....	0.732			0.742		0.765	
		INDEX SAMPLE	10795 8146	INDEX SAMPLE	10796 12648	INDEX SAMPLE	10797 12649
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	STEPHENS			STEPHENS		STEPHENS	
FIELD.....	LEE RAY			MOON		MOON	
WELL NAME.....	J. A. CALLOWAY NO. 6			W. L. MOON NO. 1		L. R. COCKRELL NO. 1	
LOCATION.....	SEC. 381, BLK. C, SPERR SUR.			SEC. 1306, TE&L SUR.		TE&L SUR.	
OWNER.....	LOVE STAR GAS CO.			TEXACO INC.		TEXACO INC.	
COMPLETED.....	04/24/48			03/29/48		05/07/51	
SAMPLED.....	08/10/61			02/02/71		02/02/71	
FORMATION.....	PENN-CADDO			PENN-MARBLE FALLS		PENN-MARBLE FALLS	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	3302			4145		4152	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1490		1430	
OPEN FLOW, MCFD.....	NOT GIVEN			8000		1950	
COMPONENT, MOLE PCT							
METHANE.....	67.8			77.9		78.2	
ETHANE.....	10.8			9.3		8.7	
PROPANE.....	7.8			4.4		4.4	
N-BUTANE.....	3.0			1.2		1.2	
ISOBUTANE.....	1.4			0.5		0.5	
N-PENTANE.....	0.7			0.3		0.2	
ISOPENTANE.....	0.9			0.4		0.3	
CYCLOPENTANE.....	0.2			0.1		0.1	
HEXANES PLUS.....	0.6			0.2		0.2	
NITROGEN.....	6.1			5.4		6.0	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.2		0.1	
HELIUM.....	0.10			0.17		0.18	
HEATING VALUE.....	1318			1178		1155	
SPECIFIC GRAVITY.....	0.831			0.715		0.709	
		INDEX SAMPLE	10798 12628	INDEX SAMPLE	10799 12634	INDEX SAMPLE	10800 4577
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	STEPHENS			STEPHENS		STEPHENS	
FIELD.....	NECESSITY			SEAMAN		STEPHENS COUNTY REGULAR	
WELL NAME.....	B. F. SATTERWHITE NO. 1			SEAMAN RANCH NO. 2-C		C. L. TRAMMELL NO. 1	
LOCATION.....	SEC. 15, BLK. 6, TP&R SUR.			SEC. 42, BLK. 8, TP&R SUR.		TEXAS PACIFIC COAL & OIL CO.	
OWNER.....	GULF OIL CO. - U.S.			GEORGE RITCHIE & ASSOC. INC		05/03/48	
COMPLETED.....	08/11/55			01/18/71		10/28/48	
SAMPLED.....	01/11/71			PENN-ATOKA		MISS-LINE	
FORMATION.....	PENN-DUFFER			425		425	
GEOLOGIC PROVINCE CODE.....	425			3951		4098	
DEPTH, FEET.....	3943			NOT GIVEN		1700	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			100000		17839	
OPEN FLOW, MCFD.....	NOT GIVEN						
COMPONENT, MOLE PCT							
METHANE.....	73.3			75.2		68.9	
ETHANE.....	12.9			11.6		24.5	
PROPANE.....	5.1			5.4			
N-BUTANE.....	1.5			1.5			
ISOBUTANE.....	0.9			0.3			
N-PENTANE.....	0.3			0.4			
ISOPENTANE.....	0.5			TRACE			
CYCLOPENTANE.....	0.2			0.2			
HEXANES PLUS.....	0.2			4.1		5.5	
NITROGEN.....	4.5			0.1		0.2	
OXYGEN.....	0.0			TRACE			
ARGON.....	TRACE			0.0			
HYDROGEN.....	0.0			0.0			
HYDROGEN SULFIDE.....	0.0			0.3		0.7	
CARBON DIOXIDE.....	0.6			0.11		0.18	
HELIUM.....	0.10			1234		1137	
HEATING VALUE.....	1235			0.737		0.705	
SPECIFIC GRAVITY.....	0.752						

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10801 4626	INDEX SAMPLE	10802 4837	INDEX SAMPLE	10803 12719
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	STEPHENS			STEPHENS		STEPHENS	
FIELD.....	STEPHENS COUNTY REGULAR			STEPHENS COUNTY REGULAR		STEPHENS COUNTY REGULAR	
WELL NAME.....	CLAUD MCCAULEY			0. TOLIN NO. 1		W. B. STEVENSON NO. 1	
LOCATION.....	SEC. 18, BLK. 6, T&P RY SUR.			SEC. 7D, BLIND ASYLUM LANDS		SEC. 14, L&L SUR.	
OWNER.....	WARREN OIL CORP.			TEXAS CO.		PETROLEUM CORP. OF TEXAS,	
COMPLETED.....	08/25/48			09/13/49		09/26/67	
SAMPLED.....	11/7/48			12/06/49		03/27/71	
FORMATION.....	PENN-MARBLE FALLS			PENN-LAKE		PENN-CADDO	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	3955			3610		3192	
WELLHEAD PRESSURE, PSIG.....	1615			1550		120	
OPEN FLOW, MCFD.....	4100			4100		1500	
COMPONENT, MOLE PCT							
METHANE.....	72.7			71.1		38.6	
ETHANE.....	21.9			8.7		19.8	
PROPANE.....	---			1.3		21.6	
N-BUTANE.....	---			2.3		8.3	
ISOBUTANE.....	---			1.0		0.0	
N-PENTANE.....	---			0.9		2.1	
ISOPENTANE.....	---			0.1		2.2	
CYCLOPENTANE.....	---			0.1		0.6	
HEXANES PLUS.....	---			0.6		1.4	
NITROGEN.....	3.8			8.2		2.2	
OXYGEN.....	0.4			0.1		0.1	
ARGON.....	---			---		---	
HYDROGEN.....	---			TRACE		0.0	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	1.0			0.3		0.1	
HELIUM.....	0.24			0.21		0.03	
HEATING VALUE.....	1129			1230		1966	
SPECIFIC GRAVITY.....	0.690			0.786		1.180	

		INDEX SAMPLE	10804 13009	INDEX SAMPLE	10805 8142	INDEX SAMPLE	10806 8119
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	STEPHENS			STEPHENS		STEPHENS	
FIELD.....	STEPHENS COUNTY REGULAR			TRAMMELL		WALKER-DAVIS	
WELL NAME.....	EAST GREEN B NO. 1			C. L. TRAMMELL NO. 1		ALICE WALKER A-1-C	
LOCATION.....	W. E. BAKER SUR. A-22			SEC. 42, BLK. 8, TP&RR SUR.		SEC. 1324, TE&L SUR.	
OWNER.....	A. J. JONES & SONS			TEXAS PACIFIC COAL & OIL CO.		WOODSON OIL CO.	
COMPLETED.....	09/02/70			03/02/48		03/30/58	
SAMPLED.....	08/31/71			08/10/61		08/08/61	
FORMATION.....	PENN-CONGLOMERATE			MISS-		PENN-DUFFER	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	4140			4127		3943	
WELLHEAD PRESSURE, PSIG.....	1483			590		1440	
OPEN FLOW, MCFD.....	10931			6000		---	
COMPONENT, MOLE PCT						NOT GIVEN	
METHANE.....	74.9			75.3		80.6	
ETHANE.....	5.0			1.3		8.6	
PROPANE.....	1.1			4.7		3.5	
N-BUTANE.....	0.6			1.4		1.0	
ISOBUTANE.....	0.2			0.6		0.5	
N-PENTANE.....	0.3			0.3		0.2	
ISOPENTANE.....	TRACE			0.1		TRACE	
CYCLOPENTANE.....	---			0.2		0.1	
HEXANES PLUS.....	9.4			5.3		4.8	
NITROGEN.....	0.0			TRACE		TRACE	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.24			0.3		0.2	
HELIUM.....	1119			0.20		0.20	
HEATING VALUE.....	1119			1194		1134	
SPECIFIC GRAVITY.....	0.721			0.730		0.685	

		INDEX SAMPLE	10807 8120	INDEX SAMPLE	10808 8121	INDEX SAMPLE	10809 3990
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	STEPHENS			STEPHENS		STEPHENS	
FIELD.....	WALKER-DAVIS			WALKER-DAVIS		WILDCAT	
WELL NAME.....	ALICE WALKER A-1-T			COOPER NO. 1		COOPER NO. 1	
LOCATION.....	SEC. 1324, TE&L SUR.			SEC. 1335, TE&L SUR.		BLK. 2955, TE&L SUR.	
OWNER.....	WOODSON OIL CO.			TEXOMA PRODUCTION CO.		HUDGE OIL CO.	
COMPLETED.....	09/15/58			09/15/58		12/21/44	
SAMPLED.....	08/08/61			08/08/61		03/07/45	
FORMATION.....	PENN-MARBLE FALLS			PENN-CADDO		PENN-MARBLE FALLS	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	4030			3058		3870	
WELLHEAD PRESSURE, PSIG.....	1545			750		1340	
OPEN FLOW, MCFD.....	---			---		987	
COMPONENT, MOLE PCT	NOT GIVEN			NOT GIVEN			
METHANE.....	79.6			76.2		51.0	
ETHANE.....	8.2			8.3		46.1	
PROPANE.....	3.0			4.4		---	
N-BUTANE.....	0.9			3.2		---	
ISOBUTANE.....	0.5			0.5		---	
N-PENTANE.....	0.1			0.2		---	
ISOPENTANE.....	0.2			0.3		---	
CYCLOPENTANE.....	TRACE			0.1		---	
HEXANES PLUS.....	0.1			0.1		---	
NITROGEN.....	6.3			8.4		1.8	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.2			0.1		0.9	
HELIUM.....	0.30			0.10		0.24	
HEATING VALUE.....	1099			0.722		1343	
SPECIFIC GRAVITY.....	0.684			0.714		0.798	

		INDEX SAMPLE	10810 4992	INDEX SAMPLE	10811 14248	INDEX SAMPLE	10812 16022
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	STEPHENS			STERLING		STERLING	
FIELD.....	WILDCAT			CONGER		STERLING CITY	
WELL NAME.....	GREEN B NO. 1			FOSTER CONGER NO. 1		WILLIAMS NO. 2-4	
LOCATION.....	SEC. 9, BLK. 21, T&P SUR.			SEC. 9, BLK. 21, T&P SUR.		BLK. T, T&P SUR.	
OWNER.....	MCELROY RANCH CO.			DORCHESTER EXPLORATION, INC.		MESA PETROLEUM CO.	
COMPLETED.....	09/25/50			05/31/74		05/13/79	
SAMPLED.....	07/20/51			12/26/74		07/30/80	
FORMATION.....	PENN-L			PENN-CANYON		SILU-FUSSELMAN	
GEOLOGIC PROVINCE CODE.....	425			430		430	
DEPTH, FEET.....	3988			7301		8400	
WELLHEAD PRESSURE, PSIG.....	1920			7200		3398	
OPEN FLOW, MCFD.....	1350			---		3400	
COMPONENT, MOLE PCT							
METHANE.....	72.7			70.2		66.0	
ETHANE.....	8.5			9.6		15.8	
PROPANE.....	4.5			9.1		7.3	
N-BUTANE.....	1.3			3.2		1.8	
ISOBUTANE.....	0.4			0.4		0.8	
N-PENTANE.....	0.4			0.9		0.3	
ISOPENTANE.....	0.0			0.9		0.3	
CYCLOPENTANE.....	0.1			0.3		0.1	
HEXANES PLUS.....	0.3			0.7		0.2	
NITROGEN.....	6.3			TRACE		6.3	
OXYGEN.....	---			0.0		0.4	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	5.2			0.7		0.7	
HELIUM.....	0.21			0.09		0.03	
HEATING VALUE.....	1098			1398		1268	
SPECIFIC GRAVITY.....	0.761			0.837		0.799	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10813 SAMPLE 12945			INDEX 10814 SAMPLE 7994			INDEX 10815 SAMPLE 9140		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	STERLING		STONEWALL			SUTTON		
FIELD.....	W. M. S.		DOVE CREEK			DENISON		
WELL NAME.....	E. R. FOSTER NO. 2		NO. C-4			6. B. HILL NO. 1		
LOCATION.....	SEC. 5, BLK. 7, H&TC SUR.		SEC. 183, BLK. F, H&TC SUR.			SEC. 2, BLK. CC, DENISON SUR		
OWNER.....	SHELL OIL CO.		WILLIAM SPRINGER, JR.			CONTINENTAL OIL CO.		
COMPLETED.....	03/06/66		07/25/55			10/20/62		
SAMPLED.....	08/03/71		05/25/61			11/01/63		
FORMATION.....	SILU-FUSSELMAN		PERM-			PENN-STRAWN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	8583		NOT GIVEN			8138		
WELLHEAD PRESSURE, PSIG.....	625		NOT GIVEN			2900		
OPEN FLOW, MCFD.....	8500		NOT GIVEN			14000		
COMPONENT, MOLE PCT								
METHANE.....	61.0		2.1			95.9		
ETHANE.....	18.4		TRACE			1.9		
PROPANE.....	10.7		TRACE			0.2		
N-BUTANE.....	2.9		0.0			0.0		
ISOBUTANE.....	1.2		0.0			0.0		
N-PENTANE.....	0.9		0.0			0.0		
ISOPENTANE.....	0.3		0.0			0.0		
CYCLOPENTANE.....	0.1		0.0			0.0		
HEXANES PLUS.....	0.4		0.0			0.0		
NITROGEN.....	3.4		95.9			1.1		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		1.2			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.8		
HELIUM.....	0.03		0.60			0.10		
HEATING VALUE.....	1439		21			1011		
SPECIFIC GRAVITY.....	0.868		0.958			0.578		

INDEX 10816 SAMPLE 12675			INDEX 10817 SAMPLE 12888			INDEX 10818 SAMPLE 17896		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SUTTON		SUTTON			SUTTON		
FIELD.....	DENISON		FORT TERRETT RANCH			HALBERT		
WELL NAME.....	6. B. HILL NO. 1		J. C. ADAMS A NO. 1			ASKEN #77# NO. 2		
LOCATION.....	SEC. 2, BLK. CC, DENISON SUR		SEC. 65, BLK. A, GWT&P SUR.			SEC. 77, BLK. 9, TW&NG SUR.		
OWNER.....	CONTINENTAL OIL CO.		LONE STAR PRODUCING CO.			DIAMOND SHAMROCK EXPL. CO.		
COMPLETED.....	10/20/62		10/13/66			04/18/85		
SAMPLED.....	02/05/71		06/18/71			10/25/85		
FORMATION.....	PENN-STRAWN		PENN-STRAWN			PENN-STRAWN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	8138		2992			5530		
WELLHEAD PRESSURE, PSIG.....	1005		1031			1743		
OPEN FLOW, MCFD.....	1343		5803			33000		
COMPONENT, MOLE PCT								
METHANE.....	95.7		80.6			75.8		
ETHANE.....	1.8		4.7			7.8		
PROPANE.....	0.2		2.0			4.1		
N-BUTANE.....	0.0		0.5			1.2		
ISOBUTANE.....	0.0		0.0			0.4		
N-PENTANE.....	0.0		TRACE			0.3		
ISOPENTANE.....	0.0		0.2			0.3		
CYCLOPENTANE.....	0.0		TRACE			0.1		
HEXANES PLUS.....	0.0		0.1			0.3		
NITROGEN.....	1.1		11.2			8.0		
OXYGEN.....	0.0		0.2			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.1			1.2		
HELIUM.....	0.05		0.31			0.27		
HEATING VALUE.....	1007		986			1113		
SPECIFIC GRAVITY.....	0.582		0.660			0.723		

INDEX 10819 SAMPLE 13486			INDEX 10820 SAMPLE 14432			INDEX 10821 SAMPLE 4107		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SUTTON		SUTTON			SUTTON		
FIELD.....	HOLMAN RANCH N		KEN			MIERS		
WELL NAME.....	MORRIS NO. 1-83		ADAMS NO. 1			DUKE WILSON NO. 1		
LOCATION.....	SEC. 83, BLK. C, HE&WTRR SUR		SEC. 59, BLK. A, GWT&P SUR.			SEC. 38, BLK. 14, TW&NG SUR.		
OWNER.....	HE&WTRR CO.		ESTOR PRODUCING CORP.			SHELL OIL CO.		
COMPLETED.....	06/29/72		03/12/74			05/23/46		
SAMPLED.....	12/11/72		08/02/75			07/09/46		
FORMATION.....	PENN-HOLMAN		PENN-CROSS CUT			PENN-DES MOINES		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	6256		3065			4190		
WELLHEAD PRESSURE, PSIG.....	2300		650			1425		
OPEN FLOW, MCFD.....	11000		5000			9200		
COMPONENT, MOLE PCT								
METHANE.....	84.3		80.6			74.9		
ETHANE.....	6.9		5.1			12.6		
PROPANE.....	3.5		1.4			---		
N-BUTANE.....	0.8		0.4			---		
ISOBUTANE.....	0.6		0.3			---		
N-PENTANE.....	0.2		0.1			---		
ISOPENTANE.....	0.3		TRACE			---		
CYCLOPENTANE.....	0.1		TRACE			---		
HEXANES PLUS.....	0.3		TRACE			---		
NITROGEN.....	2.6		10.6			8.6		
OXYGEN.....	TRACE		0.0			0.2		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.4		0.1			3.4		
HELIUM.....	0.10		0.32			0.26		
HEATING VALUE.....	1156		998			985		
SPECIFIC GRAVITY.....	0.678		0.659			0.685		

INDEX 10822 SAMPLE 5220			INDEX 10823 SAMPLE 5221			INDEX 10824 SAMPLE 8168		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SUTTON		SUTTON			SUTTON		
FIELD.....	MIERS		MIERS			MIERS		
WELL NAME.....	4. A. MIERS NO. 3		4. A. MIERS NO. 1			WILSON NO. 1-T		
LOCATION.....	SEC. 53, BLK. 14, TW&NG SUR.		SEC. 54, BLK. 14, TW&NG SUR.			TW&NG RR SUR.		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	10/7/51		11/13/51			04/7/46		
SAMPLED.....	03/18/51		03/18/52			08/14/61		
FORMATION.....	PENN-DES MOINES		PENN-DES MOINES			PENN-DES MOINES		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	4284		4333			4195		
WELLHEAD PRESSURE, PSIG.....	1442		1439			820		
OPEN FLOW, MCFD.....	12500		22500			1674		
COMPONENT, MOLE PCT								
METHANE.....	79.5		73.1			82.4		
ETHANE.....	5.9		5.9			5.9		
PROPANE.....	2.4		3.6			1.9		
N-BUTANE.....	0.4		1.4			0.4		
ISOBUTANE.....	0.3		1.2			0.3		
N-PENTANE.....	0.1		0.8			0.1		
ISOPENTANE.....	0.1		1.8			0.1		
CYCLOPENTANE.....	0.1		0.3			TRACE		
HEXANES PLUS.....	0.3		0.8			0.1		
NITROGEN.....	8.7		8.2			7.3		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	1.4		1.6			1.1		
HELIUM.....	0.33		0.27			0.26		
HEATING VALUE.....	1042		1027			1027		
SPECIFIC GRAVITY.....	0.688		0.797			0.659		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10825 SAMPLE 6169		INDEX 10826 SAMPLE 11896		INDEX 10827 SAMPLE 14709	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SUTTON	COUNTY.....	SUTTON	COUNTY.....	SUTTON
FIELD.....	MIRS	FIELD.....	MIRS E	FIELD.....	MIRS E
WELL NAME.....	J. M. VANDERSTUCKEN NO. 1	WELL NAME.....	VANDERSTUCKEN NO. 1	WELL NAME.....	WALLACE NO. 1
LOCATION.....	TRW&NG RR SUR.	LOCATION.....	SEC. 67, BLK. 7, TW&NG SUR.	LOCATION.....	SEC. 68, BLK. 7, TW&NG SUR.
OWNER.....	CLAUDE E. AIKMAN	OWNER.....	SOUTHWESTERN NATURAL GAS INC	OWNER.....	TRINIDAD PETROLEUM CORP.
COMPLETED.....	07/07/52	COMPLETED.....	04/19/68	COMPLETED.....	08/10/74
SAMPLED.....	08/14/61	SAMPLED.....	05/17/69	SAMPLED.....	06/10/76
FORMATION.....	PENN-CANYON	FORMATION.....	PENN-CISCO A	FORMATION.....	PENN-CISCO A
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	3610	DEPTH, FEET.....	2901	DEPTH, FEET.....	2850
WELLHEAD PRESSURE, PSIG.....	997	WELLHEAD PRESSURE, PSIG.....	779	WELLHEAD PRESSURE, PSIG.....	800
OPEN FLOW, MCFD.....	2135	OPEN FLOW, MCFD.....	4100	OPEN FLOW, MCFD.....	3700
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.5	METHANE.....	88.8	METHANE.....	87.6
ETHANE.....	3.6	ETHANE.....	1.9	ETHANE.....	2.3
PROPANE.....	1.6	PROPANE.....	1.3	PROPANE.....	1.0
N-BUTANE.....	0.4	N-BUTANE.....	0.0	N-BUTANE.....	0.2
ISOBUTANE.....	0.4	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE
NITROGEN.....	6.8	NITROGEN.....	7.2	NITROGEN.....	7.8
OXYGEN.....	TRACE	OXYGEN.....	0.2	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.4
HELIUM.....	0.20	HELIUM.....	0.34	HELIUM.....	0.37
HEATING VALUE.....	1019	HEATING VALUE.....	967	HEATING VALUE.....	969
SPECIFIC GRAVITY.....	0.633	SPECIFIC GRAVITY.....	0.606	SPECIFIC GRAVITY.....	0.617
INDEX 10828 SAMPLE 14710		INDEX 10829 SAMPLE 14170		INDEX 10830 SAMPLE 12819	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SUTTON	COUNTY.....	SUTTON	COUNTY.....	SUTTON
FIELD.....	MIRS E	FIELD.....	NOT GIVEN	FIELD.....	SAMMY
WELL NAME.....	WALLACE NO. 1	WELL NAME.....	HOLLY NO. 1	WELL NAME.....	SHURLEY NO. 1
LOCATION.....	SEC. 68, BLK. 7, TW&NG SUR.	LOCATION.....	SEC. 121, BLK. A, HE&WT SUR.	LOCATION.....	SEC. 98, BLK. C, HE&WT SUR.
OWNER.....	TRINIDAD PETROLEUM CORP.	OWNER.....	PETROLEUM CORP. OF TEXAS	OWNER.....	DELTA DRILLING CO.
COMPLETED.....	09/08/74	COMPLETED.....	10/20/63	COMPLETED.....	10/20/63
SAMPLED.....	06/--/76	SAMPLED.....	10/10/74	SAMPLED.....	05/07/71
FORMATION.....	PENN-STRAWN	FORMATION.....	PENN-CANYON	FORMATION.....	PENN-CANYON
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	4100	DEPTH, FEET.....	5723	DEPTH, FEET.....	5380
WELLHEAD PRESSURE, PSIG.....	600	WELLHEAD PRESSURE, PSIG.....	1440	WELLHEAD PRESSURE, PSIG.....	520
OPEN FLOW, MCFD.....	1700	OPEN FLOW, MCFD.....	4500	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.9	METHANE.....	82.7	METHANE.....	76.5
ETHANE.....	2.3	ETHANE.....	8.2	ETHANE.....	6.6
PROPANE.....	1.0	PROPANE.....	0.6	PROPANE.....	3.1
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.1	ISOBUTANE.....	0.6	ISOBUTANE.....	1.0
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.5
ISOPENTANE.....	0.1	ISOPENTANE.....	0.3	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	7.5	NITROGEN.....	2.8	NITROGEN.....	8.2
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	1.2
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	1.0
HELIUM.....	0.37	HELIUM.....	0.10	HELIUM.....	0.06
HEATING VALUE.....	1072	HEATING VALUE.....	1153	HEATING VALUE.....	1089
SPECIFIC GRAVITY.....	0.613	SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.721
INDEX 10831 SAMPLE 13122		INDEX 10832 SAMPLE 13633		INDEX 10833 SAMPLE 14052	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SUTTON	COUNTY.....	SUTTON	COUNTY.....	SUTTON
FIELD.....	SAMMY	FIELD.....	SAMMY	FIELD.....	SAMMY
WELL NAME.....	ESPY NO. 41-1	WELL NAME.....	DAVID 109 NO. 1	WELL NAME.....	REINHARDT #6 NO. 2
LOCATION.....	SEC. 60, CC&D&RGNG SUR.	LOCATION.....	SEC. 109, BLK. 14, TW&NG SUR	LOCATION.....	SEC. 73, BLK. C, HE&WT SUR.
OWNER.....	RODEN OIL CO.	OWNER.....	HNG OIL CO.	OWNER.....	HNG OIL CO.
COMPLETED.....	12/07/71	COMPLETED.....	03/11/73	COMPLETED.....	02/04/74
SAMPLED.....	12/23/71	SAMPLED.....	06/26/73	SAMPLED.....	07/17/74
FORMATION.....	PENN-CANYON	FORMATION.....	PENN-CANYON	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	5365	DEPTH, FEET.....	3840	DEPTH, FEET.....	8036
WELLHEAD PRESSURE, PSIG.....	1420	WELLHEAD PRESSURE, PSIG.....	1500	WELLHEAD PRESSURE, PSIG.....	2800
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	2180	OPEN FLOW, MCFD.....	14000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.0	METHANE.....	85.7	METHANE.....	87.7
ETHANE.....	7.1	ETHANE.....	7.3	ETHANE.....	5.8
PROPANE.....	3.0	PROPANE.....	3.1	PROPANE.....	2.0
N-BUTANE.....	0.7	N-BUTANE.....	0.7	N-BUTANE.....	0.5
ISOBUTANE.....	0.5	ISOBUTANE.....	0.6	ISOBUTANE.....	0.5
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	1.7	NITROGEN.....	1.5	NITROGEN.....	1.1
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	1.8
HELIUM.....	0.08	HELIUM.....	0.09	HELIUM.....	0.06
HEATING VALUE.....	1140	HEATING VALUE.....	1145	HEATING VALUE.....	1109
SPECIFIC GRAVITY.....	0.660	SPECIFIC GRAVITY.....	0.659	SPECIFIC GRAVITY.....	0.656
INDEX 10834 SAMPLE 14037		INDEX 10835 SAMPLE 4949		INDEX 10836 SAMPLE 5791	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	SUTTON	COUNTY.....	SUTTON	COUNTY.....	SUTTON
FIELD.....	SAMMY	FIELD.....	SEC 60	FIELD.....	SHURLEY
WELL NAME.....	CUSENBARY #60 NO. 1	WELL NAME.....	S. B. ROBERTS NO. 1	WELL NAME.....	C. SHURLEY NO. 1
LOCATION.....	SEC. 60, CC&D&RGNG SUR.	LOCATION.....	SEC. 7, BLK. 7, TW&NG SUR.	LOCATION.....	SEC. 73, BLK. C, HE&WT SUR.
OWNER.....	W. B. OSBORN, OPERATOR	OWNER.....	SHURLEY OIL CO.	OWNER.....	EL PASO NATURAL GAS CO.
COMPLETED.....	03/30/74	COMPLETED.....	08/29/47	COMPLETED.....	11/01/54
SAMPLED.....	06/26/74	SAMPLED.....	06/03/50	SAMPLED.....	03/09/55
FORMATION.....	PENN-CANYON	FORMATION.....	PENN-STRAWN	FORMATION.....	PENN-CANYON
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	4416	DEPTH, FEET.....	3408	DEPTH, FEET.....	5166
WELLHEAD PRESSURE, PSIG.....	900	WELLHEAD PRESSURE, PSIG.....	1200	WELLHEAD PRESSURE, PSIG.....	1398
OPEN FLOW, MCFD.....	500	OPEN FLOW, MCFD.....	165	OPEN FLOW, MCFD.....	2000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.0	METHANE.....	85.5	METHANE.....	85.5
ETHANE.....	5.3	ETHANE.....	4.5	ETHANE.....	6.7
PROPANE.....	3.2	PROPANE.....	1.7	PROPANE.....	3.0
N-BUTANE.....	0.9	N-BUTANE.....	0.4	N-BUTANE.....	0.7
ISOBUTANE.....	0.7	ISOBUTANE.....	0.1	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.3	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	1.7	NITROGEN.....	5.6	NITROGEN.....	1.9
OXYGEN.....	TRACE	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.7	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	--	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	0.6
HELIUM.....	0.12	HELIUM.....	0.17	HELIUM.....	0.08
HEATING VALUE.....	1149	HEATING VALUE.....	1144	HEATING VALUE.....	1140
SPECIFIC GRAVITY.....	0.663	SPECIFIC GRAVITY.....	0.637	SPECIFIC GRAVITY.....	0.664

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10837 14934	INDEX SAMPLE	10838 5968	INDEX SAMPLE	10839 12692
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	SUTTON			SUTTON		SUTTON	
FIELD.....	SHURLEY RANCH			SONORA		SONORA	
WELL NAME.....	GENONI #39# NO. 1			DE BERRY NO. 1		DE BERRY NO. 1	
LOCATION.....	SEC. 39, T1RR SUR., A-759			SEC. 90, BLK. D, HE&WTRR SUR		NOT GIVEN	
OWNER.....	MITCHELL ENERGY CORP.			EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	05/05/76			05/20/55		05/20/55	
SAMPLED.....	03/08/77			11/08/55		02/23/71	
FORMATION.....	PENN-STRAWN			PENN-CANYON		PENN-CANYON U	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	8301			5479		5471	
WELLHEAD PRESSURE, PSIG.....	1499			1473		1473	
OPEN FLOW, MCFD.....	2650			7300		7300	
COMPONENT, MOLE PCT							
METHANE.....	85.6	-----		85.0	-----	85.4	-----
ETHANE.....	7.0	-----		6.6	-----	6.5	-----
PROpane.....	2.1	-----		3.2	-----	3.0	-----
N-BUTANE.....	0.6	-----		0.8	-----	0.7	-----
ISOBUTANE.....	0.4	-----		0.5	-----	0.5	-----
N-PENTANE.....	0.2	-----		0.3	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.3	-----		0.3	-----	0.2	-----
NITROGEN.....	2.3	-----		2.1	-----	2.5	-----
OXYGEN.....	0.2	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.1	-----		0.6	-----	0.5	-----
HELIUM.....	0.04	-----		0.08	-----	0.08	-----
HEATING VALUE.....	1113	-----		1147	-----	1131	-----
SPECIFIC GRAVITY.....	0.662	-----		0.671	-----	0.664	-----
		INDEX SAMPLE	10840 9936	INDEX SAMPLE	10841 9934	INDEX SAMPLE	10842 6534
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	TAYLOR			TAYLOR		TERRELL	
FIELD.....	INKUM			PROCTOR		BROWN-BASSETT	
WELL NAME.....	EDGAR DAVIS NO. 2			L. CARTWRIGHT NO. 1		BROWN-BASSETT NO. 1	
LOCATION.....	SEC. 96, BLK. 64, H&TC SUR.			THEO. D. MALTBY SUR. 270		SEC. 218, BLK. Y, TC&RR SUR.	
OWNER.....	HORIZON OIL & GAS CO.			SUN OIL CO.		WESTERN NATURAL GAS CO. & WA	
COMPLETED.....	03/07/64			04/14/56		02/25/58	
SAMPLED.....	06/23/65			06/22/65		03/26/58	
FORMATION.....	EDGE-JENNINGS			PENN-GRAY		SILU-NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	425			425		430	
DEPTH, FEET.....	5054			4610		12387	
WELLHEAD PRESSURE, PSIG.....	1575			2290		5045	
OPEN FLOW, MCFD.....	6183					72000	
COMPONENT, MOLE PCT							
METHANE.....	67.5	-----		69.3	-----	95.9	-----
ETHANE.....	9.6	-----		10.9	-----	0.5	-----
PROpane.....	6.0	-----		5.3	-----	0.0	-----
N-BUTANE.....	1.2	-----		0.3	-----	TRACE	-----
ISOBUTANE.....	0.7	-----		0.8	-----	TRACE	-----
N-PENTANE.....	0.4	-----		0.2	-----	0.0	-----
ISOPENTANE.....	0.6	-----		0.2	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.4	-----		0.2	-----	TRACE	-----
NITROGEN.....	12.1	-----		11.1	-----	0.4	-----
OXYGEN.....	0.2	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.0	-----	3.0	-----
HELIUM.....	0.25	-----		0.27	-----	0.04	-----
HEATING VALUE.....	1166	-----		1133	-----	980	-----
SPECIFIC GRAVITY.....	0.784	-----		0.754	-----	0.587	-----
		INDEX SAMPLE	10843 7143	INDEX SAMPLE	10844 7830	INDEX SAMPLE	10845 8226
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	TERRELL			TERRELL		TERRELL	
FIELD.....	BROWN-BASSETT			BROWN-BASSETT		BROWN-BASSETT	
WELL NAME.....	GOODE ESTATE NO. 2			BROWN-BASSETT NO. 1-LT		NO. 1	
LOCATION.....	SEC. 1, BLK. R, TC&RR SUR.			SEC. 227, BLK. Y, TC&RR SUR.		SEC. 21, BLK. 1, TC&RR SUR.	
OWNER.....	MAGNOLIA PETROLEUM CO.			CONTINENTAL OIL CO.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	06/25/59			12/29/58		11/16/60	
SAMPLED.....	07/14/59			01/27/61		10/02/61	
FORMATION.....	ORDO-ELLENBURGER			ORDO-ELLENBURGER		ORDO-ELLENBURGER	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	13888			13924		14008	
WELLHEAD PRESSURE, PSIG.....	3139			4025		2883	
OPEN FLOW, MCFD.....	2950			28750		4000	
COMPONENT, MOLE PCT							
METHANE.....	60.6	-----		45.9	-----	88.5	-----
ETHANE.....	0.4	-----		0.2	-----	5.0	-----
PROpane.....	0.1	-----		0.0	-----	2.8	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.8	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.5	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.2	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.2	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	0.1	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.3	-----
NITROGEN.....	0.6	-----		0.5	-----	1.3	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	38.4	-----		53.2	-----	0.2	-----
HELIUM.....	0.10	-----		0.03	-----	0.06	-----
HEATING VALUE.....	1161	-----		1139	-----	1139	-----
SPECIFIC GRAVITY.....	0.933	-----		1.077	-----	0.651	-----
		INDEX SAMPLE	10846 8374	INDEX SAMPLE	10847 8376	INDEX SAMPLE	10848 12961
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	TERRELL			TERRELL		TERRELL	
FIELD.....	BROWN-BASSETT			BROWN-BASSETT		UNIVERSITY BLK. 34	
WELL NAME.....	ALMA H. POULTER NO. 1			ALMA H. POULTER NO. 1		CITGO UNIVERSITY NO. 1	
LOCATION.....	SEC. 21, BLK. 1, TC&RR SUR.			SEC. 21, BLK. 1, TC&RR SUR.		SEC. 13, BLK. 34	
OWNER.....	SINCLAIR OIL & GAS CO.			SINCLAIR OIL & GAS CO.		SKELLY OIL CO.	
COMPLETED.....	05/02/61			05/02/61		08/06/70	
SAMPLED.....	01/17/62			08/16/71		08/16/71	
FORMATION.....	ORDO-ELLENBURGER			PERM-WICHITA-ALBANY		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	14030			6221		11448	
WELLHEAD PRESSURE, PSIG.....	2883			2263		2679	
OPEN FLOW, MCFD.....	10500			4850		3500	
COMPONENT, MOLE PCT							
METHANE.....	38.7	-----		88.7	-----	94.6	-----
ETHANE.....	0.2	-----		4.6	-----	2.7	-----
PROpane.....	0.2	-----		2.7	-----	0.5	-----
N-BUTANE.....	TRACE	-----		0.8	-----	0.2	-----
ISOBUTANE.....	0.0	-----		1.0	-----	0.0	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.2	-----
ISOPENTANE.....	0.0	-----		0.4	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	TRACE	-----		0.2	-----	0.1	-----
NITROGEN.....	10.5	-----		1.5	-----	0.9	-----
OXYGEN.....	2.6	-----		TRACE	-----	0.0	-----
ARGON.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	47.5	-----		7.5	-----	0.0	-----
HELIUM.....	0.02	-----		0.06	-----	0.02	-----
HEATING VALUE.....	401	-----		1131	-----	1040	-----
SPECIFIC GRAVITY.....	1.078	-----		0.649	-----	0.594	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10849 SAMPLE 9618		INDEX 10850 SAMPLE 15573		INDEX 10851 SAMPLE 13346	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	TERRELL	COUNTY.....	TERRELL	COUNTY.....	THROCKMORTON
FIELD.....	WILDCAT	FIELD.....	BECKER	FIELD.....	BRAMLETT
WELL NAME.....	GEORGE K. MITCHELL NO. 1	WELL NAME.....	HOFFMAN NO. 1-A	WELL NAME.....	WALKER BUCKLER TRUST NO. 1
LOCATION.....	SEC. 11, BLK. 1, CCSD&RGNG SUR	LOCATION.....	SEC. 41, BLK. DD, JH GIBSON	LOCATION.....	BRAMLETT SUR. NO. 5, A-26
OWNER.....	SOCONY MOBIL OIL CO., INC.	OWNER.....	NRM PETROLEUM CORP.	OWNER.....	GULF OIL CO.- U.S.
COMPLETED.....	11/06/63	COMPLETED.....	02/09/78	COMPLETED.....	02/05/71
SAMPLED.....	10/26/64	SAMPLED.....	03/01/79	SAMPLED.....	07/28/72
FORMATION.....	PENN-STRAWN L	FORMATION.....	PENN-YATES	FORMATION.....	PENN-CADDO
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	11050	DEPTH, FEET.....	3123	DEPTH, FEET.....	4218
WELLHEAD PRESSURE, PSIG.....	4700	WELLHEAD PRESSURE, PSIG.....	2400	WELLHEAD PRESSURE, PSIG.....	1686
OPEN FLOW, MCFD.....	3000	OPEN FLOW, MCFD.....	21800	OPEN FLOW, MCFD.....	4000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	89.9	METHANE.....	43.9	METHANE.....	69.4
ETHANE.....	5.8	ETHANE.....	5.8	ETHANE.....	10.0
PROPANE.....	1.9	PROPANE.....	3.3	PROPANE.....	5.3
N-BUTANE.....	0.6	N-BUTANE.....	0.6	N-BUTANE.....	1.1
ISOBUTANE.....	0.2	ISOBUTANE.....	0.2	ISOBUTANE.....	0.5
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	0.3	NITROGEN.....	45.4	NITROGEN.....	12.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.5
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.2
HELIUM.....	0.02	HELIUM.....	0.03	HELIUM.....	0.21
HEATING VALUE.....	1127	HEATING VALUE.....	681	HEATING VALUE.....	1092
SPECIFIC GRAVITY.....	0.636	SPECIFIC GRAVITY.....	0.823	SPECIFIC GRAVITY.....	0.745

INDEX 10852 SAMPLE 12276		INDEX 10853 SAMPLE 12277		INDEX 10854 SAMPLE 4993	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	THROCKMORTON	COUNTY.....	THROCKMORTON	COUNTY.....	THROCKMORTON
FIELD.....	THROCKMORTON COUNTY REGULAR	FIELD.....	THROCKMORTON COUNTY REGULAR	FIELD.....	WILDCAT
WELL NAME.....	MATTHEWS RANCH NO. 5	WELL NAME.....	MATTHEWS RANCH NO. 28-B	WELL NAME.....	WATT R. MATTHEWS B NO. 1
LOCATION.....	SEC. 25, BLK. 1-T, T&NO SUR.	LOCATION.....	SEC. 6, BLK. X, AB&M SUR.	LOCATION.....	THOMAS MOUNTS SUR. A-229
OWNER.....	C. E. JACOBS	OWNER.....	C. E. JACOBS	OWNER.....	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	06/02/70	COMPLETED.....	06/02/70	COMPLETED.....	10/02/50
SAMPLED.....	06/02/70	SAMPLED.....	06/02/70	SAMPLED.....	01/23/51
FORMATION.....	PENN-AVIS	FORMATION.....	PENN-BLUFF CREEK	FORMATION.....	MISS-LIME
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	960	DEPTH, FEET.....	4542
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	300	WELLHEAD PRESSURE, PSIG.....	2400
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	14700
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	72.8	METHANE.....	72.9	METHANE.....	66.6
ETHANE.....	1.2	ETHANE.....	0.8	ETHANE.....	11.9
PROPANE.....	0.6	PROPANE.....	0.3	PROPANE.....	5.9
N-BUTANE.....	0.2	N-BUTANE.....	0.1	N-BUTANE.....	1.4
ISOBUTANE.....	0.4	ISOBUTANE.....	0.2	ISOBUTANE.....	0.5
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	0.4
ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.3
NITROGEN.....	23.4	NITROGEN.....	24.4	NITROGEN.....	11.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.2	HYDROGEN.....	0.2	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.8
HELIUM.....	0.84	HELIUM.....	0.93	HELIUM.....	0.34
HEATING VALUE.....	813	HEATING VALUE.....	771	HEATING VALUE.....	1135
SPECIFIC GRAVITY.....	0.676	SPECIFIC GRAVITY.....	0.662	SPECIFIC GRAVITY.....	0.775

INDEX 10855 SAMPLE 6274		INDEX 10856 SAMPLE 9691		INDEX 10857 SAMPLE 8167	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	THROCKMORTON	COUNTY.....	TOM GREEN	COUNTY.....	TOM GREEN
FIELD.....	WILDCAT	FIELD.....	BTU	FIELD.....	CARLSBAD
WELL NAME.....	TCSC 38 - NO. 1	WELL NAME.....	BILL UPTON NO. 2-A	WELL NAME.....	KENNERMER NO. 1
LOCATION.....	MATTHEWS RANCH NO. 5	LOCATION.....	SEC. 3, BLK. 8	LOCATION.....	H&TC SUR
OWNER.....	ANDERSON-PRICHARD OIL CORP.	OWNER.....	TUCKER DRILLING & SUN OIL	OWNER.....	PERKINS & PROTHRO
COMPLETED.....	01/09/57	COMPLETED.....	09/16/63	COMPLETED.....	02/03/50
SAMPLED.....	01/08/57	SAMPLED.....	01/18/65	SAMPLED.....	08/14/61
FORMATION.....	PENN-TANNEHILL	FORMATION.....	PENN-HARKEY	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	700	DEPTH, FEET.....	4087	DEPTH, FEET.....	5640
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1195	WELLHEAD PRESSURE, PSIG.....	1850
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	1200	OPEN FLOW, MCFD.....	14410
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	53.0	METHANE.....	72.9	METHANE.....	72.3
ETHANE.....	0.5	ETHANE.....	0.2	ETHANE.....	12.1
PROPANE.....	0.2	PROPANE.....	2.3	PROPANE.....	6.2
N-BUTANE.....	0.3	N-BUTANE.....	2.9	N-BUTANE.....	1.0
ISOBUTANE.....	0.3	ISOBUTANE.....	2.2	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.9	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	0.6	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.8	HEXANES PLUS.....	TRACE
NITROGEN.....	43.3	NITROGEN.....	12.7	NITROGEN.....	7.2
OXYGEN.....	0.2	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.3
HELIUM.....	1.53	HELIUM.....	0.32	HELIUM.....	0.10
HEATING VALUE.....	585	HEATING VALUE.....	1143	HEATING VALUE.....	1172
SPECIFIC GRAVITY.....	0.750	SPECIFIC GRAVITY.....	0.769	SPECIFIC GRAVITY.....	0.737

INDEX 10858 SAMPLE 17272		INDEX 10859 SAMPLE 15708		INDEX 10860 SAMPLE 17273	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	TOM GREEN	COUNTY.....	TOM GREEN	COUNTY.....	TOM GREEN
FIELD.....	FORTSON-BURKE	FIELD.....	HAZEL JONES	FIELD.....	MUNN-WESTEX
WELL NAME.....	MUNN NO. 1	WELL NAME.....	HAZEL JONES NO. 1	WELL NAME.....	MUNN NO. 2-A
LOCATION.....	SEC. 1119, TTRR SUR. A-4367	LOCATION.....	SEC. 22, BLK. 24, H&TC SUR.	LOCATION.....	SEC. 1119, TTRR SUR.
OWNER.....	HEXAGON OIL & GAS, INC.	OWNER.....	SIMPSON-MANN OIL PROD.	OWNER.....	HEXAGON OIL & GAS, INC.
COMPLETED.....	06/19/73	COMPLETED.....	04/19/73	COMPLETED.....	03/12/83
SAMPLED.....	05/02/84	SAMPLED.....	07/23/79	SAMPLED.....	05/02/84
FORMATION.....	PENN-CANYON	FORMATION.....	PENN-STRAWN	FORMATION.....	PENN-CANYON
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	6253	DEPTH, FEET.....	5501	DEPTH, FEET.....	6355
WELLHEAD PRESSURE, PSIG.....	2060	WELLHEAD PRESSURE, PSIG.....	1680	WELLHEAD PRESSURE, PSIG.....	2110
OPEN FLOW, MCFD.....	9652	OPEN FLOW, MCFD.....	2414	OPEN FLOW, MCFD.....	1713
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	66.3	METHANE.....	74.1	METHANE.....	70.6
ETHANE.....	12.4	ETHANE.....	8.9	ETHANE.....	12.6
PROPANE.....	1.3	PROPANE.....	1.6	PROPANE.....	6.2
N-BUTANE.....	1.8	N-BUTANE.....	1.2	N-BUTANE.....	1.3
ISOBUTANE.....	1.5	ISOBUTANE.....	0.6	ISOBUTANE.....	0.7
N-PENTANE.....	0.6	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.6	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	1.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.3
HEXANES PLUS.....	1.7	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.6
NITROGEN.....	6.4	NITROGEN.....	8.9	NITROGEN.....	6.7
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.4
HELIUM.....	0.11	HELIUM.....	0.29	HELIUM.....	0.12
HEATING VALUE.....	1170	HEATING VALUE.....	1133	HEATING VALUE.....	1233
SPECIFIC GRAVITY.....	0.851	SPECIFIC GRAVITY.....	0.730	SPECIFIC GRAVITY.....	0.770

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 10861 SAMPLE 9967	INDEX 10862 SAMPLE 4665	INDEX 10863 SAMPLE 5146
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	TOM GREEN		TYLER	TYLER
FIELD.....	WALL NE		HILLISTER E	NOT GIVEN
WELL NAME.....	J. WEISHUM NO. 1		WM. RICE INSTITUTE NO. 1	HEAD ET AL. NO. 1
LOCATION.....	SEC. 84, DIST. 11, SPRR SUR.		ARTHUR HUTCHINS SUR. A-846	BBB & C SUR. NO. A-109
OWNER.....	TEXACO INC.		HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	09/29/64		10/17/48	--/--/00
SAMPLED.....	07/08/65		02/25/49	01/24/52
FORMATION.....	PENN-HARKEY		EOCE-WILCOX	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430		220	220
DEPTH, FEET.....	4222		8260	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	1442		2975	NOT GIVEN
OPEN FLOW, MCFD.....	860		16400	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	39.2	74.7	85.2	
ETHANE.....	31.5	8.3	7.0	
PROPANE.....	18.6	8.7	3.0	
N-BUTANE.....	5.0	2.3	0.7	
ISOBUTANE.....	2.3	1.9	0.4	
N-PENTANE.....	0.7	0.5	0.2	
ISOPENTANE.....	0.9	0.6	0.3	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.6	0.4	0.2	
NITROGEN.....	0.6	1.3	0.7	
OXYGEN.....	0.0	0.3	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.5	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.9	2.0	
HELIUM.....	TRACE	0.01	0.01	
HEATING VALUE.....	1793	1342	1141	
SPECIFIC GRAVITY.....	1.055	0.793	0.672	

		INDEX 10864 SAMPLE 14877	INDEX 10865 SAMPLE 14892	INDEX 10866 SAMPLE 4522
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	PAVEY-KIRBY		TYLER	WILDCAT
FIELD.....	KIRBY LUMBER CO. NO. 1		SUGAR CREEK	C. G. HOOKS NO. 1
WELL NAME.....	F. HELFONSTEIN SUR. A-352		ARCO ABBOTT G.U. NO. 1	BBB&C RR CO. SUR. AB-113
LOCATION.....	SHELL OIL CO.		MARTIN L ABBOTT SUR. A-742	AMERADA PETROLEUM CORP.
OWNER.....	07/25/74		C & K PETROLEUM, INC.	09/30/47
COMPLETED.....	12/30/76		01/27/77	05/10/48
SAMPLED.....	12/30/76		01/27/77	05/10/48
FORMATION.....	EOCE-WILCOX		EOCE-WOODBINE	EOCE-COCKFIELD 2ND
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	10883		11008	4925
WELLHEAD PRESSURE, PSIG.....	1800		3500	2130
OPEN FLOW, MCFD.....	3500		87000	30000
COMPONENT, MOLE PCT				
METHANE.....	85.6	87.4	80.7	
ETHANE.....	6.6	3.4	17.5	
PROPANE.....	2.8	0.8	---	
N-BUTANE.....	0.7	0.2	---	
ISOBUTANE.....	0.5	0.2	---	
N-PENTANE.....	0.2	0.0	---	
ISOPENTANE.....	0.3	0.2	---	
CYCLOPENTANE.....	0.1	TRACE	---	
HEXANES PLUS.....	0.2	TRACE	---	
NITROGEN.....	0.4	2.7	0.8	
OXYGEN.....	TRACE	0.3	0.2	
ARGON.....	TRACE	TRACE	---	
HYDROGEN.....	0.0	0.0	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	2.4	0.7	0.01	
HELIUM.....	TRACE	0.01	0.01	
HEATING VALUE.....	1137	989	1131	
SPECIFIC GRAVITY.....	0.676	0.647	0.653	

		INDEX 10867 SAMPLE 16270	INDEX 10868 SAMPLE 12130	INDEX 10869 SAMPLE 12681
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	UPSHUR		UPSHUR	UPSON
FIELD.....	DELROSE		GILMER	ADAMC
WELL NAME.....	NED PARRISH NO. 1		INDIAN ROCK GAS UNIT NO. 1	ADAMC UNIT NO. D-362
LOCATION.....	W. B. HICKS SUR. A-211		2 MI. SE OF GILMER	SEC. 187, BLK. F, CCSD&RGNGRR
OWNER.....	EXXON CO. U.S.A.		WM. D. MCBEE	GULF OIL CORP.
COMPLETED.....	03/08/79		--/--/00	--/--/00
SAMPLED.....	05/19/81		12/03/69	02/03/71
FORMATION.....	JURA-HAYNESVILLE		JURA-COTTON VALLEY	DEVO-
GEOLOGIC PROVINCE CODE.....	260		260	430
DEPTH, FEET.....	11472		11600	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	6252		5860	NOT GIVEN
OPEN FLOW, MCFD.....	4000		7000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	91.8	88.5	68.5	
ETHANE.....	3.6	4.4	15.5	
PROPANE.....	1.2	1.5	7.8	
N-BUTANE.....	0.4	0.5	2.4	
ISOBUTANE.....	0.5	0.7	1.0	
N-PENTANE.....	0.2	0.3	0.7	
ISOPENTANE.....	0.1	0.0	0.3	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.3	0.4	0.3	
NITROGEN.....	0.5	1.1	3.2	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	0.0	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.2	2.4	0.4	
HELIUM.....	TRACE	0.01	0.02	
HEATING VALUE.....	1088	1088	1351	
SPECIFIC GRAVITY.....	0.626	0.652	0.808	

		INDEX 10870 SAMPLE 12688	INDEX 10871 SAMPLE 15292	INDEX 10872 SAMPLE 9922
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	UPSON		UPSON	UPSON
FIELD.....	AMACKER-TIPPETT		AMACKER-TIPPETT S	BENEDUM
WELL NAME.....	AMACKER-TIPPETT NO. 5		LANE "B" NO. 2	D. L. ALFORD NO. 1
LOCATION.....	SEC. 106		SEC. 13, BLK. 2, MK&T SUR.	SEC. 58, P. B. SCOTT SUR.
OWNER.....	HUNT OIL CO.		COTTON PETROLEUM CORP.	SINCLAIR OIL & GAS CO.
COMPLETED.....	--/--/00		11/17/75	12/28/63
SAMPLED.....	02/--/71		--/--/00	06/14/65
FORMATION.....	DEVO-		DEVO-	DEVO-
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	NOT GIVEN		11275	10002
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2797	2435
OPEN FLOW, MCFD.....	NOT GIVEN		2700	2100
COMPONENT, MOLE PCT				
METHANE.....	76.5	71.6	78.1	
ETHANE.....	13.4	15.9	11.3	
PROPANE.....	5.1	7.3	4.5	
N-BUTANE.....	1.2	2.3	1.5	
ISOBUTANE.....	0.4	0.6	0.7	
N-PENTANE.....	TRACE	0.4	0.4	
ISOPENTANE.....	0.9	0.5	0.4	
CYCLOPENTANE.....	0.1	0.1	0.2	
HEXANES PLUS.....	0.1	0.5	0.6	
NITROGEN.....	1.5	0.6	1.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.4	0.0	
CARBON DIOXIDE.....	0.8	0.0	0.9	
HELIUM.....	0.03	0.02	0.03	
HEATING VALUE.....	1249	1355	1257	
SPECIFIC GRAVITY.....	0.732	0.783	0.737	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10873 SAMPLE 12728			INDEX 10874 SAMPLE 12729			INDEX 10875 SAMPLE 12938		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	UPTON		UPTON			UPTON		
FIELD.....	BENEDUM		BENEDUM			BELL PETROLEUM NO. 1		
WELL NAME.....	GORDON A NO. 1		W. F. NEAL B NO. 1			SEC. 2, F. COOPER SUR.		
LOCATION.....	NOT GIVEN		NOT GIVEN			TEXAS OIL & GAS CORP.		
OWNER.....	ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.			09/14/70		
COMPLETED.....	-7--/00		-7--/00			07/19/71		
SAMPLED.....	03/18/71		03/19/71			PENN-STRAWN		
FORMATION.....	ORDO-ELLENBURGER		SILU-FUSSELMAN			430		
GEOLOGIC PROVINCE CODE.....	430		430			8856		
DEPTH, FEET.....	12000		11500			2400		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		400			7100		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN					
COMPONENT, MOLE PCT								
METHANE.....	63.2		68.3			79.6		
ETHANE.....	16.5		14.5			10.7		
PROPANE.....	9.5		8.0			4.5		
N-BUTANE.....	3.2		2.7			0.9		
ISOBUTANE.....	1.7		1.3			0.8		
N-PENTANE.....	1.0		0.8			0.3		
ISOPENTANE.....	0.5		0.6			0.5		
CYCLOPENTANE.....	0.2		0.1			0.2		
HEXANES PLUS.....	0.6		0.5			0.5		
NITROGEN.....	3.3		2.9			1.8		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.07		0.06			0.05		
HEATING VALUE.....	1454		1383			1239		
SPECIFIC GRAVITY.....	0.871		0.822			0.717		

INDEX 10876 SAMPLE 12682			INDEX 10877 SAMPLE 15322			INDEX 10878 SAMPLE 13859		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	UPTON		UPTON			UPTON		
FIELD.....	FRADEAN		FULMER			HADACOL CORNER		
WELL NAME.....	KING RANCH O & L CO. NO. 6-1		CHRISTY NO. 1			JOHN H. HUTT ESTATE NO. 1		
LOCATION.....	SEC. 26, BLK. 2, MK&TRR SUR.		SEC. 36, BLK. 8, C&M SUR.			SEC. 17, BLK. 38, T&P SUR.		
OWNER.....	GULF OIL CORP.		BELO PETROLEUM CORP.			GENERAL CRUDE OIL CO.		
COMPLETED.....	-7--/00		12/01/76			01/30/72		
SAMPLED.....	02/05/71		07/19/78			01/02/78		
FORMATION.....	PENN-BEND		PENN-BEND			SILU-FUSSELMAN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	NOT GIVEN		10442			12372		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2865			1800		
OPEN FLOW, MCFD.....	NOT GIVEN		6800			1548		
COMPONENT, MOLE PCT								
METHANE.....	73.3		82.2			78.1		
ETHANE.....	13.8		9.4			11.7		
PROPANE.....	6.3		3.5			5.2		
N-BUTANE.....	1.3		0.8			1.5		
ISOBUTANE.....	1.1		0.7			0.7		
N-PENTANE.....	0.7		0.2			0.5		
ISOPENTANE.....	0.1		0.3			0.3		
CYCLOPENTANE.....	0.2		0.1			TRACE		
HEXANES PLUS.....	0.5		0.1			0.2		
NITROGEN.....	2.0		2.1			1.3		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.1			0.0		
CARBON DIOXIDE.....	0.6		0.6			0.2		
HELIUM.....	0.03		0.04			0.06		
HEATING VALUE.....	1301		1171			1254		
SPECIFIC GRAVITY.....	0.767		0.686			0.724		

INDEX 10879 SAMPLE 12680			INDEX 10880 SAMPLE 12650			INDEX 10881 SAMPLE 12651		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	UPTON		UPTON			UPTON		
FIELD.....	JACK HERBERT		KING MOUNTAIN			KING MOUNTAIN		
WELL NAME.....	MCELROY RANCH CO. L NO. 8-U		ROSA BARNET "A" NO. 3			W. W. MC CLURE NO. 7		
LOCATION.....	SEC. 109, BLK. D, CC&D&RGNGRR		SEC. 20, BLK. 2, MK&TRR SUR.			SEC. 18, BLK. 4-1/2, GC&SFRR SUR.		
OWNER.....	GULF OIL CORP.		TEXAS PACIFIC OIL CO., INC.			TEXAS PACIFIC OIL CO., INC.		
COMPLETED.....	-7--/00		09/05/64			01/31/58		
SAMPLED.....	02/04/71		02/03/71			02/03/71		
FORMATION.....	PENN-STRAWN		PENN-STRAWN			PENN-STRAWN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	NOT GIVEN		8613			8735		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		748			482		
OPEN FLOW, MCFD.....	NOT GIVEN		406			272		
COMPONENT, MOLE PCT								
METHANE.....	76.8		76.2			78.1		
ETHANE.....	11.1		13.2			12.0		
PROPANE.....	5.8		3.4			4.5		
N-BUTANE.....	1.8		1.2			0.7		
ISOBUTANE.....	1.1		0.5			0.5		
N-PENTANE.....	0.5		0.1			0.2		
ISOPENTANE.....	0.6/30		0.5			0.4		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.4		0.2			0.3		
NITROGEN.....	1.7		2.3			2.8		
ARGON.....	0.0		0.0			0.2		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.1		
HELIUM.....	0.03		0.05			0.06		
HEATING VALUE.....	1237		1203			1208		
SPECIFIC GRAVITY.....	0.750		0.727			0.711		

INDEX 10882 SAMPLE 2051			INDEX 10883 SAMPLE 14496			INDEX 10884 SAMPLE 2050		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	UPTON		UPTON			UPTON		
FIELD.....	MCCAMEY		PEGASUS S			SHIRK		
WELL NAME.....	RICKER NO. 2, OIL WELL		ETREGL POWELL NO. 10-1			ETREGL NO. 1		
LOCATION.....	SEC. 5, WART S, DENTON CO.		SEC. 5, BLK 41, TSS, T&P SUR			SEC. 35, BLK. 1		
OWNER.....	HUMBLE OIL & REFINING CO.		CLINTON OIL CO.			GULF PRODUCTION CO.		
COMPLETED.....	02/26/72		05/21/75			12/07/26		
SAMPLED.....	06/17/30		06/21/75			06/17/30		
FORMATION.....	PERM-GRAYBURG		DEVO-			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	12160		12010			2290		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		3307			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		4550			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	80.7		79.4			4.7		
ETHANE.....	13.0		12.5			86.3		
PROPANE.....	---		3.9			---		
N-BUTANE.....	---		0.8			---		
ISOBUTANE.....	---		0.4			---		
N-PENTANE.....	---		0.2			---		
ISOPENTANE.....	---		0.5			---		
CYCLOPENTANE.....	---		TRACE			---		
HEXANES PLUS.....	---		0.1			---		
NITROGEN.....	2.3		1.6			2.0		
ARGON.....	0.3		TRACE			0.3		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	2.7		0.9			6.7		
HELIUM.....	TRACE		0.03			0.00		
HEATING VALUE.....	1050		1189			1594		
SPECIFIC GRAVITY.....	0.651		0.677			1.057		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10885 SAMPLE 14905			INDEX 10886 SAMPLE 7144			INDEX 10887 SAMPLE 16071		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	VAL VERDE		VAL VERDE			VAL VERDE		
FIELD.....	DEVIL'S RIVER		L. H. MORRISON			MASSEIE		
WELL NAME.....	J. V. DRISDALE NO. 1		L. H. MORRISON NO. 1			WEST A NO. 1		
LOCATION.....	SEC. 1, BLK. G, GWT&P SUR A-933		SEC. 10, BLK. 10, TCRR SUR.			SEC. 13, BLK. 0, GH&SA SUR.		
OWNER.....	NATIONAL EXPLORATION CO.		MAGNOLIA PETROLEUM CO.			CITIES SERVICE CO.		
COMPLETED.....	04/13/75		03/29/86			07/10/80		
SAMPLED.....	02/16/77		07/10/59			09/16/80		
FORMATION.....	PENN-STRAWN		ORDO-ELLENBURGER			PENN-STRAWN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	10223		13944			11100		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		4571			4200		
OPEN FLOW, MCFD.....	4635		1250			3975		
COMPONENT, MOLE PCT								
METHANE.....	95.4		84.6			93.4		
ETHANE.....	0.3		0.2			0.3		
PROPANE.....	TRACE		0.0			TRACE		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.1			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	0.0		TRACE			0.0		
NITROGEN.....	0.9		1.5			1.1		
OXYGEN.....	0.0		0.1			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.3		13.4			4.9		
HELIUM.....	0.06		0.02			0.06		
HEATING VALUE.....	972		865			952		
SPECIFIC GRAVITY.....	0.591		0.694			0.608		

INDEX 10888 SAMPLE 17884			INDEX 10889 SAMPLE 5978			INDEX 10890 SAMPLE 5164		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	VAL VERDE		VINEGARROON			VAL VERDE		
FIELD.....	SIMPSON MANN (CANYON)		CAUTHORN NO. 1			WILDCAT		
WELL NAME.....	TENNECO FEE NO. 1		SEC. 9, BLK. A, C&M SUR.			GULDA ROSE NO. 1		
LOCATION.....	SIMPSON MANN, INC.		PHILLIPS PETROLEUM CO.			SEC. 2, G&SF SUR.		
OWNER.....	SIMPSON MANN, INC.		04/07/55			WESTERN NATURAL GAS CO., ET		
COMPLETED.....	09/01/84		11/30/55			05/17/51		
SAMPLED.....	10/25/85		PENN-STRAWN			01/28/52		
FORMATION.....	PENN-CANYON		430			PENN-STRAWN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	4217		9982			10050		
WELLHEAD PRESSURE, PSIG.....	1550		5011			6665		
OPEN FLOW, MCFD.....	4600		42000			3519		
COMPONENT, MOLE PCT								
METHANE.....	87.4		96.4			91.6		
ETHANE.....	5.4		0.8			0.9		
PROPANE.....	3.1		0.1			0.1		
N-BUTANE.....	1.0		0.1			TRACE		
ISOBUTANE.....	0.2		0.0			TRACE		
N-PENTANE.....	0.4		0.0			0.0		
ISOPENTANE.....	0.3		0.0			0.0		
CYCLOPENTANE.....	0.2		0.1			0.0		
HEXANES PLUS.....	0.5		0.1			0.1		
NITROGEN.....	1.1		0.6			4.8		
OXYGEN.....	TRACE		0.1			1.1		
ARGON.....	0.0		0.0			0.1		
HYDROGEN.....	TRACE		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.0		1.6			1.3		
HELIUM.....	0.05		0.02			0.02		
HEATING VALUE.....	1166		1003			954		
SPECIFIC GRAVITY.....	0.667		0.581			0.602		

INDEX 10891 SAMPLE 15170			INDEX 10892 SAMPLE 15194			INDEX 10893 SAMPLE 12499		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	VAL VERDE		VAL VERDE			VAN ZANDT		
FIELD.....	MILLS MINERAL TRUST NO. 1		EXXON MILLS NO. 1			EDGEWOOD		
WELL NAME.....	SEC. 29, BLK. 0-3, TCRR SUR.		SEC. 16, BLK. 0, TCRR SUR.			PARKER G.U. A NO. 1		
LOCATION.....	MOBIL OIL CORP.		C. & J. PETROLEUM, INC.			J. H. PARKER TRACT		
OWNER.....	MOBIL OIL CORP.		07/10/75			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	07/11/75		01/23/78			09/-/61		
SAMPLED.....	12/-/77		ORDO-ELLENBURGER			10/25/70		
FORMATION.....	ORDO-ELLENBURGER		430			JURA-SHACKOVER		
GEOLOGIC PROVINCE CODE.....	430		430			260		
DEPTH, FEET.....	14695		14208			12834		
WELLHEAD PRESSURE, PSIG.....	4710		4826			3662		
OPEN FLOW, MCFD.....	7900 0		9600			19600		
COMPONENT, MOLE PCT								
METHANE.....	83.4		85.9			57.1		
ETHANE.....	0.2		0.2			6.5		
PROPANE.....	TRACE		TRACE			2.9		
N-BUTANE.....	0.0		0.0			0.9		
ISOBUTANE.....	0.0		0.0			1.1		
N-PENTANE.....	0.0		0.0			0.2		
ISOPENTANE.....	0.0		0.0			0.4		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.0		0.0			0.3		
NITROGEN.....	0.4		0.7			3.4		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			24.0		
CARBON DIOXIDE.....	15.9		13.2			3.0		
HELIUM.....	0.03		0.03			0.02		
HEATING VALUE.....	846		0.687			1037		
SPECIFIC GRAVITY.....	0.711		0.687			0.862		

INDEX 10894 SAMPLE 12501			INDEX 10895 SAMPLE 2278			INDEX 10896 SAMPLE 2610		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	VAN ZANDT		VAN ZANDT			VAN ZANDT		
FIELD.....	EDGEWOOD NE		VAN			VAN		
WELL NAME.....	PARKER G.U. B NO. 1		R. S. BLAKE NO. 5			WHITE SDO NO. 5		
LOCATION.....	J. R. CHISUM A-157 SUR.		J. R. WALLING SUR.			NACOGDOCHES SCHOOL LAND SUR.		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		HUMBLE OIL & REFINING CO.			TEXAS CO.		
COMPLETED.....	06/-/62		12/10/30			12/19/32		
SAMPLED.....	02/25/70		02/10/31			02/23/33		
FORMATION.....	JURA-SHACKOVER		CRET-WOODBINE			CRET-WOODBINE		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	12583		2605			2756		
WELLHEAD PRESSURE, PSIG.....	5526		NOT GIVEN			1200		
OPEN FLOW, MCFD.....	78460		1000			3864		
COMPONENT, MOLE PCT								
METHANE.....	57.6		41.4			89.3		
ETHANE.....	8.5		57.7			9.3		
PROPANE.....	3.3		---			---		
N-BUTANE.....	1.0		---			---		
ISOBUTANE.....	0.3		---			---		
N-PENTANE.....	0.3		---			---		
ISOPENTANE.....	0.4		---			---		
CYCLOPENTANE.....	0.1		---			---		
HEXANES PLUS.....	0.3		---			---		
NITROGEN.....	3.1		0.0			0.3		
OXYGEN.....	TRACE		0.4			---		
ARGON.....	0.0		---			---		
HYDROGEN.....	0.2		---			---		
HYDROGEN SULFIDE.....	21.6		---			---		
CARBON DIOXIDE.....	0.7		0.5			0.4		
HELIUM.....	0.01		0.00			0.03		
HEATING VALUE.....	1077		1453			1071		
SPECIFIC GRAVITY.....	0.859		0.847			0.609		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10897 SAMPLE 3991			INDEX 10898 SAMPLE 11996			INDEX 10899 SAMPLE 4645		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	VICTORIA		VICTORIA			VICTORIA		
FIELD.....	ANAQUA		ANAQUA N			COLETTO CREEK		
WELL NAME.....	MARY SIMMONS NO. 1		KEMPER WILLIAMS NO. 1-C			J. H. FLEMING NO. 1		
LOCATION.....	15 MI. W OF MCFADDIN N FIELD		DE LA GARZA SUR. A-46			BLK. A-61, F.O. HIDALGO SUR.		
OWNER.....	GULF OIL CO.		HARKINS & CO., ET AL.			JERGENS OIL CO.		
COMPLETED.....	--/--/00		07/17/68			09/02/48		
SAMPLED.....	03/08/45		08/14/69			01/06/49		
FORMATION.....	OLIG-FRIO		OLIG-FRIO			MIOC-CATAHOULA		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5350		5374			3264		
WELLHEAD PRESSURE, PSIG.....	2050		1800			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		29000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	84.5		92.3			97.6		
ETHANE.....	15.1		2.8			1.3		
PROPANE.....	---		TRACE			---		
N-BUTANE.....	---		0.0			---		
ISOBUTANE.....	---		0.0			---		
N-PENTANE.....	---		0.0			---		
ISOPENTANE.....	---		0.0			---		
CYCLOPENTANE.....	---		0.0			---		
HEXANES PLUS.....	---		0.0			---		
NITROGEN.....	0.0		2.0			0.6		
OXYGEN.....	0.2		0.3			0.4		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		0.2			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.2		0.3			0.1		
HELIUM.....	0.00		0.01			0.01		
HEATING VALUE.....	1127		1076			1012		
SPECIFIC GRAVITY.....	0.632		0.622			0.566		
INDEX 10900 SAMPLE 4744			INDEX 10901 SAMPLE 11618			INDEX 10902 SAMPLE 17907		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	VICTORIA		VICTORIA			VICTORIA		
FIELD.....	COLETTO CREEK		EL SE			GARCITAS CREEK N		
WELL NAME.....	KATIE WILLENIN NO. 2-1		J. F. PETTY NO. 1			KOLLE KUTCHKA NO. 1		
LOCATION.....	PEDRO GALLARDO SUR.		A. B. WILLIAMS SUR. A-353			W. H. ALLEN SUR. A-389		
OWNER.....	JERGENS OIL CO. OF TEXAS		CROWN CENTRAL PETROLEUM CORP			ARCO OIL & GAS CO.		
COMPLETED.....	02/27/49		06/22/67			01/-/85		
SAMPLED.....	05/17/49		08/06/68			11/11/85		
FORMATION.....	OLIG-FRIO		OLIG-MOSES			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	4522		5660			3782		
WELLHEAD PRESSURE, PSIG.....	1850		1400			1049		
OPEN FLOW, MCFD.....	742		12600			2118		
COMPONENT, MOLE PCT								
METHANE.....	96.3		95.3			97.9		
ETHANE.....	1.6		1.8			0.7		
PROPANE.....	0.3		0.3			0.1		
N-BUTANE.....	0.1		0.2			TRACE		
ISOBUTANE.....	0.3		0.1			0.0		
N-PENTANE.....	0.1		0.3			0.1		
ISOPENTANE.....	0.1		0.1			0.0		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	0.8		1.3			0.8		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1042		1051			1017		
SPECIFIC GRAVITY.....	0.587		0.595			0.568		
INDEX 10903 SAMPLE 10171			INDEX 10904 SAMPLE 12490			INDEX 10905 SAMPLE 12491		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	VICTORIA		VICTORIA			VICTORIA		
FIELD.....	HELEN GOLKE SW		MEYSER			MEYSER		
WELL NAME.....	HAMILTON NURSERY RANCH NO. 1		W. H. BENNETT NO. 12			W. H. BENNETT NO. 12		
LOCATION.....	EDWARDS SUR. NO. 18, A-326		JOSE STEVAN GALBAN SUR. A-34			JOSE STEVAN GALBAN SUR. A-34		
OWNER.....	EDWARDS, HAMILTON AND FORD		SUN OIL CO.			SUN OIL CO.		
COMPLETED.....	07/02/64		03/15/69			03/15/69		
SAMPLED.....	09/01/65		10/26/70			10/26/70		
FORMATION.....	EOC-SLICK		MIOC-3700 FT. SAND			MIOC-3800 FT. SAND		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	8512		3655			3760		
WELLHEAD PRESSURE, PSIG.....	3306		1383			1551		
OPEN FLOW, MCFD.....	88000		74000			15000		
COMPONENT, MOLE PCT								
METHANE.....	88.9		99.2			99.2		
ETHANE.....	5.5		0.2			0.1		
PROPANE.....	2.4		TRACE			TRACE		
N-BUTANE.....	0.4		0.0			0.0		
ISOBUTANE.....	0.2		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	0.1		0.0			0.0		
NITROGEN.....	0.0		0.4			0.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.4		0.1			0.1		
HELIUM.....	0.01		0.01			0.09		
HEATING VALUE.....	1087		1009			1007		
SPECIFIC GRAVITY.....	0.640		0.558			0.558		
INDEX 10906 SAMPLE 9649			INDEX 10907 SAMPLE 4528			INDEX 10908 SAMPLE 4590		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	VICTORIA		VICTORIA			VICTORIA		
FIELD.....	IDA WETZ		INEZ			INEZ		
WELL NAME.....	IDA WETZ NO. 1-T		BAKER NO. 1			BAKER NO. 2		
LOCATION.....	F. BUENO LEAGUE SUR.		LOT NO. 55, A-45 GARCIA GRANT			NOT GIVEN		
OWNER.....	SUN OIL CO.		CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		
COMPLETED.....	05/04/63		03/28/48			06/14/48		
SAMPLED.....	11/25/64		06/01/48			10/14/48		
FORMATION.....	OLIG-FRIO		OLIG-INEZ SOUTH			OLIG-INEZ SOUTH		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3512		5238			5116		
WELLHEAD PRESSURE, PSIG.....	1030		2350			2575		
OPEN FLOW, MCFD.....	2600		10300			93000		
COMPONENT, MOLE PCT								
METHANE.....	99.0		95.5			87.0		
ETHANE.....	0.2		3.4			10.5		
PROPANE.....	0.0		---			---		
N-BUTANE.....	0.0		---			---		
ISOBUTANE.....	0.0		---			---		
N-PENTANE.....	0.0		---			---		
ISOPENTANE.....	0.0		---			---		
CYCLOPENTANE.....	0.0		---			---		
HEXANES PLUS.....	0.0		---			---		
NITROGEN.....	0.3		0.7			1.4		
OXYGEN.....	0.0		0.2			0.6		
ARGON.....	0.0		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	0.5		0.2			0.5		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1006		1028			1069		
SPECIFIC GRAVITY.....	0.562		0.577			0.620		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10909 9591	INDEX SAMPLE	10910 2367	INDEX SAMPLE	10911 4186
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	VICTORIA			VICTORIA		VICTORIA	
FIELD.....	KOONTZ			MCFADDIN		MCFADDIN	
WELL NAME.....	KEELEN RANCH NO. 1-UT			MCFADDIN NO. 4-A		ED T. MORROW NO. 1	
LOCATION.....	MARTIN DELEON GRANT			NOT GIVEN		ED PERRY SUR. A-48	
OWNER.....	MOBIL OIL CORP.			UNITED PRODUCTION CORP.		BARNSDALL OIL CO.	
COMPLETED.....	09/20/51			07/13/51		09/13/46	
SAMPLED.....	09/05/64			08/03/51		11/22/46	
FORMATION.....	OLIG-FRIO			MIOC-CATAHOULA		MIOC-	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	5272			3716		2250	
WELLHEAD PRESSURE, PSIG.....	1815			1650		926	
OPEN FLOW, MCFD.....	4600			1000		60000	
COMPONENT, MOLE PCT							
METHANE.....	96.2			91.2		99.5	
ETHANE.....	2.5			2.6		0.0	
PROPANE.....	0.4			---		---	
N-BUTANE.....	0.1			---		---	
ISOBUTANE.....	TRACE			---		---	
N-PENTANE.....	TRACE			---		---	
ISOPENTANE.....	TRACE			---		---	
CYCLOPENTANE.....	0.1			---		---	
HEXANES PLUS.....	0.1			---		---	
NITROGEN.....	0.1			4.6		0.0	
OXYGEN.....	TRACE			1.6		0.2	
ARGON.....	0.0			---		---	
HYDROGEN.....	0.0			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	0.4			---		---	
HELIUM.....	TRACE			0.0		0.3	
HEATING VALUE.....	1042			TRACE		0.01	
SPECIFIC GRAVITY.....	0.580			970		1008	
				0.595		0.558	
		INDEX SAMPLE	10912 5061	INDEX SAMPLE	10913 5123	INDEX SAMPLE	10914 3870
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	VICTORIA			VICTORIA		VICTORIA	
FIELD.....	MCFADDIN			MCFADDIN		MCFADDIN	
WELL NAME.....	MCFADDIN B-9			MCFADDIN B NO. 10		RYDOLPH NO. 4	
LOCATION.....	J. W. MOORE SUR.			NOT GIVEN		JOHN F. KEMPER A-241 SUR.	
OWNER.....	CHICAGO CORP.			CHICAGO CORP.		UNION PRODUCING CO.	
COMPLETED.....	03/05/51			05/19/51		08/28/43	
SAMPLED.....	06/19/51			11/16/51		09/21/44	
FORMATION.....	MIOC-			OLIG-FRIO		OLIG-FRIO	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	3400			2200		5445	
WELLHEAD PRESSURE, PSIG.....	1510			929		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			68		10750	
COMPONENT, MOLE PCT							
METHANE.....	97.9			98.6		92.9	
ETHANE.....	0.2			0.2		6.1	
PROPANE.....	0.0			TRACE		---	
N-BUTANE.....	0.0			TRACE		---	
ISOBUTANE.....	0.0			TRACE		---	
N-PENTANE.....	0.0			TRACE		---	
ISOPENTANE.....	0.0			TRACE		---	
CYCLOPENTANE.....	0.0			TRACE		---	
HEXANES PLUS.....	0.0			0.0		---	
NITROGEN.....	1.2			0.9		0.0	
OXYGEN.....	0.3			TRACE		0.3	
ARGON.....	TRACE			0.1		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			TRACE		0.7	
HELIUM.....	0.01			0.01		0.02	
HEATING VALUE.....	999			1005		1050	
SPECIFIC GRAVITY.....	0.566			0.559		0.593	
		INDEX SAMPLE	10915 10126	INDEX SAMPLE	10916 4142	INDEX SAMPLE	10917 3941
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	VICTORIA			VICTORIA		VICTORIA	
FIELD.....	MISSION VALLEY			PLACEDO E		PRIDHAM LAKE	
WELL NAME.....	S. F. RUSCHWALT NO. 1			VANDENBERGE & HILL NO. 18		S. A. BELDING SUR. 1-A	
LOCATION.....	EBEN HAVEN SUR.			E. BENAVIDES SUR.		FOUR LEAGUE GRANT	
OWNER.....	LONE STAR PRODUCING CO.			STANLIND OIL & GAS CO.		LVO CORP.	
COMPLETED.....	02/20/64			06/07/46		---/---/00	
SAMPLED.....	09/16/65			10/08/46		12/27/44	
FORMATION.....	EOCE-WILCOX			OLIG-FRIO		OLIG-	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	11916			6420		4877	
WELLHEAD PRESSURE, PSIG.....	8570			2250		1500	
OPEN FLOW, MCFD.....	5200			13500		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.8			52.7		97.4	
ETHANE.....	7.5			46.3		2.0	
PROPANE.....	3.7			---		---	
N-BUTANE.....	0.8			---		---	
ISOBUTANE.....	0.5			---		---	
N-PENTANE.....	0.2			---		---	
ISOPENTANE.....	0.6			---		---	
CYCLOPENTANE.....	0.2			---		---	
HEXANES PLUS.....	0.7			---		---	
NITROGEN.....	0.4			0.1		0.1	
OXYGEN.....	0.0			0.4		0.4	
ARGON.....	0.0			---		---	
HYDROGEN.....	0.0			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	3.6			0.5		0.1	
HELIUM.....	TRACE			0.02		0.03	
HEATING VALUE.....	1180			1364		1023	
SPECIFIC GRAVITY.....	0.721			0.791		0.568	
		INDEX SAMPLE	10918 4521	INDEX SAMPLE	10919 13650	INDEX SAMPLE	10920 13651
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	VICTORIA			VICTORIA		VICTORIA	
FIELD.....	TELFERER E			WELDER RANCH		WELDER RANCH	
WELL NAME.....	ROWAN RAGSDALE NO. 6			WELDER-CLIBURN NO. 1		WELDER-CLIBURN NO. 1	
LOCATION.....	VALENTINE GARCIA SUR.			S. A. BELDING SUR. A-144		S. A. BELDING SUR. A-144	
OWNER.....	ROWAN & HOPE			SKELLY OIL CO.		SKELLY OIL CO.	
COMPLETED.....	---/---/00			07/25/71		07/25/71	
SAMPLED.....	05/15/48			07/18/73		07/18/73	
FORMATION.....	OLIG-FRIO			EOCE-YEGUA		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	5100			5559		5670	
WELLHEAD PRESSURE, PSIG.....	2175			3288		3437	
OPEN FLOW, MCFD.....	60000			4050		13000	
COMPONENT, MOLE PCT							
METHANE.....	97.3			92.8		92.5	
ETHANE.....	2.4			3.9		4.3	
PROPANE.....	---			1.5		1.5	
N-BUTANE.....	---			0.3		0.2	
ISOBUTANE.....	---			0.4		0.4	
N-PENTANE.....	---			TRACE		0.1	
ISOPENTANE.....	---			0.2		0.1	
CYCLOPENTANE.....	---			0.1		TRACE	
HEXANES PLUS.....	---			0.1		0.1	
NITROGEN.....	0.0			0.3		0.4	
OXYGEN.....	0.1			TRACE		0.1	
ARGON.....	---			0.0		0.0	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.01			TRACE		TRACE	
HEATING VALUE.....	1029			1090		1087	
SPECIFIC GRAVITY.....	0.569			0.610		0.610	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FARENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10921 SAMPLE 4294		INDEX 10922 SAMPLE 4335		INDEX 10923 SAMPLE 4736	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	VICTORIA	COUNTY.....	VICTORIA	COUNTY.....	VICTORIA
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WILDCAT
WELL NAME.....	GEORGE E. SCOTT NO. 1	WELL NAME.....	ELIZABETH MUELLER NO. 1	WELL NAME.....	M. E. COOLEY NO. 1
LOCATION.....	WM. MINTER SUR. N3. 264	LOCATION.....	ELI STAPP LEAGUE A-111	LOCATION.....	BENJ. J. WHITE SUR.
OWNER.....	TEXAS CO.	OWNER.....	AMERADA PETROLEUM CORP.	OWNER.....	WESTERN NATURAL GAS CO.
COMPLETED.....	03/06/47	COMPLETED.....	06/01/47	COMPLETED.....	01/14/49
SAMPLED.....	04/17/47	SAMPLED.....	07/23/47	SAMPLED.....	04/14/49
FORMATION.....	TEET-	FORMATION.....	OLIG-FRIO U	FORMATION.....	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	4110	DEPTH, FEET.....	2872	DEPTH, FEET.....	8895
WELLHEAD PRESSURE, PSIG.....	1707	WELLHEAD PRESSURE, PSIG.....	1342	WELLHEAD PRESSURE, PSIG.....	3545
OPEN FLOW, MCFD.....	18000	OPEN FLOW, MCFD.....	5600	OPEN FLOW, MCFD.....	4500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	99.0	METHANE.....	97.8	METHANE.....	89.0
ETHANE.....	0.3	ETHANE.....	0.3	ETHANE.....	6.3
PROpane.....	---	PROpane.....	---	PROpane.....	2.2
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	0.6
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	0.3
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	0.2
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	0.1
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	0.2
NITROGEN.....	0.3	NITROGEN.....	1.4	NITROGEN.....	0.6
OXYGEN.....	0.3	OXYGEN.....	0.3	OXYGEN.....	0.1
ARGON.....	---	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1008	HEATING VALUE.....	996	HEATING VALUE.....	1128
SPECIFIC GRAVITY.....	0.560	SPECIFIC GRAVITY.....	0.565	SPECIFIC GRAVITY.....	0.637
INDEX 10924 SAMPLE 4862		INDEX 10925 SAMPLE 11351		INDEX 10926 SAMPLE 11350	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	VICTORIA	COUNTY.....	WALKER	COUNTY.....	WALKER
FIELD.....	WILDCAT	FIELD.....	FT. TRINIDAD SW	FIELD.....	MOSSY GROVE
WELL NAME.....	CORA HENSLEY NO. 1	WELL NAME.....	FT. TRINIDAD UNIT 2 NO. 1	WELL NAME.....	MOSSY GROVE UNIT 1
LOCATION.....	SEC. 5, BLK. A-206, IRR SUR.	LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN
OWNER.....	JERGINS OIL CO. OF TEXAS	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	11/22/49	COMPLETED.....	08/15/65	COMPLETED.....	---/---/00
SAMPLED.....	03/21/50	SAMPLED.....	03/01/68	SAMPLED.....	03/01/68
FORMATION.....	NOT GIVEN	FORMATION.....	CRET-GLEN ROSE B	FORMATION.....	CRET-GLEN ROSE B
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	8040	DEPTH, FEET.....	10908	DEPTH, FEET.....	11676
WELLHEAD PRESSURE, PSIG.....	3360	WELLHEAD PRESSURE, PSIG.....	640	WELLHEAD PRESSURE, PSIG.....	1300
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	21373	OPEN FLOW, MCFD.....	71842
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.6	METHANE.....	84.9	METHANE.....	86.2
ETHANE.....	5.6	ETHANE.....	6.4	ETHANE.....	4.7
PROpane.....	2.2	PROpane.....	2.7	PROpane.....	1.6
N-BUTANE.....	0.6	N-BUTANE.....	0.9	N-BUTANE.....	0.9
ISOBUTANE.....	0.4	ISOBUTANE.....	0.6	ISOBUTANE.....	0.6
N-PENTANE.....	0.3	N-PENTANE.....	0.5	N-PENTANE.....	1.6
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.7	HEXANES PLUS.....	2.1
NITROGEN.....	1.0	NITROGEN.....	1.1	NITROGEN.....	TRACE
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.9	CARBON DIOXIDE.....	1.8	CARBON DIOXIDE.....	2.0
HELIUM.....	0.02	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1110	HEATING VALUE.....	1163	HEATING VALUE.....	1229
SPECIFIC GRAVITY.....	0.661	SPECIFIC GRAVITY.....	0.690	SPECIFIC GRAVITY.....	0.720
INDEX 10927 SAMPLE 12147		INDEX 10928 SAMPLE 3788		INDEX 10929 SAMPLE 12402	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WALLER	COUNTY.....	WALLER	COUNTY.....	WALLER
FIELD.....	SRDOKSHIRE	FIELD.....	KATY	FIELD.....	UNIT 1 NO. W-31
WELL NAME.....	DONIGAN GAS UNIT 1 NO. 1	WELL NAME.....	L. L. SCHARFF	WELL NAME.....	SEC. 110, T. S. REESE SUR. A-332
LOCATION.....	WILLIAM COOPER LEAGUE, A-20	LOCATION.....	SEC. 130	LOCATION.....	HUMBLE OIL & REFINING CO.
OWNER.....	PLACID OIL CO.	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	11/02/68	COMPLETED.....	---/---/00	COMPLETED.....	08/02/69
SAMPLED.....	12/08/69	SAMPLED.....	04/13/44	SAMPLED.....	09/04/70
FORMATION.....	EOCE-WILCOX	FORMATION.....	EOCE-YEGUA	FORMATION.....	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	11240	DEPTH, FEET.....	7069	DEPTH, FEET.....	10230
WELLHEAD PRESSURE, PSIG.....	6495	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	6275
OPEN FLOW, MCFD.....	38000	OPEN FLOW, MCFD.....	30	OPEN FLOW, MCFD.....	16500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	85.9	METHANE.....	84.0	METHANE.....	91.8
ETHANE.....	7.1	ETHANE.....	14.2	ETHANE.....	3.3
PROpane.....	2.6	PROpane.....	---	PROpane.....	0.0
N-BUTANE.....	0.5	N-BUTANE.....	---	N-BUTANE.....	0.2
ISOBUTANE.....	0.2	ISOBUTANE.....	---	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	---	N-PENTANE.....	0.1
ISOPENTANE.....	0.3	ISOPENTANE.....	---	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.9	HEXANES PLUS.....	---	HEXANES PLUS.....	0.1
NITROGEN.....	0.9	NITROGEN.....	1.0	NITROGEN.....	0.3
OXYGEN.....	0.0	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	---	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.3	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.7
HELIUM.....	TRACE	HELIUM.....	0.00	HELIUM.....	TRACE
HEATING VALUE.....	1111	HEATING VALUE.....	1105	HEATING VALUE.....	1042
SPECIFIC GRAVITY.....	0.663	SPECIFIC GRAVITY.....	0.636	SPECIFIC GRAVITY.....	0.620
INDEX 10930 SAMPLE 16421		INDEX 10931 SAMPLE 12260		INDEX 10932 SAMPLE 13270	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WALLER	COUNTY.....	WARD	COUNTY.....	WARD
FIELD.....	PANG-LLAN	FIELD.....	BARSTOW	FIELD.....	BARSTOW
WELL NAME.....	ELIZABETH SORSBY ET AL. NO 1	WELL NAME.....	BARSTOW UNIT NO. 1	WELL NAME.....	JOSEY NO. 1
LOCATION.....	JUSTO LIENDO SUR., A-41	LOCATION.....	SEC. 37, BLK. 33, H&TC SUR.	LOCATION.....	SEC. 183, BLK. 34, H&TC SUR.
OWNER.....	PLACID OIL CO.	OWNER.....	ADDOBE OIL & GAS CORP.	OWNER.....	SHELL OIL CO.
COMPLETED.....	02/02/82	COMPLETED.....	05/21/78	COMPLETED.....	10/23/71
SAMPLED.....	02/02/82	SAMPLED.....	05/18/70	SAMPLED.....	06/19/72
FORMATION.....	CRET-L	FORMATION.....	SILU-FUSSELMAN	FORMATION.....	SILU-FUSSELMAN
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	19132	DEPTH, FEET.....	17550	DEPTH, FEET.....	18243
WELLHEAD PRESSURE, PSIG.....	15085	WELLHEAD PRESSURE, PSIG.....	6200	WELLHEAD PRESSURE, PSIG.....	5600
OPEN FLOW, MCFD.....	12644	OPEN FLOW, MCFD.....	132000	OPEN FLOW, MCFD.....	90000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.6	METHANE.....	95.0	METHANE.....	95.0
ETHANE.....	0.1	ETHANE.....	0.6	ETHANE.....	0.5
PROpane.....	TRACE	PROpane.....	0.1	PROpane.....	0.1
N-BUTANE.....	0.0	N-BUTANE.....	TRACE	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.1	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0
NITROGEN.....	0.5	NITROGEN.....	0.2	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	6.7	CARBON DIOXIDE.....	3.1	CARBON DIOXIDE.....	3.9
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	940	HEATING VALUE.....	940	HEATING VALUE.....	974
SPECIFIC GRAVITY.....	0.622	SPECIFIC GRAVITY.....	0.602	SPECIFIC GRAVITY.....	0.598

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10933 SAMPLE 14413		INDEX 10934 SAMPLE 13688		INDEX 10935 SAMPLE 13689	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WARD	COUNTY.....	WARD	COUNTY.....	WARD
FIELD.....	BARSTOW	FIELD.....	BEALL	FIELD.....	BEALL
WELL NAME.....	AMERICAN NAT. INS. CO. NO. 1	WELL NAME.....	MARY W. EVANS NO. 1	WELL NAME.....	MARY EVANS NO. 1
LOCATION.....	SEC. 44, BLK. 33, H&TC SUR.	LOCATION.....	SEC. 53, BLK. 34, H&TC SUR.	LOCATION.....	SEC. 53, BLK. 34, H&TC SUR.
OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	EXXON CO., U.S.A.	OWNER.....	EXXON CO., U.S.A.
COMPLETED.....	02/01/74	COMPLETED.....	03/05/72	COMPLETED.....	03/05/72
SAMPLED.....	07/15/75	SAMPLED.....	08/23/73	SAMPLED.....	08/23/73
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	DEVON
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	15526	DEPTH, FEET.....	14919	DEPTH, FEET.....	12247
WELLHEAD PRESSURE, PSIG.....	2005	WELLHEAD PRESSURE, PSIG.....	5315	WELLHEAD PRESSURE, PSIG.....	5300
OPEN FLOW, MCFD.....	14914	OPEN FLOW, MCFD.....	15000	OPEN FLOW, MCFD.....	3800
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	98.1	METHANE.....	95.1	METHANE.....	92.8
ETHANE.....	0.4	ETHANE.....	2.2	ETHANE.....	2.8
PROPANE.....	TRACE	PROPANE.....	0.8	PROPANE.....	0.9
N-BUTANE.....	0.0	N-BUTANE.....	0.3	N-BUTANE.....	0.2
ISOBUTANE.....	0.0	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.6	NITROGEN.....	0.6	NITROGEN.....	0.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	2.1
HELIUM.....	0.01	HELIUM.....	0.04	HELIUM.....	0.01
HEATING VALUE.....	1001	HEATING VALUE.....	1058	HEATING VALUE.....	1036
SPECIFIC GRAVITY.....	0.566	SPECIFIC GRAVITY.....	0.592	SPECIFIC GRAVITY.....	0.610

INDEX 10936 SAMPLE 14433		INDEX 10937 SAMPLE 14418		INDEX 10938 SAMPLE 12590	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WARD	COUNTY.....	WARD	COUNTY.....	WARD
FIELD.....	BEALL	FIELD.....	BIG LION	FIELD.....	BLK. 16
WELL NAME.....	HERD GAS UNIT NO. 1	WELL NAME.....	MIDLAND NATL. BK. NO. 1	WELL NAME.....	WATSON ET AL. NO. 1
LOCATION.....	SEC. 78, BLK. 34, H&TC SUR.	LOCATION.....	SEC. 146, BLK. 34, H&TC SUR.	LOCATION.....	SEC. 76, BLK. 16, H&TC SUR.
OWNER.....	EXXON CO., U.S.A.	OWNER.....	TEXAS AMERICAN OIL CORP.	OWNER.....	MOBIL OIL CORP.
COMPLETED.....	03/01/74	COMPLETED.....	08/26/74	COMPLETED.....	08/14/70
SAMPLED.....	08/11/75	SAMPLED.....	07/23/75	SAMPLED.....	07/23/75
FORMATION.....	DEVON	FORMATION.....	PENN-MORROW	FORMATION.....	ORDO-ELLENBURGER
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	12239	DEPTH, FEET.....	15879	DEPTH, FEET.....	15807
WELLHEAD PRESSURE, PSIG.....	4084	WELLHEAD PRESSURE, PSIG.....	8067	WELLHEAD PRESSURE, PSIG.....	5283
OPEN FLOW, MCFD.....	79031	OPEN FLOW, MCFD.....	2156	OPEN FLOW, MCFD.....	41000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	93.7	METHANE.....	97.1	METHANE.....	92.6
ETHANE.....	2.3	ETHANE.....	1.1	ETHANE.....	3.8
PROPANE.....	0.6	PROPANE.....	0.2	PROPANE.....	1.5
N-BUTANE.....	0.1	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.1	ISOBUTANE.....	0.0	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.2
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	0.6	NITROGEN.....	0.4	NITROGEN.....	0.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	2.4	CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	0.2
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.03
HEATING VALUE.....	1022	HEATING VALUE.....	1009	HEATING VALUE.....	1090
SPECIFIC GRAVITY.....	0.605	SPECIFIC GRAVITY.....	0.575	SPECIFIC GRAVITY.....	0.614

INDEX 10939 SAMPLE 12591		INDEX 10940 SAMPLE 15323		INDEX 10941 SAMPLE 12808	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WARD	COUNTY.....	WARD	COUNTY.....	WARD
FIELD.....	BLK. 16	FIELD.....	BLK. 17	FIELD.....	BLK. 17 SE
WELL NAME.....	WATSON ET AL. NO. 1	WELL NAME.....	UNIV. "34" NO. 1	WELL NAME.....	STATE OF TEXAS DC NO. 1
LOCATION.....	SEC. 76, BLK. 34, H&TC SUR.	LOCATION.....	SEC. 34, BLK. 17, UNIV. LAND	LOCATION.....	SEC. 3, BLK. 18, PSL SUR.
OWNER.....	MOBIL OIL CORP.	OWNER.....	HNG OIL CO.	OWNER.....	TEXACO INC.
COMPLETED.....	08/14/70	COMPLETED.....	06/21/77	COMPLETED.....	07/23/75
SAMPLED.....	12/7/70	SAMPLED.....	08/04/78	SAMPLED.....	04/30/71
FORMATION.....	DEVON	FORMATION.....	PERM-CHERRY CANYON	FORMATION.....	PERM-DELAWARE
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	12692	DEPTH, FEET.....	6089	DEPTH, FEET.....	4972
WELLHEAD PRESSURE, PSIG.....	4435	WELLHEAD PRESSURE, PSIG.....	2525	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	22200	OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	67
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	79.0	METHANE.....	86.2	METHANE.....	87.6
ETHANE.....	2.8	ETHANE.....	2.5	ETHANE.....	5.8
PROPANE.....	0.9	PROPANE.....	0.9	PROPANE.....	1.9
N-BUTANE.....	0.2	N-BUTANE.....	0.6	N-BUTANE.....	0.5
ISOBUTANE.....	0.2	ISOBUTANE.....	0.6	ISOBUTANE.....	0.6
N-PENTANE.....	TRACE	N-PENTANE.....	0.3	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.5	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2
NITROGEN.....	12.5	NITROGEN.....	3.0	NITROGEN.....	2.6
OXYGEN.....	2.9	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	1.3	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.01	HELIUM.....	0.03	HELIUM.....	0.02
HEATING VALUE.....	897	HEATING VALUE.....	1137	HEATING VALUE.....	1104
SPECIFIC GRAVITY.....	0.669	SPECIFIC GRAVITY.....	0.667	SPECIFIC GRAVITY.....	0.642

INDEX 10942 SAMPLE 15132		INDEX 10943 SAMPLE 16505		INDEX 10944 SAMPLE 12793	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WARD	COUNTY.....	WARD	COUNTY.....	WARD
FIELD.....	BURKHOLDER	FIELD.....	BURKHOLDER	FIELD.....	CRAWAR
WELL NAME.....	BURKHOLDER N. UNIT N-1	WELL NAME.....	CHEN LAKE 205 NO. 1	WELL NAME.....	8" TUBB A3G
LOCATION.....	SEC. 199, BLK. 34, H&TC SUR.	LOCATION.....	H&TC SUR.	LOCATION.....	SEC. 13, BLK. 8-20, PSL SUR.
OWNER.....	GULF OIL CORP.	OWNER.....	UNION TEXAS PETROLEUM CORP.	OWNER.....	GULF OIL CO.- U.S.
COMPLETED.....	02/31/76	COMPLETED.....	04/29/82	COMPLETED.....	01/-/75
SAMPLED.....	10/31/77	SAMPLED.....	04/29/82	SAMPLED.....	04/28/71
FORMATION.....	MISS.	FORMATION.....	SILU-FUSSELMAN	FORMATION.....	PERM-GLORIETA
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	16314	DEPTH, FEET.....	15963	DEPTH, FEET.....	4100
WELLHEAD PRESSURE, PSIG.....	6855	WELLHEAD PRESSURE, PSIG.....	5000	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	15000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	95.3	METHANE.....	92.6	METHANE.....	84.2
ETHANE.....	0.5	ETHANE.....	0.3	ETHANE.....	8.5
PROPANE.....	0.1	PROPANE.....	0.1	PROPANE.....	3.3
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.8
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.4
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.2
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.2
NITROGEN.....	0.4	NITROGEN.....	1.6	NITROGEN.....	1.6
OXYGEN.....	0.0	OXYGEN.....	0.2	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	3.7	CARBON DIOXIDE.....	5.2	CARBON DIOXIDE.....	0.4
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.03
HEATING VALUE.....	977	HEATING VALUE.....	1167	HEATING VALUE.....	1167
SPECIFIC GRAVITY.....	0.596	SPECIFIC GRAVITY.....	0.615	SPECIFIC GRAVITY.....	0.675

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10945 SAMPLE 12797		INDEX 10946 SAMPLE 12438		INDEX 10947 SAMPLE 15604	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WARD	COUNTY.....	WARD	COUNTY.....	WARD
FIELD.....	CRAWAR	FIELD.....	CRAWAR	FIELD.....	DELAWARE SE
WELL NAME.....	CRAWAR UNIT NO. 4-F	WELL NAME.....	TUBB NO. 2	WELL NAME.....	STATE XV NO. 2
LOCATION.....	SEC. 8, BLK. 8-20, PSL SUR.	LOCATION.....	SEC. 18, BLK. 8-20, PSL SUR.	LOCATION.....	SEC. 13, BLK. 18, UL SUR.
OWNER.....	GULF OIL CO.- U.S.	OWNER.....	MCCULLOCH OIL CORP.	OWNER.....	GULF OIL CORP.
COMPLETED.....	01/-/59	COMPLETED.....	09/-/69	COMPLETED.....	05/25/78
SAMPLED.....	04/28/71	SAMPLED.....	10/10/70	SAMPLED.....	04/27/79
FORMATION.....	SILU-FUSSELMAN	FORMATION.....	PERM-TUBB	FORMATION.....	PERM-DELAWARE
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	6000	DEPTH, FEET.....	4800	DEPTH, FEET.....	6143
WELLHEAD PRESSURE, PSIG.....	1369	WELLHEAD PRESSURE, PSIG.....	1875	WELLHEAD PRESSURE, PSIG.....	3393
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	12000	OPEN FLOW, MCFD.....	2200
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	95.6	METHANE.....	87.0	METHANE.....	85.4
ETHANE.....	1.0	ETHANE.....	7.3	ETHANE.....	5.4
PROPANE.....	0.3	PROPANE.....	2.6	PROPANE.....	2.3
N-BUTANE.....	0.1	N-BUTANE.....	0.6	N-BUTANE.....	0.8
ISOBUTANE.....	0.0	ISOBUTANE.....	0.4	ISOBUTANE.....	0.7
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.6
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.4
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.6
NITROGEN.....	0.7	NITROGEN.....	1.1	NITROGEN.....	3.4
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.1	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.0
HELIUM.....	0.01	HELIUM.....	0.03	HELIUM.....	0.03
HEATING VALUE.....	998	HEATING VALUE.....	1129	HEATING VALUE.....	1156
SPECIFIC GRAVITY.....	0.586	SPECIFIC GRAVITY.....	0.646	SPECIFIC GRAVITY.....	0.680

INDEX 10948 SAMPLE 2032		INDEX 10949 SAMPLE 2027		INDEX 10950 SAMPLE 2028	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WARD	COUNTY.....	WARD	COUNTY.....	WARD
FIELD.....	GRANDFALLS	FIELD.....	GULF-O'BRIEN	FIELD.....	GULF-O'BRIEN
WELL NAME.....	ANDERSON NO. 1	WELL NAME.....	O'BRIEN NO. 4	WELL NAME.....	O'BRIEN NO. 6
LOCATION.....	SEC. 11, BLK. 5, H&TC SUR.	LOCATION.....	SEC. 19, BLK. F	LOCATION.....	SEC. 20, BLK. F, G&M-BROS SUR
OWNER.....	JOHN H. BOOGHER	OWNER.....	GULF PRODUCTION CO.	OWNER.....	GULF PRODUCTION CO.
COMPLETED.....	--/-/00	COMPLETED.....	04/22/29	COMPLETED.....	10/12/29
SAMPLED.....	06/12/30	SAMPLED.....	06/09/30	SAMPLED.....	06/09/30
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	2115	DEPTH, FEET.....	2575	DEPTH, FEET.....	2610
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	36	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	1505	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	85.7	METHANE.....	67.4	METHANE.....	82.1
ETHANE.....	11.7	ETHANE.....	31.9	ETHANE.....	15.8
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	1.7	NITROGEN.....	0.2	NITROGEN.....	1.3
OXYGEN.....	0.6	OXYGEN.....	0.2	OXYGEN.....	0.3
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.5
HELIUM.....	0.05	HELIUM.....	0.00	HELIUM.....	TRACE
HEATING VALUE.....	1078	HEATING VALUE.....	1254	HEATING VALUE.....	1115
SPECIFIC GRAVITY.....	0.626	SPECIFIC GRAVITY.....	0.717	SPECIFIC GRAVITY.....	0.644

INDEX 10951 SAMPLE 2029		INDEX 10952 SAMPLE 9958		INDEX 10953 SAMPLE 9992	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WARD	COUNTY.....	WARD	COUNTY.....	WARD
FIELD.....	GULF-O'BRIEN	FIELD.....	H S A	FIELD.....	H S A
WELL NAME.....	HUTCHINGS NO. 2	WELL NAME.....	H. S. A. NO. 596	WELL NAME.....	H. S. A. NO. 617
LOCATION.....	SEC. 7, BLK. 0	LOCATION.....	SEC. 75, BLK. N, G&MMB&A SUR.	LOCATION.....	SEC. 62, BLK. N, G&MMB&A SUR.
OWNER.....	GULF PRODUCTION CO.	OWNER.....	GULF OIL CORP.	OWNER.....	GULF OIL CORP.
COMPLETED.....	10/29/29	COMPLETED.....	12/21/63	COMPLETED.....	05/09/64
SAMPLED.....	06/09/30	SAMPLED.....	07/07/65	SAMPLED.....	07/22/65
FORMATION.....	NOT GIVEN	FORMATION.....	PENN-CANYON	FORMATION.....	PENN-STRAWN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	2490	DEPTH, FEET.....	7993	DEPTH, FEET.....	7768
WELLHEAD PRESSURE, PSIG.....	66	WELLHEAD PRESSURE, PSIG.....	1875	WELLHEAD PRESSURE, PSIG.....	2529
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	498	OPEN FLOW, MCFD.....	14900
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	80.3	METHANE.....	59.8	METHANE.....	84.1
ETHANE.....	15.5	ETHANE.....	14.0	ETHANE.....	8.8
PROPANE.....	---	PROPANE.....	1.5	PROPANE.....	4.1
N-BUTANE.....	---	N-BUTANE.....	6.8	N-BUTANE.....	0.9
ISOBUTANE.....	---	ISOBUTANE.....	1.5	ISOBUTANE.....	0.4
N-PENTANE.....	---	N-PENTANE.....	1.7	N-PENTANE.....	0.1
ISOPENTANE.....	---	ISOPENTANE.....	0.4	ISOPENTANE.....	0.2
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.5	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	---	HEXANES PLUS.....	1.3	HEXANES PLUS.....	TRACE
NITROGEN.....	3.3	NITROGEN.....	---	NITROGEN.....	1.2
OXYGEN.....	0.5	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1
HELIUM.....	0.07	HELIUM.....	0.01	HELIUM.....	0.04
HEATING VALUE.....	1691	HEATING VALUE.....	1670	HEATING VALUE.....	1173
SPECIFIC GRAVITY.....	0.653	SPECIFIC GRAVITY.....	0.981	SPECIFIC GRAVITY.....	0.670

INDEX 10954 SAMPLE 13489		INDEX 10955 SAMPLE 11430		INDEX 10956 SAMPLE 11942	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WARD	COUNTY.....	WARD	COUNTY.....	WARD
FIELD.....	HOWE	FIELD.....	LOCKRIDGE	FIELD.....	MAGNOLIA-SEALY S
WELL NAME.....	HOWE G. U. 1 NO. 1	WELL NAME.....	T. P. LOCKRIDGE NO. 1	WELL NAME.....	GEORGE SEALY NO. 5
LOCATION.....	JOSEPH HOWE SUR. NO. 1	LOCATION.....	SEC. 89, BLK. 34, H&TC SUR.	LOCATION.....	SEC. 43, BLK. F, G&MMB&A SUR
OWNER.....	EXXON CO., U.S.A.	OWNER.....	SHELL OIL CO.	OWNER.....	MOBIL OIL CORP.
COMPLETED.....	06/30/72	COMPLETED.....	09/07/66	COMPLETED.....	05/08/68
SAMPLED.....	12/21/72	SAMPLED.....	04/05/68	SAMPLED.....	06/25/69
FORMATION.....	DEVO-	FORMATION.....	ORDO-ELLENBURGER	FORMATION.....	PERM-YATES
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	12176	DEPTH, FEET.....	19654	DEPTH, FEET.....	2785
WELLHEAD PRESSURE, PSIG.....	4433	WELLHEAD PRESSURE, PSIG.....	6600	WELLHEAD PRESSURE, PSIG.....	1018
OPEN FLOW, MCFD.....	148000	OPEN FLOW, MCFD.....	115000	OPEN FLOW, MCFD.....	10000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	83.5	METHANE.....	95.4	METHANE.....	87.8
ETHANE.....	9.7	ETHANE.....	2.0	ETHANE.....	3.8
PROPANE.....	3.1	PROPANE.....	0.5	PROPANE.....	2.3
N-BUTANE.....	0.8	N-BUTANE.....	0.3	N-BUTANE.....	0.6
ISOBUTANE.....	0.5	ISOBUTANE.....	0.3	ISOBUTANE.....	0.5
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	1.2	NITROGEN.....	0.4	NITROGEN.....	2.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.2
CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	1.6
HELIUM.....	0.02	HELIUM.....	0.02	HELIUM.....	0.01
HEATING VALUE.....	1158	HEATING VALUE.....	1046	HEATING VALUE.....	1087
SPECIFIC GRAVITY.....	0.670	SPECIFIC GRAVITY.....	0.594	SPECIFIC GRAVITY.....	0.655

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10957 16020	INDEX SAMPLE	10958 16288	INDEX SAMPLE	10959 16320
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WARD			WARD		WARD	
FIELD.....	MERIDIAN S			MERIDIAN S		MERIDIAN S	
WELL NAME.....	UNIV. 27-19 NO. 1			UNIVERSITY #42-20" NO. 1		UNIVERSITY 42-20 NO. 1	
LOCATION.....	SEC. 27, BLK. 19, ULS SUR.			SEC. 42, BLK. 20, ULS SUR.		SEC. 42, BLK. 20, ULS SUR.	
OWNER.....	GETTY OIL CO.			GETTY OIL CO.		GETTY OIL CO.	
COMPLETED.....	05/15/79			08/27/80		08/27/80	
SAMPLED.....	07/30/80			06/17/81		08/20/81	
FORMATION.....	PERM-WICHITA-ALBANY			ORDO-ELLENBURGER		SILU-FUSSELMAN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	15667			22154		19938	
WELLHEAD PRESSURE, PSIG.....	8650			6815		5865	
OPEN FLOW, MCFD.....	5100			3810		6008	
COMPONENT, MOLE PCT							
METHANE.....	94.7	---	---	98.1	---	95.6	---
ETHANE.....	2.9	---	---	0.2	---	0.4	---
PROpane.....	0.6	---	---	0.1	---	0.1	---
N-BUTANE.....	0.1	---	---	0.0	---	0.0	---
ISOBUTANE.....	0.1	---	---	0.0	---	0.0	---
N-PENTANE.....	0.1	---	---	0.0	---	0.0	---
ISOPENTANE.....	0.1	---	---	0.0	---	0.0	---
CYCLOPENTANE.....	TRACE	---	---	0.0	---	0.0	---
HEXANES PLUS.....	0.1	---	---	0.0	---	0.0	---
NITROGEN.....	0.9	---	---	0.4	---	0.6	---
OXYGEN.....	0.0	---	---	TRACE	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.0	---	---	TRACE	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.5	---	---	1.2	---	3.3	---
HELIUM.....	0.01	---	---	0.02	---	0.02	---
HEATING VALUE.....	1047	---	---	1000	---	978	---
SPECIFIC GRAVITY.....	0.593	---	---	0.570	---	0.592	---
		INDEX SAMPLE	10960 12792	INDEX SAMPLE	10961 7171	INDEX SAMPLE	10962 7174
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WARD			WARD		WARD	
FIELD.....	MILLER BLK. B-29			MONAHANS		MONAHANS	
WELL NAME.....	JANE DEAN MILLER NO. 2			SEALY-SMITH NO. 46		SEALY-SMITH NO. 46	
LOCATION.....	SEC. 14, BLK. B-29, PSL SUR.			SEC. 38, BLK. A, GMMBA SUR.		SEC. 38, BLK. A, GMMBA SUR.	
OWNER.....	GULF OIL CO.- U.S.			SHELL OIL CO.		SHELL OIL CO.	
COMPLETED.....	01/10/64			08/16/48		01/15/58	
SAMPLED.....	04/28/71			08/11/59		08/11/59	
FORMATION.....	PERM-			PERM-TUBB NO. 2		PERM-TUBB NO. 1	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	7952			5532		5470	
WELLHEAD PRESSURE, PSIG.....	152			1442		1935	
OPEN FLOW, MCFD.....	152			6582		2300	
COMPONENT, MOLE PCT							
METHANE.....	81.4	---	---	83.1	---	81.7	---
ETHANE.....	10.8	---	---	3.4	---	9.0	---
PROpane.....	4.8	---	---	3.6	---	3.7	---
N-BUTANE.....	0.9	---	---	1.0	---	1.1	---
ISOBUTANE.....	0.7	---	---	0.4	---	0.3	---
N-PENTANE.....	0.2	---	---	0.1	---	TRACE	---
ISOPENTANE.....	TRACE	---	---	0.5	---	0.9	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	0.1	---
HEXANES PLUS.....	0.1	---	---	0.2	---	0.2	---
NITROGEN.....	0.8	---	---	2.4	---	2.7	---
OXYGEN.....	0.0	---	---	0.0	---	TRACE	---
ARGON.....	0.0	---	---	0.0	---	TRACE	---
HYDROGEN.....	0.0	---	---	0.0	---	TRACE	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	0.1	---
HELIUM.....	0.02	---	---	0.10	---	0.10	---
HEATING VALUE.....	1214	---	---	1173	---	1185	---
SPECIFIC GRAVITY.....	0.692	---	---	0.682	---	0.693	---
		INDEX SAMPLE	10963 14117	INDEX SAMPLE	10964 1267	INDEX SAMPLE	10965 16448
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WARD			WARD		WARD	
FIELD.....	MONROE, DEEP			NOT GIVEN		NOT GIVEN	
WELL NAME.....	ROMONE UNIT NO. 1			HUTCHINS CATTLE ASSOC.		JANELLE EDWARDS NO. 5	
LOCATION.....	SEC. 3, BLK. 1, W&NW SUR.			SEC. 47		SEC. 3, BLK. B-20, PSL SUR.	
OWNER.....	AMARILLO OIL CO.			GULF PRODUCTION CO.		SOUTHLAND ROYALTY CO.	
COMPLETED.....	02/18/73			--/700		03/09/82	
SAMPLED.....	07/30/74			05/17/26		03/09/82	
FORMATION.....	PENN-ATOKA			-LIME		PERM-TUBB	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	14814			NOT GIVEN		4888	
WELLHEAD PRESSURE, PSIG.....	3000			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	400			1000		2213	
COMPONENT, MOLE PCT							
METHANE.....	97.7	---	---	30.7	---	84.6	---
ETHANE.....	0.7	---	---	58.3	---	8.1	---
PROpane.....	0.1	---	---	---	---	3.6	---
N-BUTANE.....	0.0	---	---	---	---	1.0	---
ISOBUTANE.....	0.0	---	---	---	---	0.4	---
N-PENTANE.....	0.0	---	---	---	---	0.3	---
ISOPENTANE.....	0.0	---	---	---	---	0.2	---
CYCLOPENTANE.....	0.0	---	---	---	---	0.1	---
HEXANES PLUS.....	0.0	---	---	---	---	0.2	---
NITROGEN.....	0.4	---	---	2.9	---	1.4	---
OXYGEN.....	TRACE	---	---	---	---	TRACE	---
ARGON.....	TRACE	---	---	---	---	0.0	---
HYDROGEN.....	0.0	---	---	---	---	TRACE	---
HYDROGEN SULFIDE.....	0.0	---	---	---	---	0.0	---
CARBON DIOXIDE.....	1.1	---	---	0.6	---	0.1	---
HELIUM.....	0.01	---	---	TRACE	---	0.03	---
HEATING VALUE.....	1005	---	---	1065	---	1176	---
SPECIFIC GRAVITY.....	0.571	---	---	0.896	---	0.673	---
		INDEX SAMPLE	10966 5865	INDEX SAMPLE	10967 15342	INDEX SAMPLE	10968 12789
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WARD			WARD		WARD	
FIELD.....	PAYTON			PHANTOM		POQUITO	
WELL NAME.....	BRANDENBERG NO. 1-B			LEE #128" NO. 1		P. WALKER ET AL. NO. 2	
LOCATION.....	SEC. 1, BLK. 32, H&TC SUR.			SEC. 1, BLK. 34, H&TC SUR.		SEC. 1, BLK. A, J. WILSON SUR.	
OWNER.....	CITIES SERVICE OIL CO.			HNG OIL CO.		GULF OIL CORP.	
COMPLETED.....	03/21/55			05/19/78		07/16/65	
SAMPLED.....	06/21/55			08/04/78		04/14/71	
FORMATION.....	ORDO-ELLENBURGER			PENN-ATOKA		PERM-DELAWARE	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	10086			14933		5090	
WELLHEAD PRESSURE, PSIG.....	3283			700		700	
OPEN FLOW, MCFD.....	19			7700		1900	
COMPONENT, MOLE PCT							
METHANE.....	86.1	---	---	95.7	---	89.4	---
ETHANE.....	5.8	---	---	2.3	---	5.1	---
PROpane.....	2.8	---	---	0.4	---	1.1	---
N-BUTANE.....	1.3	---	---	0.1	---	0.3	---
ISOBUTANE.....	0.6	---	---	TRACE	---	0.4	---
N-PENTANE.....	0.7	---	---	TRACE	---	TRACE	---
ISOPENTANE.....	0.1	---	---	TRACE	---	0.2	---
CYCLOPENTANE.....	0.2	---	---	TRACE	---	0.1	---
HEXANES PLUS.....	0.7	---	---	0.1	---	0.2	---
NITROGEN.....	1.5	---	---	0.7	---	3.0	---
OXYGEN.....	TRACE	---	---	0.0	---	0.1	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.1	---	---	TRACE	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.1	---	0.1	---
HELIUM.....	0.10	---	---	0.01	---	0.02	---
HEATING VALUE.....	1187	---	---	1030	---	1072	---
SPECIFIC GRAVITY.....	0.683	---	---	0.580	---	0.626	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 10969 SAMPLE 11931			INDEX 10970 SAMPLE 15961			INDEX 10971 SAMPLE 13108		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WARD		WARD			WARD		
FIELD.....	GYOTE		GYOTE			GYOTE		
WELL NAME.....	W. G. U. NO. 7-1		W. G. U. NO. 1			W. G. U. NO. 1		
LOCATION.....	BLK. 16		SEC. 181, BLK. 34, H&TC SUR.			SEC. 210, BLK. 34, H&TC SUR.		
OWNER.....	HUMBLE OIL & REFINING CO.		EXXON CO., U.S.A.			AMERICAN QUASAR PET. CO.		
COMPLETED.....	06/12/69		06/19/79			06/11/71		
SAMPLED.....	06/13/69		05/15/80			11/30/71		
FORMATION.....	DEVON		SILU-FUSSELMAN			SILU-FUSSELMAN		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	12729		17735			14655		
WELLHEAD PRESSURE, PSIG.....	598		4915			5861		
OPEN FLOW, MCFO.....	3500		23440			16000		
COMPONENT, MOLE PCT.....								
METHANE.....	92.8		94.3			93.7		
ETHANE.....	3.3		0.5			0.4		
PROpane.....	0.1		0.1			0.1		
N-BUTANE.....	0.3		0.1			0.0		
ISOBUTANE.....	TRACE		TRACE			0.0		
N-PENTANE.....	0.2		TRACE			0.0		
ISOPENTANE.....	0.1		0.0			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.1		0.1			0.0		
NITROGEN.....	0.4		0.4			0.7		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.7		4.5			4.9		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1060		972			959		
SPECIFIC GRAVITY.....	0.615		0.605			0.608		
INDEX 10972 SAMPLE 13573			INDEX 10973 SAMPLE 15044			INDEX 10974 SAMPLE 14265		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WARD		WARD			WARD		
FIELD.....	QUITO		QUITO			QUITO E		
WELL NAME.....	SABINE G-U. NO. 1		PIONEER GP, STATE NO. 1			UNIV. NO. 1		
LOCATION.....	SEC. 196, BLK. 34, H&TC SUR.		SEC. 226, BLK. 34, H&TC SUR.			SEC. 51, BLK. 18		
OWNER.....	AMERICAN QUASAR PET. CO.		AMARILL OIL CO.			GULF OIL CO.- U.S.		
COMPLETED.....	--/--/00		09/25/76			08/30/74		
SAMPLED.....	04/04/73		06/27/77			02/--/75		
FORMATION.....	SILU-FUSSELMAN		PENN-ATOKA			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	17207		15378			14300		
WELLHEAD PRESSURE, PSIG.....	15220		15220			10117		
OPEN FLOW, MCFO.....	35000		11600			11500		
COMPONENT, MOLE PCT.....								
METHANE.....	60.7		97.7			96.7		
ETHANE.....	0.3		0.5			1.9		
PROpane.....	0.1		0.1			0.3		
N-BUTANE.....	TRACE		TRACE			TRACE		
ISOBUTANE.....	0.1		TRACE			0.1		
N-PENTANE.....	0.0		TRACE			TRACE		
ISOPENTANE.....	TRACE		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			0.1		
NITROGEN.....	0.5		0.5			0.5		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.4		0.0			0.0		
CARBON DIOXIDE.....	37.0		0.0			0.3		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	634		1001			1034		
SPECIFIC GRAVITY.....	0.933		0.569			0.578		
INDEX 10975 SAMPLE 14429			INDEX 10976 SAMPLE 14430			INDEX 10977 SAMPLE 11446		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WARD		WARD			WARD		
FIELD.....	QUITO E		QUITO E			WALKER		
WELL NAME.....	WALKER NO. 2		WALKER NO. 2			WALKER NO. 2		
LOCATION.....	SEC. 40, A. J. WILSON SUR.		SEC. 40, A. J. WILSON SUR.			SEC. 118, BLK 34, H&TC SUR.		
OWNER.....	GULF OIL CO.- U.S.		GULF OIL CO.- U.S.			RODEN OIL CO.		
COMPLETED.....	08/01/74		08/01/74			08/22/67		
SAMPLED.....	08/07/75		08/07/75			04/08/68		
FORMATION.....	SILU-FUSSELMAN		ORDO-ELLENBURGER			ORDO-ELLENBURGER		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	17095		19370			20306		
WELLHEAD PRESSURE, PSIG.....	5400		3400			6400		
OPEN FLOW, MCFO.....	43000		11720			105000		
COMPONENT, MOLE PCT.....								
METHANE.....	94.1		98.0			85.5		
ETHANE.....	0.5		0.2			0.7		
PROpane.....	0.0		0.1			0.2		
N-BUTANE.....	TRACE		0.0			0.1		
ISOBUTANE.....	TRACE		0.0			0.1		
N-PENTANE.....	TRACE		0.0			TRACE		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.1		
HEXANES PLUS.....	TRACE		0.0			0.2		
NITROGEN.....	0.6		0.4			3.0		
OXYGEN.....	0.0		0.0			0.6		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	4.6		1.2			9.4		
HELIUM.....	0.01		0.02			0.02		
HEATING VALUE.....	905		0.569			905		
SPECIFIC GRAVITY.....	0.605					0.676		
INDEX 10978 SAMPLE 12148			INDEX 10979 SAMPLE 12149			INDEX 10980 SAMPLE 15724		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WARD		WARD			WARD		
FIELD.....	ROC		ROC			RODGERS		
WELL NAME.....	CAPRITO NO. 82-1		CAPRITO NO. 82-1			RODGERS NO. 1		
LOCATION.....	SEC. 82, BLK. F, G&MMB&A SUR		SEC. 82, BLK. F, G&MMB&A SUR			SEC. 95, BLK. F, G&MMB&A		
OWNER.....	RODEN OIL CO.		RODEN OIL CO.			MONSANTO CO.		
COMPLETED.....	01/25/69		01/25/69			05/--/78		
SAMPLED.....	12/15/69		12/15/69			08/03/79		
FORMATION.....	ORDO-ELLENBURGER & MONTOYA		DEVON			ORDO-ELLENBURGER		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	14105		13265			18290		
WELLHEAD PRESSURE, PSIG.....	4624		4809			6200		
OPEN FLOW, MCFO.....	11750		26000			16311		
COMPONENT, MOLE PCT.....								
METHANE.....	96.7		93.5			97.1		
ETHANE.....	1.1		2.1			1.2		
PROpane.....	0.4		0.5			0.3		
N-BUTANE.....	0.1		0.1			0.2		
ISOBUTANE.....	0.1		TRACE			TRACE		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.0		0.0			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.4		0.7			0.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.6			0.6		
HELIUM.....	0.03		0.01			0.02		
HEATING VALUE.....	1030		1015			1033		
SPECIFIC GRAVITY.....	0.581		0.605			0.580		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	10981 12794	INDEX SAMPLE	10982 5559	INDEX SAMPLE	10983 2030
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WARD			WARD		WARD	
FIELD.....	SAND HILLS W			SCOTT		SHIPLEY	
WELL NAME.....	W. A. ESTES NO. 70 D			C. MONROE NO. 1		HAZLETTE NO. 4	
LOCATION.....	SEC. 21, BLK. 8-20, PSL SUR.			SEC. 12, BLK. 33, H&TC SUR.		SEC. 17, BLK. 5, H&TC SUR.	
OWNER.....	GULF OIL CO.- U.S.			CONITMENTAL OIL CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	01/15/64			02/-/53		12/01/29	
SAMPLED.....	04/28/71			10/22/53		06/10/30	
FORMATION.....	DEVCO			PERM-DELAWARE		PERM-QUEEN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	6200			4800		2500	
WELLHEAD PRESSURE, PSIG.....	758			2000		6	
OPEN FLOW, MCFD.....	39000			1800		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	89.9			88.8		46.3	
ETHANE.....	4.8			5.1		46.6	
PROPANE.....	1.9			2.1			
N-BUTANE.....	0.6			0.6			
ISOBUTANE.....	0.3			0.2			
N-PENTANE.....	0.2			0.2			
ISOPENTANE.....	0.1			0.1			
CYCLOPENTANE.....	0.1			0.1			
HEXANES PLUS.....	0.2			0.1			
NITROGEN.....	1.0			2.5		6.0	
OXYGEN.....	0.0			TRACE		0.4	
ARGON.....	0.0			0.0			
HYDROGEN.....	0.0			0.1			
HYDROGEN SULFIDE.....	0.0			0.0			
CARBON DIOXIDE.....	0.0			0.0		0.7	
HELIUM.....	0.01			0.04		0.00	
HEATING VALUE.....	1103			1094		1304	
SPECIFIC GRAVITY.....	0.638			0.632		0.819	
		INDEX SAMPLE	10984 15298	INDEX SAMPLE	10985 15352	INDEX SAMPLE	10986 13755
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WARD			WARD		WARD	
FIELD.....	SODA LAKE			WAR-WINK		WAR-WINK S	
WELL NAME.....	W. B. PRUETT NO. 1			UNIV. 9-18 NO. 2		UNIV. 1-6 NO. 1	
LOCATION.....	SEC. 23, BLK. 1, W&NW RR CO.			SEC. 9, BLK. 18, UNIV. LD. SUR.		SEC. 6, BLK. 18, UNIV. LANDS SUR.	
OWNER.....	GULF OIL EXPL. & PROD. CO.			GETTY OIL CO.		HNG OIL CO.	
COMPLETED.....	02/07/77			08/27/76		07/21/72	
SAMPLED.....	06/02/78			08/25/78		10/12/73	
FORMATION.....	SILU-FUSSELMAN			PENN-ATOKA		SILU-FUSSELMAN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	19100			13839		17686	
WELLHEAD PRESSURE, PSIG.....	6040			2750		5500	
OPEN FLOW, MCFD.....	46800			4000		2250	
COMPONENT, MOLE PCT							
METHANE.....	94.1			94.2		94.0	
ETHANE.....	0.3			3.5		0.5	
PROPANE.....	TRACE			0.8		0.1	
N-BUTANE.....	TRACE			0.2		TRACE	
ISOBUTANE.....	TRACE			0.1		TRACE	
N-PENTANE.....	TRACE			TRACE		TRACE	
ISOPENTANE.....	TRACE			0.1		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		TRACE	
NITROGEN.....	0.6			0.4		0.7	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.1		0.0	
HYDROGEN SULFIDE.....	0.4			0.0		0.5	
CARBON DIOXIDE.....	4.4			0.6		4.1	
HELIUM.....	0.02			0.01		0.01	
HEATING VALUE.....	966			1058		267	
SPECIFIC GRAVITY.....	0.606			0.596		0.603	
		INDEX SAMPLE	10987 13756	INDEX SAMPLE	10988 14414	INDEX SAMPLE	10989 2031
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WARD			WARD		WARD	
FIELD.....	WAR-WINK S			WAR-WINK S		WAR-WINK S	
WELL NAME.....	UNIV. 1-6 NO. 1			UNIV. 10-18 NO. 2		BENNET NO. A-1, OIL WELL	
LOCATION.....	SEC. 6, BLK. 18, UNIV. LANDS SUR.			SEC. 10, BLK. 18, UL SUR.		SEC. 16, BLK. 14, H&TC SUR.	
OWNER.....	HNG OIL CO.			SEELY OIL CO.		ATLANTIC RICHFIELD CO.	
COMPLETED.....	07/20/72			03/26/74		12/16/29	
SAMPLED.....	07/12/73			07/15/75		06/09/30	
FORMATION.....	ORDO-ELLENBURGER			PERM-WICHITA-ALBANY		PERM-YATES & SEVEN RIVERS	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	20133			11866		2348	
WELLHEAD PRESSURE, PSIG.....	0.03			7713		NOT GIVEN	
OPEN FLOW, MCFD.....	1080			2300		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	96.8			83.1		51.0	
ETHANE.....	1.2			9.4		43.8	
PROPANE.....	0.4			4.0			
N-BUTANE.....	0.1			0.9			
ISOBUTANE.....	0.2			0.4			
N-PENTANE.....	TRACE			0.1			
ISOPENTANE.....	0.1			0.2			
CYCLOPENTANE.....	TRACE			TRACE			
HEXANES PLUS.....	0.1			0.1			
NITROGEN.....	0.3			1.8		4.8	
OXYGEN.....	0.0			0.0		0.2	
ARGON.....	TRACE			TRACE			
HYDROGEN.....	0.0			0.0			
HYDROGEN SULFIDE.....	0.0			0.0			
CARBON DIOXIDE.....	0.7			0.1		0.2	
HELIUM.....	0.02			0.02		0.03	
HEATING VALUE.....	1032			1176		1302	
SPECIFIC GRAVITY.....	0.581			0.678		0.794	
		INDEX SAMPLE	10990 12799	INDEX SAMPLE	10991 12800	INDEX SAMPLE	10992 15054
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WARD			WARD		WARD	
FIELD.....	NORTH CENTRAL GAS UNIT NO. 1			WARD S		WILDCAT	
WELL NAME.....	SEC. 19, BLK. 8-29, PSL SUR.			DEAN MILLER NO. 3		ROBERTSON #138# NO. 1	
LOCATION.....	GULF OIL CO.- U.S.			SEC. 16, BLK. 8-29, PSL SUR.		SEC. 138, BLK. 34, H&TC SUR.	
OWNER.....	GULF OIL CO.- U.S.			GULF OIL CO.- U.S.		HNG OIL CO.	
COMPLETED.....	06/31/64			04/28/71		11/27/76	
SAMPLED.....	04/28/71			04/28/71		07/-/77	
FORMATION.....	PENN-LIME U			PENN-DETRITAL U		ORDO-ELLENBURGER	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	7341			7680		20823	
WELLHEAD PRESSURE, PSIG.....	440			360		4120	
OPEN FLOW, MCFD.....	307			680		24300	
COMPONENT, MOLE PCT							
METHANE.....	84.1			78.5		59.4	
ETHANE.....	8.0			12.3		8.3	
PROPANE.....	1.3			1.9		8.4	
N-BUTANE.....	1.1			1.2		4.2	
ISOBUTANE.....	0.6			0.6		2.9	
N-PENTANE.....	0.4			0.3		0.9	
ISOPENTANE.....	0.1			0.2		2.7	
CYCLOPENTANE.....	0.1			0.1		0.0	
HEXANES PLUS.....	0.2			0.2		1.0	
NITROGEN.....	1.0			0.7		11.5	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.0		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		0.5	
HELIUM.....	0.02			0.01		0.01	
HEATING VALUE.....	1200			1200		1413	
SPECIFIC GRAVITY.....	0.684			0.721		0.934	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 10993 1727	INDEX SAMPLE 10994 17720	INDEX SAMPLE 10995 17723
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WINK		WASHINGTON	WEBB
FIELD.....	SEELY RANCH NO. 1		W. M. HUTCHINGS EST. NO. 1	AGUA AZUL
WELL NAME.....	SEC. 95, BLK. A, GMMB&A SUR.		SUSANNAH CLAMPITT SUR. A-26	BORUGLI NO. 3
LOCATION.....	PRAIRIE OIL & GAS CO.		CLAYTON W. WILLIAMS, JR.	U. V. BOREGD GRANT, A-563
OWNER.....	11/30/85		06/17/85	TDC ENGINEERING, INC.
COMPLETED.....	03/29/89		06/17/85	11/30/85
SAMPLED.....	NOT GIVEN		CRET-AUSTIN CHALK	06/19/85
FORMATION.....	220		220	EOCE-WILCOX L
GEOLOGIC PROVINCE CODE.....	430		12227	220
DEPTH, FEET.....	2770		10499	10499
WELLHEAD PRESSURE, PSIG.....	1100		4500	1475
OPEN FLOW, MCFD.....	5212		2013	12000
COMPONENT, MOLE PCT				
METHANE.....	78.3	84.7	93.2	
ETHANE.....	17.0	5.3	2.9	
PROPANE.....	---	1.1	0.5	
N-BUTANE.....	---	0.4	0.1	
ISOBUTANE.....	---	0.4	0.1	
N-PENTANE.....	---	0.3	0.1	
ISOPENTANE.....	---	0.0	TRACE	
CYCLOPENTANE.....	---	0.1	TRACE	
HEXANES PLUS.....	---	0.5	0.2	
NITROGEN.....	3.6	1.4	1.3	
OXYGEN.....	0.2	0.2	0.3	
ARGON.....	---	TRACE	TRACE	
HYDROGEN.....	---	TRACE	0.1	
HYDROGEN SULFIDE.....	---	5	0.0	
CARBON DIOXIDE.....	0.9	5.9	1.1	
HELIUM.....	0.02	TRACE	TRACE	
HEATING VALUE.....	1098	1051	1031	
SPECIFIC GRAVITY.....	0.663	0.683	0.600	

		INDEX SAMPLE 10996 15444	INDEX SAMPLE 10997 17903	INDEX SAMPLE 10998 17887
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WEBB		BONEBRAKE	WEBB
FIELD.....	AVIATORS S		J. H. BONEBRAKE NO. 1	BRISCOE
WELL NAME.....	BRUNI-LOPEZ UNIT NO. 1		J. M. SAWYER SUR. 1650, A-24	BRISCOE NO. A-1C
LOCATION.....	KILLAM & HURD, LTD.		FOREST OIL CORP.	BS&F SUR. 985, A-871
OWNER.....	06/08/77		06/07/85	SHR ENERGY CORP.
COMPLETED.....	10/17/78		11/07/85	03/09/85
SAMPLED.....	EOCE-WILCOX		EOCE-LOBO 6	10/22/85
FORMATION.....	220		220	EOCE-LOBO
GEOLOGIC PROVINCE CODE.....	10600		9869	220
DEPTH, FEET.....	7200		4440	8080
WELLHEAD PRESSURE, PSIG.....	5600		7412	4203
OPEN FLOW, MCFD.....				3830
COMPONENT, MOLE PCT				
METHANE.....	84.0	85.0	83.6	
ETHANE.....	7.3	7.0	7.0	
PROPANE.....	2.3	2.6	3.9	
N-BUTANE.....	0.4	0.8	1.3	
ISOBUTANE.....	0.6	0.6	0.6	
N-PENTANE.....	0.2	0.5	0.5	
ISOPENTANE.....	0.2	0.1	0.5	
CYCLOPENTANE.....	0.1	0.2	0.2	
HEXANES PLUS.....	0.3	0.6	0.6	
NITROGEN.....	0.2	0.5	0.2	
OXYGEN.....	0.0	TRACE	TRACE	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.1	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	4.4	1.7	1.5	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1112	1169	1219	
SPECIFIC GRAVITY.....	0.689	0.685	0.709	

		INDEX SAMPLE 10999 15840	INDEX SAMPLE 11000 1908	INDEX SAMPLE 11001 16487
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WEBB		WEBB	WEBB
FIELD.....	BRUNI NE		BRUNI NW	CALLAGHAN W
WELL NAME.....	DEBENAVIDES NO. 1		DEBENAVIDES NO. 1	W. M. MCLEOD NO. 1
LOCATION.....	M. ARISPE GRANT A-850		NOT GIVEN	SEC. 525, AB&M SUR., A-1978
OWNER.....	HUGHES & HUGHES OIL & GAS		MAGNOLIA PETROLEUM CO.	MOBIL PROD., TX & NM, INC.
COMPLETED.....	01/26/79		12/12/29	01/23/81
SAMPLED.....	11/20/79		12/12/29	03/31/82
FORMATION.....	EOCE-		-SAND	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	10354		2800	6492
WELLHEAD PRESSURE, PSIG.....	6920		750	3161
OPEN FLOW, MCFD.....	10000		NOT GIVEN	7500
COMPONENT, MOLE PCT				
METHANE.....	89.8	98.6	92.8	
ETHANE.....	0.4	0.0	3.4	
PROPANE.....	TRACE	---	1.6	
N-BUTANE.....	0.1	---	0.5	
ISOBUTANE.....	0.0	---	0.3	
N-PENTANE.....	0.0	---	0.2	
ISOPENTANE.....	0.0	---	0.2	
CYCLOPENTANE.....	TRACE	---	0.1	
HEXANES PLUS.....	TRACE	---	0.1	
NITROGEN.....	0.2	0.9	0.6	
OXYGEN.....	0.0	0.2	0.5	
ARGON.....	TRACE	---	TRACE	
HYDROGEN.....	0.0	---	0.0	
HYDROGEN SULFIDE.....	0.0	---	0.0	
CARBON DIOXIDE.....	9.4	0.3	0.3	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	920	1091	1091	
SPECIFIC GRAVITY.....	0.650	0.562	0.616	

		INDEX SAMPLE 11002 17807	INDEX SAMPLE 11003 17090	INDEX SAMPLE 11004 8725
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WEBB		WEBB	WEBB
FIELD.....	CARMON		CASA VERDE	COLE II
WELL NAME.....	R. V. BENAVIDES NO. 28		KILLAM-HURD-AMOCO-RANGE NO. 2	ROSA U. BENAVIDES J NO. 1
LOCATION.....	SEC. 906, C. HOWARD SUR.		OS. SANCHEZ PORCION 22 A-277	NOT GIVEN
OWNER.....	CONOCO, INC.		AMOCO PRODUCTION CO. (USA)	MORGAN MINERALS CORP.
COMPLETED.....	03/07/85		12/24/81	07/22/62
SAMPLED.....	08/07/85		07/17/83	10/15/62
FORMATION.....	EOCE-LOBO 5		NOT GIVEN	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	934		6412	8390
WELLHEAD PRESSURE, PSIG.....	4850		3160	3805
OPEN FLOW, MCFD.....	337		68000	7500
COMPONENT, MOLE PCT				
METHANE.....	84.3	98.1	92.9	
ETHANE.....	7.8	5.1	2.6	
PROPANE.....	2.9	2.0	0.7	
N-BUTANE.....	0.7	0.9	0.2	
ISOBUTANE.....	0.6	0.4	0.2	
N-PENTANE.....	0.3	0.1	TRACE	
ISOPENTANE.....	0.3	0.4	0.1	
CYCLOPENTANE.....	0.1	0.1	TRACE	
HEXANES PLUS.....	0.5	0.3	TRACE	
NITROGEN.....	0.9	0.4	0.1	
OXYGEN.....	0.1	0.0	TRACE	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	TRACE	TRACE	0.1	
HYDROGEN SULFIDE.....	0.0	---	0.0	
CARBON DIOXIDE.....	1.5	0.6	3.1	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1168	1127	1021	
SPECIFIC GRAVITY.....	0.686	0.640	0.610	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 11005 SAMPLE 17813	INDEX 11006 SAMPLE 17850	INDEX 11007 SAMPLE 13539
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WEBB		WEBB	WEBB
FIELD.....	CRYSTAL LOBO		DESPERADO	DOS HERMANOS
WELL NAME.....	EDITH CARR NO. 1		LUNDELL #1 NO. 5	O. S. PETTY NO. 1
LOCATION.....	F. C. JORDAN SUR., 260		CCSD & RGAG SUR. #1-A-1039	SEC. 11, I-GN RR CO. SUR. A-168
OWNER.....	CONOCO, INC.		FOREST OIL CORP.	TESORO PETROLEUM CORP.
COMPLETED.....	18/10/84		04/22/85	08/27/71
SAMPLED.....	08/14/85		09/26/85	02/13/73
FORMATION.....	EOCE-LOBO 6		EOCE-WILCOX & LOBO 6	CRET-OLNOS
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	8614		11251	5150
WELLHEAD PRESSURE, PSIG.....	5650		5300	2000
OPEN FLOW, MCFD.....	5100		26727	7000
COMPONENT, MOLE PCT				
METHANE.....	91.5	91.6	83.4	83.4
ETHANE.....	4.0	4.0	9.1	9.1
PROPANE.....	1.3	0.6	3.6	3.6
N-BUTANE.....	0.4	0.2	1.1	1.1
ISOBUTANE.....	0.3	0.0	0.9	0.9
N-PENTANE.....	0.2	0.3	0.3	0.3
ISOPENTANE.....	TRACE	0.0	0.4	0.4
CYCLOPENTANE.....	0.2	0.1	0.2	0.2
HEXANES PLUS.....	0.5	0.2	0.5	0.5
NITROGEN.....	0.5	0.2	0.5	0.5
OXYGEN.....	0.1	0.0	TRACE	TRACE
ARGON.....	TRACE	TRACE	0.0	0.0
HYDROGEN.....	TRACE	TRACE	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.2	2.9	0.1	0.1
HELIUM.....	TRACE	TRACE	0.02	0.02
HEATING VALUE.....	1098		1232	
SPECIFIC GRAVITY.....	0.633	0.625	0.699	
		INDEX 11008 SAMPLE 14899	INDEX 11009 SAMPLE 11605	INDEX 11010 SAMPLE 11606
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WEBB		WEBB	WEBB
FIELD.....	LAREDO LOBO		LAS TIENDAS	LAS TIENDAS
WELL NAME.....	W. HUBBARD NO. 2		BEASLEY-CONNEVEY NO. 3	BEASLEY-CONNEVEY NO. 3
LOCATION.....	14 MI. SE LAREDO		30 MI. NW LAREDO	30 MI. NW LAREDO
OWNER.....	CONTINENTAL OIL CO.		HUGHES & HUGHES OIL & GAS	HUGHES & HUGHES OIL & GAS
COMPLETED.....	07/15/75		07/23/68	07/24/68
SAMPLED.....	02/08/77		07/23/68	07/24/68
FORMATION.....	EOCE-WILCOX		EOCE-WILCOX	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	8427		3000	3500
WELLHEAD PRESSURE, PSIG.....	1575		1023	1374
OPEN FLOW, MCFD.....	82000		3000	6500
COMPONENT, MOLE PCT				
METHANE.....	90.0	99.0	98.2	98.2
ETHANE.....	5.8	0.2	0.2	0.2
PROPANE.....	0.6	0.0	TRACE	TRACE
N-BUTANE.....	0.3	0.0	0.0	0.0
ISOBUTANE.....	0.4	0.0	0.0	0.0
N-PENTANE.....	0.2	0.0	0.0	0.0
ISOPENTANE.....	0.2	0.0	0.0	0.0
CYCLOPENTANE.....	TRACE	0.0	0.0	0.0
HEXANES PLUS.....	0.2	0.0	0.0	0.0
NITROGEN.....	0.1	0.6	1.3	1.3
OXYGEN.....	0.0	0.1	0.1	0.1
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	TRACE	TRACE	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.2	0.1	0.1	0.1
HELIUM.....	TRACE	0.01	0.02	0.02
HEATING VALUE.....	1108	1006	998	
SPECIFIC GRAVITY.....	0.634	0.559	0.562	
		INDEX 11011 SAMPLE 11607	INDEX 11012 SAMPLE 11609	INDEX 11013 SAMPLE 13608
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WEBB		WEBB	WEBB
FIELD.....	LAS TIENDAS		LAS TIENDAS	LAS TIENDAS
WELL NAME.....	BEASLEY-CONNEVEY NO. 2		BEASLEY-CONNEVEY NO. 2	BOOTH NO. B-2
LOCATION.....	30 MI. NW LAREDO		30 MI. NW LAREDO	J. GALAN SUR. NO. 2292
OWNER.....	HUGHES & HUGHES OIL & GAS		HUGHES & HUGHES OIL & GAS	HUGHES & HUGHES
COMPLETED.....	10/21/67		10/21/67	08/23/71
SAMPLED.....	07/24/68		07/24/68	06/04/73
FORMATION.....	EOCE-WILCOX		EOCE-WILCOX	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	3250		400	2833
WELLHEAD PRESSURE, PSIG.....	1295		1295	464
OPEN FLOW, MCFD.....	10500		NOT GIVEN	5000
COMPONENT, MOLE PCT				
METHANE.....	98.9	98.8	97.7	97.7
ETHANE.....	0.3	0.2	0.2	0.2
PROPANE.....	0.0	TRACE	0.1	0.1
N-BUTANE.....	0.2	0.0	0.1	0.1
ISOBUTANE.....	0.0	0.0	0.2	0.2
N-PENTANE.....	0.0	0.0	0.1	0.1
ISOPENTANE.....	0.0	0.0	0.1	0.1
CYCLOPENTANE.....	0.0	0.0	0.1	0.1
HEXANES PLUS.....	0.0	0.0	0.2	0.2
NITROGEN.....	0.4	1.0	1.0	1.0
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	0.0	0.0	0.0	0.0
HYDROGEN.....	TRACE	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	TRACE	0.2	0.2
HELIUM.....	0.01	0.02	0.01	0.01
HEATING VALUE.....	1014	1004	1029	
SPECIFIC GRAVITY.....	0.563	0.560	0.578	
		INDEX 11014 SAMPLE 13609	INDEX 11015 SAMPLE 16221	INDEX 11016 SAMPLE 17047
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WEBB		WEBB	WEBB
FIELD.....	LAS TIENDAS		LINCOLN	NICHOLSON
WELL NAME.....	BEASLEY-CONNEVEY NO. 7		LINCOLN ESTATE NO. 1	NICHOLSON NO. 2
LOCATION.....	G. SCHWARTZ SUR. NO. 97		M. LOPEZ NO. 282 SUR. A-2111	SUR. 985
OWNER.....	HUGHES & HUGHES		HUGHES & HUGHES OIL & GAS	M. L. COTTON
COMPLETED.....	11/29/70		08/07/80	11/27/71
SAMPLED.....	06/04/73		03/30/81	05/01/59
FORMATION.....	EOCE-WILCOX		EOCE-WILCOX	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	2582		7476	5465
WELLHEAD PRESSURE, PSIG.....	508		3477	2200
OPEN FLOW, MCFD.....	390		66000	5400
COMPONENT, MOLE PCT				
METHANE.....	97.9	88.5	90.9	90.9
ETHANE.....	0.4	5.7	5.2	5.2
PROPANE.....	0.3	0.6	1.9	1.9
N-BUTANE.....	TRACE	0.5	0.4	0.4
ISOBUTANE.....	0.2	0.2	0.4	0.4
N-PENTANE.....	TRACE	0.2	0.1	0.1
ISOPENTANE.....	TRACE	0.3	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.2	TRACE	TRACE
NITROGEN.....	0.0	0.4	0.0	0.0
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	1.0	0.7	0.7
HELIUM.....	0.01	TRACE	0.02	0.02
HEATING VALUE.....	1113	1138	1113	
SPECIFIC GRAVITY.....	0.567	0.654	0.629	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

	INDEX SAMPLE	11026 11608		INDEX SAMPLE	11027 5021		INDEX SAMPLE	11028 11146
STATE.....	TEXAS		STATE.....	TEXAS		STATE.....	TEXAS	
COUNTY.....	WEBB		COUNTY.....	WHARTON		COUNTY.....	WHARTON	
FIELD.....	WILCOAT		FIELD.....	BERNARD W		FIELD.....	BLUE BASIN	
WELL NAME.....	PALCOX EXP. CO. NO- 12-1		WELL NAME.....	8 PALCOX W. MACK NO. 1		WELL NAME.....	ANALYST RULT NO. 1	
LOCATION.....	40 MI. NW LAREDO		LOCATION.....	JOHN F. STEPHENS SUR. A-415		LOCATION.....	JOS. HYLAND SUR. A-626	
OWNER.....	HUGHES & HUGHES OIL & GAS		OWNER.....	TIDEWATER ASSOC. OIL CO.		OWNER.....	HAAS BROTHERS	
DATE.....	07/24/68		DATE.....	11/15/60		DATE.....	07/22/67	
SAMPLED.....	07/24/68		SAMPLED.....	03/05/51		SAMPLED.....	10/04/67	
FORMATION.....	EOCE-WILCOX		FORMATION.....	EOCE-CLODINE		FORMATION.....	OLIG-5900 FT. SAND	
LOGIC PROVINCE CODE	220		LOGIC PROVINCE CODE	220		LOGIC PROVINCE CODE	220	
DEPTH, FEET.....	2800		DEPTH, FEET.....	7086		DEPTH, FEET.....	5901	
WELLHEAD PRESSURE, PSIG.....	1105		WELLHEAD PRESSURE, PSIG.....	3434		WELLHEAD PRESSURE, PSIG.....	2053	
OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	13900		OPEN FLOW, MCFD.....	9600	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	97.2		METHANE.....	90.2		METHANE.....	99.0	
ETHANE.....	0.2		ETHANE.....	6.3		ETHANE.....	0.3	
PROPANE.....	0.1		PROPANE.....	2.1		PROPANE.....	TRACE	
N-BUTANE.....	0.0		N-BUTANE.....	0.6		N-BUTANE.....	0.0	
ISOBUTANE.....	0.0		ISOBUTANE.....	0.0		ISOBUTANE.....	0.0	
N-PENTANE.....	0.0		N-PENTANE.....	0.3		N-PENTANE.....	0.0	
ISOPENTANE.....	0.0		ISOPENTANE.....	0.1		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	0.0		HEXANES PLUS.....	0.3		HEXANES PLUS.....	0.0	
NITROGEN.....	2.2		NITROGEN.....	0.0		NITROGEN.....	0.6	
OXYGEN.....	0.0		OXYGEN.....	0.1		OXYGEN.....	0.0	
ARGON.....	0.1		ARGON.....	TRACE		ARGON.....	0.0	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	TRACE	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.5		CARBON DIOXIDE.....	TRACE	
HELIUM.....	0.01		HELIUM.....	TRACE		HELIUM.....	0.01	
HEATING VALUE.....	1391		HEATING VALUE.....	1330		HEATING VALUE.....	10008	
SPECIFIC GRAVITY.....	0.571		SPECIFIC GRAVITY.....	0.639		SPECIFIC GRAVITY.....	0.558	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11029 11147	INDEX SAMPLE	11030 15389	INDEX SAMPLE	11031 13390
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHARTON			WHARTON		WHARTON	
FIELD.....	BLUE BASIN			BLUE BASIN		BONUS	
WELL NAME.....	ANNA SHULT NO. 1			G. A. DUFFY "B" NO. 3		C. C. BOETTCHER UNIT NO. 1	
LOCATION.....	JOS. HYLAND SUR. A-626			S. OF PIERCE		JOSEPH NEWMAN SUR. A-48	
OWNER.....	HAAS BROTHERS			TEXACO INC.		TEXAS OIL & GAS CORP.	
COMPLETED.....	07/22/66			02/21/76		06/20/71	
SAMPLED.....	10/04/67			09/29/78		09/21/72	
FORMATION.....	OL16-CH-1			OL16-FR10		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	5842			4522		7566	
WELLHEAD PRESSURE, PSIG.....	1727			1795		2500	
OPEN FLOW, MCFD.....	17700			109000		8350	
COMPONENT, MOLE PCT							
METHANE.....	99.1	-----		96.4	-----	89.7	-----
ETHANE.....	0.3	-----		0.2	-----	5.6	-----
PROpane.....	TRACE	-----		0.0	-----	2.3	-----
N-BUTANE.....	0.0	-----		0.1	-----	0.5	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.5	-----
N-PENTANE.....	0.0	-----		TRACE	-----	0.1	-----
ISOPENTANE.....	0.0	-----		TRACE	-----	0.2	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.0	-----		0.1	-----	0.1	-----
NITROGEN.....	0.5	-----		2.5	-----	0.1	-----
OXYGEN.....	0.0	-----		0.4	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.8	-----
HELIUM.....	0.01	-----		0.01	-----	TRACE	-----
HEATING VALUE.....	1009	-----		989	-----	1124	-----
SPECIFIC GRAVITY.....	0.559	-----		0.572	-----	0.639	-----
		INDEX SAMPLE	11032 12562	INDEX SAMPLE	11033 5150	INDEX SAMPLE	11034 4549
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHARTON			WHARTON		WHARTON	
FIELD.....	DASOVAL			DUFFY		EGYPT	
WELL NAME.....	GUS LILLIE NO. 1			DUFFY NO. 1		DUNCAN NO. 1	
LOCATION.....	SEC. 73, ETRR CO. SUR. A-130			NOT GIVEN		ALEX EDGAR SUR.	
OWNER.....	NAFCO OIL & GAS INC.			F. WILLIAM CARR		CLAUDE B. HAMILL	
COMPLETED.....	05/17/69			01/10/51		02/10/48	
SAMPLED.....	12/01/70			11/30/51		06/11/48	
FORMATION.....	OL16-FR10			NOT GIVEN		EOCE-YEGUA	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6210			NOT GIVEN		6720	
WELLHEAD PRESSURE, PSIG.....	1800			2295		2400	
OPEN FLOW, MCFD.....	7600			30000		1000	
COMPONENT, MOLE PCT							
METHANE.....	94.7	-----		96.3	-----	69.3	-----
ETHANE.....	3.0	-----		2.1	-----	21.4	-----
PROpane.....	1.0	-----		0.4	-----	---	-----
N-BUTANE.....	0.2	-----		0.1	-----	---	-----
ISOBUTANE.....	0.3	-----		TRACE	-----	---	-----
N-PENTANE.....	0.0	-----		0.0	-----	---	-----
ISOPENTANE.....	0.2	-----		0.1	-----	---	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	---	-----
HEXANES PLUS.....	0.1	-----		0.0	-----	---	-----
NITROGEN.....	0.3	-----		0.6	-----	8.4	-----
OXYGEN.....	0.0	-----		0.1	-----	0.2	-----
ARGON.....	TRACE	-----		TRACE	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.3	-----	---	-----
CARBON DIOXIDE.....	0.2	-----		0.01	-----	0.7	-----
HELIUM.....	0.01	-----		0.32	-----	1086	-----
HEATING VALUE.....	1073	-----		0.578	-----	0.703	-----
SPECIFIC GRAVITY.....	0.599	-----					
		INDEX SAMPLE	11035 13728	INDEX SAMPLE	11036 4347	INDEX SAMPLE	11037 9595
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHARTON			WHARTON		WHARTON	
FIELD.....	EGYPT			EL CAMPO		HILLIE	
WELL NAME.....	F.B. DUNCAN NO. 1-C			R. HOLUB		MILLER NO. 1	
LOCATION.....	SEC. 48, EDGAR SUR. A-93			SEC. 48, W.D. IVEY A-516 SUR		SEC. 76, BAGNAL SUR. A-501	
OWNER.....	MCCORMICK OIL & GAS CORP.			SEABOARD OIL CO.		ARMOUR PROPERTIES	
COMPLETED.....	01/09/71			06/30/47		03/13/63	
SAMPLED.....	05/26/73			09/02/47		10/07/64	
FORMATION.....	OL16-FR10			OL16-FR10		OL16-FR10	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	2773			6094		6970	
WELLHEAD PRESSURE, PSIG.....	755			2405		2625	
OPEN FLOW, MCFD.....	7676			6500		105000	
COMPONENT, MOLE PCT							
METHANE.....	98.8	-----		90.8	-----	93.1	-----
ETHANE.....	0.1	-----		7.8	-----	3.9	-----
PROpane.....	0.1	-----		---	-----	1.3	-----
N-BUTANE.....	0.0	-----		---	-----	0.4	-----
ISOBUTANE.....	0.0	-----		---	-----	0.4	-----
N-PENTANE.....	0.0	-----		---	-----	0.1	-----
ISOPENTANE.....	0.0	-----		---	-----	0.2	-----
CYCLOPENTANE.....	0.0	-----		---	-----	0.1	-----
HEXANES PLUS.....	0.0	-----		---	-----	0.2	-----
NITROGEN.....	0.8	-----		0.6	-----	0.1	-----
OXYGEN.....	0.1	-----		0.6	-----	0.0	-----
ARGON.....	TRACE	-----		---	-----	0.0	-----
HYDROGEN.....	TRACE	-----		---	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.2	-----	0.2	-----
HELIUM.....	0.01	-----		0.01	-----	TRACE	-----
HEATING VALUE.....	1005	-----		1060	-----	1100	-----
SPECIFIC GRAVITY.....	0.561	-----		0.601	-----	0.614	-----
		INDEX SAMPLE	11038 10881	INDEX SAMPLE	11039 13958	INDEX SAMPLE	11040 15267
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHARTON			WHARTON		WHARTON	
FIELD.....	HOLUB			HUNGERFORD		HUNGERFORD E	
WELL NAME.....	EDMUND HOLUB NO. 1-U			G. C. DUNCAN NO. 2		CARL HOSHAN NO. 1	
LOCATION.....	SEC. 38, E. C. OGDEN SUR.			HUGH ROGERS SUR. A-325		146N RR SUR. A-285	
OWNER.....	PERCY R. BASS, INC.			TEXACO OIL & GAS CORP.		CADDO OIL CO., INC.	
COMPLETED.....	03/30/66			03/08/72		09/18/76	
SAMPLED.....	03/03/67			03/07/74		04/19/78	
FORMATION.....	OL16-FR10			MIOC-3000 FT. SAND		MIOC-	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	6356			3048		3165	
WELLHEAD PRESSURE, PSIG.....	2279			594		1057	
OPEN FLOW, MCFD.....	20200			8400		7002	
COMPONENT, MOLE PCT							
METHANE.....	94.4	-----		98.2	-----	98.3	-----
ETHANE.....	1.0	-----		TRACE	-----	0.1	-----
PROpane.....	0.6	-----		TRACE	-----	0.0	-----
N-BUTANE.....	0.1	-----		0.0	-----	0.0	-----
ISOBUTANE.....	0.1	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		0.0	-----	0.0	-----
NITROGEN.....	1.1	-----		1.6	-----	1.1	-----
OXYGEN.....	0.2	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.4	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1045	-----		995	-----	1000	-----
SPECIFIC GRAVITY.....	0.592	-----		0.563	-----	0.564	-----

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11041 SAMPLE 4719			INDEX 11042 SAMPLE 13381			INDEX 11043 SAMPLE 13820		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WHARTON		WHARTON			WHARTON		
FIELD.....	HUTCHINS		HUTCHINS			JONES CREEK		
WELL NAME.....	ZAPP NO. 1		LACY W. ARMOUR ET AL. NO. 3			ZIMMERMAN-NOHAVITZA NO. 1		
LOCATION.....	SEC. 15, I&GN SUR.		I&GN RR SUR. NO. 22, A 240			I&GN RR SUR.		
OWNER.....	MCDANALD OIL CO.		PERRY R. BASS, INC.			TERRA RESOURCES, INC.		
COMPLETED.....	07/08/49		02/17/72			04/04/73		
SAMPLED.....	07/08/49		01/15/72			11/20/73		
FORMATION.....	MIOC-		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	3110		4978			4650		
WELLHEAD PRESSURE, PSIG.....	1225		1800			1850		
OPEN FLOW, MCFD.....	150000		17700			3400		
COMPONENT, MOLE PCT								
METHANE.....	98.1		98.6			97.8		
ETHANE.....	0.1		0.8			0.5		
PROPANE.....	0.1		0.1			0.2		
N-BUTANE.....	0.1		0.0			TRACE		
ISOBUTANE.....	0.0		0.0			0.2		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.2		
HEXANES PLUS.....	0.1		0.0			0.4		
NITROGEN.....	1.0		0.3			1.0		
OXYGEN.....	0.2		0.0			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.3		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	1010		1016			1044		
SPECIFIC GRAVITY.....	0.566		0.563			0.580		
INDEX 11044 SAMPLE 10630			INDEX 11045 SAMPLE 11192			INDEX 11046 SAMPLE 15136		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WHARTON		WHARTON			WHARTON		
FIELD.....	LOUISE		LOUISE			LOUISE		
WELL NAME.....	MCINTYRE NO. 7		ISAC WEAVER NO. 6			HAWES NO. 1-T		
LOCATION.....	WILLS & CUMMINGS SUR. A-286		SEC. 22, JMBROWNSON SUR. A-797			2 MI. S OF LOUISE		
OWNER.....	UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.			PATRICK PETROLEUM CO.		
COMPLETED.....	12/01/65		02/22/66			04/28/75		
SAMPLED.....	06/24/66		10/30/67			11/01/77		
FORMATION.....	OLIG-OWENS		OLIG-EVANS 5600 FT. SAND			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	6596		5598			6348		
WELLHEAD PRESSURE, PSIG.....	1949		2142			2100		
OPEN FLOW, MCFD.....	16300		6900			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	91.7		95.7			94.8		
ETHANE.....	3.7		2.6			2.8		
PROPANE.....	1.4		0.4			1.3		
N-BUTANE.....	0.3		0.2			0.3		
ISOBUTANE.....	0.5		0.1			0.2		
N-PENTANE.....	0.1		0.1			TRACE		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	1.3		0.3			0.2		
OXYGEN.....	0.3		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.03		0.01			TRACE		
HEATING VALUE.....	1086		1059			1073		
SPECIFIC GRAVITY.....	0.621		0.588			0.598		
INDEX 11047 SAMPLE 15137			INDEX 11048 SAMPLE 15139			INDEX 11049 SAMPLE 15140		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WHARTON		WHARTON			WHARTON		
FIELD.....	LOUISE		LOUISE			LOUISE		
WELL NAME.....	HAWES NO. 1-C		HENDERSON NO. 2-C			HENDERSON NO. 2-T		
LOCATION.....	2 MI. S OF LOUISE		T.J. WINSTON SUR. A-66			T.J. WINSTON SUR. A-66		
OWNER.....	PATRICK PETROLEUM CO.		PATRICK PETROLEUM CO.			PATRICK PETROLEUM CO.		
COMPLETED.....	04/28/75		04/11/75			04/11/75		
SAMPLED.....	11/01/77		11/01/77			11/01/77		
FORMATION.....	OLIG-FRIO		OLIG-FRIO			OLIG-FRIO		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	5966		5914			5980		
WELLHEAD PRESSURE, PSIG.....	1600		1500			1000		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.8		95.5			91.6		
ETHANE.....	3.4		0.8			3.5		
PROPANE.....	0.5		0.6			0.8		
N-BUTANE.....	0.8		0.2			0.7		
ISOBUTANE.....	0.9		0.1			0.5		
N-PENTANE.....	0.3		TRACE			0.2		
ISOPENTANE.....	0.4		0.1			0.5		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.1			0.3		
NITROGEN.....	0.1		0.3			0.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.2			0.3		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1167		1058			1127		
SPECIFIC GRAVITY.....	0.659		0.589			0.634		
INDEX 11050 SAMPLE 4297			INDEX 11051 SAMPLE 12339			INDEX 11052 SAMPLE 12340		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WHARTON		WHARTON			WHARTON		
FIELD.....	LOUISE N		LOUISE N			LOUISE N		
WELL NAME.....	S. G. SHRADER NO. 1		PEGGY HAWES NO. 1-T			PEGGY HAWES NO. 1-C		
LOCATION.....	SEC. 40, WCCR SUR. A-389		THOS. KEMP SUR. A-265			THOS. KEMP SUR. A-265		
OWNER.....	JOHNSTON & JOHNSTON		TEXAS OIL & GAS CORP.			TEXAS OIL & GAS CORP.		
COMPLETED.....	03/05/47		03/05/47			03/05/47		
SAMPLED.....	03/05/47		07/30/70			07/30/70		
FORMATION.....	OLIG-FRIO		MIOC-BERGSTROM 2750 FT. SAND			MIOC-HAWES 2700 FT.		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	4158		2766			2723		
WELLHEAD PRESSURE, PSIG.....	1843		787			1310		
OPEN FLOW, MCFD.....	15000		11500			7800		
COMPONENT, MOLE PCT								
METHANE.....	98.5		99.3			99.3		
ETHANE.....	0.0		0.1			0.1		
PROPANE.....	---		TRACE			TRACE		
N-BUTANE.....	---		0.0			0.0		
ISOBUTANE.....	---		0.0			0.0		
N-PENTANE.....	---		0.0			0.0		
ISOPENTANE.....	---		0.0			0.0		
CYCLOPENTANE.....	---		0.0			0.0		
HEXANES PLUS.....	---		0.0			0.0		
NITROGEN.....	0.6		0.4			0.5		
OXYGEN.....	0.2		TRACE			0.0		
ARGON.....	---		0.0			0.0		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.1			0.1		
HELIUM.....	TRACE		0.01			0.01		
HEATING VALUE.....	998		1099			1009		
SPECIFIC GRAVITY.....	0.565		0.557			0.558		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 11053 12341	INDEX SAMPLE 11054 12342	INDEX SAMPLE 11055 4081
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WHARTON		WHARTON	WHARTON
FIELD.....	LOUISE N		LOUISE N	MAGNET WITHERS
WELL NAME.....	C. E. BERGSTROM NO. 1-A		D. W. BECK NO. 1	COCKBURN 8-2
LOCATION.....	ELLIS BERSON SUR. A-68		A. FRENZEL SUR. NO. 6	NOT GIVEN
OWNER.....	TEXAS OIL & GAS CORP.		TEXAS OIL & GAS CORP.	ATLANTIC REFINING CO.
COMPLETED.....	09/19/69		08/27/69	12/20/43
SAMPLED.....	07/30/70		07/30/70	05/24/45
FORMATION.....	OLIG-4670 FT. SAND		OLIG-3900 FT. SAND	MIOC
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	4720		3919	4212
WELLHEAD PRESSURE, PSIG.....	1836		1626	1850
OPEN FLOW, MCFD.....	12800		7100	110000
COMPONENT, MOLE PCT				
METHANE.....	99.4	99.3	98.5	
ETHANE.....	TRACE	0.1	0.5	
PROPANE.....	TRACE	TRACE	---	
N-BUTANE.....	0.0	0.0	---	
ISOBUTANE.....	0.0	0.0	---	
N-PENTANE.....	0.0	0.0	---	
ISOPENTANE.....	0.0	0.0	---	
CYCLOPENTANE.....	0.0	0.0	---	
HEXANES PLUS.....	0.0	0.0	---	
NITROGEN.....	0.3	0.3	0.7	
OXYGEN.....	0.0	TRACE	0.1	
ARGON.....	0.0	0.0	---	
HYDROGEN.....	TRACE	0.0	---	
HYDROGEN SULFIDE**.....	0.0	0.0	---	
CARBON DIOXIDE.....	0.1	0.2	0.1	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1007	1008	1008	
SPECIFIC GRAVITY.....	0.556	0.558	0.561	
		INDEX SAMPLE 11056 9576	INDEX SAMPLE 11057 10147	INDEX SAMPLE 11058 10148
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WHARTON		WHARTON	WHARTON
FIELD.....	MAGNET WITHERS		MAGNET WITHERS E	MAGNET WITHERS E
WELL NAME.....	H. C. COCKBURN NO. 60-D		H. C. COCKBURN NO. 70	H. C. COCKBURN NO. 70
LOCATION.....	BLK. 110, S. CASTLEMAN SUR.		S. CASTLEMAN SUR. A-12	S. CASTLEMAN SUR. A-12
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	12/26/62		04/19/64	04/19/64
SAMPLED.....	09/30/64		09/22/65	09/22/65
FORMATION.....	OLIG-FRIO		OLIG-FRIO	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	6592		6886	7082
WELLHEAD PRESSURE, PSIG.....	2465		2500	2567
OPEN FLOW, MCFD.....	260000		48000	54000
COMPONENT, MOLE PCT				
METHANE.....	94.3	93.0	92.8	
ETHANE.....	3.4	4.3	3.8	
PROPANE.....	0.6	0.2	1.3	
N-BUTANE.....	0.2	0.2	0.4	
ISOBUTANE.....	TRACE	0.3	0.3	
N-PENTANE.....	0.3	0.1	0.1	
ISOPENTANE.....	0.1	0.1	0.4	
CYCLOPENTANE.....	0.2	TRACE	0.1	
HEXANES PLUS.....	0.3	0.1	0.3	
NITROGEN.....	0.2	0.4	0.4	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.2	0.1	
HELIUM.....	0.01	TRACE	TRACE	
HEATING VALUE.....	1078	1081	1106	
SPECIFIC GRAVITY.....	0.602	0.605	0.618	
		INDEX SAMPLE 11059 10149	INDEX SAMPLE 11060 3921	INDEX SAMPLE 11061 11673
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WHARTON		WHARTON	WHARTON
FIELD.....	MAGNET WITHERS E		MENEFFEE	MENEFFEE
WELL NAME.....	H. C. COCKBURN NO. 70		A. G. MENEFFEE NO. 2	VITERA NO. 1
LOCATION.....	S. CASTLEMAN SUR. A-12		S. N. OF LOUISE	JOHN BRIDGES SUR. A-73
OWNER.....	HUMBLE OIL & REFINING CO.		SALT DOME OIL CORP.	ACCO OIL & GAS CO.
COMPLETED.....	04/21/64		01/29/44	05/15/67
SAMPLED.....	05/22/65		08/24/44	10/23/68
FORMATION.....	OLIG-FRIO		OLIG-FRIO U	OLIG-MENEFFEE
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	6814		4535	4415
WELLHEAD PRESSURE, PSIG.....	2485		1850	1793
OPEN FLOW, MCFD.....	50000		50000	23500
COMPONENT, MOLE PCT				
METHANE.....	93.0	99.2	98.6	
ETHANE.....	3.9	0.0	0.5	
PROPANE.....	1.0	---	0.1	
N-BUTANE.....	0.3	---	0.0	
ISOBUTANE.....	0.1	---	0.0	
N-PENTANE.....	0.1	---	0.0	
ISOPENTANE.....	0.3	---	0.0	
CYCLOPENTANE.....	0.1	---	0.0	
HEXANES PLUS.....	0.3	---	0.0	
NITROGEN.....	0.5	0.0	0.3	
OXYGEN.....	0.0	0.3	0.0	
ARGON.....	0.0	---	0.0	
HYDROGEN.....	0.0	---	0.1	
HYDROGEN SULFIDE**.....	0.0	---	0.0	
CARBON DIOXIDE.....	0.2	0.5	0.4	
HELIUM.....	TRACE	0.01	0.01	
HEATING VALUE.....	1094	1005	1011	
SPECIFIC GRAVITY.....	0.614	0.561	0.563	
		INDEX SAMPLE 11062 11674	INDEX SAMPLE 11063 13052	INDEX SAMPLE 11064 14408
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WHARTON		WHARTON	WHARTON
FIELD.....	MENEFFEE		MENEFFEE N	MENEFFEE N
WELL NAME.....	VITERA NO. 1		HOUSTON BANK & TRUST NO. 1	T. N. MENEFFEE NO. 1
LOCATION.....	JOHN BRIDGES SUR. A-73		SAMUEL CUMMINGS SUR. A-83	S. P. MIDDLETON LEAGUE A-269
OWNER.....	ACCO OIL & GAS CO.		WINDOHR OIL CO.	WINDOHR OIL CO.
COMPLETED.....	05/15/67		10/22/70	04/28/73
SAMPLED.....	10/23/68		09/29/71	07/01/75
FORMATION.....	OLIG-FRIO		OLIG-FRIO	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220		220	220
DEPTH, FEET.....	5073		4998	4530
WELLHEAD PRESSURE, PSIG.....	1811		1560	960
OPEN FLOW, MCFD.....	4100		34000	2400
COMPONENT, MOLE PCT				
METHANE.....	96.3	97.6	98.3	
ETHANE.....	2.3	1.6	0.7	
PROPANE.....	0.3	0.0	0.1	
N-BUTANE.....	0.1	0.0	TRACE	
ISOBUTANE.....	0.1	TRACE	TRACE	
N-PENTANE.....	0.1	---	---	
ISOPENTANE.....	0.0	TRACE	TRACE	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.1	---	---	
NITROGEN.....	0.3	0.3	0.5	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.2	0.4	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1045	1025	1011	
SPECIFIC GRAVITY.....	0.581	0.568	0.565	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11065 SAMPLE 15390		INDEX 11066 SAMPLE 15397		INDEX 11067 SAMPLE 11700	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WHARTON	COUNTY.....	WHARTON	COUNTY.....	WHARTON
FIELD.....	PIERCE RANCH	FIELD.....	WHARTON	FIELD.....	SPANISH CAMP
WELL NAME.....	PIERCE ESTATE NO. E-9	WELL NAME.....	PIERCE ESTATE NO. E-9	WELL NAME.....	HILL UNIT A NO. 1
LOCATION.....	IRR SUR. 11 A-447	LOCATION.....	IRR SUR. 11 A-447	LOCATION.....	ROBERT KUYKENDALL SUR. A-40
OWNER.....	TEXACO INC.	OWNER.....	TEXACO INC.	OWNER.....	GODDARD, BERTMAN & CO., INC.
COMPLETED.....	12/07/76	COMPLETED.....	07/20/77	COMPLETED.....	10/05/66
SAMPLED.....	09/29/78	SAMPLED.....	10/04/78	SAMPLED.....	12/06/68
FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	6150	DEPTH, FEET.....	4906	DEPTH, FEET.....	4229
WELLHEAD PRESSURE, PSIG.....	2230	WELLHEAD PRESSURE, PSIG.....	2045	WELLHEAD PRESSURE, PSIG.....	1445
OPEN FLOW, MCFD.....	24500	OPEN FLOW, MCFD.....	2900	OPEN FLOW, MCFD.....	35000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	79.5	METHANE.....	92.8	METHANE.....	99.2
ETHANE.....	4.1	ETHANE.....	2.1	ETHANE.....	0.2
PROPANE.....	0.7	PROPANE.....	0.5	PROPANE.....	TRACE
N-BUTANE.....	0.2	N-BUTANE.....	0.1	N-BUTANE.....	0.0
ISOBUTANE.....	0.1	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.3	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.0
NITROGEN.....	10.8	NITROGEN.....	1.8	NITROGEN.....	0.3
OXYGEN.....	2.5	OXYGEN.....	0.3	OXYGEN.....	0.1
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	0.2
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0
HELIUM.....	925	HELIUM.....	1017	HELIUM.....	0.01
HEATING VALUE.....	0.668	HEATING VALUE.....	0.608	HEATING VALUE.....	1009
SPECIFIC GRAVITY.....	0.668	SPECIFIC GRAVITY.....	0.608	SPECIFIC GRAVITY.....	0.559

INDEX 11068 SAMPLE 16414		INDEX 11069 SAMPLE 13956		INDEX 11070 SAMPLE 13957	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WHARTON	COUNTY.....	WHARTON	COUNTY.....	WHARTON
FIELD.....	SPANISH CAMP	FIELD.....	SPANISH CAMP S	FIELD.....	SPANISH CAMP S
WELL NAME.....	IDA K. HOSEA NO. 1	WELL NAME.....	M. SORREL A NO. 1	WELL NAME.....	VIRGINIA BROUSE NO. 1
LOCATION.....	STEVEN F. AUSTIN SUR., A-3	LOCATION.....	STEPHEN F. AUSTIN SUR. NO. 3	LOCATION.....	STEPHEN F. AUSTIN SUR. A-3
OWNER.....	MAINCO OIL & GAS CO.	OWNER.....	TEXAS OIL & GAS CORP.	OWNER.....	TEXAS OIL & GAS CORP.
COMPLETED.....	7/1/70	COMPLETED.....	04/15/72	COMPLETED.....	06/15/72
SAMPLED.....	01/28/82	SAMPLED.....	03/07/74	SAMPLED.....	03/07/74
FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	5388	DEPTH, FEET.....	4556	DEPTH, FEET.....	5206
WELLHEAD PRESSURE, PSIG.....	2250	WELLHEAD PRESSURE, PSIG.....	390	WELLHEAD PRESSURE, PSIG.....	2005
OPEN FLOW, MCFD.....	5200	OPEN FLOW, MCFD.....	230	OPEN FLOW, MCFD.....	14000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.9	METHANE.....	99.0	METHANE.....	98.7
ETHANE.....	1.1	ETHANE.....	0.1	ETHANE.....	0.4
PROPANE.....	0.1	PROPANE.....	TRACE	PROPANE.....	TRACE
N-BUTANE.....	TRACE	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.6	NITROGEN.....	0.8	NITROGEN.....	0.3
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.6
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1014	HEATING VALUE.....	1005	HEATING VALUE.....	1007
SPECIFIC GRAVITY.....	0.563	SPECIFIC GRAVITY.....	0.561	SPECIFIC GRAVITY.....	0.563

INDEX 11071 SAMPLE 14199		INDEX 11072 SAMPLE 4807		INDEX 11073 SAMPLE 15576	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WHARTON	COUNTY.....	WHARTON	COUNTY.....	WHARTON
FIELD.....	STIMMEL	FIELD.....	WHARTON	FIELD.....	WHARTON
WELL NAME.....	OUTLAR NO. 1	WELL NAME.....	LOUISE HUTCHINS NO. 1	WELL NAME.....	WHARTON W
LOCATION.....	WILLIAM MCFARLAND SUR.	LOCATION.....	M. WILLIAMSON SUR.	LOCATION.....	RUST ESTATE NO. 3-C
OWNER.....	TEXAS OIL & GAS CORP.	OWNER.....	TEXAS CO.	OWNER.....	S. F. AUSTIN LG. A-3
COMPLETED.....	10/24/74	COMPLETED.....	08/26/49	COMPLETED.....	05/17/77
SAMPLED.....	10/24/74	SAMPLED.....	12/21/49	SAMPLED.....	02/25/79
FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO	FORMATION.....	OLIG-FRIO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	4764	DEPTH, FEET.....	4667	DEPTH, FEET.....	5200
WELLHEAD PRESSURE, PSIG.....	1845	WELLHEAD PRESSURE, PSIG.....	1845	WELLHEAD PRESSURE, PSIG.....	1795
OPEN FLOW, MCFD.....	790	OPEN FLOW, MCFD.....	78000	OPEN FLOW, MCFD.....	6700
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.8	METHANE.....	98.7	METHANE.....	97.7
ETHANE.....	2.8	ETHANE.....	0.5	ETHANE.....	1.2
PROPANE.....	0.4	PROPANE.....	0.1	PROPANE.....	0.1
N-BUTANE.....	0.1	N-BUTANE.....	0.1	N-BUTANE.....	0.1
ISOBUTANE.....	0.1	ISOBUTANE.....	0.0	ISOBUTANE.....	TRACE
N-PENTANE.....	TRACE	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	0.4	NITROGEN.....	0.4	NITROGEN.....	0.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.3
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1017	HEATING VALUE.....	1021	HEATING VALUE.....	1019
SPECIFIC GRAVITY.....	0.599	SPECIFIC GRAVITY.....	0.564	SPECIFIC GRAVITY.....	0.568

INDEX 11074 SAMPLE 15577		INDEX 11075 SAMPLE 3986		INDEX 11076 SAMPLE 4759	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WHARTON	COUNTY.....	WHARTON	COUNTY.....	WHARTON
FIELD.....	WHARTON W	FIELD.....	WHARTON	FIELD.....	WHARTON
WELL NAME.....	BROUGHTON-STATE UNIT NO. 1	WELL NAME.....	H. R. MATZKE NO. 1	WELL NAME.....	E. A. WEINHEIMER NO. 1
LOCATION.....	R. KUYKENDALL LG., A-39	LOCATION.....	18GN SUR. NO. 26	LOCATION.....	NOT GIVEN
OWNER.....	REALTOS ENERGY CORP.	OWNER.....	TEXAS CO.	OWNER.....	R. J. CARAWAY
COMPLETED.....	05/12/78	COMPLETED.....	01/08/45	COMPLETED.....	---/---/00
SAMPLED.....	02/25/79	SAMPLED.....	03/14/45	SAMPLED.....	10/01/49
FORMATION.....	OLIG-FRIO	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	5700	DEPTH, FEET.....	5775	DEPTH, FEET.....	5203
WELLHEAD PRESSURE, PSIG.....	1985	WELLHEAD PRESSURE, PSIG.....	2238	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	3600	OPEN FLOW, MCFD.....	48000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.9	METHANE.....	96.9	METHANE.....	95.5
ETHANE.....	2.0	ETHANE.....	2.8	ETHANE.....	3.6
PROPANE.....	0.1	PROPANE.....	---	PROPANE.....	0.2
N-BUTANE.....	0.1	N-BUTANE.....	---	N-BUTANE.....	TRACE
ISOBUTANE.....	0.0	ISOBUTANE.....	---	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	---	N-PENTANE.....	0.0
ISOPENTANE.....	TRACE	ISOPENTANE.....	---	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	---	HEXANES PLUS.....	0.0
NITROGEN.....	0.4	NITROGEN.....	0.0	NITROGEN.....	0.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	---	ARGON.....	0.3
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	TRACE
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.3
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1029	HEATING VALUE.....	1042	HEATING VALUE.....	1042
SPECIFIC GRAVITY.....	0.573	SPECIFIC GRAVITY.....	0.571	SPECIFIC GRAVITY.....	0.580

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11077 4794	INDEX SAMPLE	11078 5047	INDEX SAMPLE	11079 5048
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHARTON			WHARTON		WHARTON	
FIELD.....	WILDCAT			WILDCAT N		WILDCAT N	
WELL NAME.....	F. E. APPLING NO. 1			ARMOUR NO. 2		ARMOUR NO. 3	
LOCATION.....	NOT GIVEN			CHAS. HOWARD SUR.		CHAS. HOWARD SUR.	
OWNER.....	R. J. CARAWAY			COPELCO CORP.		COPELCO CORP.	
COMPLETED.....	06/29/49			12/20/51		02/20/51	
SAMPLED.....	10/01/49			05/28/51		05/28/51	
FORMATION.....	NOT GIVEN			OLIG-NORMAL		OLIG-NORMAL	
GEOLOGIC PROVINCE CODE.....	220			220		220	
DEPTH, FEET.....	5231			5272		5273	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2030		2305	
OPEN FLOW, MCFD.....	NOT GIVEN			22		44	
COMPONENT, MOLE PCT							
METHANE.....	94.8			96.1		96.7	
ETHANE.....	3.8			1.9		1.9	
PROpane.....	0.3			0.1		0.1	
N-BUTANE.....	0.1			0.1		0.1	
ISOBUTANE.....	0.1			0.0		0.0	
N-PENTANE.....	TRACE			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	0.2			0.7		0.2	
OXYGEN.....	0.1			TRACE		0.1	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.8			0.0		TRACE	
HYDROGEN SULFIDE.....	0.1			1024		1032	
CARBON DIOXIDE.....	0.5			0.6		0.5	
HELIUM.....	0.01			TRACE		0.01	
HEATING VALUE.....	1051			1024		1032	
SPECIFIC GRAVITY.....	0.588			0.578		0.576	

		INDEX SAMPLE	11080 16879	INDEX SAMPLE	11081 16166	INDEX SAMPLE	11082 16167
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHEELER			WHEELER		WHEELER	
FIELD.....	ALLISON BRITT			BILLY-ROSE		BILLY-ROSE	
WELL NAME.....	BRITT NO. 7-2			HEFLEY G.U. NO. 1		HEFLEY G.U. NO. 1	
LOCATION.....	SEC. 7, BLK. 1, B&B SUR.			SEC. 13, BLK. A-8, H&GN SUR.		SEC. 13, BLK. A-8, H&GN SUR.	
OWNER.....	HNG OIL CO.			LEEDE OIL & GAS CO.		LEEDE OIL & GAS, INC.	
COMPLETED.....	03/-/78			06/08/80		07/01/79	
SAMPLED.....	04/13/82			01/13/82		-/-/80	
FORMATION.....	PERM-GRANITE WASH			PERM-GRANITE WASH		PERM-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	12235			5400		5000	
WELLHEAD PRESSURE, PSIG.....	3100			1313		1450	
OPEN FLOW, MCFD.....	850			1000		1800	
COMPONENT, MOLE PCT							
METHANE.....	81.8			63.4		71.7	
ETHANE.....	9.9			10.3		9.6	
PROpane.....	3.9			9.3		7.1	
N-BUTANE.....	1.0			5.4		3.6	
ISOBUTANE.....	0.5			1.0		1.3	
N-PENTANE.....	0.2			2.0		1.2	
ISOPENTANE.....	0.5			2.5		1.4	
CYCLOPENTANE.....	TRACE			1.8		0.9	
HEXANES PLUS.....	0.1			1.7		2.1	
NITROGEN.....	1.2			TRACE		TRACE	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	0.3			0.0		0.0	
HYDROGEN.....	0.2			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.04		0.05	
HELIUM.....	0.03			1655		1437	
HEATING VALUE.....	1193			0.973		0.842	
SPECIFIC GRAVITY.....	0.691						

		INDEX SAMPLE	11083 17434	INDEX SAMPLE	11084 15950	INDEX SAMPLE	11085 14875
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHEELER			WHEELER		WHEELER	
FIELD.....	BRISCOE-MORROW			FARRIS		FARRIS	
WELL NAME.....	INSTERWALD NO. 1			SHELTON NO. 1		FARRIS-C NO. 1	
LOCATION.....	SEC. 51, BLK. M-1, H&GN SUR.			SEC. 77, BLK. A-5, H&GN SUR.		SEC. 18, BLK. A-4, H&GN SUR.	
OWNER.....	CAMBRIDGE & NAIL			NATURAL GAS ANADARKO, INC.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	10/08/81			08/29/79		10/28/76	
SAMPLED.....	10/01/84			04/21/80		12/28/76	
FORMATION.....	PENN-MORROW PURYEAR			PENN-MORROW		DEVON-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	14535			12597		16167	
WELLHEAD PRESSURE, PSIG.....	6165			3712		5370	
OPEN FLOW, MCFD.....	8300			2400		18300	
COMPONENT, MOLE PCT							
METHANE.....	95.6			82.3		95.4	
ETHANE.....	1.3			9.8		2.3	
PROpane.....	0.1			4.1		0.5	
N-BUTANE.....	0.1			0.1		0.2	
ISOBUTANE.....	0.0			0.5		0.1	
N-PENTANE.....	0.1			0.2		TRACE	
ISOPENTANE.....	0.0			0.1		TRACE	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	0.0			0.9		0.8	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.1			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.9			0.5		0.4	
HELIUM.....	0.02			0.02		0.03	
HEATING VALUE.....	1808			0.632		1040	
SPECIFIC GRAVITY.....	0.595					0.586	

		INDEX SAMPLE	11086 15287	INDEX SAMPLE	11087 16133	INDEX SAMPLE	11089 17550
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHEELER			WHEELER		WHEELER	
FIELD.....	FARRIS			FARRIS		FRYE-GRANITE WASH	
WELL NAME.....	BEN TROUT NO. 2			FARRIS "C" NO. 2-18		STANLEY UNIT NO. 1-50	
LOCATION.....	SEC. 17, BLK. A-4, H&GN SUR.			SEC. 18, BLK. A-8, H&GN SUR.		SEC. 50, BLOCK A3, H&GN SUR.	
OWNER.....	GETTY OIL CO.			SEARCH DRILLING CO.		HNG OIL CO.	
COMPLETED.....	03/28/78			06/12/80		09/07/83	
SAMPLED.....	05/26/78			11/18/80		12/26/84	
FORMATION.....	DEVON-HUNTON			DEVON-HUNTON		PENN-GRANITE WASH	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	16315			16306		12156	
WELLHEAD PRESSURE, PSIG.....	4619			57000		3100	
OPEN FLOW, MCFD.....	7312					800	
COMPONENT, MOLE PCT							
METHANE.....	95.3			95.2		78.1	
ETHANE.....	2.2			2.3		13.2	
PROpane.....	0.5			0.6		5.2	
N-BUTANE.....	0.3			0.2		1.1	
ISOBUTANE.....	TRACE			0.1		0.9	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	0.8			0.8		1.1	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.0		0.1	
HELIUM.....	0.02			0.02		0.03	
HEATING VALUE.....	1042			1045		1239	
SPECIFIC GRAVITY.....	0.587			0.589		0.711	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11089 SAMPLE 16522		INDEX 11090 SAMPLE 9272		INDEX 11091 SAMPLE 9752	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WHEELER	COUNTY.....	WHEELER	COUNTY.....	WHEELER
FIELD.....	FULLER NW	FIELD.....	GAGEBY CREEK	FIELD.....	GAGEBY CREEK
WELL NAME.....	MILES RANCH NO. 1-98	WELL NAME.....	KEY NO. 1	WELL NAME.....	LEE C NO. 1
LOCATION.....	SEC. 98, BLK. 13, H&GN SUR.	LOCATION.....	SEC. 99, BLK. A-5, H&GN SUR.	LOCATION.....	SEC. 80, BLK. M-1, H&GN SUR.
OWNER.....	HELMERICH & PAYNE, INC.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	09/06/81	COMPLETED.....	01/03/64	COMPLETED.....	01/03/64
SAMPLED.....	05/19/82	SAMPLED.....	03/31/64	SAMPLED.....	02/22/65
FORMATION.....	DEVO-HUNTON	FORMATION.....	ORDO-SIMPSON	FORMATION.....	ORDO-SIMPSON
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	20921	DEPTH, FEET.....	15676	DEPTH, FEET.....	15982
WELLHEAD PRESSURE, PSIG.....	6993	WELLHEAD PRESSURE, PSIG.....	5278	WELLHEAD PRESSURE, PSIG.....	5380
OPEN FLOW, MCFD.....	64000	OPEN FLOW, MCFD.....	33304	OPEN FLOW, MCFD.....	21000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.6	METHANE.....	96.9	METHANE.....	97.1
ETHANE.....	2.3	ETHANE.....	0.7	ETHANE.....	0.5
PROPANE.....	1.0	PROPANE.....	0.5	PROPANE.....	0.2
N-BUTANE.....	0.4	N-BUTANE.....	TRACE	N-BUTANE.....	0.1
ISOBUTANE.....	0.3	ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE
N-PENTANE.....	0.2	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	0.6	NITROGEN.....	0.3	NITROGEN.....	0.7
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.1	CARBON DIOXIDE.....	1.4	CARBON DIOXIDE.....	1.1
HELIUM.....	0.01	HELIUM.....	0.05	HELIUM.....	0.05
HEATING VALUE.....	1070	HEATING VALUE.....	1007	HEATING VALUE.....	1006
SPECIFIC GRAVITY.....	0.614	SPECIFIC GRAVITY.....	0.577	SPECIFIC GRAVITY.....	0.575

INDEX 11092 SAMPLE 9753		INDEX 11093 SAMPLE 10845		INDEX 11094 SAMPLE 10846	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WHEELER	COUNTY.....	WHEELER	COUNTY.....	WHEELER
FIELD.....	GAGEBY CREEK	FIELD.....	GAGEBY CREEK	FIELD.....	GAGEBY CREEK
WELL NAME.....	LEE C NO. 1	WELL NAME.....	DYSON A NO. 1	WELL NAME.....	DYSON A NO. 1
LOCATION.....	SEC. 80, BLK. M-1, H&GN SUR.	LOCATION.....	SEC. 100, BLK. A-5, H&GN SUR.	LOCATION.....	SEC. 100, BLK. A-5, H&GN SUR.
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
COMPLETED.....	10/17/64	COMPLETED.....	07/27/66	COMPLETED.....	07/27/66
SAMPLED.....	02/22/65	SAMPLED.....	01/23/67	SAMPLED.....	01/23/67
FORMATION.....	DEVO-HUNTON	FORMATION.....	DEVO-HUNTON	FORMATION.....	ORDO-SIMPSON
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	15121	DEPTH, FEET.....	15009	DEPTH, FEET.....	15795
WELLHEAD PRESSURE, PSIG.....	5110	WELLHEAD PRESSURE, PSIG.....	4990	WELLHEAD PRESSURE, PSIG.....	5126
OPEN FLOW, MCFD.....	41000	OPEN FLOW, MCFD.....	740000	OPEN FLOW, MCFD.....	2450
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	94.9	METHANE.....	94.8	METHANE.....	96.7
ETHANE.....	1.2	ETHANE.....	1.2	ETHANE.....	0.6
PROPANE.....	0.3	PROPANE.....	0.4	PROPANE.....	0.2
N-BUTANE.....	0.1	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.1	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.2	NITROGEN.....	1.3	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.0	CARBON DIOXIDE.....	2.2	CARBON DIOXIDE.....	1.8
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.04
HEATING VALUE.....	1002	HEATING VALUE.....	992	HEATING VALUE.....	999
SPECIFIC GRAVITY.....	0.593	SPECIFIC GRAVITY.....	0.591	SPECIFIC GRAVITY.....	0.580

INDEX 11095 SAMPLE 17251		INDEX 11096 SAMPLE 16217		INDEX 11097 SAMPLE 17011	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WHEELER	COUNTY.....	WHEELER	COUNTY.....	WHEELER
FIELD.....	GAGEBY CREEK	FIELD.....	KELTON NW	FIELD.....	KEY
WELL NAME.....	HOLMES NO. 1	WELL NAME.....	MILES GAS UNIT NO. 1	WELL NAME.....	DE WOLF NO. 2
LOCATION.....	SEC. 60, BLK. A-4, H&GN SUR.	LOCATION.....	SEC. 2, BLK. A-4, H&GN SUR.	LOCATION.....	SEC. 1, BLK. 2, B&B SUR.
OWNER.....	DAVIS OIL CO.	OWNER.....	EVON CO., U.S.A.	OWNER.....	PETRO-LEWIS CORP.
COMPLETED.....	10/25/82	COMPLETED.....	09/18/82	COMPLETED.....	07/19/82
SAMPLED.....	04/13/84	SAMPLED.....	03/27/81	SAMPLED.....	08/19/83
FORMATION.....	PENN-MORROW	FORMATION.....	DEVO-HUNTON	FORMATION.....	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	13609	DEPTH, FEET.....	16450	DEPTH, FEET.....	16670
WELLHEAD PRESSURE, PSIG.....	6403	WELLHEAD PRESSURE, PSIG.....	4786	WELLHEAD PRESSURE, PSIG.....	9173
OPEN FLOW, MCFD.....	2500	OPEN FLOW, MCFD.....	18313	OPEN FLOW, MCFD.....	3100
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.2	METHANE.....	95.7	METHANE.....	96.6
ETHANE.....	1.7	ETHANE.....	1.6	ETHANE.....	0.5
PROPANE.....	0.1	PROPANE.....	0.4	PROPANE.....	TRACE
N-BUTANE.....	0.1	N-BUTANE.....	0.2	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.1	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	0.3	NITROGEN.....	1.0	NITROGEN.....	0.2
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.3
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.4	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	1.9
HELIUM.....	0.02	HELIUM.....	0.02	HELIUM.....	0.01
HEATING VALUE.....	1022	HEATING VALUE.....	1022	HEATING VALUE.....	997
SPECIFIC GRAVITY.....	0.585	SPECIFIC GRAVITY.....	0.590	SPECIFIC GRAVITY.....	0.578

INDEX 11098 SAMPLE 17572		INDEX 11099 SAMPLE 17783		INDEX 11100 SAMPLE 14945	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	WHEELER	COUNTY.....	WHEELER	COUNTY.....	WHEELER
FIELD.....	KEY	FIELD.....	KEY	FIELD.....	LOTT RANCH
WELL NAME.....	KEY NO. 2-11	WELL NAME.....	KEY #9 NO. 2	WELL NAME.....	LUTHER WILLIS NO. 1
LOCATION.....	SEC. 11, BLK. 1, B&B SUR.	LOCATION.....	SEC. 9, BLK. 1, B&B SUR.	LOCATION.....	SEC. 9, CAMP CO. SCHOOL
OWNER.....	APACHE CORP.	OWNER.....	HNG OIL CO.	OWNER.....	CIG EXPLORATION, INC.
COMPLETED.....	02/14/83	COMPLETED.....	02/11/85	COMPLETED.....	09/02/76
SAMPLED.....	01/22/85	SAMPLED.....	07/22/85	SAMPLED.....	03/16/77
FORMATION.....	PENN-MORROW U	FORMATION.....	PENN-BRITT	FORMATION.....	PENN-MORROW U
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	12106	DEPTH, FEET.....	13225	DEPTH, FEET.....	15056
WELLHEAD PRESSURE, PSIG.....	4398	WELLHEAD PRESSURE, PSIG.....	4282	WELLHEAD PRESSURE, PSIG.....	7795
OPEN FLOW, MCFD.....	31323	OPEN FLOW, MCFD.....	13000	OPEN FLOW, MCFD.....	12500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	97.0	METHANE.....	77.3	METHANE.....	96.6
ETHANE.....	0.6	ETHANE.....	11.9	ETHANE.....	1.2
PROPANE.....	0.1	PROPANE.....	5.5	PROPANE.....	0.1
N-BUTANE.....	0.1	N-BUTANE.....	1.4	N-BUTANE.....	TRACE
ISOBUTANE.....	TRACE	ISOBUTANE.....	1.0	ISOBUTANE.....	TRACE
N-PENTANE.....	0.1	N-PENTANE.....	0.3	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.6	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	TRACE
NITROGEN.....	0.4	NITROGEN.....	1.2	NITROGEN.....	0.5
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.6	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	1.5
HELIUM.....	0.02	HELIUM.....	0.03	HELIUM.....	0.02
HEATING VALUE.....	1009	HEATING VALUE.....	1276	HEATING VALUE.....	1003
SPECIFIC GRAVITY.....	0.583	SPECIFIC GRAVITY.....	0.737	SPECIFIC GRAVITY.....	0.577

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11101 15225	INDEX SAMPLE	11102 15226	INDEX SAMPLE	11103 13194
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHEELER			WHEELER		WHEELER	
FIELD.....	LOTT RANCH			LOTT RANCH		MILLS RANCH	
WELL NAME.....	LOTT NO. 1-2			LOTT NO. 1		MILROD DAVIDSON NO. 1	
LOCATION.....	SEC. 2, BLK. E, E.J. CAMPBELL			SEC. 15, CAMP CO. SCHOOL LND		SEC. 16, BLK. A-7, H&GRR SUR	
OWNER.....	CIG EXPLORATION, INC.			CIG EXPLORATION, INC.		CHEVRON OIL CO.	
COMPLETED.....	01/26/78			11/04/77		06/28/71	
SAMPLED.....	03/13/78			03/13/78		04/19/72	
FORMATION.....	PENN-MORROW			PENN-MORROW		PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	15072			14954		16490	
WELLHEAD PRESSURE, PSIG.....	6983			6933		5500	
OPEN FLOW, MCFD.....	8800			2900		4000	
COMPONENT, MOLE PCT							
METHANE.....	96.7	-----		96.1	-----	94.8	-----
ETHANE.....	0.9	-----		1.0	-----	2.7	-----
PROPANE.....	0.1	-----		0.1	-----	0.6	-----
N-BUTANE.....	0.0	-----		TRACE	-----	0.1	-----
ISOBUTANE.....	0.0	-----		TRACE	-----	0.2	-----
N-PENTANE.....	0.0	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	0.0	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		TRACE	-----	0.1	-----
NITROGEN.....	0.4	-----		0.1	-----	0.5	-----
OXYGEN.....	TRACE	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.8	-----		1.7	-----	0.7	-----
HELIUM.....	0.02	-----		0.02	-----	0.02	-----
HEATING VALUE.....	998	-----		1003	-----	1044	-----
SPECIFIC GRAVITY.....	0.578	-----		0.585	-----	0.590	-----
		INDEX SAMPLE	11104 13794	INDEX SAMPLE	11105 13840	INDEX SAMPLE	11106 15799
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHEELER			WHEELER		WHEELER	
FIELD.....	MILLS RANCH			MILLS RANCH		MILLS RANCH SE	
WELL NAME.....	SIDNEY FABIAN NO. 1			J. F. DABERRY NO. 1		BRYANT NO. 1-22	
LOCATION.....	SEC. 45, BLK. A-7, H&G SUR.			SEC. 1, BBB&C SUR.		SEC. 22, BLK. A-7, H&G RR	
OWNER.....	CHEVRON OIL CO.			CHEVRON OIL CO.		AMERICAN QUASAR PET. CO.	
COMPLETED.....	11/-/72			05/23/73		06/22/79	
SAMPLED.....	11/01/73			12/21/73		10/05/79	
FORMATION.....	DEVO-HUNTON			DEVO-HUNTON		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	21059			20419		19182	
WELLHEAD PRESSURE, PSIG.....	7400			7445		3745	
OPEN FLOW, MCFD.....	93050			380000		33000	
COMPONENT, MOLE PCT							
METHANE.....	96.9	-----		96.0	-----	96.9	-----
ETHANE.....	1.0	-----		0.0	-----	0.9	-----
PROPANE.....	0.2	-----		0.2	-----	0.2	-----
N-BUTANE.....	0.1	-----		TRACE	-----	0.1	-----
ISOBUTANE.....	0.1	-----		0.1	-----	TRACE	-----
N-PENTANE.....	TRACE	-----		0.0	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.0	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----		TRACE	-----	0.1	-----
NITROGEN.....	0.6	-----		0.7	-----	0.7	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.1	-----		1.1	-----	1.0	-----
HELIUM.....	0.01	-----		0.01	-----	0.02	-----
HEATING VALUE.....	1016	-----		1006	-----	1016	-----
SPECIFIC GRAVITY.....	0.580	-----		0.575	-----	0.579	-----
		INDEX SAMPLE	11107 11563	INDEX SAMPLE	11108 11635	INDEX SAMPLE	11109 14913
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHEELER			WHEELER		WHEELER	
FIELD.....	MOBEETIE			MOBEETIE		MOBEETIE	
WELL NAME.....	OPERATING UNIT R/A A NO. 1			SINS UNIT NO. 3		V. MURRELL NO. 1	
LOCATION.....	SEC. 46, BLK. A-5, H&G SUR.			SEC. 56, BLK. A-5, H&G SUR.		SEC. 69, BLK. A-5, H&G SUR.	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		GETTY OIL CO.	
COMPLETED.....	05/13/63			07/03/68		11/09/76	
SAMPLED.....	07/08/68			07/30/68		02/18/77	
FORMATION.....	PENN-DOUGLAS			PENN-MISSOURI		ORDO-ELLENBURGER	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	6866			7832		12220	
WELLHEAD PRESSURE, PSIG.....	2055			2300		3742	
OPEN FLOW, MCFD.....	7300			12500		10374	
COMPONENT, MOLE PCT							
METHANE.....	88.0	-----		84.1	-----	90.2	-----
ETHANE.....	5.2	-----		6.5	-----	4.0	-----
PROPANE.....	2.1	-----		3.0	-----	1.6	-----
N-BUTANE.....	0.7	-----		0.4	-----	0.6	-----
ISOBUTANE.....	0.2	-----		0.4	-----	0.3	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.3	-----
ISOPENTANE.....	0.2	-----		0.3	-----	0.3	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	0.4	-----
NITROGEN.....	2.9	-----		4.2	-----	1.6	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.0	-----	0.5	-----
HELIUM.....	0.07	-----		0.08	-----	0.06	-----
HEATING VALUE.....	1101	-----		1107	-----	1107	-----
SPECIFIC GRAVITY.....	0.642	-----		0.671	-----	0.638	-----
		INDEX SAMPLE	11110 17565	INDEX SAMPLE	11111 15262	INDEX SAMPLE	11112 12420
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WHEELER			WHEELER		WHEELER	
FIELD.....	MOBEETIE			MOBEETIE S		MOBEETIE SE	
WELL NAME.....	MOBEETIE O-U NO. 12			BILL WATERS NO. 1		MOBEETIE 2 SE NO.1	
LOCATION.....	SEC. 55, BLK. A-5, H&G SUR.			SEC. 34, BLK. A-9, H&G SUR.		SEC. 12, BLK. A-4, H&G SUR.	
OWNER.....	AMOCO PRODUCTION CO.			COGAS OIL & GAS CORP.		WASIN PETROLEUM CORP.	
COMPLETED.....	08/24/84			11/23/77		07/24/70	
SAMPLED.....	01/15/85			04/25/78		09/23/70	
FORMATION.....	PENN-MISSOURIAN BASAL			DEVO-HUNTON		DEVO-HUNTON	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	8120			12030		13131	
WELLHEAD PRESSURE, PSIG.....	1800			2500		3700	
OPEN FLOW, MCFD.....	2240			1100		9500	
COMPONENT, MOLE PCT							
METHANE.....	87.3	-----		92.8	-----	93.4	-----
ETHANE.....	4.4	-----		3.1	-----	3.2	-----
PROPANE.....	1.8	-----		1.3	-----	1.3	-----
N-BUTANE.....	0.7	-----		0.4	-----	0.3	-----
ISOBUTANE.....	0.3	-----		0.1	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.5	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	0.2	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.5	-----		0.1	-----	0.2	-----
NITROGEN.....	3.9	-----		0.7	-----	0.6	-----
OXYGEN.....	TRACE	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.3	-----
HELIUM.....	0.07	-----		0.13	-----	0.03	-----
HEATING VALUE.....	1107	-----		1082	-----	1077	-----
SPECIFIC GRAVITY.....	0.655	-----		0.607	-----	0.606	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11113 SAMPLE 14914			INDEX 11114 SAMPLE 9089			INDEX 11115 SAMPLE 16571		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WHEELER		WHEELER			WHEELER		
FIELD.....	MOBETTIE W		NOT GIVEN			NOT GIVEN		
WELL NAME.....	V. MURRELL NO. 1		MOBETTIE OPER. UNIT NO. 1			LANCASTER NO. 1-2		
LOCATION.....	SEC. 69, BLK. A-5, H&GN SUR.		SEC. 46, BLK. A-5, H&GN SUR.			SEC. 2, BLK. H-6, SIMPSON SUR.		
OWNER.....	GETTY OIL CO.		PAN AMERICAN PETROLEUM CORP.			PIONEER PRODUCTION CORP.		
COMPLETED.....	11/09/76		05/15/63			08/28/81		
SAMPLED.....	02/18/77		09/16/63			07/11/82		
FORMATION.....	ORDO-SIMPSON		NOT GIVEN			PENN-MORROW		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	11838		6725			14560		
WELLHEAD PRESSURE, PSIG.....	3490		2055			8555		
OPEN FLOW, MCFD.....	2136		7300			22000		
COMPONENT, MOLE PCT								
METHANE.....	92.2	-----	82.6	-----		96.0	-----	
ETHANE.....	3.3	-----	6.8	-----		1.1	-----	
PROPANE.....	1.7	-----	3.1	-----		0.2	-----	
N-BUTANE.....	0.7	-----	0.9	-----		0.0	-----	
ISOBUTANE.....	0.1	-----	0.4	-----		0.0	-----	
N-PENTANE.....	0.3	-----	0.2	-----		0.0	-----	
ISOPENTANE.....	0.1	-----	0.4	-----		0.0	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		0.0	-----	
HEXANES PLUS.....	0.1	-----	0.2	-----		0.0	-----	
NITROGEN.....	0.9	-----	5.3	-----		0.4	-----	
ARGON.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.1	-----	
CARBON DIOXIDE.....	0.4	-----	TRACE	-----		0.0	-----	
HELIUM.....	0.04	-----	0.10	-----		0.02	-----	
HEATING VALUE.....	1090	-----	1119	-----		998	-----	
SPECIFIC GRAVITY.....	0.619	-----	0.677	-----		0.584	-----	
INDEX 11116 SAMPLE 3972			INDEX 11117 SAMPLE 5614			INDEX 11118 SAMPLE 6826		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WHEELER		WHEELER			WHEELER		
FIELD.....	PANHANDLE		PANHANDLE E			PANHANDLE E		
WELL NAME.....	HICKS NO. 1		E. A. WILLIAMS NO. B-1			MONTGOMERY NO. 1		
LOCATION.....	SEC. 53, BLK. 17, H&GN SUR.		SEC. 23, BLK. 17, H&GN SUR.			SEC. 60, BLK. 17, H&GN SUR.		
OWNER.....	TEXCO NATURAL GAS CO.		PANAMA CORP.			EL PASO NATURAL GAS CO.		
COMPLETED.....	07/25/29		03/27/54			07/20/58		
SAMPLED.....	12/21/44		04/30/54			11/11/80		
FORMATION.....	PENN-LIME		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	1840		1865			2001		
WELLHEAD PRESSURE, PSIG.....	174		375			336		
OPEN FLOW, MCFD.....	2200		NOT GIVEN			6		
COMPONENT, MOLE PCT								
METHANE.....	86.1	-----	92.7	-----		91.8	-----	
ETHANE.....	9.0	-----	3.5	-----		3.3	-----	
PROPANE.....	---	-----	0.4	-----		1.3	-----	
N-BUTANE.....	---	-----	0.4	-----		0.4	-----	
ISOBUTANE.....	---	-----	0.2	-----		0.4	-----	
N-PENTANE.....	---	-----	0.1	-----		TRACE	-----	
ISOPENTANE.....	---	-----	0.1	-----		0.3	-----	
CYCLOPENTANE.....	---	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	---	-----	0.1	-----		0.3	-----	
NITROGEN.....	1.5	-----	1.6	-----		2.3	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.1	-----	
ARGON.....	---	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	---	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	---	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	3.2	-----	0.0	-----		0.1	-----	
HELIUM.....	0.19	-----	0.08	-----		0.10	-----	
HEATING VALUE.....	1033	-----	1068	-----		1068	-----	
SPECIFIC GRAVITY.....	0.635	-----	0.606	-----		0.616	-----	
INDEX 11119 SAMPLE 8217			INDEX 11120 SAMPLE 8220			INDEX 11121 SAMPLE 8221		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WHEELER		WHEELER			WHEELER		
FIELD.....	PANHANDLE E		PANHANDLE E			PANHANDLE E		
WELL NAME.....	PAVLOVSKY NO. 2		L. L. PIRLIE NO. 1			L. L. PIRLIE NO. 1		
LOCATION.....	SEC. 29, BLK. 17, H&GNRR SUR		SEC. 29, BLK. 17, H&GNRR SUR			SEC. 33, BLK. 17, H&GNRR SUR		
OWNER.....	CRICKET OIL CO.		CRICKET OIL CO.			CRICKET OIL CO.		
COMPLETED.....	09/23/61		09/23/61			09/23/61		
SAMPLED.....	09/23/61		09/23/61			09/23/61		
FORMATION.....	PERM-GRANITE WASH		PERM-GRANITE WASH			PERM-GRANITE WASH		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	1885		1832			1848		
WELLHEAD PRESSURE, PSIG.....	162		58			55		
OPEN FLOW, MCFD.....	1000		175			1000		
COMPONENT, MOLE PCT								
METHANE.....	83.8	-----	86.2	-----		87.1	-----	
ETHANE.....	3.7	-----	5.1	-----		4.4	-----	
PROPANE.....	1.7	-----	3.1	-----		2.6	-----	
N-BUTANE.....	0.6	-----	0.7	-----		1.0	-----	
ISOBUTANE.....	0.3	-----	0.7	-----		0.6	-----	
N-PENTANE.....	0.1	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.2	-----	0.5	-----		0.5	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.2	-----		0.2	-----	
NITROGEN.....	8.2	-----	3.5	-----		3.2	-----	
ARGON.....	1.1	-----	0.0	-----		0.0	-----	
HYDROGEN.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	TRACE	-----		TRACE	-----	
HELIUM.....	0.11	-----	0.12	-----		0.12	-----	
HEATING VALUE.....	1008	-----	1119	-----		1123	-----	
SPECIFIC GRAVITY.....	0.652	-----	0.658	-----		0.657	-----	
INDEX 11122 SAMPLE 8222			INDEX 11123 SAMPLE 8223			INDEX 11124 SAMPLE 16304		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WHEELER		WHEELER			WHEELER		
FIELD.....	PANHANDLE E		PANHANDLE E			SILVER CREEK		
WELL NAME.....	MILLIE ISAACS NO. 1		A. P. BUMPERS NO. 1			A. D. HAY NO. 1		
LOCATION.....	SEC. 29, BLK. 17, H&GNRR SUR		SEC. 29, BLK. 17, H&GNRR SUR			SEC. 16, BLK. A-4, H&GN SUR.		
OWNER.....	CRICKET OIL CO.		CRICKET OIL CO.			GETTY OIL CO.		
COMPLETED.....	06/01/61		06/26/61			11/11/80		
SAMPLED.....	09/23/61		09/23/61			08/11/80		
FORMATION.....	PERM-GRANITE WASH		PERM-GRANITE WASH			MISS-		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	1909		1857			14722		
WELLHEAD PRESSURE, PSIG.....	854		85			2640		
OPEN FLOW, MCFD.....	1750		80			2100		
COMPONENT, MOLE PCT								
METHANE.....	83.9	-----	89.2	-----		87.4	-----	
ETHANE.....	3.8	-----	4.1	-----		5.7	-----	
PROPANE.....	2.0	-----	2.2	-----		2.5	-----	
N-BUTANE.....	0.7	-----	0.8	-----		0.8	-----	
ISOBUTANE.....	0.5	-----	0.1	-----		0.5	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.2	-----	
ISOPENTANE.....	0.3	-----	0.3	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		0.2	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.4	-----	
NITROGEN.....	7.4	-----	2.4	-----		2.0	-----	
OXYGEN.....	0.9	-----	TRACE	-----		0.0	-----	
ARGON.....	TRACE	-----	0.0	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	TRACE	-----		0.2	-----	
HELIUM.....	0.12	-----	0.09	-----		0.02	-----	
HEATING VALUE.....	1038	-----	1109	-----		1141	-----	
SPECIFIC GRAVITY.....	0.660	-----	0.640	-----		0.659	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 11125 SAMPLE 16362	INDEX 11126 SAMPLE 16860	INDEX 11127 SAMPLE 16338
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WHEELER		WHEELER	WHEELER
FIELD.....	STILES RANCH		STILES RANCH	THORNDIKE
WELL NAME.....	G. C. DAVIS NO. 1		MILLER NO. 2-1	H. B. TAYLOR JR. NO. 2
LOCATION.....	SEC. 51, BLK. A-7, H&GN SUR.		SEC. 38, BLK. A3, H&GN SUR.	SEC. 4, BLK. A-2, H&GN SUR.
OWNER.....	HUNT ENERGY CORP.		HNG OIL CO.	AMOCO PRODUCTION CO.
COMPLETED.....	02/19/81		--/--/82	06/05/81
SAMPLED.....	10/20/81		04/06/83	09/18/81
FORMATION.....	PENN-NORROW		PENN-ATOKA	PENN-ATOKA
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	17722		15239	11298
WELLHEAD PRESSURE, PSIG.....	9656		5833	2275
OPEN FLOW, MCFD.....	6300		9500	3600
COMPONENT, MOLE PCT				
METHANE.....	97.2	94.1	91.7	
ETHANE.....	0.8	2.7	3.8	
PROPANE.....	0.1	0.6	1.6	
N-BUTANE.....	TRACE	0.2	0.4	
ISOBUTANE.....	TRACE	0.1	0.1	
N-PENTANE.....	TRACE	0.1	0.1	
ISOPENTANE.....	0.0	0.2	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	0.4	0.4	1.0	
OXYGEN.....	0.0	0.1	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.2	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.4	0.0	0.9	
HELIUM.....	0.01	0.02	0.03	
HEATING VALUE.....	1007	1046	1069	
SPECIFIC GRAVITY.....	0.577	0.596	0.615	
		INDEX 11128 SAMPLE 14264	INDEX 11129 SAMPLE 15607	INDEX 11130 SAMPLE 15609
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WHEELER		WHEELER	WHEELER
FIELD.....	WHEELER		WHEELER	WHEELER
WELL NAME.....	S. K. WILLIAMS NO. 1		BEEF CATTLE CO. NO. 1	MOORE NO. 1-A
LOCATION.....	SEC. 2, BLK. E, T&NO SUR.		SEC. 57, BLK. A8, H&GN SUR.	SEC. 58, BLK. 418, H&GN SUR.
OWNER.....	GETTY OIL CO.		NATOMAS NORTH AMERICA, INC.	NATOMAS NORTH AMERICA, INC.
COMPLETED.....	09/30/74		--/--/70	--/--/70
SAMPLED.....	01/12/75		04/26/79	04/26/79
FORMATION.....	DEVON-HUNTON		DEVON-HUNTON	DEVON-HUNTON
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	14480		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	4484		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	34000		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	93.5	92.9	88.6	
ETHANE.....	3.3	3.5	3.0	
PROPANE.....	1.1	1.1	1.6	
N-BUTANE.....	0.3	0.4	0.3	
ISOBUTANE.....	0.2	0.1	0.1	
N-PENTANE.....	TRACE	0.2	0.1	
ISOPENTANE.....	0.1	0.1	0.1	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.1	0.2	0.1	
NITROGEN.....	0.6	0.6	4.4	
OXYGEN.....	0.0	0.0	1.0	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.8	0.8	0.8	
HELIUM.....	0.02	0.02	0.02	
HEATING VALUE.....	1061	1077	1008	
SPECIFIC GRAVITY.....	0.604	0.618	0.622	
		INDEX 11131 SAMPLE 15610	INDEX 11132 SAMPLE 14277	INDEX 11133 SAMPLE 16224
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WHEELER		WHEELER	WHEELER
FIELD.....	WHEELER		WHEELER NE	WHEELER NE
WELL NAME.....	IRONS NO. 1		J. R. REED NO. 1-31	YOUNG NO. 1-32
LOCATION.....	SEC. 8, BLK. A4, H&GN SUR.		SEC. 31, BLK. A-3, H&GN SUR.	SEC. 32, BLK. A3, H&TC SUR.
OWNER.....	NATOMAS NORTH AMERICA, INC.		ARKLA EXPLORATION CO.	UNION TEXAS PETROLEUM CORP.
COMPLETED.....	--/--/70		12/20/74	07/05/80
SAMPLED.....	04/26/79		02/28/75	04/07/81
FORMATION.....	DEVON-HUNTON		PENN-NORROW	PENN-NORROW
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	14896		16739	15730
WELLHEAD PRESSURE, PSIG.....	7370		7384	7665
OPEN FLOW, MCFD.....	8106		10131	3800
COMPONENT, MOLE PCT				
METHANE.....	89.5	96.9	87.2	
ETHANE.....	3.6	0.6	1.0	
PROPANE.....	1.3	0.1	0.1	
N-BUTANE.....	0.4	TRACE	0.1	
ISOBUTANE.....	0.1	TRACE	0.0	
N-PENTANE.....	0.1	TRACE	TRACE	
ISOPENTANE.....	0.1	TRACE	TRACE	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	3.2	0.7	7.8	
OXYGEN.....	0.7	TRACE	1.9	
ARGON.....	TRACE	0.1	0.1	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.8	1.5	1.6	
HELIUM.....	0.02	0.02	0.02	
HEATING VALUE.....	1039	1003	912	
SPECIFIC GRAVITY.....	0.626	0.580	0.623	
		INDEX 11134 SAMPLE 14406	INDEX 11135 SAMPLE 14811	INDEX 11136 SAMPLE 16707
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WHEELER		WHEELER	WHEELER
FIELD.....	WHEELER-PAN		WHEELER-PAN	WHEELER-PAN
WELL NAME.....	CITY OF SHAMROCK NO. 1		SANDIFER A NO. 1	R.N. BYERS NO. 1
LOCATION.....	SEC. 2J, POITEVENT SUR.		SEC. 51, BLK. A-8, H&GN SUR.	SEC. 23, BLK. L, J.M. LINDSEY SUR
OWNER.....	GETTY OIL CO.		PHILLIPS PETROLEUM CO.	SUN EXPLORATION & PRODUCTION
COMPLETED.....	04/11/76		08/21/76	02/24/82
SAMPLED.....	06/--/75		10/19/76	11/03/82
FORMATION.....	DEVON-HUNTON		PENN-GRANITE WASH	DEVON-HUNTON
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	14842		13932	16065
WELLHEAD PRESSURE, PSIG.....	5913		3334	5120
OPEN FLOW, MCFD.....	27500		8000	22500
COMPONENT, MOLE PCT				
METHANE.....	93.1	91.6	93.9	
ETHANE.....	3.5	4.1	3.1	
PROPANE.....	0.7	0.0	0.7	
N-BUTANE.....	0.3	0.6	0.2	
ISOBUTANE.....	0.2	0.2	TRACE	
N-PENTANE.....	0.1	0.1	0.1	
ISOPENTANE.....	0.1	0.2	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	0.7	0.1	1.0	
OXYGEN.....	0.0	TRACE	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.2	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.8	0.4	0.5	
HELIUM.....	0.02	0.02	0.03	
HEATING VALUE.....	1068	1067	1046	
SPECIFIC GRAVITY.....	0.609	0.621	0.595	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

937

INDEX 11137 SAMPLE 13520		INDEX 11138 SAMPLE 14793		INDEX 11139 SAMPLE 16076	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	WHEELER	WHEELER	WHEELER	WHEELER	
FIELD.....	WILDCAT	WILDCAT	WILDCAT	WILDCAT	
WELL NAME.....	MOLT NO. 1	LANCASTER NO. 1	E. T. DAVIS NO. 1	E. T. DAVIS NO. 1	
LOCATION.....	SEC. 60, BLK. RE, &E SUR.	SEC. 58, BLK. A-4, H&G SUR.	SEC. 60, BLK. A7, H&G SUR.	SEC. 60, BLK. A7, H&G SUR.	
OWNER.....	KERR-MCGEE CORP.	AMARILLO OIL CO.	HUNT ENERGY CORP.	HUNT ENERGY CORP.	
COMPLETED.....	07/11/72	07/27/76	04/08/80	04/08/80	
SAMPLED.....	02/-/73	09/-/76	09/04/80	09/04/80	
FORMATION.....	PENN-MORROW	PENN-MORROW	PENN-MORROW	PENN-MORROW	
GEOLOGIC PROVINCE CODE.....	360	360	360	360	
DEPTH, FEET.....	18035	14009	17425	17425	
WELLHEAD PRESSURE, PSIG.....	1256	2073	653	653	
OPEN FLOW, MCFD.....	11000	24000	2393	2393	
COMPONENT, MOLE PCT					
METHANE.....	90.5	84.4	97.3	97.3	
ETHANE.....	0.4	0.6	0.8	0.8	
PROPANE.....	0.1	0.5	0.1	0.1	
N-BUTANE.....	0.0	0.9	0.1	0.1	
ISOBUTANE.....	0.0	0.7	TRACE	TRACE	
N-PENTANE.....	0.0	0.2	TRACE	TRACE	
ISOPENTANE.....	0.0	0.2	0.0	0.0	
CYCLOPENTANE.....	0.0	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.0	TRACE	0.1	0.1	
NITROGEN.....	4.5	0.7	0.5	0.5	
OXYGEN.....	1.0	0.1	0.1	0.1	
ARGON.....	0.1	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	3.4	0.5	1.0	1.0	
HELIUM.....	0.02	0.1	0.01	0.01	
HEATING VALUE*.....	927	1181	1011	1011	
SPECIFIC GRAVITY.....	0.615	0.677	0.576	0.576	

INDEX 11140 SAMPLE 16445		INDEX 11141 SAMPLE 6919		INDEX 11142 SAMPLE 14101	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	WHEELER	WILBARGER	WILLACY	WILLACY	
FIELD.....	WILDCAT	MAIN	ARROYO COLORADO	ARROYO COLORADO	
WELL NAME.....	DIXON NO. 1	MATYSEK NO. B-1	ARMENDATZ B NO. 1	ARMENDATZ B NO. 1	
LOCATION.....	SEC. 60, BLK. 13, H&G SUR.	SEC. 9, BLK. 8	JOSE MARCISCO CABAZO GRT.	JOSE MARCISCO CABAZO GRT.	
OWNER.....	WHEELER OIL CO.	TOM B. MEDDERS	CORPUS CHRISTI MANAGEMENT CO	CORPUS CHRISTI MANAGEMENT CO	
COMPLETED.....	02/15/82	04/26/56	04/06/72	04/06/72	
SAMPLED.....	03/01/82	10/06/59	07/14/74	07/14/74	
FORMATION.....	PERM-GRANITE WASH	PENN-CANYON	MIOC-CATAHOULA	MIOC-CATAHOULA	
GEOLOGIC PROVINCE CODE.....	360	430	220	220	
DEPTH, FEET.....	2835	3194	NOT GIVEN	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	700	290	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	10	12	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	82.0	62.9	94.6	94.6	
ETHANE.....	1.8	9.5	1.2	1.2	
PROPANE.....	0.1	0.7	TRACE	TRACE	
N-BUTANE.....	0.2	2.4	0.0	0.0	
ISOBUTANE.....	0.1	1.3	0.0	0.0	
N-PENTANE.....	TRACE	0.6	0.0	0.0	
ISOPENTANE.....	TRACE	0.7	0.0	0.0	
CYCLOPENTANE.....	TRACE	0.2	0.0	0.0	
HEXANES PLUS.....	0.1	0.5	0.0	0.0	
NITROGEN.....	14.0	14.9	3.7	3.7	
OXYGEN.....	0.5	TRACE	TRACE	TRACE	
ARGON.....	0.1	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.1	TRACE	TRACE	
HYDROGEN SULFIDE**.....	0.0	0.1	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.5	0.1	0.1	
HELIUM.....	0.38	0.01	0.02	0.02	
HEATING VALUE*.....	895	1195	982	982	
SPECIFIC GRAVITY.....	0.640	0.827	0.575	0.575	

INDEX 11143 SAMPLE 14104		INDEX 11144 SAMPLE 11232		INDEX 11145 SAMPLE 11199	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	WILLACY	WILLACY	WILLACY	WILLACY	
FIELD.....	ARROYO COLORADO	CHESS	CHESS	LACAL	
WELL NAME.....	ARMENDATZ B NO. 2	CHESS TODD NO. 6	CHESS TODD NO. 6	BEATTY-YTURRIA L&C CO. NO. 1	
LOCATION.....	MARCISCO CABAZOS GRANT	S. J. DE CARRICITOS GRT.-A-8	S. J. DE CARRICITOS GRT.-A-8	S. J. DE CARRICITOS GRT.-A-8	
OWNER.....	CORPUS CHRISTI MANAGEMENT CO	SUPERIOR OIL CO.	SUPERIOR OIL CO.	OCCIDENTAL PETROLEUM CORP.	
COMPLETED.....	04/13/72	10/26/66	10/26/66	01/30/65	
SAMPLED.....	04/14/74	11/20/67	11/20/67	11/01/67	
FORMATION.....	MIOC-CATAHOULA	OLIG-NO. 72 SAND	OLIG-NO. 72 SAND	OLIG-FRIO D-5	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	NOT GIVEN	7210	7210	8136	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	2829	2829	3249	
OPEN FLOW, MCFD.....	NOT GIVEN	72000	72000	13200	
COMPONENT, MOLE PCT					
METHANE.....	94.5	91.9	92.3	92.3	
ETHANE.....	1.3	3.8	3.4	3.4	
PROPANE.....	0.1	1.2	1.0	1.0	
N-BUTANE.....	0.0	0.4	0.4	0.4	
ISOBUTANE.....	0.0	0.5	0.4	0.4	
N-PENTANE.....	0.0	0.2	0.3	0.3	
ISOPENTANE.....	0.0	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.1	0.1	
HEXANES PLUS.....	0.0	0.6	0.8	0.8	
NITROGEN.....	3.8	1.0	1.1	1.1	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	TRACE	0.0	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.1	0.1	
HELIUM.....	0.02	0.01	0.01	0.01	
HEATING VALUE*.....	983	1107	1110	1110	
SPECIFIC GRAVITY.....	0.579	0.625	0.627	0.627	

INDEX 11146 SAMPLE 13123		INDEX 11147 SAMPLE 12030		INDEX 11148 SAMPLE 4927	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	WILLACY	WILLACY	WILLACY	WILLSON	
FIELD.....	PASO REAL	WILLANAR SE	WILLANAR SE	WILDCAT	
WELL NAME.....	ARMENDATZ B NO. 4	SAUZ RANCH NOPAL NO. 8	SAUZ RANCH NOPAL NO. 8	T. D. MANFORD NO. 1	
LOCATION.....	SAN JUAN DE CARRICITOS GRANT	SAN JUAN DE CARRICITOS GR.-A-8	SAN JUAN DE CARRICITOS GR.-A-8	NOT GIVEN	
OWNER.....	HEWITT OIL & GAS CORP.	HEWITT OIL & REFINING CO.	HEWITT OIL & REFINING CO.	HEWITT & DOUGHERTY	
COMPLETED.....	08/31/70	09/11/68	09/11/68	04/25/50	
SAMPLED.....	12/22/71	09/04/69	09/04/69	08/16/50	
FORMATION.....	NOT GIVEN	OLIG-FRIO	OLIG-FRIO	EOCE-WILCOX L	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	3700	7834	4279	4279	
WELLHEAD PRESSURE, PSIG.....	1110	2540	1850	1850	
OPEN FLOW, MCFD.....	870	27300	9200	9200	
COMPONENT, MOLE PCT					
METHANE.....	95.4	95.1	89.5	89.5	
ETHANE.....	1.5	0.2	0.7	0.7	
PROPANE.....	0.1	0.2	0.2	0.2	
N-BUTANE.....	0.0	0.1	0.1	0.1	
ISOBUTANE.....	0.0	0.0	0.2	0.2	
N-PENTANE.....	0.0	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	TRACE	TRACE	
CYCLOPENTANE.....	0.0	0.0	TRACE	TRACE	
HEXANES PLUS.....	0.0	0.0	0.1	0.1	
NITROGEN.....	2.8	2.7	8.5	8.5	
OXYGEN.....	0.0	0.0	0.2	0.2	
ARGON.....	TRACE	TRACE	0.1	0.1	
HYDROGEN.....	0.0	0.0	0.4	0.4	
HYDROGEN SULFIDE**.....	0.0	0.0	0.04	0.04	
CARBON DIOXIDE.....	0.1	0.0	941	941	
HELIUM.....	0.02	0.01	0.607	0.607	
HEATING VALUE*.....	996	999			
SPECIFIC GRAVITY.....	0.575	0.577			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 11149 SAMPLE 13630	INDEX 11150 SAMPLE 11901	INDEX 11151 SAMPLE 7086
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WINKLER		WINKLER	WINKLER
FIELD.....	APOLLO		CRITTENDON	EMPEROR
WELL NAME.....	UNIV. 21-23 NO. 1		WOLFE UNIT NO. 1	BROWN & ALTMAN GAS UNIT NO.7
LOCATION.....	SEC. 23, BLK. 21, UNIV. S		SEC. 24, BLK. C-23, PSL SUR.	SEC. 15, BLK. B-5, PSL SUR.
OWNER.....	HNG OIL CO.		ATLANTIC RICHFIELD CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	06/15/73		01/30/68	--/7-70
SAMPLED.....	06/18/73		05/22/69	06/04/59
FORMATION.....	SILU-FUSSELMAN		PENN-ATOKA	DEVO-
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	16182		14500	9280
WELLHEAD PRESSURE, PSIG.....	6200		7834	3225
OPEN FLOW, MCFD.....	9800		150000	445000
COMPONENT, MOLE PCT.....				
METHANE.....	95.5	-----	90.7	92.0
ETHANE.....	2.0	-----	5.5	3.9
PROPANE.....	0.3	-----	1.6	1.3
N-BUTANE.....	TRACE	-----	0.3	0.4
ISOBUTANE.....	0.1	-----	0.1	0.0
N-PENTANE.....	TRACE	-----	0.1	0.1
ISOPENTANE.....	TRACE	-----	0.1	0.3
CYCLOPENTANE.....	TRACE	-----	TRACE	0.1
HEXANES PLUS.....	TRACE	-----	0.1	0.3
NITROGEN.....	0.9	-----	0.1	0.7
OXYGEN.....	0.0	-----	0.0	0.0
ARGON.....	TRACE	-----	TRACE	TRACE
HYDROGEN.....	TRACE	-----	0.0	TRACE
HYDROGEN SULFIDE.....	0.0	-----	0.0	0.0
CARBON DIOXIDE.....	1.0	-----	0.2	0.9
HELIUM.....	0.02	-----	0.02	0.02
HEATING VALUE.....	1014	-----	1086	1085
SPECIFIC GRAVITY.....	0.581	-----	0.615	0.621
		INDEX 11152 SAMPLE 7169	INDEX 11153 SAMPLE 7170	INDEX 11154 SAMPLE 12809
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WINKLER		WINKLER	WINKLER
FIELD.....	EMPEROR		EMPEROR	EMPEROR
WELL NAME.....	MCCABE NO. 3		MCCABE NO. 3	S. H. HALLEY NO. 10
LOCATION.....	SEC. 36, BLK. 5, PSL SUR.		SEC. 36, BLK. B-5, PSL SUR.	SEC. 7, BLK. B-11, PSL SUR.
OWNER.....	SHELL OIL CO.		SHELL OIL CO.	TEXACO INC.
COMPLETED.....	11/22/57		11/22/57	--/7-70
SAMPLED.....	08/11/59		08/11/59	04/30/71
FORMATION.....	DEVO-		ORDO-ELLENBURGER	ORDO-WADDELL
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	9018		11351	11032
WELLHEAD PRESSURE, PSIG.....	3256		3470	NOT GIVEN
OPEN FLOW, MCFD.....	72000		24000	230
COMPONENT, MOLE PCT.....				
METHANE.....	92.9	-----	92.9	85.5
ETHANE.....	4.0	-----	4.0	7.4
PROPANE.....	1.3	-----	1.0	3.1
N-BUTANE.....	0.4	-----	0.3	1.0
ISOBUTANE.....	TRACE	-----	0.2	0.7
N-PENTANE.....	0.2	-----	TRACE	0.6
ISOPENTANE.....	0.0	-----	0.2	0.0
CYCLOPENTANE.....	0.1	-----	TRACE	0.1
HEXANES PLUS.....	0.2	-----	0.1	0.4
NITROGEN.....	0.8	-----	1.0	1.2
OXYGEN.....	TRACE	-----	0.0	0.0
ARGON.....	0.0	-----	TRACE	0.0
HYDROGEN.....	0.0	-----	0.0	0.0
HYDROGEN SULFIDE.....	0.0	-----	0.0	0.0
CARBON DIOXIDE.....	0.1	-----	0.1	0.1
HELIUM.....	0.04	-----	0.04	0.04
HEATING VALUE.....	1083	-----	1069	1186
SPECIFIC GRAVITY.....	0.608	-----	0.602	0.678
		INDEX 11155 SAMPLE 12891	INDEX 11156 SAMPLE 12892	INDEX 11157 SAMPLE 13687
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WINKLER		WINKLER	WINKLER
FIELD.....	EWEETS		EWEETS	EWEETS
WELL NAME.....	HALEY UNIT NO. 1-1		HALEY UNIT NO. 1-1	JOHN HALEY JR. B NO. 1
LOCATION.....	SEC. 7, BLK. 27, PSL SUR.		SEC. 7, BLK. 27, PSL SUR.	SEC. 18, BLK. 27, PSL SUR.
OWNER.....	HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	EXXON CO., U.S.A.
COMPLETED.....	05/10/70		05/10/70	05/10/72
SAMPLED.....	07/01/71		07/01/71	08/23/73
FORMATION.....	ORDO-ELLENBURGER		SILU-	ORDO-ELLENBURGER
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	20240		17464	20429
WELLHEAD PRESSURE, PSIG.....	7015		6197	6715
OPEN FLOW, MCFD.....	35500		28500	13500
COMPONENT, MOLE PCT.....				
METHANE.....	98.3	-----	96.4	97.7
ETHANE.....	0.2	-----	1.2	0.3
PROPANE.....	0.0	-----	0.1	0.1
N-BUTANE.....	0.0	-----	0.1	TRACE
ISOBUTANE.....	0.0	-----	0.0	TRACE
N-PENTANE.....	0.0	-----	0.0	0.0
ISOPENTANE.....	0.0	-----	0.0	0.1
CYCLOPENTANE.....	0.0	-----	0.0	TRACE
HEXANES PLUS.....	0.0	-----	0.0	0.1
NITROGEN.....	0.4	-----	0.0	0.4
OXYGEN.....	0.0	-----	TRACE	0.0
ARGON.....	TRACE	-----	0.0	TRACE
HYDROGEN.....	0.0	-----	0.0	TRACE
HYDROGEN SULFIDE.....	0.0	-----	TRACE	0.0
CARBON DIOXIDE.....	1.0	-----	1.1	1.3
HELIUM.....	0.03	-----	0.02	0.03
HEATING VALUE.....	999	-----	1007	1007
SPECIFIC GRAVITY.....	0.566	-----	0.578	0.576
		INDEX 11158 SAMPLE 13690	INDEX 11159 SAMPLE 14684	INDEX 11160 SAMPLE 7168
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WINKLER		WINKLER	WINKLER
FIELD.....	EWEETS		FELMONT	HALLEY
WELL NAME.....	JOHN HALEY JR. B NO. 1		FELMONT OIL CORP. NO. 1	SEALY-SMITH B NO. 1
LOCATION.....	SEC. 18, BLK. 27, PSL SUR.		SEC. 19, BLK. 26, PSL SUR.	SEC. 91, BLK. A, GMMBA SUR.
OWNER.....	EXXON CO., U.S.A.		AMOCO PRODUCTION CO.	SHELL OIL CO.
COMPLETED.....	05/10/72		05/26/76	08/07/57
SAMPLED.....	08/23/73		08/26/76	08/11/59
FORMATION.....	SILU-		PENN-ATOKA	DEVO-
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	17908		NOT GIVEN	9850
WELLHEAD PRESSURE, PSIG.....	6225		4200	2460
OPEN FLOW, MCFD.....	90000		35000	1500
COMPONENT, MOLE PCT.....				
METHANE.....	95.9	-----	90.6	84.9
ETHANE.....	1.3	-----	5.3	7.4
PROPANE.....	0.2	-----	1.8	4.2
N-BUTANE.....	TRACE	-----	0.5	1.0
ISOBUTANE.....	0.1	-----	0.3	0.2
N-PENTANE.....	0.0	-----	0.1	0.3
ISOPENTANE.....	TRACE	-----	0.3	0.2
CYCLOPENTANE.....	0.1	-----	0.1	0.2
HEXANES PLUS.....	0.1	-----	0.2	0.6
NITROGEN.....	0.7	-----	0.5	0.2
OXYGEN.....	0.0	-----	0.0	0.0
ARGON.....	TRACE	-----	TRACE	0.0
HYDROGEN.....	TRACE	-----	0.0	0.0
HYDROGEN SULFIDE.....	0.3	-----	0.0	0.0
CARBON DIOXIDE.....	1.3	-----	0.2	0.7
HELIUM.....	0.02	-----	0.01	0.02
HEATING VALUE.....	1014	-----	1117	1202
SPECIFIC GRAVITY.....	0.586	-----	0.629	0.686

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 11161 SAMPLE 9951	INDEX 11162 SAMPLE 9952	INDEX 11163 SAMPLE 2024
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WINKLER		WINKLER	WINKLER
FIELD.....	HALLEY		HALLEY	HENDRICK
WELL NAME.....	S. M. HALLEY NO. 167		S. M. HALLEY NO. 167	HUTCHINS NO. 1
LOCATION.....	SEC. 24, BLK. 8-11		SEC. 24, BLK. 8-11	SEC. 47, BLK. 26, PSL SUR.
OWNER.....	SKELLY OIL CO.		SKELLY OIL CO.	SOUTHERN CRUDE OIL PUR. CO.
COMPLETED.....	1/7-64		1/7-64	06/05/70
SAMPLED.....	07/02/65		07/02/65	06/11/70
FORMATION.....	DEVON		ORDO-MONTOYA	PERM
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	9503		10432	2484
WELLHEAD PRESSURE, PSIG.....	3000		1833	1300
OPEN FLOW, MCFD.....	16214		4698	40000
COMPONENT, MOLE PCT				
METHANE.....	84.4	84.3	85.0	85.0
ETHANE.....	7.3	7.2	12.8	12.8
PROPANE.....	2.7	3.1	---	---
N-BUTANE.....	0.9	0.9	---	---
ISOBUTANE.....	0.6	0.6	---	---
N-PENTANE.....	0.5	0.4	---	---
ISOPENTANE.....	TRACE	TRACE	---	---
CYCLOPENTANE.....	0.3	0.1	---	---
HEXANES PLUS.....	1.0	0.5	---	---
NITROGEN.....	1.2	1.6	1.3	1.3
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	0.0	0.0	---	---
HYDROGEN.....	0.0	0.0	---	---
HYDROGEN SULFIDE.....	0.0	0.0	---	---
CARBON DIOXIDE.....	1.1	1.3	0.9	0.9
HELIUM.....	TRACE	TRACE	0.00	0.00
HEATING VALUE.....	1150	1150	1090	1090
SPECIFIC GRAVITY.....	0.696	0.683	0.632	0.632
		INDEX 11164 SAMPLE 2025	INDEX 11165 SAMPLE 9988	INDEX 11166 SAMPLE 6494
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WINKLER		WINKLER	WINKLER
FIELD.....	HENDRICK		HENDRICK	KERMIT
WELL NAME.....	T88-R1		I. C. ROARK NO. 1	BATTERY 19-14-E BAIRD
LOCATION.....	SEC. 27, BLK. 26, PSL SUR.		SEC. 32, BLK. 26, PSL SUR.	SEC. 19, BLK. 8-3, PSL SUR.
OWNER.....	SOUTHERN CRUDE OIL PUR. CO.		PAN AMERICAN PETROLEUM CORP.	STANDARD OIL CO. OF TEXAS
COMPLETED.....	10/23/28		09/01/64	01/30/58
SAMPLED.....	06/21/50		07/21/65	01/29/58
FORMATION.....	PERM		PENN-ATOKA	SILU-FUSSELMAN
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	2490		9976	8660
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2380	2550
OPEN FLOW, MCFD.....	50000		1710	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	82.6	91.7	87.0	87.0
ETHANE.....	14.5	4.1	6.8	6.8
PROPANE.....	---	1.4	2.7	2.7
N-BUTANE.....	---	0.5	0.8	0.8
ISOBUTANE.....	---	0.3	0.3	0.3
N-PENTANE.....	---	0.3	0.1	0.1
ISOPENTANE.....	---	TRACE	0.2	0.2
CYCLOPENTANE.....	---	0.2	0.2	0.2
HEXANES PLUS.....	---	0.4	0.2	0.2
NITROGEN.....	0.8	0.5	0.9	0.9
OXYGEN.....	0.3	TRACE	TRACE	TRACE
ARGON.....	---	TRACE	0.0	0.0
HYDROGEN.....	---	0.0	0.0	0.0
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0
CARBON DIOXIDE.....	1.8	0.0	0.9	0.9
HELIUM.....	0.00	0.02	0.04	0.04
HEATING VALUE.....	1097	1103	1137	1137
SPECIFIC GRAVITY.....	0.649	0.626	0.657	0.657
		INDEX 11167 SAMPLE 6495	INDEX 11168 SAMPLE 6496	INDEX 11169 SAMPLE 7666
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WINKLER		WINKLER	WINKLER
FIELD.....	KERMIT		KERMIT	KERMIT
WELL NAME.....	STATE WALTON NO. 1		KESSLER NO. 1	STATE WALTON E 30
LOCATION.....	SEC. 14, BLK. 8-3, PSL SUR.		SEC. 14, BLK. 8-3, PSL SUR.	SEC. 14, BLK. 8-3, PSL SUR.
OWNER.....	STANDARD OIL CO. OF TEXAS		STANDARD OIL CO. OF TEXAS	SOCOMY MOBIL OIL CO., INC.
COMPLETED.....	10/10/57		06/14/57	08/19/60
SAMPLED.....	01/30/58		06/14/57	08/30/60
FORMATION.....	ORDO-ELLENBURGER		DEVON	SILU-FUSSELMAN
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	10621		8100	8616
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2653	2760
OPEN FLOW, MCFD.....	NOT GIVEN		37000	75000
COMPONENT, MOLE PCT				
METHANE.....	78.8	85.2	81.3	81.3
ETHANE.....	10.2	6.5	6.8	6.8
PROPANE.....	4.5	2.7	2.5	2.5
N-BUTANE.....	2.0	1.1	0.7	0.7
ISOBUTANE.....	0.7	0.5	0.3	0.3
N-PENTANE.....	0.8	0.5	0.2	0.2
ISOPENTANE.....	0.3	0.2	0.1	0.1
CYCLOPENTANE.....	0.1	0.2	TRACE	TRACE
HEXANES PLUS.....	0.5	0.8	0.1	0.1
NITROGEN.....	1.8	1.5	6.3	6.3
OXYGEN.....	0.1	TRACE	1.1	1.1
ARGON.....	0.0	0.0	0.1	0.1
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.7	0.5	0.5
HELIUM.....	0.05	0.04	0.04	0.04
HEATING VALUE.....	1265	1182	1062	1062
SPECIFIC GRAVITY.....	0.735	0.687	0.674	0.674
		INDEX 11170 SAMPLE 12744	INDEX 11171 SAMPLE 12884	INDEX 11172 SAMPLE 12732
STATE.....	TEXAS		TEXAS	TEXAS
COUNTY.....	WINKLER		WINKLER	WINKLER
FIELD.....	KERMIT		KERMIT	KEYSTONE
WELL NAME.....	WALTON NO. 209		WALTON NO. 13-34	WALTON NO. 58-MC
LOCATION.....	SEC. 19, BLK. 74, PSL SUR.		SEC. 13, BLK. 8-3, PSL SUR.	SEC. 1, BLK. 8-3, PSL SUR.
OWNER.....	MOBIL OIL CORP.		CHEVRON OIL CO.	PERRY R. BASS
COMPLETED.....	02/14/50		05/21/58	10/16/55
SAMPLED.....	03/31/71		06/21/71	03/23/71
FORMATION.....	PERM-YATES		ORDO-JOINS	ORDO-MCKEE
GEOLOGIC PROVINCE CODE.....	430		430	430
DEPTH, FEET.....	2535		10300	8348
WELLHEAD PRESSURE, PSIG.....	300		800	NOT GIVEN
OPEN FLOW, MCFD.....	58		40500	874
COMPONENT, MOLE PCT				
METHANE.....	84.5	72.3	85.3	85.3
ETHANE.....	7.4	9.6	7.3	7.3
PROPANE.....	3.8	4.5	3.0	3.0
N-BUTANE.....	1.3	1.0	0.9	0.9
ISOBUTANE.....	0.6	0.6	0.5	0.5
N-PENTANE.....	0.3	0.5	0.6	0.6
ISOPENTANE.....	0.3	0.4	0.1	0.1
CYCLOPENTANE.....	0.1	0.1	0.2	0.2
HEXANES PLUS.....	0.2	0.2	0.5	0.5
NITROGEN.....	1.6	8.7	1.4	1.4
OXYGEN.....	0.0	1.7	0.0	0.0
ARGON.....	0.0	TRACE	0.0	0.0
HYDROGEN.....	0.0	TRACE	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.1	0.1	0.1
HELIUM.....	0.02	0.03	0.00	0.00
HEATING VALUE.....	1181	1186	1183	1183
SPECIFIC GRAVITY.....	0.680	0.746	0.677	0.677

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11173 12733	INDEX SAMPLE	11174 2021	INDEX SAMPLE	11175 15356
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WINKLER			WINKLER		WINKLER	
FIELD.....	KESTONE			LECK		LITTLE JOE	
WELL NAME.....	WALTON NO. 63-0			LECK NO. 1-OIL WELL		UNIV. 41-21 NO. 1	
LOCATION.....	SEC. 5, BLK. 8-2, PSL SUR.			SEC. 3, BLK. 74, PSL SUR.		SEC. 41, BLK. 21, UL SUR.	
OWNER.....	PERRY R. BASS			SHELL OIL CO.		GETTY OIL CO.	
COMPLETED.....	09/21/55			01/14/29		12/02/77	
SAMPLED.....	03/23/71			06/11/30		08/31/78	
FORMATION.....	DEV0-			PERM-YATES		ORDO-ELLENBURGER	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	7529			2905		19758	
WELLHEAD PRESSURE, PSIG.....	1000			NOT GIVEN		1450	
OPEN FLOW, MCFD.....	2800			NOT GIVEN		5310	
COMPONENT, MOLE PCT							
METHANE.....	83.3			82.4		96.8	
ETHANE.....	7.9			12.7		1.0	
PROPANE.....	3.6			---		0.2	
N-BUTANE.....	0.8			---		0.2	
ISOBUTANE.....	0.3			---		TRACE	
N-PENTANE.....	0.2			---		0.1	
ISOPENTANE.....	0.1			---		0.1	
CYCLOPENTANE.....	0.1			---		TRACE	
HEXANES PLUS.....	0.2			---		0.1	
NITROGEN.....	2.9			2.7		0.4	
OXYGEN.....	0.1			---		0.0	
ARGON.....	0.0			---		TRACE	
HYDROGEN.....	0.0			---		0.1	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.6			1.9		1.0	
HELIUM.....	0.03			0.05		0.02	
HEATING VALUE.....	1140			102		1024	
SPECIFIC GRAVITY.....	0.676			0.660		0.582	
		INDEX SAMPLE	11176 15720	INDEX SAMPLE	11177 16202	INDEX SAMPLE	11178 11876
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WINKLER			WINKLER		WINKLER	
FIELD.....	LITTLE JOE			LITTLE JOE		LITTLE JOE S	
WELL NAME.....	UNIV. 41-21 NO. 1			UNIVERSITY NO. 32-21		UNIV. 37 NO. 2	
LOCATION.....	SEC. 41, BLK. 21, UNIV. SUR.			SEC. 37, BLK. 21, U. L. SUR.		SEC. 37, BLK. 20, UNIV. LAND	
OWNER.....	GETTY OIL CO.			GETTY OIL CO.		UNION OIL CO. OF CALIF.	
COMPLETED.....	05/18/77			07/25/80		06/08/68	
SAMPLED.....	08/06/79			03/03/81		05/14/69	
FORMATION.....	ORDO-ELLENBURGER			SILCO-FULSELMAN		PERM-DELAWARE	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	21000			17560		5002	
WELLHEAD PRESSURE, PSIG.....	5249			1768		1768	
OPEN FLOW, MCFD.....	13600			20200		10080	
COMPONENT, MOLE PCT							
METHANE.....	97.0			95.5		81.4	
ETHANE.....	1.0			0.6		6.3	
PROPANE.....	0.2			0.3		3.0	
N-BUTANE.....	0.1			0.1		0.9	
ISOBUTANE.....	TRACE			TRACE		0.4	
N-PENTANE.....	0.1			TRACE		0.4	
ISOPENTANE.....	TRACE			TRACE		0.2	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			TRACE		0.3	
NITROGEN.....	0.4			1.1		6.7	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			TRACE		0.0	
CARBON DIOXIDE.....	1.0			1.3		TRACE	
HELIUM.....	0.02			0.02		0.08	
HEATING VALUE.....	1018			1007		1104	
SPECIFIC GRAVITY.....	0.578			0.584		0.683	
		INDEX SAMPLE	11179 9650	INDEX SAMPLE	11180 9399	INDEX SAMPLE	11181 3664
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WINKLER			WINKLER		WINKLER	
FIELD.....	WILDCAT			NOT GIVEN		WINKLER	
WELL NAME.....	SMITH NO. 1			SMITH HENDRICK NO. 1		WILDCAT BLUE ESTATE NO. 1	
LOCATION.....	SEC. 45, BLK. A, GMMB&A SUR.			SEC. 34, BLK. 27, PSL SUR.		SEC. 15, BLK. 46, T1S, T&P	
OWNER.....	TENNECO OIL CO.			PAN AMERICAN PETROLEUM CORP.		STANOLIND OIL & GAS CO.	
COMPLETED.....	06/28/64			06/08/64		06/16/43	
SAMPLED.....	11/27/64			06/10/64		09/16/43	
FORMATION.....	DEV0-			PENN-		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	8252			13350		10493	
WELLHEAD PRESSURE, PSIG.....	2355			3147		4558	
OPEN FLOW, MCFD.....	1750			4250		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	48.1			88.0		18.3	
ETHANE.....	23.7			5.7		73.8	
PROPANE.....	15.5			0.5		---	
N-BUTANE.....	5.5			0.5		---	
ISOBUTANE.....	2.1			0.3		---	
N-PENTANE.....	1.3			0.1		---	
ISOPENTANE.....	0.9			0.0		---	
CYCLOPENTANE.....	0.2			TRACE		---	
HEXANES PLUS.....	0.7			0.2		---	
NITROGEN.....	0.8			2.9		6.6	
OXYGEN.....	0.1			TRACE		0.5	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	1.1			0.7		0.8	
HELIUM.....	TRACE			0.01		0.04	
HEATING VALUE.....	1708			1708		1508	
SPECIFIC GRAVITY.....	1.020			0.638		0.957	
		INDEX SAMPLE	11182 10056	INDEX SAMPLE	11183 11661	INDEX SAMPLE	11184 15053
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WINKLER			WINKLER		WINKLER	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	S. SMITH FOUNDATION 1 NO. 7A			TUBB ESTATE NO. 1		UNIV. 21-3" NO. 2	
LOCATION.....	BLK. A, GMMB&A SUR.			SEC. 35, BLK. C-23, PSL SUR.		SEC. 4, BLK. 21, U.L. SUR.	
OWNER.....	STANDARD OIL CO. OF TEXAS			SINCLAIR OIL & GAS CO.		HNG OIL CO.	
COMPLETED.....	04/13/64			7/7-700		11/05/76	
SAMPLED.....	10/04/68			10/04/68		07/-777	
FORMATION.....	PENN-STRAWN			ORDO-ELLENBURGER		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	8620			21466		12719	
WELLHEAD PRESSURE, PSIG.....	2800			NOT GIVEN		5751	
OPEN FLOW, MCFD.....	2850			27000		7850	
COMPONENT, MOLE PCT							
METHANE.....	82.3			98.2		87.6	
ETHANE.....	9.1			0.2		5.1	
PROPANE.....	4.0			TRACE		1.7	
N-BUTANE.....	0.6			0.0		0.5	
ISOBUTANE.....	0.6			0.0		0.2	
N-PENTANE.....	0.4			0.0		0.1	
ISOPENTANE.....	0.1			0.0		0.3	
CYCLOPENTANE.....	0.1			0.0		0.1	
HEXANES PLUS.....	0.2			0.0		0.2	
NITROGEN.....	1.9			0.3		4.0	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			1.2		0.2	
HELIUM.....	0.04			0.03		0.02	
HEATING VALUE.....	1193			999		1078	
SPECIFIC GRAVITY.....	0.692			0.568		0.640	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11185 SAMPLE 12053			INDEX 11186 SAMPLE 12054			INDEX 11187 SAMPLE 12083		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WINKLER		WINKLER			WINKLER		
FIELD.....	WINK S		WINK S			WINK S		
WELL NAME.....	HUTCHINGS-SEALY NO. 1		HUTCHINGS-SEALY NO. 1			UNIV. 21-48 NO. 1		
LOCATION.....	SEC. 30, BLK. F, 6&M, MB&A SUR.		SEC. 30, BLK. F, 6&M, MB&A SUR.			SEC. 48, BLK. 21, UNIV. SUR.		
OWNER.....	STANDARD OIL CO. OF TEXAS		STANDARD OIL CO. OF TEXAS			STANDARD OIL CO. OF TEXAS		
COMPLETED.....	09/10/69		09/10/69			12/07/68		
SAMPLED.....	09/27/69		09/29/69			10/10/69		
FORMATION.....	ORDO-MONTOYA		ORDO-ELLENBURGER			DEV-0		
GEOLOGIC PROVINCE CODE.....	430		430			430		
DEPTH, FEET.....	16352		18239			15752		
WELLHEAD PRESSURE, PSIG.....	4000		5000			1700		
OPEN FLOW, MCFD.....	6000		14500			2400		
COMPONENT, MOLE PCT								
METHANE.....	65.1		76.8			70.1		
ETHANE.....	13.5		11.1			9.5		
PROPANE.....	9.3		5.6			4.7		
N-BUTANE.....	3.8		1.9			2.0		
ISOBUTANE.....	2.0		0.3			1.3		
N-PENTANE.....	1.3		0.5			1.5		
ISOPENTANE.....	0.6		0.5			0.5		
CYCLOPENTANE.....	0.3		0.1			0.5		
HEXANES PLUS.....	0.8		0.3			2.3		
NITROGEN.....	0.8		1.3			7.4		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.6		0.0			0.0		
CARBON DIOXIDE.....	1.8		0.5			0.1		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1476		1292			1356		
SPECIFIC GRAVITY.....	0.889		0.753			0.833		
INDEX 11188 SAMPLE 12592			INDEX 11189 SAMPLE 12593			INDEX 11190 SAMPLE 16392		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WISE		WISE			WISE		
FIELD.....	ALVORD		ALVORD			BBC		
WELL NAME.....	H. SMITH NO. 1		ALVORD TOWN SITE NO. 1			E. W. POUNDS NO. 1		
LOCATION.....	4 MI. SE ALVORD		1/4 MI. W ALVORD			SOUTH ISAACS SURVEY, A-454		
OWNER.....	GEORGE MITCHELL & ASSOC. INC		GEORGE MITCHELL & ASSOC. INC			NORTH CENTRAL OIL CORP.		
COMPLETED.....	12/29/57		02/22/62			12/18/57		
SAMPLED.....	2/17/70		12/17/70			12/10/81		
FORMATION.....	PENN-ATOKA		PENN-CADDO			DEV-0-BBC		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	5745		5660			5757		
WELLHEAD PRESSURE, PSIG.....	200		100			400		
OPEN FLOW, MCFD.....	NOT GIVEN		30			103		
COMPONENT, MOLE PCT								
METHANE.....	83.2		69.8			81.3		
ETHANE.....	8.0		13.2			8.2		
PROPANE.....	3.3		8.2			3.9		
N-BUTANE.....	0.6		2.7			1.1		
ISOBUTANE.....	0.2		1.1			0.5		
N-PENTANE.....	0.2		0.8			0.4		
ISOPENTANE.....	0.2		0.3			0.5		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.1		0.6			0.2		
NITROGEN.....	3.3		2.7			3.1		
OXYGEN.....	0.3		0.1			0.1		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.3			0.2		
HELIUM.....	0.08		0.05			0.13		
HEATING VALUE.....	1125		1378			1178		
SPECIFIC GRAVITY.....	0.670		0.818			0.696		
INDEX 11191 SAMPLE 5272			INDEX 11192 SAMPLE 5237			INDEX 11193 SAMPLE 6710		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	BOONSVILLE		BOONSVILLE			BOONSVILLE		
FIELD.....	BEND		BOONSVILLE			BOONSVILLE		
WELL NAME.....	C. R. BRIDGES NO. 1		E. L. VAUGHN NO. 1			CRENSHAW NO. 1		
LOCATION.....	BLK. 9, VAN ZANDT CSL SUR.		BLK. 9, WOODY SUR. NO. A-1-216			W. B. ATROFF SUR. NO. A-13		
OWNER.....	ACMA OIL CO.		ONE STAR GAS CO.			KERR-MCGEE OIL IND., INC.		
COMPLETED.....	01/26/52		01/29/52			10/31/57		
SAMPLED.....	10/06/52		04/04/52			07/15/58		
FORMATION.....	PENN-BEND CONGLOMERATE		PENN-BEND CONGLOMERATE			PENN-BEND CONGLOMERATE		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	5457		5390			5632		
WELLHEAD PRESSURE, PSIG.....	1250		1750			1273		
OPEN FLOW, MCFD.....	3700		2500			7400		
COMPONENT, MOLE PCT								
METHANE.....	84.6		82.2			82.2		
ETHANE.....	9.3		9.0			8.5		
PROPANE.....	2.5		3.8			4.1		
N-BUTANE.....	1.3		0.9			1.0		
ISOBUTANE.....	0.8		0.4			0.6		
N-PENTANE.....	0.3		0.4			0.2		
ISOPENTANE.....	0.7		0.3			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.4		TRACE			0.2		
NITROGEN.....	2.4		2.6			2.1		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.4		0.3			0.5		
HELIUM.....	0.10		0.09			0.20		
HEATING VALUE.....	1177		1158			1181		
SPECIFIC GRAVITY.....	0.689		0.680			0.691		
INDEX 11194 SAMPLE 9689			INDEX 11195 SAMPLE 9959			INDEX 11196 SAMPLE 10348		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WISE		WISE			WISE		
FIELD.....	BOONSVILLE		BOONSVILLE			BOONSVILLE		
WELL NAME.....	LEATH-WHORTON NO. 1		HACHTEL GAS UNIT NO. 1			KAHER NO. 1		
LOCATION.....	CHARLES FRAZIER SUR. A-294		JOHN REID SUR. A-707			SEC. 24, MATAGORDA CSL SUR.		
OWNER.....	J. G. MAYNARD, ET AL.		LONGHORN PRODUCTION CO.			BURK ROYALTY CO.		
COMPLETED.....	03/22/63		12/22/63			06/10/64		
SAMPLED.....	01/06/65		07/07/65			12/27/65		
FORMATION.....	PENN-ATOKA		PENN-BEND CONGLOMERATE			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	420		420			420		
DEPTH, FEET.....	6404		5908			6082		
WELLHEAD PRESSURE, PSIG.....	1050		800			1120		
OPEN FLOW, MCFD.....	1275		3300			1000		
COMPONENT, MOLE PCT								
METHANE.....	80.7		79.4			80.8		
ETHANE.....	9.7		9.9			8.1		
PROPANE.....	2.9		1.7			4.7		
N-BUTANE.....	0.9		1.2			1.1		
ISOBUTANE.....	0.8		0.8			0.7		
N-PENTANE.....	0.2		0.3			0.3		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.3			0.1		
NITROGEN.....	0.1		2.4			3.5		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.5			0.3		
HELIUM.....	0.10		0.10			0.15		
HEATING VALUE.....	1177		1176			1173		
SPECIFIC GRAVITY.....	0.697		0.716			0.697		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11197 12608	INDEX SAMPLE	11198 17737	INDEX SAMPLE	11199 16441
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WISE			WISE		WISE	
FIELD.....	BOONSVILLE			BOONSVILLE		BRIDGEPORT	
WELL NAME.....	G. I. LE MAY NO. 2-F			H.F. MARES, JR., NO. 2		HENRY TACKEL NO. 2T	
LOCATION.....	JOHN FREDERICK SUR. A-308			A.G. HARRIS SUR. A-375		MATAGORDA CSL SUR. A-535	
OWNER.....	GEORGE MITCHELL & ASSOC. INC			MITCHELL ENERGY CORP.		MITCHELL ENERGY CORP.	
COMPLETED.....	--/-/700			03/25/85		01/30/81	
SAMPLED.....	12/24/70			07/01/85		03/05/82	
FORMATION.....	PENN-4000 FT. STRAWN			PENN-ATOKA CONGLOMERATE		PENN-ATOKA CONG. 5250 FT.	
GEOLOGIC PROVINCE CODE.....	420			420		260	
DEPTH, FEET.....	3871			6457		5018	
WELLHEAD PRESSURE, PSIG.....	260			620		920	
OPEN FLOW, MCFD.....	50			12250		500	
COMPONENT, MOLE PCT							
METHANE.....	78.6	-----		77.4	-----	79.7	-----
ETHANE.....	5.2	-----		10.2	-----	8.3	-----
PROPANE.....	5.0	-----		5.6	-----	6.2	-----
N-BUTANE.....	1.7	-----		1.5	-----	0.0	-----
ISOBUTANE.....	0.8	-----		0.8	-----	1.7	-----
N-PENTANE.....	0.5	-----		0.1	-----	0.6	-----
ISOPENTANE.....	0.3	-----		0.6	-----	0.0	-----
CYCLOPENTANE.....	0.2	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.4	-----		0.2	-----	0.2	-----
NITROGEN.....	6.8	-----		2.7	-----	3.3	-----
OXYGEN.....	0.2	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.5	-----	0.0	-----
HELIUM.....	0.16	-----		0.11	-----	0.08	-----
HEATING VALUE.....	1166	-----		1230	-----	1213	-----
SPECIFIC GRAVITY.....	0.728	-----		0.729	-----	0.716	-----
		INDEX SAMPLE	11200 13653	INDEX SAMPLE	11201 6053	INDEX SAMPLE	11202 12271
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WISE			WISE		WISE	
FIELD.....	GREENWOOD			MEANDER W		RHODE	
WELL NAME.....	MAY GRIFFITH NO. 1			T. E. DAVIS NO. 3		MABEL WALKER NO. 1	
LOCATION.....	WILLIAM SHERROD SUR. A-742			ABSTRACT 547, N MACKEY SUR.		BLK. 18, SMITH CSL SUR. A743	
OWNER.....	GEORGE MITCHELL & ASSOC. INC			AMERICAN DRILLING CORP.		GEORGE MITCHELL & ASSOC. INC	
COMPLETED.....	05/30/71			07/-/55		11/12/68	
SAMPLED.....	07/19/73			04/16/56		06/01/70	
FORMATION.....	PENN-ATOKA			PENN-ATOKA		PENN-ATOKA	
GEOLOGIC PROVINCE CODE.....	420			420		420	
DEPTH, FEET.....	6606			5590		6220	
WELLHEAD PRESSURE, PSIG.....	1640			1250		2096	
OPEN FLOW, MCFD.....	2532			4545		4900	
COMPONENT, MOLE PCT							
METHANE.....	79.5	-----		80.3	-----	88.8	-----
ETHANE.....	8.9	-----		8.2	-----	5.9	-----
PROPANE.....	5.6	-----		4.4	-----	1.9	-----
N-BUTANE.....	1.2	-----		1.2	-----	0.2	-----
ISOBUTANE.....	0.9	-----		0.6	-----	0.3	-----
N-PENTANE.....	0.2	-----		0.9	-----	0.0	-----
ISOPENTANE.....	0.5	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	TRACE	-----
HEXANES PLUS.....	0.3	-----		0.4	-----	0.1	-----
NITROGEN.....	2.3	-----		3.8	-----	2.1	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.3	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.1	-----	0.4	-----
HELIUM.....	0.12	-----		0.18	-----	0.09	-----
HEATING VALUE.....	1230	-----		1186	-----	1081	-----
SPECIFIC GRAVITY.....	0.721	-----		0.705	-----	0.626	-----
		INDEX SAMPLE	11203 4938	INDEX SAMPLE	11204 3724	INDEX SAMPLE	11205 3922
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WISE			WOOD		WOOD	
FIELD.....	WILDCAT			MANZIEL		MANZIEL	
WELL NAME.....	N. L. CONLEY NO. 1			J. C. WHATLEY NO. 1		SHELL-SUN HERRING-SCOGGINS 1	
LOCATION.....	N. L. CONLEY SUR. NO. 739			JOHN POLK SUR.		SAMUEL BURCH SUR.	
OWNER.....	LONE STAR GAS CO.			SHELL OIL CO.		SHELL OIL CO.	
COMPLETED.....	04/26/50			--/-/00		--/-/00	
SAMPLED.....	08/02/50			02/-/44		08/15/44	
FORMATION.....	PENN-BEND CONGLOMERATE			CRET-GLEN ROSE L		CRET-VENTERS	
GEOLOGIC PROVINCE CODE.....	420			260		260	
DEPTH, FEET.....	5612			8455		8715	
WELLHEAD PRESSURE, PSIG.....	1298			500		3838	
OPEN FLOW, MCFD.....	1200			NOT GIVEN		1000	
COMPONENT, MOLE PCT							
METHANE.....	80.1	-----		66.9	-----	71.6	-----
ETHANE.....	9.2	-----		29.8	-----	21.3	-----
PROPANE.....	5.3	-----		---	-----	---	-----
N-BUTANE.....	1.4	-----		---	-----	---	-----
ISOBUTANE.....	0.6	-----		---	-----	---	-----
N-PENTANE.....	0.3	-----		---	-----	---	-----
ISOPENTANE.....	0.1	-----		---	-----	---	-----
CYCLOPENTANE.....	0.1	-----		---	-----	---	-----
HEXANES PLUS.....	0.3	-----		---	-----	---	-----
NITROGEN.....	1.9	-----		0.5	-----	5.9	-----
OXYGEN.....	0.1	-----		0.3	-----	0.0	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.5	-----		2.5	-----	1.2	-----
HELIUM.....	0.12	-----		0.02	-----	0.02	-----
HEATING VALUE.....	1219	-----		1212	-----	1107	-----
SPECIFIC GRAVITY.....	0.711	-----		0.730	-----	0.696	-----
		INDEX SAMPLE	11206 12674	INDEX SAMPLE	11207 9990	INDEX SAMPLE	11208 9991
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	WOOD			WOOD		WOOD	
FIELD.....	MANZIEL			QUITMAN		QUITMAN	
WELL NAME.....	S. R. REYNOLDS NO. 1			DAN GRAHAM 1-L		DAN GRAHAM 1-U	
LOCATION.....	WM. BARNHILL SUR. A-1			DAN ADAMS SUR. A-18		DAN ADAMS SUR. A-18	
OWNER.....	HUMBLE OIL CO.			HUMBLE OIL & REFINING CO.		HUMBLE OIL & REFINING CO.	
COMPLETED.....	03/26/64			03/07/64		03/05/64	
SAMPLED.....	02/11/71			07/18/65		07/18/65	
FORMATION.....	CRET-RODESSA			CRET-KIRKLAND, SOUTH		CRET-GLOYD	
GEOLOGIC PROVINCE CODE.....	260			260		260	
DEPTH, FEET.....	8432			8585		8585	
WELLHEAD PRESSURE, PSIG.....	850			1065		2215	
OPEN FLOW, MCFD.....	1000			525		651	
COMPONENT, MOLE PCT							
METHANE.....	83.5	-----		72.7	-----	71.0	-----
ETHANE.....	6.1	-----		5.2	-----	6.1	-----
PROPANE.....	5.3	-----		5.0	-----	3.6	-----
N-BUTANE.....	0.9	-----		1.6	-----	2.0	-----
ISOBUTANE.....	0.9	-----		1.2	-----	1.6	-----
N-PENTANE.....	0.3	-----		0.3	-----	0.8	-----
ISOPENTANE.....	0.7	-----		0.7	-----	0.6	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.2	-----
HEXANES PLUS.....	0.4	-----		0.1	-----	1.1	-----
NITROGEN.....	3.2	-----		13.6	-----	11.6	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.4	-----		1.3	-----	1.4	-----
HELIUM.....	0.03	-----		0.04	-----	0.04	-----
HEATING VALUE.....	1144	-----		1064	-----	1167	-----
SPECIFIC GRAVITY.....	0.692	-----		0.750	-----	0.794	-----

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11209 SAMPLE 12652			INDEX 11210 SAMPLE 12672			INDEX 11211 SAMPLE 12673		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WOOD		WOOD			WOOD		
FIELD.....	QUITMAN		QUITMAN			QUITMAN		
WELL NAME.....	EDITH RAPPE NO. 1		A. MCREE NO. 1			M. BLALOCK NO. 1		
LOCATION.....	1-1/2 MI. N QUITMAN		JOHN ALLEN SUR. A-20			SANTIAGO CALDERON SUR. A-98		
OWNER.....	AMERADA HESS CORP.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	06/--/66		09/26/61			03/24/58		
SAMPLED.....	02/01/71		02/11/71			02/11/71		
FORMATION.....	CRET-DEER		CRET-CATHEY-GLOYD			CRET-HILL		
GEOLOGIC PROVINCE CODE.....	260		260			260		
DEPTH, FEET.....	4178		8305			8125		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		300			400		
OPEN FLOW, MCFD.....	NOT GIVEN		400			1500		
COMPONENT, MOLE PCT								
METHANE.....	87.4	----	77.6	----		76.1	----	
ETHANE.....	1.3	----	6.8	----		7.8	----	
PROPANE.....	1.9	----	4.2	----		4.8	----	
N-BUTANE.....	1.4	----	2.0	----		2.1	----	
ISOBUTANE.....	2.6	----	1.7	----		2.0	----	
N-PENTANE.....	0.4	----	0.8	----		0.7	----	
ISOPENTANE.....	0.9	----	0.9	----		0.8	----	
CYCLOPENTANE.....	0.1	----	0.2	----		0.1	----	
HEXANES PLUS.....	0.7	----	1.1	----		1.0	----	
NITROGEN.....	2.4	----	3.2	----		3.1	----	
OXYGEN.....	0.0	----	0.0	----		0.0	----	
ARGON.....	TRACE	----	TRACE	----		0.0	----	
HYDROGEN.....	0.0	----	0.0	----		0.0	----	
HYDROGEN SULFIDE**.....	0.0	----	0.0	----		0.0	----	
CARBON DIOXIDE.....	0.8	----	1.5	----		1.4	----	
HELIUM.....	0.01	----	0.02	----		0.03	----	
HEATING VALUE*.....	1188	----	1278	----		1296	----	
SPECIFIC GRAVITY.....	0.702	----	0.777	----		0.786	----	
INDEX 11212 SAMPLE 4375			INDEX 11213 SAMPLE 12496			INDEX 11214 SAMPLE 4981		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	WOOD		WOOD			YOAKUM		
FIELD.....	YANTIS E		YANTIS SW			YOAKUM		
WELL NAME.....	RIO OIL CORP. NO. 1		M. J. B. MCKEE G. U. NO. 1			WILLARD C NO. 3		
LOCATION.....	JESSIE WALKER SUR.		OSCAR ENGLENDOW SUR.			SEC. 799, BLK. D GIBSON SUR.		
OWNER.....	HUMBOLDT OIL & REFINING CO.		PAN AMERICAN PETROLEUM CORP.			GENERAL AMERICAN OIL CO.		
COMPLETED.....	08/15/47		06/--/60			01/01/39		
SAMPLED.....	10/30/47		10/25/70			02/07/51		
FORMATION.....	CRET-GLEN ROSE L		JURA-SHACKOVER			PERM-SAN ANDRES		
GEOLOGIC PROVINCE CODE.....	260		260			430		
DEPTH, FEET.....	7930		12765			4796		
WELLHEAD PRESSURE, PSIG.....	3713		3698			NOT GIVEN		
OPEN FLOW, MCFD.....	16000		9100			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	76.2	----	57.3	----		78.7	----	
ETHANE.....	18.9	----	6.2	----		8.0	----	
PROPANE.....	---	----	4.1	----		---	----	
N-BUTANE.....	---	----	1.4	----		---	----	
ISOBUTANE.....	---	----	1.5	----		---	----	
N-PENTANE.....	---	----	0.5	----		---	----	
ISOPENTANE.....	---	----	0.3	----		---	----	
CYCLOPENTANE.....	---	----	0.1	----		---	----	
HEXANES PLUS.....	---	----	0.3	----		1.4	----	
NITROGEN.....	3.5	----	16.9	----		4.0	----	
OXYGEN.....	0.3	----	0.0	----		0.2	----	
ARGON.....	---	----	0.0	----		0.0	----	
HYDROGEN.....	---	----	0.0	----		0.0	----	
HYDROGEN SULFIDE**.....	---	----	4.7	----		---	----	
CARBON DIOXIDE.....	1.1	----	7.0	----		4.6	----	
HELIUM.....	0.03	----	0.05	----		0.03	----	
HEATING VALUE*.....	1111	----	979	----		1087	----	
SPECIFIC GRAVITY.....	0.675	----	0.860	----		0.721	----	
INDEX 11215 SAMPLE 4982			INDEX 11216 SAMPLE 4983			INDEX 11217 SAMPLE 4337		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	YOAKUM		YOAKUM			YOUNG		
FIELD.....	WASSON		WASSON			YOUNG		
WELL NAME.....	WILLARD A NO. 1		WILLARD NO. 1			BULAH MARTIN NO. 1		
LOCATION.....	SEC. 805, BLK. D GIBSON SUR.		SEC. 805, BLK. D GIBSON SUR.			BULAH MARTIN NO. 1		
OWNER.....	GENERAL AMERICAN OIL CO.		GENERAL AMERICAN OIL CO.			DEWITT SUR. NO. 1412		
COMPLETED.....	01/15/40		05/04/40			WARREN OIL CORP.		
SAMPLED.....	02/01/51		02/07/51			03/01/47		
FORMATION.....	PERM-SAN ANDRES		PERM-SAN ANDRES			08/05/47		
GEOLOGIC PROVINCE CODE.....	430		430			PENN-CONGLOMERATE		
DEPTH, FEET.....	4930		4955			425		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1822		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			12000		
COMPONENT, MOLE PCT								
METHANE.....	8.5	----	6.9	----		67.9	----	
ETHANE.....	0.5	----	0.5	----		24.1	----	
PROPANE.....	0.1	----	0.2	----		---	----	
N-BUTANE.....	---	----	---	----		---	----	
ISOBUTANE.....	---	----	---	----		---	----	
N-PENTANE.....	---	----	---	----		---	----	
ISOPENTANE.....	---	----	---	----		---	----	
CYCLOPENTANE.....	---	----	---	----		---	----	
HEXANES PLUS.....	0.1	----	0.2	----		---	----	
NITROGEN.....	90.6	----	90.1	----		7.1	----	
OXYGEN.....	0.1	----	0.4	----		0.3	----	
ARGON.....	0.0	----	0.1	----		---	----	
HYDROGEN.....	0.0	----	1.3	----		---	----	
HYDROGEN SULFIDE**.....	---	----	---	----		---	----	
CARBON DIOXIDE.....	0.1	----	0.3	----		0.4	----	
HELIUM.....	0.04	----	0.05	----		0.22	----	
HEATING VALUE*.....	102	----	96	----		1120	----	
SPECIFIC GRAVITY.....	0.936	----	0.935	----		0.708	----	
INDEX 11218 SAMPLE 12210			INDEX 11219 SAMPLE 4475			INDEX 11220 SAMPLE 4476		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	YOUNG		YOUNG			YOUNG		
FIELD.....	DENISON S		ELIASVILLE N			ELIASVILLE N		
WELL NAME.....	GRAHAM-HARRISON NO. 4-A		L. F. EVANS NO. 3			L. F. EVANS NO. 2		
LOCATION.....	S. DENISON SUR. A-77		TEAL CO. SUR. A-282			TEAL CO. SUR. A-282		
OWNER.....	FULTZ OIL CO.		STAR OIL CO., INC.			STAR OIL CO., INC.		
COMPLETED.....	06/10/68		12/04/47			10/19/47		
SAMPLED.....	02/21/70		04/24/48			04/24/48		
FORMATION.....	PENN-MARBLE FALLS		PENN-ATOKA			PENN-ATOKA		
GEOLOGIC PROVINCE CODE.....	425		425			425		
DEPTH, FEET.....	3983		3335			3316		
WELLHEAD PRESSURE, PSIG.....	12510		12510			2530		
OPEN FLOW, MCFD.....	10500		458			2530		
COMPONENT, MOLE PCT								
METHANE.....	61.9	----	66.5	----		67.3	----	
ETHANE.....	11.7	----	23.2	----		23.5	----	
PROPANE.....	3.4	----	---	----		---	----	
N-BUTANE.....	1.5	----	---	----		---	----	
ISOBUTANE.....	1.5	----	---	----		---	----	
N-PENTANE.....	0.0	----	---	----		---	----	
ISOPENTANE.....	0.1	----	---	----		---	----	
CYCLOPENTANE.....	0.1	----	---	----		---	----	
HEXANES PLUS.....	0.4	----	---	----		---	----	
NITROGEN.....	3.4	----	9.5	----		8.7	----	
OXYGEN.....	0.0	----	0.2	----		0.2	----	
ARGON.....	0.0	----	---	----		---	----	
HYDROGEN.....	0.1	----	---	----		---	----	
HYDROGEN SULFIDE**.....	0.0	----	---	----		---	----	
CARBON DIOXIDE.....	0.0	----	0.15	----		0.2	----	
HELIUM.....	0.04	----	1083	----		0.13	----	
HEATING VALUE*.....	1467	----	1083	----		1103	----	
SPECIFIC GRAVITY.....	0.877	----	0.713	----		0.709	----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11221 9627	INDEX SAMPLE	11222 9961	INDEX SAMPLE	11223 2301
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	YOUNG			YOUNG		YOUNG	
FIELD.....	ELIASVILLE N			GAHAGAN		GAHAGAN	
WELL NAME.....	ROBERTSON NO. 2			GAHAGAN NO. 3		MARY COX NO. 1	
LOCATION.....	F. L. GREEN SUR. A-105			BLK 2711, TEL SUR.		ROCK ISLAND SUR.	
OWNER.....	BURK ROYALTY CO.			F. D. MUELLER		PANHANDLE REFINING CO.	
COMPLETED.....	05/14/57			09/16/63		11/30/30	
SAMPLED.....	11/11/64			07/08/65		03/06/31	
FORMATION.....	PENN-ATOKA			PENN-CONGLOMERATE		PENN-CADDO	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	4193			4605		2329	
WELLHEAD PRESSURE, PSIG.....	450			1810		1900	
OPEN FLOW, MCFD.....	760			9800		2000	
COMPONENT, MOLE PCT							
METHANE.....	79.9	-----		74.9	-----	82.8	-----
ETHANE.....	7.4	-----		9.9	-----	8.1	-----
PROPANE.....	3.4	-----		6.9	-----	---	-----
N-BUTANE.....	0.9	-----		2.3	-----	---	-----
ISOBUTANE.....	0.3	-----		0.4	-----	---	-----
N-PENTANE.....	0.2	-----		0.3	-----	---	-----
ISOPENTANE.....	0.2	-----		1.0	-----	---	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	---	-----
HEXANES PLUS.....	0.2	-----		0.4	-----	---	-----
NITROGEN.....	6.8	-----		3.0	-----	8.6	-----
OXYGEN.....	0.1	-----		0.0	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	---	-----
HYDROGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.2	-----
HELIUM.....	0.17	-----		0.08	-----	0.22	-----
HEATING VALUE.....	1102	-----		1300	-----	984	-----
SPECIFIC GRAVITY.....	0.688	-----		0.771	-----	0.632	-----
		INDEX SAMPLE	11224 13345	INDEX SAMPLE	11225 2086	INDEX SAMPLE	11226 5273
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	YOUNG			NOT GIVEN		NOT GIVEN	
FIELD.....	NEWCASTLE			NOT GIVEN		NOT GIVEN	
WELL NAME.....	T. J. GARDNER NO. 1			W. T. DONNELL NO. 1		SHANAFELT NO. 1	
LOCATION.....	SEC. 425, TEL & SUR. A-632			J. T. MULANAX SUR.		ABEM SUR. NO. A-1369	
OWNER.....	GULF OIL CO.- U.S.			TRANS-CONTINENTAL OIL CO.		O. P. LEONARD	
COMPLETED.....	03/23/71			05/29/30		---/---/00	
SAMPLED.....	08/01/71			07/05/30		10/06/52	
FORMATION.....	PENN-CADDO			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	4162			4070		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1560			1365		NOT GIVEN	
OPEN FLOW, MCFD.....	7700			2000		NOT GIVEN	
COMPONENT, MOLE PCT						NOT GIVEN	
METHANE.....	71.9	-----		57.7	-----	64.0	-----
ETHANE.....	10.5	-----		35.2	-----	1.1	-----
PROPANE.....	6.9	-----		---	-----	0.4	-----
N-BUTANE.....	1.7	-----		---	-----	0.0	-----
ISOBUTANE.....	0.7	-----		---	-----	0.1	-----
N-PENTANE.....	0.4	-----		---	-----	0.1	-----
ISOPENTANE.....	0.2	-----		---	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		---	-----	0.0	-----
HEXANES PLUS.....	0.2	-----		---	-----	TRACE	-----
NITROGEN.....	6.9	-----		5.4	-----	34.0	-----
OXYGEN.....	TRACE	-----		0.2	-----	TRACE	-----
ARGON.....	TRACE	-----		---	-----	0.1	-----
HYDROGEN.....	0.0	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.3	-----		0.5	-----	0.1	-----
HELIUM.....	0.12	-----		0.15	-----	0.07	-----
HEATING VALUE.....	1216	-----		1215	-----	686	-----
SPECIFIC GRAVITY.....	0.761	-----		0.761	-----	0.709	-----
		INDEX SAMPLE	11227 4426	INDEX SAMPLE	11228 9588	INDEX SAMPLE	11229 4350
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	YOUNG			WHITTENBURG		YOUNG	
FIELD.....	PADGITT			WHITTENBURG		YOUNG COUNTY REGULAR	
WELL NAME.....	J. W. BULLOCK A			NO. 2		M. K. GRAHAM ESTATE D-2	
LOCATION.....	SEC. 343, TEL & SUR.			J. L. MERCER SUR. A-1873		TEL CO. SUR. 3410	
OWNER.....	SHELL OIL CO.			HARDING BROS. OIL & GAS CO.		ANZAC OIL CORP., ET AL.	
COMPLETED.....	---/---/00			---/---/00		02/09/47	
SAMPLED.....	01/13/48			10/07/64		09/24/47	
FORMATION.....	PENN-VIRGIL			PENN-CONGLOMERATE		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	549			3960		570	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			900		200	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		3000	
COMPONENT, MOLE PCT							
METHANE.....	57.3	-----		76.4	-----	62.5	-----
ETHANE.....	4.5	-----		9.4	-----	3.3	-----
PROPANE.....	---	-----		4.8	-----	---	-----
N-BUTANE.....	---	-----		1.6	-----	---	-----
ISOBUTANE.....	---	-----		0.6	-----	---	-----
N-PENTANE.....	---	-----		0.4	-----	---	-----
ISOPENTANE.....	---	-----		0.5	-----	---	-----
CYCLOPENTANE.....	---	-----		0.2	-----	---	-----
HEXANES PLUS.....	---	-----		0.4	-----	---	-----
NITROGEN.....	36.3	-----		5.1	-----	32.9	-----
OXYGEN.....	0.1	-----		TRACE	-----	0.5	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.4	-----		0.0	-----	0.1	-----
HELIUM.....	1.39	-----		0.17	-----	0.73	-----
HEATING VALUE.....	661	-----		1211	-----	692	-----
SPECIFIC GRAVITY.....	0.725	-----		0.738	-----	0.707	-----
		INDEX SAMPLE	11230 8229	INDEX SAMPLE	11231 8230	INDEX SAMPLE	11232 8569
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	YOUNG			YOUNG		YOUNG	
FIELD.....	YOUNG COUNTY REGULAR			YOUNG COUNTY REGULAR		YOUNG COUNTY REGULAR	
WELL NAME.....	J. P. LOGAN NO. 2			J. P. LOGAN NO. 3		NO. 3	
LOCATION.....	SEC. 1654, TEL & CO. SUR.			SEC. 1654, TEL & CO. SUR.		SEC. 198, TEL & CO. SUR.	
OWNER.....	C. V. MORGAN			C. V. MORGAN		C. V. MORGAN	
COMPLETED.....	03/27/61			03/27/61		05/25/62	
SAMPLED.....	10/11/61			10/11/61		06/05/62	
FORMATION.....	PENN-GUNSIGHT			PENN-GUNSIGHT		PENN-GUNSIGHT	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	270			270		724	
WELLHEAD PRESSURE, PSIG.....	250			250		350	
OPEN FLOW, MCFD.....	5			5		4280	
COMPONENT, MOLE PCT							
METHANE.....	57.6	-----		58.0	-----	61.4	-----
ETHANE.....	0.4	-----		0.3	-----	1.2	-----
PROPANE.....	0.2	-----		0.1	-----	0.1	-----
N-BUTANE.....	0.2	-----		0.1	-----	TRACE	-----
ISOBUTANE.....	0.2	-----		TRACE	-----	0.0	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
ISOPENTANE.....	0.1	-----		TRACE	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.2	-----		TRACE	-----	0.0	-----
NITROGEN.....	40.2	-----		4.5	-----	35.8	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	0.1	-----		0.1	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.2	-----
HELIUM.....	0.65	-----		0.66	-----	1.25	-----
HEATING VALUE.....	628	-----		599	-----	646	-----
SPECIFIC GRAVITY.....	0.738	-----		0.724	-----	0.707	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 11233 SAMPLE 12643	INDEX 11234 SAMPLE 12644	INDEX 11235 SAMPLE 16843
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	YOUNG	YOUNG	YOUNG	YOUNG
WELL NAME.....	YOUNG COUNTY REGULAR	YOUNG COUNTY REGULAR	YOUNG COUNTY REGULAR	YOUNG COUNTY REGULAR
LOCATION.....	MORRISON HARBISON NO. A-2	M. C. HERDY	J. H. DAVIS EST. 2378 NO. 4-S	TE&L SUR., A-1095
OWNER.....	1 MI. E OF GRAHAM	2 MI. E OF GRAHAM	1 SUR. OF GRAHAM	ASHTOLA EXPLORATION CO., INC
COMPLETED.....	T. S. BRIDGES OIL OPER. CO.	T. S. BRIDGES OIL OPER. CO.	T. S. BRIDGES OIL OPER. CO.	12/29/80
SAMPLED.....	01/06/71	01/10/71	01/10/71	03/21/83
FORMATION.....	01/27/71	01/27/71	01/27/71	PENN-MEGARGEL
GEOLOGIC PROVINCE CODE.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	425
DEPTH, FEET.....	1550	2000	550	
WELLHEAD PRESSURE, PSIG.....	475	600	225	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	3500	
COMPONENT, MOLE PCT.....				
METHANE.....	76.1	73.3	64.7	
ETHANE.....	3.0	3.7	1.3	
PROPANE.....	2.3	3.0	0.2	
N-BUTANE.....	0.6	0.8	0.0	
ISOBUTANE.....	0.4	0.5	0.0	
N-PENTANE.....	0.2	0.3	0.0	
ISOPENTANE.....	0.1	0.2	0.0	
CYCLOPENTANE.....	TRACE	0.1	0.0	
HEXANES PLUS.....	0.1	0.2	0.0	
NITROGEN.....	16.7	17.6	31.1	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	TRACE	TRACE	0.1	
HYDROGEN.....	0.0	0.0	0.2	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	0.1	
HELIUM.....	0.41	0.40	1.17	
HEATING VALUE.....	936	957	635	
SPECIFIC GRAVITY.....	0.682	0.705	0.693	
		INDEX 11236 SAMPLE 16585	INDEX 11237 SAMPLE 12580	INDEX 11238 SAMPLE 15192
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	ZAPATA	ZAPATA	ZAPATA	ZAPATA
WELL NAME.....	ALEJANDRENAS	ARROYO GARZA	GARZA NO. 1	J. D. DYE NO. 1
LOCATION.....	LOPEZ NO. A-1	DE MIRA FLORES GRANT A-27	DE MIRA FLORES GRANT A-209	J. V. BOREGO GRANT A-209
OWNER.....	I. M. SANCHEZ PORCION 21, A-81	SUN OIL CO.	GAS PRODUCING ENTERPRISES	GAS PRODUCING ENTERPRISES
COMPLETED.....	04/13/81	09/13/69	07/10/76	01/10/76
SAMPLED.....	07/22/82	12/15/70	01/06/78	01/06/78
FORMATION.....	EOCE-WILCOX U	EOCE-QUEEN CITY	EOCE-WILCOX	EOCE-WILCOX
GEOLOGIC PROVINCE CODE.....	220	220	220	220
DEPTH, FEET.....	9150	4728	8200	3678
WELLHEAD PRESSURE, PSIG.....	4000	1700	3678	18000
OPEN FLOW, MCFD.....	3900	6400	18000	
COMPONENT, MOLE PCT.....				
METHANE.....	94.7	91.8	90.5	5.2
ETHANE.....	1.8	3.6	5.2	1.2
PROPANE.....	0.3	1.7	1.2	0.3
N-BUTANE.....	0.1	0.3	0.3	0.1
ISOBUTANE.....	TRACE	TRACE	0.1	0.1
N-PENTANE.....	TRACE	TRACE	0.1	0.1
ISOPENTANE.....	TRACE	0.2	0.1	0.1
CYCLOPENTANE.....	TRACE	0.1	0.2	0.5
HEXANES PLUS.....	0.1	0.2	0.1	0.1
NITROGEN.....	0.2	1.0	0.5	0.1
OXYGEN.....	TRACE	TRACE	TRACE	TRACE
ARGON.....	TRACE	0.0	TRACE	TRACE
HYDROGEN.....	0.1	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	1.5	1.5
CARBON DIOXIDE.....	2.6	0.01	TRACE	TRACE
HELIUM.....	TRACE	1088	1084	1084
HEATING VALUE.....	1008	0.623	0.630	0.630
SPECIFIC GRAVITY.....	0.595			
		INDEX 11239 SAMPLE 15193	INDEX 11240 SAMPLE 16103	INDEX 11241 SAMPLE 2588
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	ZAPATA	ZAPATA	ZAPATA	ZAPATA
WELL NAME.....	DYE	EL GRULLO	EL GRULLO	EL GRULLO
LOCATION.....	J. D. DYE NO. 2	ANTONIO M. VELA NO. C-1	ANTONIO M. VELA NO. C-1	BLK. 2, CARTA BLANCA RANCH
OWNER.....	J. V. BOREGO GRANT A-209	EL GRULLO GRANT A-37	EL GRULLO GRANT A-37	WINCH & BILLINGS
COMPLETED.....	GAS PRODUCING ENTERPRISES	PENNZOIL CO.	PENNZOIL CO.	12/29/32
SAMPLED.....	04/11/76	10/18/80	10/18/80	01/16/33
FORMATION.....	01/06/78	EOCE-WILCOX	EOCE-WILCOX	EOCE-JACKSON
GEOLOGIC PROVINCE CODE.....	CRET-NAVARRO	220	220	220
DEPTH, FEET.....	9400	6762	1668	645
WELLHEAD PRESSURE, PSIG.....	1704	3700	645	20000
OPEN FLOW, MCFD.....	1850	7900	20000	
COMPONENT, MOLE PCT.....				
METHANE.....	95.6	92.8	97.5	0.0
ETHANE.....	2.3	3.4	0.0	0.0
PROPANE.....	0.3	0.2	---	---
N-BUTANE.....	0.1	0.2	---	---
ISOBUTANE.....	0.1	0.1	---	---
N-PENTANE.....	TRACE	0.1	---	---
ISOPENTANE.....	TRACE	0.1	---	---
CYCLOPENTANE.....	TRACE	0.1	---	---
HEXANES PLUS.....	TRACE	0.1	---	---
NITROGEN.....	0.2	0.1	0.9	0.9
OXYGEN.....	0.0	0.1	0.9	---
ARGON.....	TRACE	TRACE	---	---
HYDROGEN.....	0.1	0.0	---	---
HYDROGEN SULFIDE.....	0.0	0.0	---	---
CARBON DIOXIDE.....	1.4	1.9	0.7	0.7
HELIUM.....	TRACE	0.01	0.00	0.00
HEATING VALUE.....	1024	1049	988	988
SPECIFIC GRAVITY.....	0.586	0.612	0.570	0.570
		INDEX 11242 SAMPLE 13565	INDEX 11243 SAMPLE 15202	INDEX 11244 SAMPLE 1950
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS
COUNTY.....	ZAPATA	ZAPATA	ZAPATA	ZAPATA
WELL NAME.....	ESCOBAS	J. C. MARTIN	J. C. MARTIN	JENNINGS
LOCATION.....	J. G. GUTIERREZ NO. 1	T. MARTINEZ NO. 1	T. MARTINEZ NO. 1	F. G. MARTINEZ NO. 1
OWNER.....	PEDRO BUSTAMANTE SUR. A559	J. A. TRAVINO PORC 56, A-97	J. A. TRAVINO PORC 56, A-97	SEC. 6
COMPLETED.....	11/08/71	GULF OIL & MINERALS CO.	GULF OIL & MINERALS CO.	MAGNOLIA PETROLEUM CO.
SAMPLED.....	03/16/73	07/03/76	07/03/76	08/16/29
FORMATION.....	EOCE-WILCOX	01/30/78	01/30/78	03/08/30
GEOLOGIC PROVINCE CODE.....	EOCE-WILCOX	EOCE-WILCOX	EOCE-WILCOX	EOCE-YEGUA
DEPTH, FEET.....	220	7754	1921	620
WELLHEAD PRESSURE, PSIG.....	314	4780	620	20000
OPEN FLOW, MCFD.....	5050	110000	20000	
COMPONENT, MOLE PCT.....	5400			
METHANE.....	88.2	94.4	98.0	0.0
ETHANE.....	5.1	3.2	0.0	0.0
PROPANE.....	1.6	0.6	---	---
N-BUTANE.....	0.2	0.2	---	---
ISOBUTANE.....	0.4	0.1	---	---
N-PENTANE.....	0.1	0.1	---	---
ISOPENTANE.....	0.1	0.1	---	---
CYCLOPENTANE.....	TRACE	TRACE	---	---
HEXANES PLUS.....	0.1	0.1	---	---
NITROGEN.....	0.7	0.2	1.8	0.3
OXYGEN.....	0.2	0.0	---	---
ARGON.....	TRACE	TRACE	---	---
HYDROGEN.....	0.1	0.0	---	---
HYDROGEN SULFIDE.....	0.0	0.0	---	---
CARBON DIOXIDE.....	3.2	1.0	0.3	0.3
HELIUM.....	TRACE	TRACE	TRACE	993
HEATING VALUE.....	1066	0.598	0.565	0.565
SPECIFIC GRAVITY.....	0.646			

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE	11245 15009	INDEX SAMPLE	11246 13532	INDEX SAMPLE	11247 15460
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	ZAPATA	ZAPATA	ZAPATA	ZAPATA	
FIELD.....	JENNINGS N	JENNINGS W	JENNINGS W	LAREDO	
WELL NAME.....	F. CUELLAR EST. NO. B-1	JENNINGS NO. 25	JENNINGS NO. 25	C. L. MCCANN NO. 1	
LOCATION.....	TCRR SUR. 243, A-161	J. M. PEREDO SUR. A-73	J. M. PEREDO SUR. A-73	J. V. BOREGO GRANT A-209	
OWNER.....	HUGHES & HUGHES OIL & GAS	PENNZOIL PRODUCING CO.	PENNZOIL PRODUCING CO.	CHEVRON U.S.A., INC.	
COMPLETED.....	06/16/75	10/13/71	10/13/71	04/19/77	
SAMPLED.....	05/-/77	02/14/73	02/14/73	10/26/78	
FORMATION.....	EOCE-WILCOX	EOCE-4850 FT. SAND	EOCE-4850 FT. SAND	EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	9498	4871	4871	7898	
WELLHEAD PRESSURE, PSIG.....	4106	1743	1743	4637	
OPEN FLOW, MCFD.....	2650	5100	5100	10500	
COMPONENT, MOLE PCT					
METHANE.....	90.6	89.6	89.6	92.0	
ETHANE.....	4.4	5.0	5.0	4.2	
PROPANE.....	1.4	2.7	2.7	1.1	
N-BUTANE.....	0.4	0.6	0.6	0.2	
ISOBUTANE.....	0.2	0.6	0.6	0.2	
N-PENTANE.....	0.1	0.1	0.1	0.1	
ISOPENTANE.....	0.2	0.3	0.3	0.1	
CYCLOPENTANE.....	0.1	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.1	0.1	0.1	0.1	
NITROGEN.....	0.2	0.1	0.1	0.2	
OXYGEN.....	0.0	TRACE	TRACE	0.0	
ARGON.....	TRACE	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.3	0.8	0.8	1.4	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	1075	1130	1130	1067	
SPECIFIC GRAVITY.....	0.633	0.642	0.642	0.613	
INDEX SAMPLE	11248 13961	INDEX SAMPLE	11249 9170	INDEX SAMPLE	11250 16396
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	ZAPATA	ZAPATA	ZAPATA	ZAPATA	
FIELD.....	LOS MOGOTES	LOS MOGOTES N	LOS MOGOTES N	MCASKILL LOBO	
WELL NAME.....	HAYNES ESTATE NO. 7	1. B. VERGARA NO. 2	1. B. VERGARA NO. 2	MCASKILL NO. 4	
LOCATION.....	LOS MOGOTES GRANT A-566	SEC. 62BT. 1. BERTRANG SUR.	SEC. 62BT. 1. BERTRANG SUR.	J. V. BOREGO, A-209	
OWNER.....	TEXAS OIL & GAS CORP.	SKELLY OIL CO.	SKELLY OIL CO.	G. H. R. ENERGY CORP.	
COMPLETED.....	03/03/72	01/11/62	01/11/62	09/19/80	
SAMPLED.....	02/04/74	11/13/63	11/13/63	12/16/81	
FORMATION.....	EOCE-QUEEN CITY	EOCE-WILCOX	EOCE-WILCOX	EOCE-LOBO	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	3594	5533	5533	10166	
WELLHEAD PRESSURE, PSIG.....	1367	2094	2094	NOT GIVEN	
OPEN FLOW, MCFD.....	10000	4000	4000	3000	
COMPONENT, MOLE PCT					
METHANE.....	85.3	93.3	93.3	95.7	
ETHANE.....	8.8	3.7	3.7	1.1	
PROPANE.....	3.1	1.2	1.2	0.1	
N-BUTANE.....	0.7	0.5	0.5	0.0	
ISOBUTANE.....	0.6	TRACE	TRACE	0.0	
N-PENTANE.....	0.1	0.1	0.1	0.0	
ISOPENTANE.....	0.3	0.3	0.3	0.0	
CYCLOPENTANE.....	TRACE	0.1	0.1	0.0	
HEXANES PLUS.....	0.1	0.2	0.2	0.0	
NITROGEN.....	0.7	TRACE	TRACE	0.2	
OXYGEN.....	TRACE	0.0	0.0	TRACE	
ARGON.....	0.0	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.6	0.6	2.8	
HELIUM.....	0.01	0.01	0.01	TRACE	
HEATING VALUE.....	1168	1091	1091	992	
SPECIFIC GRAVITY.....	0.663	0.613	0.613	0.588	
INDEX SAMPLE	11251 15235	INDEX SAMPLE	11252 15189	INDEX SAMPLE	11253 15439
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	ZAPATA	ZAPATA	ZAPATA	ZAPATA	
FIELD.....	HIRAND VALLEY N	ROLETA	ROLETA	ROLETA	
WELL NAME.....	HINNANT-FULBRIGHT "J" NO. 1	GUERRA L NO. 1	GUERRA L NO. 1	GUERRA "M" NO. 1	
LOCATION.....	J. H. HINNANT SUR. NO. 613	R. VELA PORCION 26, A-102	R. VELA PORCION 26, A-102	5 MI. NW LOPENO	
OWNER.....	HUGHES & HUGHES OIL & GAS	TEXAS OIL & GAS CORP.	TEXAS OIL & GAS CORP.	TEXAS OIL & GAS CORP.	
COMPLETED.....	05/27/77	06/18/76	06/18/76	02/09/77	
SAMPLED.....	03/20/78	01/-/78	01/-/78	10/18/78	
FORMATION.....	EOCE-CLAIBORNE	EOCE-WILCOX	EOCE-WILCOX	EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	5551	8146	8146	8172	
WELLHEAD PRESSURE, PSIG.....	2007	4600	4600	1100	
OPEN FLOW, MCFD.....	6200	5000	5000	4000	
COMPONENT, MOLE PCT					
METHANE.....	90.6	92.3	92.3	92.1	
ETHANE.....	4.6	4.6	4.6	4.3	
PROPANE.....	1.7	1.2	1.2	1.2	
N-BUTANE.....	0.4	0.2	0.2	0.2	
ISOBUTANE.....	0.3	0.2	0.2	0.2	
N-PENTANE.....	0.1	0.1	0.1	0.1	
ISOPENTANE.....	0.3	0.1	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.1	0.1	0.1	0.2	
NITROGEN.....	0.9	0.2	0.2	0.3	
OXYGEN.....	0.1	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	TRACE	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.8	1.1	1.1	1.1	
HELIUM.....	0.01	TRACE	TRACE	TRACE	
HEATING VALUE.....	1090	1073	1073	1073	
SPECIFIC GRAVITY.....	0.626	0.612	0.612	0.616	
INDEX SAMPLE	11254 16661	INDEX SAMPLE	11255 15443	INDEX SAMPLE	11256 16797
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	ZAPATA	ZAPATA	ZAPATA	ZAPATA	
FIELD.....	TAAQUACHIE CREEK	UREBENO	UREBENO	WILDCAT	
WELL NAME.....	L. ARMOUR HINNANT NO. 1-252	M. M. ALEXANDER NO. B-2	M. M. ALEXANDER NO. B-2	ROBERTO VELA NO. 1	
LOCATION.....	HINNANT 252 SUR. A-509	M. CUELLAR PORCION 1, A-127	M. CUELLAR PORCION 1, A-127	TC RR259, A-186	
OWNER.....	BLOCKER EXPLORATION CO.	GULF OIL EXPL. & PROD. CO.	GULF OIL EXPL. & PROD. CO.	PENNZOIL EXPL. & PROD. CO.	
COMPLETED.....	12/04/81	06/25/77	06/25/77	03/-/82	
SAMPLED.....	09/-/82	10/17/78	10/17/78	03/-/82	
FORMATION.....	EOCE-WILCOX	EOCE-LOBO	EOCE-LOBO	EOCE-WILCOX	
GEOLOGIC PROVINCE CODE.....	220	220	220	220	
DEPTH, FEET.....	11162	7853	7853	8920	
WELLHEAD PRESSURE, PSIG.....	7250	3170	3170	NOT GIVEN	
OPEN FLOW, MCFD.....	13300	940	940	3156	
COMPONENT, MOLE PCT					
METHANE.....	92.0	96.0	96.0	82.0	
ETHANE.....	1.7	1.7	1.7	0.9	
PROPANE.....	0.2	0.3	0.3	0.1	
N-BUTANE.....	0.0	0.0	0.0	0.1	
ISOBUTANE.....	0.0	0.0	0.0	0.0	
N-PENTANE.....	0.0	TRACE	TRACE	TRACE	
ISOPENTANE.....	0.0	TRACE	TRACE	0.1	
CYCLOPENTANE.....	0.0	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.0	0.1	0.1	TRACE	
NITROGEN.....	0.1	0.2	0.2	10.0	
OXYGEN.....	TRACE	TRACE	TRACE	2.7	
ARGON.....	TRACE	TRACE	TRACE	0.1	
HYDROGEN.....	0.1	TRACE	TRACE	0.2	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	5.8	1.5	1.5	3.8	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	968	1019	1019	858	
SPECIFIC GRAVITY.....	0.621	0.585	0.585	0.656	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11257 SAMPLE 11193		INDEX 11258 SAMPLE 10911		INDEX 11259 SAMPLE 14007	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ZAVALA	COUNTY.....	ZAVALA	COUNTY.....	ZAVALA
FIELD.....	BANDERA TANK NW	FIELD.....	BUZZARD TANK	FIELD.....	LEONA RIVER
WELL NAME.....	R. W. NORTON NO. 14	WELL NAME.....	NORTON CHAPPAROSA RANCH NO15	WELL NAME.....	NATIONAL BANK COMMERCE NO. 1
LOCATION.....	BLK. 12, SEC. 64, 46NA-454	LOCATION.....	SEC. 14, SA&MG RR SUR. A593	LOCATION.....	NOT GIVEN
OWNER.....	NORTON OIL CO., INC.	OWNER.....	NORTON OIL CO., INC.	OWNER.....	TEXAS CO.
COMPLETED.....	06/23/66	COMPLETED.....	07/01/66	COMPLETED.....	02/02/45
SAMPLED.....	10/29/67	SAMPLED.....	04/05/67	SAMPLED.....	04/22/45
FORMATION.....	CRET-SAN MIGUEL	FORMATION.....	CRET-SAN MIGUEL	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	2315	DEPTH, FEET.....	2452	DEPTH, FEET.....	4214
WELLHEAD PRESSURE, PSIG.....	990	WELLHEAD PRESSURE, PSIG.....	1140	WELLHEAD PRESSURE, PSIG.....	1645
OPEN FLOW, MCFD.....	25000	OPEN FLOW, MCFD.....	4100	OPEN FLOW, MCFD.....	9800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.5	METHANE.....	96.6	METHANE.....	79.0
ETHANE.....	0.9	ETHANE.....	0.0	ETHANE.....	17.1
PROpane.....	0.3	PROpane.....	0.0	PROpane.....	---
N-BUTANE.....	0.1	N-BUTANE.....	0.1	N-BUTANE.....	---
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	---
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	1.6	NITROGEN.....	2.0	NITROGEN.....	3.6
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.2
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.09
HEATING VALUE*.....	1025	HEATING VALUE*.....	1009	HEATING VALUE*.....	1107
SPECIFIC GRAVITY.....	0.579	SPECIFIC GRAVITY.....	0.574	SPECIFIC GRAVITY.....	0.655

INDEX 11260 SAMPLE 3869		INDEX 11261 SAMPLE 15437		INDEX 11262 SAMPLE 15436	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	ZAVALA	COUNTY.....	ZAVALA	COUNTY.....	ZAVALA
FIELD.....	NOT GIVEN	FIELD.....	PRIOR RANCH N	FIELD.....	PRIOR RANCH S
WELL NAME.....	W. M. VAN CLEVE NO. 1	WELL NAME.....	IKE T. PRIOR NO. C-1	WELL NAME.....	H & F PROPERTIES NO. B-1
LOCATION.....	A. VAN CLEVE SUR. NO. 8	LOCATION.....	ANTONIO AGUIRRE SUR. A-1	LOCATION.....	SEC. 22, N. AGUIRRE SUR. A-3
OWNER.....	TEXAS CO.	OWNER.....	HUGHES & HUGHES OIL & GAS	OWNER.....	HUGHES & HUGHES OIL & GAS
COMPLETED.....	06/19/44	COMPLETED.....	06/24/77	COMPLETED.....	04/05/77
SAMPLED.....	09/25/44	SAMPLED.....	10/17/78	SAMPLED.....	10/17/78
FORMATION.....	NOT GIVEN	FORMATION.....	CRET-OLMUS	FORMATION.....	CRET-ELAINE
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	220
DEPTH, FEET.....	1960	DEPTH, FEET.....	2288	DEPTH, FEET.....	3480
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	907	WELLHEAD PRESSURE, PSIG.....	1410
OPEN FLOW, MCFD.....	380	OPEN FLOW, MCFD.....	3200	OPEN FLOW, MCFD.....	9800
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.8	METHANE.....	97.7	METHANE.....	97.6
ETHANE.....	0.0	ETHANE.....	0.1	ETHANE.....	0.8
PROpane.....	---	PROpane.....	TRACE	PROpane.....	0.4
N-BUTANE.....	---	N-BUTANE.....	0.0	N-BUTANE.....	TRACE
ISOBUTANE.....	---	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	---	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	---	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	---	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	0.9	NITROGEN.....	0.0	NITROGEN.....	0.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	---	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.03	HELIUM.....	0.02	HELIUM.....	0.02
HEATING VALUE*.....	1091	HEATING VALUE*.....	991	HEATING VALUE*.....	1019
SPECIFIC GRAVITY.....	0.561	SPECIFIC GRAVITY.....	0.564	SPECIFIC GRAVITY.....	0.570

INDEX 11263 SAMPLE 15172		INDEX 11264 SAMPLE 2218		INDEX 11265 SAMPLE 7821	
STATE.....	TEXAS	STATE.....	UTAH	STATE.....	UTAH
COUNTY.....	ZAVALA	COUNTY.....	CARBON	COUNTY.....	CARBON
FIELD.....	SPINACH	FIELD.....	FARNHAM DOME	FIELD.....	FARNHAM DOME
WELL NAME.....	R. J. KLEINMANN "B" NO. 1	WELL NAME.....	SEC. 4	WELL NAME.....	SEC. 4
LOCATION.....	MARCISO AGUIRRE SUR. A-3	LOCATION.....	SEC. 12, T15S, R11E	LOCATION.....	SEC. 12, T15S, R11E
OWNER.....	HUGHES & HUGHES OIL & GAS	OWNER.....	CARBON DIOXIDE & CHEMICAL CO	OWNER.....	CALIFORNIA OIL CO.
COMPLETED.....	05/30/77	COMPLETED.....	--/--/80	COMPLETED.....	05/--/46
SAMPLED.....	12/21/77	SAMPLED.....	10/21/70	SAMPLED.....	01/13/61
FORMATION.....	CRET-SAN MIGUEL	FORMATION.....	TRIA-NOT GIVEN	FORMATION.....	PERM-COCONINO
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	575	GEOLOGIC PROVINCE CODE.....	575
DEPTH, FEET.....	3774	DEPTH, FEET.....	3093	DEPTH, FEET.....	3133
WELLHEAD PRESSURE, PSIG.....	1565	WELLHEAD PRESSURE, PSIG.....	750	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	9000	OPEN FLOW, MCFD.....	2780	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	91.5	METHANE.....	0.0	METHANE.....	0.4
ETHANE.....	2.7	ETHANE.....	0.0	ETHANE.....	0.1
PROpane.....	2.5	PROpane.....	---	PROpane.....	0.3
N-BUTANE.....	0.8	N-BUTANE.....	---	N-BUTANE.....	0.0
ISOBUTANE.....	0.4	ISOBUTANE.....	---	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	---	N-PENTANE.....	0.0
ISOPENTANE.....	0.2	ISOPENTANE.....	---	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	---	HEXANES PLUS.....	0.0
NITROGEN.....	1.7	NITROGEN.....	0.9	NITROGEN.....	0.8
OXYGEN.....	0.3	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	98.9	CARBON DIOXIDE.....	98.3
HELIUM.....	0.02	HELIUM.....	0.02	HELIUM.....	0.00
HEATING VALUE*.....	1099	HEATING VALUE*.....	0	HEATING VALUE*.....	14
SPECIFIC GRAVITY.....	0.626	SPECIFIC GRAVITY.....	1.523	SPECIFIC GRAVITY.....	1.519

INDEX 11266 SAMPLE 6922		INDEX 11267 SAMPLE 6923		INDEX 11268 SAMPLE 16621	
STATE.....	UTAH	STATE.....	UTAH	STATE.....	UTAH
COUNTY.....	CARBON	COUNTY.....	CARBON	COUNTY.....	CARBON
FIELD.....	GORDON CREEK UNIT	FIELD.....	GORDON CREEK UNIT	FIELD.....	NINE MILE CANYON
WELL NAME.....	R. BRYNER NO. 2	WELL NAME.....	R. BRYNER NO. 1	WELL NAME.....	KEEL RANCH NO. 1-16
LOCATION.....	SEC. 25, T14S, RTE	LOCATION.....	SEC. 24, T14S, RTE	LOCATION.....	SEC. 16, T12S, R13E
OWNER.....	SKELLY OIL CO.	OWNER.....	SKELLY OIL CO.	OWNER.....	TRIGG DRILLING CO., INC.
COMPLETED.....	12/05/56	COMPLETED.....	08/13/51	COMPLETED.....	10/23/82
SAMPLED.....	12/31/58	SAMPLED.....	12/31/58	SAMPLED.....	08/18/82
FORMATION.....	TRIA-SINBAD	FORMATION.....	TRIA-SINBAD	FORMATION.....	CRET-MANCOS
GEOLOGIC PROVINCE CODE.....	575	GEOLOGIC PROVINCE CODE.....	575	GEOLOGIC PROVINCE CODE.....	575
DEPTH, FEET.....	10760	DEPTH, FEET.....	10877	DEPTH, FEET.....	8084
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	2500
OPEN FLOW, MCFD.....	6500	OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	440
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	2.4	METHANE.....	0.1	METHANE.....	93.0
ETHANE.....	0.3	ETHANE.....	0.0	ETHANE.....	3.7
PROpane.....	0.0	PROpane.....	0.0	PROpane.....	3.3
N-BUTANE.....	0.1	N-BUTANE.....	TRACE	N-BUTANE.....	0.4
ISOBUTANE.....	0.0	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	7.3	NITROGEN.....	0.0	NITROGEN.....	0.2
OXYGEN.....	0.1	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0
CARBON DIOXIDE.....	89.3	CARBON DIOXIDE.....	99.5	CARBON DIOXIDE.....	9.3
HELIUM.....	0.10	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE*.....	56	HEATING VALUE*.....	8	HEATING VALUE*.....	1094
SPECIFIC GRAVITY.....	1.471	SPECIFIC GRAVITY.....	1.527	SPECIFIC GRAVITY.....	0.612

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11269 14982	INDEX SAMPLE	11270 1828	INDEX SAMPLE	11271 8776
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	CARBON			CARBON		CARBON	
FIELD.....	PETERS POINT			SEEP 30MMI. E. OF PRICE		STONE CABIN	
WELL NAME.....	PETERS POINT NO. 1			GAS SEEP		STONE CABIN UNIT NO. 1	
LOCATION.....	SEC. 6, T13S, R17E			SEC. 11, T14S, R15		SEC. 13, T12S, R14E	
OWNER.....	RESERVE OIL, INC.			G. E. LUNDY		SUN OIL CO.	
COMPLETED.....	08/12/76			07/700		09/01/58	
SAMPLED.....	04/17/77			08/04/79		11/17/52	
FORMATION.....	EOCE-WASATCH			NOT GIVEN		EOCE-WASATCH	
GEOLOGIC PROVINCE CODE.....	575			575		575	
DEPTH, FEET.....	4622			NOT GIVEN		4953	
WELLHEAD PRESSURE, PSIG.....	500			NOT GIVEN		1180	
OPEN FLOW, MCFD.....	474			NOT GIVEN		4400	
COMPONENT, MOLE PCT							
METHANE.....	89.3	-----		0.0	-----	91.0	-----
ETHANE.....	6.3	-----		0.0	-----	5.5	-----
PROPANE.....	2.2	-----		---	-----	1.6	-----
N-BUTANE.....	0.6	-----		---	-----	0.4	-----
ISOBUTANE.....	0.3	-----		---	-----	0.3	-----
N-PENTANE.....	0.2	-----		---	-----	0.1	-----
ISOPENTANE.....	0.2	-----		---	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		---	-----	0.1	-----
NITROGEN.....	0.5	-----		2.8	-----	0.4	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		---	-----	0.0	-----
HYDROGEN.....	0.0	-----		---	-----	0.1	-----
HYDROGEN SULFIDE**.....	0.0	-----		---	-----	0.2	-----
CARBON DIOXIDE.....	0.1	-----		97.2	-----	0.2	-----
HELIUM.....	0.01	-----		0.05	-----	0.01	-----
HEATING VALUE*.....	1131	-----		0	-----	1104	-----
SPECIFIC GRAVITY.....	0.636	-----		1.513	-----	0.619	-----
		INDEX SAMPLE	11272 14134	INDEX SAMPLE	11273 12620	INDEX SAMPLE	11274 5560
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	CARBON			CARBON		CARBON	
FIELD.....	STONE CABIN			SUNNYSIDE UNIT		WILDCAT	
WELL NAME.....	STONE CABIN II UNIT 2-B-27			SUNNYSIDE UNIT NO. 1		PETERS POINT NO. 2	
LOCATION.....	SEC. 27, T12S, R15E			SEC. 17, T15S, R13E		SEC. 36, T12S, R16E	
OWNER.....	PACIFIC TRANSMISSION SUPPLY			MOUNTAIN FUEL SUPPLY CO.		EL PASO NATURAL GAS CO.	
COMPLETED.....	09/-/72			01/06/71		06/30/53	
SAMPLED.....	08/21/74			11/29/70		10/27/53	
FORMATION.....	NOT GIVEN			MOENKOPI		EOCE-WASATCH U	
GEOLOGIC PROVINCE CODE.....	575			575		575	
DEPTH, FEET.....	5004			5092		2856	
WELLHEAD PRESSURE, PSIG.....	1900			1549		680	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		2330	
COMPONENT, MOLE PCT							
METHANE.....	80.8	-----		27.6	-----	96.6	-----
ETHANE.....	5.0	-----		2.1	-----	1.8	-----
PROPANE.....	1.6	-----		0.2	-----	0.3	-----
N-BUTANE.....	0.3	-----		0.3	-----	0.1	-----
ISOBUTANE.....	0.8	-----		0.4	-----	0.0	-----
N-PENTANE.....	0.3	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.7	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	0.4	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	1.2	-----		0.2	-----	TRACE	-----
NITROGEN.....	6.6	-----		60.1	-----	0.5	-----
OXYGEN.....	1.6	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		0.4	-----	0.0	-----
HYDROGEN.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		6.0	-----	0.5	-----
HELIUM.....	0.01	-----		1.22	-----	0.01	-----
HEATING VALUE*.....	1106	-----		394	-----	1026	-----
SPECIFIC GRAVITY.....	0.709	-----		0.903	-----	0.576	-----
		INDEX SAMPLE	11275 8662	INDEX SAMPLE	11276 8696	INDEX SAMPLE	11277 8743
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	CARBON			CARBON		CARBON	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	GOVT. SHARPLES NO. 1			GOVT. PICKRELL NO. 1		GOVT. PICKRELL NO. 1	
LOCATION.....	SEC. 11, T12S, R15E			SEC. 11, T12S, R15E		SEC. 11, T12S, R15E	
OWNER.....	TEXACO INC. & SHARPLES OIL			TEXACO INC. & SHARPLES OIL		TEXACO INC. & SHARPLES OIL	
COMPLETED.....	--/-/70			--/-/70		--/-/70	
SAMPLED.....	09/06/62			10/02/62		10/30/62	
FORMATION.....	EOCE-WASATCH			CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	575			575		575	
DEPTH, FEET.....	3790			5330		7173	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	91.0	-----		94.0	-----	75.0	-----
ETHANE.....	5.2	-----		5.4	-----	12.0	-----
PROPANE.....	1.4	-----		0.6	-----	6.5	-----
N-BUTANE.....	0.3	-----		0.1	-----	1.9	-----
ISOBUTANE.....	0.4	-----		0.1	-----	1.6	-----
N-PENTANE.....	0.1	-----		TRACE	-----	0.5	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.8	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.2	-----
HEXANES PLUS.....	0.1	-----		TRACE	-----	0.6	-----
NITROGEN.....	1.0	-----		1.3	-----	0.6	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.1	-----
HELIUM.....	0.02	-----		0.02	-----	TRACE	-----
HEATING VALUE*.....	1097	-----		1044	-----	1355	-----
SPECIFIC GRAVITY.....	0.622	-----		0.589	-----	0.779	-----
		INDEX SAMPLE	11278 8763	INDEX SAMPLE	11279 9837	INDEX SAMPLE	11280 3050
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	CARBON			CARBON		DAGGETT	
FIELD.....	WILDCAT			WILDCAT		MURPHY BASIN	
WELL NAME.....	GOVT. PICKRELL NO. 1			SPRINGS NO. 1		MURPHY NO. 1	
LOCATION.....	SEC. 11, T12S, R15E			SEC. 27, T15S, R9E		SEC. 22, T3N, R24E	
OWNER.....	TEXACO INC. & SHARPLES OIL			PACIFIC NATURAL GAS EXPL. CO		MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	--/-/70			12/12/64		04/-/72	
SAMPLED.....	11/11/62			03/31/65		11/28/41	
FORMATION.....	CRET-MESAVERDE			PERM-MANNING CANYON		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	575			575		570	
DEPTH, FEET.....	7652			10666		5373	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2802		750	
OPEN FLOW, MCFD.....	NOT GIVEN			3440		3250	
COMPONENT, MOLE PCT							
METHANE.....	83.7	-----		86.6	-----	87.9	-----
ETHANE.....	9.3	-----		2.0	-----	11.2	-----
PROPANE.....	3.4	-----		0.6	-----	---	-----
N-BUTANE.....	0.9	-----		0.6	-----	---	-----
ISOBUTANE.....	0.5	-----		0.0	-----	---	-----
N-PENTANE.....	0.5	-----		0.3	-----	---	-----
ISOPENTANE.....	0.3	-----		0.2	-----	---	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	---	-----
HEXANES PLUS.....	0.3	-----		1.2	-----	---	-----
NITROGEN.....	0.7	-----		0.0	-----	0.3	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.2	-----
ARGON.....	0.0	-----		0.0	-----	---	-----
HYDROGEN.....	0.2	-----		0.0	-----	---	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.0	-----		0.0	-----	0.4	-----
HELIUM.....	TRACE	-----		0.07	-----	0.04	-----
HEATING VALUE*.....	1205	-----		1180	-----	1091	-----
SPECIFIC GRAVITY.....	0.684	-----		0.677	-----	0.616	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11281 SAMPLE 3053		INDEX 11282 SAMPLE 4351		INDEX 11283 SAMPLE 8793	
STATE.....	UTAH	UTAH	UTAH	UTAH	
COUNTY.....	DAGGETT	DAGGETT	DAGGETT	DAGGETT	
FIELD.....	CLAY BASIN	CLAY BASIN	CLAY BASIN	CLAY BASIN	
WELL NAME.....	STATE NO. 1	RE. D. MURPHY NO. 6-W	RE. D. MURPHY NO. 1	RE. D. MURPHY NO. 1	
LOCATION.....	SEC. 16, T3N, R24E	SEC. 22, T3N, R24W	SEC. 22, T3N, R24E	SEC. 22, T3N, R24E	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	11/-/36	07/10/47	04/-/27	04/-/27	
SAMPLED.....	11/28/41	09/24/47	11/28/62	11/28/62	
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	570	570	570	570	
DEPTH, FEET.....	5739	5640	5344	5344	
WELLHEAD PRESSURE, PSTG.....	1710	1665	1722	1722	
OPEN FLOW, MCFD.....	16000	5200	3276	3276	
COMPONENT, MOLE PCT					
METHANE.....	88.8	85.7	92.2	92.2	
ETHANE.....	10.1	12.2	4.4	4.4	
PROPANE.....	---	---	1.5	1.5	
N-BUTANE.....	---	---	0.4	0.4	
ISOBUTANE.....	---	---	0.3	0.3	
N-PENTANE.....	---	---	0.1	0.1	
ISOPENTANE.....	---	---	0.2	0.2	
CYCLOPENTANE.....	---	---	0.1	0.1	
HEXANES PLUS.....	---	---	0.1	0.1	
NITROGEN.....	0.6	1.3	0.5	0.5	
OXYGEN.....	0.2	0.5	TRACE	TRACE	
ARGON.....	---	---	0.0	0.0	
HYDROGEN.....	---	---	TRACE	TRACE	
HYDROGEN SULFIDE.....	---	---	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.3	0.1	0.1	
HELIUM.....	0.03	0.03	0.03	0.03	
HEATING VALUE.....	1081	1087	1097	1097	
SPECIFIC GRAVITY.....	0.611	0.626	0.614	0.614	
INDEX 11284 SAMPLE 8798		INDEX 11285 SAMPLE 12106		INDEX 11286 SAMPLE 13461	
STATE.....	UTAH	UTAH	UTAH	UTAH	
COUNTY.....	DAGGETT	DAGGETT	DAGGETT	DAGGETT	
FIELD.....	CLAY BASIN	CLAY BASIN	CLAY BASIN	CLAY BASIN	
WELL NAME.....	STATELAND NO. 1	UNIT NO. 11	UNIT NO. 11	UNIT NO. 11	
LOCATION.....	SEC. 16, T3N, R24E	SEC. 22, T3N, R24E	SEC. 14, T2S, R4W	SEC. 14, T2S, R4W	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	11/-/36	11/28/62	11/28/62	11/28/62	
SAMPLED.....	11/28/41	11/28/62	11/28/62	11/28/62	
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	570	570	570	570	
DEPTH, FEET.....	5740	9025	10309	10309	
WELLHEAD PRESSURE, PSTG.....	518	3833	4100	4100	
OPEN FLOW, MCFD.....	16375	8500	3500	3500	
COMPONENT, MOLE PCT					
METHANE.....	92.4	3.3	71.4	71.4	
ETHANE.....	3.9	0.5	14.3	14.3	
PROPANE.....	0.1	0.1	7.8	7.8	
N-BUTANE.....	0.4	0.2	2.5	2.5	
ISOBUTANE.....	0.2	TRACE	1.3	1.3	
N-PENTANE.....	0.1	0.1	1.0	1.0	
ISOPENTANE.....	0.1	0.0	0.5	0.5	
CYCLOPENTANE.....	TRACE	TRACE	0.1	0.1	
HEXANES PLUS.....	0.1	0.1	0.6	0.6	
NITROGEN.....	0.1	80.1	0.3	0.3	
OXYGEN.....	TRACE	0.0	0.1	0.1	
ARGON.....	0.0	0.3	0.0	0.0	
HYDROGEN.....	TRACE	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	14.7	0.2	0.2	
HELIUM.....	0.02	0.48	TRACE	TRACE	
HEATING VALUE.....	1074	61	1409	1409	
SPECIFIC GRAVITY.....	0.609	1.039	0.811	0.811	
INDEX 11287 SAMPLE 14946		INDEX 11288 SAMPLE 13140		INDEX 11289 SAMPLE 5834	
STATE.....	UTAH	UTAH	UTAH	UTAH	
COUNTY.....	DUCHESNE	DUCHESNE	DUCHESNE	DUCHESNE	
FIELD.....	ALTA MOUNT	BLACK CEDAR	BLUEBELL	BLUEBELL	
WELL NAME.....	UTAH TRIPAL UTE NO. 1-11C5	UTAH TRIPAL UTE NO. 1	UTAH TRIPAL UTE NO. 1	UTAH TRIPAL UTE NO. 1	
LOCATION.....	SEC. 11, T3S, R5W	SEC. 14, T3S, R6W	SEC. 14, T3S, R6W	SEC. 14, T3S, R6W	
OWNER.....	GULF ENERGY & MINERALS-U.S.	TEXACO INC.	TEXACO INC.	TEXACO INC.	
COMPLETED.....	02/28/76	06/01/71	06/01/71	06/01/71	
SAMPLED.....	02/28/76	01/26/77	01/26/77	01/26/77	
FORMATION.....	EOCE-WASATCH	EOCE-GREEN RIVER	EOCE-GREEN RIVER	EOCE-GREEN RIVER	
GEOLOGIC PROVINCE CODE.....	575	575	575	575	
DEPTH, FEET.....	10278	8786	7895	7895	
WELLHEAD PRESSURE, PSTG.....	3000	NOT GIVEN	2890	2890	
OPEN FLOW, MCFD.....	NOT GIVEN	2587	5000	5000	
COMPONENT, MOLE PCT					
METHANE.....	76.5	68.9	96.0	96.0	
ETHANE.....	12.2	13.0	1.1	1.1	
PROPANE.....	5.9	8.7	0.9	0.9	
N-BUTANE.....	3.5	3.5	0.5	0.5	
ISOBUTANE.....	0.9	1.8	0.5	0.5	
N-PENTANE.....	0.6	1.3	0.2	0.2	
ISOPENTANE.....	0.1	0.2	0.0	0.0	
CYCLOPENTANE.....	0.1	0.2	0.1	0.1	
HEXANES PLUS.....	0.4	1.0	0.1	0.1	
NITROGEN.....	0.5	TRACE	0.6	0.6	
OXYGEN.....	0.0	---	0.0	0.0	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.4	0.1	0.1	
HELIUM.....	0.01	TRACE	0.01	0.01	
HEATING VALUE.....	1317	1497	1057	1057	
SPECIFIC GRAVITY.....	0.757	0.864	0.590	0.590	
INDEX 11290 SAMPLE 13220		INDEX 11291 SAMPLE 13582		INDEX 11292 SAMPLE 8370	
STATE.....	UTAH	UTAH	UTAH	UTAH	
COUNTY.....	DUCHESNE	DUCHESNE	DUCHESNE	DUCHESNE	
FIELD.....	BLUEBELL	BLUEBELL	BLUEBELL	BLUEBELL	
WELL NAME.....	HAMBLIN NO. 1	EEC. J. ASAY NO. 1	EEC. J. ASAY NO. 1	EEC. J. ASAY NO. 1	
LOCATION.....	SEC. 20, T1S, R2W	SEC. 20, T1S, R1W	SEC. 20, T1S, R1W	SEC. 20, T1S, R1W	
OWNER.....	GULF OIL CO.-U.S.	GAS PRODUCING ENTERPRISES	GAS PRODUCING ENTERPRISES	GAS PRODUCING ENTERPRISES	
COMPLETED.....	03/25/72	09/08/72	09/08/72	09/08/72	
SAMPLED.....	05/26/72	04/06/73	04/06/73	04/06/73	
FORMATION.....	EOCE-WASATCH	EOCE-GREEN RIVER	EOCE-GREEN RIVER	EOCE-GREEN RIVER	
GEOLOGIC PROVINCE CODE.....	575	575	575	575	
DEPTH, FEET.....	13125	1814	6270	6270	
WELLHEAD PRESSURE, PSTG.....	15400	NOT GIVEN	2420	2420	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	300	300	
COMPONENT, MOLE PCT					
METHANE.....	73.7	73.3	12.6	12.6	
ETHANE.....	14.4	12.9	1.5	1.5	
PROPANE.....	7.2	4.7	1.0	1.0	
N-BUTANE.....	1.9	1.8	0.4	0.4	
ISOBUTANE.....	0.0	0.1	0.2	0.2	
N-PENTANE.....	0.5	0.6	0.2	0.2	
ISOPENTANE.....	0.4	0.8	TRACE	TRACE	
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	
HEXANES PLUS.....	0.3	0.5	0.3	0.3	
NITROGEN.....	0.1	3.2	79.1	79.1	
OXYGEN.....	0.0	TRACE	TRACE	TRACE	
ARGON.....	0.0	0.0	0.2	0.2	
HYDROGEN.....	TRACE	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.2	0.2	
CARBON DIOXIDE.....	0.4	0.0	2.7	2.7	
HELIUM.....	0.01	0.01	1.47	1.47	
HEATING VALUE.....	1347	1279	230	230	
SPECIFIC GRAVITY.....	0.773	0.771	0.943	0.943	

* CALCULATED GROSS BTU PER CU. FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 11293 9717	INDEX SAMPLE 11294 9721	INDEX SAMPLE 11295 9722
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	EMERY		EMERY	EMERY
FIELD.....	FEDERAL MOUNDS		FEDERAL MOUNDS	FEDERAL MOUNDS
WELL NAME.....	FED. MOUNDS NO. 1		FED. MOUNDS NO. 1	FED. MOUNDS NO. 1
LOCATION.....	SEC. 11, T16S, R11E		SEC. 11, T16S, R11E	SEC. 11, T16S, R11E
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	02/04/65		02/08/65	02/06/65
FORMATION.....	MISS-DESERET		MISS-DESERET	MISS-DESERET
GEOLOGIC PROVINCE CODE.....	585		585	585
DEPTH, FEET.....	8276		8520	8369
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	17000		44	15500
COMPONENT, MOLE PCT				
METHANE.....	1.5	1.6	1.5	1.5
ETHANE.....	0.1	0.1	0.1	0.1
PROPANE.....	0.0	0.0	0.0	0.0
N-BUTANE.....	0.0	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0	0.0
NITROGEN.....	70.2	70.0	70.2	70.2
OXYGEN.....	0.1	0.2	0.2	0.2
ARGON.....	0.3	0.4	0.4	0.4
HYDROGEN.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	27.3	24.2	26.8	26.8
HELIUM.....	0.52	0.55	0.54	0.54
HEATING VALUE.....	17	18	17	17
SPECIFIC GRAVITY.....	1.112	1.095	1.110	1.110

		INDEX SAMPLE 11296 7361	INDEX SAMPLE 11297 9415	INDEX SAMPLE 11298 17158
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	EMERY		EMERY	EMERY
FIELD.....	FERRON		FERRON	FERRON
WELL NAME.....	MRC NO. 1-22		FERRON UNIT NO. 41-22	MRC FERRON NO. 15
LOCATION.....	SEC. 22, T20S, R7E		SEC. 22, T20S, R7E	SEC. 34, T20S, R7E
OWNER.....	ENGLISH OIL CO.		PACIFIC NATURAL GAS EXPL. CO	MOUNTAIN RESOURCES CORP.
COMPLETED.....	08/23/57		06/05/63	--/--/00
SAMPLED.....	01/21/60		06/19/64	01/25/84
FORMATION.....	CRET-FERRON		CRET-FERRON	CRET-FERRON
GEOLOGIC PROVINCE CODE.....	585		585	585
DEPTH, FEET.....	628		580	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	420		398	NOT GIVEN
OPEN FLOW, MCFD.....	4700		872	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	95.8	96.1	93.5	93.5
ETHANE.....	1.3	1.2	1.8	1.8
PROPANE.....	0.7	0.6	0.8	0.8
N-BUTANE.....	0.2	0.1	0.1	0.1
ISOBUTANE.....	0.1	0.2	0.3	0.3
N-PENTANE.....	TRACE	0.1	TRACE	TRACE
ISOPENTANE.....	TRACE	TRACE	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.1	TRACE	TRACE
NITROGEN.....	1.3	1.1	2.8	2.8
OXYGEN.....	TRACE	0.0	0.3	0.3
ARGON.....	0.0	TRACE	TRACE	TRACE
HYDROGEN.....	0.1	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.2	0.1	0.1
HELIUM.....	0.04	0.04	0.07	0.07
HEATING VALUE.....	1027	1038	1014	1014
SPECIFIC GRAVITY.....	0.579	0.585	0.590	0.590

		INDEX SAMPLE 11299 17159	INDEX SAMPLE 11300 9631	INDEX SAMPLE 11301 9846
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	EMERY		EMERY	EMERY
FIELD.....	FERRON		FERRON UNIT	FERRON UNIT
WELL NAME.....	MRC NO. 2		FERRON UNIT NO. 3	FERRON UNIT NO. 3
LOCATION.....	SEC. 10, T21S, R7E		SEC. 21, T20S, R7E	SEC. 21, T20S, R7E
OWNER.....	MOUNTAIN RESOURCES CORP.		PAN AMERICAN PETROLEUM CORP.	PAN AMERICAN PETROLEUM CORP.
COMPLETED.....	--/--/00		09/15/64	09/15/64
SAMPLED.....	01/25/84		11/04/64	04/14/65
FORMATION.....	CRET-FERRON		PERM-KAIBAB	PERM-KAIBAB
GEOLOGIC PROVINCE CODE.....	585		585	585
DEPTH, FEET.....	1200		7170	7170
WELLHEAD PRESSURE, PSIG.....	350		1225	1000
OPEN FLOW, MCFD.....	600		1107	1107
COMPONENT, MOLE PCT				
METHANE.....	94.2	29.0	29.9	29.9
ETHANE.....	1.6	1.1	4.0	4.0
PROPANE.....	0.8	3.2	3.4	3.4
N-BUTANE.....	0.2	1.1	1.0	1.0
ISOBUTANE.....	0.2	0.4	0.5	0.5
N-PENTANE.....	0.1	0.7	0.5	0.5
ISOPENTANE.....	TRACE	TRACE	TRACE	TRACE
CYCLOPENTANE.....	TRACE	0.2	0.1	0.1
HEXANES PLUS.....	0.1	0.8	0.6	0.6
NITROGEN.....	2.2	7.5	8.1	8.1
OXYGEN.....	0.1	0.1	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.3	0.2	0.2
CARBON DIOXIDE.....	0.3	52.4	51.4	51.4
HELIUM.....	0.06	0.18	0.19	0.19
HEATING VALUE.....	1027	581	569	569
SPECIFIC GRAVITY.....	0.592	1.209	1.193	1.193

		INDEX SAMPLE 11302 10010	INDEX SAMPLE 11303 8728	INDEX SAMPLE 11304 8731
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	EMERY		EMERY	EMERY
FIELD.....	FERRON UNIT		FLAT CANYON	FLAT CANYON
WELL NAME.....	FERRON UNIT NO. 4		MARY D. KEARNS NO. 1	MARY D. KEARNS NO. 2
LOCATION.....	SEC. 2, T20S, R7E		SEC. 23, T16S, R6E	SEC. 27, T16S, R6E
OWNER.....	PAN AMERICAN PETROLEUM CORP.		DELHI-TAYLOR OIL CORP.	DELHI-TAYLOR OIL CORP.
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	06/30/65		10/22/62	10/22/62
FORMATION.....	PERM-KAIBAB		CRET-FERRON	CRET-FERRON
GEOLOGIC PROVINCE CODE.....	585		585	585
DEPTH, FEET.....	7244		NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	10.5	83.9	91.0	91.0
ETHANE.....	1.6	7.6	3.5	3.5
PROPANE.....	0.5	4.2	2.3	2.3
N-BUTANE.....	0.1	0.9	0.6	0.6
ISOBUTANE.....	0.1	0.3	0.6	0.6
N-PENTANE.....	0.2	0.3	0.1	0.1
ISOPENTANE.....	TRACE	0.4	0.3	0.3
CYCLOPENTANE.....	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	0.3	0.2	0.1	0.1
NITROGEN.....	6.4	0.9	1.0	1.0
OXYGEN.....	0.0	TRACE	TRACE	TRACE
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	0.0	0.1	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	79.0	0.1	0.3	0.3
HELIUM.....	0.11	0.05	0.02	0.02
HEATING VALUE.....	114	1.3	1.07	1.07
SPECIFIC GRAVITY.....	1.392	0.692	0.629	0.629

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11305 SAMPLE 17133		INDEX 11306 SAMPLE 17836		INDEX 11307 SAMPLE 2677	
STATE.....	UTAH	STATE.....	UTAH	STATE.....	UTAH
COUNTY.....	EMERY	COUNTY.....	EMERY	COUNTY.....	EMERY
FIELD.....	GRASSY TRAIL	FIELD.....	INDIAN CREEK UNIT	FIELD.....	LAST CHANCE
WELL NAME.....	FED. NO. 4-32	WELL NAME.....	INDIAN CREEK NO. 10176-5	WELL NAME.....	NO. 1
LOCATION.....	SEC. 4, T16S, R12E	LOCATION.....	SEC. 10, T17S, R6E	LOCATION.....	SEC. 18, T26S, R7E
OWNER.....	SKYLINE OIL CO.	OWNER.....	VORTI EXPLORATION CO., INC.	OWNER.....	RAMSEY PETROLEUM CORP.
COMPLETED.....	02/17/83	COMPLETED.....	12/--/82	COMPLETED.....	--/--/00
SAMPLED.....	11/02/83	SAMPLED.....	09/18/85	SAMPLED.....	09/08/84
FORMATION.....	TRIA-MOENKOPI	FORMATION.....	CRET-FERRON	FORMATION.....	PERM-KAIBAB
GEOLOGIC PROVINCE CODE.....	585	GEOLOGIC PROVINCE CODE.....	585	GEOLOGIC PROVINCE CODE.....	585
DEPTH, FEET.....	4258	DEPTH, FEET.....	5627	DEPTH, FEET.....	2724
WELLHEAD PRESSURE, PSIG.....	10	WELLHEAD PRESSURE, PSIG.....	1025	WELLHEAD PRESSURE, PSIG.....	410
OPEN FLOW, MCFD.....	6	OPEN FLOW, MCFD.....	3620	OPEN FLOW, MCFD.....	21000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	28.1	METHANE.....	90.4	METHANE.....	79.9
ETHANE.....	2.3	ETHANE.....	3.6	ETHANE.....	0.9
PROPANE.....	1.0	PROPANE.....	2.4	PROPANE.....	---
N-BUTANE.....	0.5	N-BUTANE.....	0.7	N-BUTANE.....	---
ISOBUTANE.....	0.3	ISOBUTANE.....	0.5	ISOBUTANE.....	---
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	---
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2	HEXANES PLUS.....	---
NITROGEN.....	60.7	NITROGEN.....	1.2	NITROGEN.....	13.3
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.2
ARGON.....	0.5	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.5	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	4.6	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	5.5
HELIUM.....	0.71	HELIUM.....	0.02	HELIUM.....	0.19
HEATING VALUE.....	11.7	HEATING VALUE.....	11.8	HEATING VALUE.....	826
SPECIFIC GRAVITY.....	0.904	SPECIFIC GRAVITY.....	0.637	SPECIFIC GRAVITY.....	0.668

INDEX 11308 SAMPLE 17647		INDEX 11309 SAMPLE 7388		INDEX 11310 SAMPLE 5405	
STATE.....	UTAH	STATE.....	UTAH	STATE.....	UTAH
COUNTY.....	EMERY	COUNTY.....	EMERY	COUNTY.....	EMERY
FIELD.....	NOT GIVEN	FIELD.....	TEMPLE SPRINGS	FIELD.....	WILDCAT
WELL NAME.....	INDIAN CREEK NO. 021762-3	WELL NAME.....	TEMPLE SPRINGS UNIT NO. 1	WELL NAME.....	PACKSADDLE NO. 1
LOCATION.....	SEC. 2, T17S, R6E	LOCATION.....	SEC. 14, T25S, R13E	LOCATION.....	SEC. 12, T18S, R12E
OWNER.....	VORTI EXPLORATION CO., INC.	OWNER.....	TEXACO INC.	OWNER.....	EL PASO NATURAL GAS CO.
COMPLETED.....	10/19/84	COMPLETED.....	01/28/60	COMPLETED.....	--/--/00
SAMPLED.....	--/--/00	SAMPLED.....	12/20/59	SAMPLED.....	02/20/53
FORMATION.....	CRET-FERRON	FORMATION.....	DEVO-ELBERT	FORMATION.....	PERM-KAIBAB
GEOLOGIC PROVINCE CODE.....	585	GEOLOGIC PROVINCE CODE.....	585	GEOLOGIC PROVINCE CODE.....	585
DEPTH, FEET.....	5530	DEPTH, FEET.....	4670	DEPTH, FEET.....	2309
WELLHEAD PRESSURE, PSIG.....	1050	WELLHEAD PRESSURE, PSIG.....	1770	WELLHEAD PRESSURE, PSIG.....	610
OPEN FLOW, MCFD.....	3900	OPEN FLOW, MCFD.....	2387	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	88.8	METHANE.....	0.0	METHANE.....	0.5
ETHANE.....	4.4	ETHANE.....	0.0	ETHANE.....	0.0
PROPANE.....	2.8	PROPANE.....	0.0	PROPANE.....	0.0
N-BUTANE.....	0.7	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.7	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.6	NITROGEN.....	96.6	NITROGEN.....	4.5
OXYGEN.....	0.2	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	0.3	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	94.7
HELIUM.....	0.02	HELIUM.....	2.80	HELIUM.....	0.10
HEATING VALUE.....	1125	HEATING VALUE.....	0	HEATING VALUE.....	5
SPECIFIC GRAVITY.....	0.648	SPECIFIC GRAVITY.....	0.948	SPECIFIC GRAVITY.....	1.496

INDEX 11311 SAMPLE 6222		INDEX 11312 SAMPLE 17400		INDEX 11313 SAMPLE 854	
STATE.....	UTAH	STATE.....	UTAH	STATE.....	UTAH
COUNTY.....	EMERY	COUNTY.....	EMERY	COUNTY.....	EMERY
FIELD.....	WILDCAT	FIELD.....	WILDCAT	FIELD.....	WOODSIDE
WELL NAME.....	GOVT.-WHEATLEY NO. 1	WELL NAME.....	RANGE CREEK - FED. NO. 1	WELL NAME.....	WOODSIDE
LOCATION.....	SEC. 27, T16S, R12E	LOCATION.....	SEC. 6, T18S, R16E	LOCATION.....	NOT GIVEN
OWNER.....	CARTER OIL CO.	OWNER.....	GULF OIL EXPL. & PROD. CO.	OWNER.....	UTAH OIL REFINING CO.
COMPLETED.....	--/--/00	COMPLETED.....	02/--/83	COMPLETED.....	--/--/00
SAMPLED.....	12/28/56	SAMPLED.....	08/--/84	SAMPLED.....	03/19/24
FORMATION.....	TRIA-SINBAD	FORMATION.....	CRET-DAKOTA	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	585	GEOLOGIC PROVINCE CODE.....	585	GEOLOGIC PROVINCE CODE.....	585
DEPTH, FEET.....	3501	DEPTH, FEET.....	6022	DEPTH, FEET.....	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	925	WELLHEAD PRESSURE, PSIG.....	1700	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	2	OPEN FLOW, MCFD.....	2760	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	1.4	METHANE.....	95.8	METHANE.....	0.0
ETHANE.....	0.1	ETHANE.....	0.4	ETHANE.....	0.0
PROPANE.....	0.0	PROPANE.....	0.3	PROPANE.....	---
N-BUTANE.....	0.0	N-BUTANE.....	0.1	N-BUTANE.....	---
ISOBUTANE.....	0.0	ISOBUTANE.....	0.1	ISOBUTANE.....	---
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	---
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	---
NITROGEN.....	0.0	NITROGEN.....	2.0	NITROGEN.....	68.1
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	1.3
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	91.2	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	28.4
HELIUM.....	0.13	HELIUM.....	0.05	HELIUM.....	1.33
HEATING VALUE.....	16	HEATING VALUE.....	1019	HEATING VALUE.....	0
SPECIFIC GRAVITY.....	1.474	SPECIFIC GRAVITY.....	0.581	SPECIFIC GRAVITY.....	1.109

INDEX 11314 SAMPLE 1161		INDEX 11315 SAMPLE 8633		INDEX 11316 SAMPLE 8634	
STATE.....	UTAH	STATE.....	UTAH	STATE.....	UTAH
COUNTY.....	EMERY	COUNTY.....	EMERY	COUNTY.....	EMERY
FIELD.....	WOODSIDE	FIELD.....	WOODSIDE	FIELD.....	WOODSIDE
WELL NAME.....	WOODSIDE NO. 1	WELL NAME.....	UNIT NO. 1	WELL NAME.....	UNIT NO. 1
LOCATION.....	SEC. 12, T19S, R13E	LOCATION.....	SEC. 12, T19S, R13E	LOCATION.....	SEC. 12, T19S, R13E
OWNER.....	UTAH OIL REFINING CO.	OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	HUMBLE OIL & REFINING CO.
COMPLETED.....	--/--/00	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	09/26/25	SAMPLED.....	07/18/62	SAMPLED.....	07/24/62
FORMATION.....	PERM-KAIBAB	FORMATION.....	PERM-ELEPHANT CANYON	FORMATION.....	PENN-VIRGIL
GEOLOGIC PROVINCE CODE.....	585	GEOLOGIC PROVINCE CODE.....	585	GEOLOGIC PROVINCE CODE.....	585
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	4490	DEPTH, FEET.....	4910
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1530	WELLHEAD PRESSURE, PSIG.....	1620
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	64	OPEN FLOW, MCFD.....	6
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	---	METHANE.....	27.0	METHANE.....	67.0
ETHANE.....	5.7	ETHANE.....	4.0	ETHANE.....	6.0
PROPANE.....	---	PROPANE.....	3.6	PROPANE.....	2.0
N-BUTANE.....	---	N-BUTANE.....	0.5	N-BUTANE.....	0.5
ISOBUTANE.....	---	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	---	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	---	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	---	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	61.0	NITROGEN.....	64.9	NITROGEN.....	24.3
OXYGEN.....	0.3	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	---	ARGON.....	0.2	ARGON.....	0.1
HYDROGEN.....	---	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	31.7	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	1.31	HELIUM.....	1.03	HELIUM.....	0.30
HEATING VALUE.....	10.02	HEATING VALUE.....	874	HEATING VALUE.....	879
SPECIFIC GRAVITY.....	1.140	SPECIFIC GRAVITY.....	0.874	SPECIFIC GRAVITY.....	0.720

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11317 SAMPLE 12055			INDEX 11318 SAMPLE 12059			INDEX 11319 SAMPLE 8089		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	EMERY		EMERY			GARFIELD		
FIELD.....	WOODSIDE		WOODSIDE			ESCALANTE		
WELL NAME.....	FED. NO. 44-12		FED. 44-12			ESCALANTE NO. 2		
LOCATION.....	SEC. 12, T19S, R13E		SEC. 12, T19S, R13E			SEC. 29, T32S, R3E		
OWNER.....	HOLLY RESOURCES CORP.		HOLLY RESOURCES CORP.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	09/27/69		09/27/69			--/--/00		
SAMPLED.....	09/27/69		10/01/69			07/19/61		
FORMATION.....	PERM-KAIBAB		PERM-KAIBAB			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	3341		3341			1606		
WELLHEAD PRESSURE, PSIG.....	750		750			NOT GIVEN		
OPEN FLOW, MCFD.....	3000		6000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	0.2		0.2			0.7		
ETHANE.....	0.1		0.2			0.2		
PROPANE.....	TRACE		0.1			0.3		
N-BUTANE.....	0.1		0.1			0.1		
ISOBUTANE.....	0.1		0.2			TRACE		
N-PENTANE.....	0.1		0.1			TRACE		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	64.4		64.2			2.0		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		0.2			0.1		
HYDROGEN.....	0.0		0.0			0.4		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	33.0		33.2			96.1		
HELIUM.....	1.51		1.36			0.10		
HEATING VALUE.....	24		28			23		
SPECIFIC GRAVITY.....	1.146		1.150			1.503		

INDEX 11320 SAMPLE 8091			INDEX 11321 SAMPLE 17381			INDEX 11322 SAMPLE 17513		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	GARFIELD		GARFIELD			GARFIELD		
FIELD.....	ESCALANTE		ESCALANTE ANTICLINE			ESCALANTE ANTICLINE		
WELL NAME.....	CHARGER NO. 2		CHARGER NO. 2			CHARGER NO. 4		
LOCATION.....	SEC. 29, T32S, R3E		SEC. 33, T32S, R3E			SEC. 13, T33S, R2E		
OWNER.....	PHILLIPS PETROLEUM CO.		MID-CONTINENT OIL CO.			MID-CONTINENT OIL CORP.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	07/19/61		08/15/84			10/31/84		
FORMATION.....	NOT GIVEN		TRIA-MOENKOPI & SHINARUMP			TRIA-SHINARUMP & MOENKOPI		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	2260		2140			3005		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		34			25		
OPEN FLOW, MCFD.....	NOT GIVEN		994			29504		
COMPONENT, MOLE PCT								
METHANE.....	0.4		0.1			0.2		
ETHANE.....	0.2		0.0			0.0		
PROPANE.....	0.0		0.0			TRACE		
N-BUTANE.....	TRACE		0.0			0.0		
ISOBUTANE.....	0.1		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	0.1		0.0			0.0		
NITROGEN.....	0.5		0.9			2.0		
OXYGEN.....	0.2		TRACE			0.1		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	TRACE		0.0			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	93.1		98.8			97.6		
HELIUM.....	0.30		0.05			0.04		
HEATING VALUE.....	16		1			2		
SPECIFIC GRAVITY.....	1.490		1.521			1.514		

INDEX 11323 SAMPLE 9766			INDEX 11324 SAMPLE 6360			INDEX 11325 SAMPLE 6361		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	GRAND		GRAND			GRAND		
FIELD.....	AGATE		BAR X			BAR X		
WELL NAME.....	FEE NO. 8-1		BAR-X NO. 3			BAR-X NO. 4		
LOCATION.....	SEC. 8, T20S, R24E		SEC. 12, T17S, R25E			SEC. 18, T17S, R26E		
OWNER.....	WILLIAM G. BUSH		AMERICAN METAL CO.			AMERICAN METAL CO.		
COMPLETED.....	11/20/64		12/19/55			01/17/56		
SAMPLED.....	02/22/65		08/14/57			08/14/57		
FORMATION.....	JURA-MORRISON		CRET-DAKOTA			JURA-ENTRADA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	1670		2919			3503		
WELLHEAD PRESSURE, PSIG.....	680		837			1126		
OPEN FLOW, MCFD.....	2800		1875			7500		
COMPONENT, MOLE PCT								
METHANE.....	88.7		91.6			49.6		
ETHANE.....	0.0		1.1			0.1		
PROPANE.....	0.7		1.2			0.7		
N-BUTANE.....	0.1		0.3			0.1		
ISOBUTANE.....	0.2		0.1			TRACE		
N-PENTANE.....	0.1		0.1			0.0		
ISOPENTANE.....	TRACE		0.1			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.1		0.1			0.0		
NITROGEN.....	8.4		1.8			28.9		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		TRACE			8.4		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.3			9.6		
HELIUM.....	0.58		0.12			0.50		
HEATING VALUE.....	958		1060			589		
SPECIFIC GRAVITY.....	0.609		0.608			0.744		

INDEX 11326 SAMPLE 6851			INDEX 11327 SAMPLE 6876			INDEX 11328 SAMPLE 7058		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	GRAND		GRAND			GRAND		
FIELD.....	BAR X		BAR X			BAR X		
WELL NAME.....	SEC. 8, T17S, R26E		SEC. 7, T17S, R26E			SEC. 18, T17S, R26E		
LOCATION.....	TENNESSEE GAS TRANSMISSION C		AMERICAN CLIMAX PETROLEUM CO			AMERICAN CLIMAX PETROLEUM CO		
OWNER.....	10/18/58		10/18/58			--/--/00		
COMPLETED.....	--/--/58		11/14/58			04/29/59		
SAMPLED.....	JURA-MORRISON		JURA-MORRISON			JURA-ENTRADA		
FORMATION.....	585		585			585		
GEOLOGIC PROVINCE CODE.....	3611		3345			3550		
DEPTH, FEET.....	730		720			1143		
WELLHEAD PRESSURE, PSIG.....	5		1			7500		
OPEN FLOW, MCFD.....								
COMPONENT, MOLE PCT								
METHANE.....	83.5		88.8			45.0		
ETHANE.....	3.6		4.7			0.9		
PROPANE.....	0.9		1.2			1.6		
N-BUTANE.....	0.3		0.3			0.2		
ISOBUTANE.....	0.4		0.3			0.0		
N-PENTANE.....	0.1		TRACE			0.1		
ISOPENTANE.....	0.1		0.2			0.0		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	9.9		3.6			26.8		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.5			24.3		
HELIUM.....	0.50		0.30			0.80		
HEATING VALUE.....	980		0.949			530		
SPECIFIC GRAVITY.....	0.645		0.624			0.927		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11329 SAMPLE 17001			INDEX 11330 SAMPLE 17323			INDEX 11331 SAMPLE 8601		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	GRAND		GRAND			GRAND		
FIELD.....	BAR X		BAR X			BARTLETT FLAT		
WELL NAME.....	BAR X NO. 13		NORTH BAR X NO. 1			UNIT NO. 5		
LOCATION.....	SEC. 7, T17S, R26E		SEC. 1, T17S, R25E			SEC. 27, T25S, R19E		
OWNER.....	TERRA RESOURCES, INC.		BEARTOOTH OIL & GAS CO.			PURE OIL CO.		
COMPLETED.....	07/23/83		05/--/84			07/07/62		
SAMPLED.....	07/27/83		06/11/84			07/07/62		
FORMATION.....	JURA-MORRISON		CRET-DAKOTA			MISS---		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	2934		3603			7400		
WELLHEAD PRESSURE, PSIG.....	500		860			NOT GIVEN		
OPEN FLOW, MCFD.....	2500		1148			100		
COMPONENT, MOLE PCT.....								
METHANE.....	89.8		84.9			12.3		
ETHANE.....	5.3		4.3			2.0		
PROPANE.....	1.4		1.3			1.1		
N-BUTANE.....	0.4		0.3			0.6		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.4		0.1			0.3		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	1.0		7.7			79.3		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.2		
HYDROGEN.....	0.3		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.8			2.3		
HELIUM.....	0.12		0.08			1.39		
HEATING VALUE.....	1011		1005			247		
SPECIFIC GRAVITY.....	0.630		0.643			0.948		
INDEX 11332 SAMPLE 8602			INDEX 11333 SAMPLE 6421			INDEX 11334 SAMPLE 7049		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	GRAND		GRAND			GRAND		
FIELD.....	BARTLETT FLAT		BIG FLAT			BIG FLAT		
WELL NAME.....	UNIT NO. 5		PURE BIG FLAT UNIT			BIG FLAT UNIT NO. 1		
LOCATION.....	SEC. 27, T25S, R19E		SEC. 14, T26S, R19E			SEC. 14, T26S, R19E		
OWNER.....	PURE OIL CO.		PURE OIL CO.			PURE OIL CO.		
COMPLETED.....	--/--/00		--/--/00			09/13/57		
SAMPLED.....	07/04/62		10/24/57			04/29/59		
FORMATION.....	MISS---		MISS-LEADVILLE			MISS-LEADVILLE		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	7441		7694			7954		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		420			150		
OPEN FLOW, MCFD.....	4000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	11.9		7.1			6.3		
ETHANE.....	2.1		1.9			1.1		
PROPANE.....	0.1		3.9			1.8		
N-BUTANE.....	0.7		3.9			1.5		
ISOBUTANE.....	0.6		1.4			0.8		
N-PENTANE.....	0.2		1.9			1.0		
ISOPENTANE.....	0.3		0.8			0.2		
CYCLOPENTANE.....	TRACE		0.3			0.2		
HEXANES PLUS.....	0.2		1.5			1.0		
NITROGEN.....	74.7		72.5			82.5		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.2		0.1			0.1		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		1.2			0.0		
CARBON DIOXIDE.....	7.4		0.9			2.0		
HELIUM.....	1.40		1.40			1.70		
HEATING VALUE.....	236		581			318		
SPECIFIC GRAVITY.....	0.975		1.101			1.015		
INDEX 11335 SAMPLE 7050			INDEX 11336 SAMPLE 8378			INDEX 11337 SAMPLE 8209		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	GRAND		GRAND			GRAND		
FIELD.....	BIG FLAT		BIG FLAT			BOOK CLIFFS		
WELL NAME.....	BIG FLAT UNIT NO. 2		BIG FLAT NO. 5			BOOK CLIFFS NO. 1		
LOCATION.....	SEC. 14, T26S, R19E		SEC. 27, T25S, R19E			SEC. 32, T18S, R22E		
OWNER.....	PURE OIL CO.		PURE OIL CO.			GULF OIL CORP.		
COMPLETED.....	09/04/58		12/04/61			07/05/61		
SAMPLED.....	04/29/59		01/23/62			09/23/61		
FORMATION.....	MISS-LEADVILLE		PEN-PARADOX			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	7768		7202			5186		
WELLHEAD PRESSURE, PSIG.....	200		2250			1537		
OPEN FLOW, MCFD.....	NOT GIVEN		90			5300		
COMPONENT, MOLE PCT.....								
METHANE.....	20.7		60.3			87.7		
ETHANE.....	9.4		15.9			5.5		
PROPANE.....	9.4		11.3			3.3		
N-BUTANE.....	3.7		3.9			0.3		
ISOBUTANE.....	1.9		2.0			0.5		
N-PENTANE.....	1.1		0.1			0.0		
ISOPENTANE.....	0.6		1.1			0.1		
CYCLOPENTANE.....	0.3		0.2			0.1		
HEXANES PLUS.....	1.1		0.3			0.2		
NITROGEN.....	44.7		2.2			3.4		
OXYGEN.....	0.1		0.1			0.1		
ARGON.....	0.2		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	1.4		0.0			0.0		
CARBON DIOXIDE.....	5.7		0.7			0.7		
HELIUM.....	0.30		0.05			0.21		
HEATING VALUE.....	950		1544			1070		
SPECIFIC GRAVITY.....	1.092		0.915			0.639		
INDEX 11338 SAMPLE 8657			INDEX 11339 SAMPLE 8766			INDEX 11340 SAMPLE 9110		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	GRAND		GRAND			GRAND		
FIELD.....	BOOK CLIFFS		BOOK CLIFFS			BOOK CLIFFS		
WELL NAME.....	NO. 3		FED. SEAGULL NO. 1-18			BOOK CLIFFS NO. 3		
LOCATION.....	SEC. 33, T18S, R22E		SEC. 18, T16S, R25E			SEC. 33, T18S, R22E		
OWNER.....	GULF OIL CORP.		RIP C. UNDERWOOD			GULF OIL CORP.		
COMPLETED.....	08/25/62		11/--/62			08/15/62		
SAMPLED.....	08/25/62		11/10/62			10/10/63		
FORMATION.....	CRET-DAKOTA		CRET-CEDAR MOUNTAIN			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	5330		NOT GIVEN			5418		
WELLHEAD PRESSURE, PSIG.....	1698		900			1918		
OPEN FLOW, MCFD.....	2500		1140			2500		
COMPONENT, MOLE PCT.....								
METHANE.....	88.9		86.9			89.4		
ETHANE.....	5.7		6.7			5.5		
PROPANE.....	0.4		0.7			1.3		
N-BUTANE.....	0.3		0.6			0.4		
ISOBUTANE.....	0.4		0.3			0.2		
N-PENTANE.....	0.1		0.3			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	2.5		2.0			2.4		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		1.0			0.20		
HELIUM.....	0.20		0.11			0.20		
HEATING VALUE.....	1031		1032			1077		
SPECIFIC GRAVITY.....	0.627		0.656			0.623		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11341 17495	INDEX SAMPLE	11342 7794	INDEX SAMPLE	11343 7798
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	BRYSON			BRYSON CANYON		BRYSON CANYON	
WELL NAME.....	TOC. TXO P060 USA NO. 15-9			6A		6A	
LOCATION.....	SEC. 15, T17S, R24E			SEC. 9, T17S, R24E		SEC. 9, T17S, R24E	
OWNER.....	TENNECO OIL CO.			TREND OIL CO.		TREND OIL CO.	
COMPLETED.....	09/02/82			11/29/60		11/29/60	
SAMPLED.....	10/15/84			12/01/60		12/01/60	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5333			4606		4731	
WELLHEAD PRESSURE, PSIG.....	460			1076		3276	
OPEN FLOW, MCFD.....	275			1400		9400	
COMPONENT, MOLE PCT							
METHANE.....	93.5			87.1		82.4	
ETHANE.....	3.5			3.7		3.6	
PROPANE.....	0.7			0.6		0.7	
N-BUTANE.....	0.1			0.1		0.2	
ISOBUTANE.....	0.1			0.3		0.2	
N-PENTANE.....	0.1			TRACE		0.2	
ISOPENTANE.....	0.1			TRACE		0.0	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.3	
NITROGEN.....	0.7			5.7		9.3	
OXYGEN.....	TRACE			1.2		1.7	
ARGON.....	TRACE			0.1		0.1	
HYDROGEN.....	0.2			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			1.0		0.5	
HELIUM.....	0.06			0.10		0.70	
HEATING VALUE.....	1049			983		958	
SPECIFIC GRAVITY.....	0.599			0.627		0.648	
		INDEX SAMPLE	11344 15877	INDEX SAMPLE	11345 17083	INDEX SAMPLE	11346 8340
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	BRYSON CANYON			BRYSON CANYON		CANYON E	
WELL NAME.....	FED. NO. 3-15			BRYSON CANYON UNIT NO. 15		FED. SEA GULL NO. 1	
LOCATION.....	SEC. 3, T17S, R24E			SEC. 15, T17S, R24E		SEC. 13, T16S, R24E	
OWNER.....	TENNECO OIL CO.			BEARTOOTH OIL & GAS CO.		RIP C. UNDERWOOD	
COMPLETED.....	08/04/79			08/28/83		12/18/61	
SAMPLED.....	01/09/80			10/03/83		12/16/61	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA & JURA-SALT WASH		CRET-CEDAR MOUNTAIN	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	4634			5180		5886	
WELLHEAD PRESSURE, PSIG.....	920			840		900	
OPEN FLOW, MCFD.....	2500			1423		20000	
COMPONENT, MOLE PCT							
METHANE.....	78.5			89.2		84.6	
ETHANE.....	5.2			4.1		8.0	
PROPANE.....	2.1			1.1		2.9	
N-BUTANE.....	0.6			0.4		0.6	
ISOBUTANE.....	0.4			0.3		0.5	
N-PENTANE.....	0.3			0.2		0.1	
ISOPENTANE.....	0.3			0.2		0.3	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	0.4			0.4		1.7	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.3			TRACE		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.8		1.0	
HELIUM.....	0.13			0.15		0.14	
HEATING VALUE.....	1005			1060		1135	
SPECIFIC GRAVITY.....	0.676			0.633		0.666	
		INDEX SAMPLE	11347 9355	INDEX SAMPLE	11348 944	INDEX SAMPLE	11349 1176
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	CANYON E			CISCO DOME		CISCO DOME	
WELL NAME.....	E. CANYON UNIT NO. 44-12			NO. 1 CISCO		NO. 1	
LOCATION.....	SEC. 12, T16, R24E			SEC. 25, T20S, R21E		SEC. 14, T1-S, R21E	
OWNER.....	UTAH OIL REFINING CO.			UTAH OIL REFINING CO.		UTAH OIL REFINING CO.	
COMPLETED.....	10/15/63			--/--/00		--/--/00	
SAMPLED.....	05/15/64			11/17/24		10/19/25	
FORMATION.....	CRET-CEDAR MOUNTAIN			JURA-MCELMO		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5717			1960		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1000			127		NOT GIVEN	
OPEN FLOW, MCFD.....	1300			90000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	89.0			86.1		83.0	
ETHANE.....	12.9			12.3		13.6	
PROPANE.....	1.9			---		---	
N-BUTANE.....	0.6			---		---	
ISOBUTANE.....	0.1			---		---	
N-PENTANE.....	0.2			---		---	
ISOPENTANE.....	0.1			---		---	
CYCLOPENTANE.....	0.2			---		---	
HEXANES PLUS.....	0.2			---		---	
NITROGEN.....	0.4			0.9		2.6	
OXYGEN.....	TRACE			0.2		0.5	
ARGON.....	TRACE			---		---	
HYDROGEN.....	0.0			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	1.4			0.3		0.3	
HELIUM.....	0.08			0.15		0.14	
HEATING VALUE.....	1107			1093		1085	
SPECIFIC GRAVITY.....	0.641			0.622		0.638	
		INDEX SAMPLE	11350 1257	INDEX SAMPLE	11351 6810	INDEX SAMPLE	11352 6811
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	CISCO DOME			CISCO DOME		CISCO DOME	
WELL NAME.....	CISCO NO. 1			STATE NO. 1		UNION GOVT. II-1	
LOCATION.....	SEC. 25, T20S, R21E			SEC. 36, T20S, R21E		SEC. 24, T20S, R21E	
OWNER.....	UTAH OIL REFINING CO.			CABEN EXPLORATION CORP.		CABEN EXPLORATION CORP.	
COMPLETED.....	07/03/55			09/20/58		09/20/58	
SAMPLED.....	12/20/25			09/20/58		09/20/58	
FORMATION.....	NOT GIVEN			CRET-DAKOTA & JURA-MORRISON		JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	NOT GIVEN			1940		2108	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			460		763	
OPEN FLOW, MCFD.....	NOT GIVEN			1200		5200	
COMPONENT, MOLE PCT							
METHANE.....	86.5			92.4		89.5	
ETHANE.....	11.3			3.6		2.1	
PROPANE.....	---			0.2		0.1	
N-BUTANE.....	---			0.4		0.1	
ISOBUTANE.....	---			0.2		0.1	
N-PENTANE.....	---			0.1		TRACE	
ISOPENTANE.....	---			0.2		0.2	
CYCLOPENTANE.....	---			0.1		TRACE	
HEXANES PLUS.....	---			0.1		0.1	
NITROGEN.....	1.5			1.3		4.0	
OXYGEN.....	0.3			0.1		0.6	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.0		TRACE	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.1		3.0	
HELIUM.....	0.14			0.14		0.10	
HEATING VALUE.....	1079			1074		967	
SPECIFIC GRAVITY.....	0.624			0.609		0.623	

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11353 6812	INDEX SAMPLE	11354 9322	INDEX SAMPLE	11355 6554
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	CISCO DOME			CISCO DOME		CISCO SPRINGS	
WELL NAME.....	UNION GOV. III-1			AREA NO. 30-81		A. W. CULLEN NO. 1	
LOCATION.....	SEC. 10, T20S, R21E			SEC. 50, T20S, R24E		SEC. 15, T20S, R23E	
OWNER.....	CABEN EXPLORATION CORP.			PUMPELLY-STAVA OPERATOR		THREE STATES NATURAL GAS CO.	
COMPLETED.....	06/05/58			02/12/64		09/08/55	
SAMPLED.....	09/20/58			03/-/64		04/14/58	
FORMATION.....	JURA-MORRISON			CRET-BUCKHORN		JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	2621			842		1565	
WELLHEAD PRESSURE, PSIG.....	790			351		690	
OPEN FLOW, MCFD.....	9800			700		2820	
COMPONENT, MOLE PCT							
METHANE.....	89.9			82.1		90.3	
ETHANE.....	4.0			2.5		2.9	
PROPANE.....	0.2			0.8		0.7	
N-BUTANE.....	0.3			0.2		0.2	
ISOBUTANE.....	0.3			TRACE		0.1	
N-PENTANE.....	TRACE			0.1		0.1	
ISOPENTANE.....	0.2			0.2		0.1	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	3.5			13.1		4.7	
OXYGEN.....	TRACE			0.0		0.2	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		TRACE	
HELIUM.....	0.20			0.66		0.40	
HEATING VALUE.....	1063			922		1009	
SPECIFIC GRAVITY.....	0.623			0.637		0.604	
		INDEX SAMPLE	11356 7483	INDEX SAMPLE	11357 10960	INDEX SAMPLE	11358 1804
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	DIAMOND RIDGE			GRAVEL PILE		HARLEY DOME	
WELL NAME.....	DIAMOND RIDGE UNIT NO. 2			PUMPELLY-STAVA NO. 30-75		BASHOR NO. 1	
LOCATION.....	SEC. 23, T17S, R22E			SEC. 30, T20S, R24E		SEC. 4, T19S, R25E	
OWNER.....	SUNRAY MID-CONTINENT OIL CO.			PUMPELLY-STAVA OPERATOR		H. H. BASHOR	
COMPLETED.....	01/28/60			02/08/67		09/12/25	
SAMPLED.....	03/28/60			-/-/00		07/06/29	
FORMATION.....	CRET-CEDAR MOUNTAIN			CRET-CEDAR MOUNTAIN		JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	7254			648		538	
WELLHEAD PRESSURE, PSIG.....	1675			86		25	
OPEN FLOW, MCFD.....	2100			1330		390	
COMPONENT, MOLE PCT							
METHANE.....	92.2			92.4		50.0	
ETHANE.....	3.6			1.8		3.6	
PROPANE.....	0.7			0.5		---	
N-BUTANE.....	0.1			0.2		---	
ISOBUTANE.....	0.2			0.1		---	
N-PENTANE.....	0.1			0.1		---	
ISOPENTANE.....	0.0			TRACE		---	
CYCLOPENTANE.....	TRACE			TRACE		---	
HEXANES PLUS.....	0.1			0.1		---	
NITROGEN.....	0.3			3.6		43.8	
OXYGEN.....	0.3			TRACE		0.2	
ARGON.....	TRACE			TRACE		---	
HYDROGEN.....	TRACE			TRACE		---	
HYDROGEN SULFIDE.....	0.0			0.0		---	
CARBON DIOXIDE.....	0.7			0.7		0.3	
HELIUM.....	0.10			0.28		2.25	
HEATING VALUE.....	1036			1031		571	
SPECIFIC GRAVITY.....	0.603			0.597		0.749	
		INDEX SAMPLE	11359 2331	INDEX SAMPLE	11360 2333	INDEX SAMPLE	11361 2396
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	HARLEY DOME			HARLEY DOME		HARLEY DOME	
WELL NAME.....	NO. 2			NO. 2		NO. 2	
LOCATION.....	SEC. 4, T19S, R25E			SEC. 4, T19S, R25E		SEC. 4, T19S, R25E	
OWNER.....	WEIGHTMAN & FOLLGREN			WEIGHTMAN & FOLLGREN		WEIGHTMAN & FOLLGREN	
COMPLETED.....	05/03/26			05/03/31		08/01/31	
SAMPLED.....	05/01/31			05/18/31		08/20/31	
FORMATION.....	JURA-MORRISON			JURA-ENTRADA		JURA-ENTRADA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	564			860		860	
WELLHEAD PRESSURE, PSIG.....	150			100		157	
OPEN FLOW, MCFD.....	250			3000		1720	
COMPONENT, MOLE PCT							
METHANE.....	46.9			5.5		5.1	
ETHANE.....	2.3			0.0		---	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	48.1			84.6		84.5	
OXYGEN.....	0.1			0.1		0.0	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.2			0.8		1.1	
HELIUM.....	2.45			7.06		7.06	
HEATING VALUE.....	516			92		93	
SPECIFIC GRAVITY.....	0.757			0.893		0.896	
		INDEX SAMPLE	11362 8603	INDEX SAMPLE	11363 8651	INDEX SAMPLE	11364 8652
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	HORSE POINT			LONG CANYON		LONG CANYON	
WELL NAME.....	HORSE POINT 1-X			LONG CANYON UNIT NO. 1		LONG CANYON UNIT NO. 1	
LOCATION.....	SEC. 14, T16S, R23E			SEC. 9, T26S, R20E		SEC. 9, T26S, R20E	
OWNER.....	SOUTHWATER OIL CO.			SOUTHWATER NATURAL GAS CO.		SOUTHWATER NATURAL GAS CO.	
COMPLETED.....	07/04/62			-/-/00		-/-/00	
SAMPLED.....	07/03/62			08/14/62		08/11/62	
FORMATION.....	CRET-DAKOTA			MISS---		MISS---	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8112			7706		7606	
WELLHEAD PRESSURE, PSIG.....	999			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	2169			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	56.1			4.7		4.7	
ETHANE.....	2.3			0.8		0.8	
PROPANE.....	1.2			0.3		0.3	
N-BUTANE.....	0.3			0.3		0.2	
ISOBUTANE.....	0.1			0.1		0.1	
N-PENTANE.....	0.1			0.1		0.2	
ISOPENTANE.....	TRACE			0.0		0.0	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	TRACE			TRACE		0.2	
NITROGEN.....	13.0			91.1		90.6	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.3			0.2		0.2	
HYDROGEN.....	26.3			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.6		0.7	
HELIUM.....	0.37			1.48		1.44	
HEATING VALUE.....	744			95		102	
SPECIFIC GRAVITY.....	0.515			0.950		0.950	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11365 SAMPLE 9047		INDEX 11366 SAMPLE 17064		INDEX 11367 SAMPLE 6304	
STATE.....	UTAH	UTAH	UTAH	UTAH	
COUNTY.....	GRAND	GRAND	GRAND	GRAND	
FIELD.....	LONG CANYON	MOON RIDGE	NOT GIVEN	NOT GIVEN	
WELL NAME.....	LONG CANYON NO. 2	ICE CANYON NO. 16-9	NO. 1	NO. 1	
LOCATION.....	SEC. 9, T26S, R20E	SEC. 16, T16S, R21E	SEC. 26, T21S, R23E	SEC. 26, T21S, R23E	
OWNER.....	SOUTHERN NATURAL GAS CO.	BEARTOOTH OIL & GAS CO.	CARL LOSEY	CARL LOSEY	
COMPLETED.....	--/--/00	10/--/82	--/--/00	--/--/00	
SAMPLED.....	07/--/63	09/15/83	04/17/57	04/17/57	
FORMATION.....	MISS---	CRET-DAKOTA	JURA-MORRISON	JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	585	585	585	585	
DEPTH, FEET.....	7677	9700	595	595	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1465	220	220	
OPEN FLOW, MCFD.....	NOT GIVEN	2000	150	150	
COMPONENT, MOLE PCT					
METHANE.....	2.6	94.9	92.9	92.9	
ETHANE.....	0.8	2.0	1.4	1.4	
PROpane.....	0.3	0.2	0.4	0.4	
N-BUTANE.....	0.1	0.2	0.2	0.2	
ISOBUTANE.....	0.1	0.0	0.2	0.2	
N-PENTANE.....	0.1	0.0	0.1	0.1	
ISOPENTANE.....	0.0	TRACE	0.1	0.1	
CYCLOPENTANE.....	TRACE	0.1	0.1	0.1	
HEXANES PLUS.....	0.1	0.1	0.3	0.3	
NITROGEN.....	93.9	0.6	3.8	3.8	
OXYGEN.....	TRACE	0.1	0.0	0.0	
ARGON.....	0.2	TRACE	0.0	0.0	
HYDROGEN.....	0.0	0.3	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	1.3	TRACE	TRACE	
HELIUM.....	1.30	0.03	0.26	0.26	
HEATING VALUE.....	70	1098	1017	1017	
SPECIFIC GRAVITY.....	0.959	0.592	0.598	0.598	

INDEX 11368 SAMPLE 6470		INDEX 11369 SAMPLE 9812		INDEX 11370 SAMPLE 9813	
STATE.....	UTAH	UTAH	UTAH	UTAH	
COUNTY.....	GRAND	GRAND	GRAND	GRAND	
FIELD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
WELL NAME.....	UTAH FED. NO. 1	U-TEX NO. 4	U-TEX NO. 3	U-TEX NO. 3	
LOCATION.....	SEC. 8, T17S, R23E	SEC. 16, T20S, R24E	SEC. 10, T20S, R24E	SEC. 10, T20S, R24E	
OWNER.....	SUNRAY MID-CONTINENT OIL CO.	U-TEX OIL CO.	U-TEX OIL CO.	U-TEX OIL CO.	
COMPLETED.....	11/01/57	--/--/00	--/--/00	--/--/00	
SAMPLED.....	01/04/58	03/22/65	03/22/65	03/22/65	
FORMATION.....	CRET-DAKOTA U	JURA-MORRISON	JURA-MORRISON	JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	585	585	585	585	
DEPTH, FEET.....	5862	NOT GIVEN	NOT GIVEN	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1500	775	780	780	
OPEN FLOW, MCFD.....	150	3000	2900	2900	
COMPONENT, MOLE PCT					
METHANE.....	92.4	76.7	73.4	73.4	
ETHANE.....	4.6	2.9	1.1	1.1	
PROpane.....	2.5	1.8	0.4	0.4	
N-BUTANE.....	0.3	0.3	0.1	0.1	
ISOBUTANE.....	0.0	0.4	0.1	0.1	
N-PENTANE.....	TRACE	0.1	0.1	0.1	
ISOPENTANE.....	0.0	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	TRACE	0.1	0.2	0.2	
NITROGEN.....	0.0	16.7	23.2	23.2	
OXYGEN.....	TRACE	0.1	0.0	0.0	
ARGON.....	0.0	0.1	0.1	0.1	
HYDROGEN.....	0.1	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.1	0.0	0.0	
HELIUM.....	0.04	0.66	1.32	1.32	
HEATING VALUE.....	1094	913	795	795	
SPECIFIC GRAVITY.....	0.606	0.671	0.665	0.665	

INDEX 11371 SAMPLE 7892		INDEX 11372 SAMPLE 7895		INDEX 11373 SAMPLE 8515	
STATE.....	UTAH	UTAH	UTAH	UTAH	
COUNTY.....	GRAND	GRAND	GRAND	GRAND	
FIELD.....	SALT WASH	SALT WASH	SALT WASH	SALT WASH	
WELL NAME.....	SALT WASH NO. 1	SALT WASH NO. 1	SALT WASH NO. 1	GOVT. SMOOT NO. 1	
LOCATION.....	SEC. 15, T23S, R17E	SEC. 15, T23S, R17E	SEC. 17, T23S, R17E	SEC. 17, T23S, R17E	
OWNER.....	PAN AMERICAN PETROLEUM CORP.	PAN AMERICAN PETROLEUM CORP.	PAN AMERICAN PETROLEUM CORP.	TEXACO INC.	
COMPLETED.....	--/--/00	--/--/00	04/24/62	04/24/62	
SAMPLED.....	03/13/61	03/09/61	04/16/62	04/16/62	
FORMATION.....	MISS-LEADVILLE	MISS-LEADVILLE	MISS-LEADVILLE	MISS-LEADVILLE	
GEOLOGIC PROVINCE CODE.....	585	585	585	585	
DEPTH, FEET.....	8627	8553	8732	8732	
WELLHEAD PRESSURE, PSIG.....	300	3875	125	125	
OPEN FLOW, MCFD.....	7000	404	154	154	
COMPONENT, MOLE PCT					
METHANE.....	11.0	11.8	16.1	16.1	
ETHANE.....	3.0	1.9	5.5	5.5	
PROpane.....	4.2	4.2	6.4	6.4	
N-BUTANE.....	4.6	1.1	4.1	4.1	
ISOBUTANE.....	2.3	0.6	2.4	2.4	
N-PENTANE.....	2.2	0.5	1.3	1.3	
ISOPENTANE.....	1.7	0.1	0.1	0.1	
CYCLOPENTANE.....	0.2	0.1	0.1	0.1	
HEXANES PLUS.....	1.8	0.5	0.8	0.8	
NITROGEN.....	64.2	77.3	55.9	55.9	
OXYGEN.....	TRACE	TRACE	TRACE	TRACE	
ARGON.....	0.2	0.2	0.2	0.2	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	3.1	2.2	5.3	5.3	
HELIUM.....	1.40	1.80	0.78	0.78	
HEATING VALUE.....	713	719	794	794	
SPECIFIC GRAVITY.....	1.130	0.971	1.093	1.093	

INDEX 11374 SAMPLE 8872		INDEX 11375 SAMPLE 8972		INDEX 11376 SAMPLE 8974	
STATE.....	UTAH	UTAH	UTAH	UTAH	
COUNTY.....	GRAND	GRAND	GRAND	GRAND	
FIELD.....	SALT WASH	SALT WASH	SALT WASH	SALT WASH	
WELL NAME.....	CF&I NO. 22-16	SALT WASH NO. 1	CF&I NO. 42-16	CF&I NO. 42-16	
LOCATION.....	SEC. 16, T23S, R17E	SEC. 16, T23S, R17E	SEC. 16, T23S, R17E	SEC. 16, T23S, R17E	
OWNER.....	SHELL OIL CO.	PAN AMERICAN PETROLEUM CORP.	SHELL OIL CO.	SHELL OIL CO.	
COMPLETED.....	03/11/63	04/28/61	04/25/63	04/25/63	
SAMPLED.....	02/22/63	05/21/63	05/21/63	05/21/63	
FORMATION.....	MISS-LEADVILLE	MISS-LEADVILLE	MISS-LEADVILLE	MISS-LEADVILLE	
GEOLOGIC PROVINCE CODE.....	585	585	585	585	
DEPTH, FEET.....	8793	8422	8914	8914	
WELLHEAD PRESSURE, PSIG.....	2260	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	3335	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	11.8	10.3	12.2	12.2	
ETHANE.....	1.8	1.7	2.8	2.8	
PROpane.....	1.8	1.7	3.3	3.3	
N-BUTANE.....	1.2	1.1	2.6	2.6	
ISOBUTANE.....	0.2	0.4	1.1	1.1	
N-PENTANE.....	0.5	0.5	0.9	0.9	
ISOPENTANE.....	0.2	0.1	0.5	0.5	
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	
HEXANES PLUS.....	0.4	0.6	0.7	0.7	
NITROGEN.....	77.8	77.4	70.4	70.4	
OXYGEN.....	0.0	0.0	1.0	1.0	
ARGON.....	0.2	0.3	0.3	0.3	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.3	1.50	0.9	0.9	
HELIUM.....	1.80	1.50	1.30	1.30	
HEATING VALUE.....	297	290	484	484	
SPECIFIC GRAVITY.....	0.964	0.981	1.026	1.026	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11377 8975	INDEX SAMPLE	11378 15721	INDEX SAMPLE	11379 7266
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	SALT WASH			SALT WASH		SAN ARROYO	
WELL NAME.....	CF&I NO. 22-16			GOVT. SMOOT NO. 3		SAN ARROYO GOVT. NO. 1	
LOCATION.....	SEC. 16, T23S, R17E			SEC. 17, T23S, R17E		SEC. 26, T16S, R25E	
OWNER.....	SHELL OIL CO.			RICHARD P. SMOOT		SINCLAIR OIL & GAS CO.	
COMPLETED.....	--/7/00			--/7/00		10/01/55	
SAMPLED.....	05/27/63			08/--/79		10/29/59	
FORMATION.....	WISS-LEADVILLE			WISS-LEADVILLE		JURA-ENTRADA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8900			8643		4851	
WELLHEAD PRESSURE,PSIG.....	NOT GIVEN			NOT GIVEN		1340	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		21000	
COMPONENT, MOLE PCT							
METHANE.....	9.0			12.1		47.9	
ETHANE.....	1.6			2.3		2.1	
PROPANE.....	1.6			2.0		1.5	
N-BUTANE.....	1.1			1.1		0.3	
ISOBUTANE.....	0.3			0.7		0.2	
N-PENTANE.....	0.4			0.2		0.2	
ISOPENTANE.....	0.4			0.3		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.3			0.3		0.2	
NITROGEN.....	76.8			75.6		26.5	
OXYGEN.....	4.8			0.0		0.2	
ARGON.....	0.4			0.2		0.1	
HYDROGEN.....	0.0			0.1		0.1	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	2.2			3.2		19.6	
HELIUM.....	1.20			1.71		0.90	
HEATING VALUE.....	258			322		604	
SPECIFIC GRAVITY.....	0.985			0.971		0.897	
		INDEX SAMPLE	11380 7267	INDEX SAMPLE	11381 7681	INDEX SAMPLE	11382 7682
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	SAN ARROYO			SAN ARROYO		SAN ARROYO	
WELL NAME.....	SAN ARROYO GOVT. NO. 3			SAN ARROYO GOVT. NO. 5		SAN ARROYO GOVT. NO. 4	
LOCATION.....	SEC. 23, T16S, R25E			SEC. 25, T16S, R25E		SEC. 30, T16S, R25E	
OWNER.....	SINCLAIR OIL & GAS CO.			SINCLAIR OIL & GAS CO.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	01/01/56			09/04/60		08/13/59	
SAMPLED.....	10/29/59			09/12/60		08/13/60	
FORMATION.....	JURA-ENTRADA			JURA-ENTRADA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5414			4814		4235	
WELLHEAD PRESSURE,PSIG.....	1282			1324		941	
OPEN FLOW, MCFD.....	21085			NOT GIVEN		2500	
COMPONENT, MOLE PCT							
METHANE.....	46.8			47.2		89.9	
ETHANE.....	2.0			2.3		5.1	
PROPANE.....	1.8			1.4		1.2	
N-BUTANE.....	0.4			0.4		0.2	
ISOBUTANE.....	0.1			0.5		0.3	
N-PENTANE.....	0.2			0.2		TRACE	
ISOPENTANE.....	0.0			TRACE		0.1	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.3			0.4		0.1	
NITROGEN.....	24.5			27.1		1.8	
OXYGEN.....	0.1			0.1		0.2	
ARGON.....	0.1			0.2		TRACE	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	22.7			19.7		0.8	
HELIUM.....	0.90			0.50		0.10	
HEATING VALUE.....	601			619		1059	
SPECIFIC GRAVITY.....	0.923			0.913		0.618	
		INDEX SAMPLE	11383 7683	INDEX SAMPLE	11384 7753	INDEX SAMPLE	11385 7754
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	SAN ARROYO			SAN ARROYO		SAN ARROYO	
WELL NAME.....	SAN ARROYO GOVT. NO. 5			SAN ARROYO GOVT. NO. 1		SAN ARROYO GOVT. NO. 3	
LOCATION.....	SEC. 25, T16S, R25E			SEC. 26, T16S, R25E		SEC. 23, T16S, R25E	
OWNER.....	SINCLAIR OIL & GAS CO.			SINCLAIR OIL & GAS CO.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	08/05/60			10/--/55		06/--/56	
SAMPLED.....	09/12/60			11/01/60		11/01/60	
FORMATION.....	CRET-DAKOTA			JURA-ENTRADA		JURA-ENTRADA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	4053			4851		5440	
WELLHEAD PRESSURE,PSIG.....	1340			1340		1282	
OPEN FLOW, MCFD.....	NOT GIVEN			21000		21085	
COMPONENT, MOLE PCT							
METHANE.....	90.2			47.5		46.8	
ETHANE.....	2.4			3.2		2.1	
PROPANE.....	1.4			3.2		1.3	
N-BUTANE.....	0.3			0.6		0.4	
ISOBUTANE.....	0.4			0.4		0.4	
N-PENTANE.....	0.5			0.3		0.2	
ISOPENTANE.....	TRACE			0.0		0.0	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.5		0.5	
NITROGEN.....	0.8			17.0		23.7	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	0.0			0.1		0.1	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			26.1		23.4	
HELIUM.....	1.10			0.60		1.00	
HEATING VALUE.....	1089			703		610	
SPECIFIC GRAVITY.....	0.627			0.961		0.930	
		INDEX SAMPLE	11386 7755	INDEX SAMPLE	11387 7761	INDEX SAMPLE	11388 8278
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	SAN ARROYO			SAN ARROYO		SAN ARROYO	
WELL NAME.....	SAN ARROYO GOVT. NO. 5			SAN ARROYO GOVT. NO. 2		NO. 6	
LOCATION.....	SEC. 25, T16S, R25E			SEC. 22, T16S, R25E		SEC. 21, T16S, R25E	
OWNER.....	SINCLAIR OIL & GAS CO.			SINCLAIR OIL & GAS CO.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	09/05/60			10/20/60		10/20/61	
SAMPLED.....	11/01/60			10/31/60		11/08/61	
FORMATION.....	JURA-ENTRADA			JURA-ENTRADA		JURA-ENTRADA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	4792			6635		6490	
WELLHEAD PRESSURE,PSIG.....	1324			1235		1249	
OPEN FLOW, MCFD.....	33000			11000		10500	
COMPONENT, MOLE PCT							
METHANE.....	47.2			45.1		51.4	
ETHANE.....	2.2			2.4		2.3	
PROPANE.....	1.4			0.5		1.5	
N-BUTANE.....	0.4			0.3		0.4	
ISOBUTANE.....	0.5			0.4		0.5	
N-PENTANE.....	0.2			0.1		0.4	
ISOPENTANE.....	TRACE			TRACE		TRACE	
CYCLOPENTANE.....	0.1			TRACE		0.3	
HEXANES PLUS.....	0.4			0.1		1.2	
NITROGEN.....	26.5			28.4		17.1	
OXYGEN.....	0.0			TRACE		0.3	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.2			0.2		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	19.7			24.5		23.9	
HELIUM.....	1.00			0.90		0.46	
HEATING VALUE.....	1220			721		721	
SPECIFIC GRAVITY.....	0.906			0.932		0.940	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11389 8279	INDEX SAMPLE	11390 8704	INDEX SAMPLE	11391 9821
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	SAN ARROYO			SAN ARROYO		SAN ARROYO	
WELL NAME.....	NO. 6			WESTBIT NO. 2		FED. 176, WELL NO. 1	
LOCATION.....	SEC. 21, T16S, R26E			SEC. 9, T16S, R26E		SEC. 29, T16S, R26E	
OWNER.....	SINCLAIR OIL & GAS CO.			BELCO PETROLEUM CORP.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	10/20/61			08/10/62		02/18/65	
SAMPLED.....	11/08/61			10/04/62		03/18/65	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5834			6065		4050	
WELLHEAD PRESSURE, PSIG.....	929			383		800	
OPEN FLOW, MCFD.....	5950			3800		2500	
COMPONENT, MOLE PCT							
METHANE.....	78.6			89.7		91.9	
ETHANE.....	5.1			5.0		4.4	
PROPANE.....	1.2			1.2		1.2	
N-BUTANE.....	0.4			0.4		0.2	
ISOBUTANE.....	0.1			0.1		0.1	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.2			0.2		TRACE	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	10.3			1.5		0.8	
OXYGEN.....	2.2			TRACE		TRACE	
ARGON.....	0.1			0.0		TRACE	
HYDROGEN.....	TRACE			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.2			1.2		0.9	
HELIUM.....	0.08			0.11		0.10	
HEATING VALUE.....	969			1076		1064	
SPECIFIC GRAVITY.....	0.682			0.629		0.610	
		INDEX SAMPLE	11392 10349	INDEX SAMPLE	11393 17174	INDEX SAMPLE	11394 9390
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	SAN ARROYO			SAN ARROYO		SEGUNDO CANYON	
WELL NAME.....	UNIT NO. 30			CREDO FED. NO. 1		SEGUNDO CANYON UNIT NO. 2	
LOCATION.....	SEC. 21, T16S, R26E			SEC. 5, T16S, R26E		SEC. 33, T16S, R21E	
OWNER.....	SINCLAIR OIL & GAS CO.			TXO PRODUCTION CORP.		PACIFIC NATURAL GAS EXPL. CO	
COMPLETED.....	08/04/65			02/17/62		05/27/63	
SAMPLED.....	12/29/65			02/13/64		06/06/64	
FORMATION.....	JURA-MORRISON			CRET-DAKOTA		CRET-CEDAR MOUNTAIN	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	4192			5600		9832	
WELLHEAD PRESSURE, PSIG.....	530			500		2102	
OPEN FLOW, MCFD.....	935			750		1556	
COMPONENT, MOLE PCT							
METHANE.....	92.7			88.1		96.6	
ETHANE.....	3.6			5.5		1.4	
PROPANE.....	1.0			1.6		0.3	
N-BUTANE.....	0.2			0.4		TRACE	
ISOBUTANE.....	0.1			0.3		TRACE	
N-PENTANE.....	0.1			0.2		TRACE	
ISOPENTANE.....	TRACE			0.2		TRACE	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	0.9			2.0		0.6	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.0			1.2		0.8	
HELIUM.....	0.10			0.19		0.04	
HEATING VALUE.....	1058			1087		1017	
SPECIFIC GRAVITY.....	0.608			0.642		0.576	
		INDEX SAMPLE	11395 6422	INDEX SAMPLE	11396 7067	INDEX SAMPLE	11397 7069
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	WESTWATER			WESTWATER		WESTWATER	
WELL NAME.....	FED. NO. 1			FED. NO. E-2		FED. NO. E-2	
LOCATION.....	SEC. 13, T17S, R23E			SEC. 7, T17S, R24E		SEC. 7, T17S, R24E	
OWNER.....	OIL INC.			OIL INC.		OIL INC.	
COMPLETED.....	06/08/57			12/7--/58		--/7--/00	
SAMPLED.....	09/01/57			04/22/59		04/22/59	
FORMATION.....	CRET-L			JURA-ENTRADA		JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	4442			5114		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1100			1625		1370	
OPEN FLOW, MCFD.....	2000			17500		10250	
COMPONENT, MOLE PCT							
METHANE.....	90.4			68.2		77.9	
ETHANE.....	5.4			2.9		4.3	
PROPANE.....	1.4			0.6		1.6	
N-BUTANE.....	0.4			0.2		0.9	
ISOBUTANE.....	0.2			0.2		0.9	
N-PENTANE.....	TRACE			TRACE		0.4	
ISOPENTANE.....	0.3			0.1		0.4	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.3			0.1		0.4	
NITROGEN.....	0.9			24.9		11.6	
OXYGEN.....	TRACE			0.0		0.8	
ARGON.....	0.0			0.1		0.1	
HYDROGEN.....	TRACE			0.2		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			2.0		0.5	
HELIUM.....	0.10			0.60		0.20	
HEATING VALUE.....	1101			1027		1027	
SPECIFIC GRAVITY.....	0.627			0.706		0.704	
		INDEX SAMPLE	11398 7594	INDEX SAMPLE	11399 7595	INDEX SAMPLE	11400 8896
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	GRAND			GRAND		GRAND	
FIELD.....	WESTWATER			WESTWATER		WESTWATER	
WELL NAME.....	NO. E-3			NO. E-3		WESTWATER D2	
LOCATION.....	SEC. 7, T17S, R24E			SEC. 17, T17S, R24E		SEC. 18, T17S, R24E	
OWNER.....	OIL INC.			OIL INC.		OIL INC.	
COMPLETED.....	07/07/60			07/7--/59		04/09/61	
SAMPLED.....	07/07/60			07/07/60		03/02/63	
FORMATION.....	CRET-CASTLEGATE			JURA-MORRISON		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	1066			5540		4216	
WELLHEAD PRESSURE, PSIG.....	210			1080		1040	
OPEN FLOW, MCFD.....	700			17700		1124	
COMPONENT, MOLE PCT							
METHANE.....	84.9			93.4		91.1	
ETHANE.....	7.6			3.3		5.2	
PROPANE.....	1.3			0.7		1.3	
N-BUTANE.....	0.4			0.3		0.4	
ISOBUTANE.....	0.3			0.2		0.2	
N-PENTANE.....	0.3			0.1		0.2	
ISOPENTANE.....	0.4			0.2		TRACE	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.3		0.2	
NITROGEN.....	0.1			0.5		0.7	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.2		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			0.8		0.5	
HELIUM.....	0.02			0.10		0.08	
HEATING VALUE.....	1177			1173		1089	
SPECIFIC GRAVITY.....	0.679			0.610		0.618	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 11401 8897	INDEX SAMPLE 11402 11834	INDEX SAMPLE 11403 17431
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	GRAND		GRAND	GRAND
FIELD.....	WESTWATER		WESTWATER	WESTWATER
WELL NAME.....	WESTWATER F4		HORSEPOINT UNIT NO. M-6	U.S.A. NO. 1-34
LOCATION.....	SEC. 14, T17S, R23E		SEC. 32, T16S, R24E	SEC. 34, T16S, R24E
OWNER.....	OIL INC.		OIL INC.	F & M OIL CO.
COMPLETED.....	05/27/62		01/10/63	09/23/83
SAMPLED.....	03/21/63		04/24/69	09/25/84
FORMATION.....	JURA-ENTRADA		CRET-DAKOTA	CRET-DAKOTA & JURA-MORRISON
GEOLOGIC PROVINCE CODE.....	585		585	585
DEPTH, FEET.....	6346		6128	5866
WELLHEAD PRESSURE, PSIG.....	1214		1026	NOT GIVEN
OPEN FLOW, MCFD.....	4124		8137	.1195
COMPONENT, MOLE PCT				
METHANE.....	75.1	94.0	85.5	
ETHANE.....	1.9	3.1	4.3	
PROPANE.....	0.5	0.3	1.3	
N-BUTANE.....	0.1	0.2	0.5	
ISOBUTANE.....	0.0	TRACE	0.7	
N-PENTANE.....	0.0	0.2	0.3	
ISOPENTANE.....	TRACE	0.0	TRACE	
CYCLOPENTANE.....	0.0	TRACE	0.1	
HEXANES PLUS.....	0.0	0.1	0.7	
NITROGEN.....	18.0	0.5	5.6	
OXYGEN.....	0.2	0.0	0.1	
ARGON.....	0.1	TRACE	TRACE	
HYDROGEN.....	2.4	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.0	1.2	0.6	
HELIUM.....	0.62	0.06	0.29	
HEATING VALUE.....	819	1041	1074	
SPECIFIC GRAVITY.....	0.642	0.597	0.662	
		INDEX SAMPLE 11404 17432	INDEX SAMPLE 11405 17596	INDEX SAMPLE 11406 6455
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	GRAND		GRAND	GRAND
FIELD.....	WESTWATER		WESTWATER	WILDCAT
WELL NAME.....	U.S.A. NO. 2-34		FED. NO. 1-34	FED. NO. 18-C-2
LOCATION.....	SEC. 3, T16S, R24E		SEC. 34, T16S, R24E	SEC. 18, T17S, R24E
OWNER.....	F & M OIL CO.		F & M OIL CO.	OIL INC., ET AL.
COMPLETED.....	10/14/83		11/01/83	11/06/57
SAMPLED.....	09/25/84		02/19/85	12/07/57
FORMATION.....	CRET-DAKOTA & JURA-MORRISON		JURA-MANCOS & JURA-MORRISON	CRET-CASTLEGATE
GEOLOGIC PROVINCE CODE.....	585		585	585
DEPTH, FEET.....	5904		5866	764
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1200	193
OPEN FLOW, MCFD.....	663			NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	79.6	88.1	82.6	
ETHANE.....	8.2	4.3	6.7	
PROPANE.....	3.4	1.1	2.2	
N-BUTANE.....	1.0	0.4	0.5	
ISOBUTANE.....	0.6	0.4	0.4	
N-PENTANE.....	0.3	0.2	0.1	
ISOPENTANE.....	0.4	0.2	0.1	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.3	0.3	0.2	
NITROGEN.....	5.5	3.8	5.1	
OXYGEN.....	TRACE	0.0	1.1	
ARGON.....	TRACE	0.1	0.1	
HYDROGEN.....	0.0	0.2	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	1.0	0.8	
HELIUM.....	0.10	0.17	0.02	
HEATING VALUE.....	1144	1058	1063	
SPECIFIC GRAVITY.....	0.706	0.639	0.667	
		INDEX SAMPLE 11407 7914	INDEX SAMPLE 11408 8023	INDEX SAMPLE 11409 8815
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	GRAND		GRAND	GRAND
FIELD.....	WILDCAT		WILDCAT	WILDCAT
WELL NAME.....	SALT WASH NO. 1		HARLEY GOVT. NO. 1	A. LANDSDALE NO. 3
LOCATION.....	SEC. 15, T23S, R17E		SEC. 30, T18S, R25E	SEC. 3, T21S, R23E
OWNER.....	PAN AMERICAN PETROLEUM CORP.		BELCO PETROLEUM CORP.	A. LANDSDALE CO.
COMPLETED.....	03/24/61		03/21/60	10/07/62
SAMPLED.....	06/16/61		06/16/61	12/21/62
FORMATION.....	MISS-585		CRET-DAKOTA	JURA-MORRISON
GEOLOGIC PROVINCE CODE.....	585		585	585
DEPTH, FEET.....	8678		930	1332
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	345
OPEN FLOW, MCFD.....	NOT GIVEN		891	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	17.2	84.2	91.6	
ETHANE.....	5.5	0.7	1.1	
PROPANE.....	3.6	0.1	0.4	
N-BUTANE.....	1.9	0.1	0.2	
ISOBUTANE.....	1.3	0.1	0.1	
N-PENTANE.....	0.6	0.0	0.1	
ISOPENTANE.....	0.1	TRACE	TRACE	
CYCLOPENTANE.....	1.0	TRACE	TRACE	
HEXANES PLUS.....	60.3	11.4	5.8	
NITROGEN.....	TRACE	2.5	TRACE	
ARGON.....	0.3	0.1	TRACE	
HYDROGEN.....	0.0	TRACE	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.5	0.5	TRACE	
HELIUM.....	0.90	0.20	0.42	
HEATING VALUE.....	1083	977	972	
SPECIFIC GRAVITY.....	1.055	0.627	0.591	
		INDEX SAMPLE 11410 9916	INDEX SAMPLE 11411 2090	INDEX SAMPLE 11412 2358
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	GRAND		JUAB	SALT LAKE
FIELD.....	WILDCAT		NOT GIVEN	SALT LAKE BASIN
WELL NAME.....	SEGUNDO CANYON NO. 23-4		NOT GIVEN	NO. 1
LOCATION.....	SEC. 9, T17S, R21E		25 MI. NW OF DELTA	SEC. 21, T1N, R1W
OWNER.....	PACIFIC NATURAL GAS EXPL. CO		U.S. BUREAU OF MINES	WESTERN PETROLEUM DRLG. CO.
COMPLETED.....	09/25/63		7/-/00	7/-/00
SAMPLED.....	06/13/65		07/12/30	06/26/31
FORMATION.....	CRET-CEDAR MOUNTAIN		-1001 FT.	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	585		625	630
DEPTH, FEET.....	9754		NOT GIVEN	746
WELLHEAD PRESSURE, PSIG.....	1850		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	878		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	89.5	0.0	82.9	
ETHANE.....	6.1	0.0	0.0	
PROPANE.....	1.6	---	---	
N-BUTANE.....	0.3	---	---	
ISOBUTANE.....	0.3	---	---	
N-PENTANE.....	TRACE	---	---	
ISOPENTANE.....	TRACE	---	---	
CYCLOPENTANE.....	TRACE	---	---	
HEXANES PLUS.....	0.1	---	---	
NITROGEN.....	0.6	88.3	16.4	
OXYGEN.....	0.0	3.5	0.6	
ARGON.....	TRACE	---	---	
HYDROGEN.....	0.0	---	---	
HYDROGEN SULFIDE.....	0.3	---	---	
CARBON DIOXIDE.....	1.3	8.3	0.0	
HELIUM.....	0.03	0.15	0.08	
HEATING VALUE.....	1083	---	840	
SPECIFIC GRAVITY.....	0.626	1.020	0.625	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11413 2498	INDEX SAMPLE	11414 6065	INDEX SAMPLE	11415 6066
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SALT LAKE			SAN JUAN		SAN JUAN	
FIELD.....	SALT LAKE			ANETH		ANETH	
WELL NAME.....	NEBEKER NO. 2			NAVAJO E-1		NAVAJO C-1	
LOCATION.....	SEC. 21, T1N, R1W			SEC. 15, T40S, R24E		SEC. 23, T40S, R24E	
OWNER.....	HENRY NEBEKER			TEXAS CO.		TEXAS CO.	
COMPLETED.....	01/01/51			05/07/56		02/17/56	
SAMPLED.....	05/13/32			05/26/56		05/26/56	
FORMATION.....	NOT GIVEN			PENN-HERMOSA		PENN-HERMOSA	
GEOLOGIC PROVINCE CODE.....	630			585		585	
DEPTH, FEET.....	535			5630		5828	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	90.4			59.7		60.6	
ETHANE.....	0.0			20.8		20.1	
PROPANE.....	---			11.8		11.3	
N-BUTANE.....	---			3.6		3.5	
ISOBUTANE.....	---			1.3		1.3	
N-PENTANE.....	---			0.6		0.6	
ISOPENTANE.....	---			0.9		0.9	
CYCLOPENTANE.....	---			0.2		0.1	
HEXANES PLUS.....	---			0.4		0.3	
NITROGEN.....	8.4			0.6		1.0	
OXYGEN.....	0.1			---		---	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			TRACE		TRACE	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	1.1			0.1		0.2	
HELIUM.....	0.02			0.02		0.02	
HEATING VALUE.....	916			1541		1512	
SPECIFIC GRAVITY.....	0.600			0.896		0.884	
		INDEX SAMPLE	11416 6067	INDEX SAMPLE	11417 6217	INDEX SAMPLE	11418 6246
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	ANETH			ANETH		ANETH	
WELL NAME.....	NAVAJO D-1			FED. ARROWHEAD NO. 1		NAVAJO E NO. 3	
LOCATION.....	SEC. 22, T40S, R24E			SEC. 14, T40S, R23E		SEC. 2, T40S, R24E	
OWNER.....	TEXAS CO.			THREE STATES NATURAL GAS CO.		TEXAS CO.	
COMPLETED.....	04/27/56			11/19/56		11/25/56	
SAMPLED.....	05/26/56			12/13/56		02/07/57	
FORMATION.....	PENN-HERMOSA			PENN-PARADOX		PENN-HERMOSA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5846			5650		5468	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			910		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			515		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	55.3			55.2		70.6	
ETHANE.....	24.7			24.0		4.2	
PROPANE.....	14.2			6.7		6.6	
N-BUTANE.....	3.2			2.9		1.1	
ISOBUTANE.....	1.2			0.7		0.3	
N-PENTANE.....	0.4			0.5		0.1	
ISOPENTANE.....	0.5			1.4		TRACE	
CYCLOPENTANE.....	0.1			0.3		TRACE	
HEXANES PLUS.....	0.3			0.3		0.1	
NITROGEN.....	0.0			3.0		13.7	
OXYGEN.....	0.0			TRACE		0.2	
ARGON.....	0.0			0.7		0.0	
HYDROGEN.....	TRACE			0.2		0.3	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			2.1		2.6	
HELIUM.....	0.01			0.01		0.03	
HEATING VALUE.....	1577			1460		1026	
SPECIFIC GRAVITY.....	0.912			0.913		0.752	
		INDEX SAMPLE	11419 6357	INDEX SAMPLE	11420 6471	INDEX SAMPLE	11421 8069
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	ANETH			ANETH		ANETH	
WELL NAME.....	NICKMAN-FED. NO. 1			W. RICE NO. 2		NORTH DESERT CREEK 43-14	
LOCATION.....	SEC. 1, T40S, R23E			SEC. 23, T40S, R23E		SEC. 14, T41S, R23E	
OWNER.....	CARTER OIL CO.			THREE STATES NATURAL GAS CO.		SHELL OIL CO.	
COMPLETED.....	05/11/57			11/11/57		04/16/61	
SAMPLED.....	08/09/57			02/08/58		07/07/61	
FORMATION.....	PENN-HERMOSA			PENN-PARADOX		PENN-HERMOSA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	6130			5650		5310	
WELLHEAD PRESSURE, PSIG.....	225			695		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			436		228	
COMPONENT, MOLE PCT							
METHANE.....	63.8			62.9		65.5	
ETHANE.....	16.4			19.4		16.6	
PROPANE.....	9.9			10.6		8.8	
N-BUTANE.....	4.2			3.3		3.0	
ISOBUTANE.....	1.9			1.5		1.6	
N-PENTANE.....	1.1			0.6		0.9	
ISOPENTANE.....	0.7			0.8		0.6	
CYCLOPENTANE.....	0.3			0.1		0.3	
HEXANES PLUS.....	0.7			0.4		0.7	
NITROGEN.....	0.7			0.1		1.6	
OXYGEN.....	0.0			TRACE		0.1	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.1	
HELIUM.....	0.02			0.02		0.10	
HEATING VALUE.....	1527			1506		1456	
SPECIFIC GRAVITY.....	0.889			0.870		0.853	
		INDEX SAMPLE	11422 17295	INDEX SAMPLE	11423 1180	INDEX SAMPLE	11424 8068
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	ANETH			ANTICLINE E		BIG INDIAN	
WELL NAME.....	MEELO CREEK NO. T-18			CANYON NO. 1		BIG INDIAN U.S.A. NO. 1	
LOCATION.....	SEC. 9, T41S, R25E			SEC. 28, T44N, R19S		SEC. 33, T29S, R24E	
OWNER.....	SUPERIOR OIL CO.			UTAH SOUTHERN OIL CO.		PURE OIL CO.	
COMPLETED.....	12/19/83			--/--/00		--/--/00	
SAMPLED.....	05/7/84			11/07/25		07/10/61	
FORMATION.....	PENN-DESERT CREEK			NOT GIVEN		MISS--	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5582			NOT GIVEN		9956	
WELLHEAD PRESSURE, PSIG.....	502			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	505			40000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	74.4			---		56.7	
ETHANE.....	14.1			---		6.9	
PROPANE.....	5.8			---		2.0	
N-BUTANE.....	1.6			---		0.6	
ISOBUTANE.....	0.8			---		0.6	
N-PENTANE.....	0.4			---		0.3	
ISOPENTANE.....	0.4			---		0.1	
CYCLOPENTANE.....	0.2			---		TRACE	
HEXANES PLUS.....	0.3			---		0.3	
NITROGEN.....	1.8			2.7		15.8	
OXYGEN.....	0.1			---		TRACE	
ARGON.....	0.0			---		TRACE	
HYDROGEN.....	0.0			---		0.0	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	TRACE			97.3		15.8	
HELIUM.....	0.04			0.07		0.80	
HEATING VALUE.....	1295			0		823	
SPECIFIC GRAVITY.....	0.753			1.514		0.857	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11425 SAMPLE 8273			INDEX 11426 SAMPLE 8274			INDEX 11427 SAMPLE 8770		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BIG INDIAN		BIG INDIAN			BIG INDIAN		
WELL NAME.....	816 INDIAN U.S.A. NO. 1		NO. 1			816 INDIAN NO. 3		
LOCATION.....	SEC. 33, T29S, R24E		SEC. 33, T29S, R24E			SEC. 10, T30S, R25E		
OWNER.....	PURE OIL CO.		PURE OIL CO.			PURE OIL CO.		
COMPLETED.....	--/--/00		08/--/61			--/--/00		
SAMPLED.....	11/10/61		11/11/61			11/24/62		
FORMATION.....	NOT GIVEN		MISS---			PENN-HERMOSA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	9800		9800			4617		
WELLHEAD PRESSURE, PSIG.....	2157		2157			NOT GIVEN		
OPEN FLOW, MCFD.....	44000		44000			266		
COMPONENT, MOLE PCT								
METHANE.....	49.1		56.1			77.2		
ETHANE.....	13.3		6.5			8.9		
PROPANE.....	5.2		1.9			2.8		
N-BUTANE.....	1.2		0.6			0.9		
ISOBUTANE.....	0.8		0.6			0.5		
N-PENTANE.....	0.3		0.2			0.3		
ISOPENTANE.....	0.3		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	4.9		16.7			8.6		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.7		0.4			10.3		
CARBON DIOXIDE.....	23.5		15.7			0.1		
HELIUM.....	0.05		0.72			0.07		
HEATING VALUE.....	886		805			1093		
SPECIFIC GRAVITY.....	0.976		0.859			0.697		

INDEX 11428 SAMPLE 9345			INDEX 11429 SAMPLE 6101			INDEX 11430 SAMPLE 6118		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BIG INDIAN		BLUFF			BLUFF		
WELL NAME.....	816 INDIAN NO. 4		BLUFF UNIT NO. 3			BLUFF UNIT NO. 3		
LOCATION.....	SEC. 1, T30S, R25E		SEC. 1, T40S, R23E			SEC. 4, T40S, R23E		
OWNER.....	PURE OIL CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	02/05/64		--/--/00			--/--/00		
SAMPLED.....	05/11/64		06/27/56			07/14/56		
FORMATION.....	PENN-HERMOSA		PENN-HERMOSA U			MISS-LEADVILLE		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	3552		5454			6914		
WELLHEAD PRESSURE, PSIG.....	1050		0.0			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	80.8		75.1			1.3		
ETHANE.....	8.8		13.9			0.4		
PROPANE.....	3.7		4.7			0.0		
N-BUTANE.....	1.1		0.1			0.1		
ISOBUTANE.....	0.8		0.7			0.1		
N-PENTANE.....	0.2		0.3			0.1		
ISOPENTANE.....	0.2		0.6			0.0		
CYCLOPENTANE.....	TRACE		0.3			0.1		
HEXANES PLUS.....	0.2		0.5			0.2		
NITROGEN.....	3.3		1.9			11.3		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	0.0		0.2			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.3			85.7		
HELIUM.....	0.03		0.03			0.42		
HEATING VALUE.....	1164		1282			45		
SPECIFIC GRAVITY.....	0.697		0.749			1.448		

INDEX 11431 SAMPLE 6120			INDEX 11432 SAMPLE 6515			INDEX 11433 SAMPLE 5077		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BLUFF		BLUFF			BLUFF		
WELL NAME.....	BLUFF UNIT NO. 3		BLUFF BENCH UNIT NO. 4			SHELL BLUFF UNIT NO. 1		
LOCATION.....	SEC. 4, T40S, R23E		SEC. 20, T40S, R22E			NOT GIVEN		
OWNER.....	SHELL OIL CO.		CARTER OIL CO.			SHELL OIL CO.		
COMPLETED.....	--/--/00		09/14/57			--/--/00		
SAMPLED.....	07/16/56		03/05/58			09/05/51		
FORMATION.....	MISS-LEADVILLE		PENN-HERMOSA			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	6940		5366			7527		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		150			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			6800		
COMPONENT, MOLE PCT								
METHANE.....	1.2		60.5			0.7		
ETHANE.....	0.4		17.0			0.1		
PROPANE.....	9.0		9.8			0.2		
N-BUTANE.....	0.2		4.5			0.1		
ISOBUTANE.....	0.0		1.8			TRACE		
N-PENTANE.....	0.1		1.7			TRACE		
ISOPENTANE.....	0.1		1.8			0.0		
CYCLOPENTANE.....	TRACE		0.5			0.0		
HEXANES PLUS.....	0.2		1.7			0.1		
NITROGEN.....	10.8		0.1			5.9		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.1		0.0			0.1		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	86.6		0.4			92.5		
HELIUM.....	0.40		0.02			0.28		
HEATING VALUE.....	1400		1400			21		
SPECIFIC GRAVITY.....	1.456		0.954			1.487		

INDEX 11434 SAMPLE 1841			INDEX 11435 SAMPLE 4390			INDEX 11436 SAMPLE 4446		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BOUNDARY BUTTE		BOUNDARY BUTTE			BOUNDARY BUTTE		
WELL NAME.....	BOUNDARY BUTTE WELL		ENGLISH NO. 1			NOT GIVEN		
LOCATION.....	SEC. 22, T43S, R22E		SEC. 22, T43S, R22E			NOT GIVEN		
OWNER.....	CONTINENTAL OIL CO.		WESTERN NATURAL GAS CO.			WESTERN NATURAL GAS CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	08/14/29		01/21/48			02/25/48		
FORMATION.....	PENN-PARADOX		PENN-PARADOX			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	4560		4625			5250		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	15000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	43.5		64.2			28.4		
ETHANE.....	20.2		15.2			13.2		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	29.1		19.5			45.6		
OXYGEN.....	0.5		0.2			0.6		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	5.6		0.1			9.4		
HELIUM.....	1.09		0.79			1.41		
HEATING VALUE.....	803		803			524		
SPECIFIC GRAVITY.....	0.827		0.709			0.869		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11437 4600	INDEX SAMPLE	11438 6080	INDEX SAMPLE	11439 6138
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BOUNDARY BUTTE			BOUNDARY BUTTE		BOUNDARY BUTTE	
WELL NAME.....	NAVAJO NO. 1			ENGLISH NO. 7		ENGLISH NO. 7	
LOCATION.....	SEC. 25, T43S, R22E			SEC. 16, T43S, R22E		SEC. 16, T43S, R22E	
OWNER.....	WESTERN NATURAL GAS CO.			WESTERN NATURAL GAS CO.		SAN JACINTO PETROLEUM CORP.	
COMPLETED.....	--/--/00			--/--/00		06/08/56	
SAMPLED.....	10/28/48			05/23/56		08/28/56	
FORMATION.....	PENN-HERMOSA			PENN-HERMOSA		PENN-PARADOX U	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	4395			4597		4329	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		400	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	30.4			66.1		66.6	
ETHANE.....	14.4			4.6		5.7	
PROPANE.....	---			2.7		2.2	
N-BUTANE.....	---			0.9		1.1	
ISOBUTANE.....	---			0.4		0.4	
N-PENTANE.....	---			0.3		0.3	
ISOPENTANE.....	---			0.3		0.4	
CYCLOPENTANE.....	---			0.2		0.2	
HEXANES PLUS.....	---			0.4		0.4	
NITROGEN.....	43.8			17.4		16.0	
OXYGEN.....	0.3			TRACE		0.1	
ARGON.....	---			0.1		0.1	
HYDROGEN.....	---			0.1		0.0	
HYDROGEN SULFIDE**.....	---			0.0		0.0	
CARBON DIOXIDE.....	9.7			6.1		6.6	
HELIUM.....	1.42			0.66		0.60	
HEATING VALUE.....	566			920		942	
SPECIFIC GRAVITY.....	0.897			0.779		0.778	
		INDEX SAMPLE	11440 6364	INDEX SAMPLE	11441 6562	INDEX SAMPLE	11442 9655
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BOUNDARY BUTTE			BOUNDARY BUTTE		BOUNDARY BUTTE	
WELL NAME.....	NAVAJO TRIBAL NO. 3			ENGLISH NO. 10		ENGLISH NO. 9	
LOCATION.....	SEC. 15, T43S, R22E			SEC. 21, T43S, R22E		SEC. 16, T43S, R22E	
OWNER.....	SINCLAIR OIL & GAS CO.			WESTERN NATURAL GAS CO.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	04/23/57			03/05/58		11/12/64	
SAMPLED.....	08/18/57			04/25/58		11/12/64	
FORMATION.....	PENN-PARADOX			PENN-PARADOX C		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	4338			4648		4142	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1209		1186	
OPEN FLOW, MCFD.....	NOT GIVEN			15000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	67.4			66.2		70.4	
ETHANE.....	5.4			4.5		5.0	
PROPANE.....	1.0			0.3		2.7	
N-BUTANE.....	0.5			0.7		0.9	
ISOBUTANE.....	0.6			0.3		0.1	
N-PENTANE.....	0.0			0.2		0.2	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	0.3			0.1		0.1	
HEXANES PLUS.....	0.5			0.2		0.2	
NITROGEN.....	16.0			19.0		17.2	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	7.1			5.5		2.2	
HELIUM.....	0.58			0.80		0.70	
HEATING VALUE.....	893			976		938	
SPECIFIC GRAVITY.....	0.764			0.760		0.726	
		INDEX SAMPLE	11443 9656	INDEX SAMPLE	11444 9657	INDEX SAMPLE	11445 9659
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BOUNDARY BUTTE			BOUNDARY BUTTE		BOUNDARY BUTTE	
WELL NAME.....	ENGLISH NO. 10			NAVAJO NO. 1		ENGLISH NO. 11	
LOCATION.....	SEC. 21, T43S, R22E			SEC. 25, T43S, R22E		SEC. 26, T43S, R22E	
OWNER.....	SINCLAIR OIL & GAS CO.			SINCLAIR OIL & GAS CO.		SINCLAIR OIL & GAS CO.	
COMPLETED.....	11/12/64			--/--/00		--/--/00	
SAMPLED.....	11/12/64			11/12/64		11/12/64	
FORMATION.....	PENN-PARADOX			PENN-PARADOX		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	4684			4370		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	907			900		965	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	66.6			69.9		67.8	
ETHANE.....	4.5			4.2		4.8	
PROPANE.....	2.5			2.6		2.7	
N-BUTANE.....	0.7			0.7		0.9	
ISOBUTANE.....	0.1			0.1		0.1	
N-PENTANE.....	0.2			0.1		0.2	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.2	
NITROGEN.....	19.3			16.6		19.1	
OXYGEN.....	TRACE			0.1		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	4.9			2.5		3.1	
HELIUM.....	0.80			0.90		0.82	
HEATING VALUE.....	865			891		904	
SPECIFIC GRAVITY.....	0.746			0.730		0.740	
		INDEX SAMPLE	11446 9660	INDEX SAMPLE	11447 6052	INDEX SAMPLE	11448 6057
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	BOUNDARY BUTTE			BOUNDARY BUTTE E, UTAH		BOUNDARY BUTTE E, UTAH	
WELL NAME.....	ENGLISH NO. 1			EAST BOUNDARY BUTTE NO. 3		NO.	
LOCATION.....	SEC. 22, T43S, R22E			SEC. 25, T43S, R23E		SEC. 25, T43S, R23E	
OWNER.....	SINCLAIR OIL & GAS CO.			SHELL OIL CO.		SHELL OIL CO.	
COMPLETED.....	11/12/64			--/--/00		--/--/00	
SAMPLED.....	11/12/64			04/19/56		04/22/56	
FORMATION.....	PENN-PARADOX			PENN-HERMOSA		PENN-HERMOSA	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		5041	
WELLHEAD PRESSURE, PSIG.....	300			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	68.1			77.3		87.4	
ETHANE.....	5.4			4.8		2.4	
PROPANE.....	2.6			2.4		1.4	
N-BUTANE.....	0.9			0.6		0.5	
ISOBUTANE.....	0.4			0.4		0.3	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.3			0.1		0.2	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.2		0.2	
NITROGEN.....	19.4			9.3		2.9	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.1			0.1		0.3	
HYDROGEN.....	0.0			0.1		0.1	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.8			4.0		3.8	
HELIUM.....	0.70			0.43		0.44	
HEATING VALUE.....	824			892		923	
SPECIFIC GRAVITY.....	0.735			0.706		0.657	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11449 SAMPLE 5780			INDEX 11450 SAMPLE 5782			INDEX 11451 SAMPLE 5788		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BOUNDARY BUTTE N		BOUNDARY BUTTE N			BOUNDARY BUTTE N		
WELL NAME.....	BOUNDARY BUTTE N NO. 1		NO. 1			BOUNDARY BUTTE N NO. 1		
LOCATION.....	SEC. 33, T42S, R22E		SEC. 33, T42S, R22E			SEC. 33, T42S, R22E		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	02/16/55		02/24/55			03/06/55		
FORMATION.....	PENN-HERMOSA		PENN-HERMOSA			DEV-O-URAY		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	4662		3770			5807		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1740			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		100			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	52.5	-----	64.2	-----		7.5	-----	
ETHANE.....	8.2	-----	8.6	-----		0.4	-----	
PROPANE.....	6.7	-----	5.1	-----		0.5	-----	
N-BUTANE.....	2.3	-----	1.4	-----		0.1	-----	
ISOBUTANE.....	1.0	-----	0.7	-----		0.0	-----	
N-PENTANE.....	0.6	-----	0.2	-----		0.1	-----	
ISOPENTANE.....	0.7	-----	0.4	-----		0.0	-----	
CYCLOPENTANE.....	0.2	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.4	-----	0.2	-----		0.2	-----	
NITROGEN.....	7.5	-----	17.6	-----		31.9	-----	
OXYGEN.....	0.1	-----	TRACE	-----		0.6	-----	
ARGON.....	TRACE	-----	TRACE	-----		0.2	-----	
HYDROGEN.....	0.1	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE**.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	19.3	-----	0.0	-----		56.8	-----	
HELIUM.....	0.23	-----	1.16	-----		1.58	-----	
HEATING VALUE.....	1048	-----	1048	-----		118	-----	
SPECIFIC GRAVITY.....	0.968	-----	0.764	-----		1.255	-----	
INDEX 11452 SAMPLE 6063			INDEX 11453 SAMPLE 6064			INDEX 11454 SAMPLE 6403		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BOUNDARY BUTTE N		BOUNDARY BUTTE N			CANONE MESA		
WELL NAME.....	NO. 28		NO. 43-48			NAVAJO NO. 1		
LOCATION.....	SEC. 28, T42S, R22E		SEC. 28, T42S, R22E			SEC. 21, T40S, R25E		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			CONTINENTAL OIL CO.		
COMPLETED.....	03/31/56		03/31/56			04/24/57		
SAMPLED.....	02/22/56		02/13/56			09/15/57		
FORMATION.....	PENN-HERMOSA		PENN-HERMOSA			PENN-PARADOX		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	5588		4681			5930		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			650		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			234		
COMPONENT, MOLE PCT								
METHANE.....	71.8	-----	60.9	-----		53.6	-----	
ETHANE.....	13.4	-----	4.5	-----		20.9	-----	
PROPANE.....	6.1	-----	2.4	-----		12.1	-----	
N-BUTANE.....	1.5	-----	0.8	-----		5.6	-----	
ISOBUTANE.....	0.4	-----	0.3	-----		2.2	-----	
N-PENTANE.....	0.2	-----	0.3	-----		1.4	-----	
ISOPENTANE.....	0.3	-----	0.0	-----		1.4	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.4	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		1.0	-----	
NITROGEN.....	5.7	-----	14.7	-----		0.6	-----	
OXYGEN.....	0.4	-----	0.1	-----		TRACE	-----	
ARGON.....	TRACE	-----	0.1	-----		0.0	-----	
HYDROGEN.....	TRACE	-----	TRACE	-----		0.1	-----	
HYDROGEN SULFIDE**.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	14.9	-----		0.7	-----	
HELIUM.....	0.13	-----	0.58	-----		0.03	-----	
HEATING VALUE.....	1218	-----	0.824	-----		1681	-----	
SPECIFIC GRAVITY.....	0.749	-----	0.834	-----		0.993	-----	
INDEX 11455 SAMPLE 6239			INDEX 11456 SAMPLE 6865			INDEX 11457 SAMPLE 6866		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	CHINLE WASH		CHINLE WASH			CHINLE WASH		
WELL NAME.....	OHIO-NAVAJO NO. 1		OHIO-NAVAJO NO. 4			OHIO-NAVAJO NO. 4		
LOCATION.....	SEC. 4, T43S, R21E		SEC. 4, T43S, R21E			SEC. 4, T43S, R21E		
OWNER.....	U.S. SMELTING, REFINING & MI		OHIO OIL CO.			OHIO OIL CO.		
COMPLETED.....	--/--/00		07/22/58			07/22/58		
SAMPLED.....	01/20/57		11/06/58			11/06/58		
FORMATION.....	PENN-PARADOX		PENN-PARADOX			PENN-PARADOX		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	4917		4870			4810		
WELLHEAD PRESSURE, PSIG.....	1397		1400			1400		
OPEN FLOW, MCFD.....	85000		8255			10670		
COMPONENT, MOLE PCT								
METHANE.....	69.7	-----	69.7	-----		69.7	-----	
ETHANE.....	5.8	-----	5.6	-----		5.5	-----	
PROPANE.....	2.6	-----	2.4	-----		2.2	-----	
N-BUTANE.....	0.8	-----	0.6	-----		0.6	-----	
ISOBUTANE.....	0.1	-----	0.1	-----		0.5	-----	
N-PENTANE.....	0.2	-----	0.1	-----		TRACE	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		0.5	-----	
CYCLOPENTANE.....	0.1	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.2	-----		0.1	-----	
NITROGEN.....	18.4	-----	18.3	-----		18.5	-----	
OXYGEN.....	0.0	-----	0.1	-----		TRACE	-----	
ARGON.....	TRACE	-----	0.1	-----		0.1	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		0.1	-----	
HYDROGEN SULFIDE**.....	0.0	-----	0.0	-----		0.1	-----	
CARBON DIOXIDE.....	1.0	-----	0.3	-----		1.3	-----	
HELIUM.....	0.23	-----	0.80	-----		0.80	-----	
HEATING VALUE.....	945	-----	936	-----		930	-----	
SPECIFIC GRAVITY.....	0.723	-----	0.724	-----		0.722	-----	
INDEX 11458 SAMPLE 5991			INDEX 11459 SAMPLE 5641			INDEX 11460 SAMPLE 5685		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	COALBED CANYON		DESERT CREEK			DESERT CREEK		
WELL NAME.....	COALBED CANYON UNIT NO. 2		DESERT CREEK NO. 1			DESERT CREEK NO. 2		
LOCATION.....	SEC. 20, T35S, R26E		SEC. 2, T42S, R23E			SEC. 35, T41S, R23E		
OWNER.....	SULF OIL CORP.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	12/08/55		06/19/54			09/08/54		
FORMATION.....	MISS-LEADVILLE		DEV-O-URAY			PENN-HERMOSA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	NOT GIVEN		5855			5145		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1035			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	7.4	-----	6.3	-----		65.1	-----	
ETHANE.....	0.7	-----	0.4	-----		17.9	-----	
PROPANE.....	0.0	-----	0.8	-----		8.3	-----	
N-BUTANE.....	0.1	-----	0.1	-----		2.3	-----	
ISOBUTANE.....	0.1	-----	0.0	-----		1.2	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.3	-----	
ISOPENTANE.....	TRACE	-----	0.0	-----		0.7	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.3	-----	
HEXANES PLUS.....	TRACE	-----	TRACE	-----		0.6	-----	
NITROGEN.....	24.2	-----	13.1	-----		2.7	-----	
OXYGEN.....	4.5	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.3	-----	0.1	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.1	-----		0.1	-----	
HYDROGEN SULFIDE**.....	TRACE	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	62.3	-----	77.5	-----		0.1	-----	
HELIUM.....	0.30	-----	1.37	-----		0.06	-----	
HEATING VALUE.....	104	-----	105	-----		1412	-----	
SPECIFIC GRAVITY.....	1.299	-----	1.374	-----		0.836	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11461			INDEX 11462			INDEX 11463		
SAMPLE 5798			SAMPLE 6279			SAMPLE 6187		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	DESERT CREEK		DESERT CREEK NW			GOETHIC AREA		
WELL NAME.....	D. C. 26-36		NAVAJO NO. 2			NAVAJO-GOETHIC NO. 2		
LOCATION.....	SEC. 10, T41S, R23E		SEC. 10, T41S, R22E			SEC. 10, T40S, R21E		
OWNER.....	SHELL OIL CO.		GULF OIL CORP.			CARTER OIL CO.		
COMPLETED.....	04/30/55		01/29/57			11/12/56		
SAMPLED.....	03/23/55		04/06/57			11/06/56		
FORMATION.....	PENN-PARADOX		PENN-PARADOX			MISS-MADISON		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	5444		5833			6706		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1000			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	63.1		58.2			1.0		
ETHANE.....	19.0		21.9			0.2		
PROPANE.....	9.0		10.8			0.0		
N-BUTANE.....	2.4		3.1			0.1		
ISOBUTANE.....	1.3		0.6			0.0		
N-PENTANE.....	0.5		0.8			0.0		
ISOPENTANE.....	0.6		0.1			0.0		
CYCLOPENTANE.....	0.2		0.2			0.1		
HEXANES PLUS.....	0.5		0.6			0.1		
NITROGEN.....	2.7		0.6			3.9		
OXYGEN.....	0.1		TRACE			0.1		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	TRACE		0.2			0.1		
HYDROGEN SULFIDE*.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		2.4			93.4		
HELIUM.....	0.03		0.01			0.38		
HEATING VALUE.....	1425		1487			52		
SPECIFIC GRAVITY.....	0.846		0.894			1.499		

INDEX 11464			INDEX 11465			INDEX 11466		
SAMPLE 6591			SAMPLE 6971			SAMPLE 7260		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	GOETHIC MESA		LIME RIDGE			LISBON		
WELL NAME.....	NO. 30-1		U.S. LIME RIDGE NO. 1			NW LISBON U.S.A. NO. 1		
LOCATION.....	SEC. 7, T41S, R21E		SEC. 28, T40S, R20E			SEC. 10, T30S, R24E		
OWNER.....	CARTER OIL CO.		KINGWOOD OIL CO.			PURE OIL CO.		
COMPLETED.....	05/09/58		12/19/58			--/--/00		
SAMPLED.....	05/08/58		02/14/59			10/20/59		
FORMATION.....	MISS---		PENN-HERMOSA U			MISS---		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	6952		1088			7539		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		9			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		2000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	1.5		49.1			41.2		
ETHANE.....	0.1		11.9			8.3		
PROPANE.....	TRACE		0.6			3.9		
N-BUTANE.....	0.1		0.0			0.9		
ISOBUTANE.....	0.0		0.0			1.2		
N-PENTANE.....	0.0		0.1			0.4		
ISOPENTANE.....	0.0		0.0			1.4		
CYCLOPENTANE.....	TRACE		TRACE			0.2		
HEXANES PLUS.....	TRACE		TRACE			0.7		
NITROGEN.....	21.3		13.5			17.2		
OXYGEN.....	2.7		TRACE			TRACE		
ARGON.....	0.2		0.2			0.1		
HYDROGEN.....	TRACE		2.6			TRACE		
HYDROGEN SULFIDE*.....	0.0		0.0			0.1		
CARBON DIOXIDE.....	73.2		17.9			23.0		
HELIUM.....	0.90		0.70			1.00		
HEATING VALUE.....	2.0		766			875		
SPECIFIC GRAVITY.....	1.371		0.865			1.022		

INDEX 11467			INDEX 11468			INDEX 11469		
SAMPLE 7262			SAMPLE 7265			SAMPLE 7275		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	LISBON		LISBON			LISBON		
WELL NAME.....	NW LISBON U.S.A. NO. 1		NW LISBON U.S.A. NO. 1			NW LISBON U.S.A. NO. 1		
LOCATION.....	SEC. 10, T30S, R24E		SEC. 10, T30S, R24E			SEC. 10, T30S, R24E		
OWNER.....	PURE OIL CO.		PURE OIL CO.			PURE OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	10/26/59		10/30/59			11/07/59		
FORMATION.....	MISS---		MISS---			DEVO-OURAY		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	7589		7829			7996		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		10000			300		
COMPONENT, MOLE PCT								
METHANE.....	42.3		42.1			42.4		
ETHANE.....	1.2		1.9			0.3		
PROPANE.....	3.5		6.4			3.6		
N-BUTANE.....	1.5		1.7			1.6		
ISOBUTANE.....	0.9		0.9			1.1		
N-PENTANE.....	0.2		0.3			0.4		
ISOPENTANE.....	1.1		0.7			1.1		
CYCLOPENTANE.....	0.2		0.1			0.8		
HEXANES PLUS.....	0.6		0.4			0.8		
NITROGEN.....	17.7		15.9			17.7		
OXYGEN.....	0.1		0.1			0.2		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.1		0.2			0.2		
HYDROGEN SULFIDE*.....	0.1		0.2			0.0		
CARBON DIOXIDE.....	22.5		22.5			21.6		
HELIUM.....	1.10		1.00			1.00		
HEATING VALUE.....	835		874			880		
SPECIFIC GRAVITY.....	1.002		1.002			1.007		

INDEX 11470			INDEX 11471			INDEX 11472		
SAMPLE 7280			SAMPLE 7286			SAMPLE 7461		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	LISBON		LISBON			LISBON		
WELL NAME.....	NW LISBON U.S.A. NO. 1		NW LISBON U.S.A. NO. 1			NW LISBON NO. B-1		
LOCATION.....	SEC. 10, T30S, R24E		SEC. 10, T30S, R24E			SEC. 14, T30S, R24E		
OWNER.....	PURE OIL CO.		PURE OIL CO.			PURE OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	11/12/59		11/19/59			03/27/60		
FORMATION.....	DEVO-ELBERT		DEVO-MCCRACKEN			MISS---		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	8176		8261			8309		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			305		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			4339		
COMPONENT, MOLE PCT								
METHANE.....	54.9		38.5			42.8		
ETHANE.....	11.4		13.3			7.5		
PROPANE.....	2.0		0.1			6.0		
N-BUTANE.....	2.1		2.3			1.4		
ISOBUTANE.....	2.0		1.6			0.3		
N-PENTANE.....	0.1		0.4			0.4		
ISOPENTANE.....	1.9		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.6			0.3		
NITROGEN.....	22.0		12.9			16.5		
OXYGEN.....	0.5		TRACE			0.1		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.3		0.0			0.1		
HYDROGEN SULFIDE*.....	0.0		0.0			TRACE		
CARBON DIOXIDE.....	2.0		0.7			23.5		
HELIUM.....	0.40		0.20			1.00		
HEATING VALUE.....	1477		1249			829		
SPECIFIC GRAVITY.....	0.847		0.863			0.990		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11473 7462	INDEX SAMPLE	11474 7485	INDEX SAMPLE	11475 7487
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	NW LISBON NO. B-1			NW LISBON NO. B-1		NW LISBON NO. 2	
LOCATION.....	SEC. 14, T30S, R24E			SEC. 14, T30S, R24E		SEC. 14, T30S, R24E	
OWNER.....	PURE OIL CO.			PURE OIL CO.		PURE OIL CO.	
COMPLETED.....	-7/-700			-7/-700		-7/-700	
SAMPLED.....	03/24/60			03/31/60		04/08/60	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8160			8339		8536	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		5	
OPEN FLOW, MCFD.....	270			5000		897	
COMPONENT, MOLE PCT							
METHANE.....	38.0			43.6		37.7	
ETHANE.....	12.2			7.6		7.2	
PROPANE.....	5.9			5.7		13.2	
N-BUTANE.....	2.9			1.2		1.6	
ISOBUTANE.....	2.0			0.4		0.0	
N-PENTANE.....	0.6			0.4		0.5	
ISOPENTANE.....	1.3			0.1		0.0	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.6			0.2		0.3	
NITROGEN.....	9.9			17.2		15.9	
OXYGEN.....	0.1			0.1		1.4	
ARGON.....	0.1			TRACE		0.0	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.2			TRACE		0.0	
CARBON DIOXIDE.....	25.5			22.3		21.1	
HELIUM.....	0.30			1.00		0.90	
HEATING VALUE.....	1039			812		948	
SPECIFIC GRAVITY.....	1.091			0.972		1.040	
		INDEX SAMPLE	11476 7515	INDEX SAMPLE	11477 7530	INDEX SAMPLE	11478 7531
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	MISSON VALLEY NO. 1-C			NW LISBON NO. 2		NW LISBON NO. 2	
LOCATION.....	SEC. 9, T30S, R24E			SEC. 14, T30S, R24E		SEC. 14, T30S, R24E	
OWNER.....	ELLIOTT PRODUCTION CO.			PURE OIL CO.		PURE OIL CO.	
COMPLETED.....	-7/-700			-7/-700		-7/-700	
SAMPLED.....	04/19/60			04/21/60		04/23/60	
FORMATION.....	MISS-			DEV0-MCCRACKEN		DEV0-MCCRACKEN	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8808			8885		8947	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			5		5	
OPEN FLOW, MCFD.....	NOT GIVEN			66		4	
COMPONENT, MOLE PCT							
METHANE.....	36.1			64.7		60.8	
ETHANE.....	10.7			13.6		16.6	
PROPANE.....	10.7			9.2		9.2	
N-BUTANE.....	2.5			2.2		3.2	
ISOBUTANE.....	0.4			0.9		1.9	
N-PENTANE.....	0.9			0.6		0.9	
ISOPENTANE.....	0.0			0.3		0.7	
CYCLOPENTANE.....	0.2			0.2		0.2	
HEXANES PLUS.....	0.7			0.5		0.7	
NITROGEN.....	6.7			4.8		4.1	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	31.3			4.2		1.3	
HELIUM.....	0.30			0.10		0.10	
HEATING VALUE.....	1002			1280		1436	
SPECIFIC GRAVITY.....	1.123			0.842		0.885	
		INDEX SAMPLE	11479 7574	INDEX SAMPLE	11480 7575	INDEX SAMPLE	11481 7614
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	NW LISBON B NO. 1			NW LISBON B NO. 1		NW LISBON NO. 3	
LOCATION.....	SEC. 14, T30S, R24E			SEC. 14, T30S, R24E		SEC. 14, T30S, R24E	
OWNER.....	PURE OIL CO.			PURE OIL CO.		PURE OIL CO.	
COMPLETED.....	05/15/60			05/15/60		-7/-700	
SAMPLED.....	06/04/60			06/04/60		05/14/60	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8192			8192		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1816			1816		NOT GIVEN	
OPEN FLOW, MCFD.....	33000			33000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	22.6			39.4		40.1	
ETHANE.....	20.3			3.7		8.5	
PROPANE.....	12.4			1.7		5.2	
N-BUTANE.....	4.3			1.0		1.8	
ISOBUTANE.....	2.9			0.2		0.3	
N-PENTANE.....	0.6			0.2		0.4	
ISOPENTANE.....	1.0			0.1		0.4	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.1		0.1	
NITROGEN.....	2.3			20.9		15.5	
OXYGEN.....	0.4			1.3		TRACE	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.6			TRACE		0.0	
CARBON DIOXIDE.....	30.2			2.7		26.7	
HELIUM.....	0.03			0.90		1.00	
HEATING VALUE.....	1240			705		804	
SPECIFIC GRAVITY.....	1.256			0.987		1.020	
		INDEX SAMPLE	11482 7620	INDEX SAMPLE	11483 7698	INDEX SAMPLE	11484 7747
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	NW LISBON C-2			PUBCO LISBON FED. NO. 1-12		LISBON FED. NO. 1-12	
LOCATION.....	SEC. 3, T30S, R24E			SEC. 12, T30S, R24E		SEC. 12, T30S, R24E	
OWNER.....	PURE OIL CO.			PUBCO PETROLEUM CORP.		PUBCO PETROLEUM CORP.	
COMPLETED.....	-7/-700			09/28/60		09/28/60	
SAMPLED.....	07/22/60			09/28/60		10/27/60	
FORMATION.....	-SALT SECTION			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5900			8434		8550	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			600		600	
OPEN FLOW, MCFD.....	NOT GIVEN			2600		3394	
COMPONENT, MOLE PCT							
METHANE.....	63.7			34.5		37.8	
ETHANE.....	19.6			11.6		11.4	
PROPANE.....	1.5			9.5		9.3	
N-BUTANE.....	2.8			4.2		2.1	
ISOBUTANE.....	1.2			1.8		0.6	
N-PENTANE.....	0.6			0.2		0.6	
ISOPENTANE.....	0.5			1.1		0.0	
CYCLOPENTANE.....	TRACE			0.3		0.3	
HEXANES PLUS.....	0.3			1.3		0.8	
NITROGEN.....	0.4			6.9		7.6	
OXYGEN.....	TRACE			TRACE		0.1	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.1			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		TRACE	
CARBON DIOXIDE.....	0.2			26.6		29.0	
HELIUM.....	TRACE			0.30		0.40	
HEATING VALUE.....	1466			1207		997	
SPECIFIC GRAVITY.....	0.848			1.177		1.094	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11485 7783	INDEX SAMPLE	11486 7784	INDEX SAMPLE	11487 7847
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	BELCO NO. 2			LISBON FED. NO. 1-12		NO. 1-C	
LOCATION.....	SEC. 16, T30S, R24E			SEC. 12, T30S, R24E		SEC. 12, T30S, R24E	
OWNER.....	BELCO PETROLEUM CORP.			PURCO PETROLEUM CORP.		ELLIOTT PRODUCTION CO.	
COMPLETED.....	10/11/60			09/28/60		06/14/60	
SAMPLED.....	11/22/60			11/22/60		02/08/61	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8548			8434		8640	
WELLHEAD PRESSURE, PSIG.....	1072			NOT GIVEN		140	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	37.3			9.1		30.4	
ETHANE.....	11.5			18.9		11.0	
PROPANE.....	8.0			25.5		5.7	
N-BUTANE.....	2.4			13.2		4.9	
ISOBUTANE.....	0.9			0.7		3.1	
N-PENTANE.....	0.5			2.8		2.0	
ISOPENTANE.....	0.2			2.7		1.7	
CYCLOPENTANE.....	TRACE			0.1		0.3	
HEXANES PLUS.....	0.2			1.2		1.5	
NITROGEN.....	8.4			0.0		9.1	
OXYGEN.....	TRACE			0.8		0.2	
ARGON.....	TRACE			0.1		0.1	
HYDROGEN.....	TRACE			0.1		0.0	
HYDROGEN SULFIDE**.....	0.0			1.0		0.2	
CARBON DIOXIDE.....	30.2			17.7		29.6	
HELIUM.....	0.40			TRACE		0.30	
HEATING VALUE.....	943			2071		1170	
SPECIFIC GRAVITY.....	1.087			1.527		1.230	

		INDEX SAMPLE	11488 7848	INDEX SAMPLE	11489 7849	INDEX SAMPLE	11490 7850
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	STATE NO. 2			ARNOLD 21-15		NO. C-1	
LOCATION.....	SEC. 16, T30S, R24E			SEC. 15, T30S, R24E		SEC. 4, T30S, R24E	
OWNER.....	BELCO PETROLEUM CORP.			CALIFORNIA OIL CO.		PURE OIL CO.	
COMPLETED.....	10/11/60			06/07/60		06/07/60	
SAMPLED.....	02/08/61			02/08/61		02/08/61	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8221			8098		8296	
WELLHEAD PRESSURE, PSIG.....	950			NOT GIVEN		1800	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	43.1			33.5		41.6	
ETHANE.....	7.9			11.5		10.4	
PROPANE.....	0.1			6.0		2.4	
N-BUTANE.....	0.7			4.9		0.8	
ISOBUTANE.....	0.4			2.8		0.9	
N-PENTANE.....	0.2			1.7		0.2	
ISOPENTANE.....	TRACE			0.2		0.3	
CYCLOPENTANE.....	TRACE			0.2		0.1	
HEXANES PLUS.....	0.1			1.1		0.3	
NITROGEN.....	13.7			9.8		13.9	
OXYGEN.....	0.1			0.2		0.1	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.1			0.3		0.1	
CARBON DIOXIDE.....	29.9			26.3		28.3	
HELIUM.....	0.60			0.40		0.60	
HEATING VALUE.....	710			1153		768	
SPECIFIC GRAVITY.....	0.995			1.177		1.008	

		INDEX SAMPLE	11491 7851	INDEX SAMPLE	11492 7852	INDEX SAMPLE	11493 7854
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	STATE NO. 2			NO. 1-C		NO. 1-12	
LOCATION.....	SEC. 16, T30S, R24E			SEC. 15, T30S, R24E		SEC. 12, T30S, R24E	
OWNER.....	BELCO PETROLEUM CORP.			ELLIOTT PRODUCTION CO.		PURCO PETROLEUM CORP.	
COMPLETED.....	10/11/60			06/14/60		09/28/60	
SAMPLED.....	02/08/61			02/08/61		02/08/61	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8221			8640		8434	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1300	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	36.9			31.1		37.4	
ETHANE.....	10.3			10.6		12.0	
PROPANE.....	4.9			5.3		6.1	
N-BUTANE.....	1.7			3.9		2.7	
ISOBUTANE.....	0.2			1.6		1.9	
N-PENTANE.....	0.4			1.1		0.8	
ISOPENTANE.....	0.3			1.1		0.2	
CYCLOPENTANE.....	0.1			0.9		0.1	
HEXANES PLUS.....	0.2			0.2		0.4	
NITROGEN.....	9.6			9.3		9.5	
OXYGEN.....	0.1			0.2		0.2	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.1			0.3		0.3	
CARBON DIOXIDE.....	32.9			31.9		27.9	
HELIUM.....	0.40			0.30		0.40	
HEATING VALUE.....	846			1029		974	
SPECIFIC GRAVITY.....	1.085			1.183		1.089	

		INDEX SAMPLE	11494 7855	INDEX SAMPLE	11495 7947	INDEX SAMPLE	11496 7954
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	ARNOLD 21-15			NO. C-3		NO. W-E-1	
LOCATION.....	SEC. 15, T30S, R24E			SEC. 3, T30S, R24E		SEC. 15, T30S, R24E	
OWNER.....	CALIFORNIA OIL CO.			PURE OIL CO.		PURE OIL CO.	
COMPLETED.....	06/07/60			03/07/61		04/01/61	
SAMPLED.....	02/08/61			04/27/61		05/06/61	
FORMATION.....	DEVO-DURAY			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8605			8000		8571	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1800		1150	
OPEN FLOW, MCFD.....	NOT GIVEN			33250		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	36.4			43.6		43.1	
ETHANE.....	13.1			7.9		9.4	
PROPANE.....	4.3			1.2		3.7	
N-BUTANE.....	3.0			1.2		1.1	
ISOBUTANE.....	2.4			0.6		0.8	
N-PENTANE.....	0.6			0.4		0.3	
ISOPENTANE.....	0.8			0.1		0.2	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.3			0.2		0.2	
NITROGEN.....	10.0			16.7		13.5	
OXYGEN.....	TRACE			0.2		0.1	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		TRACE	
CARBON DIOXIDE.....	28.7			23.9		27.5	
HELIUM.....	0.30			1.10		0.50	
HEATING VALUE.....	972			0.976		786	
SPECIFIC GRAVITY.....	1.099					1.001	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11497 7968	INDEX SAMPLE	11498 7977	INDEX SAMPLE	11499 7980
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	NW LISBON NO. B-1			NW LISBON NO. C-1		NW LISBON NO. C-1	
LOCATION.....	SEC. 14, T30S, R24E			SEC. 4, T30S, R24E		SEC. 4, T30S, R24E	
OWNER.....	PURE OIL CO.			PURE OIL CO.		PURE OIL CO.	
COMPLETED.....	05/-/60			06/21/60		06/21/60	
SAMPLED.....	05/08/61			05/17/61		05/17/61	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	8198			8738		8738	
WELLHEAD PRESSURE, PSIG.....	1775			1650		1650	
OPEN FLOW, MCFD.....	33000			33000		33000	
COMPONENT, MOLE PCT.....							
METHANE.....	1.8			5.0		41.3	
ETHANE.....	11.9			26.7		7.9	
PROPANE.....	43.7			23.0		3.4	
N-BUTANE.....	18.9			7.9		0.9	
ISOBUTANE.....	11.1			4.9		0.5	
N-PENTANE.....	3.2			1.7		0.2	
ISOPENTANE.....	2.8			1.6		0.1	
CYCLOPENTANE.....	0.1			0.2		TRACE	
HEXANES PLUS.....	1.1			1.0		0.1	
NITROGEN.....	0.9			0.0		15.7	
OXYGEN.....	0.9			1.1		0.4	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE**.....	1.3			1.7		0.6	
CARBON DIOXIDE.....	2.2			24.8		27.7	
HELIUM.....	0.01			0.01		1.00	
HEATING VALUE.....	2695			1769		717	
SPECIFIC GRAVITY.....	1.690			1.461		0.994	
		INDEX SAMPLE	11500 7996	INDEX SAMPLE	11501 8043	INDEX SAMPLE	11502 8072
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LISBON		LISBON	
WELL NAME.....	NW A-1			NW A-1		U.S.A. A-1	
LOCATION.....	SEC. 14, T30S, R24E			SEC. 10, T30S, R24E		SEC. 10, T30S, R24E	
OWNER.....	PURE OIL CO.			PURE OIL CO.		PURE OIL CO.	
COMPLETED.....	01/04/60			01/04/60		01/04/60	
SAMPLED.....	05/20/61			06/24/61		07/13/61	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		7590	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1750		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			12150		12150	
COMPONENT, MOLE PCT.....							
METHANE.....	34.0			42.0		33.2	
ETHANE.....	14.0			8.0		14.0	
PROPANE.....	7.5			3.5		9.6	
N-BUTANE.....	2.7			0.7		0.1	
ISOBUTANE.....	1.7			0.3		0.7	
N-PENTANE.....	0.7			0.3		0.5	
ISOPENTANE.....	0.4			0.0		0.0	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.3			0.2		0.2	
NITROGEN.....	7.6			15.2		2.9	
OXYGEN.....	0.1			0.2		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.1			0.2		1.0	
CARBON DIOXIDE.....	30.6			25.6		35.6	
HELIUM.....	0.20			1.10		0.10	
HEATING VALUE.....	1.001			0.995		962	
SPECIFIC GRAVITY.....	1.124					1.141	
		INDEX SAMPLE	11503 8073	INDEX SAMPLE	11504 8270	INDEX SAMPLE	11505 8271
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	LISBON			LITTLE VALLEY		LITTLE VALLEY	
WELL NAME.....	U.S.A. A-1			LISBON FED. NO. 2-21-F		LISBON FED. NO. 2-21-F	
LOCATION.....	SEC. 21, T30S, R24E			SEC. 21, T30S, R25E		SEC. 21, T30S, R25E	
OWNER.....	PURE OIL CO.			PUBCO PETROLEUM CORP.		PUBCO PETROLEUM CORP.	
COMPLETED.....	01/04/60			11/15/61		11/15/61	
SAMPLED.....	07/13/61			10/30/61		10/30/61	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	7590			9313		9269	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	12150			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	40.6			63.0		65.8	
ETHANE.....	12.0			1.2		5.1	
PROPANE.....	5.1			1.2		1.7	
N-BUTANE.....	1.3			0.5		0.5	
ISOBUTANE.....	0.8			0.5		0.4	
N-PENTANE.....	0.4			0.1		0.2	
ISOPENTANE.....	0.1			0.1		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	15.8			10.1		9.6	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.2			1.0		0.2	
CARBON DIOXIDE.....	25.6			11.1		15.5	
HELIUM.....	1.10			0.69		0.68	
HEATING VALUE.....	781			830		852	
SPECIFIC GRAVITY.....	1.009			0.831		0.808	
		INDEX SAMPLE	11506 6409	INDEX SAMPLE	11507 6600	INDEX SAMPLE	11508 9803
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	NAVAJO TRACT 114-3			WHEELMO CREEK		WHEELMO MESA	
WELL NAME.....	SEC. 17, T41S, R25E			NAVAJO NO. C-4		NAVAJO AC NO. 7	
LOCATION.....	CARBON OIL CO.			SEC. 6, T41S, R25E		SEC. 4, T41S, R26E	
OWNER.....	09/07/57			SUPERIOR OIL CO.		TEXACO INC.	
COMPLETED.....	09/27/57			01/01/58		03/01/65	
SAMPLED.....	PENN-PARADOX			05/20/58		03/10/65	
FORMATION.....	585			PENN-PARADOX		PENN-ISMAY	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	5295			5470		5569	
WELLHEAD PRESSURE, PSIG.....	700			610		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			175		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	59.2			62.4		60.4	
ETHANE.....	20.6			19.2		19.2	
PROPANE.....	12.0			10.7		10.6	
N-BUTANE.....	3.8			3.1		3.4	
ISOBUTANE.....	1.8			1.7		1.8	
N-PENTANE.....	0.8			0.5		0.8	
ISOPENTANE.....	0.8			0.9		0.7	
CYCLOPENTANE.....	0.2			0.2		0.3	
HEXANES PLUS.....	0.6			0.5		0.8	
NITROGEN.....	0.0			0.2		1.8	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.1	
HELIUM.....	0.02			0.2		0.01	
HEATING VALUE.....	1576			1516		1523	
SPECIFIC GRAVITY.....	0.911			0.877		0.897	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11509 SAMPLE 9804				INDEX 11510 SAMPLE 10525				INDEX 11511 SAMPLE 6050			
STATE.....	UTAH			UTAH				UTAH			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	MCELMO MESA			MCELMO MESA				NOT GIVEN			
WELL NAME.....	NAVAJO AC NO. 7			AC NO. 8				NAVAJO A-1			
LOCATION.....	SEC. 4, T41S, R26E			SEC. 4, T41S, R26E				SEC. 14, T40S, R24E			
OWNER.....	TEXACO INC.			TEXACO INC.				SUPERIOR OIL CO.			
COMPLETED.....	03/01/65			--/--/00				--/--/00			
SAMPLED.....	03/10/65			04/05/66				04/07/66			
FORMATION.....	PENN-ISMAY			PENN-ISMAY				PENN-HERMOSA			
GEOLOGIC PROVINCE CODE.....	585			585				585			
DEPTH, FEET.....	5569			5798				5805			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	1			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	60.5			68.5				59.5			
ETHANE.....	19.0			17.2				19.6			
PROPANE.....	10.7			8.4				11.6			
N-BUTANE.....	3.5			2.0				3.7			
ISOBUTANE.....	1.7			1.2				1.6			
N-PENTANE.....	0.8			0.3				0.8			
ISOPENTANE.....	0.8			0.3				1.0			
CYCLOPENTANE.....	0.3			TRACE				0.2			
HEXANES PLUS.....	0.8			0.2				0.6			
NITROGEN.....	1.8			1.6				1.1			
OXYGEN.....	0.0			0.0				TRACE			
ARGON.....	TRACE			TRACE				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.3				0.2			
HELIUM.....	0.01			0.02				0.02			
HEATING VALUE.....	1527			1364				1549			
SPECIFIC GRAVITY.....	0.899			0.798				0.907			

INDEX 11512 SAMPLE 6877				INDEX 11513 SAMPLE 8531				INDEX 11514 SAMPLE 8789			
STATE.....	UTAH			UTAH				UTAH			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
WELL NAME.....	DEADMAN CANYON NO. 1			NAVAJO PD NO. 30				BIG INDIAN NO. 3			
LOCATION.....	SEC. 20, T37S, R24E			SEC. 20, T40S, R24E				SEC. 10, T30S, R26E			
OWNER.....	PAN AMERICAN PETROLEUM CORP.			TEXACO INC.				PURE OIL CO.			
COMPLETED.....	--/--/00			--/--/00				--/--/08			
SAMPLED.....	11/30/58			11/30/62				11/30/62			
FORMATION.....	MISS-LEADVILLE & MADISON			NOT GIVEN				PENN-HERMOSA			
GEOLOGIC PROVINCE CODE.....	585			585				585			
DEPTH, FEET.....	7980			NOT GIVEN				NOT GIVEN			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
OPEN FLOW, MCFD.....	2000			NOT GIVEN				250			
COMPONENT, MOLE PCT.....											
METHANE.....	0.4			0.6				81.4			
ETHANE.....	0.2			0.2				7.8			
PROPANE.....	0.0			0.7				3.1			
N-BUTANE.....	0.1			0.1				1.0			
ISOBUTANE.....	0.1			0.0				0.9			
N-PENTANE.....	TRACE			0.1				0.2			
ISOPENTANE.....	TRACE			0.0				0.5			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	0.1			0.2				0.2			
NITROGEN.....	4.8			23.0				5.0			
OXYGEN.....	0.4			0.2				TRACE			
ARGON.....	TRACE			0.0				0.0			
HYDROGEN.....	TRACE			TRACE				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	93.6			69.9				0.1			
HELIUM.....	0.20			0.15				0.04			
HEATING VALUE.....	20			46				1140			
SPECIFIC GRAVITY.....	1.494			1.374				0.688			

INDEX 11515 SAMPLE 6701				INDEX 11516 SAMPLE 7068				INDEX 11517 SAMPLE 8411			
STATE.....	UTAH			UTAH				UTAH			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	RATHERFORD			RATHERFORD				SHAFER CANYON			
WELL NAME.....	NORTH DESERT CREEK NO. 13-13			GOVT. FEHR-LYON NO. 1				U.S.A. NO. 1			
LOCATION.....	SEC. 13, T41S, R23E			SEC. 33, T40S, R21E				SEC. 6, T27S, R20E			
OWNER.....	SHELL OIL CO.			CARTER OIL CO.				SOUTHERN NATURAL GAS CO.			
COMPLETED.....	04/18/58			05/12/59				02/13/62			
SAMPLED.....	06/20/58			05/12/59				02/13/62			
FORMATION.....	PENN-PARADOX			MISS---				PENN---			
GEOLOGIC PROVINCE CODE.....	585			585				585			
DEPTH, FEET.....	5343			6150				5808			
WELLHEAD PRESSURE, PSIG.....	1200			NOT GIVEN				2525			
OPEN FLOW, MCFD.....	900			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT.....											
METHANE.....	60.7			4.5				60.7			
ETHANE.....	19.8			0.6				19.5			
PROPANE.....	11.7			0.1				12.0			
N-BUTANE.....	3.4			0.1				3.0			
ISOBUTANE.....	1.7			0.0				1.6			
N-PENTANE.....	0.6			0.0				0.4			
ISOPENTANE.....	0.2			0.0				0.5			
CYCLOPENTANE.....	0.2			TRACE				0.1			
HEXANES PLUS.....	0.5			0.3				0.3			
NITROGEN.....	0.2			18.3				1.8			
OXYGEN.....	TRACE			0.8				TRACE			
ARGON.....	0.0			0.1				0.0			
HYDROGEN.....	TRACE			0.0				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			69.2				0.1			
HELIUM.....	0.02			0.90				0.06			
HEATING VALUE.....	1538							1493			
SPECIFIC GRAVITY.....	0.890			1.371				0.879			

INDEX 11518 SAMPLE 6883				INDEX 11519 SAMPLE 5852				INDEX 11520 SAMPLE 6448			
STATE.....	UTAH			UTAH				UTAH			
COUNTY.....	SAN JUAN			SAN JUAN				SAN JUAN			
FIELD.....	TOHONADLA			WHITE MESA				WHITE MESA			
WELL NAME.....	TOHONADLA LEASE			WHITE MESA NO. 1				NAVAJO NO. F-1			
LOCATION.....	SEC. 35, T41S, R21E			SEC. 6, T43S, R24E				SEC. 23, T41S, R24E			
OWNER.....	SHELL OIL CO.			SHELL OIL CO.				SUPERIOR OIL CO.			
COMPLETED.....	--/--/00			--/--/00				03/--/57			
SAMPLED.....	12/01/58			05/26/58				11/26/57			
FORMATION.....	PENN-HERMOSA U			PENN-HERMOSA				PENN-PARADOX			
GEOLOGIC PROVINCE CODE.....	585			585				585			
DEPTH, FEET.....	5200			6065				5445			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				530			
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				270			
COMPONENT, MOLE PCT.....											
METHANE.....	60.3			78.9				55.3			
ETHANE.....	21.8			7.7				24.1			
PROPANE.....	9.1			4.5				13.7			
N-BUTANE.....	2.6			1.9				3.3			
ISOBUTANE.....	1.7			0.6				1.7			
N-PENTANE.....	0.3			0.6				0.6			
ISOPENTANE.....	0.8			0.1				0.6			
CYCLOPENTANE.....	0.1			0.1				0.1			
HEXANES PLUS.....	0.3			0.3				0.4			
NITROGEN.....	2.6			4.0				0.0			
OXYGEN.....	TRACE			0.1				0.1			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	TRACE			0.4				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.2			0.0				0.1			
HELIUM.....	0.10			0.53				0.01			
HEATING VALUE.....	1449			1173				1591			
SPECIFIC GRAVITY.....	0.861			0.711				0.923			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11521 SAMPLE 5598			INDEX 11522 SAMPLE 5982			INDEX 11523 SAMPLE 6028		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	STATS NO. 1		COALBED CANYON UNIT NO. 1			NAVAJO C NO. 1		
LOCATION.....	SEC. 32, T29S, R23E		SEC. 15, T35S, R25E			SEC. 23, T40S, R24E		
OWNER.....	THREE STATES NATURAL GAS CO.		GULF OIL CORP.			TEXAS CO.		
COMPLETED.....	08/15/55		08/15/55			02/17/56		
SAMPLED.....	03/01/54		12/05/55			02/18/56		
FORMATION.....	NOT GIVEN		PENN-PARADOX			PENN-HERMOSA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	6014		5762			5800		
WELLHEAD PRESSURE, PSIG.....	180		1426			525		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.4		76.5			59.8		
ETHANE.....	14.8		11.7			20.0		
PROpane.....	6.2		4.7			12.0		
N-BUTANE.....	2.1		2.0			3.6		
ISOBUTANE.....	1.0		1.6			1.4		
N-PENTANE.....	0.7		1.0			0.6		
ISOPENTANE.....	0.3		0.5			1.0		
CYCLOPENTANE.....	0.2		0.1			0.2		
HEXANES PLUS.....	0.5		1.0			0.4		
NITROGEN.....	1.6		0.6			0.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1340		1347			1541		
SPECIFIC GRAVITY.....	0.781		0.772			0.898		

INDEX 11524 SAMPLE 6051			INDEX 11525 SAMPLE 6147			INDEX 11526 SAMPLE 6248		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	NAVAJO 1-A		RECAPTURE CREEK UNIT NO. 1			ANIDOC CREEK NO. 1		
LOCATION.....	SEC. 21, T40S, R24E		SEC. 21, T40S, R23E			SEC. 33, T43S, R25E		
OWNER.....	SUPERIOR OIL CO.		SHELL OIL CO.			CARTER OIL CO.		
COMPLETED.....	--/--/00		09/26/56			--/--/00		
SAMPLED.....	04/05/56		09/17/56			02/13/57		
FORMATION.....	PENN-HERMOSA		PENN-HERMOSA			PENN-PARADOX		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	5694		5333			5996		
WELLHEAD PRESSURE, PSIG.....	2135		68			NOT GIVEN		
OPEN FLOW, MCFD.....	68		300			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	58.6		24.3			88.0		
ETHANE.....	11.2		2.9			2.4		
PROpane.....	3.7		11.7			0.9		
N-BUTANE.....	1.0		3.0			0.1		
ISOBUTANE.....	0.9		2.8			0.3		
N-PENTANE.....	0.9		0.5			0.2		
ISOPENTANE.....	0.3		0.5			0.1		
CYCLOPENTANE.....	0.7		0.1			0.3		
HEXANES PLUS.....	1.2		0.5			2.5		
NITROGEN.....	TRACE		0.1			TRACE		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.4		0.1			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.6		
CARBON DIOXIDE.....	0.3		0.01			0.32		
HELIUM.....	0.01		0.01			1111		
HEATING VALUE.....	1544		2276			0.653		
SPECIFIC GRAVITY.....	0.906		1.355					

INDEX 11527 SAMPLE 6249			INDEX 11528 SAMPLE 6632			INDEX 11529 SAMPLE 7873		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	RECAPTURE CREEK NO. 1		NAVAJO TRACT 40 NO. 1			LA SAL USA NO. 1		
LOCATION.....	SEC. 33, T43S, R25E		SEC. 9, T41S, R22E			SEC. 19, T29S, R24E		
OWNER.....	CARTER OIL CO.		CARTER OIL CO.			PURE OIL CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	02/06/57		06/09/58			12/12/60		
FORMATION.....	PENN-PARADOX		PENN-PARADOX			PENN-PARADOX		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	5500		5620			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	5		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	15		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	65.0		59.1			81.7		
ETHANE.....	18.8		19.1			7.0		
PROpane.....	9.7		10.5			2.6		
N-BUTANE.....	2.7		0.6			0.6		
ISOBUTANE.....	1.3		2.1			0.3		
N-PENTANE.....	0.5		1.5			0.1		
ISOPENTANE.....	0.1		1.1			0.1		
CYCLOPENTANE.....	0.1		0.5			TRACE		
HEXANES PLUS.....	0.2		1.3			0.1		
NITROGEN.....	1.0		0.6			7.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.08		0.02			TRACE		
HEATING VALUE.....	144		149			1065		
SPECIFIC GRAVITY.....	0.834		0.943			0.665		

INDEX 11530 SAMPLE 8346			INDEX 11531 SAMPLE 8413			INDEX 11532 SAMPLE 8775		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	LISBON FED. NO. 2-21-F		SPILLER CANYON NO. 1			BIG INDIAN NO. 3		
LOCATION.....	SEC. 15, T30S, R25E		SEC. 21, T30S, R25E			SEC. 10, T30S, R25E		
OWNER.....	PUBCO PETROLEUM CORP.		PURE OIL CO.			PURE OIL CO.		
COMPLETED.....	11/22/61		--/--/00			--/--/05		
SAMPLED.....	12/09/61		02/20/62			11/20/62		
FORMATION.....	MIS-		PENN-PARADOX			PENN-HERMOSA		
GEOLOGIC PROVINCE CODE.....	585		585			585		
DEPTH, FEET.....	9270		4830			4222		
WELLHEAD PRESSURE, PSIG.....	2090		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	63.3		70.8			59.1		
ETHANE.....	3.1		7.5			21.0		
PROpane.....	2.1		2.8			10.9		
N-BUTANE.....	1.5		0.8			2.9		
ISOBUTANE.....	0.3		0.8			1.7		
N-PENTANE.....	0.2		0.5			0.5		
ISOPENTANE.....	0.1		0.5			0.6		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.5			0.3		
NITROGEN.....	9.9		14.9			2.6		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		TRACE			0.1		
HYDROGEN SULFIDE.....	0.2		0.0			0.0		
CARBON DIOXIDE.....	16.5		0.1			0.1		
HELIUM.....	0.31		0.10			0.01		
HEATING VALUE.....	878		1064			1479		
SPECIFIC GRAVITY.....	0.842		0.746			0.879		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11533 8817	INDEX SAMPLE	11534 8938	INDEX SAMPLE	11535 9088
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	NO. 3			U.S.A. 8 NO. 1		LITTLE VALLEY NO. 2	
LOCATION.....	SEC. 3, T27S, R21E			SEC. 9, T35S, R25E		NOT GIVEN	
OWNER.....	HURBLE OIL & REFINING CO.			TEXAS PACIFIC COAL & OIL CO.		PACIFIC NATURAL GAS EXPL. CO.	
COMPLETED.....	01/15/63			--/--/00		--/--/00	
SAMPLED.....	12/25/62			04/18/63		09/23/63	
FORMATION.....	PENN-PARADOX			M1SS---		CLASTIC BEDS	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	4860			7034		4526	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		300	
OPEN FLOW, MCFD.....	55			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	74.0			5.2		61.4	
ETHANE.....	12.1			0.4		16.6	
PROPANE.....	4.8			0.3		9.1	
N-BUTANE.....	1.3			TRACE		3.6	
ISOBUTANE.....	0.6			TRACE		3.1	
N-PENTANE.....	0.3			0.0		1.5	
ISOPENTANE.....	0.4			0.0		1.3	
CYCLOPENTANE.....	0.1			TRACE		0.5	
HEXANES PLUS.....	0.2			0.1		0.4	
NITROGEN.....	5.1			4.9		0.4	
OXYGEN.....	0.8			0.1		0.0	
ARGON.....	TRACE			0.1		0.0	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			88.6		0.1	
HELIUM.....	0.03			0.40		0.02	
HEATING VALUE.....	1199			73		16.03	
SPECIFIC GRAVITY.....	0.740			1.446		0.954	
		INDEX SAMPLE	11536 9199	INDEX SAMPLE	11537 11612	INDEX SAMPLE	11538 11613
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	M16 INDIAN NO. 4			NAVAJO MACHULLEN NO. 1		NAVAJO MACHULLEN NO. 1	
LOCATION.....	SEC. 14, T30S, R25E			SEC. 15, T42S, R26E		SEC. 15, T42S, R26E	
OWNER.....	PURE OIL CO.			WESTERN HYDROCARBONS CORP.		WESTERN HYDROCARBONS CORP.	
COMPLETED.....	--/--/00			--/--/01		08/05/68	
SAMPLED.....	12/08/63			08/01/68		08/04/68	
FORMATION.....	PENN-HERMOSA			PENN---		PENN---	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	NOT GIVEN			5890		5886	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	83.5			62.2		58.5	
ETHANE.....	8.1			18.4		19.0	
PROPANE.....	2.4			10.7		11.2	
N-BUTANE.....	0.9			3.0		4.2	
ISOBUTANE.....	0.1			1.5		1.5	
N-PENTANE.....	0.1			1.0		1.2	
ISOPENTANE.....	0.4			0.4		1.1	
CYCLOPENTANE.....	TRACE			0.4		0.4	
HEXANES PLUS.....	0.1			0.9		1.0	
NITROGEN.....	4.1			1.4		0.7	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.03			0.02		0.09	
HEATING VALUE.....	1114			1510		1581	
SPECIFIC GRAVITY.....	0.665			0.883		0.931	
		INDEX SAMPLE	11539 12170	INDEX SAMPLE	11540 12940	INDEX SAMPLE	11541 12941
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	FED. NO. 1-22			KIMBARK OPERATING CO. NO. 1		KIMBARK OPERATING CO. NO. 1	
LOCATION.....	SEC. 22, T37S, R23E			SEC. 22, T38S, R20E		SEC. 22, T38S, R20E	
OWNER.....	BUTTES GAS & OIL CO.			KIMBARK OPERATING CO.		KIMBARK OPERATING CO.	
COMPLETED.....	--/--/01			--/--/00		--/--/00	
SAMPLED.....	01/06/70			07/26/71		07/26/71	
FORMATION.....	PENN-DESERT CREEK			PENN-PARADOX		PENN-PARADOX	
GEOLOGIC PROVINCE CODE.....	585			585		585	
DEPTH, FEET.....	6379			2050		2050	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	64.4			53.8		53.9	
ETHANE.....	15.1			11.1		11.1	
PROPANE.....	9.7			4.1		4.2	
N-BUTANE.....	3.2			0.8		0.7	
ISOBUTANE.....	1.9			0.3		0.4	
N-PENTANE.....	1.3			0.2		0.2	
ISOPENTANE.....	0.9			0.0		0.0	
CYCLOPENTANE.....	0.3			0.1		0.1	
HEXANES PLUS.....	1.3			0.2		0.1	
NITROGEN.....	1.9			27.0		27.0	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	0.0			0.1		0.1	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.5		0.5	
HELIUM.....	0.01			1.34		1.34	
HEATING VALUE.....	1519			914		908	
SPECIFIC GRAVITY.....	0.891			0.793		0.790	
		INDEX SAMPLE	11542 16774	INDEX SAMPLE	11543 6035	INDEX SAMPLE	11544 8727
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SANPETE		SANPETE	
FIELD.....	WILDCAT			JOES VALLEY		JOES VALLEY	
WELL NAME.....	MUSTANG NO. 1			JOES VALLEY UNIT NO. 1-X		JOES VALLEY UNIT NO. 1-X	
LOCATION.....	SEC. 27, T36S, R23E			SEC. 17, T15S, R6E		SEC. 17, T15S, R6E	
OWNER.....	SKYLINE OIL CO.			THREE STATES NATURAL GAS CO.		DELHI-TAYLOR OIL CORP.	
COMPLETED.....	07/13/62			11/14/55		--/--/00	
SAMPLED.....	02/23/63			02/26/56		10/22/62	
FORMATION.....	PENN-ISMAY			CRET-FERRON		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	585			630		630	
DEPTH, FEET.....	6152			7090		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	2100			1368		NOT GIVEN	
OPEN FLOW, MCFD.....	8900			7400		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.8			97.9		86.0	
ETHANE.....	10.6			0.2		4.6	
PROPANE.....	4.4			0.0		2.9	
N-BUTANE.....	1.2			0.0		0.9	
ISOBUTANE.....	0.5			0.0		1.0	
N-PENTANE.....	0.2			0.0		0.3	
ISOPENTANE.....	0.5			TRACE		0.2	
CYCLOPENTANE.....	0.1			TRACE		0.1	
HEXANES PLUS.....	0.2			TRACE		0.2	
NITROGEN.....	7.0			TRACE		0.5	
OXYGEN.....	1.1			TRACE		0.5	
ARGON.....	0.1			0.0		0.0	
HYDROGEN.....	0.2			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.6		0.1	
HELIUM.....	0.03			0.02		0.03	
HEATING VALUE.....	1144			0.02		11.29	
SPECIFIC GRAVITY.....	0.733			0.563		0.668	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11545 8732	INDEX SAMPLE	11546 8384	INDEX SAMPLE	11547 8386
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SANPETE			SEVIER		SEVIER	
FIELD.....	JOES VALLEY			EMERY UNIT		EMERY UNIT	
WELL NAME.....	JOES VALLEY UNIT NO. 3			EMERY UNIT NO. 1		EMERY UNIT NO. 1	
LOCATION.....	SEC. 20, T15S, R6E			SEC. 34, T22S, R5E		SEC. 34, T22S, R5E	
OWNER.....	DELL-TAYLOR OIL CORP.			SKELLY OIL CO.		SKELLY OIL CO.	
COMPLETED.....	7--/700			02/16/62		02/16/62	
SAMPLED.....	10/22/62			01/24/62		02/--/62	
FORMATION.....	CRET-FERRON			PERM---		PERM-COCONINO	
GEOLOGIC PROVINCE CODE.....	630					630	
DEPTH, FEET.....	NOT GIVEN			8985		8730	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	88.4			1.4		3.0	
ETHANE.....	4.6			0.2		0.5	
PROPANE.....	3.1			0.5		0.5	
N-BUTANE.....	0.9			TRACE		0.1	
ISOBUTANE.....	0.9			0.0		0.0	
N-PENTANE.....	0.2			0.0		0.1	
ISOPENTANE.....	0.4			0.0		0.0	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.2			TRACE		0.1	
NITROGEN.....	1.1			5.6		3.3	
OXYGEN.....	TRACE			0.6		0.1	
ARGON.....	0.0			0.1		TRACE	
HYDROGEN.....	0.1			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			92.2		91.7	
HELIUM.....	0.02			0.14		0.69	
HEATING VALUE.....	1159			1.18		0.65	
SPECIFIC GRAVITY.....	0.659			1.480		1.473	
		INDEX SAMPLE	11548 8390	INDEX SAMPLE	11549 15587	INDEX SAMPLE	11550 16078
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SEVIER			SUMMIT		SUMMIT	
FIELD.....	EMERY UNIT			ANSCHUTZ RANCH E		ANSCHUTZ RANCH E	
WELL NAME.....	EMERY UNIT NO. 1			ANSCHUTZ RANCH NO. 3-1		BOUNTIFUL LIVESTOCK NO. 1	
LOCATION.....	SEC. 34, T22S, R5E			SEC. 3, T3N, R7E		SEC. 16, T4N, R8E	
OWNER.....	SKELLY OIL CO.			ANSCHUTZ CORP.		AMOCO PRODUCTION CO.	
COMPLETED.....	02/16/62			03/15/79		03/27/80	
SAMPLED.....	02/04/62			09/16/80		09/16/80	
FORMATION.....	MISS---			JURA-TWIN CREEK		JURA-NUGGET	
GEOLOGIC PROVINCE CODE.....	630			570		570	
DEPTH, FEET.....	9639			6672		13350	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1300		2950	
OPEN FLOW, MCFD.....	NOT GIVEN			1003		5000	
COMPONENT, MOLE PCT.....							
METHANE.....	1.6			79.6		77.4	
ETHANE.....	0.1			7.1		13.0	
PROPANE.....	0.1			2.8		5.1	
N-BUTANE.....	TRACE			1.0		1.0	
ISOBUTANE.....	0.0			0.8		0.8	
N-PENTANE.....	0.0			0.4		0.2	
ISOPENTANE.....	0.0			0.5		0.2	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	TRACE			0.4		0.1	
NITROGEN.....	2.1			7.2		1.7	
OXYGEN.....	0.1			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.2			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	95.7			0.1		0.4	
HELIUM.....	0.08			0.09		0.02	
HEATING VALUE.....	21			1130		1232	
SPECIFIC GRAVITY.....	1.496			0.705		0.718	
		INDEX SAMPLE	11551 16506	INDEX SAMPLE	11552 17373	INDEX SAMPLE	11553 15089
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SUMMIT			SUMMIT		SUMMIT	
FIELD.....	ANSCHUTZ RANCH E			CAVE CREEK		PINEVIEW	
WELL NAME.....	CHAMPLIN 458 F-2			CAVE CREEK NO. 12-30		UNION PACIFIC RR. NO. 3-2	
LOCATION.....	SEC. 21, T4N, R8E			SEC. 30, T5N, R8E		SEC. 3, T2N, R7E	
OWNER.....	AMOCO PRODUCTION CO.			ANSCHUTZ CORP.		AMERICAN QUASAR PET. CO.	
COMPLETED.....	12/--/81			06/04/83		02/11/77	
SAMPLED.....	01/15/82			08/06/84		08/30/77	
FORMATION.....	JURA-NUGGET			JURA-TWIN CREEK		JURA-TWIN CREEK	
GEOLOGIC PROVINCE CODE.....	570			570		570	
DEPTH, FEET.....	15132			6908		9455	
WELLHEAD PRESSURE, PSIG.....	3520			3975		850	
OPEN FLOW, MCFD.....	NOT GIVEN			5643		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	79.9			75.5		16.7	
ETHANE.....	11.3			8.3		26.9	
PROPANE.....	4.0			3.8		34.6	
N-BUTANE.....	0.8			1.3		0.0	
ISOBUTANE.....	0.6			0.4		0.0	
N-PENTANE.....	0.2			0.5		16.5	
ISOPENTANE.....	0.2			0.5		0.0	
CYCLOPENTANE.....	TRACE			0.2		TRACE	
HEXANES PLUS.....	TRACE			0.3		0.3	
NITROGEN.....	2.7			7.3		0.3	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		0.0	
HELIUM.....	0.02			0.09		TRACE	
HEATING VALUE.....	1180			1194		2321	
SPECIFIC GRAVITY.....	0.691			0.745		1.384	
		INDEX SAMPLE	11554 16931	INDEX SAMPLE	11555 2205	INDEX SAMPLE	11556 2206
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SUMMIT			UINTAH		UINTAH	
FIELD.....	ASHLEY VALLEY			ASHLEY VALLEY		ASHLEY VALLEY	
WELL NAME.....	LOGAN FED. NO. 1			NO. 1		NO. 3	
LOCATION.....	SEC. 26, T3N, R7E			SEC. 23, T5S, R22E		SEC. 23, T5S, R22E	
OWNER.....	DAVIS OIL CO.			VALLEY FUEL SUPPLY CO.		VALLEY FUEL SUPPLY CO.	
COMPLETED.....	08/01/82			04/13/82		03/23/82	
SAMPLED.....	05/02/83			10/09/30		10/09/30	
FORMATION.....	JURA-NUGGET			JURA-MORRISON		JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	570			575		575	
DEPTH, FEET.....	12804			1655		1655	
WELLHEAD PRESSURE, PSIG.....	3975			400		400	
OPEN FLOW, MCFD.....	2500			11000		11000	
COMPONENT, MOLE PCT.....							
METHANE.....	74.0			97.9		99.4	
ETHANE.....	14.5			0.0		0.0	
PROPANE.....	0.2			---		---	
N-BUTANE.....	0.9			---		---	
ISOBUTANE.....	0.8			---		---	
N-PENTANE.....	0.1			---		---	
ISOPENTANE.....	0.5			---		---	
CYCLOPENTANE.....	0.1			---		---	
HEXANES PLUS.....	0.2			---		---	
NITROGEN.....	2.4			0.5		0.3	
OXYGEN.....	0.1			0.1		0.1	
ARGON.....	TRACE			---		---	
HYDROGEN.....	0.0			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	1.1			1.4		0.2	
HELIUM.....	0.01			0.00		0.01	
HEATING VALUE.....	1242			922		1007	
SPECIFIC GRAVITY.....	0.743			0.570		0.558	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 11557 9397	INDEX SAMPLE 11558 9247	INDEX SAMPLE 11559 17180
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	UINTAH		UINTAH	UINTAH
FIELD.....	BONANZA		BONANZA	BONANZA
WELL NAME.....	PAN AM STATE NO. 1		NO. 3	FED. NO. 3-15
LOCATION.....	SEC. 32, T6S, R23E		SEC. 27, T9S, R24E	SEC. 15, T10S, R23E
OWNER.....	H. P. MCLISH, ET AL.		PACIFIC NATURAL GAS EXPL. CO	LOWAK EXPLORATION CO.
COMPLETED.....	01/03/64		10/15/63	10/04/83
SAMPLED.....	06/13/64		02/26/64	01/03/84
FORMATION.....	EOCE-UINTA		EOCE-WASATCH	CRET-MESAVERDE
GEOLOGIC PROVINCE CODE.....	575		575	575
DEPTH, FEET.....	3170		4917	7188
WELLHEAD PRESSURE, PSIG.....	1324		1683	2171
OPEN FLOW, MCFD.....	1710		NOT GIVEN	1124
COMPONENT, MOLE PCT				
METHANE.....	96.4	90.6	90.6	90.6
ETHANE.....	0.6	4.5	4.5	4.4
PROpane.....	0.4	1.7	1.7	2.0
N-BUTANE.....	0.0	0.4	0.4	0.6
ISOBUTANE.....	0.0	0.1	0.1	0.5
N-PENTANE.....	0.0	0.1	0.1	0.3
ISOPENTANE.....	0.0	0.1	0.1	0.2
CYCLOPENTANE.....	0.0	0.1	0.1	0.1
HEXANES PLUS.....	0.0	0.2	0.2	0.2
NITROGEN.....	2.5	0.2	0.2	0.2
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	TRACE	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	2.0	2.0	1.2
HELIUM.....	0.01	0.02	0.02	TRACE
HEATING VALUE.....	998	1352	1352	1117
SPECIFIC GRAVITY.....	0.573	0.632	0.632	0.641
		INDEX SAMPLE 11560 16061	INDEX SAMPLE 11561 15995	INDEX SAMPLE 11562 5869
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	UINTAH		UINTAH	UINTAH
FIELD.....	BOOK CLIFFS		CHAPITA	CHAPITA WELLS
WELL NAME.....	WATON CANYON NO. 14-16		CHAPITA UNIT 4525	CHAPITA WELLS UNIT NO. 2
LOCATION.....	SEC. 16, T15S, R23E		SEC. 25, T9S, R22E	SEC. 28, T9S, R23E
OWNER.....	COSEKA RESOURCES (USA), LTD.		BELCO PETROLEUM CORP.	CONTINENTAL OIL CO.
COMPLETED.....	7-7/00		01/22/80	01/28/55
SAMPLED.....	08/27/80		06/26/80	06/26/55
FORMATION.....	CRET-DAKOTA		EOCE-WASATCH	EOCE-WASATCH
GEOLOGIC PROVINCE CODE.....	575		575	575
DEPTH, FEET.....	8600		5893	5052
WELLHEAD PRESSURE, PSIG.....	760		NOT GIVEN	1795
OPEN FLOW, MCFD.....	756		2250	2564
COMPONENT, MOLE PCT				
METHANE.....	63.8	91.2	91.2	92.6
ETHANE.....	4.8	5.2	5.2	3.6
PROpane.....	1.2	1.7	1.7	1.2
N-BUTANE.....	0.3	0.4	0.4	0.3
ISOBUTANE.....	0.2	0.3	0.3	0.4
N-PENTANE.....	0.1	0.1	0.1	0.1
ISOPENTANE.....	0.1	0.1	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1	0.6
NITROGEN.....	28.5	0.3	0.3	0.6
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.0	0.0	0.0	0.1
HELIUM.....	0.03	0.01	0.01	0.02
HEATING VALUE.....	794	1103	1103	1108
SPECIFIC GRAVITY.....	0.729	0.619	0.619	0.622
		INDEX SAMPLE 11563 8309	INDEX SAMPLE 11564 8310	INDEX SAMPLE 11565 8311
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	UINTAH		UINTAH	UINTAH
FIELD.....	FENCE CANYON		FENCE CANYON	FENCE CANYON
WELL NAME.....	UNIT NO. 2		UNIT NO. 1	UNIT NO. 2
LOCATION.....	SEC. 26, T15S, R22E		SEC. 06, T15S, R22E	SEC. 26, T15S, R22E
OWNER.....	TEXACO INC.		TEXACO INC.	TEXACO INC.
COMPLETED.....	09/13/61		04/23/60	09/13/61
SAMPLED.....	11/11/61		11/11/61	11/11/61
FORMATION.....	JURA-MORRISON		CRET-DAKOTA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	575		575	575
DEPTH, FEET.....	8378		8544	8236
WELLHEAD PRESSURE, PSIG.....	1180		1687	1180
OPEN FLOW, MCFD.....	600		4250	1175
COMPONENT, MOLE PCT				
METHANE.....	92.8	95.1	95.1	92.7
ETHANE.....	3.9	0.9	0.9	4.1
PROpane.....	0.6	0.4	0.4	0.9
N-BUTANE.....	0.2	0.1	0.1	0.2
ISOBUTANE.....	0.1	0.1	0.1	0.2
N-PENTANE.....	0.1	0.1	0.1	0.1
ISOPENTANE.....	0.1	0.1	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1	0.1
NITROGEN.....	0.0	0.0	0.0	0.1
OXYGEN.....	TRACE	TRACE	TRACE	TRACE
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	0.0	0.1	0.1	0.1
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.1	1.0	1.0	1.0
HELIUM.....	0.08	0.05	0.05	0.05
HEATING VALUE.....	1045	1024	1024	1067
SPECIFIC GRAVITY.....	0.602	0.585	0.585	0.610
		INDEX SAMPLE 11566 7432	INDEX SAMPLE 11567 9822	INDEX SAMPLE 11568 12218
STATE.....	UTAH		UTAH	UTAH
COUNTY.....	UINTAH		UINTAH	UINTAH
FIELD.....	GUSHER		HORSESHOE BEND	HORSESHOE BEND
WELL NAME.....	44-35		HORSESHOE BEND FED. NO. 3	HORSESHOE BEND FED. NO. 2
LOCATION.....	SEC. 35, T5S, R19E		SEC. 27, T6S, R21E	SEC. 2, T6S, R21E
OWNER.....	GUSHER FIELD CO.		CALIFORNIA OIL CO.	KENNETH D. LUFF
COMPLETED.....	05/20/60		01/25/65	11/-/69
SAMPLED.....	03/09/60		01/25/65	03/10/70
FORMATION.....	EOCE-GREEN RIVER U		EOCE-UINTA	EOCE-UINTA
GEOLOGIC PROVINCE CODE.....	575		575	575
DEPTH, FEET.....	6010		3513	3200
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1200	860
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	500000
COMPONENT, MOLE PCT				
METHANE.....	74.7	98.1	98.1	98.3
ETHANE.....	0.5	0.6	0.6	0.5
PROpane.....	0.2	0.2	0.2	0.2
N-BUTANE.....	0.1	0.1	0.1	0.1
ISOBUTANE.....	0.1	0.1	0.1	0.1
N-PENTANE.....	0.0	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	TRACE	0.0	0.0	0.0
HEXANES PLUS.....	19.1	0.7	0.7	0.8
NITROGEN.....	4.6	0.0	0.0	0.1
OXYGEN.....	0.2	TRACE	TRACE	TRACE
ARGON.....	0.0	0.0	0.0	0.1
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.1	0.1	0.0
CARBON DIOXIDE.....	0.3	0.01	0.01	0.01
HELIUM.....	0.01	0.01	0.01	0.01
HEATING VALUE.....	1717	1077	1077	1008
SPECIFIC GRAVITY.....	0.669	0.566	0.566	0.561

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11569 SAMPLE 12219			INDEX 11570 SAMPLE 16907			INDEX 11571 SAMPLE 7911		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	UINTAH		UINTAH			UINTAH		
FIELD.....	HORSESHOE BEND		HORSESHOE BEND			ISLAND		
WELL NAME.....	SHORT FED. NO. 1		HORSESHOE BEND FED. NO. 26-1			UNIT NO. 1		
LOCATION.....	SEC. 4, T7S, R21E		SEC. 26, T6S, R21E			SEC. 7, T10S, R20E		
OWNER.....	KENNETH D. LUFF		TETON ENERGY CO., INC.			MOUNTAIN FUEL SUPPLY CO.		
COMPLETED.....	12/1/70		05/24/82			01/05/61		
SAMPLED.....	03/10/70		04/15/83			03/13/61		
FORMATION.....	EOCE-UINTA		EOCE-UINTA			EOCE-WASATCH		
GEOLOGIC PROVINCE CODE.....	575		575			575		
DEPTH, FEET.....	3200		3690			5487		
WELLHEAD PRESSURE, PSIG.....	720		1209			2125		
OPEN FLOW, MCFD.....	80000		1969			23000		
COMPONENT, MOLE PCT.....								
METHANE.....	96.3		98.3			95.4		
ETHANE.....	0.6		0.5			3.5		
PROPANE.....	0.2		0.1			0.6		
N-BUTANE.....	0.1		0.0			0.0		
ISOBUTANE.....	TRACE		0.0			0.2		
N-PENTANE.....	0.1		0.0			TRACE		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.1		0.0			TRACE		
NITROGEN.....	2.1		0.7			0.1		
OXYGEN.....	0.2		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.1		
HELIUM.....	0.02		0.02			0.01		
HEATING VALUE.....	1005		1008			1051		
SPECIFIC GRAVITY.....	0.573		0.559			0.582		

INDEX 11572 SAMPLE 8771			INDEX 11573 SAMPLE 8772			INDEX 11574 SAMPLE 15836		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	UINTAH		UINTAH			UINTAH		
FIELD.....	ISLAND		ISLAND			ISLAND		
WELL NAME.....	UNIT NO. 2		UNIT NO. 5			UNIT NO. 9		
LOCATION.....	SEC. 14, T10S, R18E		SEC. 13, T10S, R18E			SEC. 11, T10S, R19E		
OWNER.....	MOUNTAIN FUEL SUPPLY CO.		MOUNTAIN FUEL SUPPLY CO.			WEXPRO CO.		
COMPLETED.....	05/13/61		12/5/61			08/06/79		
SAMPLED.....	05/13/61		10/13/62			11/15/79		
FORMATION.....	EOCE-WASATCH		EOCE-WASATCH			EOCE-WASATCH		
GEOLOGIC PROVINCE CODE.....	575		575			575		
DEPTH, FEET.....	7078		5602			6088		
WELLHEAD PRESSURE, PSIG.....	825		925			2300		
OPEN FLOW, MCFD.....	1600		NOT GIVEN			5247		
COMPONENT, MOLE PCT.....								
METHANE.....	91.6		89.8			89.0		
ETHANE.....	4.7		5.2			7.1		
PROPANE.....	1.4		1.6			2.0		
N-BUTANE.....	0.4		0.4			0.4		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	0.7		1.5			0.1		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.4		
HELIUM.....	0.02		0.04			TRACE		
HEATING VALUE.....	1098		1102			1134		
SPECIFIC GRAVITY.....	0.618		0.630			0.639		

INDEX 11575 SAMPLE 17283			INDEX 11576 SAMPLE 17122			INDEX 11577 SAMPLE 13405		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	UINTAH		UINTAH			UINTAH		
FIELD.....	ISLAND		ISLAND			NATURAL BUTTES		
WELL NAME.....	ISLAND UNIT NO. 15		MAIN CANYON NO. 16-4-15-23			NATURAL BUTTE NO. 13		
LOCATION.....	SEC. 4, T10S, R20E		SEC. 3, T15S, R23E			SEC. 30, T9S, R22E		
OWNER.....	WEXPRO CO.		COSEKA RESOURCES (USA), LTD.			GAS PRODUCING ENTERPRISES		
COMPLETED.....	08/24/83		10/27/83			07/27/72		
SAMPLED.....	05/03/84		10/27/83			09/28/72		
FORMATION.....	EOCE-WASATCH		CRET-DAKOTA			CRET-MESAVERDE & EOCE-WASATCH		
GEOLOGIC PROVINCE CODE.....	575		575			575		
DEPTH, FEET.....	6661		8489			5000		
WELLHEAD PRESSURE, PSIG.....	1050		1321			2200		
OPEN FLOW, MCFD.....	3247		NOT GIVEN			1000		
COMPONENT, MOLE PCT.....								
METHANE.....	93.3		86.1			81.8		
ETHANE.....	4.3		6.6			3.3		
PROPANE.....	1.2		1.7			1.0		
N-BUTANE.....	0.3		0.4			0.2		
ISOBUTANE.....	0.2		0.3			0.3		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.2		2.3			10.3		
OXYGEN.....	TRACE		0.1			2.6		
ARGON.....	TRACE		0.0			0.1		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.1		
HELIUM.....	TRACE		0.06			0.01		
HEATING VALUE.....	1084		1072			940		
SPECIFIC GRAVITY.....	0.603		0.648			0.651		

INDEX 11578 SAMPLE 13406			INDEX 11579 SAMPLE 15315			INDEX 11580 SAMPLE 16069		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	UINTAH		UINTAH			UINTAH		
FIELD.....	NATURAL BUTTES		NATURAL BUTTES			NATURAL BUTTES		
WELL NAME.....	NATURAL BUTTE NO. 9		FLAT MESA NO. 1			NBU-365		
LOCATION.....	SEC. 19, T9S, R22E		SEC. 7, T10S, R23E			SEC. 35, T9S, R21E		
OWNER.....	GAS PRODUCING ENTERPRISES		ENSUREX EXPLORATION, INC.			INTEGRITY OIL & GAS CO.		
COMPLETED.....	05/22/72		05/31/78			07/16/80		
SAMPLED.....	09/28/72		07/12/78			09/18/80		
FORMATION.....	CRET-MESAVERDE & EOCE-WASATCH		CRET-MESAVERDE			EOCE-WASATCH		
GEOLOGIC PROVINCE CODE.....	575		575			575		
DEPTH, FEET.....	5000		6954			5538		
WELLHEAD PRESSURE, PSIG.....	2000		2150			2300		
OPEN FLOW, MCFD.....	750		2200			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	80.0		93.5			92.5		
ETHANE.....	4.5		3.6			4.3		
PROPANE.....	0.9		0.1			0.2		
N-BUTANE.....	0.4		0.3			0.3		
ISOBUTANE.....	0.4		0.2			0.2		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	2.2		0.3			0.4		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.3		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	981		1084			1090		
SPECIFIC GRAVITY.....	0.669		0.605			0.608		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11581 SAMPLE 16402				INDEX 11582 SAMPLE 16610				INDEX 11583 SAMPLE 17928			
STATE.....	UTAH			UTAH				UTAH			
COUNTY.....	UINTAH			UINTAH				UINTAH			
FIELD.....	NATURAL BUTTES			NATURAL BUTTES				NATURAL BUTTES			
WELL NAME.....	CHAPITA WELLS 47-30			CIG NO. 940-7-10-21J				RIVER BEND UNIT NO. 9-13E			
LOCATION.....	SEC. 30, T9S, R23E			SEC. 7, T10S, R21E				SEC. 13, T10S, R19E			
OWNER.....	BELCO DEVELOPMENT CORP.			CIG EXPLORATION, INC.				CNG PRODUCING CO.			
COMPLETED.....	12/30/81			08/05/82				09/11/85			
SAMPLED.....	12/30/81			08/05/82				12/11/85			
FORMATION.....	EOCE-WASATCH			EOCE-WASATCH				EOCE-CHAPITA WELLS			
GEOLOGIC PROVINCE CODE.....	575			575				575			
DEPTH, FEET.....	7442			5034				5432			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2019				1900			
OPEN FLOW, MCFD.....	2400			4500				2391			
COMPONENT, MOLE PCT											
METHANE.....	93.4			94.6				89.9			
ETHANE.....	3.6			3.2				4.0			
PROPANE.....	1.2			0.8				1.2			
N-BUTANE.....	0.3			0.2				0.4			
ISOBUTANE.....	0.3			0.2				0.3			
N-PENTANE.....	0.1			0.1				0.4			
ISOPENTANE.....	0.1			0.1				0.2			
CYCLOPENTANE.....	0.1			0.1				0.5			
HEXANES PLUS.....	0.2			0.2				1.1			
NITROGEN.....	0.6			0.2				1.7			
OXYGEN.....	0.0			TRACE				0.1			
ARGON.....	0.0			TRACE				0.0			
HYDROGEN.....	TRACE			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.0			0.2				0.3			
HELIUM.....	0.02			TRACE				TRACE			
HEATING VALUE.....	1085			1075				1138			
SPECIFIC GRAVITY.....	0.606			0.597				0.655			
INDEX 11584 SAMPLE 7689				INDEX 11585 SAMPLE 8338				INDEX 11586 SAMPLE 15593			
STATE.....	UTAH			UTAH				UTAH			
COUNTY.....	UINTAH			UINTAH				UINTAH			
FIELD.....	NOT GIVEN			NOT GIVEN				OURAY			
WELL NAME.....	UINTAH UNIT NO. 2			CHAPITA WELLS UNIT NO. 25				CONOCO MOUNTAIN LION NO. 2			
LOCATION.....	SEC. 39, T10S, R20E			SEC. 1, T9S, R22E				SEC. 34, T8S, R21E			
OWNER.....	DEKALB AGRICULTURAL ASSN.			BELCO PETROLEUM CORP.				CONTINENTAL OIL CO.			
COMPLETED.....	05/17/60			--/--/00				12/29/78			
SAMPLED.....	05/19/60			--/--/00				03/27/79			
FORMATION.....	EOCE-WASATCH			EOCE-GREEN RIVER				EOCE-WASATCH			
GEOLOGIC PROVINCE CODE.....	575			575				575			
DEPTH, FEET.....	5038			3022				5954			
WELLHEAD PRESSURE, PSIG.....	2110			NOT GIVEN				2100			
OPEN FLOW, MCFD.....	2500			NOT GIVEN				1350			
COMPONENT, MOLE PCT											
METHANE.....	94.8			97.8				92.9			
ETHANE.....	3.2			0.3				4.0			
PROPANE.....	0.7			0.1				1.3			
N-BUTANE.....	0.2			0.1				0.3			
ISOBUTANE.....	0.3			0.1				0.3			
N-PENTANE.....	TRACE			0.1				0.1			
ISOPENTANE.....	TRACE			TRACE				0.3			
CYCLOPENTANE.....	0.1			0.2				0.4			
HEXANES PLUS.....	0.2			0.3				0.2			
NITROGEN.....	0.1			0.5				0.3			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	TRACE			0.0				0.0			
HYDROGEN.....	TRACE			0.1				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.0			0.3				0.3			
HELIUM.....	TRACE			0.05				0.01			
HEATING VALUE.....	1067			1033				1098			
SPECIFIC GRAVITY.....	0.593			0.577				0.615			
INDEX 11587 SAMPLE 5033				INDEX 11588 SAMPLE 6107				INDEX 11589 SAMPLE 7363			
STATE.....	UTAH			UTAH				UTAH			
COUNTY.....	UINTAH			UINTAH				UINTAH			
FIELD.....	RED WASH			RED WASH				RED WASH			
WELL NAME.....	RED WASH UNIT NO. 1			RED WASH NO. 42				NO. 32-21B			
LOCATION.....	SEC. 26, T7S, R23S			SEC. 29, T7S, R24E				SEC. 21, T7S, R23E			
OWNER.....	CALIFORNIA CO.			STANDARD OIL CO. OF CALIF.				STANDARD OIL CO. OF CALIF.			
COMPLETED.....	02/02/51			01/25/56				09/05/59			
SAMPLED.....	04/03/51			07/16/56				01/22/60			
FORMATION.....	EOCE-GREEN RIVER BASAL			EOCE-GREEN RIVER BASAL				EOCE-GREEN RIVER			
GEOLOGIC PROVINCE CODE.....	575			575				575			
DEPTH, FEET.....	5183			4248				5084			
WELLHEAD PRESSURE, PSIG.....	1912			1482				200			
OPEN FLOW, MCFD.....	435			1500				114			
COMPONENT, MOLE PCT											
METHANE.....	92.0			97.6				94.6			
ETHANE.....	2.1			0.3				0.4			
PROPANE.....	2.1			0.1				0.3			
N-BUTANE.....	0.8			0.1				0.2			
ISOBUTANE.....	0.4			0.0				0.2			
N-PENTANE.....	0.2			TRACE				0.1			
ISOPENTANE.....	0.2			0.0				0.1			
CYCLOPENTANE.....	TRACE			0.1				TRACE			
HEXANES PLUS.....	0.2			0.1				0.2			
NITROGEN.....	0.7			0.0				2.0			
OXYGEN.....	0.1			0.0				0.3			
ARGON.....	TRACE			0.0				TRACE			
HYDROGEN.....	0.0			0.0				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	1.3			0.0				1.4			
HELIUM.....	0.01			TRACE				TRACE			
HEATING VALUE.....	1096			1010				1006			
SPECIFIC GRAVITY.....	0.636			0.578				0.597			
INDEX 11590 SAMPLE 7710				INDEX 11591 SAMPLE 8308				INDEX 11592 SAMPLE 10572			
STATE.....	UTAH			UTAH				UTAH			
COUNTY.....	UINTAH			UINTAH				UINTAH			
FIELD.....	RED WASH			RED WASH				RED WASH			
WELL NAME.....	RED WASH UNIT NO. 32-27C			RED WASH PRINCE NO. 1				UNIT NO. 208, 32-22C			
LOCATION.....	SEC. 27, T7S, R24E			SEC. 10, T7S, R24E				SEC. 22, T7S, R24E			
OWNER.....	STANDARD OIL CO. OF CALIF.			TEXACO INC.				CHEVRON OIL CO.			
COMPLETED.....	06/23/60			07/02/60				08/31/65			
SAMPLED.....	10/04/60			11/13/61				05/18/66			
FORMATION.....	EOCE-GREEN RIVER			EOCE-GREEN RIVER				EOCE-GREEN RIVER			
GEOLOGIC PROVINCE CODE.....	575			575				575			
DEPTH, FEET.....	4887			5322				5010			
WELLHEAD PRESSURE, PSIG.....	1500			1875				1485			
OPEN FLOW, MCFD.....	1686			8490				10500			
COMPONENT, MOLE PCT											
METHANE.....	97.6			99.3				98.1			
ETHANE.....	0.9			0.1				0.8			
PROPANE.....	0.2			0.1				0.0			
N-BUTANE.....	0.1			TRACE				0.0			
ISOBUTANE.....	0.1			0.0				0.0			
N-PENTANE.....	TRACE			0.0				0.0			
ISOPENTANE.....	TRACE			0.0				0.0			
CYCLOPENTANE.....	0.1			0.0				0.0			
HEXANES PLUS.....	0.1			0.0				0.0			
NITROGEN.....	0.5			0.5				0.3			
OXYGEN.....	TRACE			0.0				0.0			
ARGON.....	0.0			0.0				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.1				0.8			
HELIUM.....	TRACE			0.02				TRACE			
HEATING VALUE.....	1026			1010				1008			
SPECIFIC GRAVITY.....	0.571			0.560				0.567			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11593 SAMPLE 10878			INDEX 11594 SAMPLE 8680			INDEX 11595 SAMPLE 17046		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	UINTAH		UINTAH			UINTAH		
FIELD.....	RED WASH		ROCK HOUSE			ROOSEVELT		
WELL NAME.....	UNIT NO. 212		RAINBOW UNIT NO. 2A			BOW VALLEY-UTE NO. 2-22A1E		
LOCATION.....	SEC. 8, T8S, R24E		SEC. 18, T11S, R29E			SEC. 22, T15, R1E		
OWNER.....	CHEVRON OIL CO.		SHAMROCK OIL & GAS CORP.			BOW VALLEY EXPLORATION INC.		
COMPLETED.....	06/01/66		7/77/00			01/16/83		
SAMPLED.....	02/03/67		09/25/62			08/15/83		
FORMATION.....	CRET-MESAVERDE		EOCE-WASATCH			EOCE-WASATCH		
GEOLOGIC PROVINCE CODE.....	575		575			575		
DEPTH, FEET.....	9159		2982			11941		
WELLHEAD PRESSURE, PSIG.....	4320		4228			375		
OPEN FLOW, MCFD.....	1250		5000			646		
COMPONENT, MOLE PCT								
METHANE.....	90.5		94.6			73.0		
ETHANE.....	4.5		3.2			14.1		
PROPANE.....	2.0		0.5			5.4		
N-BUTANE.....	0.4		0.1			1.7		
ISOBUTANE.....	0.4		0.2			0.9		
N-PENTANE.....	0.2		TRACE			0.4		
ISOPENTANE.....	0.1		0.2			1.7		
CYCLOPENTANE.....	0.1		TRACE			0.3		
HEXANES PLUS.....	0.2		TRACE			0.7		
NITROGEN.....	0.3		1.0			0.8		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.1			0.3		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.0			0.8		
HELIUM.....	TRACE		0.03			TRACE		
HEATING VALUE.....	1103		1048			1358		
SPECIFIC GRAVITY.....	0.638		0.588			0.791		
INDEX 11596 SAMPLE 14272			INDEX 11597 SAMPLE 6808			INDEX 11598 SAMPLE 17789		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	UINTAH		UINTAH			UNDESIGNATED		
FIELD.....	SEEP RIDGE		SOUTHCAN CANYON			LIZZARD CREEK FED. NO. 1-10		
WELL NAME.....	TEXACO-SKYLINE GOVT. AF NO.		SOUTHCAN CANYON UNIT NO. 4			SEC. 10, T11S, R22E		
LOCATION.....	SEC. 27, T13S, R21E		SEC. 29, T10S, R24E			E P OPERATING CO.		
OWNER.....	TEXACO INC.		EL PASO NATURAL GAS CO.					
COMPLETED.....	7/77/00		08/25/58			11/10/84		
SAMPLED.....	02/15/75		09/10/58			07/30/85		
FORMATION.....	CRET-DAKOTA		CRET-MESAVERDE			CRET-MESAVERDE		
GEOLOGIC PROVINCE CODE.....	575		575			575		
DEPTH, FEET.....	9670		5944			7556		
WELLHEAD PRESSURE, PSIG.....	3000		2850			2300		
OPEN FLOW, MCFD.....	3000		4			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	95.4		85.6			84.2		
ETHANE.....	3.3		5.6			6.3		
PROPANE.....	0.4		4.2			3.9		
N-BUTANE.....	TRACE		1.3			1.2		
ISOBUTANE.....	0.1		0.7			0.8		
N-PENTANE.....	0.1		0.1			0.3		
ISOPENTANE.....	TRACE		0.4			0.7		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.2			0.4		
NITROGEN.....	0.3		0.0			0.4		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.1		1.7			TRACE		
HELIUM.....	0.02		0.01			1201		
HEATING VALUE.....	1040		1179			1201		
SPECIFIC GRAVITY.....	0.592		0.687			0.704		
INDEX 11599 SAMPLE 6469			INDEX 11600 SAMPLE 6484			INDEX 11601 SAMPLE 7339		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	UINTAH		UINTAH			UINTAH		
FIELD.....	UTE TRAIL		UTE TRAIL			UTE TRAIL		
WELL NAME.....	11X-26		8X-26			UNIT NO. 2		
LOCATION.....	SEC. 21, T10S, R22E		SEC. 2, T10S, R21E			SEC. 20, T9S, R20E		
OWNER.....	HAVENSTRITE OIL CO.		HAVENSTRITE OIL CO.			DEKALB-SUN		
COMPLETED.....	01/09/58		10/08/57			10/07/57		
SAMPLED.....	01/09/58		01/23/58			01/12/60		
FORMATION.....	EOCE-WASATCH		EOCE-WASATCH			EOCE-WASATCH		
GEOLOGIC PROVINCE CODE.....	575		575			575		
DEPTH, FEET.....	5052		5366			6075		
WELLHEAD PRESSURE, PSIG.....	2200		2100			2725		
OPEN FLOW, MCFD.....	5130		2196			301		
COMPONENT, MOLE PCT								
METHANE.....	94.4		95.2			89.4		
ETHANE.....	3.6		3.3			6.5		
PROPANE.....	1.0		0.6			2.0		
N-BUTANE.....	0.3		0.2			0.4		
ISOBUTANE.....	0.2		0.2			0.4		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	0.1		TRACE			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	0.1		0.2			TRACE		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	TRACE		TRACE			0.2		
HYDROGEN SULFIDE.....	0.1		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.1			0.3		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	1073		1058			1133		
SPECIFIC GRAVITY.....	0.595		0.586			0.635		
INDEX 11602 SAMPLE 6480			INDEX 11603 SAMPLE 6535			INDEX 11604 SAMPLE 7305		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	UINTAH		UINTAH			UINTAH		
FIELD.....	WALKER HOLLOW		WALKER HOLLOW			WALKER HOLLOW		
WELL NAME.....	WALKER HOLLOW NO. 3		WALKER HOLLOW NO. 6			W. H. UNIT NO. 9		
LOCATION.....	SEC. 8, T13S, R23E		SEC. 8, T13S, R24E			SEC. 31, T13S, R24E		
OWNER.....	BRACK DRILLING CO., INC.		CARTER OIL CO.			CARTER OIL CO.		
COMPLETED.....	12/22/57		03/04/58			09/08/59		
SAMPLED.....	01/25/58		03/24/58			12/08/59		
FORMATION.....	EOCE-UINTA		EOCE-GREEN RIVER			EOCE-GREEN RIVER D		
GEOLOGIC PROVINCE CODE.....	575		575			575		
DEPTH, FEET.....	2628		5594			5428		
WELLHEAD PRESSURE, PSIG.....	1010		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NCT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	97.9		99.1			88.9		
ETHANE.....	0.7		0.1			8.1		
PROPANE.....	0.1		0.1			1.7		
N-BUTANE.....	0.1		0.1			0.4		
ISOBUTANE.....	0.1		TRACE			0.2		
N-PENTANE.....	TRACE		TRACE			TRACE		
ISOPENTANE.....	TRACE		TRACE			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	1.0		0.2			TRACE		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.2		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	1019		1022			1127		
SPECIFIC GRAVITY.....	0.568		0.562			0.630		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11605 SAMPLE 7167			INDEX 11606 SAMPLE 7744			INDEX 11607 SAMPLE 9851		
STATE.....	UTAH		UTAH			UTAH		
COUNTY.....	UINTAH		UINTAH			UINTAH		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	UTR TRAIL UNIT NO. 1		ROCK HOUSE NO. 1			GOVT. 1-1		
LOCATION.....	SEC. 8, T10S, R22E		SEC. 10			SEC. 1, T12S, R21E		
OWNER.....	DEKALB AGRICULTURAL ASSN.		SHAMROCK OIL & GAS CORP.			SHAMROCK OIL & GAS CORP.		
COMPLETED.....	09/21/59		10/23/60			07/12/62		
SAMPLED.....	08/12/59		10/23/60			04/20/65		
FORMATION.....	EOCE-WASATCH		CRET-MESAVERDE & EOCE-WASATCH			EOCE-WASATCH		
GEOLOGIC PROVINCE CODE.....	575		575			575		
DEPTH, FEET.....	5241		4144			5680		
WELLHEAD PRESSURE, PSIG.....	2125		1990			1950		
OPEN FLOW, MCFD.....	2500		900			1260		
COMPONENT, MOLE PCT								
METHANE.....	93.5		92.2			94.9		
ETHANE.....	3.9		4.5			2.2		
PROPANE.....	1.0		1.6			0.5		
N-BUTANE.....	0.3		0.4			0.2		
ISOBUTANE.....	TRACE		0.5			TRACE		
N-PENTANE.....	0.5		0.1			0.2		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	0.3		0.2			1.3		
OXYGEN.....	0.0		0.0			0.3		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.01		TRACE			0.02		
HEATING VALUE.....	1093		1105			1038		
SPECIFIC GRAVITY.....	0.609		0.616			0.589		

INDEX 11608 SAMPLE 9914			INDEX 11609 SAMPLE 2587			INDEX 11610 SAMPLE 10044		
STATE.....	UTAH		UTAH			VIRGINIA		
COUNTY.....	UINTAH		WASHINGTON			BUCHANAN		
FIELD.....	WILDCAT		VIRGIN			BIG SANDY		
WELL NAME.....	EVACUATION CREEK NO. 23-2-1		NO. 1			8672		
LOCATION.....	SEC. 2, T12S, R25E		SEC. 31, T41S, R11W			CARTER COORDINATE 24-L-89		
OWNER.....	PACIFIC NATURAL GAS EXPL. CO		BARB & CO.			UNITED FUEL GAS CO.		
COMPLETED.....	08/06/64		--/--/00			12/31/64		
SAMPLED.....	05/30/65		01/23/33			08/03/65		
FORMATION.....	UT-CEDAR MOUNTAIN		NOT GIVEN			MISS-RAVENCLIFF		
GEOLOGIC PROVINCE CODE.....	575		625			160		
DEPTH, FEET.....	8059		452			1611		
WELLHEAD PRESSURE, PSIG.....	2363		NOT GIVEN			360		
OPEN FLOW, MCFD.....	723		NOT GIVEN			328		
COMPONENT, MOLE PCT								
METHANE.....	90.2		0.0			88.8		
ETHANE.....	5.3		0.0			3.8		
PROPANE.....	0.7		---			1.7		
N-BUTANE.....	0.3		---			0.6		
ISOBUTANE.....	0.3		---			0.4		
N-PENTANE.....	0.1		---			0.1		
ISOPENTANE.....	0.2		---			0.2		
CYCLOPENTANE.....	0.1		---			TRACE		
HEXANES PLUS.....	0.2		---			0.2		
NITROGEN.....	0.6		11.3			3.8		
OXYGEN.....	0.0		1.7			0.0		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	1.0		86.8			TRACE		
HELIUM.....	0.04		0.17			0.37		
HEATING VALUE.....	1100		0			1069		
SPECIFIC GRAVITY.....	0.632		1.455			0.630		

INDEX 11611 SAMPLE 12552			INDEX 11612 SAMPLE 3699			INDEX 11613 SAMPLE 9995		
STATE.....	VIRGINIA		VIRGINIA			VIRGINIA		
COUNTY.....	BUCHANAN		BUCHANAN			DICKENSON		
FIELD.....	HAYST		NOT GIVEN			NORA		
WELL NAME.....	LYNN CAMP COAL CORP. NO.9590		NOT GIVEN			NO. 137		
LOCATION.....	ROCK LICK DIST.		NOT GIVEN			ERVINTON DIST.		
OWNER.....	UNITED FUEL GAS CO.		J. R. MADE			CLINCHFIELD COAL CO.		
COMPLETED.....	07/02/70		08/27/43			08/14/52		
SAMPLED.....	11/21/70		10/26/43			17/09/65		
FORMATION.....	MISS-BEREA		NOT GIVEN			MISS-RAVENCLIFF		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3694		NOT GIVEN			2414		
WELLHEAD PRESSURE, PSIG.....	840		NOT GIVEN			690		
OPEN FLOW, MCFD.....	2144		NOT GIVEN			60		
COMPONENT, MOLE PCT								
METHANE.....	97.5		95.8			92.6		
ETHANE.....	1.7		0.0			3.5		
PROPANE.....	0.2		---			0.5		
N-BUTANE.....	0.0		---			0.3		
ISOBUTANE.....	0.0		---			0.2		
N-PENTANE.....	0.0		---			0.1		
ISOPENTANE.....	0.0		---			TRACE		
CYCLOPENTANE.....	0.0		---			TRACE		
HEXANES PLUS.....	0.0		---			0.2		
NITROGEN.....	0.4		3.9			2.3		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	0.1		---			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	TRACE		0.2			0.0		
HELIUM.....	0.05		0.00			0.24		
HEATING VALUE.....	1024		970			1045		
SPECIFIC GRAVITY.....	0.565		0.573			0.599		

INDEX 11614 SAMPLE 9996			INDEX 11615 SAMPLE 10111			INDEX 11616 SAMPLE 10112		
STATE.....	VIRGINIA		VIRGINIA			VIRGINIA		
COUNTY.....	DICKENSON		DICKENSON			DICKENSON		
FIELD.....	NORA		NOT GIVEN			NORA		
WELL NAME.....	NO. 141		CLINCHFIELD COAL CO. NO. 101			E. A. SMITH NO. 208		
LOCATION.....	ERVINTON DIST.		NOT GIVEN			CLINCHFIELD COAL CO.		
OWNER.....	CLINCHFIELD COAL CO.		CLINCHFIELD COAL CO.			NOT GIVEN		
COMPLETED.....	04/30/53		03/28/49			09/04/58		
SAMPLED.....	07/09/65		09/07/65			09/07/65		
FORMATION.....	MISS-MAXTON		MISS-BIG LIME			DEVO-		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3084		3365			3990		
WELLHEAD PRESSURE, PSIG.....	920		NOT GIVEN			820		
OPEN FLOW, MCFD.....	1000		NOT GIVEN			103		
COMPONENT, MOLE PCT								
METHANE.....	93.1		95.9			95.8		
ETHANE.....	4.1		2.6			3.2		
PROPANE.....	0.9		0.5			0.2		
N-BUTANE.....	0.3		0.1			0.0		
ISOBUTANE.....	0.1		0.1			0.0		
N-PENTANE.....	0.1		0.1			0.0		
ISOPENTANE.....	0.1		TRACE			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.1		0.1			0.0		
NITROGEN.....	1.0		0.5			0.4		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			TRACE		
HELIUM.....	0.11		0.06			0.04		
HEATING VALUE.....	1067		1047			1041		
SPECIFIC GRAVITY.....	0.601		0.581			0.576		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11617 9997	INDEX SAMPLE	11618 9998	INDEX SAMPLE	11619 10000
STATE.....	VIRGINIA			VIRGINIA		VIRGINIA	
COUNTY.....	DICKENSON			DICKENSON		DICKENSON	
FIELD.....	OPEN FORK			OPEN FORK		OPEN FORK	
WELL NAME.....	NO. 151			NO. 151		NO. 151	
LOCATION.....	ERVINTON DIST.			ERVINTON DIST.		ERVINTON DIST.	
OWNER.....	CLINCHFIELD COAL CO.			CLINCHFIELD COAL CO.		CLINCHFIELD COAL CO.	
COMPLETED.....	07/27/56			06/27/56		09/07/54	
SAMPLED.....	07/09/65			07/09/65		09/10/65	
FORMATION.....	MISS-BEREA			PENN-SALT SAND		MISS-MAXTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	4917			1125		3056	
WELLHEAD PRESSURE, PSIG.....	730			420		970	
OPEN FLOW, MCFD.....	1600			200		696	
COMPONENT, MOLE PCT							
METHANE.....	97.1			95.2		93.4	
ETHANE.....	2.0			3.7		4.1	
PROPANE.....	0.4			0.3		0.9	
N-BUTANE.....	0.0			0.0		0.2	
ISOBUTANE.....	0.0			0.0		0.2	
N-PENTANE.....	0.0			0.0		TRACE	
ISOPENTANE.....	0.0			0.0		0.1	
CYCLOPENTANE.....	0.0			0.0		TRACE	
HEXANES PLUS.....	0.0			0.0		0.1	
NITROGEN.....	0.4			0.7		0.7	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		0.1	
HELIUM.....	0.05			0.02		0.20	
HEATING VALUE.....	1030			1038		1066	
SPECIFIC GRAVITY.....	0.569			0.580		0.597	
		INDEX SAMPLE	11620 10001	INDEX SAMPLE	11621 933	INDEX SAMPLE	11622 2890
STATE.....	VIRGINIA			VIRGINIA		VIRGINIA	
COUNTY.....	DICKENSON			DICKENSON		ROCKINGHAM	
FIELD.....	OPEN FORK			NOT GIVEN		NOT GIVEN	
WELL NAME.....	NO. 178			PHILLIPS		C. M. SOUDER NO. 1	
LOCATION.....	ERVINTON DIST.			CLINCHFIELD COAL CO.		CRAB RUN ANTICLINE	
OWNER.....	CLINCHFIELD COAL CO.			NOT GIVEN		NOT GIVEN	
COMPLETED.....	06/27/56			---/---/00		---/---/00	
SAMPLED.....	07/09/65			---/---/00		07/13/41	
FORMATION.....	MISS-BEREA			NOT GIVEN		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			120		160	
DEPTH, FEET.....	5750			90		3000	
WELLHEAD PRESSURE, PSIG.....	740			70		NOT GIVEN	
OPEN FLOW, MCFD.....	603			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	97.2			66.9		97.1	
ETHANE.....	1.5			0.4		1.3	
PROPANE.....	0.2			---		---	
N-BUTANE.....	0.0			---		---	
ISOBUTANE.....	0.0			---		---	
N-PENTANE.....	0.0			---		---	
ISOPENTANE.....	0.0			---		---	
CYCLOPENTANE.....	0.0			---		---	
HEXANES PLUS.....	0.0			---		---	
NITROGEN.....	1.0			30.9		1.0	
OXYGEN.....	0.0			0.2		0.2	
ARGON.....	0.0			---		---	
HYDROGEN.....	0.0			---		---	
HYDROGEN SULFIDE.....	0.0			---		---	
CARBON DIOXIDE.....	TRACE			1.4		0.3	
HELIUM.....	0.06			0.00		0.13	
HEATING VALUE.....	1017			685		1007	
SPECIFIC GRAVITY.....	0.567			0.698		0.569	
		INDEX SAMPLE	11623 9949	INDEX SAMPLE	11624 9950	INDEX SAMPLE	11625 17145
STATE.....	VIRGINIA			VIRGINIA		VIRGINIA	
COUNTY.....	ROCKINGHAM			ROCKINGHAM		SCOTT	
FIELD.....	NOT GIVEN			NOT GIVEN		SCOTT	
WELL NAME.....	NO. 178			6775		HAGAN EST. NO. 10007	
LOCATION.....	NOT GIVEN			NOT GIVEN		FORT BLACKMORE QUAD.	
OWNER.....	UNITED FUEL GAS CO.			UNITED FUEL GAS CO.		ANR PRODUCTION CO.	
COMPLETED.....	06/30/65			03/31/52		04/05/82	
SAMPLED.....	06/30/65			06/30/65		12/13/83	
FORMATION.....	DEVO-ORISKANY			DEVO-ORISKANY		DEVO-SHALE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2973			3563		4616	
WELLHEAD PRESSURE, PSIG.....	1225			1300		125	
OPEN FLOW, MCFD.....	1078			286		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	98.5			98.4		72.1	
ETHANE.....	0.3			0.2		4.0	
PROPANE.....	0.0			0.0		0.8	
N-BUTANE.....	0.0			0.0		0.2	
ISOBUTANE.....	0.0			0.0		TRACE	
N-PENTANE.....	0.0			0.0		0.1	
ISOPENTANE.....	0.0			0.0		TRACE	
CYCLOPENTANE.....	0.0			0.0		TRACE	
HEXANES PLUS.....	0.0			0.0		TRACE	
NITROGEN.....	1.1			1.2		22.4	
OXYGEN.....	0.0			0.0		0.1	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		TRACE	
HELIUM.....	0.10			0.11		0.06	
HEATING VALUE.....	1003			1003		834	
SPECIFIC GRAVITY.....	0.560			0.561		0.679	
		INDEX SAMPLE	11626 10197	INDEX SAMPLE	11627 9999	INDEX SAMPLE	11628 10002
STATE.....	VIRGINIA			VIRGINIA		VIRGINIA	
COUNTY.....	TAZEWELL			WISE		WISE	
FIELD.....	WAR			STONEGA		STONEGA	
WELL NAME.....	NO. 9342			NO. 160		NO. 185	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	UNITED FUEL GAS CO.			CLINCHFIELD COAL CO.		CLINCHFIELD COAL CO.	
COMPLETED.....	12/28/64			08/28/54		06/05/56	
SAMPLED.....	10/04/65			07/19/65		07/19/65	
FORMATION.....	MISS-BEREA			DEVO		MISS-GREENBRIER	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	5549			4231		3435	
WELLHEAD PRESSURE, PSIG.....	925			700		1000	
OPEN FLOW, MCFD.....	12703			80		980	
COMPONENT, MOLE PCT							
METHANE.....	97.5			85.7		84.1	
ETHANE.....	1.4			8.4		8.5	
PROPANE.....	0.1			2.6		3.5	
N-BUTANE.....	0.0			0.7		0.8	
ISOBUTANE.....	0.0			0.1		0.4	
N-PENTANE.....	0.0			TRACE		0.1	
ISOPENTANE.....	0.0			0.7		0.2	
CYCLOPENTANE.....	0.0			TRACE		TRACE	
HEXANES PLUS.....	0.0			0.1		0.1	
NITROGEN.....	0.8			1.5		1.8	
OXYGEN.....	0.0			TRACE		0.2	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			TRACE		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.0		0.0	
HELIUM.....	0.16			0.10		0.15	
HEATING VALUE.....	1015			1154		1154	
SPECIFIC GRAVITY.....	0.566			0.655		0.665	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11629 2231	INDEX SAMPLE	11630 2233	INDEX SAMPLE	11631 2533
STATE	WASHINGTON			WASHINGTON		WASHINGTON	
COUNTY	BENTON			BENTON		CLALLAM	
FIELD	BENTON COUNTY			BENTON COUNTY		NOT GIVEN	
WELL NAME	NO. 2			NO. 6		OLYMPIC NO. 1	
LOCATION	SEC. 29, T11N, R26E			SEC. 29, T11N, R26E		SEC. 9, T28N, R14W	
OWNER	WALLA WALLA OIL, GAS & PL. C			WALLA WALLA OIL, GAS & PL. C		MORDELO L. VINCENT	
COMPLETED	--/--/00			--/--/00		--/--/00	
SAMPLED	10/11/30			10/14/30		08/08/32	
FORMATION	W10C-NOT GIVEN			W10C-NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	605			605		710	
DEPTH, FEET	700			700		2980	
WELLHEAD PRESSURE, PSIG	2			2		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						NOT GIVEN	
METHANE	93.0			94.6		94.7	
ETHANE	0.0			0.0		4.6	
PROPANE	---			---		---	
N-BUTANE	---			---		---	
ISOBUTANE	---			---		---	
N-PENTANE	---			---		---	
ISOPENTANE	---			---		---	
CYCLOPENTANE	---			---		---	
HEXANES PLUS	---			---		---	
NITROGEN	5.9			4.8		0.1	
OXYGEN	0.7			0.3		0.6	
ARGON	---			---		---	
HYDROGEN	---			---		---	
HYDROGEN SULFIDE**	---			---		---	
CARBON DIOXIDE	0.3			0.0		0.0	
HELIUM	0.00			0.00		0.00	
HEATING VALUE	942			958		1042	
SPECIFIC GRAVITY	0.585			0.574		0.581	
		INDEX SAMPLE	11632 2534	INDEX SAMPLE	11633 2540	INDEX SAMPLE	11634 7052
STATE	WASHINGTON			WASHINGTON		WASHINGTON	
COUNTY	CLALLAM			GRAYS HARBOR		GRAYS HARBOR	
FIELD	NOT GIVEN			NOT GIVEN		OCEAN CITY	
WELL NAME	NOT GIVEN			WAGONER NO. 1		SAMPSON JOHNS NO. 1	
LOCATION	NOT GIVEN			SEC. 5, T15N, R7W		SEC. 15, T18N, R12W	
OWNER	MORDELO L. VINCENT			R. E. HENDERSON		SUNSHINE MINING CO.	
COMPLETED	--/--/00			07/04/32		01/30/39	
SAMPLED	08/08/32			08/25/32		04/28/39	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	710			710		710	
DEPTH, FEET	1935			1505		3600	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			150		2600	
OPEN FLOW, MCFD	NOT GIVEN			500		1480	
COMPONENT, MOLE PCT							
METHANE	78.5			96.6		92.3	
ETHANE	11.5			0.6		3.8	
PROPANE	---			---		1.1	
N-BUTANE	---			---		0.5	
ISOBUTANE	---			---		0.3	
N-PENTANE	---			---		0.0	
ISOPENTANE	---			---		0.5	
CYCLOPENTANE	---			---		0.2	
HEXANES PLUS	---			---		0.4	
NITROGEN	9.0			2.2		0.6	
OXYGEN	0.9			0.3		TRACE	
ARGON	---			---		TRACE	
HYDROGEN	---			---		0.1	
HYDROGEN SULFIDE**	---			---		0.0	
CARBON DIOXIDE	0.1			0.3		0.1	
HELIUM	0.00			0.00		TRACE	
HEATING VALUE	1001			989		1108	
SPECIFIC GRAVITY	0.654			0.571		0.622	
		INDEX SAMPLE	11635 2617	INDEX SAMPLE	11636 2352	INDEX SAMPLE	11637 2679
STATE	WASHINGTON			WASHINGTON		WASHINGTON	
COUNTY	LEWIS			WHATCOM		WHATCOM	
FIELD	NOT GIVEN			ANDERSON CREEK		BELLINGHAM	
WELL NAME	NOT GIVEN			JENSON FARM NO. 1		WHATCOM NO. 1	
LOCATION	NEAR MORTON, WASH.			SEC. 19, T38N, R4E		SEC. 27, T39N, R3E	
OWNER	NOT GIVEN			P. H. GROTE & C. A. McDONALD		WHATCOM NATURAL GAS CO.	
COMPLETED	--/--/00			--/--/00		04/--/34	
SAMPLED	--/--/00			05/24/31		09/12/34	
FORMATION	NOT GIVEN			TERT-		NOT GIVEN	
GEOLOGIC PROVINCE CODE	710			700		700	
DEPTH, FEET	NOT GIVEN			130		172	
WELLHEAD PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		50	
OPEN FLOW, MCFD	NOT GIVEN			NOT GIVEN		7180	
COMPONENT, MOLE PCT							
METHANE	5.9			0.0		58.2	
ETHANE	2.2			0.0		1.6	
PROPANE	---			---		---	
N-BUTANE	---			---		---	
ISOBUTANE	---			---		---	
N-PENTANE	---			---		---	
ISOPENTANE	---			---		---	
CYCLOPENTANE	---			---		---	
HEXANES PLUS	---			---		---	
NITROGEN	88.8			99.6		39.6	
OXYGEN	2.0			0.1		0.4	
ARGON	---			---		---	
HYDROGEN	---			---		---	
HYDROGEN SULFIDE**	---			---		---	
CARBON DIOXIDE	1.2			0.3		0.1	
HELIUM	TRACE			0.00		0.06	
HEATING VALUE	99			0		618	
SPECIFIC GRAVITY	0.954			0.969		0.729	
		INDEX SAMPLE	11638 2680	INDEX SAMPLE	11639 1036	INDEX SAMPLE	11640 6251
STATE	WASHINGTON			WASHINGTON		WASHINGTON	
COUNTY	WHATCOM			WHATCOM		YAKIMA	
FIELD	BELLINGHAM			NOT GIVEN		NOT GIVEN	
WELL NAME	SIMCO NO. 4			NOT GIVEN		SIMCO NO. 1	
LOCATION	SEC. 28, T39N, R3E			SEC. 32, T40, R1E		SEC. 24, T11N, R123W	
OWNER	WHATCOM NATURAL GAS CO.			R. G. SELINE		B. J. ALLPHIN, R. J. BOWMAN	
COMPLETED	03/--/34			--/--/00		07/--/56	
SAMPLED	09/12/34			04/21/25		02/17/57	
FORMATION	NOT GIVEN			-GREEN SHALE		NOT GIVEN	
GEOLOGIC PROVINCE CODE	700			700		605	
DEPTH, FEET	166			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG	52			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	1000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	51.5			57.4		0.6	
ETHANE	1.6			0.0		0.1	
PROPANE	---			---		0.2	
N-BUTANE	---			---		TRACE	
ISOBUTANE	---			---		0.0	
N-PENTANE	---			---		0.1	
ISOPENTANE	---			---		0.0	
CYCLOPENTANE	---			---		TRACE	
HEXANES PLUS	---			---		0.1	
NITROGEN	44.7			41.8		0.0	
OXYGEN	1.9			0.3		TRACE	
ARGON	---			---		TRACE	
HYDROGEN	---			---		0.0	
HYDROGEN SULFIDE**	---			---		0.0	
CARBON DIOXIDE	0.2			0.5		98.8	
HELIUM	0.06			0.05		TRACE	
HEATING VALUE	550			581		22	
SPECIFIC GRAVITY	0.759			0.759		1.524	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11641 SAMPLE 10421		INDEX 11642 SAMPLE 9175		INDEX 11643 SAMPLE 10903	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	BARBOUR	COUNTY.....	BARBOUR	COUNTY.....	BARBOUR
FIELD.....	ARDEN	FIELD.....	BERRYBERG	FIELD.....	BRIDGEPORT
WELL NAME.....	C. H. BOWMAR	WELL NAME.....	BERNARD WOLFE NO. 584	WELL NAME.....	BERNICE REEDER NO. 10841
LOCATION.....	PHILIPPI DISTRICT	LOCATION.....	PLEASANTS DIST.	LOCATION.....	ELK DIST.
OWNER.....	CONSOLIDATED GAS SUPPLY CORP	OWNER.....	CUMBERLAND & ALLEGHENY GAS C	OWNER.....	CONSOLIDATED GAS SUPPLY CORP
COMPLETED.....	11/20/65	COMPLETED.....	11/20/63	COMPLETED.....	07/26/66
SAMPLED.....	02/24/66	SAMPLED.....	11/20/63	SAMPLED.....	03/14/67
FORMATION.....	DEVO-GORDON	FORMATION.....	DEVO-RILEY	FORMATION.....	DEVO-GANTZ
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2044	DEPTH, FEET.....	4160	DEPTH, FEET.....	1970
WELLHEAD PRESSURE, PSIG.....	1100	WELLHEAD PRESSURE, PSIG.....	1485	WELLHEAD PRESSURE, PSIG.....	700
OPEN FLOW, MCFD.....	3536	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	5497
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.7	METHANE.....	90.4	METHANE.....	90.4
ETHANE.....	4.1	ETHANE.....	5.9	ETHANE.....	4.5
PROPANE.....	1.1	PROPANE.....	1.4	PROPANE.....	1.4
N-BUTANE.....	0.3	N-BUTANE.....	0.5	N-BUTANE.....	0.5
ISOBUTANE.....	0.4	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	1.1	NITROGEN.....	1.0	NITROGEN.....	2.1
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.10	HELIUM.....	0.10	HELIUM.....	0.22
HEATING VALUE.....	1073	HEATING VALUE.....	1095	HEATING VALUE.....	1085
SPECIFIC GRAVITY.....	0.604	SPECIFIC GRAVITY.....	0.619	SPECIFIC GRAVITY.....	0.619

INDEX 11644 SAMPLE 9479		INDEX 11645 SAMPLE 9481		INDEX 11646 SAMPLE 9482	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	BARBOUR	COUNTY.....	BARBOUR	COUNTY.....	BARBOUR
FIELD.....	ELK CREEK	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
WELL NAME.....	N. H. PAUGH NO. 6967	WELL NAME.....	JAMES E. SAYERS NO. 10399	WELL NAME.....	VERA D. NUTTER NO. 10419
LOCATION.....	ELK DIST.	LOCATION.....	PLEASANT DIST.	LOCATION.....	ELK DIST.
OWNER.....	HOPE NATURAL GAS CO.	OWNER.....	HOPE NATURAL GAS CO.	OWNER.....	HOPE NATURAL GAS CO.
COMPLETED.....	11/20/66	COMPLETED.....	05/21/62	COMPLETED.....	11/23/62
SAMPLED.....	07/16/64	SAMPLED.....	07/15/64	SAMPLED.....	07/15/64
FORMATION.....	DEVO-BENSON	FORMATION.....	DEVO-BENSON	FORMATION.....	DEVO-RILEY
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	4197	DEPTH, FEET.....	4448	DEPTH, FEET.....	4118
WELLHEAD PRESSURE, PSIG.....	490	WELLHEAD PRESSURE, PSIG.....	1600	WELLHEAD PRESSURE, PSIG.....	1080
OPEN FLOW, MCFD.....	200	OPEN FLOW, MCFD.....	44	OPEN FLOW, MCFD.....	348
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.9	METHANE.....	90.8	METHANE.....	89.4
ETHANE.....	5.8	ETHANE.....	5.4	ETHANE.....	6.4
PROPANE.....	1.4	PROPANE.....	1.3	PROPANE.....	1.8
N-BUTANE.....	0.3	N-BUTANE.....	0.4	N-BUTANE.....	0.3
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	0.6	NITROGEN.....	1.2	NITROGEN.....	1.0
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.06	HELIUM.....	0.08	HELIUM.....	0.03
HEATING VALUE.....	1100	HEATING VALUE.....	1088	HEATING VALUE.....	1113
SPECIFIC GRAVITY.....	0.617	SPECIFIC GRAVITY.....	0.618	SPECIFIC GRAVITY.....	0.630

INDEX 11647 SAMPLE 10210		INDEX 11648 SAMPLE 14769		INDEX 11649 SAMPLE 2584	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	BARBOUR	COUNTY.....	BOONE	COUNTY.....	BOONE
FIELD.....	UNION DISTRICT	FIELD.....	BALD KNOB	FIELD.....	DEAL RIVER
WELL NAME.....	NO. 10705	WELL NAME.....	NO. 11920A	WELL NAME.....	FED. NO. 58
LOCATION.....	CARTER COORDINATE 3-EE-113	LOCATION.....	POND FORK	LOCATION.....	NOT GIVEN
OWNER.....	CONSOLIDATED GAS SUPPLY CORP	OWNER.....	CONSOLIDATED GAS SUPPLY CORP	OWNER.....	PURE OIL CO.
COMPLETED.....	06/02/65	COMPLETED.....	09/25/75	COMPLETED.....	11/05/32
SAMPLED.....	10/14/65	SAMPLED.....	09/17/76	SAMPLED.....	01/13/33
FORMATION.....	DEVO-BENSON & RILEY	FORMATION.....	MISS-WEIR & MAXIMUM	FORMATION.....	MISS-WEIR
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	3886	DEPTH, FEET.....	3344	DEPTH, FEET.....	2133
WELLHEAD PRESSURE, PSIG.....	1490	WELLHEAD PRESSURE, PSIG.....	615	WELLHEAD PRESSURE, PSIG.....	325
OPEN FLOW, MCFD.....	7272	OPEN FLOW, MCFD.....	5938	OPEN FLOW, MCFD.....	3500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.6	METHANE.....	91.6	METHANE.....	73.0
ETHANE.....	4.1	ETHANE.....	6.1	ETHANE.....	26.0
PROPANE.....	0.7	PROPANE.....	0.4	PROPANE.....	---
N-BUTANE.....	0.2	N-BUTANE.....	0.2	N-BUTANE.....	---
ISOBUTANE.....	0.1	ISOBUTANE.....	0.2	ISOBUTANE.....	---
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	---
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	---
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	0.9	NITROGEN.....	0.4	NITROGEN.....	0.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.4
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.3
HELIUM.....	0.03	HELIUM.....	0.03	HELIUM.....	0.04
HEATING VALUE.....	1059	HEATING VALUE.....	1093	HEATING VALUE.....	1205
SPECIFIC GRAVITY.....	0.595	SPECIFIC GRAVITY.....	0.608	SPECIFIC GRAVITY.....	0.689

INDEX 11650 SAMPLE 9541		INDEX 11651 SAMPLE 9436		INDEX 11652 SAMPLE 9446	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	BOONE	COUNTY.....	BOONE	COUNTY.....	BOONE
FIELD.....	CORREY-JEFFREY	FIELD.....	HARNSHAW-BULL CREEK	FIELD.....	HARNSHAW-BULL CREEK
WELL NAME.....	NO. 10705	WELL NAME.....	BULL CREEK NO. 15	WELL NAME.....	BULL CREEK NO. 14
LOCATION.....	WASHINGTON DIST.	LOCATION.....	PETTONA DIST.	LOCATION.....	PETTONA DIST.
OWNER.....	HOPE NATURAL GAS CO.	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT
COMPLETED.....	12/28/44	COMPLETED.....	05/02/62	COMPLETED.....	07/31/63
SAMPLED.....	08/12/64	SAMPLED.....	07/02/64	SAMPLED.....	07/02/64
FORMATION.....	MISS-BEREA	FORMATION.....	SILU-NEWBURG	FORMATION.....	MISS-BIG INJUN
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2150	DEPTH, FEET.....	5201	DEPTH, FEET.....	1558
WELLHEAD PRESSURE, PSIG.....	99	WELLHEAD PRESSURE, PSIG.....	2000	WELLHEAD PRESSURE, PSIG.....	302
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	400	OPEN FLOW, MCFD.....	973
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.9	METHANE.....	89.0	METHANE.....	81.1
ETHANE.....	11.6	ETHANE.....	2.9	ETHANE.....	11.2
PROPANE.....	6.5	PROPANE.....	0.8	PROPANE.....	4.0
N-BUTANE.....	0.1	N-BUTANE.....	0.4	N-BUTANE.....	1.0
ISOBUTANE.....	0.7	ISOBUTANE.....	0.2	ISOBUTANE.....	0.6
N-PENTANE.....	0.5	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.5	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	2.6	NITROGEN.....	1.2	NITROGEN.....	1.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.1
HELIUM.....	0.10	HELIUM.....	0.10	HELIUM.....	0.06
HEATING VALUE.....	1232	HEATING VALUE.....	1018	HEATING VALUE.....	1212
SPECIFIC GRAVITY.....	0.759	SPECIFIC GRAVITY.....	0.623	SPECIFIC GRAVITY.....	0.694

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11653 9544	INDEX SAMPLE	11654 9547	INDEX SAMPLE	11655 9438
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	BOONE			BOONE		BOONE	
FIELD.....	HOPKINS FORK-JARROLD VALLEY			HOPKINS FORK-JARROLD VALLEY		JULIAN-MADISON	
WELL NAME.....	NO. 1213			NO. 10239		LITTLE COAL LAND NO. 2	
LOCATION.....	SHERMAN DIST.			SHERMAN DIST.		WASHINGTON DIST.	
OWNER.....	HOPE NATURAL GAS CO.			HOPE NATURAL GAS CO.		OWENS, LIBBEY-OWENS GAS DEPT	
COMPLETED.....	11/05/59			02/03/60		02/09/26	
SAMPLED.....	08/12/64			08/12/64		07/01/64	
FORMATION.....	MISS-WEIR			MISS-MAXTON		MISS-BEREA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2660			1889		2095	
WELLHEAD PRESSURE, PSIG.....	258			1212		275	
OPEN FLOW, MCFD.....	NOT GIVEN					32	
COMPONENT, MOLE PCT							
METHANE.....	94.0			96.7		81.0	
ETHANE.....	3.6			2.0		10.2	
PROPANE.....	0.7			0.3		3.9	
N-BUTANE.....	0.3			0.0		0.8	
ISOBUTANE.....	0.2			0.0		0.7	
N-PENTANE.....	0.1			0.0		0.1	
ISOPENTANE.....	TRACE			0.0		0.2	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.1			0.0		0.2	
NITROGEN.....	0.7			0.9		2.7	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		0.1	
HELIUM.....	0.09			0.12		0.10	
HEATING VALUE.....	1061			1023		1178	
SPECIFIC GRAVITY.....	0.594			0.571		0.689	
		INDEX SAMPLE	11656 9447	INDEX SAMPLE	11657 4463	INDEX SAMPLE	11658 10103
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	BOONE			BOONE		BOONE	
FIELD.....	JULIAN-MADISON			KANAWHA		NOT GIVEN	
WELL NAME.....	LITTLE COAL LAND CO. NO. 27			NO. 5812		7 & 0 NO. 10-136	
LOCATION.....	SCOTT DIST.			NOT GIVEN		NOT GIVEN	
OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT			UNITED FUEL GAS CO.		PEAKE PETROLEUM CO.	
COMPLETED.....	04/05/44			08/09/47		11/11/65	
SAMPLED.....	07/01/64			03/29/48		08/30/65	
FORMATION.....	DEVO-SHALE			NOT GIVEN		MISS-MAXTON, BIG LIME & WEIR	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3857			3395		2248	
WELLHEAD PRESSURE, PSIG.....	485			776		626	
OPEN FLOW, MCFD.....	255			811		700	
COMPONENT, MOLE PCT							
METHANE.....	78.0			89.8		95.7	
ETHANE.....	14.2			9.6		2.3	
PROPANE.....	4.6			---		0.3	
N-BUTANE.....	1.0			---		0.1	
ISOBUTANE.....	0.3			---		0.1	
N-PENTANE.....	0.2			---		0.1	
ISOPENTANE.....	0.3			---		TRACE	
CYCLOPENTANE.....	TRACE			---		TRACE	
HEXANES PLUS.....	0.1			---		0.1	
NITROGEN.....	1.1			0.1		0.9	
OXYGEN.....	TRACE			0.2		0.0	
ARGON.....	0.0			---		TRACE	
HYDROGEN.....	0.0			---		0.0	
HYDROGEN SULFIDE**.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.1			0.3		TRACE	
HELIUM.....	0.03			0.04		0.11	
HEATING VALUE.....	1234			1082		1040	
SPECIFIC GRAVITY.....	0.708			0.606		0.581	
		INDEX SAMPLE	11659 9437	INDEX SAMPLE	11660 9441	INDEX SAMPLE	11661 9457
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	BOONE			BOONE		BOONE	
FIELD.....	PEYTONA-EMMONS			PEYTONA-EMMONS		PEYTONA-EMMONS	
WELL NAME.....	LENNIG NO. 1			LENNIG NO. 6		LENNIG NO. 6	
LOCATION.....	PEYTONA DIST.			PEYTONA DIST.		PEYTONA DIST.	
OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT			OWENS, LIBBEY-OWENS GAS DEPT		OWENS, LIBBEY-OWENS GAS DEPT	
COMPLETED.....	08/17/25			01/12/61		01/12/61	
SAMPLED.....	07/02/64			07/02/64		07/02/64	
FORMATION.....	MISS-BEREA			MISS-BIG LIME		DEVO-SHALE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1900			1433		3275	
WELLHEAD PRESSURE, PSIG.....	215			79		110	
OPEN FLOW, MCFD.....	149			74		10	
COMPONENT, MOLE PCT							
METHANE.....	75.3			75.3		81.7	
ETHANE.....	11.9			12.6		11.4	
PROPANE.....	5.4			5.8		3.8	
N-BUTANE.....	1.8			1.8		0.8	
ISOBUTANE.....	1.1			1.1		0.4	
N-PENTANE.....	0.6			0.6		0.1	
ISOPENTANE.....	0.9			0.4		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.7			0.5		0.1	
NITROGEN.....	1.9			1.5		1.2	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.0	
HELIUM.....	0.07			0.06		0.05	
HEATING VALUE.....	1318			1308		1189	
SPECIFIC GRAVITY.....	0.767			0.757		0.680	
		INDEX SAMPLE	11662 9488	INDEX SAMPLE	11663 10743	INDEX SAMPLE	11664 9230
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	BOONE			BOONE		BRAXTON	
FIELD.....	SHONK LAND CO.			SHONK LAND CO.		COPEN	
WELL NAME.....	NO. 10 SERIAL NO. 1290			SHONK LAND NO. 23 S NO. 1577		MCLAUGHLIN	
LOCATION.....	SHERMAN DIST.			CARTER COORDINATE 10-S-96		SALT LICK DIST.	
OWNER.....	CABOT CORP.			CABOT CORP.		WAVELY OIL WORKS CO.	
COMPLETED.....	12/29/48			05/07/66		02/20/61	
SAMPLED.....	07/20/64			10/04/66		01/24/64	
FORMATION.....	MISS-WEIR			MISS-MAXTON & WEIR		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2535			2030		1965	
WELLHEAD PRESSURE, PSIG.....	335			650		390	
OPEN FLOW, MCFD.....	127			10370		300	
COMPONENT, MOLE PCT							
METHANE.....	91.8			95.2		86.0	
ETHANE.....	5.6			1.7		8.9	
PROPANE.....	1.1			0.5		2.3	
N-BUTANE.....	0.3			0.0		0.7	
ISOBUTANE.....	0.2			0.0		0.3	
N-PENTANE.....	0.2			0.0		0.2	
ISOPENTANE.....	TRACE			0.0		0.1	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.2			0.0		0.1	
NITROGEN.....	0.4			2.2		1.2	
OXYGEN.....	0.0			0.1		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE**.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.19		0.10	
HELIUM.....	0.04			0.18		0.10	
HEATING VALUE.....	1994			1194		1142	
SPECIFIC GRAVITY.....	0.612			0.576		0.650	

** CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11665 SAMPLE 9231			INDEX 11666 SAMPLE 10008			INDEX 11667 SAMPLE 9348		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	BRAXTON		BRAXTON			BRAXTON		
FIELD.....	COPEN		COPEN			ELMIRA-SERVIA		
WELL NAME.....	MCOWNEY		BROSSIUS NO. 1			FOX NO. 1		
LOCATION.....	SALT LICK DIST.		SALT LICK DIST.			BIRCH DIST.		
OWNER.....	WAVERLY OIL WORKS CO.		MACDONALD SPIDEL			DEVONIAN GAS & OIL CO.		
COMPLETED.....	11/25/60		10/11/63			01/16/63		
SAMPLED.....	01/24/64		07/22/65			05/07/64		
FORMATION.....	MISS-BIG INJUN		MISS-BIG INJUN			MISS-BIG INJUN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2044		1771			1978		
WELLHEAD PRESSURE, PSIG.....	360		650			490		
OPEN FLOW, MCFD.....	200		8000			200		
COMPONENT, MOLE PCT								
METHANE.....	86.4		85.1			78.0		
ETHANE.....	8.9		8.5			13.4		
PROPANE.....	2.4		2.3			5.1		
N-BUTANE.....	0.5		0.5			1.7		
ISOBUTANE.....	0.3		0.5			0.5		
N-PENTANE.....	0.1		0.1			0.5		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.2			0.3		
NITROGEN.....	0.9		2.1			0.0		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.10		0.11			0.04		
HEATING VALUE.....	1142		1138			1290		
SPECIFIC GRAVITY.....	0.647		0.658			0.729		
INDEX 11668 SAMPLE 9450			INDEX 11669 SAMPLE 14697			INDEX 11670 SAMPLE 11967		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	BRAXTON		BRAXTON			BRAXTON		
FIELD.....	HEATERS		LITTLE BIRCH			NOT GIVEN		
WELL NAME.....	R. D. DENNISON NO. 4175		JACKSON NO. 1			ELLYSON LEASE NO. 1		
LOCATION.....	SALT LICK DIST.		NOT GIVEN			OTHER DIST.		
OWNER.....	HOPE NATURAL GAS CO.		TEXAS INTERNATL. PET. CORP.			WHITE SHIELD OIL & GAS CORP.		
COMPLETED.....	10/03/47		12/10/75			12/26/68		
SAMPLED.....	07/16/64		06/04/76			--/--00		
FORMATION.....	DEVO-GORDON		MISS-SQUAW			MISS-BIG INJUN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2277		1893			2050		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		580			375		
OPEN FLOW, MCFD.....	3900		NOT GIVEN			2650		
COMPONENT, MOLE PCT								
METHANE.....	82.4		91.9			84.1		
ETHANE.....	1.3		1.2			9.1		
PROPANE.....	3.3		1.2			3.1		
N-BUTANE.....	1.0		0.2			0.6		
ISOBUTANE.....	0.7		0.2			0.5		
N-PENTANE.....	0.4		0.0			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.4		0.0			0.2		
NITROGEN.....	1.1		0.6			1.8		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.07		0.06			0.09		
HEATING VALUE.....	1208		1077			1150		
SPECIFIC GRAVITY.....	0.691		0.603			0.660		
INDEX 11671 SAMPLE 9209			INDEX 11672 SAMPLE 17581			INDEX 11673 SAMPLE 9325		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	BRAXTON		CABELL			CABELL		
FIELD.....	ROSEDALE		BARBOURSVILLE DISTRICT			COMMERCIAL		
WELL NAME.....	NO. H 32		H. JOHNSON NO. 1			R. SCHAUB NO. C22		
LOCATION.....	NOT GIVEN		WINSLOW QUAD., HUGHES BRANCH			MCCOMBS DIST.		
OWNER.....	PHILADELPHIA OIL CO.		ALLEGHENY & WESTERN ENERGY C			COMMONWEALTH GAS CORP.		
COMPLETED.....	12/20/63		10/11/83			07/10/23		
SAMPLED.....	12/20/63		01/30/85			04/23/64		
FORMATION.....	MISS--		DEVO-SHALE			DEVO-BROWN SHALE		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2186		3335			2770		
WELLHEAD PRESSURE, PSIG.....	150		NOT GIVEN			450		
OPEN FLOW, MCFD.....	125		130			1070		
COMPONENT, MOLE PCT								
METHANE.....	77.5		77.0			74.7		
ETHANE.....	12.9		12.1			14.3		
PROPANE.....	5.3		5.6			7.5		
N-BUTANE.....	1.3		1.3			1.3		
ISOBUTANE.....	0.9		0.3			0.3		
N-PENTANE.....	0.3		0.2			0.1		
ISOPENTANE.....	0.1		0.1			0.4		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.3		0.1			0.1		
NITROGEN.....	1.1		0.1			0.2		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.3			0.1		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			TRACE		
HELIUM.....	0.10		0.08			0.05		
HEATING VALUE.....	1200		1300			1309		
SPECIFIC GRAVITY.....	0.724		0.716			0.747		
INDEX 11674 SAMPLE 9317			INDEX 11675 SAMPLE 9498			INDEX 11676 SAMPLE 9347		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	CABELL		CALHOUN			CALHOUN		
FIELD.....	TWO MILE DIVISION		ANNAMORIAH			BEE CREEK		
WELL NAME.....	NO. H 32		NO. 10491			HARDMAN NO. 3		
LOCATION.....	GRAN DIST.		SHERIDAN DIST.			CENTER DIST.		
OWNER.....	COMMONWEALTH GAS CORP.		HOPE NATURAL GAS CO.			CABOT CORP.		
COMPLETED.....	12/11/38		11/14/63			--/--04		
SAMPLED.....	07/15/64		07/15/64			05/08/64		
FORMATION.....	MISS-BEREA		MISS-BIG INJUN			MISS-BIG INJUN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2069		1900			1700		
WELLHEAD PRESSURE, PSIG.....	123		270			175		
OPEN FLOW, MCFD.....	240		70			63		
COMPONENT, MOLE PCT								
METHANE.....	80.8		80.3			78.9		
ETHANE.....	10.7		11.8			11.6		
PROPANE.....	5.0		4.2			5.0		
N-BUTANE.....	1.2		1.3			1.7		
ISOBUTANE.....	0.1		0.1			0.4		
N-PENTANE.....	0.1		0.2			0.5		
ISOPENTANE.....	0.3		0.2			0.3		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	TRACE		0.2			0.3		
NITROGEN.....	1.5		1.6			1.1		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE**.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			TRACE		
HELIUM.....	0.07		0.08			0.09		
HEATING VALUE.....	1201		1208			1261		
SPECIFIC GRAVITY.....	0.690		0.695			0.723		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11677 12048	INDEX SAMPLE	11678 8097	INDEX SAMPLE	11679 8096
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	CALHOUN			CALHOUN		CALHOUN	
FIELD.....	HUNTER M. BENNETT NO. 11149			MILG		MINNORA	
WELL NAME.....	SHERMAN DIST.			W. H. BAILEY		AGNES HAYES	
LOCATION.....	CONSOLIDATED GAS SUPPLY CORP			NOT GIVEN		WASHINGTON TERR.	
OWNER.....	05/23/69			JAMES DRILLING CO.		JAMES DRILLING CO.	
COMPLETED.....	09/23/69			07/19/61		03/09/61	
SAMPLED.....	MISS-BIG INJUN			07/27/61		07/27/61	
FORMATION.....	160			MISS-BIG INJUN		DEVO-U	
GEOLOGIC PROVINCE CODE.....	2261			160		160	
DEPTH, FEET.....	514			2124		2125	
WELLHEAD PRESSURE, PSIG.....	3663			508		450	
OPEN FLOW, MCFD.....				1039		3500	
COMPONENT, MOLE PCT							
METHANE.....	75.7			81.8		74.8	
ETHANE.....	12.8			10.8		13.4	
PROPANE.....	6.4			3.9		6.0	
N-BUTANE.....	1.4			0.9		1.8	
ISOBUTANE.....	0.8			0.6		1.1	
N-PENTANE.....	0.4			0.2		0.4	
ISOPENTANE.....	0.3			0.2		0.3	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.3			0.1		0.2	
NITROGEN.....	1.6			1.4		1.7	
OXYGEN.....	0.0			0.0		0.3	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.2			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			TRACE		TRACE	
HELIUM.....	0.07			0.10		0.10	
HEATING VALUE.....	1286			1192		1291	
SPECIFIC GRAVITY.....	0.744			0.685		0.752	
		INDEX SAMPLE	11680 9504	INDEX SAMPLE	11681 14796	INDEX SAMPLE	11682 9505
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	CALHOUN			CALHOUN		CALHOUN	
FIELD.....	MINNORA			MINNORA		ORMA	
WELL NAME.....	PRICE JARVIS NO. 3303			DENVER BRANNON NO. 11909		PRUDENCE JARVIS NO. 10380	
LOCATION.....	WASHINGTON DIST.			OTTER QUAD.		WASHINGTON DIST.	
OWNER.....	HOPE NATURAL GAS CO.			CONSOLIDATED GAS SUPPLY CORP		HOPE NATURAL GAS CO.	
COMPLETED.....	03/-/14			08/08/75		04/28/62	
SAMPLED.....	07/14/64			09/-/76		07/14/64	
FORMATION.....	PENN-SALT SAND 2ND			DEVO-NOT GIVEN		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1272			2924		2040	
WELLHEAD PRESSURE, PSIG.....	630			77		140	
OPEN FLOW, MCFD.....	12			2207		73	
COMPONENT, MOLE PCT							
METHANE.....	83.1			69.4		79.0	
ETHANE.....	7.1			11.0		11.4	
PROPANE.....	3.1			9.6		4.9	
N-BUTANE.....	1.0			3.3		1.3	
ISOBUTANE.....	0.9			1.4		0.7	
N-PENTANE.....	0.4			0.8		0.4	
ISOPENTANE.....	0.2			0.8		0.1	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.5			0.4		0.4	
NITROGEN.....	3.3			1.2		1.6	
OXYGEN.....	0.0			0.1		TRACE	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			TRACE		0.0	
HELIUM.....	0.12			0.04		0.08	
HEATING VALUE.....	1168			1467		1245	
SPECIFIC GRAVITY.....	0.690			0.855		0.718	
		INDEX SAMPLE	11683 8495	INDEX SAMPLE	11684 9229	INDEX SAMPLE	11685 9661
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	CLAY			CLAY		CLAY	
FIELD.....	ELK RIVER			NORTHERN DIVISION		NOT GIVEN	
WELL NAME.....	NELSON NO. 1			NO. 1007		NO. 7851	
LOCATION.....	NOT GIVEN			UNION DIST.		BUFFALO DIST.	
OWNER.....	MERCHANTS PETROLEUM CO.			UNITED FUEL GAS CO.		EQUITABLE GAS CO.	
COMPLETED.....	11/20/61			-/-/77		08/11/42	
SAMPLED.....	04/03/62			01/21/64		12/09/64	
FORMATION.....	MISS-BIG INJUN			MISS-BIG INJUN		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2098			1413		2126	
WELLHEAD PRESSURE, PSIG.....	490			510		131	
OPEN FLOW, MCFD.....	250			4500		39	
COMPONENT, MOLE PCT							
METHANE.....	88.0			59.0		87.8	
ETHANE.....	7.7			20.8		8.1	
PROPANE.....	2.1			11.6		2.2	
N-BUTANE.....	0.5			0.0		2.6	
ISOBUTANE.....	0.4			1.5		0.3	
N-PENTANE.....	0.1			1.1		0.1	
ISOPENTANE.....	0.1			0.7		0.1	
CYCLOPENTANE.....	TRACE			0.2		TRACE	
HEXANES PLUS.....	0.1			0.2		0.2	
NITROGEN.....	0.8			0.0		0.4	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.1	
HELIUM.....	0.04			0.03		0.04	
HEATING VALUE.....	1128			1518		1141	
SPECIFIC GRAVITY.....	0.637			0.920		0.641	
		INDEX SAMPLE	11686 11766	INDEX SAMPLE	11687 10069	INDEX SAMPLE	11688 9330
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	CLAY			DODDRIDGE		DODDRIDGE	
FIELD.....	NOT GIVEN			BIG FLINT		BRUSHY FORK	
WELL NAME.....	NETTIE STARCHER NO. 1			CLINTON DOAK NO. 3		FRANK H. HINTER NO. 1	
LOCATION.....	OTTER DIST.			PRIOR OIL CO.		NEW MILTON DIST.	
OWNER.....	RAY BROTHERS DRILLING CO.			02/13/65		DEVONIAN GAS & OIL CO.	
COMPLETED.....	12/02/67			07/31/65		02/13/64	
SAMPLED.....	07/21/69			MISS-BIG INJUN		05/02/64	
FORMATION.....	MISS-BIG INJUN			160		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1714			1960		2267	
WELLHEAD PRESSURE, PSIG.....	600			125		1025	
OPEN FLOW, MCFD.....	730			100		150	
COMPONENT, MOLE PCT							
METHANE.....	82.8			77.7		81.5	
ETHANE.....	10.5			6.7		8.3	
PROPANE.....	3.4			4.4		4.1	
N-BUTANE.....	0.7			1.9		1.6	
ISOBUTANE.....	0.4			0.6		0.6	
N-PENTANE.....	0.2			0.9		0.4	
ISOPENTANE.....	0.2			0.8		0.1	
CYCLOPENTANE.....	TRACE			0.8		0.4	
HEXANES PLUS.....	0.1			5.6		2.4	
NITROGEN.....	1.4			0.0		0.0	
OXYGEN.....	0.1			TRACE		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.1		TRACE	
CARBON DIOXIDE.....	0.2			0.12		0.17	
HELIUM.....	0.08			1232		1215	
HEATING VALUE.....	1171			0.752		0.707	
SPECIFIC GRAVITY.....	0.674						

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11689 8099	INDEX SAMPLE	11690 9516	INDEX SAMPLE	11691 9328
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	DODDRIIDGE			DODDRIIDGE		DODDRIIDGE	
FIELD.....	CENTRAL STATION			CENTRAL STATION		NEW MILTON	
WELL NAME.....	HUDSON NO. 2			NO. 3611		HURST HOME FARM NO. 1	
LOCATION.....	NOT GIVEN			WEST UNION DIST.		NEW MILTON DIST.	
OWNER.....	WORLD WIDE PETROLEUM CORP.			CONSOLIDATED GAS SUPPLY CORP		DEVONIAN GAS & OIL CO.	
COMPLETED.....	06/22/61			10/12/14		02/12/64	
SAMPLED.....	07/27/61			07/23/64		05/04/64	
FORMATION.....	NOT GIVEN			MISS-BIG INJUN		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1832			1883		1956	
WELLHEAD PRESSURE, PSIG.....	580			29		650	
OPEN FLOW, MCFD.....	139			92		50	
COMPONENT, MOLE PCT							
METHANE.....	75.3			70.6		77.1	
ETHANE.....	14.2			14.5		13.3	
PROpane.....	5.7			6.3		5.2	
N-BUTANE.....	1.4			2.8		1.6	
ISOBUTANE.....	1.2			1.4		0.5	
N-PENTANE.....	0.3			0.8		0.2	
ISOPENTANE.....	0.3			0.7		0.6	
CYCLOPENTANE.....	TRACE			0.2		TRACE	
HEXANES PLUS.....	0.3			0.8		0.2	
NITROGEN.....	0.8			0.3		1.2	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		TRACE	
HELIUM.....	0.10			0.06		0.09	
HEATING VALUE.....	1294			1429		1270	
SPECIFIC GRAVITY.....	0.742			0.821		0.729	

		INDEX SAMPLE	11692 9692	INDEX SAMPLE	11693 9693	INDEX SAMPLE	11694 9706
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	DODDRIIDGE			DODDRIIDGE		DODDRIIDGE	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	0. 2826			NO. 4709		NO. 26337	
LOCATION.....	CENTER DIST.			COVE DIST.		GRANT DIST.	
OWNER.....	FOLEY OIL AND GAS CO.			EQUITABLE GAS CO.		EQUITABLE GAS CO.	
COMPLETED.....	08/30/61			02/27/19		03/31/61	
SAMPLED.....	01/08/65			01/08/65		01/08/65	
FORMATION.....	MISS-BIG INJUN			MISS-BIG INJUN		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1965			1900		2034	
WELLHEAD PRESSURE, PSIG.....	800			20		335	
OPEN FLOW, MCFD.....	700			9		300	
COMPONENT, MOLE PCT							
METHANE.....	79.2			79.2		81.1	
ETHANE.....	12.6			9.8		10.6	
PROpane.....	4.5			4.2		4.0	
N-BUTANE.....	1.0			1.2		1.0	
ISOBUTANE.....	0.7			0.9		0.8	
N-PENTANE.....	0.3			0.4		0.3	
ISOPENTANE.....	0.1			0.3		0.2	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.5		0.3	
NITROGEN.....	1.1			3.0		1.4	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.1	
HELIUM.....	0.07			0.19		0.09	
HEATING VALUE.....	1233			1217		1216	
SPECIFIC GRAVITY.....	0.707			0.718		0.699	

		INDEX SAMPLE	11695 9331	INDEX SAMPLE	11696 9515	INDEX SAMPLE	11697 9288
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	DODDRIIDGE			DODDRIIDGE		FAYETTE	
FIELD.....	PORTO RICO			STRAIGHT FORK-BLUESTONE CK.		ALLY	
WELL NAME.....	S. A. HURST, JR. NO. 1			NO. 5452		SEMET SOLVAY NO. 1	
LOCATION.....	NEW MILTON DIST.			SW DIST.		FAYETTEVILLE 3 SW	
OWNER.....	DEVONIAN GAS & OIL CO.			HOPE NATURAL GAS CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	03/02/62			10/08/63		11/09/57	
SAMPLED.....	05/04/64			07/27/64		04/07/64	
FORMATION.....	MISS-BIG INJUN			MISS-BIG INJUN		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2003			1945		1904	
WELLHEAD PRESSURE, PSIG.....	530			670		505	
OPEN FLOW, MCFD.....	500			696		434	
COMPONENT, MOLE PCT							
METHANE.....	65.5			82.0		93.9	
ETHANE.....	15.1			13.9		14.3	
PROpane.....	9.4			3.6		0.7	
N-BUTANE.....	2.7			1.0		0.2	
ISOBUTANE.....	0.6			0.7		0.1	
N-PENTANE.....	0.6			0.4		TRACE	
ISOPENTANE.....	0.1			0.1		0.2	
CYCLOPENTANE.....	0.1			TRACE		TRACE	
HEXANES PLUS.....	0.5			0.3		0.2	
NITROGEN.....	0.3			2.7		0.3	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			TRACE		TRACE	
HELIUM.....	0.02			0.22		0.04	
HEATING VALUE.....	1458			1178		1075	
SPECIFIC GRAVITY.....	0.839			0.687		0.597	

		INDEX SAMPLE	11698 4367	INDEX SAMPLE	11699 16096	INDEX SAMPLE	11700 9357
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	FAYETTE			FAYETTE		FAYETTE	
FIELD.....	GAULEY DISTRICT NO. 23			GAULEY'S NEST		LOUP CREEK	
WELL NAME.....	GAULEY MT. COAL CO. NO. 14			M. D. STEELE NO. 1		LOUP CREEK CO. NO. 14	
LOCATION.....	FAYETTE QUAD.			LAUREL CREEK		NOT GIVEN	
OWNER.....	COLUMBIAN CARBON CO.			CABOT CORP.		UNION CARBIDE CORP.	
COMPLETED.....	07/20/74			10/20/78		05/11/64	
SAMPLED.....	09/25/47			10/09/80		05/15/64	
FORMATION.....	MISS---			MISS-RAVENCLIFF		MISS-MAXTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1639			1260		2077	
WELLHEAD PRESSURE, PSIG.....	500			130		387	
OPEN FLOW, MCFD.....	890			210		200	
COMPONENT, MOLE PCT							
METHANE.....	95.4			90.5		94.0	
ETHANE.....	2.5			5.8		1.5	
PROpane.....	1.1			0.1		0.3	
N-BUTANE.....	---			0.2		0.1	
ISOBUTANE.....	---			0.2		0.0	
N-PENTANE.....	---			0.1		0.0	
ISOPENTANE.....	---			0.1		0.0	
CYCLOPENTANE.....	---			TRACE		0.0	
HEXANES PLUS.....	---			0.1		0.0	
NITROGEN.....	0.7			3.3		3.5	
OXYGEN.....	0.3			0.2		TRACE	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.0		0.1	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.9			0.2		0.1	
HELIUM.....	0.18			0.16		0.20	
HEATING VALUE.....	1011			991		991	
SPECIFIC GRAVITY.....	0.579			0.614		0.582	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11701 9358	INDEX SAMPLE	11702 9376	INDEX SAMPLE	11703 9548
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	FAYETTE			FAYETTE		FAYETTE	
FIELD.....	LOUP CREEK			LOUP CREEK		MAGNOLIA	
WELL NAME.....	LOUP CREEK CO. NO. 12			LOUP CREEK CO. NO. 1		NO. 9780	
LOCATION.....	NOT GIVEN			NOT GIVEN		FALLS DIST.	
OWNER.....	UNION CARBIDE CORP.			UNION CARBIDE CORP.		HOPE NATURAL GAS CO.	
COMPLETED.....	01/02/64			01/20/61		05/11/53	
SAMPLED.....	05/15/64			05/15/64		08/18/64	
FORMATION.....	MISS-BIG INJUN			MISS-WEIR		MISS-BIG LIME	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2552			2014		1535	
WELLHEAD PRESSURE, PSIG.....	622			590		126	
OPEN FLOW, MCFD.....	750			330		5348	
COMPONENT, MOLE PCT							
METHANE.....	95.2	-----		94.3	-----	94.4	-----
ETHANE.....	3.5	-----		3.7	-----	3.8	-----
PROPANE.....	0.5	-----		0.6	-----	0.6	-----
N-BUTANE.....	0.1	-----		0.1	-----	0.2	-----
ISOBUTANE.....	TRACE	-----		0.2	-----	0.1	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.0	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.2	-----
NITROGEN.....	0.4	-----		0.7	-----	0.4	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		TRACE	-----	TRACE	-----
HELIUM.....	0.04	-----		0.05	-----	0.05	-----
HEATING VALUE.....	1053	-----		1056	-----	1068	-----
SPECIFIC GRAVITY.....	0.584	-----		0.589	-----	0.594	-----
		INDEX SAMPLE	11704 4185	INDEX SAMPLE	11705 4588	INDEX SAMPLE	11706 9686
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	FAYETTE			FAYETTE		FAYETTE	
FIELD.....	NOT GIVEN			NOT GIVEN		PAINT CREEK	
WELL NAME.....	RAYMOND KIOUS NO. 1			OAK HILL INV. CO. NO. 1276		EASTERN GAS & FUEL NO. 38	
LOCATION.....	3 MI. S OF ANSTED			NOT GIVEN		ARMSTRONG CREEK	
OWNER.....	GODFREY L. CABOT, INC.			GODFREY L. CABOT, INC.		ASHLAND OIL & REFINING CO.	
COMPLETED.....	08/26/46			06/11/48		11/10/64	
SAMPLED.....	11/25/46			10/25/48		12/30/64	
FORMATION.....	PENN-			MISS-BIG INJUN		MISS-MAXTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1193			2716		2732	
WELLHEAD PRESSURE, PSIG.....	165			720		450	
OPEN FLOW, MCFD.....	300			56		3816	
COMPONENT, MOLE PCT							
METHANE.....	89.9	-----		98.4	-----	96.2	-----
ETHANE.....	9.5	-----		1.2	-----	1.4	-----
PROPANE.....	---	-----		---	-----	0.2	-----
N-BUTANE.....	---	-----		---	-----	0.0	-----
ISOBUTANE.....	---	-----		---	-----	0.0	-----
N-PENTANE.....	---	-----		---	-----	0.0	-----
ISOPENTANE.....	---	-----		---	-----	0.0	-----
CYCLOPENTANE.....	---	-----		---	-----	0.0	-----
HEXANES PLUS.....	---	-----		---	-----	0.0	-----
NITROGEN.....	0.0	-----		0.0	-----	1.9	-----
OXYGEN.....	0.1	-----		0.2	-----	TRACE	-----
ARGON.....	---	-----		---	-----	0.0	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE**.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.5	-----		0.2	-----	0.0	-----
HELIUM.....	0.04	-----		0.06	-----	0.18	-----
HEATING VALUE.....	1081	-----		1018	-----	1005	-----
SPECIFIC GRAVITY.....	0.607	-----		0.563	-----	0.571	-----
		INDEX SAMPLE	11707 9687	INDEX SAMPLE	11708 16737	INDEX SAMPLE	11709 9886
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	FAYETTE			FAYETTE		FAYETTE	
FIELD.....	PAINT CREEK			PAINT CREEK		PAINT CREEK E	
WELL NAME.....	EASTERN GAS & FUEL NO. 38			EASTERN GAS FUEL NO. 76		LOUP CREEK CO. NO. 16	
LOCATION.....	ARMSTRONG CREEK			VALLEY DIST. POWELLTON QUAD.		KANAWHA DIST.	
OWNER.....	ASHLAND OIL & REFINING CO.			ASHLAND EXPLORATION CO.		UNION CARBIDE CORP.	
COMPLETED.....	11/06/64			04/12/82		01/24/65	
SAMPLED.....	12/30/64			12/17/82		05/05/65	
FORMATION.....	MISS-WEIR			MISS-WEIR U		MISS-WEIR	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3314			3236		2380	
WELLHEAD PRESSURE, PSIG.....	735			380		1700	
OPEN FLOW, MCFD.....	5537			887		1800	
COMPONENT, MOLE PCT							
METHANE.....	94.8	-----		94.1	-----	96.1	-----
ETHANE.....	3.4	-----		0.9	-----	2.9	-----
PROPANE.....	0.4	-----		0.2	-----	0.4	-----
N-BUTANE.....	0.1	-----		0.2	-----	0.0	-----
ISOBUTANE.....	0.1	-----		0.1	-----	0.0	-----
N-PENTANE.....	0.1	-----		TRACE	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.0	-----
NITROGEN.....	0.7	-----		0.4	-----	0.5	-----
OXYGEN.....	0.1	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.0	-----
HELIUM.....	0.04	-----		0.04	-----	0.07	-----
HEATING VALUE.....	1049	-----		1055	-----	1036	-----
SPECIFIC GRAVITY.....	0.587	-----		0.588	-----	0.574	-----
		INDEX SAMPLE	11710 16887	INDEX SAMPLE	11711 9889	INDEX SAMPLE	11712 9891
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	FAYETTE			GILMER		GILMER	
FIELD.....	WILLOCAT			ALICE		CEDARVILLE	
WELL NAME.....	NORTH HILLS GROUP NO. 1			H. S. COLE NO. 1		FRAME NO. 1	
LOCATION.....	FAYETTEVILLE DIST.			TROY DIST.		NOT GIVEN	
OWNER.....	AMOCO PRODUCTION CO. (USA)			ROYAL OIL & GAS CORP.		ROYAL OIL & GAS CORP.	
COMPLETED.....	10/23/81			12/28/64		10/28/64	
SAMPLED.....	04/20/83			05/08/65		05/08/65	
FORMATION.....	MISS-WEIR			MISS-BIG INJUN		MISS-SQUAW & BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2636			1700		2180	
WELLHEAD PRESSURE, PSIG.....	280			1720		700	
OPEN FLOW, MCFD.....	100			1122		3391	
COMPONENT, MOLE PCT							
METHANE.....	87.1	-----		83.3	-----	84.5	-----
ETHANE.....	2.2	-----		8.3	-----	8.6	-----
PROPANE.....	0.2	-----		3.3	-----	2.9	-----
N-BUTANE.....	0.1	-----		0.9	-----	0.8	-----
ISOBUTANE.....	0.0	-----		0.5	-----	0.5	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.2	-----
ISOPENTANE.....	TRACE	-----		0.4	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.2	-----
NITROGEN.....	7.7	-----		2.8	-----	1.8	-----
OXYGEN.....	1.8	-----		0.0	-----	0.0	-----
ARGON.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.4	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		TRACE	-----	TRACE	-----
HELIUM.....	0.06	-----		0.19	-----	0.11	-----
HEATING VALUE.....	937	-----		1187	-----	1157	-----
SPECIFIC GRAVITY.....	0.613	-----		0.675	-----	0.664	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 11713 SAMPLE 9480	INDEX 11714 SAMPLE 14021	INDEX 11715 SAMPLE 14022
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	GILMER		GILMER	GILMER
FIELD.....	GLENNVILLE		GLENNVILLE S	GLENNVILLE S
WELL NAME.....	MINERVA STUMP NO. 6350		LOUISA MOYERS NO. 2	D. C. HAYES NO. 2
LOCATION.....	GLENNVILLE DIST.		CENTER DIST.	TROY DIST.
OWNER.....	HOPE NATURAL GAS CO.		BASIN PETROLEUM CORP.	BASIN PETROLEUM CORP.
COMPLETED.....	08/06/73		02/05/73	01/05/73
SAMPLED.....	07/17/64		06/05/74	06/05/74
FORMATION.....	MISS-BIG INJUN		MISS-MAXTON	MISS-GREENBRIER
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	1848		1960	1894
WELLHEAD PRESSURE, PSIG.....	200		550	520
OPEN FLOW, MCFD.....	144		750	1000
COMPONENT, MOLE PCT				
METHANE.....	83.1	86.1	85.5	
ETHANE.....	9.9	8.2	7.9	
PROPANE.....	3.3	2.8	2.7	
N-BUTANE.....	0.8	0.5	0.6	
ISOBUTANE.....	0.6	0.5	0.5	
N-PENTANE.....	0.2	TRACE	0.1	
ISOPENTANE.....	0.2	0.2	0.2	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.1	0.1	
NITROGEN.....	1.5	1.4	2.1	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	0.0	TRACE	0.0	
HYDROGEN.....	0.0	0.1	0.2	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.2	
HELIUM.....	0.08	0.12	0.12	
HEATING VALUE.....	1179	1139	1133	
SPECIFIC GRAVITY.....	0.677	0.651	0.656	
		INDEX 11716 SAMPLE 14023	INDEX 11717 SAMPLE 14024	INDEX 11718 SAMPLE 9364
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	GILMER		GILMER	GILMER
FIELD.....	GLENNVILLE S		GLENNVILLE S	NORMANTOWN
WELL NAME.....	ARBUCKLE-GARRETT NO. 1		EFFIE MARKS NO. 1	J. J. MCKINNEY NO. 4
LOCATION.....	GLENNVILLE DIST.		GLENNVILLE DIST.	CENTER DIST.
OWNER.....	BASIN PETROLEUM CORP.		BASIN PETROLEUM CORP.	SMITH & BARKER OIL & GAS CO.
COMPLETED.....	03/22/73		01/18/73	-7/-/77
SAMPLED.....	06/05/74		06/05/74	05/08/64
FORMATION.....	MISS-GREENBRIER		MISS-GREENBRIER	MISS-BIG INJUN
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	1822		1744	2065
WELLHEAD PRESSURE, PSIG.....	685		700	NOT GIVEN
OPEN FLOW, MCFD.....	1200		1000	5
COMPONENT, MOLE PCT				
METHANE.....	85.6	87.1	82.1	
ETHANE.....	8.6	6.9	10.2	
PROPANE.....	2.7	2.4	4.2	
N-BUTANE.....	0.5	0.5	1.2	
ISOBUTANE.....	0.5	0.4	0.3	
N-PENTANE.....	0.1	TRACE	0.3	
ISOPENTANE.....	0.2	0.2	0.3	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.1	0.1	0.3	
NITROGEN.....	1.4	2.0	0.9	
OXYGEN.....	0.1	0.0	TRACE	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.2	0.2	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	
HELIUM.....	0.10	0.13	0.09	
HEATING VALUE.....	1144	1113	1219	
SPECIFIC GRAVITY.....	0.653	0.639	0.694	
		INDEX 11719 SAMPLE 9662	INDEX 11720 SAMPLE 12201	INDEX 11721 SAMPLE 12202
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	GILMER		GILMER	GILMER
FIELD.....	NOT GIVEN		REVEL	REVEL
WELL NAME.....	NO. 7306		JONES B NO. 1	KANAWHA UNION BANK A NO. 1
LOCATION.....	GLENNVILLE DIST.		DEKALB DIST.	TROY DIST.
OWNER.....	EQUITABLE GAS CO.		KEWANEE OIL CO.	KEWANEE OIL CO.
COMPLETED.....	10/16/20		10/07/69	09/11/69
SAMPLED.....	12/09/64		02/06/70	02/04/70
FORMATION.....	MISS-BIG INJUN		PENN-SALT SAND	MISS-WEIR
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	1480		1406	1926
WELLHEAD PRESSURE, PSIG.....	180		165	720
OPEN FLOW, MCFD.....	17		327	3500
COMPONENT, MOLE PCT				
METHANE.....	84.0	83.7	81.3	
ETHANE.....	9.1	7.9	9.1	
PROPANE.....	3.1	3.2	3.8	
N-BUTANE.....	0.8	0.7	0.9	
ISOBUTANE.....	0.5	0.5	0.5	
N-PENTANE.....	0.1	0.6	0.1	
ISOPENTANE.....	0.3	0.1	0.2	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.2	0.2	
NITROGEN.....	1.7	2.8	3.3	
OXYGEN.....	0.1	TRACE	0.2	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.4	0.2	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.0	0.0	
HELIUM.....	0.13	0.20	0.17	
HEATING VALUE.....	1160	1137	1156	
SPECIFIC GRAVITY.....	0.667	0.663	0.682	
		INDEX 11722 SAMPLE 10014	INDEX 11723 SAMPLE 9890	INDEX 11724 SAMPLE 9494
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	GILMER		GILMER	GILMER
FIELD.....	SAND FORK		STOUTS MILLS	STUMPTOWN-NORMANTOWN-SHOCK
WELL NAME.....	M. C. COLLINS NO. 7		BAILEY MOYER NO. 1	BENNETT NO. 5067
LOCATION.....	GLENNVILLE DIST.		NOT GIVEN	CENTER DIST.
OWNER.....	PENNZOIL CO.		TRAJAN COAL & PETROLEUM CO.	HOPE NATURAL GAS CO.
COMPLETED.....	04/15/65		12/20/64	10/05/18
SAMPLED.....	07/27/65		05/08/65	07/16/64
FORMATION.....	MISS-MAXTON		MISS-SQUAW & BIG INJUN	MISS-BIG INJUN
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	1960		2180	1990
WELLHEAD PRESSURE, PSIG.....	250		700	80
OPEN FLOW, MCFD.....	1250		1500	11
COMPONENT, MOLE PCT				
METHANE.....	87.3	83.8	71.5	
ETHANE.....	7.5	9.3	16.5	
PROPANE.....	3.4	2.1	7.2	
N-BUTANE.....	0.5	0.7	1.8	
ISOBUTANE.....	0.5	0.5	0.9	
N-PENTANE.....	0.1	0.2	0.4	
ISOPENTANE.....	0.1	0.2	0.4	
CYCLOPENTANE.....	TRACE	0.1	0.1	
HEXANES PLUS.....	0.2	0.3	0.3	
NITROGEN.....	1.1	1.6	0.7	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	TRACE	0.1	
HELIUM.....	0.10	0.13	0.04	
HEATING VALUE.....	1134	1173	1351	
SPECIFIC GRAVITY.....	0.644	0.672	0.777	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	11725 9502		INDEX SAMPLE	11726 9172		INDEX SAMPLE	11727 5213
STATE.....	WEST VIRGINIA		STATE.....	WEST VIRGINIA		STATE.....	WEST VIRGINIA	
COUNTY.....	STUMPTOWN-NORMANTOWN-SHOCK		COUNTY.....	GILMER		COUNTY.....	GREENBRIER	
FIELD.....	MARTHA TURNER NO. 8563		FIELD.....	TANNER		FIELD.....	NOT GIVEN	
WELL NAME.....	CENTER DIST.		WELL NAME.....	F. A. WEAVER NO. 2		WELL NAME.....	THORNBURY NO. 1	
LOCATION.....	HOPE NATURAL GAS CO.		LOCATION.....	S-301 W-20		LOCATION.....	NOT GIVEN	
OWNER.....	HOPE NATURAL GAS CO.		OWNER.....	PENN 2011 CO.		OWNER.....	DEEP ROCK OIL CO.	
COMPLETED.....	09/-/41		COMPLETED.....	08/11/60		COMPLETED.....	--/-/00	
SAMPLED.....	07/16/64		SAMPLED.....	11/15/63		SAMPLED.....	05/29/52	
FORMATION.....	MISS-BIG		FORMATION.....	MISS-BIG		FORMATION.....	DEVO-CHERT & ORISKANY	
GEOLOGIC PROVINCE CODE.....	160		GEOLOGIC PROVINCE CODE.....	160		GEOLOGIC PROVINCE CODE.....	160	
DEPTH, FEET.....	2070		DEPTH, FEET.....	2022		DEPTH, FEET.....	6375	
WELLHEAD PRESSURE, PSIG.....	110		WELLHEAD PRESSURE, PSIG.....	590		WELLHEAD PRESSURE, PSIG.....	2400	
OPEN FLOW, MCFD.....	14		OPEN FLOW, MCFD.....	100		OPEN FLOW, MCFD.....	500	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	81.2		METHANE.....	77.9		METHANE.....	92.9	
ETHANE.....	10.8		ETHANE.....	12.7		ETHANE.....	0.9	
PROPANE.....	4.5		PROPANE.....	5.0		PROPANE.....	0.1	
N-BUTANE.....	1.0		N-BUTANE.....	1.4		N-BUTANE.....	0.1	
ISOBUTANE.....	0.6		ISOBUTANE.....	0.6		ISOBUTANE.....	0.0	
N-PENTANE.....	0.3		N-PENTANE.....	0.0		N-PENTANE.....	0.0	
ISOPENTANE.....	0.1		ISOPENTANE.....	0.1		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	TRACE	
HEXANES PLUS.....	0.2		HEXANES PLUS.....	0.3		HEXANES PLUS.....	0.0	
NITROGEN.....	1.5		NITROGEN.....	1.2		NITROGEN.....	5.2	
OXYGEN.....	0.0		OXYGEN.....	0.0		OXYGEN.....	0.1	
ARGON.....	0.0		ARGON.....	0.0		ARGON.....	TRACE	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.0		CARBON DIOXIDE.....	0.0		CARBON DIOXIDE.....	0.5	
HELIUM.....	0.02		HELIUM.....	0.0		HELIUM.....	0.17	
HEATING VALUE.....	1214		HEATING VALUE.....	1259		HEATING VALUE.....	963	
SPECIFIC GRAVITY.....	0.695		SPECIFIC GRAVITY.....	0.724		SPECIFIC GRAVITY.....	0.587	
	INDEX SAMPLE	11728 10812		INDEX SAMPLE	11729 10742		INDEX SAMPLE	11730 10715
STATE.....	WEST VIRGINIA		STATE.....	WEST VIRGINIA		STATE.....	WEST VIRGINIA	
COUNTY.....	HAMPSHIRE		COUNTY.....	HARDY		COUNTY.....	HARDY	
FIELD.....	NOT GIVEN		FIELD.....	HARDY COUNTY		FIELD.....	LOST RIVER	
WELL NAME.....	H. B. DILLER, ET AL.		WELL NAME.....	SAMUEL N. FUNK NO. 9368		WELL NAME.....	CLEVELAND EVANS, ET AL. 9386	
LOCATION.....	SHERMAN DIST.		LOCATION.....	MOOREFIELD DIST.		LOCATION.....	MOOREFIELD DIST.	
OWNER.....	UNITED FUEL GAS CO.		OWNER.....	UNITED FUEL GAS CO.		OWNER.....	UNITED FUEL GAS CO.	
COMPLETED.....	07/13/66		COMPLETED.....	04/16/66		COMPLETED.....	06/04/66	
SAMPLED.....	12/10/66		SAMPLED.....	10/06/66		SAMPLED.....	09/02/66	
FORMATION.....	DEVO-ORISKANY		FORMATION.....	DEVO-ORISKANY		FORMATION.....	DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160		GEOLOGIC PROVINCE CODE.....	160		GEOLOGIC PROVINCE CODE.....	160	
DEPTH, FEET.....	6506		DEPTH, FEET.....	6926		DEPTH, FEET.....	6408	
WELLHEAD PRESSURE, PSIG.....	2200		WELLHEAD PRESSURE, PSIG.....	2245		WELLHEAD PRESSURE, PSIG.....	2149	
OPEN FLOW, MCFD.....	8690		OPEN FLOW, MCFD.....	32000		OPEN FLOW, MCFD.....	90000	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	97.3		METHANE.....	96.4		METHANE.....	97.6	
ETHANE.....	1.1		ETHANE.....	1.1		ETHANE.....	1.1	
PROPANE.....	0.1		PROPANE.....	TRACE		PROPANE.....	TRACE	
N-BUTANE.....	0.0		N-BUTANE.....	0.0		N-BUTANE.....	0.0	
ISOBUTANE.....	0.0		ISOBUTANE.....	0.0		ISOBUTANE.....	0.0	
N-PENTANE.....	0.0		N-PENTANE.....	0.0		N-PENTANE.....	0.0	
ISOPENTANE.....	0.0		ISOPENTANE.....	0.0		ISOPENTANE.....	0.0	
CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	0.0	
HEXANES PLUS.....	0.0		HEXANES PLUS.....	0.0		HEXANES PLUS.....	0.0	
NITROGEN.....	1.4		NITROGEN.....	2.3		NITROGEN.....	1.1	
OXYGEN.....	0.1		OXYGEN.....	0.0		OXYGEN.....	0.0	
ARGON.....	TRACE		ARGON.....	TRACE		ARGON.....	TRACE	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	TRACE		CARBON DIOXIDE.....	TRACE		CARBON DIOXIDE.....	0.1	
HELIUM.....	0.08		HELIUM.....	0.12		HELIUM.....	0.13	
HEATING VALUE.....	1008		HEATING VALUE.....	996		HEATING VALUE.....	1009	
SPECIFIC GRAVITY.....	0.567		SPECIFIC GRAVITY.....	0.573		SPECIFIC GRAVITY.....	0.560	
	INDEX SAMPLE	11731 9221		INDEX SAMPLE	11732 9485		INDEX SAMPLE	11733 9520
STATE.....	WEST VIRGINIA		STATE.....	WEST VIRGINIA		STATE.....	WEST VIRGINIA	
COUNTY.....	HARDY		COUNTY.....	HARRISON		COUNTY.....	HARRISON	
FIELD.....	LOST RIVER-ELKINS		FIELD.....	BROWN-LUMBERPORT		FIELD.....	BROWN-LUMBERPORT	
WELL NAME.....	C. P. WILKENS NO. 9301		WELL NAME.....	S. KELLY NO. 1961		WELL NAME.....	NO. 7491	
LOCATION.....	NOT GIVEN		LOCATION.....	SARDIS DIST.		LOCATION.....	TENMILE DIST.	
OWNER.....	UNITED FUEL GAS CO.		OWNER.....	HOPE NATURAL GAS CO.		OWNER.....	HOPE NATURAL GAS CO.	
COMPLETED.....	12/03/63		COMPLETED.....	11/12/10		COMPLETED.....	01/30/25	
SAMPLED.....	02/07/68		SAMPLED.....	07/16/64		SAMPLED.....	07/24/64	
FORMATION.....	DEVO-ORISKANY		FORMATION.....	DEVO-FIFTY FOOT SAND		FORMATION.....	DEVO-FIFTY FOOT SAND	
GEOLOGIC PROVINCE CODE.....	160		GEOLOGIC PROVINCE CODE.....	160		GEOLOGIC PROVINCE CODE.....	160	
DEPTH, FEET.....	6756		DEPTH, FEET.....	2943		DEPTH, FEET.....	2397	
WELLHEAD PRESSURE, PSIG.....	2250		WELLHEAD PRESSURE, PSIG.....	38		WELLHEAD PRESSURE, PSIG.....	170	
OPEN FLOW, MCFD.....	1500		OPEN FLOW, MCFD.....	2844		OPEN FLOW, MCFD.....	53	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	97.5		METHANE.....	84.2		METHANE.....	84.8	
ETHANE.....	1.0		ETHANE.....	8.1		ETHANE.....	8.3	
PROPANE.....	0.1		PROPANE.....	0.1		PROPANE.....	2.9	
N-BUTANE.....	0.0		N-BUTANE.....	0.9		N-BUTANE.....	0.8	
ISOBUTANE.....	0.0		ISOBUTANE.....	0.7		ISOBUTANE.....	0.5	
N-PENTANE.....	0.0		N-PENTANE.....	0.5		N-PENTANE.....	0.2	
ISOPENTANE.....	0.0		ISOPENTANE.....	0.1		ISOPENTANE.....	0.3	
CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	0.1		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.0		HEXANES PLUS.....	0.6		HEXANES PLUS.....	0.4	
NITROGEN.....	1.1		NITROGEN.....	1.5		NITROGEN.....	1.6	
OXYGEN.....	TRACE		OXYGEN.....	0.0		OXYGEN.....	0.0	
ARGON.....	TRACE		ARGON.....	0.0		ARGON.....	0.0	
HYDROGEN.....	0.0		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	TRACE	
HELIUM.....	0.10		HELIUM.....	0.11		HELIUM.....	0.11	
HEATING VALUE.....	1008		HEATING VALUE.....	1193		HEATING VALUE.....	1172	
SPECIFIC GRAVITY.....	0.565		SPECIFIC GRAVITY.....	0.685		SPECIFIC GRAVITY.....	0.672	
	INDEX SAMPLE	11734 11668		INDEX SAMPLE	11735 12613		INDEX SAMPLE	11736 9518
STATE.....	WEST VIRGINIA		STATE.....	WEST VIRGINIA		STATE.....	WEST VIRGINIA	
COUNTY.....	HARRISON		COUNTY.....	HARRISON		COUNTY.....	HARRISON	
FIELD.....	BRUSHY FORK		FIELD.....	KENNEDY DISTRICT		FIELD.....	MEATHOUSE FORK-BRISTOL	
WELL NAME.....	C. TRIMBLE NO. 3		WELL NAME.....	NO. 11296 RANDOLPH		WELL NAME.....	NO. 7473	
LOCATION.....	SIMPSON DIST.		LOCATION.....	GRANT DIST.		LOCATION.....	TENMILE DIST.	
OWNER.....	TWM PETROLEUM INC.		OWNER.....	CONSOLIDATED GAS SUPPLY CORP		OWNER.....	HOPE NATURAL GAS CO.	
COMPLETED.....	02/27/68		COMPLETED.....	08/27/70		COMPLETED.....	11/13/13	
SAMPLED.....	10/09/68		SAMPLED.....	--/-/00		SAMPLED.....	07/24/64	
FORMATION.....	DEVO-BENSON		FORMATION.....	DEVO-BENSON		FORMATION.....	DEVO-GORDON	
GEOLOGIC PROVINCE CODE.....	160		GEOLOGIC PROVINCE CODE.....	160		GEOLOGIC PROVINCE CODE.....	160	
DEPTH, FEET.....	4156		DEPTH, FEET.....	4156		DEPTH, FEET.....	2755	
WELLHEAD PRESSURE, PSIG.....	2080		WELLHEAD PRESSURE, PSIG.....	1835		WELLHEAD PRESSURE, PSIG.....	31	
OPEN FLOW, MCFD.....	4464		OPEN FLOW, MCFD.....	3217		OPEN FLOW, MCFD.....	46	
COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....			COMPONENT, MOLE PCT.....		
METHANE.....	93.0		METHANE.....	86.2		METHANE.....	69.3	
ETHANE.....	4.7		ETHANE.....	9.0		ETHANE.....	14.6	
PROPANE.....	0.9		PROPANE.....	2.4		PROPANE.....	8.5	
N-BUTANE.....	0.2		N-BUTANE.....	0.2		N-BUTANE.....	2.8	
ISOBUTANE.....	0.1		ISOBUTANE.....	0.3		ISOBUTANE.....	1.4	
N-PENTANE.....	0.2		N-PENTANE.....	0.3		N-PENTANE.....	0.6	
ISOPENTANE.....	0.0		ISOPENTANE.....	0.1		ISOPENTANE.....	1.0	
CYCLOPENTANE.....	TRACE		CYCLOPENTANE.....	0.0		CYCLOPENTANE.....	0.1	
HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.1		HEXANES PLUS.....	0.6	
NITROGEN.....	0.5		NITROGEN.....	0.8		NITROGEN.....	0.9	
OXYGEN.....	0.0		OXYGEN.....	TRACE		OXYGEN.....	TRACE	
ARGON.....	0.0		ARGON.....	TRACE		ARGON.....	TRACE	
HYDROGEN.....	0.1		HYDROGEN.....	0.0		HYDROGEN.....	0.0	
HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0		HYDROGEN SULFIDE.....	0.0	
CARBON DIOXIDE.....	TRACE		CARBON DIOXIDE.....	0.1		CARBON DIOXIDE.....	0.1	
HELIUM.....	0.06		HELIUM.....	0.06		HELIUM.....	0.04	
HEATING VALUE.....	1074		HEATING VALUE.....	1074		HEATING VALUE.....	1423	
SPECIFIC GRAVITY.....	0.598		SPECIFIC GRAVITY.....	0.651		SPECIFIC GRAVITY.....	0.827	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11737 SAMPLE 9703			INDEX 11738 SAMPLE 9484			INDEX 11739 SAMPLE 11734		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	HARRISON		HARRISON			HARRISON		
FIELD.....	NOT GIVEN		WESTON-JANE LEW			WESTON-JANE LEW		
WELL NAME.....	NO. 249		ROSA V. DAWSON NO. 6927			T. H. SMITH NO. 10860		
LOCATION.....	SARDIS DIST.		GRANT DIST.			UNION DIST.		
OWNER.....	EQUITABLE GAS CO.		HOPE NATURAL GAS CO.			CONSOLIDATED GAS SUPPLY CORP		
COMPLETED.....	11/02/11		01/03/18			--/7--/00		
SAMPLED.....	01/07/65		07/16/64			01/09/69		
FORMATION.....	MISS-BIG INJUN		DEVO-FIFTH			DEVO-BENSON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1940		2073			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	7		424			1880		
OPEN FLOW, MCFD.....	3		950			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.0		85.8			84.5		
ETHANE.....	7.7		7.6			9.7		
PROPANE.....	3.7		2.5			2.8		
N-BUTANE.....	1.6		0.8			0.6		
ISOBUTANE.....	0.9		0.4			0.4		
N-PENTANE.....	0.6		0.3			0.2		
ISOPENTANE.....	0.3		0.2			0.2		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.9		0.4			0.2		
NITROGEN.....	1.8		1.6			1.1		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			TRACE		
HELIUM.....	0.13		0.07			0.06		
HEATING VALUE.....	1162		1152			1162		
SPECIFIC GRAVITY.....	0.720		0.669			0.665		
INDEX 11740 SAMPLE 4436			INDEX 11741 SAMPLE 12784			INDEX 11742 SAMPLE 4585		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	JACKSON		JACKSON			JACKSON		
FIELD.....	ELK POCA ORISKANY		GROUND HOG CREEK			JACKSON COUNTY		
WELL NAME.....	LUCY BOSWELL NO. 1, SER.1235		H. F. YOUNG NO. 1			N. WATERBURY NO. 1		
LOCATION.....	KENNESQUITA		RAVENSHOOD DIST.			NOT GIVEN		
OWNER.....	GODFREY L. CABOT, INC.		MANAGEMENT CONTROL CORP.			UNITED CARBON CO.		
COMPLETED.....	08/08/47		--/7--/00			03/04/48		
SAMPLED.....	12/24/47		04/20/71			08/08/48		
FORMATION.....	DEVO-ORISKANY		SILU-NEWBURG			DEVO-BASAL		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	4921		NOT GIVEN			4984		
WELLHEAD PRESSURE, PSIG.....	1600		NOT GIVEN			175		
OPEN FLOW, MCFD.....	569		NOT GIVEN			100		
COMPONENT, MOLE PCT								
METHANE.....	80.8		89.1			59.4		
ETHANE.....	11.9		5.2			34.6		
PROPANE.....	---		2.4			---		
N-BUTANE.....	---		0.7			---		
ISOBUTANE.....	---		0.6			---		
N-PENTANE.....	---		0.2			---		
ISOPENTANE.....	---		0.2			---		
CYCLOPENTANE.....	---		TRACE			---		
HEXANES PLUS.....	---		0.2			---		
NITROGEN.....	0.7		1.3			5.8		
OXYGEN.....	0.3		TRACE			0.0		
ARGON.....	---		TRACE			---		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.2		0.08			0.1		
HELIUM.....	0.05		0.08			0.05		
HEATING VALUE.....	1139		1129			1222		
SPECIFIC GRAVITY.....	0.649		0.641			0.750		
INDEX 11743 SAMPLE 9499			INDEX 11744 SAMPLE 10920			INDEX 11745 SAMPLE 9503		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	JACKSON		JACKSON			JACKSON		
FIELD.....	ALTO		NEWBURG			NOT GIVEN		
WELL NAME.....	C. W. BAIER NO. 9332		D. K. SMITH, NO. A-1			OTIS SHINN NO. 10519		
LOCATION.....	UNION DIST.		TRIPLE DIST.			TRIPLE DIST.		
OWNER.....	HOPE NATURAL GAS CO.		CITIES SERVICE OIL CO.			HOPE NATURAL GAS CO.		
COMPLETED.....	01/24/60		02/24/60			03/24/64		
SAMPLED.....	07/21/64		04/11/67			07/21/64		
FORMATION.....	DEVO-BROWN SHALE		SILU-NEWBURG			DEVO-ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	3760		5612			5071		
WELLHEAD PRESSURE, PSIG.....	790		1845			950		
OPEN FLOW, MCFD.....	10		21645			636		
COMPONENT, MOLE PCT								
METHANE.....	76.8		92.9			85.1		
ETHANE.....	13.6		3.5			8.0		
PROPANE.....	3.8		2.2			2.7		
N-BUTANE.....	1.2		0.4			0.9		
ISOBUTANE.....	0.4		0.3			0.3		
N-PENTANE.....	0.3		0.1			0.3		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.2			0.3		
NITROGEN.....	1.5		1.1			2.0		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.9		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.1		
HELIUM.....	0.04		0.10			0.05		
HEATING VALUE.....	1048		1073			1152		
SPECIFIC GRAVITY.....	0.721		0.607			0.665		
INDEX 11746 SAMPLE 11140			INDEX 11747 SAMPLE 11141			INDEX 11748 SAMPLE 9147		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	JACKSON		JACKSON			JACKSON		
FIELD.....	PARCHMENT		PARCHMENT			PN DISTRICT		
WELL NAME.....	J. B. CANEY NO. 1-758		TELMAN SAYRE NO. 1-748			G. W. VANCE NO. 1		
LOCATION.....	TRIPLE DIST.		TRIPLE DIST.			TRIPLE DIST.		
OWNER.....	COMMONWEALTH GAS CORP.		COMMONWEALTH GAS CORP.			CABOT CORP.		
COMPLETED.....	05/04/67		08/05/66			05/18/60		
SAMPLED.....	08/05/67		08/05/67			11/01/63		
FORMATION.....	DEVO-ORISKANY		SILU-NEWBURG			DEVO-ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	4697		5500			4993		
WELLHEAD PRESSURE, PSIG.....	1830		2180			1680		
OPEN FLOW, MCFD.....	11800		6782			1314		
COMPONENT, MOLE PCT								
METHANE.....	88.0		89.3			86.7		
ETHANE.....	6.0		3.5			7.3		
PROPANE.....	2.0		1.1			2.1		
N-BUTANE.....	0.7		0.4			0.9		
ISOBUTANE.....	0.3		0.3			0.1		
N-PENTANE.....	0.2		0.1			0.3		
ISOPENTANE.....	0.3		0.2			0.2		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.3		
NITROGEN.....	2.0		4.0			1.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		TRACE			0.1		
CARBON DIOXIDE.....	TRACE		TRACE			0.1		
HELIUM.....	0.08		0.09			0.10		
HEATING VALUE.....	1120		1043			1138		
SPECIFIC GRAVITY.....	0.643		0.623			0.654		

* CALCULATED GROSS BTL PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11749 9157	INDEX SAMPLE	11750 4553	INDEX SAMPLE	11751 11857
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	JACKSON			JACKSON		JACKSON	
FIELD.....	PH DISTRICT			RAVENWOOD		RAVENWOOD	
WELL NAME.....	FREDA JOHNSON NO. 1			BLANCHE ASHCRAFT NO. 2		S. P. MILLER NO. 1	
LOCATION.....	RIPLEY			SANDY CREEK		RAVENWOOD DIST.	
OWNER.....	CABOT CORP.			COLUMBIAN CARBON CO.		COMMONWEALTH GAS CORP.	
COMPLETED.....	07/02/62			01/20/48		04/08/69	
SAMPLED.....	11/01/63			06/11/48		05/07/69	
FORMATION.....	MISS-BEREA			DEVO-ORISKANY		SILU-NEUBURG	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2606			4470		4896	
WELLHEAD PRESSURE, PSIG.....	580			1300		1880	
OPEN FLOW, MCFD.....	50			759		27000	
COMPONENT, MOLE PCT							
METHANE.....	84.5	-----		82.9	-----	88.0	-----
ETHANE.....	3.8	-----		15.7	-----	5.7	-----
PROPANE.....	2.3	-----		---	-----	2.5	-----
N-BUTANE.....	1.1	-----		---	-----	0.9	-----
ISOBUTANE.....	TRACE	-----		---	-----	0.4	-----
N-PENTANE.....	0.2	-----		---	-----	0.6	-----
ISOPENTANE.....	0.4	-----		---	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	0.2	-----
HEXANES PLUS.....	0.2	-----		---	-----	0.6	-----
NITROGEN.....	6.9	-----		0.9	-----	0.8	-----
OXYGEN.....	0.1	-----		0.2	-----	0.0	-----
ARGON.....	0.0	-----		---	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		---	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.2	-----	0.1	-----
HELIUM.....	0.50	-----		0.08	-----	0.08	-----
HEATING VALUE.....	1057	-----		1121	-----	1166	-----
SPECIFIC GRAVITY.....	0.656	-----		0.638	-----	0.661	-----
		INDEX SAMPLE	11752 12270	INDEX SAMPLE	11753 12225	INDEX SAMPLE	11754 4456
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	JACKSON			JACKSON		JACKSON	
FIELD.....	RIPLEY			RIPLEY N		SISSONVILLE	
WELL NAME.....	EDNA SHOCKLEY ET AL. 9540			JOHN MCCOY NO. 1-789		NO. 6218	
LOCATION.....	RAVENWOOD DIST.			RIPLEY DIST.		NOT GIVEN	
OWNER.....	UNITED FUEL GAS CO.			COMMONWEALTH GAS CORP.		UNITED FUEL GAS CO.	
COMPLETED.....	02/24/70			12/12/70		10/16/47	
SAMPLED.....	05/19/70			03/13/70		02/23/48	
FORMATION.....	SILU-NEUBURG			SILU-NEUBURG		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	5646			5673		4743	
WELLHEAD PRESSURE, PSIG.....	2152			775		775	
OPEN FLOW, MCFD.....	29500			70000		2023	
COMPONENT, MOLE PCT							
METHANE.....	89.4	-----		88.3	-----	79.2	-----
ETHANE.....	9.9	-----		9.9	-----	19.6	-----
PROPANE.....	2.3	-----		2.4	-----	---	-----
N-BUTANE.....	0.6	-----		0.7	-----	---	-----
ISOBUTANE.....	0.4	-----		0.6	-----	---	-----
N-PENTANE.....	0.3	-----		0.4	-----	---	-----
ISOPENTANE.....	0.1	-----		TRACE	-----	---	-----
CYCLOPENTANE.....	0.1	-----		0.2	-----	---	-----
HEXANES PLUS.....	0.3	-----		0.6	-----	---	-----
NITROGEN.....	1.6	-----		1.8	-----	0.1	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.8	-----
ARGON.....	TRACE	-----		0.0	-----	---	-----
HYDROGEN.....	TRACE	-----		0.1	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.0	-----		0.0	-----	0.2	-----
HELIUM.....	0.09	-----		0.09	-----	0.06	-----
HEATING VALUE.....	1123	-----		1144	-----	1154	-----
SPECIFIC GRAVITY.....	0.640	-----		0.656	-----	0.658	-----
		INDEX SAMPLE	11755 4457	INDEX SAMPLE	11756 4469	INDEX SAMPLE	11757 4473
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	JACKSON			JACKSON		JACKSON	
FIELD.....	SISSONVILLE			SISSONVILLE		SISSONVILLE	
WELL NAME.....	NO. 6189			NO. 6199		NO. 6214	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	UNITED FUEL GAS CO.			UNITED FUEL GAS CO.		UNITED FUEL GAS CO.	
COMPLETED.....	09/08/47			08/25/47		10/03/47	
SAMPLED.....	02/23/48			02/23/48		02/23/48	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	4925			4851		4780	
WELLHEAD PRESSURE, PSIG.....	430			725		830	
OPEN FLOW, MCFD.....	189			1726		1057	
COMPONENT, MOLE PCT							
METHANE.....	78.4	-----		79.3	-----	79.5	-----
ETHANE.....	19.9	-----		19.4	-----	19.2	-----
PROPANE.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	0.4	-----		0.5	-----	0.7	-----
OXYGEN.....	0.9	-----		0.4	-----	0.2	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.3	-----		0.3	-----	0.3	-----
HELIUM.....	0.05	-----		0.05	-----	0.05	-----
HEATING VALUE.....	1151	-----		1143	-----	1143	-----
SPECIFIC GRAVITY.....	0.662	-----		0.657	-----	0.656	-----
		INDEX SAMPLE	11758 9402	INDEX SAMPLE	11759 9497	INDEX SAMPLE	11760 4366
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	JACKSON			JACKSON		KANAWHA	
FIELD.....	SISSONVILLE			UTICA		BLUE CREEK	
WELL NAME.....	R. D. HUTCHISON NO. 1			LIZZIE HOLLERON NO. 10159		LUCINDA CARTE NO. 6151	
LOCATION.....	ASHLAND OIL & REFINING CO.			GRANT DIST.		LAT. 38-26, LONG. 81-27	
OWNER.....	ASHLAND OIL & REFINING CO.			HOPE NATURAL GAS CO.		UNITED FUEL GAS CO.	
COMPLETED.....	11/10/44			08/--/58		07/28/47	
SAMPLED.....	06/--/44			07/21/64		09/17/47	
FORMATION.....	DEVO-ORISKANY			DEVO-ORISKANY		DEVO-	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	4942			4945		5312	
WELLHEAD PRESSURE, PSIG.....	1680			445		1670	
OPEN FLOW, MCFD.....	2113			25		18151	
COMPONENT, MOLE PCT							
METHANE.....	85.1	-----		81.1	-----	77.8	-----
ETHANE.....	7.8	-----		10.5	-----	20.1	-----
PROPANE.....	2.4	-----		4.3	-----	---	-----
N-BUTANE.....	0.8	-----		1.1	-----	---	-----
ISOBUTANE.....	0.3	-----		0.2	-----	---	-----
N-PENTANE.....	0.3	-----		0.2	-----	---	-----
ISOPENTANE.....	0.2	-----		0.2	-----	---	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	---	-----
HEXANES PLUS.....	0.3	-----		0.2	-----	---	-----
NITROGEN.....	2.3	-----		2.0	-----	0.0	-----
OXYGEN.....	0.2	-----		TRACE	-----	0.4	-----
ARGON.....	TRACE	-----		0.0	-----	---	-----
HYDROGEN.....	0.0	-----		0.0	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.0	-----	1.7	-----
HELIUM.....	0.06	-----		0.12	-----	0.03	-----
HEATING VALUE.....	1142	-----		1196	-----	1148	-----
SPECIFIC GRAVITY.....	0.664	-----		0.692	-----	0.673	-----

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 11761 SAMPLE 9076		INDEX 11762 SAMPLE 9354		INDEX 11763 SAMPLE 10071	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	KANAWHA	COUNTY.....	KANAWHA	COUNTY.....	KANAWHA
FIELD.....	BLUE CREEK	FIELD.....	BLUE CREEK	FIELD.....	CENTRAL DIVISION
WELL NAME.....	CHARLOTTE CORK NO. 1	WELL NAME.....	CONNER NO. 1	WELL NAME.....	BLACK BAND COAL NO. 5252
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	LOUDON DIST.
OWNER.....	ASHLAND OIL & REFINING CO.	OWNER.....	ASHLAND OIL & REFINING CO.	OWNER.....	UNITED FUEL GAS CO.
COMPLETED.....	01/23/63	COMPLETED.....	10/10/61	COMPLETED.....	07/02/65
SAMPLED.....	09/05/63	SAMPLED.....	05/07/64	SAMPLED.....	08/17/65
FORMATION.....	PENN-SALT SAND	FORMATION.....	MISS-SIG LINE	FORMATION.....	SILU-NEWBURG
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	1293	DEPTH, FEET.....	2059	DEPTH, FEET.....	5212
WELLHEAD PRESSURE, PSIG.....	380	WELLHEAD PRESSURE, PSIG.....	490	WELLHEAD PRESSURE, PSIG.....	2075
OPEN FLOW, MCFD.....	11300	OPEN FLOW, MCFD.....	607	OPEN FLOW, MCFD.....	52350
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.7	METHANE.....	80.7	METHANE.....	93.3
ETHANE.....	2.4	ETHANE.....	12.2	ETHANE.....	3.1
PROPANE.....	0.7	PROPANE.....	4.4	PROPANE.....	0.8
N-BUTANE.....	0.2	N-BUTANE.....	1.3	N-BUTANE.....	0.3
ISOBUTANE.....	0.2	ISOBUTANE.....	0.4	ISOBUTANE.....	0.2
N-PENTANE.....	TRACE	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3
NITROGEN.....	2.1	NITROGEN.....	TRACE	NITROGEN.....	1.5
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.19	HELIUM.....	0.05	HELIUM.....	0.11
HEATING VALUE.....	1032	HEATING VALUE.....	1239	HEATING VALUE.....	1066
SPECIFIC GRAVITY.....	0.591	SPECIFIC GRAVITY.....	0.700	SPECIFIC GRAVITY.....	0.605

INDEX 11764 SAMPLE 10428		INDEX 11765 SAMPLE 510		INDEX 11766 SAMPLE 4365	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	KANAWHA	COUNTY.....	KANAWHA	COUNTY.....	KANAWHA
FIELD.....	CENTRAL DIVISION	FIELD.....	CLENDENIN	FIELD.....	CLENDENIN
WELL NAME.....	BLACK BAND COAL&COKE CO-3969	WELL NAME.....	JAMES JARRETT NO. 1	WELL NAME.....	NUMA BLK. COAL CO. NO. 5828
LOCATION.....	KANAWHA STATE FOREST	LOCATION.....	TOWNSITE	LOCATION.....	LAT. 38-23, LONG. 81-28
OWNER.....	UNITED FUEL GAS CO.	OWNER.....	UNITED FUEL GAS CO.	OWNER.....	UNITED FUEL GAS CO.
COMPLETED.....	10/27/65	COMPLETED.....	07/03/47	COMPLETED.....	07/03/47
SAMPLED.....	03/02/66	SAMPLED.....	10/15/20	SAMPLED.....	09/15/47
FORMATION.....	SILU-NEWBURG	FORMATION.....	MISS-SQUAW	FORMATION.....	DEVO-
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	5572	DEPTH, FEET.....	1904	DEPTH, FEET.....	5177
WELLHEAD PRESSURE, PSIG.....	2015	WELLHEAD PRESSURE, PSIG.....	450	WELLHEAD PRESSURE, PSIG.....	825
OPEN FLOW, MCFD.....	2477	OPEN FLOW, MCFD.....	1500	OPEN FLOW, MCFD.....	4075
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.4	METHANE.....	93.2	METHANE.....	75.4
ETHANE.....	2.9	ETHANE.....	4.3	ETHANE.....	20.7
PROPANE.....	0.6	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	0.3	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	0.3	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	TRACE	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	0.2	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.3	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	1.6	NITROGEN.....	1.8	NITROGEN.....	1.4
OXYGEN.....	0.0	OXYGEN.....	0.3	OXYGEN.....	0.4
ARGON.....	TRACE	ARGON.....	---	ARGON.....	---
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	2.1
HELIUM.....	0.11	HELIUM.....	0.10	HELIUM.....	0.04
HEATING VALUE.....	1062	HEATING VALUE.....	1021	HEATING VALUE.....	1135
SPECIFIC GRAVITY.....	0.605	SPECIFIC GRAVITY.....	0.587	SPECIFIC GRAVITY.....	0.685

INDEX 11767 SAMPLE 9360		INDEX 11768 SAMPLE 9287		INDEX 11769 SAMPLE 12471	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	KANAWHA	COUNTY.....	KANAWHA	COUNTY.....	KANAWHA
FIELD.....	CLENDENIN	FIELD.....	CLENDENIN	FIELD.....	COPPERS CREEK
WELL NAME.....	OSBORNE NO. 7	WELL NAME.....	W. H. VICKERS NO. 1-B	WELL NAME.....	PUSHKIN NO. 8-1
LOCATION.....	NOT GIVEN	LOCATION.....	ELK DIST.	LOCATION.....	POCA DIST.
OWNER.....	ASHLAND OIL & REFINING CO.	OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	CITIES SERVICE OIL CO.
COMPLETED.....	08/-/22	COMPLETED.....	08/26/46	COMPLETED.....	06/20/70
SAMPLED.....	08/09/64	SAMPLED.....	04/09/64	SAMPLED.....	10/20/70
FORMATION.....	MISS-WEIR	FORMATION.....	DEVO-ORISKANY	FORMATION.....	SILU-NEWBURG
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2108	DEPTH, FEET.....	4966	DEPTH, FEET.....	5807
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	1450	WELLHEAD PRESSURE, PSIG.....	1978
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	2214	OPEN FLOW, MCFD.....	12000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	71.6	METHANE.....	83.8	METHANE.....	55.3
ETHANE.....	15.0	ETHANE.....	7.4	ETHANE.....	1.9
PROPANE.....	7.4	PROPANE.....	2.5	PROPANE.....	0.4
N-BUTANE.....	2.3	N-BUTANE.....	0.9	N-BUTANE.....	0.2
ISOBUTANE.....	2.8	ISOBUTANE.....	0.3	ISOBUTANE.....	0.1
N-PENTANE.....	0.4	N-PENTANE.....	0.3	N-PENTANE.....	TRACE
ISOPENTANE.....	0.6	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	1.1	NITROGEN.....	3.7	NITROGEN.....	1.7
OXYGEN.....	0.3	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.05	HELIUM.....	0.04	HELIUM.....	0.10
HEATING VALUE.....	1353	HEATING VALUE.....	1123	HEATING VALUE.....	1030
SPECIFIC GRAVITY.....	0.784	SPECIFIC GRAVITY.....	0.670	SPECIFIC GRAVITY.....	0.583

INDEX 11770 SAMPLE 9375		INDEX 11771 SAMPLE 9877		INDEX 11772 SAMPLE 10738	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	KANAWHA	COUNTY.....	KANAWHA	COUNTY.....	KANAWHA
FIELD.....	DAVIS CREEK	FIELD.....	DAVIS CREEK	FIELD.....	DAVIS CREEK
WELL NAME.....	COURTLAND CO. NO. 5	WELL NAME.....	W. C. HARDY ET AL. NO. 15	WELL NAME.....	COURTLAND CO. ET AL. NO. 3
LOCATION.....	CHARLESTON QUAD	LOCATION.....	DAVIS CREEK	LOCATION.....	WASHINGTON DIST.
OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	CITIES SERVICE OIL CO.	OWNER.....	COMMONWEALTH GAS CORP.
COMPLETED.....	05/31/63	COMPLETED.....	03/05/65	COMPLETED.....	07/14/66
SAMPLED.....	05/18/64	SAMPLED.....	04/27/65	SAMPLED.....	09/30/66
FORMATION.....	MISS-SIG INJUN	FORMATION.....	SILU-NEWBURG	FORMATION.....	SILU-NEWBURG
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	1590	DEPTH, FEET.....	5272	DEPTH, FEET.....	5402
WELLHEAD PRESSURE, PSIG.....	430	WELLHEAD PRESSURE, PSIG.....	2200	WELLHEAD PRESSURE, PSIG.....	1950
OPEN FLOW, MCFD.....	808	OPEN FLOW, MCFD.....	2190	OPEN FLOW, MCFD.....	20135
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	83.3	METHANE.....	93.6	METHANE.....	91.2
ETHANE.....	3.7	ETHANE.....	3.7	ETHANE.....	3.7
PROPANE.....	3.7	PROPANE.....	0.8	PROPANE.....	1.2
N-BUTANE.....	1.3	N-BUTANE.....	0.2	N-BUTANE.....	0.4
ISOBUTANE.....	0.2	ISOBUTANE.....	0.2	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	TRACE	N-PENTANE.....	0.2
ISOPENTANE.....	0.4	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.3
NITROGEN.....	1.0	NITROGEN.....	1.7	NITROGEN.....	2.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0
HELIUM.....	0.09	HELIUM.....	0.12	HELIUM.....	0.16
HEATING VALUE.....	1195	HEATING VALUE.....	1050	HEATING VALUE.....	1077
SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.597	SPECIFIC GRAVITY.....	0.619

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11773 4313	INDEX SAMPLE	11774 4458	INDEX SAMPLE	11775 4459
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	KANAWHA			KANAWHA		KANAWHA	
FIELD.....	KANAWHA CITY			KANAWHA-CLENDENIN		KANAWHA-CLENDENIN	
WELL NAME.....	CAMPBELLS CREEK CO. NO. 4			NO. 6239		NO. 6242	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	COLUMBIAN CARBON CO.			UNITED FUEL GAS CO.		UNITED FUEL GAS CO.	
COMPLETED.....	08/05/40			12/17/47		12/24/47	
SAMPLED.....	05/21/47			04/01/48		04/01/48	
FORMATION.....	SILU-CLINTON			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	6204			5450		5098	
WELLHEAD PRESSURE, PSIG.....	1800			1950		1300	
OPEN FLOW, MCFD.....	1000			2282		7117	
COMPONENT, MOLE PCT							
METHANE.....	40.1	---	---	77.9	---	77.4	---
ETHANE.....	1.7	---	---	21.6	---	19.2	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	5.6	---	---	0.0	---	1.7	---
OXYGEN.....	0.3	---	---	0.3	---	1.4	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	52.1	---	---	0.2	---	0.3	---
HELIUM.....	0.19	---	---	0.03	---	0.04	---
HEATING VALUE.....	437	---	---	1176	---	1128	---
SPECIFIC GRAVITY.....	1.094	---	---	0.665	---	0.667	---

		INDEX SAMPLE	11776 4519	INDEX SAMPLE	11777 4520	INDEX SAMPLE	11778 4629
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	KANAWHA			KANAWHA		KANAWHA	
FIELD.....	KANAWHA-CLENDENIN			KANAWHA-CLENDENIN		KANAWHA-CLENDENIN	
WELL NAME.....	NO. 5849			NO. 6263		NO. 6296	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	UNITED FUEL GAS CO.			UNITED FUEL GAS CO.		UNITED FUEL GAS CO.	
COMPLETED.....	01/06/48			03/23/48		06/03/48	
SAMPLED.....	05/06/48			05/06/48		11/17/48	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	5163			5137		5244	
WELLHEAD PRESSURE, PSIG.....	975			1165		1125	
OPEN FLOW, MCFD.....	1037			582		6367	
COMPONENT, MOLE PCT							
METHANE.....	78.5	---	---	80.2	---	71.1	---
ETHANE.....	20.0	---	---	19.2	---	26.3	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	0.0	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	1.0	---	---	0.1	---	2.1	---
OXYGEN.....	0.2	---	---	0.2	---	0.3	---
ARGON.....	---	---	---	---	---	0.0	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.3	---	---	0.3	---	0.2	---
HELIUM.....	0.03	---	---	0.03	---	0.04	---
HEATING VALUE.....	1154	---	---	1156	---	1191	---
SPECIFIC GRAVITY.....	0.662	---	---	0.654	---	0.697	---

		INDEX SAMPLE	11779	INDEX SAMPLE	11780	INDEX SAMPLE	11781
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	KANAWHA			KANAWHA		KANAWHA	
FIELD.....	KANAWHA-CLENDENIN			KANAWHA-CLENDENIN		KELLYS CREEK-MAMMOTH	
WELL NAME.....	NO. 127			MATTIE G. RANS NO. 6939		LEWIS HOLDING NO. 1	
LOCATION.....	NOT GIVEN			916 SANDY DIST.		CABIN CREEK DIST.	
OWNER.....	UNITED FUEL GAS CO.			UNITED FUEL GAS CO.		OWENS, LIBBEY-OWENS GAS DEPT	
COMPLETED.....	06/03/48			09/03/50		06/01/60	
SAMPLED.....	11/17/48			03/23/53		06/23/64	
FORMATION.....	NOT GIVEN			DEVO-ORISKANY		PENN-SALT SAND	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	5326			5354		985	
WELLHEAD PRESSURE, PSIG.....	1150			1085		205	
OPEN FLOW, MCFD.....	4093			13319		266	
COMPONENT, MOLE PCT							
METHANE.....	70.9	---	---	85.4	---	95.8	---
ETHANE.....	27.6	---	---	8.8	---	1.0	---
PROPANE.....	---	---	---	2.8	---	0.3	---
N-BUTANE.....	---	---	---	0.8	---	TRACE	---
ISOBUTANE.....	---	---	---	0.4	---	TRACE	---
N-PENTANE.....	---	---	---	0.2	---	TRACE	---
ISOPENTANE.....	---	---	---	0.2	---	TRACE	---
CYCLOPENTANE.....	---	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	---	---	---	0.2	---	TRACE	---
NITROGEN.....	0.7	---	---	0.2	---	2.3	---
OXYGEN.....	0.2	---	---	TRACE	---	0.0	---
ARGON.....	---	---	---	TRACE	---	TRACE	---
HYDROGEN.....	---	---	---	0.1	---	0.0	---
HYDROGEN SULFIDE.....	---	---	---	---	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.1	---	0.2	---
HELIUM.....	0.04	---	---	0.04	---	0.16	---
HEATING VALUE.....	1164	---	---	1164	---	936	---
SPECIFIC GRAVITY.....	0.639	---	---	0.661	---	0.572	---

		INDEX SAMPLE	11782 9425	INDEX SAMPLE	11783 9645	INDEX SAMPLE	11784 9421
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	KANAWHA			KANAWHA		KANAWHA	
FIELD.....	KELLYS CREEK-MAMMOTH			KELLYS CREEK-MAMMOTH		MALDEN-CAMPBELL CREEK	
WELL NAME.....	MARRET NO. 14			LEWIS HOLDING NO. 5		HANCOCK NO. 7	
LOCATION.....	CABIN CREEK DIST.			CABIN CREEK DIST.		CABIN CREEK DIST.	
OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT			OWENS, LIBBEY-OWENS GAS DEPT		OWENS, LIBBEY-OWENS GAS DEPT	
COMPLETED.....	01/06/21			10/27/61		11/06/20	
SAMPLED.....	06/23/64			10/06/64		06/23/64	
FORMATION.....	MISS-BIG LIME			GREY INJUN		MISS-WEIR	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2080			2238		1800	
WELLHEAD PRESSURE, PSIG.....	290			500		420	
OPEN FLOW, MCFD.....	850			203		525	
COMPONENT, MOLE PCT							
METHANE.....	78.3	---	---	82.1	---	82.1	---
ETHANE.....	11.3	---	---	11.7	---	9.7	---
PROPANE.....	4.7	---	---	3.5	---	3.8	---
N-BUTANE.....	1.7	---	---	0.5	---	1.2	---
ISOBUTANE.....	1.0	---	---	0.5	---	1.0	---
N-PENTANE.....	0.7	---	---	0.2	---	0.4	---
ISOPENTANE.....	0.4	---	---	0.3	---	0.3	---
CYCLOPENTANE.....	0.2	---	---	TRACE	---	0.1	---
HEXANES PLUS.....	0.9	---	---	0.2	---	0.4	---
NITROGEN.....	0.5	---	---	0.3	---	0.8	---
OXYGEN.....	0.0	---	---	TRACE	---	0.0	---
ARGON.....	0.0	---	---	0.0	---	0.0	---
HYDROGEN.....	TRACE	---	---	0.0	---	TRACE	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.2	---	---	0.1	---	0.1	---
HELIUM.....	0.03	---	---	0.04	---	0.03	---
HEATING VALUE.....	1309	---	---	1214	---	1232	---
SPECIFIC GRAVITY.....	0.749	---	---	0.686	---	0.703	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

991

INDEX 11785 SAMPLE 9489			INDEX 11786 SAMPLE 9490			INDEX 11787 SAMPLE 9507		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	KANAWHA		KANAWHA			KANAWHA		
FIELD.....	N. B. TOMPKINS		N. B. TOMPKINS			N. B. TOMPKINS		
WELL NAME.....	NO. 8 SERIAL NO. 871		TOMPKINS NO. 8			NO. 6		
LOCATION.....	MALDEN DIST.		MALDEN DIST.			MALDEN DIST.		
OWNER.....	CABOT CORP.		CABOT CORP.			CABOT CORP.		
COMPLETED.....	11/27/36		04/30/64			08/23/37		
SAMPLED.....	07/14/64		07/14/64			08/14/64		
FORMATION.....	DEVO-ORISKANY		MISS-BIG INJUN			DEVO-ORISKANY		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	4520		1475			4436		
WELLHEAD PRESSURE, PSIG.....	1010		402			NOT GIVEN		
OPEN FLOW, MCFD.....	853		949			492		
COMPONENT, MOLE PCT								
METHANE.....	84.1		80.8			84.2		
ETHANE.....	7.4		9.7			8.1		
PROPANE.....	3.6		4.2			3.2		
N-BUTANE.....	0.9		1.9			0.9		
ISOBUTANE.....	0.1		0.8			0.2		
N-PENTANE.....	0.3		0.2			0.3		
ISOPENTANE.....	TRACE		0.7			TRACE		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.3		0.2			0.3		
NITROGEN.....	0.1		0.4			0.4		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.0		TRACE			2.2		
HELIUM.....	0.07		0.04			0.05		
HEATING VALUE.....	1144		1245			1150		
SPECIFIC GRAVITY.....	0.686		0.706			0.681		
INDEX 11788 SAMPLE 9225			INDEX 11789 SAMPLE 9226			INDEX 11790 SAMPLE 9227		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	KANAWHA		KANAWHA			KANAWHA		
FIELD.....	NORTHERN DIVISION		NORTHERN DIVISION			NORTHERN DIVISION		
WELL NAME.....	NO. 9306		NO. 8977			NO. 8960		
LOCATION.....	ELK DIST.		MALDEN DIST.			BIG SANDY DIST.		
OWNER.....	UNITED FUEL GAS CO.		UNITED FUEL GAS CO.			UNITED FUEL GAS CO.		
COMPLETED.....	09/17/63		1/06/60			08/10/60		
SAMPLED.....	01/21/64		01/21/64			01/21/64		
FORMATION.....	PENN-SALT SAND		MISS-BIG INJUN			MISS-WEIR		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1025		1646			2255		
WELLHEAD PRESSURE, PSIG.....	325		455			250		
OPEN FLOW, MCFD.....	1453		1784			327		
COMPONENT, MOLE PCT								
METHANE.....	90.9		81.9			71.0		
ETHANE.....	3.3		11.0			16.5		
PROPANE.....	0.8		3.8			6.6		
N-BUTANE.....	0.3		1.2			1.5		
ISOBUTANE.....	0.1		0.6			1.0		
N-PENTANE.....	TRACE		0.2			0.4		
ISOPENTANE.....	0.2		0.3			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.3			0.3		
NITROGEN.....	3.6		0.4			1.2		
OXYGEN.....	0.4		0.1			0.2		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.20		0.05			0.05		
HEATING VALUE.....	1023		1227			1316		
SPECIFIC GRAVITY.....	0.605		0.696			0.771		
INDEX 11791 SAMPLE 2857			INDEX 11792 SAMPLE 4766			INDEX 11793 SAMPLE 9166		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	KANAWHA		KANAWHA			KANAWHA		
FIELD.....	NOT GIVEN		NOT GIVEN			PAINT CREEK		
WELL NAME.....	COPENHAVER HEIRS NO. 1		NO. 20-769			EASTERN GAS & FUEL NO. 11		
LOCATION.....	LICK BR.		NOT GIVEN			NOT GIVEN		
OWNER.....	COLUMBIAN CARBON CO.		OWENS, LIBBEY-OWENS GAS DEPT			ASHLAND OIL & REFINING CO.		
COMPLETED.....	7-100		05/19/49			07/18/60		
SAMPLED.....	05-101		10/21/49			11/11/63		
FORMATION.....	SILU-		SILU-MEDINA, WHITE			MISS-WEIR		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		038			2068		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1900			660		
OPEN FLOW, MCFD.....	NOT GIVEN		560			158		
COMPONENT, MOLE PCT								
METHANE.....	49.2		42.8			94.7		
ETHANE.....	2.8		0.6			3.2		
PROPANE.....	---		0.3			0.5		
N-BUTANE.....	---		0.1			0.1		
ISOBUTANE.....	---		0.0			TRACE		
N-PENTANE.....	---		TRACE			0.1		
ISOPENTANE.....	---		0.0			TRACE		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	7.9		5.8			1.1		
OXYGEN.....	0.2		TRACE			TRACE		
ARGON.....	---		0.0			TRACE		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	39.9		50.0			0.1		
HELIUM.....	0.21		0.20			0.04		
HEATING VALUE.....	549		457			1042		
SPECIFIC GRAVITY.....	0.991		1.075			0.586		
INDEX 11794 SAMPLE 10950			INDEX 11795 SAMPLE 11133			INDEX 11796 SAMPLE 11731		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	KANAWHA		KANAWHA			KANAWHA		
FIELD.....	ROCKY FORK		ROCKY FORK			ROCKY FORK		
WELL NAME.....	U.F.C. NO. 9449		SMITH BAILEY NO. 1			H. G. MILAM NO. 2		
LOCATION.....	UNION DIST.		UNION DIST.			NOT GIVEN		
OWNER.....	UNITED FUEL GAS CO.		JARACO PROPERTIES, INC.			APPALACHIAN EXP. & DEV. INC.		
COMPLETED.....	02/24/67		09/21/67			01/11/69		
SAMPLED.....	05/04/67		09/20/67			01/11/69		
FORMATION.....	SILU-NEUBURG		SILU-NEUBURG			SILU-NEUBURG		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	5617		5572			5488		
WELLHEAD PRESSURE, PSIG.....	220		2100			1875		
OPEN FLOW, MCFD.....	31515		23000			3500		
COMPONENT, MOLE PCT								
METHANE.....	92.0		92.2			91.4		
ETHANE.....	3.4		3.4			3.3		
PROPANE.....	1.1		1.1			1.0		
N-BUTANE.....	0.4		0.4			0.4		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.3		1.9			0.3		
NITROGEN.....	1.7		0.1			2.5		
OXYGEN.....	TRACE		0.1			0.4		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.1			TRACE		
HELIUM.....	0.09		0.0			0.09		
HEATING VALUE.....	1082		1066			1067		
SPECIFIC GRAVITY.....	0.617		0.611			0.619		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11797 9906	INDEX SAMPLE	11798 11764	INDEX SAMPLE	11799 14381
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	KANAWHA			KANAWHA		LEWIS	
FIELD.....	SISSONVILLE			SISSONVILLE		FINSTER	
WELL NAME.....	RAYMOND CTY COAL NO. 1556			CAVENDER ET AL. B-1		MARTHA POSEY NO. 11842	
LOCATION.....	UNION TAX DIST.			ELK DIST.		COLLINS SETTLEMENT DIST.	
OWNER.....	CARDI CORP.			CITIES SERVICE OIL CO.		CONSOLIDATED GAS SUPPLY CORP	
COMPLETED.....	01/19/65			12/29/68		10/09/74	
SAMPLED.....	05/26/65			02/14/69		06/11/75	
FORMATION.....	DEVO-ORISKANY			SILU-NEUBURG		DEVO-FIFTY FOOT SAND	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	5096			5793		2293	
WELLHEAD PRESSURE, PSIG.....	1500			2271		960	
OPEN FLOW, MCFD.....	343			52000		3916	
COMPONENT, MOLE PCT							
METHANE.....	88.1	-----		95.0	-----	88.9	-----
ETHANE.....	6.1	-----		1.1	-----	4.9	-----
PROPANE.....	1.9	-----		0.3	-----	2.1	-----
N-BUTANE.....	0.7	-----		0.0	-----	0.5	-----
ISOBUTANE.....	0.3	-----		0.0	-----	0.5	-----
N-PENTANE.....	0.3	-----		0.0	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.0	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.0	-----	0.4	-----
NITROGEN.....	1.3	-----		3.5	-----	2.4	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	TRACE	-----
HELIUM.....	0.05	-----		0.11	-----	0.14	-----
HEATING VALUE.....	1126	-----		990	-----	1095	-----
SPECIFIC GRAVITY.....	0.647	-----		0.577	-----	0.632	-----
		INDEX SAMPLE	11800 9439	INDEX SAMPLE	11801 9454	INDEX SAMPLE	11802 13707
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LEWIS			LEWIS		LEWIS	
FIELD.....	LORENTZ			MURPHY CREEK		MURPHY CREEK	
WELL NAME.....	LEWIS CO. FARM NO. 10324			PORTER ARNOLD FARM NO. 1872		WOOPER A-455	
LOCATION.....	HACKEES CREEK DIST.			COURT HOUSE DIST.		FREEMAN CREEK DIST.	
OWNER.....	HOPE NATURAL GAS CO.			HOPE NATURAL GAS CO.		ALLEGHENY LAND & MINERAL CO.	
COMPLETED.....	08/08/61			07/06/10		09/14/72	
SAMPLED.....	07/14/64			07/15/64		08/24/73	
FORMATION.....	DEVO-BENSON			DEVO-GORDON		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	4422			2604		6682	
WELLHEAD PRESSURE, PSIG.....	1600			2400		2650	
OPEN FLOW, MCFD.....	4378			975		2768	
COMPONENT, MOLE PCT							
METHANE.....	87.1	-----		89.1	-----	95.6	-----
ETHANE.....	7.6	-----		5.9	-----	2.9	-----
PROPANE.....	2.0	-----		1.6	-----	0.4	-----
N-BUTANE.....	0.6	-----		0.3	-----	0.1	-----
ISOBUTANE.....	0.4	-----		0.0	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.0	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.3	-----		0.2	-----	0.1	-----
NITROGEN.....	1.5	-----		2.2	-----	0.5	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		TRACE	-----	0.0	-----
HELIUM.....	0.09	-----		0.14	-----	0.03	-----
HEATING VALUE.....	1132	-----		1089	-----	1050	-----
SPECIFIC GRAVITY.....	0.647	-----		0.626	-----	0.585	-----
		INDEX SAMPLE	11803 13708	INDEX SAMPLE	11804 9448	INDEX SAMPLE	11805 9451
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LEWIS			LEWIS		LEWIS	
FIELD.....	MURPHY CREEK			NOT GIVEN		NOT GIVEN	
WELL NAME.....	BUTCHER A-454			W. M. GIMMEL FARM NO. 10441		JAMES R. MCCLAIN NO. 10317	
LOCATION.....	FREEMAN CREEK DIST.			SKIN CREEK DIST.		COLLINS SETTLEMENT DIST.	
OWNER.....	ALLEGHENY LAND & MINERAL CO.			HOPE NATURAL GAS CO.		HOPE NATURAL GAS CO.	
COMPLETED.....	10/20/72			05/06/63		06/24/61	
SAMPLED.....	08/24/73			07/14/64		07/15/64	
FORMATION.....	DEVO-HUNTERSVILLE & ORISKANY			MISS-BIG INJUN		DEVO-FOURTH SAND	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	6735			1487		1927	
WELLHEAD PRESSURE, PSIG.....	2681			730		675	
OPEN FLOW, MCFD.....	4300			1353		1905	
COMPONENT, MOLE PCT							
METHANE.....	94.1	-----		89.0	-----	91.4	-----
ETHANE.....	3.6	-----		5.9	-----	5.0	-----
PROPANE.....	0.8	-----		1.3	-----	2.2	-----
N-BUTANE.....	0.2	-----		0.5	-----	0.3	-----
ISOBUTANE.....	0.2	-----		0.3	-----	0.2	-----
N-PENTANE.....	0.1	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	0.2	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	1.0	-----
NITROGEN.....	0.0	-----		1.0	-----	0.0	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.0	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.0	-----
HELIUM.....	0.03	-----		0.10	-----	0.09	-----
HEATING VALUE.....	1075	-----		1099	-----	1082	-----
SPECIFIC GRAVITY.....	0.600	-----		0.630	-----	0.609	-----
		INDEX SAMPLE	11806 9663	INDEX SAMPLE	11807 9665	INDEX SAMPLE	11808 9666
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LEWIS			LEWIS		LEWIS	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
WELL NAME.....	NO. 7024			NO. 7024		25203-NO. 1	
LOCATION.....	COURT HOUSE DIST.			FREEMAN CREEK DIST.		COLLINS SETTLEMENT DIST.	
OWNER.....	EQUITABLE GAS CO.			EQUITABLE GAS CO.		JAMES S. RAY	
COMPLETED.....	11/15/74			07/21/75		05/17/60	
SAMPLED.....	12/08/64			12/08/64		12/08/64	
FORMATION.....	DEVO-GORDON			MISS-BIG INJUN		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2565			1440		1756	
WELLHEAD PRESSURE, PSIG.....	32			100		600	
OPEN FLOW, MCFD.....	27			337		360	
COMPONENT, MOLE PCT							
METHANE.....	78.7	-----		82.7	-----	89.9	-----
ETHANE.....	11.5	-----		9.2	-----	4.2	-----
PROPANE.....	4.6	-----		3.3	-----	1.6	-----
N-BUTANE.....	1.0	-----		1.0	-----	0.7	-----
ISOBUTANE.....	0.9	-----		0.7	-----	0.2	-----
N-PENTANE.....	0.4	-----		0.4	-----	0.2	-----
ISOPENTANE.....	0.4	-----		0.4	-----	0.2	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.5	-----		0.4	-----	0.2	-----
NITROGEN.....	1.3	-----		1.0	-----	2.5	-----
OXYGEN.....	0.0	-----		0.1	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE**.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.07	-----		0.09	-----	0.17	-----
HEATING VALUE.....	1260	-----		1081	-----	1081	-----
SPECIFIC GRAVITY.....	0.727	-----		0.690	-----	0.627	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

988

STATE	INDEX SAMPLE	11809 9667	INDEX SAMPLE	11810 11687	INDEX SAMPLE	11811 12050
WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LEWIS		LEWIS		LEWIS	
FIELD.....	NOT GIVEN		NOT GIVEN		PETERSON	
WELL NAME.....	NO. 1969		HARRY HULL NO. 1		HARRY MYERS NO. 1	
LOCATION.....	COURT HOUSE DIST.		COLLINS SETTLEMENT DIST.		COLLINS SETTLEMENT DIST.	
OWNER.....	EQUITABLE GAS CO.		ST. CLAIR OIL CO.		LITTLE SWISS OIL & GAS CO.	
COMPLETED.....	09/24/67		03/06/68		09/01/68	
SAMPLED.....	12/08/64		11/20/68		09/14/69	
FORMATION.....	MISS-BIG INJUN		DEVO-GORDON		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	1719		2111		2140	
WELLHEAD PRESSURE, PSIG.....	320		750		780	
OPEN FLOW, MCFD.....	155		400000		2500	
COMPONENT, MOLE PCT						
METHANE.....	85.9		86.3		86.6	
ETHANE.....	8.5		7.7		6.9	
PROPANE.....	1.6		2.4		2.5	
N-BUTANE.....	0.8		0.7		0.5	
ISOBUTANE.....	0.4		0.3		0.3	
N-PENTANE.....	0.2		0.1		0.1	
ISOPENTANE.....	0.2		0.3		0.2	
CYCLOPENTANE.....	TRACE		TRACE		TRACE	
HEXANES PLUS.....	0.2		0.1		0.2	
NITROGEN.....	0.9		1.8		2.2	
OXYGEN.....	0.1		0.8		0.0	
ARGON.....	TRACE		TRACE		0.0	
HYDROGEN.....	0.0		0.1		0.3	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	TRACE		0.1		0.0	
HELIUM.....	0.08		0.11		0.15	
HEATING VALUE.....	1158		1131		1117	
SPECIFIC GRAVITY.....	0.657		0.651		0.643	

STATE	INDEX SAMPLE	11812 9783	INDEX SAMPLE	11813 9888	INDEX SAMPLE	11814 12638
WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LEWIS		LEWIS		LEWIS	
FIELD.....	SKIN CREEK		SKIN CREEK		VANDALIA	
WELL NAME.....	ALDIS CLARK NO. 10644		E. L. SMITH NO. 10645		RUSSELL & DENISON NO. 1	
LOCATION.....	SKIN CREEK DIST.		SKIN CREEK DIST.		COLLINS SETTLEMENT DIST.	
OWNER.....	HOPE NATURAL GAS CO.		HOPE NATURAL GAS CO.		ST. CLAIR OIL CO.	
COMPLETED.....	09/29/64		12/09/64		09/28/70	
SAMPLED.....	03/03/65		03/17/65		01/22/71	
FORMATION.....	DEVO-BENSON		DEVO-BENSON		DEVO-BENSON	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	4596		4617		4128	
WELLHEAD PRESSURE, PSIG.....	1695		1680		1575	
OPEN FLOW, MCFD.....	2316		8691		2223	
COMPONENT, MOLE PCT						
METHANE.....	90.0		89.8		89.2	
ETHANE.....	6.5		6.8		6.5	
PROPANE.....	1.3		1.5		1.9	
N-BUTANE.....	0.4		0.4		0.4	
ISOBUTANE.....	0.3		0.3		0.3	
N-PENTANE.....	0.1		0.1		0.1	
ISOPENTANE.....	0.1		TRACE		TRACE	
CYCLOPENTANE.....	TRACE		TRACE		TRACE	
HEXANES PLUS.....	0.2		0.2		0.2	
NITROGEN.....	0.9		0.7		1.1	
OXYGEN.....	TRACE		0.0		TRACE	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.1		0.1		0.0	
HELIUM.....	0.06		0.05		0.07	
HEATING VALUE.....	1104		1109		1107	
SPECIFIC GRAVITY.....	0.623		0.624		0.626	

STATE	INDEX SAMPLE	11815 4428	INDEX SAMPLE	11816 11060	INDEX SAMPLE	11817 17592
WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LEWIS		LEWIS		LEWIS	
FIELD.....	WESTON		WESTON		WESTON JANE LEW	
WELL NAME.....	T. L. MONEYPENNY NO. E-1638		F. WHITE NO. 10888		VILLERS DONNOLLY NO. 12	
LOCATION.....	FREEMAN CREEK DIST.		FREEMAN CREEK DIST.		WESTON QUAD.	
OWNER.....	CARNEGIE NATURAL GAS CO.		CONSOLIDATED GAS SUPPLY CORP		D. G. HANEY, INC.	
COMPLETED.....	11/27/47		01/05/67		11/23/80	
SAMPLED.....	02/03/48		08/09/67		02/12/85	
FORMATION.....	DEVO-GORDON		DEVO-BENSON		DEVO-ELK	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	2291		4613		5982	
WELLHEAD PRESSURE, PSIG.....	505		1880		1460	
OPEN FLOW, MCFD.....	989		9500		2953	
COMPONENT, MOLE PCT						
METHANE.....	95.1		79.8		84.6	
ETHANE.....	2.8		10.8		9.9	
PROPANE.....	---		0.4		2.9	
N-BUTANE.....	---		0.8		0.7	
ISOBUTANE.....	---		0.5		0.4	
N-PENTANE.....	---		0.0		0.2	
ISOPENTANE.....	---		0.4		0.1	
CYCLOPENTANE.....	---		0.7		0.1	
HEXANES PLUS.....	---		0.6		0.3	
NITROGEN.....	0.3		1.6		0.6	
OXYGEN.....	0.2		TRACE		TRACE	
ARGON.....	---		0.0		TRACE	
HYDROGEN.....	---		0.2		0.1	
HYDROGEN SULFIDE.....	---		0.0		0.0	
CARBON DIOXIDE.....	0.3		0.2		0.1	
HELIUM.....	0.31		0.07		0.05	
HEATING VALUE.....	1014		1051		1179	
SPECIFIC GRAVITY.....	0.576		0.724		0.667	

STATE	INDEX SAMPLE	11818 9444	INDEX SAMPLE	11819 11713	INDEX SAMPLE	11820 9414
WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LEWIS		LEWIS		LINCOLN	
FIELD.....	WESTON-JANE LEW		WILDCAT		ALUM CREEK	
WELL NAME.....	T. L. HODKINS FARM NO. 10357		T. L. NORRIS NO. 10994		LINCOLN MINERAL NO. 8	
LOCATION.....	FREEMAN CREEK DIST.		FREEMAN CREEK DIST.		NOT GIVEN	
OWNER.....	HOPE NATURAL GAS CO.		CONSOLIDATED GAS SUPPLY CORP		ASHLAND OIL & REFINING CO.	
COMPLETED.....	03/02/62		08/05/68		09/17/83	
SAMPLED.....	07/06/64		12/06/68		06/11/84	
FORMATION.....	MISS-BIG INJUN		DEVO-BENSON		DEVO-BROWN SHALE	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	1370		4165		3400	
WELLHEAD PRESSURE, PSIG.....	590		1820		350	
OPEN FLOW, MCFD.....	1592		825		848	
COMPONENT, MOLE PCT						
METHANE.....	84.4		84.1		79.1	
ETHANE.....	8.6		10.1		12.4	
PROPANE.....	2.9		3.1		4.4	
N-BUTANE.....	0.7		0.7		1.0	
ISOBUTANE.....	0.6		0.4		0.4	
N-PENTANE.....	0.2		0.2		0.1	
ISOPENTANE.....	0.3		0.1		0.3	
CYCLOPENTANE.....	TRACE		0.1		TRACE	
HEXANES PLUS.....	0.3		0.2		0.1	
NITROGEN.....	1.7		0.5		2.8	
OXYGEN.....	0.0		0.0		0.0	
ARGON.....	0.0		TRACE		0.0	
HYDROGEN.....	TRACE		0.2		TRACE	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.1		TRACE		0.2	
HELIUM.....	0.08		0.06		0.07	
HEATING VALUE.....	1168		1168		1207	
SPECIFIC GRAVITY.....	0.662		0.664		0.700	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11821 9219	INDEX SAMPLE	11822 9419	INDEX SAMPLE	11823 9545
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LINCOLN			LINCOLN		LOGAN	
FIELD.....	CENTRAL DIVISION			JULIAN-MADISON		BLAIR	
WELL NAME.....	NO. 6945			LITTLE COAL LAND CO. NO. 15		NO. 9771	
LOCATION.....	NOT GIVEN			JEFFERSON DIST.		LOGAN DIST.	
OWNER.....	UNITED FUEL GAS CO.			OWENS, LIBBEY-OWENS GAS DEPT		HOPE NATURAL GAS CO.	
COMPLETED.....	06/12/52			06/25/36		10/04/55	
SAMPLED.....	01/20/64			06/29/64		08/12/64	
FORMATION.....	DEVO-BROWN SHALE			MISS-BIG LIME		MISS-BIG LIME	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3023			1590		2036	
WELLHEAD PRESSURE, PSIG.....	375			346		47	
OPEN FLOW, MCFD.....	348			907		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	76.1	-----		78.0	-----	91.1	-----
ETHANE.....	14.0	-----		11.8	-----	3.7	-----
PROPANE.....	4.8	-----		5.1	-----	1.4	-----
N-BUTANE.....	1.2	-----		1.6	-----	0.8	-----
ISOBUTANE.....	0.5	-----		0.7	-----	0.4	-----
N-PENTANE.....	0.2	-----		0.5	-----	0.5	-----
ISOPENTANE.....	0.2	-----		0.5	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.7	-----
HEXANES PLUS.....	0.1	-----		0.4	-----	0.1	-----
NITROGEN.....	2.3	-----		1.2	-----	1.0	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.10	-----		0.04	-----	0.09	-----
HEATING VALUE.....	1226	-----		1278	-----	1131	-----
SPECIFIC GRAVITY.....	0.720	-----		0.736	-----	0.640	-----
		INDEX SAMPLE	11824 9424	INDEX SAMPLE	11825 9363	INDEX SAMPLE	11826 9495
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LOGAN			LOGAN		LOGAN	
FIELD.....	CHAPMANVILLE-LOGAN			GILBERT		WAGONIA	
WELL NAME.....	PATTERSON NO. 5			ALBERT COLE NO. 7		NO. 9758	
LOCATION.....	CHAPMANVILLE DIST.			MATEWAN QUAD.		TRIADAPLHIA DIST.	
OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT			CITIES SERVICE OIL CO.		HOPE NATURAL GAS CO.	
COMPLETED.....	08/31/60			06/06/63		03/06/63	
SAMPLED.....	06/26/64			05/08/63		07/06/64	
FORMATION.....	MISS-BIG LIME			MISS-BIG LIME		MISS-BIG LIME	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1183			2502		2854	
WELLHEAD PRESSURE, PSIG.....	405			735		785	
OPEN FLOW, MCFD.....	277			4875		2630	
COMPONENT, MOLE PCT							
METHANE.....	74.4	-----		88.7	-----	90.4	-----
ETHANE.....	15.1	-----		6.5	-----	6.3	-----
PROPANE.....	1.6	-----		0.3	-----	1.5	-----
N-BUTANE.....	1.6	-----		0.3	-----	0.4	-----
ISOBUTANE.....	0.9	-----		0.3	-----	0.3	-----
N-PENTANE.....	0.3	-----		TRACE	-----	TRACE	-----
ISOPENTANE.....	0.5	-----		TRACE	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.3	-----		0.1	-----	0.2	-----
NITROGEN.....	0.4	-----		2.3	-----	0.6	-----
OXYGEN.....	0.0	-----		TRACE	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.3	-----	0.1	-----
HELIUM.....	0.04	-----		0.03	-----	0.01	-----
HEATING VALUE.....	1325	-----		1074	-----	1106	-----
SPECIFIC GRAVITY.....	0.757	-----		0.622	-----	0.621	-----
		INDEX SAMPLE	11827 9404	INDEX SAMPLE	11828 9582	INDEX SAMPLE	11829 14768
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LOGAN			LOGAN		LOGAN	
FIELD.....	MANN-OCEANA			MANN-OCEANA		MANN-OCEANA	
WELL NAME.....	PARDEE LAND CO. NO. 1			ELK CREEK COAL LD. NO. 15		NO. 11870	
LOCATION.....	TRIADAPLHIA DIST.			TRIADAPLHIA DIST.		BUFFALO CREEK	
OWNER.....	ASHLAND OIL & REFINING CO.			ASHLAND OIL & REFINING CO.		CONSOLIDATED GAS SUPPLY CORP	
COMPLETED.....	09/15/63			04/18/59		12/30/74	
SAMPLED.....	06/7-76			08/11/64		09/17/76	
FORMATION.....	MISS-WEIR			MISS-BIG LIME		MISS-BIG LIME & BEREA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3145			2148		4193	
WELLHEAD PRESSURE, PSIG.....	500			810		852	
OPEN FLOW, MCFD.....	412			2524		5938	
COMPONENT, MOLE PCT							
METHANE.....	91.8	-----		89.8	-----	90.1	-----
ETHANE.....	5.8	-----		6.6	-----	6.0	-----
PROPANE.....	1.2	-----		1.8	-----	0.6	-----
N-BUTANE.....	0.2	-----		0.2	-----	0.6	-----
ISOBUTANE.....	0.4	-----		0.2	-----	0.2	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.2	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.2	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.2	-----
NITROGEN.....	0.5	-----		0.5	-----	0.5	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.1	-----	TRACE	-----
HELIUM.....	0.03	-----		TRACE	-----	0.10	-----
HEATING VALUE.....	1088	-----		1122	-----	1132	-----
SPECIFIC GRAVITY.....	0.607	-----		0.630	-----	0.635	-----
		INDEX SAMPLE	11830 9546	INDEX SAMPLE	11831 9420	INDEX SAMPLE	11832 9326
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	LOGAN			LOGAN		LOGAN	
FIELD.....	NOT GIVEN			RANGER-ALLEN-FERRELLSBURG		WACOTOCK	
WELL NAME.....	NO. 10451			ISLAND CREEK NO. 16		NO. W-22	
LOCATION.....	LOGAN DIST.			CHAPMANVILLE DIST.		LOGAN DIST.	
OWNER.....	HOPE NATURAL GAS CO.			OWENS, LIBBEY-OWENS GAS DEPT		OWENHEALTH GAS CORP.	
COMPLETED.....	05/08/63			12/29/55		01/04/26	
SAMPLED.....	08/11/64			06/24/64		04/23/64	
FORMATION.....	MISS-MAXTON			DEVO-SHALE		MISS-GREENBRIER & BEREA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1990			3169		2350	
WELLHEAD PRESSURE, PSIG.....	632			460		550	
OPEN FLOW, MCFD.....	7234			112		1813	
COMPONENT, MOLE PCT							
METHANE.....	93.0	-----		78.3	-----	72.5	-----
ETHANE.....	0.7	-----		13.3	-----	15.3	-----
PROPANE.....	0.2	-----		5.0	-----	6.4	-----
N-BUTANE.....	TRACE	-----		1.1	-----	2.3	-----
ISOBUTANE.....	TRACE	-----		0.3	-----	0.8	-----
N-PENTANE.....	0.1	-----		0.2	-----	0.5	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	0.8	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		0.05	-----	0.7	-----
NITROGEN.....	0.1	-----		1.0	-----	0.0	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		0.1	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.1	-----	0.4	-----
HELIUM.....	0.39	-----		0.05	-----	0.02	-----
HEATING VALUE.....	969	-----		1235	-----	1375	-----
SPECIFIC GRAVITY.....	0.584	-----		0.707	-----	0.788	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

995

INDEX 11833 SAMPLE 9327		INDEX 11834 SAMPLE 5373		INDEX 11835 SAMPLE 9435	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	LOGAN	COUNTY.....	LOGAN	COUNTY.....	MARION
FIELD.....	WACOTOCK	FIELD.....	WYOMING	FIELD.....	BROWN LUMBERPORT
WELL NAME.....	GUYAN MERCANTILE W-3	WELL NAME.....	PARDEE LAND NO. 33	WELL NAME.....	J. T. CRISS NO. 485
LOCATION.....	LOGAN DIST.	LOCATION.....	PHILADELPHIA DIST.	LOCATION.....	MANNINGTON DIST.
OWNER.....	COMMONWEALTH GAS CORP.	OWNER.....	UNITED PRODUCING CO., INC.	OWNER.....	HOPE NATURAL GAS CO.
COMPLETED.....	06/26/26	COMPLETED.....	10/03/52	COMPLETED.....	09/11/03
SAMPLED.....	04/23/64	SAMPLED.....	01/02/53	SAMPLED.....	07/16/64
FORMATION.....	MISS-GREENBRIER	FORMATION.....	MISS-BEREA	FORMATION.....	DEVO-GORDON
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2240	DEPTH, FEET.....	4445	DEPTH, FEET.....	2880
WELLHEAD PRESSURE, PSIG.....	290	WELLHEAD PRESSURE, PSIG.....	658	WELLHEAD PRESSURE, PSIG.....	15
OPEN FLOW, MCFD.....	1309	OPEN FLOW, MCFD.....	959	OPEN FLOW, MCFD.....	27
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	85.7	METHANE.....	93.8	METHANE.....	71.9
ETHANE.....	8.3	ETHANE.....	4.2	ETHANE.....	12.2
PROPANE.....	2.9	PROPANE.....	0.7	PROPANE.....	6.8
N-BUTANE.....	1.1	N-BUTANE.....	0.1	N-BUTANE.....	2.7
ISOBUTANE.....	0.2	ISOBUTANE.....	0.1	ISOBUTANE.....	1.5
N-PENTANE.....	0.3	N-PENTANE.....	0.1	N-PENTANE.....	0.6
ISOPENTANE.....	0.3	ISOPENTANE.....	0.0	ISOPENTANE.....	1.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.8
NITROGEN.....	0.4	NITROGEN.....	0.7	NITROGEN.....	1.8
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.05	HELIUM.....	0.1	HELIUM.....	0.08
HEATING VALUE.....	1191	HEATING VALUE.....	1060	HEATING VALUE.....	1390
SPECIFIC GRAVITY.....	0.671	SPECIFIC GRAVITY.....	0.593	SPECIFIC GRAVITY.....	0.814
INDEX 11836 SAMPLE 4602		INDEX 11837 SAMPLE 9442		INDEX 11838 SAMPLE 9478	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	MARION	COUNTY.....	MARION	COUNTY.....	MARION
FIELD.....	FAIRMONT	FIELD.....	FAIRMONT	FIELD.....	FAIRMONT
WELL NAME.....	JOHN G. VINCENT ET AL. NO. 1	WELL NAME.....	E. T. TALKINGTON NO. 9523	WELL NAME.....	J. N. KUHN NO. 1658
LOCATION.....	SEC. 1, UNION DIST.	LOCATION.....	LINCOLN DIST.	LOCATION.....	GRANT DIST.
OWNER.....	OWENS-ILLINOIS GLASS CO.	OWNER.....	HOPE NATURAL GAS CO.	OWNER.....	HOPE NATURAL GAS CO.
COMPLETED.....	07/21/48	COMPLETED.....	01/21/48	COMPLETED.....	07/31/10
SAMPLED.....	10/20/48	SAMPLED.....	07/15/64	SAMPLED.....	07/15/64
FORMATION.....	MISS-KEENER	FORMATION.....	MISS-BIG INJUN	FORMATION.....	DEVO-FIFTH
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	1090	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	2680
WELLHEAD PRESSURE, PSIG.....	220	WELLHEAD PRESSURE, PSIG.....	28	WELLHEAD PRESSURE, PSIG.....	43
OPEN FLOW, MCFD.....	411	OPEN FLOW, MCFD.....	14	OPEN FLOW, MCFD.....	26
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	88.9	METHANE.....	68.8	METHANE.....	79.8
ETHANE.....	9.5	ETHANE.....	15.9	ETHANE.....	11.1
PROPANE.....	---	PROPANE.....	2.8	PROPANE.....	4.6
N-BUTANE.....	---	N-BUTANE.....	1.5	N-BUTANE.....	1.3
ISOBUTANE.....	---	ISOBUTANE.....	0.6	ISOBUTANE.....	0.8
N-PENTANE.....	---	N-PENTANE.....	0.1	N-PENTANE.....	0.4
ISOPENTANE.....	---	ISOPENTANE.....	0.1	ISOPENTANE.....	0.3
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	1.0	HEXANES PLUS.....	0.7	HEXANES PLUS.....	0.5
NITROGEN.....	0.3	NITROGEN.....	0.1	NITROGEN.....	0.8
OXYGEN.....	---	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	---	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	---	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	0.12	HELIUM.....	0.05	HELIUM.....	0.09
HEATING VALUE.....	1071	HEATING VALUE.....	1449	HEATING VALUE.....	1257
SPECIFIC GRAVITY.....	0.609	SPECIFIC GRAVITY.....	0.833	SPECIFIC GRAVITY.....	0.718
INDEX 11839 SAMPLE 9701		INDEX 11840 SAMPLE 9702		INDEX 11841 SAMPLE 9452	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	MARION	COUNTY.....	MARION	COUNTY.....	MARION
FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN	FIELD.....	PLUM RUN
WELL NAME.....	NO. 5169	WELL NAME.....	NO. 5201	WELL NAME.....	JOSEPH CAMPBELL NO. 114
LOCATION.....	FAIRMONT DIST.	LOCATION.....	FAIRMONT DIST.	LOCATION.....	MANNINGTON DIST.
OWNER.....	EQUITABLE GAS CO.	OWNER.....	EQUITABLE GAS CO.	OWNER.....	HOPE NATURAL GAS CO.
COMPLETED.....	06/21/16	COMPLETED.....	11/14/16	COMPLETED.....	04/11/99
SAMPLED.....	01/07/65	SAMPLED.....	01/07/65	SAMPLED.....	07/15/64
FORMATION.....	MISS-BIG INJUN	FORMATION.....	DEVO-FIFTH	FORMATION.....	DEVO-FIFTH
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	1875	DEPTH, FEET.....	2892	DEPTH, FEET.....	3337
WELLHEAD PRESSURE, PSIG.....	26	WELLHEAD PRESSURE, PSIG.....	160	WELLHEAD PRESSURE, PSIG.....	27
OPEN FLOW, MCFD.....	40	OPEN FLOW, MCFD.....	16	OPEN FLOW, MCFD.....	32
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.3	METHANE.....	83.1	METHANE.....	83.0
ETHANE.....	4.6	ETHANE.....	9.8	ETHANE.....	10.0
PROPANE.....	1.2	PROPANE.....	3.5	PROPANE.....	3.1
N-BUTANE.....	0.4	N-BUTANE.....	0.9	N-BUTANE.....	0.9
ISOBUTANE.....	0.3	ISOBUTANE.....	0.7	ISOBUTANE.....	0.6
N-PENTANE.....	0.1	N-PENTANE.....	0.3	N-PENTANE.....	0.4
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.5
NITROGEN.....	2.5	NITROGEN.....	1.1	NITROGEN.....	1.2
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.14	HELIUM.....	0.08	HELIUM.....	0.11
HEATING VALUE.....	1072	HEATING VALUE.....	1195	HEATING VALUE.....	1197
SPECIFIC GRAVITY.....	0.619	SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.685
INDEX 11842 SAMPLE 17524		INDEX 11843 SAMPLE 9342		INDEX 11844 SAMPLE 4595	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	MASON	COUNTY.....	MASON	COUNTY.....	MASON
FIELD.....	MANNA DISTRICT	FIELD.....	F. WHEATON	FIELD.....	MASON
WELL NAME.....	DALE NIBERT #1-1738	WELL NAME.....	NO. 129	WELL NAME.....	LEO OTIS HUSSELL NO. 1
LOCATION.....	FLATFOOT CREEK	LOCATION.....	HANNAH DIST.	LOCATION.....	NOT GIVEN
OWNER.....	UNION DRILLING, INC.	OWNER.....	PEAKE PETROLEUM CO.	OWNER.....	COLUMBIAN CARBON CO.
COMPLETED.....	--/--/00	COMPLETED.....	12/07/62	COMPLETED.....	06/10/48
SAMPLED.....	11/14/84	SAMPLED.....	04/30/64	SAMPLED.....	10/08/48
FORMATION.....	DEVO-HURON	FORMATION.....	DEVO-ORISKANY	FORMATION.....	DEVO-SHALE
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	3000	DEPTH, FEET.....	4130	DEPTH, FEET.....	3483
WELLHEAD PRESSURE, PSIG.....	600	WELLHEAD PRESSURE, PSIG.....	950	WELLHEAD PRESSURE, PSIG.....	700
OPEN FLOW, MCFD.....	158	OPEN FLOW, MCFD.....	59	OPEN FLOW, MCFD.....	445
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.8	METHANE.....	88.0	METHANE.....	70.4
ETHANE.....	7.5	ETHANE.....	7.4	ETHANE.....	25.5
PROPANE.....	3.6	PROPANE.....	2.0	PROPANE.....	---
N-BUTANE.....	0.9	N-BUTANE.....	0.6	N-BUTANE.....	---
ISOBUTANE.....	0.2	ISOBUTANE.....	0.1	ISOBUTANE.....	---
N-PENTANE.....	0.2	N-PENTANE.....	TRACE	N-PENTANE.....	---
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	0.8	NITROGEN.....	2.2	NITROGEN.....	3.4
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.4	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.16	HELIUM.....	0.10	HELIUM.....	0.10
HEATING VALUE.....	1131	HEATING VALUE.....	1170	HEATING VALUE.....	1170
SPECIFIC GRAVITY.....	0.671	SPECIFIC GRAVITY.....	0.636	SPECIFIC GRAVITY.....	0.699

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 11845 SAMPLE 4596	INDEX 11846 SAMPLE 4551	INDEX 11847 SAMPLE 4552
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	MASON		MASON	MASON
FIELD.....	MASON		MASON DISTRICT	MASON DISTRICT
WELL NAME.....	H. A. GERLACH NO. 1		E. F. DURST NO. 1	GOLDIE ANKRUN NO. 1
LOCATION.....	NOT GIVEN		NOT GIVEN	RIGHT FORK-COLOGNE DIST.
OWNER.....	COLUMBIAN CARBON CO.		COLUMBIAN CARBON CO.	COLUMBIAN CARBON CO.
COMPLETED.....	03/18/48		03/06/48	04/28/48
SAMPLED.....	10/08/48		07/30/48	06/11/48
FORMATION.....	DEV-O-SHALE		DEV-O-SHALE	DEV-O-SHALE
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	3200		3485	2735
WELLHEAD PRESSURE, PSIG.....	860		860	800
OPEN FLOW, MCFD.....	84		84	103
COMPONENT, MOLE PCT.....				
METHANE.....	54.8	74.5	75.0	
ETHANE.....	37.3	21.7	22.9	
PROPANE.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	7.4	3.3	1.7	
OXYGEN.....	0.2	0.2	0.1	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE**.....	---	---	---	
CARBON DIOXIDE.....	0.2	0.2	0.2	
HELIUM.....	0.10	0.12	0.12	
HEATING VALUE.....	1224	1144	1170	
SPECIFIC GRAVITY.....	0.772	0.678	0.677	
		INDEX 11848 SAMPLE 10542	INDEX 11849 SAMPLE 17678	INDEX 11850 SAMPLE 9512
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	MASON		MCDOWELL	MCDOWELL
FIELD.....	NOT GIVEN		ASHLAND	BIG CREEK
WELL NAME.....	VALLEY TONEY NO. 1		F. SMITH NO. 4	NO. 10220
LOCATION.....	LEWIS DIST., 12-CC-89		ADKIN DISTRICT	BIG CREEK DIST.
OWNER.....	POWVA OIL CO.		BEREA OIL & GAS CORP.	HOPE NATURAL GAS CO.
COMPLETED.....	08/26/65		11/30/64	04/16/63
SAMPLED.....	03/22/66		05/22/65	07/27/64
FORMATION.....	DEV-O-SHAKANY		MISS-WEIR	MISS-BEREA
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	3446		3760	4423
WELLHEAD PRESSURE, PSIG.....	1145		860	410
OPEN FLOW, MCFD.....	250		3800	641
COMPONENT, MOLE PCT.....				
METHANE.....	84.7	96.4	97.9	
ETHANE.....	8.5	1.4	1.3	
PROPANE.....	3.5	0.1	0.1	
N-BUTANE.....	0.9	0.0	0.0	
ISOBUTANE.....	0.2	0.0	0.0	
N-PENTANE.....	0.1	0.0	0.0	
ISOPENTANE.....	0.2	0.0	0.0	
CYCLOPENTANE.....	TRACE	0.0	0.0	
HEXANES PLUS.....	0.1	0.0	0.0	
NITROGEN.....	1.7	1.7	0.5	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.1	0.1	
HELIUM.....	0.11	0.08	0.07	
HEATING VALUE.....	1156	1005	1018	
SPECIFIC GRAVITY.....	0.663	0.571	0.564	
		INDEX 11851 SAMPLE 9807	INDEX 11852 SAMPLE 9797	INDEX 11853 SAMPLE 12348
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	MCDOWELL		MCDOWELL	MCDOWELL
FIELD.....	BROWNS CREEK		GILBERT	GILBERT
WELL NAME.....	PEOPLES 1ST NATL. BANK 10659		SIBLEY COAL & COKE NO. 2	EDWARDS NO. A-1
LOCATION.....	BROWNS CREEK DIST.		SANDY RIVER DIST.	IAGER QUAD.
OWNER.....	HOPE NATURAL GAS CO.		CITIES SERVICE OIL CO.	CITIES SERVICE OIL CO.
COMPLETED.....	09/29/64		10/28/64	--/--/00
SAMPLED.....	03/17/65		03/02/65	08/11/70
FORMATION.....	MISS-BEREA		MISS-BIG LIME	MISS-BIG LIME & BEREA
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	3593		2960	3660
WELLHEAD PRESSURE, PSIG.....	950		915	920
OPEN FLOW, MCFD.....	2014		11137	3156
COMPONENT, MOLE PCT.....				
METHANE.....	98.0	95.6	97.3	
ETHANE.....	0.3	0.7	1.5	
PROPANE.....	0.1	0.4	0.1	
N-BUTANE.....	0.0	0.2	0.0	
ISOBUTANE.....	0.0	TRACE	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	TRACE	0.0	
CYCLOPENTANE.....	0.0	TRACE	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.4	0.7	0.7	
OXYGEN.....	TRACE	0.0	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	0.1	
HELIUM.....	0.06	0.09	0.11	
HEATING VALUE.....	1019	1043	1015	
SPECIFIC GRAVITY.....	0.562	0.581	0.565	
		INDEX 11854 SAMPLE 17181	INDEX 11855 SAMPLE 4573	INDEX 11856 SAMPLE 9511
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	MCDOWELL		MCDOWELL	MCDOWELL
FIELD.....	MCDOWELL		NOT GIVEN	NOT GIVEN
WELL NAME.....	ROGUE NO. 25		FORD MOTOR CO. NO. 1261	NO. 10360
LOCATION.....	SANDY RIVER DIST.		NOT GIVEN	SANDY RIVER DIST.
OWNER.....	ASHLAND EXPLORATION, INC.		GODFREY L. CABOT, INC.	HOPE NATURAL GAS CO.
COMPLETED.....	04/20/82		04/20/82	01/26/62
SAMPLED.....	02/13/84		10/08/48	07/27/64
FORMATION.....	MISS-BEREA&BIGLIME&DEVOSHALE		MISS-MAXTON & BIG LIME	MISS-BEREA
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	3965		1975	3582
WELLHEAD PRESSURE, PSIG.....	775		NOT GIVEN	805
OPEN FLOW, MCFD.....	5180		189	3610
COMPONENT, MOLE PCT.....				
METHANE.....	97.4	95.5	97.7	
ETHANE.....	1.6	4.0	1.5	
PROPANE.....	0.1	---	0.1	
N-BUTANE.....	TRACE	---	0.0	
ISOBUTANE.....	0.0	---	0.0	
N-PENTANE.....	TRACE	---	0.0	
ISOPENTANE.....	TRACE	---	0.0	
CYCLOPENTANE.....	TRACE	---	0.0	
HEXANES PLUS.....	TRACE	---	0.0	
NITROGEN.....	0.6	0.0	0.5	
OXYGEN.....	0.0	0.3	0.0	
ARGON.....	TRACE	---	0.0	
HYDROGEN.....	0.1	---	0.0	
HYDROGEN SULFIDE**.....	0.0	---	0.0	
CARBON DIOXIDE.....	0.1	0.2	0.1	
HELIUM.....	0.09	0.17	0.06	
HEATING VALUE.....	1018	1019	1019	
SPECIFIC GRAVITY.....	0.566	0.578	0.565	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

997

		INDEX SAMPLE 11857	INDEX SAMPLE 11858	INDEX SAMPLE 11859
STATE.....	WEST VIRGINIA	WEST VIRGINIA	WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	MCDOWELL	MCDOWELL	MCDOWELL	MCDOWELL
FIELD.....	NOT GIVEN	PINEVILLE	POCAHONTAS LAND CORP.	
WELL NAME.....	MCDOWELL NO. 11148	NO. 9679	NO. 44, SER NO. 1337	
LOCATION.....	BIG CREEK DIST.	NOT GIVEN	NOT GIVEN	
OWNER.....	CONSOLIDATED GAS SUPPLY CORP	CONSOLIDATED GAS SUPPLY CORP	CABOT CORP.	
COMPLETED.....	04/21/69	06/27/52	08/16/51	
SAMPLED.....	09/26/69	08/26/64	--/--/00	
FORMATION.....	MISS-BEREA	MISS-BIG LIME & WEIR	MISS-BEREA	
GEOLOGIC PROVINCE CODE.....	160	160	160	
DEPTH, FEET.....	4807	3649	4178	
WELLHEAD PRESSURE, PSIG.....	950	852	485	
OPEN FLOW, MCFD.....	2157	1300	555	
COMPONENT, MOLE PCT				
METHANE.....	96.8	97.7	97.2	
ETHANE.....	1.6	1.9	1.9	
PROPANE.....	0.1	0.1	0.2	
N-BUTANE.....	0.1	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.1	0.0	0.0	
ISOPENTANE.....	TRACE	0.0	0.0	
CYCLOPENTANE.....	0.1	0.0	0.0	
HEXANES PLUS.....	0.1	0.0	0.0	
NITROGEN.....	0.7	0.8	0.6	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.3	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	TRACE	
HELIUM.....	0.12	0.08	0.03	
HEATING VALUE.....	1029	1014	1024	
SPECIFIC GRAVITY.....	0.574	0.565	0.568	

		INDEX SAMPLE 11860 9724	INDEX SAMPLE 11861 16380	INDEX SAMPLE 11862 15917
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	MCDOWELL		MERCER	MINERAL
FIELD.....	RODERFIELD POOL		NOT GIVEN	NOT GIVEN
WELL NAME.....	PEOPLES 1ST NATL. BANK 10659		NO. 2062	MASTELLAR COAL CO, 20364-T
LOCATION.....	BROWNS CREEK DIST.		JUMPING BRANCH DISTRICT	NEW CREEK DIST.
OWNER.....	HOPE NATURAL GAS CO.		COLUMBIA GAS TRANS. CORP.	COLUMBIA GAS TRANS. CORP.
COMPLETED.....	09/29/64		02/17/79	12/20/78
SAMPLED.....	02/05/65		11/10/81	03/03/80
FORMATION.....	MISS-BEREA		MISS-MAXTON	DEVO-CRISKANY
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	3593		2753	8494
WELLHEAD PRESSURE, PSIG.....	950		452	3600
OPEN FLOW, MCFD.....	2014		4721	9728
COMPONENT, MOLE PCT				
METHANE.....	97.9	97.7	97.6	
ETHANE.....	1.3	1.3	1.6	
PROPANE.....	0.0	0.1	0.1	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISCPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.6	0.5	0.4	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.1	0.1	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.1	
HELIUM.....	0.06	0.09	0.04	
HEATING VALUE.....	1015	1016	1020	
SPECIFIC GRAVITY.....	0.564	0.563	0.565	

		INDEX SAMPLE 11863	INDEX SAMPLE 11864	INDEX SAMPLE 11865
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	MINO		MINO	MINO
FIELD.....	CENTRAL		CENTRAL	CENTRAL DIVISION
WELL NAME.....	NO. 9070		NO. 8839	WYOMING COAL&LAND CO. NO. 11
LOCATION.....	NOT GIVEN		STAFFORD DIST.	STAFFORD DIST.
OWNER.....	UNITED FUEL GAS CO.		UNITED FUEL GAS CO.	UNITED FUEL GAS CO.
COMPLETED.....	11/16/61		04/18/60	11/01/67
SAMPLED.....	11/01/63		02/11/64	12/26/67
FORMATION.....	MISS-BIG LIME		MISS-BEREA	MISS-BIG LIME & BEREA
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	2485	5417		2775
WELLHEAD PRESSURE, PSIG.....	725	740		730
OPEN FLOW, MCFD.....	1162	700		2316
COMPONENT, MOLE PCT				
METHANE.....	95.9	93.7	92.4	
ETHANE.....	4.6	4.8	5.4	
PROPANE.....	0.4	0.6	0.9	
N-BUTANE.....	0.2	0.0	0.2	
ISOBUTANE.....	TRACE	0.0	0.1	
N-PENTANE.....	TRACE	0.0	0.0	
ISOPENTANE.....	TRACE	0.0	0.0	
CYCLOPENTANE.....	TRACE	0.0	TRACE	
HEXANES PLUS.....	TRACE	0.1	0.1	
NITROGEN.....	0.7	0.7	0.6	
OXYGEN.....	TRACE	0.1	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	TRACE	TRACE	
HELIUM.....	0.10	0.04	0.03	
HEATING VALUE.....	1035	1051	1080	
SPECIFIC GRAVITY.....	0.576	0.587	0.603	

		INDEX SAMPLE 11866	INDEX SAMPLE 11867	INDEX SAMPLE 11868
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	MINO		MINO	MINO
FIELD.....	GILBERT		GILBERT DISTRICT NO. 27	KERRIT
WELL NAME.....	U.F.G. NO. 9333		SHACKER LAND CO. NO. 1	NO. 8219
LOCATION.....	CARTER COORDINATE 4-N-92		MATEWAN QUAD. MAGNOLIA DIST.	HARDY DIST.
OWNER.....	UNITED FUEL GAS CO.		COLUMBIAN CARBON CO.	UNITED FUEL GAS CO.
COMPLETED.....	06/06/66		10/20/51	05/02/54
SAMPLED.....	06/06/66		01/29/51	06/05/64
FORMATION.....	MISS-BEREA		MISS-LIME	DEVO-BROWN SHALE
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	3267		2255	2334
WELLHEAD PRESSURE, PSIG.....	750		800	440
OPEN FLOW, MCFD.....	762		16917	193
COMPONENT, MOLE PCT				
METHANE.....	93.6	80.0	80.0	
ETHANE.....	4.5	6.5	12.2	
PROPANE.....	1.0	1.4	4.8	
N-BUTANE.....	0.4	0.3	1.1	
ISOBUTANE.....	0.0	0.0	0.4	
N-PENTANE.....	0.0	TRACE	0.2	
ISOPENTANE.....	0.0	0.2	0.1	
CYCLOPENTANE.....	0.0	TRACE	TRACE	
HEXANES PLUS.....	0.0	0.0	0.2	
NITROGEN.....	0.4	0.0	1.0	
OXYGEN.....	0.0	0.2	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.2	0.0	
HELIUM.....	0.04	0.05	0.04	
HEATING VALUE.....	1068	1097	1227	
SPECIFIC GRAVITY.....	0.594	0.617	0.700	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11869 9383	INDEX SAMPLE	11870 9385	INDEX SAMPLE	11871 9386
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	MINGO			MINGO		MINGO	
FIELD.....	KERMIT			KERMIT		KERMIT	
WELL NAME.....	NO. 6075			NO. 8993		NO. 8475	
LOCATION.....	HARVEY DIST.			LEE DIST.		MAGNOLIA DIST.	
OWNER.....	UNITED FUEL GAS CO.			UNITED FUEL GAS CO.		UNITED FUEL GAS CO.	
COMPLETED.....	02/06/53			11/28/53		12/08/57	
SAMPLED.....	06/08/64			06/05/64		06/05/64	
FORMATION.....	DEVO-BROWN SHALE			MISS-BIG LIME		DEVO-BROWN SHALE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2965			2415		3945	
WELLHEAD PRESSURE, PSIG.....	549			660		450	
OPEN FLOW, MCFD.....	751			6083		58	
COMPONENT, MOLE PCT							
METHANE.....	78.2	---	---	91.4	---	82.5	---
ETHANE.....	13.3	---	---	6.1	---	10.5	---
PROPANE.....	5.3	---	---	1.3	---	3.7	---
N-BUTANE.....	1.1	---	---	0.3	---	0.7	---
ISOBUTANE.....	0.2	---	---	0.1	---	0.3	---
N-PENTANE.....	0.2	---	---	0.1	---	0.1	---
ISOPENTANE.....	0.2	---	---	0.1	---	0.1	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	0.1	---	---	0.1	---	0.1	---
NITROGEN.....	0.2	---	---	0.4	---	2.0	---
OXYGEN.....	0.0	---	---	0.0	---	0.3	---
ARGON.....	0.0	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.1	---	---	0.0	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.0	---	---	0.0	---	0.0	---
HELIUM.....	0.06	---	---	0.05	---	0.04	---
HEATING VALUE.....	1234	---	---	1096	---	1157	---
SPECIFIC GRAVITY.....	0.707	---	---	0.611	---	0.670	---

		INDEX SAMPLE	11872 9580	INDEX SAMPLE	11873 9993	INDEX SAMPLE	11874 9152
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	MINGO			MINGO		MINGO	
FIELD.....	LOGAN-HOLDEN-DINGESS			LOGAN-MINGO		NOT GIVEN	
WELL NAME.....	COTIGA NO. 1			U.S. STEEL CORP. NO. 7-1692		NO. 8469	
LOCATION.....	PIGEON CREEK, LENORE			MAGNOLIA DIST.		NOT GIVEN	
OWNER.....	ASHLAND OIL & REFINING CO.			CARNEGIE NATURAL GAS CO.		UNITED FUEL GAS CO.	
COMPLETED.....	04/05/43			08/10/56		09/19/57	
SAMPLED.....	08/11/64			07/16/65		11/01/63	
FORMATION.....	DEVO-SHALE			MISS-GREENBRIER		DEVO-BROWN SHALE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3690			2550		4100	
WELLHEAD PRESSURE, PSIG.....	6813			2153		517	
OPEN FLOW, MCFD.....	403			20000		112000	
COMPONENT, MOLE PCT							
METHANE.....	78.5	---	---	90.7	---	92.3	---
ETHANE.....	13.1	---	---	7.1	---	5.4	---
PROPANE.....	4.6	---	---	1.0	---	0.7	---
N-BUTANE.....	1.1	---	---	0.3	---	0.1	---
ISOBUTANE.....	0.3	---	---	0.2	---	TRACE	---
N-PENTANE.....	0.2	---	---	TRACE	---	0.1	---
ISOPENTANE.....	0.2	---	---	0.2	---	TRACE	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	0.1	---	---	0.1	---	0.1	---
NITROGEN.....	1.4	---	---	0.1	---	1.0	---
OXYGEN.....	0.2	---	---	0.0	---	0.2	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	0.1	---	---	0.1	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.1	---	TRACE	---
HELIUM.....	0.03	---	---	TRACE	---	0.05	---
HEATING VALUE.....	1219	---	---	1103	---	1063	---
SPECIFIC GRAVITY.....	0.704	---	---	0.614	---	0.599	---

		INDEX SAMPLE	11875 17808	INDEX SAMPLE	11876 287	INDEX SAMPLE	11877 290
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	MINGO			MINGO		MINGO	
FIELD.....	NOT GIVEN			TRIPLE STATE		TRIPLE STATE	
WELL NAME.....	COTIGA DEVEL. NO. 1			NO. 531		NO. 531	
LOCATION.....	MYRTLE QUAD.			1/2 MI. KERMIT		5 MI. W KERMIT, W. VA.	
OWNER.....	SENECA-UPSHUR PETROLEUM CO.			UNITED FUEL GAS CO.		UNITED FUEL GAS CO.	
COMPLETED.....	05/12/83			--/--/95		--/--/16	
SAMPLED.....	08/14/85			05/25/20		05/25/20	
FORMATION.....	DEVO-BROWN SHALE			MISS-BIG LIME		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3674			1840		2303	
WELLHEAD PRESSURE, PSIG.....	670			110		90	
OPEN FLOW, MCFD.....	1200			1000		1000	
COMPONENT, MOLE PCT							
METHANE.....	66.2	---	---	73.0	---	75.3	---
ETHANE.....	12.3	---	---	24.7	---	23.0	---
PROPANE.....	4.4	---	---	---	---	---	---
N-BUTANE.....	1.1	---	---	---	---	---	---
ISOBUTANE.....	0.3	---	---	---	---	---	---
N-PENTANE.....	0.3	---	---	---	---	---	---
ISOPENTANE.....	0.2	---	---	---	---	---	---
CYCLOPENTANE.....	0.1	---	---	---	---	---	---
HEXANES PLUS.....	0.3	---	---	---	---	---	---
NITROGEN.....	11.7	---	---	1.6	---	1.0	---
OXYGEN.....	2.7	---	---	0.9	---	0.3	---
ARGON.....	0.1	---	---	---	---	---	---
HYDROGEN.....	0.2	---	---	---	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	---	---	---	---
CARBON DIOXIDE.....	0.1	---	---	0.2	---	0.2	---
HELIUM.....	0.03	---	---	TRACE	---	0.12	---
HEATING VALUE.....	1094	---	---	1182	---	1175	---
SPECIFIC GRAVITY.....	0.763	---	---	0.688	---	0.675	---

		INDEX SAMPLE	11878 9748	INDEX SAMPLE	11879 15827	INDEX SAMPLE	11880 9443
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	MONONGALIA			MONONGALIA		MONONGALIA	
FIELD.....	BURNS CHAPEL S			GREER		MAPLE-WADESTOWN	
WELL NAME.....	BERN NO. 1			M. MILLER 12478		L. C. SHRIVER NO. 994	
LOCATION.....	CLINTON DIST.			CLINTON DIST.		BATTELLE DIST.	
OWNER.....	PHILLIPS PETROLEUM CO.			CONSOLIDATED GAS SUPPLY CORP		HOPE NATURAL GAS CO.	
COMPLETED.....	10/22/64			--/--/00		11/--/08	
SAMPLED.....	02/18/65			10/30/79		07/15/64	
FORMATION.....	DEVO-ORISKANY			DEVO-ORISKANY		DEVO-FIFTY FOOT SAND	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	7559			7496		2714	
WELLHEAD PRESSURE, PSIG.....	290			NOT GIVEN		200	
OPEN FLOW, MCFD.....	4390			2316		14	
COMPONENT, MOLE PCT							
METHANE.....	97.2	---	---	97.2	---	88.1	---
ETHANE.....	7.7	---	---	1.7	---	6.1	---
PROPANE.....	0.1	---	---	0.1	---	1.8	---
N-BUTANE.....	0.0	---	---	0.1	---	0.7	---
ISOBUTANE.....	0.0	---	---	0.0	---	0.4	---
N-PENTANE.....	0.0	---	---	0.0	---	0.2	---
ISOPENTANE.....	0.0	---	---	0.1	---	0.3	---
CYCLOPENTANE.....	0.0	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	0.0	---	---	TRACE	---	0.2	---
NITROGEN.....	0.8	---	---	0.5	---	2.0	---
OXYGEN.....	0.1	---	---	0.0	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	TRACE	---
HYDROGEN.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.2	---	0.1	---
HELIUM.....	0.02	---	---	0.02	---	0.14	---
HEATING VALUE.....	1018	---	---	1025	---	1117	---
SPECIFIC GRAVITY.....	0.569	---	---	0.571	---	0.643	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

999

		INDEX 11881 SAMPLE 9704	INDEX 11882 SAMPLE 9705	INDEX 11883 SAMPLE 14690
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	MONONGALIA		MONONGALIA	NICHOLAS
FIELD.....	NOT GIVEN		NOT GIVEN	20 MILE CREEK
WELL NAME.....	NO. 5321		NO. 5153	FED. COAL NO. 4
LOCATION.....	CLAY DIST.		CLAY DIST.	NOT GIVEN
OWNER.....	EQUITABLE GAS CO.		EQUITABLE GAS CO.	TEXAS INTERNATL. PET. CORP.
COMPLETED.....	11/01/21		07/01/08	--/--/00
SAMPLED.....	01/12/65		01/12/65	06/04/76
FORMATION.....	MISS-BIG INJUN		DEVO-FIFTH	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	2330		3060	2471
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		136	525
OPEN FLOW, MCFD.....	NOT GIVEN		24	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	78.0	88.5	91.1	
ETHANE.....	8.8	6.8	5.9	
PROPANE.....	6.1	1.9	1.5	
N-BUTANE.....	2.5	0.6	0.3	
ISOBUTANE.....	1.5	0.3	0.2	
N-PENTANE.....	0.4	0.1	TRACE	
ISOPENTANE.....	0.5	0.1	0.2	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.5	0.2	0.1	
NITROGEN.....	1.4	1.2	0.5	
OXYGEN.....	TRACE	TRACE	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.1	TRACE	
HELIUM.....	0.10	0.09	0.03	
HEATING VALUE.....	1309	1117	1098	
SPECIFIC GRAVITY.....	0.756	0.634	0.613	

		INDEX 11884 SAMPLE 14691	INDEX 11885 SAMPLE 14693	INDEX 11886 SAMPLE 14695
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	NICHOLAS		NICHOLAS	NICHOLAS
FIELD.....	20 MILE CREEK		20 MILE CREEK	20 MILE CREEK
WELL NAME.....	BETHLEHEM NO. 8-1		FED. COAL NO. 13	FED. COAL NO. 16
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	TEXAS INTERNATL. PET. CORP.		TEXAS INTERNATL. PET. CORP.	TEXAS INTERNATL. PET. CORP.
COMPLETED.....	08/14/75		12/09/75	05/15/75
SAMPLED.....	06/04/76		06/04/76	06/04/76
FORMATION.....	MISS-INJUN		MISS-BIG INJUN	DEVO-BLUE MONDAY
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	1840		2612	2063
WELLHEAD PRESSURE, PSIG.....	540		520	675
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	90.0	91.3	92.9	
ETHANE.....	9.0	5.8	4.2	
PROPANE.....	1.7	1.5	1.1	
N-BUTANE.....	0.3	0.3	0.2	
ISOBUTANE.....	0.2	0.2	0.3	
N-PENTANE.....	TRACE	TRACE	TRACE	
ISOPENTANE.....	0.1	0.1	0.2	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	0.1	TRACE	0.1	
NITROGEN.....	0.5	0.5	0.9	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	TRACE	0.1	
HELIUM.....	0.04	0.04	0.09	
HEATING VALUE.....	1104	1089	1075	
SPECIFIC GRAVITY.....	0.619	0.608	0.605	

		INDEX 11887 SAMPLE 14696	INDEX 11888 SAMPLE 14698	INDEX 11889 SAMPLE 14699
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	NICHOLAS		NICHOLAS	NICHOLAS
FIELD.....	20 MILE CREEK		20 MILE CREEK	20 MILE CREEK
WELL NAME.....	BETHLEHEM NO. 8-14		BETHLEHEM NO. 8-17	FED. COAL NO. 6
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	TEXAS INTERNATL. PET. CORP.		TEXAS INTERNATL. PET. CORP.	TEXAS INTERNATL. PET. CORP.
SAMPLED.....	06/04/76		01/04/75	01/04/75
FORMATION.....	MISS-MAXTON		NOT GIVEN	MISS-INJUN
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	2267		NOT GIVEN	2454
WELLHEAD PRESSURE, PSIG.....	420		560	540
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	91.0	94.3	90.3	
ETHANE.....	5.7	3.3	6.0	
PROPANE.....	1.5	0.5	1.7	
N-BUTANE.....	0.3	0.2	0.4	
ISOBUTANE.....	0.2	0.1	0.3	
N-PENTANE.....	TRACE	0.0	TRACE	
ISOPENTANE.....	0.1	0.1	0.2	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	TRACE	0.1	
NITROGEN.....	0.8	0.3	0.9	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	
HELIUM.....	0.08	0.15	0.03	
HEATING VALUE.....	1089	1089	1104	
SPECIFIC GRAVITY.....	0.611	0.588	0.621	

		INDEX 11890 SAMPLE 14700	INDEX 11891 SAMPLE 14701	INDEX 11892 SAMPLE 4312
STATE.....	WEST VIRGINIA		WEST VIRGINIA	WEST VIRGINIA
COUNTY.....	NICHOLAS		NICHOLAS	NICHOLAS
FIELD.....	20 MILE CREEK		20 MILE CREEK	GAULEY
WELL NAME.....	BLANTON NO. 1		BETHLEHEM NO. 8-25	ROSENA GROSE NO. 1
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	TEXAS INTERNATL. PET. CORP.		TEXAS INTERNATL. PET. CORP.	COLUMBIAN CARBON CO.
COMPLETED.....	08/10/75		08/28/75	04/08/47
SAMPLED.....	06/04/76		06/04/76	05/21/47
FORMATION.....	MISS-INJUN		MISS-BIG LIME	MISS-
GEOLOGIC PROVINCE CODE.....	160		160	160
DEPTH, FEET.....	1898		2212	1745
WELLHEAD PRESSURE, PSIG.....	945		625	565
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	1784
COMPONENT, MOLE PCT				
METHANE.....	90.9	90.1	87.8	
ETHANE.....	6.1	6.5	11.7	
PROPANE.....	1.5	1.7	---	
N-BUTANE.....	0.3	0.4	---	
ISOBUTANE.....	0.2	0.2	---	
N-PENTANE.....	TRACE	TRACE	---	
ISOPENTANE.....	0.1	TRACE	---	
CYCLOPENTANE.....	TRACE	TRACE	---	
HEXANES PLUS.....	0.1	0.1	---	
NITROGEN.....	0.5	0.5	0.1	
OXYGEN.....	0.0	0.0	0.3	
ARGON.....	TRACE	TRACE	---	
HYDROGEN.....	0.2	TRACE	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	TRACE	0.3	0.1	
HELIUM.....	0.34	0.04	0.05	
HEATING VALUE.....	1096	1177	1099	
SPECIFIC GRAVITY.....	0.612	0.624	0.615	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11893 4597	INDEX SAMPLE	11894 4449	INDEX SAMPLE	11895 4450
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	NICHOLAS			NICHOLAS		NICHOLAS	
FIELD.....	GAULEY			GAULEY DISTRICT		GAULEY DISTRICT	
WELL NAME.....	C. H. RADER NO. 1			ABNEY PAYNE NO. 1, GW-953		W. R. GROSE NO. 1, GW-960	
LOCATION.....	NOT GIVEN			NEAR SWISS		NEAR SWISS	
OWNER.....	COLUMBIAN CARBON CO.			COLUMBIAN CARBON CO.		COLUMBIAN CARBON CO.	
COMPLETED.....	06/16/48			08/01/47		06/20/47	
SAMPLED.....	10/12/48			03/08/48		03/08/48	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1742			1596		1629	
WELLHEAD PRESSURE, PSIG.....	360			395		565	
OPEN FLOW, MCFD.....	636			4787		640	
COMPONENT, MOLE PCT							
METHANE.....	85.6	---	88.6	---	88.9	---	88.9
ETHANE.....	12.9	---	10.6	---	10.1	---	10.1
PROpane.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	1.1	---	0.1	---	0.0	---	0.0
OXYGEN.....	0.2	---	0.4	---	0.6	---	0.6
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE**.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.2	---	0.3	---	0.4	---	0.4
HELIUM.....	0.04	---	0.04	---	0.04	---	0.04
HEATING VALUE*.....	1098	---	1087	---	1032	---	1032
SPECIFIC GRAVITY.....	0.626	---	0.612	---	0.612	---	0.612

		INDEX SAMPLE	11896 4452	INDEX SAMPLE	11897 4464	INDEX SAMPLE	11898 4477
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	NICHOLAS			NICHOLAS		NICHOLAS	
FIELD.....	GAULEY DISTRICT			GAULEY DISTRICT NO. 22		GAULEY DISTRICT NO. 22	
WELL NAME.....	ROWENA GROSE NO. 1, GW-918			LEAH FRANK NO. 2, GW-989		LEAH FRANK NO. 1, GW-980	
LOCATION.....	NEAR SWISS			NEAR SWISS		NEAR SWISS	
OWNER.....	COLUMBIAN CARBON CO.			COLUMBIAN CARBON CO.		COLUMBIAN CARBON CO.	
COMPLETED.....	04/08/47			02/16/48		01/22/48	
SAMPLED.....	03/08/48			04/15/48		04/15/48	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1745			2093		2018	
WELLHEAD PRESSURE, PSIG.....	565			465		445	
OPEN FLOW, MCFD.....	1784			246		964	
COMPONENT, MOLE PCT							
METHANE.....	90.9	---	88.8	---	88.6	---	88.6
ETHANE.....	8.8	---	3.8	---	10.9	---	10.9
PROpane.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	0.0	---	0.9	---	0.0	---	0.0
OXYGEN.....	0.2	---	0.3	---	0.3	---	0.3
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE**.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.1	---	0.2	---	0.2	---	0.2
HELIUM.....	0.05	---	0.04	---	0.04	---	0.04
HEATING VALUE*.....	1079	---	1075	---	1093	---	1093
SPECIFIC GRAVITY.....	0.600	---	0.610	---	0.612	---	0.612

		INDEX SAMPLE	11899 4362	INDEX SAMPLE	11900 9782	INDEX SAMPLE	11901 11244
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	NICHOLAS			NICHOLAS		NICHOLAS	
FIELD.....	GAULEY DISTRICT NO. 23			HAMILTON		HAMILTON	
WELL NAME.....	H. J. SUMMERS NO. 1GW-947			C. L. TOMLINSON 10665		C. F. TOMLINSON NO. 10902	
LOCATION.....	NOT GIVEN			HAMILTON DIST.		HAMILTON DIST.	
OWNER.....	COLUMBIAN CARBON CO.			HOPE NATURAL GAS CO.		CONSOLIDATED GAS SUPPLY CORP	
COMPLETED.....	07/12/47			12/11/64		--/--/00	
SAMPLED.....	09/25/47			03/03/65		12/14/67	
FORMATION.....	MISS-			DEVON-BLUE MONDAY		MISS-MAXTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1575			1654		1850	
WELLHEAD PRESSURE, PSIG.....	450			490		395	
OPEN FLOW, MCFD.....	3468			823		1958	
COMPONENT, MOLE PCT							
METHANE.....	89.3	---	95.6	---	94.9	---	94.9
ETHANE.....	9.0	---	2.8	---	1.9	---	1.9
PROpane.....	---	---	0.5	---	0.3	---	0.3
N-BUTANE.....	---	---	0.1	---	0.0	---	0.0
ISOBUTANE.....	---	---	0.0	---	0.0	---	0.0
N-PENTANE.....	---	---	0.0	---	0.0	---	0.0
ISOPENTANE.....	---	---	0.0	---	0.0	---	0.0
CYCLOPENTANE.....	---	---	0.0	---	0.0	---	0.0
HEXANES PLUS.....	---	---	0.0	---	0.0	---	0.0
NITROGEN.....	0.9	---	0.6	---	2.2	---	2.2
OXYGEN.....	0.2	---	0.0	---	0.0	---	0.0
ARGON.....	---	---	0.0	---	0.0	---	0.0
HYDROGEN.....	---	---	0.0	---	0.0	---	0.0
HYDROGEN SULFIDE**.....	---	---	0.0	---	0.0	---	0.0
CARBON DIOXIDE.....	0.6	---	0.0	---	0.0	---	0.0
HELIUM.....	0.04	---	0.06	---	0.17	---	0.17
HEATING VALUE*.....	1056	---	1043	---	1010	---	1010
SPECIFIC GRAVITY.....	0.610	---	0.580	---	0.577	---	0.577

		INDEX SAMPLE	11902 7197	INDEX SAMPLE	11903 9493	INDEX SAMPLE	11904 14692
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	NICHOLAS			NICHOLAS		NICHOLAS	
FIELD.....	NO. 10212			NOT GIVEN		PETERS CREEK	
WELL NAME.....	NO. 10212			NO. 10226		WALKER NO. 1	
LOCATION.....	NOT GIVEN			HAMILTON DIST.		NOT GIVEN	
OWNER.....	HOPE NATURAL GAS CO.			HOPE NATURAL GAS CO.		TEXAS INTERNATL. PET. CORP.	
COMPLETED.....	01/22/59			04/14/59		10/18/75	
SAMPLED.....	09/02/59			07/23/64		06/04/76	
FORMATION.....	DEVON-BLUE MONDAY			DEVON-BLUE MONDAY		MISS-MAXTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1793			1815		1865	
WELLHEAD PRESSURE, PSIG.....	495			495		190	
OPEN FLOW, MCFD.....	2214			283		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	96.9	---	96.3	---	92.3	---	92.3
ETHANE.....	1.7	---	0.3	---	5.2	---	5.2
PROpane.....	0.3	---	0.3	---	1.1	---	1.1
N-BUTANE.....	0.1	---	0.1	---	0.2	---	0.2
ISOBUTANE.....	0.0	---	0.1	---	0.2	---	0.2
N-PENTANE.....	0.0	---	0.0	---	0.1	---	0.1
ISOPENTANE.....	0.0	---	0.0	---	0.0	---	0.0
CYCLOPENTANE.....	0.0	---	0.0	---	0.0	---	0.0
HEXANES PLUS.....	0.1	---	0.1	---	0.1	---	0.1
NITROGEN.....	0.6	---	0.0	---	0.6	---	0.6
OXYGEN.....	0.0	---	0.0	---	0.0	---	0.0
ARGON.....	0.0	---	0.0	---	0.0	---	0.0
HYDROGEN.....	0.0	---	0.0	---	0.0	---	0.0
HYDROGEN SULFIDE**.....	0.0	---	0.0	---	0.0	---	0.0
CARBON DIOXIDE.....	0.0	---	0.0	---	0.0	---	0.0
HELIUM.....	0.07	---	0.08	---	0.04	---	0.04
HEATING VALUE*.....	1041	---	1030	---	1080	---	1080
SPECIFIC GRAVITY.....	0.578	---	0.573	---	0.603	---	0.603

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1001

		INDEX SAMPLE	11905 14694	INDEX SAMPLE	11906 9335	INDEX SAMPLE	11907 9343
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	NICHOLAS			NICHOLAS		NICHOLAS	
FIELD.....	PETERS CREEK			SHARP MCMLLEN		SHARP MCMLLEN	
WELL NAME.....	KEAN NO. 1			NO. 57		NO. 34	
LOCATION.....	NOT GIVEN			GRANT DIST.		GRANT DIST.	
OWNER.....	TEXAS INTERNATL. PET. CORP.			PEAKE PETROLEUM CO.		PEAKE PETROLEUM CO.	
COMPLETED.....	11/06/75			06/19/77		02/17/56	
SAMPLED.....	06/04/76			04/24/64		04/24/64	
FORMATION.....	MISS-WAXTON			MISS-BIG LIME		MISS-BIG LIME	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1216			1606		1845	
WELLHEAD PRESSURE, PSIG.....	190			425		480	
OPEN FLOW, MCFD.....	NOT GIVEN			164		2011	
COMPONENT, MOLE PCT							
METHANE.....	90.5			91.9		90.9	
ETHANE.....	6.5			5.5		5.9	
PROPANE.....	1.5			1.3		1.6	
N-BUTANE.....	0.3			0.3		0.6	
ISOBUTANE.....	0.2			0.3		0.1	
N-PENTANE.....	TRACE			TRACE		0.2	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.1		0.3	
NITROGEN.....	0.6			0.3		0.2	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			TRACE		TRACE	
HELIUM.....	0.05			0.04		0.04	
HEATING VALUE.....	1103			1120		1120	
SPECIFIC GRAVITY.....	0.620			0.611		0.624	
		INDEX SAMPLE	11908 9431	INDEX SAMPLE	11909 9486	INDEX SAMPLE	11910 9161
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	POCAHONTAS			PRESTON		PRESTON	
FIELD.....	DURBIN			ETAM		GLADESVILLE	
WELL NAME.....	U.S.A.-R-1			DESSIE F. DAVIS NO. 10281		HOLMES-B NO. 1	
LOCATION.....	NOT GIVEN			RENO DIST.		NOT GIVEN	
OWNER.....	CITIES SERVICE OIL CO.			HOPE NATURAL GAS CO.		PHILLIPS PETROLEUM CO.	
COMPLETED.....	05/08/64			10/12/60		11/02/62	
SAMPLED.....	07/01/64			07/15/64		11/01/63	
FORMATION.....	DEVO-ORISKANY			DEVO-ORISKANY		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	4949			5098		7688	
WELLHEAD PRESSURE, PSIG.....	1347			1128		3128	
OPEN FLOW, MCFD.....	1347			470		2600	
COMPONENT, MOLE PCT							
METHANE.....	97.5			97.9		83.5	
ETHANE.....	0.9			0.2		0.3	
PROPANE.....	0.0			0.0		0.2	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	1.0			0.8		11.9	
OXYGEN.....	0.0			0.0		2.8	
ARGON.....	0.0			0.0		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.5			TRACE		0.1	
HELIUM.....	0.06			0.04		0.02	
HEATING VALUE.....	1004			1016		874	
SPECIFIC GRAVITY.....	0.567			0.565		0.629	
		INDEX SAMPLE	11911 9677	INDEX SAMPLE	11912 14845	INDEX SAMPLE	11913 14846
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	PRESTON			PRESTON		PRESTON	
FIELD.....	MORGANTOWN			MORGANTOWN QUADRANGLE		MORGANTOWN QUADRANGLE	
WELL NAME.....	U.S.A.-N-1			H. J. RENE		PRESTON CO. COAL NO. 484	
LOCATION.....	NOT GIVEN			VALLEY DIST.		VALLEY DIST.	
OWNER.....	CITIES SERVICE OIL CO.			RAY RESOURCES CORP.		RAY RESOURCES CORP.	
COMPLETED.....	02/07/63			--/--/00		12/04/74	
SAMPLED.....	12/16/64			11/01/76		11/01/76	
FORMATION.....	SILU-TUSCARORA			NOT GIVEN		DEVO-HUNTERSVILLE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	7180			NOT GIVEN		7792	
WELLHEAD PRESSURE, PSIG.....	1800			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	696			NOT GIVEN		3037	
COMPONENT, MOLE PCT							
METHANE.....	76.8			97.4		97.6	
ETHANE.....	1.8			1.7		1.6	
PROPANE.....	0.3			TRACE		0.1	
N-BUTANE.....	0.0			0.1		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	20.3			0.5		0.5	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.2	
HELIUM.....	0.46			0.02		0.02	
HEATING VALUE.....	1018			1021		1020	
SPECIFIC GRAVITY.....	0.649			0.568		0.567	
		INDEX SAMPLE	11914 14851	INDEX SAMPLE	11915 14852	INDEX SAMPLE	11916 5879
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	PRESTON			PRESTON		PRESTON	
FIELD.....	MORGANTOWN QUADRANGLE			MORGANTOWN QUADRANGLE		NOT GIVEN	
WELL NAME.....	PRESTON CO. COAL NO. 478			PRESTON CO. COAL NO. 474		LAWRENCE BURGER NO. 1	
LOCATION.....	VALLEY DIST.			VALLEY DIST.		UNION DIST.	
OWNER.....	RAY RESOURCES CORP.			RAY RESOURCES CORP.		COLUMBIAN CARBON CO.	
COMPLETED.....	11/18/74			12/04/74		05/03/55	
SAMPLED.....	--/--/00			--/--/00		07/13/55	
FORMATION.....	DEVO-HUNTERSVILLE			DEVO-HUNTERSVILLE		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	7682			7792		4981	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		1150	
OPEN FLOW, MCFD.....	5165			3037		1555	
COMPONENT, MOLE PCT							
METHANE.....	97.5			97.5		98.2	
ETHANE.....	1.7			1.7		1.0	
PROPANE.....	0.1			0.1		0.1	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.5			0.5		0.5	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.0	
HELIUM.....	0.02			0.02		0.10	
HEATING VALUE.....	1021			1021		1015	
SPECIFIC GRAVITY.....	0.568			0.568		0.561	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11917 14820	INDEX SAMPLE	11918 9432	INDEX SAMPLE	11919 5139
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	PRESTON			PRESTON		PRESTON	
FIELD.....	NOT GIVEN			PARSONS		PRESTON COUNTY	
WELL NAME.....	B. M. MORGAN NO. 481			U.S.A.-0-1		NO. 9636	
LOCATION.....	MORGANTOWN QUAD.			NOT GIVEN		PORTLAND DIST.	
OWNER.....	RAK RESOURCES CORP.			CITIES SERVICE OIL CO.		HOPE NATURAL GAS CO.	
COMPLETED.....	11/18/75			03/17/64		06/19/51	
SAMPLED.....	10/25/76			07/01/64		10/16/51	
FORMATION.....	DEVO-HUNTERSVILLE			SILU-TUSCARORA		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	7861			7058		5248	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2620		2250	
OPEN FLOW, MCFD.....	2919			16300		1981	
COMPONENT, MOLE PCT.....							
METHANE.....	97.3	-----		78.7	-----	96.9	-----
ETHANE.....	1.7	-----		1.8	-----	1.1	-----
PROPANE.....	0.1	-----		0.2	-----	0.1	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.1	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	TRACE	-----
NITROGEN.....	0.5	-----		19.6	-----	1.4	-----
OXYGEN.....	0.0	-----		0.0	-----	0.2	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	---	-----
CARBON DIOXIDE.....	0.1	-----		0.3	-----	0.2	-----
HELIUM.....	0.02	-----		0.42	-----	0.05	-----
HEATING VALUE.....	1019	-----		835	-----	1007	-----
SPECIFIC GRAVITY.....	0.565	-----		0.643	-----	0.571	-----
		INDEX SAMPLE	11920 4762	INDEX SAMPLE	11921 4845	INDEX SAMPLE	11922 4892
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	PRESTON			PRESTON		PRESTON	
FIELD.....	TERRA ALTA			TERRA ALTA		TERRA ALTA	
WELL NAME.....	J. PAUL MARTIN NO. 2			FITZPATRICK NO. 1		NO. 9391	
LOCATION.....	NOT GIVEN			PORTLAND DIST.		PORTLAND DIST.	
OWNER.....	HOPE NATURAL GAS CO.			NOLLEM OIL & GAS CORP.		HOPE NATURAL GAS CO.	
COMPLETED.....	06/21/49			---/---/00		03/07/50	
SAMPLED.....	01/16/51			05/15/50		05/10/50	
FORMATION.....	DEVO-ORISKANY			NOT GIVEN		DEVO-CHELT & ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	5172			5505		5511	
WELLHEAD PRESSURE, PSIG.....	2140			NOT GIVEN		1875	
OPEN FLOW, MCFD.....	2071			NOT GIVEN		3048	
COMPONENT, MOLE PCT.....							
METHANE.....	97.3	-----		95.8	-----	97.0	-----
ETHANE.....	1.2	-----		1.3	-----	1.2	-----
PROPANE.....	0.1	-----		0.2	-----	0.1	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.1	-----
ISOBUTANE.....	0.0	-----		TRACE	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.1	-----
ISOPENTANE.....	0.0	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.0	-----	0.0	-----
NITROGEN.....	1.0	-----		1.0	-----	1.2	-----
OXYGEN.....	0.1	-----		0.1	-----	0.1	-----
ARGON.....	0.1	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.0	-----		0.2	-----	0.2	-----
HELIUM.....	0.04	-----		0.04	-----	0.04	-----
HEATING VALUE.....	1016	-----		1020	-----	1012	-----
SPECIFIC GRAVITY.....	0.571	-----		0.572	-----	0.572	-----
		INDEX SAMPLE	11923 5011	INDEX SAMPLE	11924 5170	INDEX SAMPLE	11925 9338
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	PRESTON			PRESTON		PUTNAM	
FIELD.....	TERRA ALTA			TERRA ALTA		MCCLOCH	
WELL NAME.....	MARGARET C. KRAUS 9462			JONES NO. 464-C		NO. 45	
LOCATION.....	NOT GIVEN			NOT GIVEN		SCOTT DIST.	
OWNER.....	HOPE NATURAL GAS CO.			CUMBERLAND & ALLEGHENY GAS C		PEAKE PETROLEUM CO.	
COMPLETED.....	01/16/51			12/13/51		03/03/55	
SAMPLED.....	02/20/51			01/28/52		04/30/64	
FORMATION.....	DEVO-ORISKANY			DEVO-CHELT		DEVO-SHALE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	5101			4651		3487	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2175		760	
OPEN FLOW, MCFD.....	12500			5000		381	
COMPONENT, MOLE PCT.....							
METHANE.....	96.8	-----		96.6	-----	83.2	-----
ETHANE.....	1.2	-----		1.2	-----	9.4	-----
PROPANE.....	0.1	-----		0.1	-----	1.9	-----
N-BUTANE.....	0.1	-----		0.1	-----	1.1	-----
ISOBUTANE.....	0.0	-----		0.0	-----	TRACE	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.2	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	TRACE	-----		0.0	-----	1.5	-----
NITROGEN.....	1.4	-----		1.6	-----	TRACE	-----
OXYGEN.....	0.1	-----		0.2	-----	TRACE	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.1	-----
HELIUM.....	0.05	-----		0.05	-----	0.14	-----
HEATING VALUE.....	1008	-----		1107	-----	1176	-----
SPECIFIC GRAVITY.....	0.571	-----		0.574	-----	0.675	-----
		INDEX SAMPLE	11926 9314	INDEX SAMPLE	11927 9316	INDEX SAMPLE	11928 9329
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	PUTNAM			PUTNAM		PUTNAM	
FIELD.....	MIDWAY LEASE			MIDWAY LEASE		OAKLAND	
WELL NAME.....	NO. 560			NO. 564		NO. 718	
LOCATION.....	UNION DIST.			UNION DIST.		L. W. BOWLING FARM	
OWNER.....	COMMONWEALTH GAS CORP.			COMMONWEALTH GAS CORP.		COMMONWEALTH GAS CORP.	
COMPLETED.....	10/29/51			01/15/52		12/11/63	
SAMPLED.....	04/22/64			04/22/64		05/01/64	
FORMATION.....	DEVO-BROWN SHALE			DEVO-BROWN SHALE		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3707			3285		5101	
WELLHEAD PRESSURE, PSIG.....	430			430		950	
OPEN FLOW, MCFD.....	140			315		504	
COMPONENT, MOLE PCT.....							
METHANE.....	83.4	-----		82.7	-----	85.1	-----
ETHANE.....	10.4	-----		10.2	-----	7.9	-----
PROPANE.....	3.9	-----		4.2	-----	2.8	-----
N-BUTANE.....	0.3	-----		0.0	-----	1.1	-----
ISOBUTANE.....	0.1	-----		0.1	-----	0.1	-----
N-PENTANE.....	0.1	-----		TRACE	-----	0.2	-----
ISOPENTANE.....	0.2	-----		0.3	-----	0.3	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.1	-----		TRACE	-----	0.3	-----
NITROGEN.....	0.6	-----		1.3	-----	1.9	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.0	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		TRACE	-----	TRACE	-----
HELIUM.....	0.12	-----		0.12	-----	0.06	-----
HEATING VALUE.....	1184	-----		1179	-----	1157	-----
SPECIFIC GRAVITY.....	0.671	-----		0.674	-----	0.665	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

INDEX 11929 SAMPLE 11048		INDEX 11930 SAMPLE 9362		INDEX 11931 SAMPLE 9315	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	PUTNAM	COUNTY.....	PUTNAM	COUNTY.....	PUTNAM
FIELD.....	ROCKY FORK	FIELD.....	SISSONVILLE	FIELD.....	TWO MILE DIVISION
WELL NAME.....	U.S. NO. 9454	WELL NAME.....	RIST T. TROUT NO. 1436	WELL NAME.....	NARAH BRINDLE ET AL. NO. 1
LOCATION.....	POCATALICO DIST.	LOCATION.....	POCATALICO DIST.	LOCATION.....	SCOTT DIST.
OWNER.....	UNITED FUEL GAS CO.	OWNER.....	CABOT CORP.	OWNER.....	COMMONWEALTH GAS CORP.
COMPLETED.....	06/20/67	COMPLETED.....	09/20/64	COMPLETED.....	02/27/58
SAMPLED.....	08/01/67	SAMPLED.....	05/19/64	SAMPLED.....	04/22/64
FORMATION.....	SILU-NEWBURG	FORMATION.....	DEVO-ORISKANY	FORMATION.....	DEVO-BROWN SHALE
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	5377	DEPTH, FEET.....	4581	DEPTH, FEET.....	3333
WELLHEAD PRESSURE, PSIG.....	2240	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	450
OPEN FLOW, MCFD.....	59000	OPEN FLOW, MCFD.....	200	OPEN FLOW, MCFD.....	189
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.7	METHANE.....	88.4	METHANE.....	82.6
ETHANE.....	3.2	ETHANE.....	5.6	ETHANE.....	9.9
PROPANE.....	1.0	PROPANE.....	1.7	PROPANE.....	3.9
N-BUTANE.....	0.4	N-BUTANE.....	0.7	N-BUTANE.....	0.9
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	1.7	NITROGEN.....	2.3	NITROGEN.....	1.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.09	HELIUM.....	0.05	HELIUM.....	0.19
HEATING VALUE.....	1079	HEATING VALUE.....	1.07	HEATING VALUE.....	1170
SPECIFIC GRAVITY.....	0.613	SPECIFIC GRAVITY.....	0.641	SPECIFIC GRAVITY.....	0.673

INDEX 11932 SAMPLE 9319		INDEX 11933 SAMPLE 9367		INDEX 11934 SAMPLE 9883	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	PUTNAM	COUNTY.....	RALEIGH	COUNTY.....	RALEIGH
FIELD.....	TWO MILE DIVISION	FIELD.....	BEAVER	FIELD.....	CENTRAL DIVISION
WELL NAME.....	NO. M58	WELL NAME.....	NO. 25	WELL NAME.....	A. B. ANDERSON ET AL. NO. 9358
LOCATION.....	CURRY DIST.	LOCATION.....	NOT GIVEN	LOCATION.....	SLAB FORK DIST.
OWNER.....	COMMONWEALTH GAS CORP.	OWNER.....	CABOT CORP.	OWNER.....	UNITED FUEL GAS CO.
COMPLETED.....	07/21/41	COMPLETED.....	09/28/56	COMPLETED.....	03/04/65
SAMPLED.....	04/22/64	SAMPLED.....	05/08/64	SAMPLED.....	04/30/65
FORMATION.....	MISS-BEREA&DEVO-BROWN SHALE	FORMATION.....	MISS-MAXTON	FORMATION.....	MISS-WEIR
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2129	DEPTH, FEET.....	1675	DEPTH, FEET.....	4500
WELLHEAD PRESSURE, PSIG.....	310	WELLHEAD PRESSURE, PSIG.....	360	WELLHEAD PRESSURE, PSIG.....	905
OPEN FLOW, MCFD.....	219	OPEN FLOW, MCFD.....	110	OPEN FLOW, MCFD.....	1540
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.3	METHANE.....	96.8	METHANE.....	98.1
ETHANE.....	6.9	ETHANE.....	2.4	ETHANE.....	1.2
PROPANE.....	3.8	PROPANE.....	0.3	PROPANE.....	0.0
N-BUTANE.....	0.9	N-BUTANE.....	TRACE	N-BUTANE.....	0.0
ISOBUTANE.....	0.3	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.2	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.8	NITROGEN.....	0.3	NITROGEN.....	0.6
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0
HELIUM.....	0.13	HELIUM.....	0.05	HELIUM.....	0.08
HEATING VALUE.....	1187	HEATING VALUE.....	1031	HEATING VALUE.....	1015
SPECIFIC GRAVITY.....	0.683	SPECIFIC GRAVITY.....	0.569	SPECIFIC GRAVITY.....	0.562

INDEX 11935 SAMPLE 4453		INDEX 11936 SAMPLE 4454		INDEX 11937 SAMPLE 9333	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	RALEIGH	COUNTY.....	RALEIGH	COUNTY.....	RALEIGH
FIELD.....	CLEAR FORK DISTRICT NO. 24	FIELD.....	CLEAR FORK DISTRICT NO. 24	FIELD.....	CLEAR FORK DIST.
WELL NAME.....	CLEAR DICKINSON NO. 1-B GW-965	WELL NAME.....	PRICE DAVIS NO. 1 GW-955	WELL NAME.....	NO. 120
LOCATION.....	NEAR DAMERON	LOCATION.....	NEAR DAMERON	LOCATION.....	SLAB FORK DIST.
OWNER.....	COLUMBIAN CARBON CO.	OWNER.....	COLUMBIAN CARBON CO.	OWNER.....	PEAKE PETROLEUM CO.
COMPLETED.....	07/10/47	COMPLETED.....	12/13/47	COMPLETED.....	09/17/62
SAMPLED.....	04/15/48	SAMPLED.....	04/15/48	SAMPLED.....	04/23/64
FORMATION.....	MISS-	FORMATION.....	MISS-	FORMATION.....	MISS-BIG LIME
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2601	DEPTH, FEET.....	2498	DEPTH, FEET.....	2361
WELLHEAD PRESSURE, PSIG.....	565	WELLHEAD PRESSURE, PSIG.....	580	WELLHEAD PRESSURE, PSIG.....	640
OPEN FLOW, MCFD.....	1220	OPEN FLOW, MCFD.....	328	OPEN FLOW, MCFD.....	2780
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.7	METHANE.....	95.4	METHANE.....	97.9
ETHANE.....	1.7	ETHANE.....	2.0	ETHANE.....	1.3
PROPANE.....	---	PROPANE.....	---	PROPANE.....	0.1
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	0.0
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	0.0
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	0.0
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	0.0
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	0.0
NITROGEN.....	1.2	NITROGEN.....	1.9	NITROGEN.....	0.5
OXYGEN.....	0.1	OXYGEN.....	0.4	OXYGEN.....	0.0
ARGON.....	---	ARGON.....	---	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.06	HELIUM.....	0.06	HELIUM.....	0.07
HEATING VALUE.....	1010	HEATING VALUE.....	1010	HEATING VALUE.....	1018
SPECIFIC GRAVITY.....	0.570	SPECIFIC GRAVITY.....	0.576	SPECIFIC GRAVITY.....	0.563

INDEX 11938 SAMPLE 9337		INDEX 11939 SAMPLE 9339		INDEX 11940 SAMPLE 9875	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	RALEIGH	COUNTY.....	RALEIGH	COUNTY.....	RALEIGH
FIELD.....	DOROTHY SARITA	FIELD.....	DOROTHY SARITA	FIELD.....	HOPKINS FORK-JARROLD VALLEY
WELL NAME.....	NO. 519	WELL NAME.....	NO. 519	WELL NAME.....	DOR. SAR. NO. 107
LOCATION.....	CLEAR FORK DIST.	LOCATION.....	CLEAR FORK DIST.	LOCATION.....	MARSH FORK DIST.
OWNER.....	PEAKE PETROLEUM CO.	OWNER.....	PEAKE PETROLEUM CO.	OWNER.....	PEAKE PETROLEUM CO.
COMPLETED.....	04/17/62	COMPLETED.....	05/05/49	COMPLETED.....	06/22/61
SAMPLED.....	04/10/64	SAMPLED.....	04/10/64	SAMPLED.....	04/22/65
FORMATION.....	MISS-WEIR & BIG LIME	FORMATION.....	MISS-BIG LIME&PENN-SALT SAND	FORMATION.....	PENN-SALT SAND
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2375	DEPTH, FEET.....	2227	DEPTH, FEET.....	1420
WELLHEAD PRESSURE, PSIG.....	510	WELLHEAD PRESSURE, PSIG.....	700	WELLHEAD PRESSURE, PSIG.....	113
OPEN FLOW, MCFD.....	200	OPEN FLOW, MCFD.....	188	OPEN FLOW, MCFD.....	280
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	95.1	METHANE.....	95.7	METHANE.....	90.3
ETHANE.....	3.6	ETHANE.....	3.3	ETHANE.....	4.2
PROPANE.....	0.6	PROPANE.....	0.4	PROPANE.....	1.1
N-BUTANE.....	0.2	N-BUTANE.....	0.1	N-BUTANE.....	0.3
ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.1
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	0.3	NITROGEN.....	0.3	NITROGEN.....	2.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.7
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.04	HELIUM.....	0.04	HELIUM.....	0.23
HEATING VALUE.....	1054	HEATING VALUE.....	1047	HEATING VALUE.....	1044
SPECIFIC GRAVITY.....	0.584	SPECIFIC GRAVITY.....	0.579	SPECIFIC GRAVITY.....	0.604

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11941 9514	INDEX SAMPLE	11942 4526	INDEX SAMPLE	11943 4634
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	RALEIGH			RALEIGH		RALEIGH	
FIELD.....	MCGRAW			NOT GIVEN		NOT GIVEN	
WELL NAME.....	NO. 9164			NO. 9175		O. C. DANIEL NO. 9212	
LOCATION.....	TRAP HILL DIST.			NOT GIVEN		3 MI. N BOLT	
OWNER.....	HOPE NATURAL GAS CO.			HOPE NATURAL GAS CO.		HOPE NATURAL GAS CO.	
COMPLETED.....	09/27/47			12/15/47		07/12/48	
SAMPLED.....	07/27/64			05/24/48		11/15/48	
FORMATION.....	MISS-MAXTON			MISS-M		MISS-MAXTON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2022			2026		2148	
WELLHEAD PRESSURE, PSIG.....	285			920		600	
OPEN FLOW, MCFD.....	251			2192		600	
COMPONENT, MOLE PCT							
METHANE.....	96.9	---	---	95.0	---	95.4	---
ETHANE.....	2.2	---	---	2.5	---	3.4	---
PROPANE.....	0.2	---	---	---	---	---	---
N-BUTANE.....	TRACE	---	---	---	---	---	---
ISOBUTANE.....	TRACE	---	---	---	---	---	---
N-PENTANE.....	TRACE	---	---	---	---	---	---
ISOPENTANE.....	TRACE	---	---	---	---	---	---
CYCLOPENTANE.....	TRACE	---	---	---	---	---	---
HEXANES PLUS.....	TRACE	---	---	---	---	---	---
NITROGEN.....	0.4	---	---	2.0	---	0.6	---
OXYGEN.....	TRACE	---	---	0.2	---	0.2	---
ARGON.....	0.0	---	---	---	---	---	---
HYDROGEN.....	0.0	---	---	---	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	---	---	---	---
CARBON DIOXIDE.....	TRACE	---	---	---	---	0.3	---
HELIUM.....	0.06	---	---	0.06	---	0.06	---
HEATING VALUE.....	1026	---	---	1007	---	1027	---
SPECIFIC GRAVITY.....	0.567	---	---	0.578	---	0.577	---
		INDEX SAMPLE	11944 9876	INDEX SAMPLE	11945 5740	INDEX SAMPLE	11946 15922
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	RALEIGH			RALEIGH		RALEIGH	
FIELD.....	NOT GIVEN			PLING		SHADY SPRING DIST.	
WELL NAME.....	EUNICE NO. 12			NO. 1 SERIAL NO. 1106		NO. 20622-T	
LOCATION.....	MARSH CREEK DIST.			NOT GIVEN		CRAB CRCHARD QUAD.	
OWNER.....	PEAKE PETROLEUM CO.			CABOT CORP.		COLUMBIA GAS TRANS. CORP.	
COMPLETED.....	03/13/53			12/09/44		09/24/79	
SAMPLED.....	04/22/65			02/11/65		03/11/80	
FORMATION.....	MISS-WEIR			MISS-MAXTON & WEIR		MISS-WEIR	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2337			3367		3298	
WELLHEAD PRESSURE, PSIG.....	160			825		928	
OPEN FLOW, MCFD.....	520			268		3998	
COMPONENT, MOLE PCT							
METHANE.....	94.0	---	---	98.0	---	93.8	---
ETHANE.....	3.6	---	---	1.3	---	1.3	---
PROPANE.....	0.7	---	---	0.4	---	0.4	---
N-BUTANE.....	0.3	---	---	0.0	---	0.0	---
ISOBUTANE.....	0.3	---	---	0.0	---	0.4	---
N-PENTANE.....	TRACE	---	---	0.0	---	0.1	---
ISOPENTANE.....	0.1	---	---	0.0	---	0.3	---
CYCLOPENTANE.....	TRACE	---	---	0.0	---	0.7	---
HEXANES PLUS.....	0.1	---	---	0.0	---	1.3	---
NITROGEN.....	0.8	---	---	0.5	---	1.4	---
OXYGEN.....	TRACE	---	---	0.0	---	TRACE	---
ARGON.....	TRACE	---	---	3.0	---	0.0	---
HYDROGEN.....	0.0	---	---	0.0	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	TRACE	---	TRACE	---
HELIUM.....	0.05	---	---	0.07	---	0.08	---
HEATING VALUE.....	1098	---	---	1019	---	1108	---
SPECIFIC GRAVITY.....	0.593	---	---	0.563	---	0.627	---
		INDEX SAMPLE	11947 9370	INDEX SAMPLE	11948 4376	INDEX SAMPLE	11949 9334
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	RALEIGH			RALEIGH		RALEIGH	
FIELD.....	SNUFFER			TRAP HILL DIST.		WELCHLANDS	
WELL NAME.....	NO. 1			WELL NO. 9126		NO. 66	
LOCATION.....	NOT GIVEN			NOT GIVEN		SLAB FORK DIST.	
OWNER.....	CABOT CORP.			HOPE NATURAL GAS CO.		PEAKE PETROLEUM CO.	
COMPLETED.....	05/22/44			07/11/47		08/29/58	
SAMPLED.....	05/08/64			09/26/47		04/27/64	
FORMATION.....	MISS-BIG LIME			MISS-		MISS-BIG LIME	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2680			2076		2377	
WELLHEAD PRESSURE, PSIG.....	330			30		NOT GIVEN	
OPEN FLOW, MCFD.....	8			926		650	
COMPONENT, MOLE PCT							
METHANE.....	97.9	---	---	96.1	---	97.9	---
ETHANE.....	1.3	---	---	2.8	---	1.2	---
PROPANE.....	0.1	---	---	---	---	0.1	---
N-BUTANE.....	0.0	---	---	---	---	0.0	---
ISOBUTANE.....	0.0	---	---	---	---	0.0	---
N-PENTANE.....	0.0	---	---	---	---	0.0	---
ISOPENTANE.....	0.0	---	---	---	---	0.0	---
CYCLOPENTANE.....	0.0	---	---	---	---	0.0	---
HEXANES PLUS.....	0.0	---	---	---	---	0.0	---
NITROGEN.....	0.5	---	---	0.5	---	0.6	---
OXYGEN.....	TRACE	---	---	0.3	---	TRACE	---
ARGON.....	TRACE	---	---	---	---	0.0	---
HYDROGEN.....	TRACE	---	---	---	---	0.1	---
HYDROGEN SULFIDE.....	0.0	---	---	---	---	0.0	---
CARBON DIOXIDE.....	TRACE	---	---	0.2	---	0.0	---
HELIUM.....	0.08	---	---	0.06	---	0.07	---
HEATING VALUE.....	1018	---	---	1024	---	1016	---
SPECIFIC GRAVITY.....	0.563	---	---	0.573	---	0.563	---
		INDEX SAMPLE	11950 9336	INDEX SAMPLE	11951 9346	INDEX SAMPLE	11952 12311
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	RALEIGH			RANDOLPH		RANDOLPH	
FIELD.....	WELCHLANDS			ALPENA		BROOK RUN	
WELL NAME.....	NO. 72			HADDIX NO. 1		L. L. MOSS NO. 1	
LOCATION.....	SLAB FORK DIST.			HORTON QUAD.		ROARING CREEK DIST.	
OWNER.....	PEAKE PETROLEUM CO.			CITIES SERVICE OIL CO.		WHITE SHIELD OIL & GAS CORP.	
COMPLETED.....	11/18/58			01/19/60		07/26/59	
SAMPLED.....	04/27/64			04/30/64		06/18/70	
FORMATION.....	MISS-MAXTON			DEVCO-CHEST & ORISKANY		DEVCO-RILEY & BENSON	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	1875			NOT GIVEN		3351	
WELLHEAD PRESSURE, PSIG.....	349			1510		1130	
OPEN FLOW, MCFD.....	5800			569		200	
COMPONENT, MOLE PCT							
METHANE.....	96.7	---	---	98.0	---	87.7	---
ETHANE.....	2.1	---	---	1.1	---	7.5	---
PROPANE.....	0.2	---	---	TRACE	---	2.2	---
N-BUTANE.....	0.0	---	---	0.0	---	0.5	---
ISOBUTANE.....	0.0	---	---	0.0	---	0.3	---
N-PENTANE.....	0.0	---	---	0.0	---	0.3	---
ISOPENTANE.....	0.0	---	---	0.0	---	0.0	---
CYCLOPENTANE.....	0.0	---	---	0.0	---	TRACE	---
HEXANES PLUS.....	0.0	---	---	0.0	---	0.2	---
NITROGEN.....	0.6	---	---	0.6	---	0.9	---
OXYGEN.....	TRACE	---	---	TRACE	---	0.0	---
ARGON.....	TRACE	---	---	TRACE	---	0.0	---
HYDROGEN.....	0.2	---	---	TRACE	---	0.2	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.1	---	---	0.2	---	0.1	---
HELIUM.....	0.08	---	---	0.05	---	0.05	---
HEATING VALUE.....	1023	---	---	1012	---	1131	---
SPECIFIC GRAVITY.....	0.563	---	---	0.564	---	0.640	---

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

INDEX 11953 SAMPLE 12312		INDEX 11954 SAMPLE 17704		INDEX 11955 SAMPLE 16278	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	RANDOLPH	COUNTY.....	RANDOLPH	COUNTY.....	RANDOLPH
FIELD.....	BROOK RUN	FIELD.....	CASSITY	FIELD.....	MIDDLE FORK
WELL NAME.....	L. L. MOSS NO. 1	WELL NAME.....	M. G. WARD NO. 4	WELL NAME.....	MCULLAN NO. A-925
LOCATION.....	ROARING CREEK DIST.	LOCATION.....	ADOLPH QUAD.	LOCATION.....	CASSITY QUAD.
OWNER.....	WHITE SHIELD OIL & GAS CORP.	OWNER.....	SENECA-UPSHUR PETROLEUM CO.	OWNER.....	ALLEGHENY LAND & MINERAL CO.
COMPLETED.....	07/26/69	COMPLETED.....	04/18/82	COMPLETED.....	12/12/80
SAMPLED.....	06/18/70	SAMPLED.....	06/10/85	SAMPLED.....	06/09/81
FORMATION.....	MISS-SQUAW	FORMATION.....	DEVO-BENSON	FORMATION.....	DEVO-CHERT
GEOLOGIC PROVINCE CODE	160	GEOLOGIC PROVINCE CODE	160	GEOLOGIC PROVINCE CODE	160
DEPTH, FEET.....	1264	DEPTH, FEET.....	3655	DEPTH, FEET.....	7747
WELLHEAD PRESSURE, PSIG.....	440	WELLHEAD PRESSURE, PSIG.....	550	WELLHEAD PRESSURE, PSIG.....	2600
OPEN FLOW, MCFD.....	5410	OPEN FLOW, MCFD.....	160	OPEN FLOW, MCFD.....	9100
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	93.9	METHANE.....	91.0	METHANE.....	96.8
ETHANE.....	0.0	ETHANE.....	0.1	ETHANE.....	1.8
PROPANE.....	0.6	PROPANE.....	1.3	PROPANE.....	0.1
N-BUTANE.....	0.1	N-BUTANE.....	0.3	N-BUTANE.....	TRACE
ISOBUTANE.....	0.1	ISOBUTANE.....	0.1	ISOBUTANE.....	TRACE
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	1.3	NITROGEN.....	0.8	NITROGEN.....	0.7
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.1	ARGON.....	0.0
HYDROGEN.....	0.7	HYDROGEN.....	0.2	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.4
HELIUM.....	0.12	HELIUM.....	0.07	HELIUM.....	0.03
HEATING VALUE.....	1039	HEATING VALUE.....	1076	HEATING VALUE.....	1015
SPECIFIC GRAVITY.....	0.584	SPECIFIC GRAVITY.....	0.611	SPECIFIC GRAVITY.....	0.570

INDEX 11956 SAMPLE 6030		INDEX 11957 SAMPLE 12179		INDEX 11958 SAMPLE 9519	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	RANDOLPH	COUNTY.....	RANDOLPH	COUNTY.....	RITCHIE
FIELD.....	NOT GIVEN	FIELD.....	ROARING CREEK	FIELD.....	BEACON RUN
WELL NAME.....	D. HILL ARNOLD NO. 1 GW1208	WELL NAME.....	MOSS NO. 1	WELL NAME.....	NO. 10082
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	UNION DIST.
OWNER.....	COLUMBIAN CARBON CO.	OWNER.....	WHITE SHIELD OIL & GAS CORP.	OWNER.....	HOPE NATURAL GAS CO.
COMPLETED.....	11/10/55	COMPLETED.....	07/04/69	COMPLETED.....	05/24/57
SAMPLED.....	03/05/56	SAMPLED.....	01/23/70	SAMPLED.....	07/23/64
FORMATION.....	DEVO-ORISKANY	FORMATION.....	DEVO-BENSON	FORMATION.....	MISS-BIG INJUN
GEOLOGIC PROVINCE CODE	160	GEOLOGIC PROVINCE CODE	160	GEOLOGIC PROVINCE CODE	160
DEPTH, FEET.....	4838	DEPTH, FEET.....	3500	DEPTH, FEET.....	1880
WELLHEAD PRESSURE, PSIG.....	2045	WELLHEAD PRESSURE, PSIG.....	1050	WELLHEAD PRESSURE, PSIG.....	243
OPEN FLOW, MCFD.....	9832	OPEN FLOW, MCFD.....	200	OPEN FLOW, MCFD.....	12
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	98.5	METHANE.....	93.5	METHANE.....	75.2
ETHANE.....	1.0	ETHANE.....	3.1	ETHANE.....	15.2
PROPANE.....	0.0	PROPANE.....	0.7	PROPANE.....	6.0
N-BUTANE.....	0.0	N-BUTANE.....	0.4	N-BUTANE.....	1.4
ISOBUTANE.....	0.0	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.8
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.4
NITROGEN.....	0.5	NITROGEN.....	1.4	NITROGEN.....	0.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.8	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0
HELIUM.....	0.05	HELIUM.....	0.12	HELIUM.....	0.04
HEATING VALUE.....	1016	HEATING VALUE.....	1036	HEATING VALUE.....	1318
SPECIFIC GRAVITY.....	0.562	SPECIFIC GRAVITY.....	0.584	SPECIFIC GRAVITY.....	0.749

INDEX 11959 SAMPLE 9501		INDEX 11960 SAMPLE 9492		INDEX 11961 SAMPLE 9173	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	RITCHIE	COUNTY.....	RITCHIE	COUNTY.....	RITCHIE
FIELD.....	HAZEL GREENE-LAWFORD	FIELD.....	MAHONE	FIELD.....	MELLEN
WELL NAME.....	HARTMAN NO. 3070	WELL NAME.....	WESTFALL NO. 10029	WELL NAME.....	RITCHIE MINES NO. 72
LOCATION.....	MURPHY DIST.	LOCATION.....	MURPHY DIST.	LOCATION.....	23, 431
OWNER.....	HOPE NATURAL GAS CO.	OWNER.....	HOPE NATURAL GAS CO.	OWNER.....	PENNZOIL CO.
COMPLETED.....	09/--/13	COMPLETED.....	02/--/57	COMPLETED.....	11/29/69
SAMPLED.....	07/16/64	SAMPLED.....	07/16/64	SAMPLED.....	11/19/63
FORMATION.....	MISS-BEREA	FORMATION.....	MISS-BIG INJUN	FORMATION.....	MISS-BIG INJUN
GEOLOGIC PROVINCE CODE	160	GEOLOGIC PROVINCE CODE	160	GEOLOGIC PROVINCE CODE	160
DEPTH, FEET.....	2139	DEPTH, FEET.....	1871	DEPTH, FEET.....	2138
WELLHEAD PRESSURE, PSIG.....	60	WELLHEAD PRESSURE, PSIG.....	201	WELLHEAD PRESSURE, PSIG.....	30
OPEN FLOW, MCFD.....	17	OPEN FLOW, MCFD.....	47	OPEN FLOW, MCFD.....	34
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	64.9	METHANE.....	82.5	METHANE.....	71.1
ETHANE.....	14.8	ETHANE.....	10.6	ETHANE.....	15.5
PROPANE.....	9.7	PROPANE.....	3.5	PROPANE.....	7.3
N-BUTANE.....	4.4	N-BUTANE.....	0.8	N-BUTANE.....	2.5
ISOBUTANE.....	0.7	ISOBUTANE.....	0.4	ISOBUTANE.....	0.9
N-PENTANE.....	1.3	N-PENTANE.....	0.2	N-PENTANE.....	0.6
ISOPENTANE.....	1.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.7
CYCLOPENTANE.....	1.2	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	1.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.6
NITROGEN.....	0.7	NITROGEN.....	1.3	NITROGEN.....	0.5
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1
HELIUM.....	0.06	HELIUM.....	0.05	HELIUM.....	0.10
HEATING VALUE.....	1547	HEATING VALUE.....	1187	HEATING VALUE.....	1392
SPECIFIC GRAVITY.....	0.897	SPECIFIC GRAVITY.....	0.680	SPECIFIC GRAVITY.....	0.800

INDEX 11962 SAMPLE 9500		INDEX 11963 SAMPLE 6983		INDEX 11964 SAMPLE 9819	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	RITCHIE	COUNTY.....	RITCHIE	COUNTY.....	ROANE
FIELD.....	RACY	FIELD.....	SAND HILL	FIELD.....	GEARY DISTRICT
WELL NAME.....	NO. 4439	WELL NAME.....	NO. 10160	WELL NAME.....	DENVER MORRIS NO. 1
LOCATION.....	GRANT DIST.	LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN
OWNER.....	HOPE NATURAL GAS CO.	OWNER.....	HOPE NATURAL GAS CO.	OWNER.....	CRESLEN OIL CO.
COMPLETED.....	11/--/16	COMPLETED.....	10/12/58	COMPLETED.....	10/29/64
SAMPLED.....	07/16/64	SAMPLED.....	02/23/59	SAMPLED.....	03/15/65
FORMATION.....	MISS-BEREA	FORMATION.....	MISSISSIPPI CREEK	FORMATION.....	PENN-SALT SAND
GEOLOGIC PROVINCE CODE	160	GEOLOGIC PROVINCE CODE	160	GEOLOGIC PROVINCE CODE	160
DEPTH, FEET.....	2269	DEPTH, FEET.....	6960	DEPTH, FEET.....	1114
WELLHEAD PRESSURE, PSIG.....	300	WELLHEAD PRESSURE, PSIG.....	2880	WELLHEAD PRESSURE, PSIG.....	1400
OPEN FLOW, MCFD.....	13	OPEN FLOW, MCFD.....	5396	OPEN FLOW, MCFD.....	731
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.9	METHANE.....	92.7	METHANE.....	82.8
ETHANE.....	15.8	ETHANE.....	2.8	ETHANE.....	8.8
PROPANE.....	6.5	PROPANE.....	0.7	PROPANE.....	3.1
N-BUTANE.....	1.4	N-BUTANE.....	0.3	N-BUTANE.....	0.9
ISOBUTANE.....	0.7	ISOBUTANE.....	0.4	ISOBUTANE.....	0.7
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.4
ISOPENTANE.....	0.4	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.4
NITROGEN.....	0.6	NITROGEN.....	1.9	NITROGEN.....	2.5
OXYGEN.....	TRACE	OXYGEN.....	0.2	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1
HELIUM.....	0.05	HELIUM.....	TRACE	HELIUM.....	0.09
HEATING VALUE.....	1320	HEATING VALUE.....	1069	HEATING VALUE.....	1176
SPECIFIC GRAVITY.....	0.755	SPECIFIC GRAVITY.....	0.613	SPECIFIC GRAVITY.....	0.685

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	11965 9506	INDEX SAMPLE	11966 9699	INDEX SAMPLE	11967 9700
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	TAYLOR			TAYLOR		TAYLOR	
FIELD.....	RICHARDSON			NOT GIVEN		NOT GIVEN	
WELL NAME.....	RADAKER NO. 7122			NO. 6043		NO. 6137	
LOCATION.....	SPENCER QUAD.			BOOTH'S CREEK DIST.		BOOTH'S CREEK DIST.	
OWNER.....	HOPE NATURAL GAS CO.			EQUITABLE GAS CO.		EQUITABLE GAS CO.	
COMPLETED.....	02/23/14			04/28/18		09/27/43	
SAMPLED.....	08/~/64			01/07/65		01/07/65	
FORMATION.....	MISS-BEREA			DEVO-FIFTH		MISS-BIG INJUN	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	2544			2412		977	
WELLHEAD PRESSURE, PSIG.....	940			84		35	
OPEN FLOW, MCFD.....	NOT GIVEN			5		33	
COMPONENT, MOLE PCT							
METHANE.....	74.9			92.1		82.9	
ETHANE.....	12.6			4.5		8.9	
PROPANE.....	6.8			1.0		3.4	
N-BUTANE.....	2.1			0.3		1.1	
ISOBUTANE.....	0.8			0.3		0.8	
N-PENTANE.....	0.5			0.1		0.4	
ISOPENTANE.....	0.5			TRACE		0.3	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.3			0.3		0.6	
NITROGEN.....	1.3			1.1		1.3	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.1		0.1	
HELIUM.....	0.09			0.01		0.10	
HEATING VALUE.....	1317			1079		1216	
SPECIFIC GRAVITY.....	0.760			0.609		0.697	

		INDEX SAMPLE	11968 9378	INDEX SAMPLE	11969 17677	INDEX SAMPLE	11970 9483
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	TUCKER			TUCKER		TUCKER	
FIELD.....	CAANAN VALLEY			CAANAN VALLEY		ETAM	
WELL NAME.....	J. G. KUYKENDALL NO. 454			ALLMAN & TETER NO. 1		INVA E. NESTOR NO. 9924	
LOCATION.....	DRY FORK DIST.			BLACKWATER FALLS QUAD		LICKING DIST.	
OWNER.....	CUMBERLAND & ALLEGHENY GAS C			BEREA OIL & GAS CORP.		HOPE NATURAL GAS CO.	
COMPLETED.....	03/25/46			04/16/82		04/28/55	
SAMPLED.....	05/27/64			05/17/64		07/15/64	
FORMATION.....	DEVO-ORISKANY			DEVO-ORISKANY		DEVO-ONONDAGA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	8250			8450		4473	
WELLHEAD PRESSURE, PSIG.....	3175			2650		1631	
OPEN FLOW, MCFD.....	4150			5000		138	
COMPONENT, MOLE PCT							
METHANE.....	97.8			98.1		97.8	
ETHANE.....	1.1			1.0		1.3	
PROPANE.....	0.1			TRACE		TRACE	
N-BUTANE.....	0.0			0.0		0.0	
ISOBUTANE.....	0.0			0.0		0.0	
N-PENTANE.....	0.0			0.0		0.0	
ISOPENTANE.....	0.0			0.0		0.0	
CYCLOPENTANE.....	0.0			0.0		0.0	
HEXANES PLUS.....	0.0			0.0		0.0	
NITROGEN.....	0.7			0.5		0.7	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.3		0.1	
HELIUM.....	0.05			0.04		0.04	
HEATING VALUE.....	1013			1012		1014	
SPECIFIC GRAVITY.....	0.565			0.564		0.564	

		INDEX SAMPLE	11971 4092	INDEX SAMPLE	11972 4093	INDEX SAMPLE	11973 9676
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	NOT GIVEN			TUCKER		TUCKER	
FIELD.....	NOT GIVEN			NOT GIVEN		PARSONS	
WELL NAME.....	KUYKENDALL NO. 1			KUYKENDALL NO. 1		U.S.A.-T-1	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	OHIO OIL CO.			OHIO OIL CO.		CITIES SERVICE OIL CO.	
COMPLETED.....	08/15/45			08/15/45		08/21/64	
SAMPLED.....	08/20/45			08/20/45		12/16/64	
FORMATION.....	DEVO-ORISKANY			PENN-		SILU-TUSCARORA	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	8000			8000		6822	
WELLHEAD PRESSURE, PSIG.....	3200			3200		2630	
OPEN FLOW, MCFD.....	1500			1500		22000	
COMPONENT, MOLE PCT							
METHANE.....	97.6			98.3		79.4	
ETHANE.....	1.8			1.4		1.8	
PROPANE.....	---			---		0.2	
N-BUTANE.....	---			---		0.0	
ISOBUTANE.....	---			---		0.0	
N-PENTANE.....	---			---		0.0	
ISOPENTANE.....	---			---		0.0	
CYCLOPENTANE.....	---			---		0.0	
HEXANES PLUS.....	---			---		0.0	
NITROGEN.....	0.2			0.0		17.9	
OXYGEN.....	0.1			0.1		TRACE	
ARGON.....	---			---		TRACE	
HYDROGEN.....	---			---		0.0	
HYDROGEN SULFIDE.....	---			---		0.0	
CARBON DIOXIDE.....	0.3			0.2		0.3	
HELIUM.....	0.06			0.05		0.42	
HEATING VALUE.....	1021			1021		842	
SPECIFIC GRAVITY.....	0.568			0.564		0.640	

		INDEX SAMPLE	11974 13158	INDEX SAMPLE	11975 4659	INDEX SAMPLE	11976 16742
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	TUCKER			TUCKER		TYLER	
FIELD.....	PARSONS			NOT GIVEN		BEARVILLE	
WELL NAME.....	MULENAX NO. A-1			NO. 418		W. W. MENDITH NO. 1	
LOCATION.....	PARSONS QUAD.			NOT GIVEN		CENTERVILLE DIST.	
OWNER.....	CITIES SERVICE OIL CO.			CUMBERLAND & ALLEGHENY GAS C		HAUGHT, INC.	
COMPLETED.....	12/11/71			12/23/49		09/15/81	
SAMPLED.....	02/29/72			03/23/49		12/20/82	
FORMATION.....	SILU-TUSCARORA			DEVO-ORISKANY		DEVO-SHALE	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	5455			8056		2700	
WELLHEAD PRESSURE, PSIG.....	2645			2500		320	
OPEN FLOW, MCFD.....	28000			468		220	
COMPONENT, MOLE PCT							
METHANE.....	79.0			96.6		82.4	
ETHANE.....	1.8			1.2		4.7	
PROPANE.....	0.2			0.1		2.3	
N-BUTANE.....	0.1			0.1		1.1	
ISOBUTANE.....	0.0			0.0		0.7	
N-PENTANE.....	0.1			0.0		0.4	
ISOPENTANE.....	0.2			0.0		0.6	
CYCLOPENTANE.....	0.3			0.0		0.1	
HEXANES PLUS.....	0.3			0.0		0.4	
NITROGEN.....	17.1			1.5		5.9	
OXYGEN.....	0.4			0.2		0.4	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			---		0.5	
HYDROGEN SULFIDE.....	0.0			---		0.0	
CARBON DIOXIDE.....	0.3			0.2		0.1	
HELIUM.....	0.41			0.05		0.46	
HEATING VALUE.....	1069			1039		1108	
SPECIFIC GRAVITY.....	0.553			0.572		0.683	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1007

	INDEX SAMPLE	11977 9174	INDEX SAMPLE	11978 9553	INDEX SAMPLE	11979 9458
STATE.....	WEST VIRGINIA		WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	TYLER		TYLER		UPSHUR	
FIELD.....	BRADEN STATION		SCHUTTE		ABBOTT-FRENCH CREEK	
WELL NAME.....	NELSON FORRESTER		MCCOY NO. 6173		DELIA W. GOLDEN NO. 10188	
LOCATION.....	MCELROY DIST.		NOT GIVEN		BANK DIST.	
OWNER.....	QUAKER STATE OIL REF. CORP.		HOPE NATURAL GAS CO.		HOPE NATURAL GAS CO.	
COMPLETED.....	01/20/60		05/15/22		08/19/39	
SAMPLED.....	11/21/63		08/17/64		07/15/64	
FORMATION.....	DEVO-GORDON		DEVO-GORDON		DEVO-BENSON	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	2726		2842		4050	
WELLHEAD PRESSURE, PSIG.....	62		53		790	
OPEN FLOW, MCFD.....	7		17		1699	
COMPONENT, MOLE PCT.....						
METHANE.....	58.5		64.3		89.5	
ETHANE.....	16.8		19.7		6.7	
PROPANE.....	12.4		9.7		1.5	
N-BUTANE.....	4.6		2.2		0.3	
ISOBUTANE.....	2.0		2.2		0.3	
N-PENTANE.....	0.9		0.5		0.1	
ISOPENTANE.....	1.1		0.4		0.1	
CYCLOPENTANE.....	0.1		0.1		TRACE	
HEXANES PLUS.....	0.8		0.4		0.2	
NITROGEN.....	2.2		TRACE		1.0	
OXYGEN.....	TRACE		TRACE		TRACE	
ARGON.....	0.0		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.2		TRACE		0.1	
HELIUM.....	0.10		0.06		0.07	
HEATING VALUE.....	1568		1437		1105	
SPECIFIC GRAVITY.....	0.934		0.836		0.624	
	INDEX	11980	INDEX	11981	INDEX	11982
	SAMPLE	9449	SAMPLE	9177	SAMPLE	10369
STATE.....	WEST VIRGINIA		WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	UPSHUR		UPSHUR		UPSHUR	
FIELD.....	BUCKANNOON CENTURY		BUCKANNOON		BUCKANNOON	
WELL NAME.....	J.V. MCDERMOTT FARM NO. 10509		W. S. GOULD NO. 593		ALVIN TEAL QUEEN	
LOCATION.....	UNION DIST.		MEADE DIST.		WARREN DIST.	
OWNER.....	HOPE NATURAL GAS CO.		CUMBERLAND & ALLEGHENY GAS C		ALLERTON MILLER	
COMPLETED.....	10/04/63		12/19/60		09/22/65	
SAMPLED.....	07/15/64		11/21/63		01/06/66	
FORMATION.....	DEVO-SENSON		DEVO-SENSON & RILEY		DEVO-BENSON	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	3964		4048		4608	
WELLHEAD PRESSURE, PSIG.....	1280		1330		1720	
OPEN FLOW, MCFD.....	4387		NOT GIVEN		3000	
COMPONENT, MOLE PCT.....						
METHANE.....	90.3		90.5		88.3	
ETHANE.....	6.9		8.2		7.1	
PROPANE.....	4.4		6.6		2.1	
N-BUTANE.....	0.3		0.5		0.5	
ISOBUTANE.....	0.3		0.1		0.4	
N-PENTANE.....	0.1		TRACE		0.2	
ISOPENTANE.....	0.1		0.2		0.1	
CYCLOPENTANE.....	TRACE		TRACE		TRACE	
HEXANES PLUS.....	0.1		0.1		0.3	
NITROGEN.....	0.8		0.8		0.8	
OXYGEN.....	0.0		0.0		0.0	
ARGON.....	TRACE		0.0		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.1		0.1		0.1	
HELIUM.....	0.06		0.10		0.06	
HEATING VALUE.....	1100		1100		1135	
SPECIFIC GRAVITY.....	0.619		0.619		0.641	
	INDEX	11983	INDEX	11984	INDEX	11985
	SAMPLE	9379	SAMPLE	9664	SAMPLE	17523
STATE.....	WEST VIRGINIA		WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	UPSHUR		UPSHUR		UPSHUR	
FIELD.....	FRENCH CREEK		MEADE DISTRICT		NOT GIVEN	
WELL NAME.....	0. C. NEELY NO. 583		29417 NO. 3		BOONE	
LOCATION.....	MEADE DIST.		MEADE DIST.		CARTER	
OWNER.....	CUMBERLAND & ALLEGHENY GAS C		ALLERTON MILLER		UNION DRILLING, INC.	
COMPLETED.....	07/13/59		07/13/59		7/7/60	
SAMPLED.....	05/26/64		12/10/64		11/09/84	
FORMATION.....	DEVO-BENSON		DEVO-GORDON		DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	3898		2230		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1200		510		1700	
OPEN FLOW, MCFD.....	222		2100		NOT GIVEN	
COMPONENT, MOLE PCT.....						
METHANE.....	91.7		88.9		96.5	
ETHANE.....	5.4		7.0		2.2	
PROPANE.....	1.5		1.5		0.1	
N-BUTANE.....	0.4		0.6		0.1	
ISOBUTANE.....	0.1		0.4		TRACE	
N-PENTANE.....	TRACE		0.1		TRACE	
ISOPENTANE.....	0.2		0.2		0.0	
CYCLOPENTANE.....	TRACE		TRACE		TRACE	
HEXANES PLUS.....	0.1		0.1		TRACE	
NITROGEN.....	0.6		0.7		0.8	
OXYGEN.....	TRACE		TRACE		TRACE	
ARGON.....	0.0		TRACE		TRACE	
HYDROGEN.....	TRACE		0.0		TRACE	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	TRACE		0.1		0.2	
HELIUM.....	0.08		0.07		0.03	
HEATING VALUE.....	1090		1129		1023	
SPECIFIC GRAVITY.....	0.610		0.634		0.573	
	INDEX	11986	INDEX	11987	INDEX	11988
	SAMPLE	8617	SAMPLE	9380	SAMPLE	12208
STATE.....	WEST VIRGINIA		WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	UPSHUR		UPSHUR		UPSHUR	
FIELD.....	PECKS RUN		ROCK CAVE		TALLMANSVILLE	
WELL NAME.....	LUCILLE POST 10353		C. E. HEARNS NO. 538		GEORGE A. TENNEY A-393	
LOCATION.....	BANKS DIST.		BANKS DIST.		WASHINGTON DIST.	
OWNER.....	HOPE NATURAL GAS CO.		CUMBERLAND & ALLEGHENY GAS C		ALLEGHENY LAND & MINERAL CO.	
COMPLETED.....	04/09/62		12/28/55		11/12/69	
SAMPLED.....	07/23/62		07/23/64		02/16/70	
FORMATION.....	DEVO-BENSON		DEVO-BENSON		DEVO-BENSON	
GEOLOGIC PROVINCE CODE.....	160		160		160	
DEPTH, FEET.....	4530		4076		3522	
WELLHEAD PRESSURE, PSIG.....	1540		1100		1500	
OPEN FLOW, MCFD.....	25283		1202		4153	
COMPONENT, MOLE PCT.....						
METHANE.....	89.9		89.3		90.1	
ETHANE.....	6.9		7.0		5.6	
PROPANE.....	1.7		2.0		1.7	
N-BUTANE.....	0.4		0.6		1.4	
ISOBUTANE.....	0.2		0.2		0.2	
N-PENTANE.....	TRACE		0.1		0.1	
ISOPENTANE.....	0.2		0.2		0.1	
CYCLOPENTANE.....	TRACE		TRACE		TRACE	
HEXANES PLUS.....	TRACE		0.2		0.1	
NITROGEN.....	0.6		0.3		1.4	
OXYGEN.....	0.0		TRACE		0.0	
ARGON.....	0.0		0.0		0.0	
HYDROGEN.....	0.0		0.0		0.2	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.1		0.1		TRACE	
HELIUM.....	0.07		0.07		0.05	
HEATING VALUE.....	1107		1129		1092	
SPECIFIC GRAVITY.....	0.622		0.632		0.619	

* CALCULATED GROSS BTL PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE 11989 12215	INDEX SAMPLE 11990 12396	INDEX SAMPLE 11991 12397
STATE.....	WEST VIRGINIA			
COUNTY.....	UPSHUR			
FIELD.....	TALLMANSVILLE			
WELL NAME.....	GEORGE ROESSING NO. 2			
LOCATION.....	WASHINGTON DIST.			
OWNER.....	WESTTRANS PETROLEUM, INC.			
COMPLETED.....	10/22/69			
SAMPLED.....	03/25/70			
FORMATION.....	DEVO-BENSON			
GEOLOGIC PROVINCE CODE.....	160			
DEPTH, FEET.....	3948			
WELLHEAD PRESSURE, PSIG.....	6500			
OPEN FLOW, MCFD.....	2705			
COMPONENT, MOLE PCT				
METHANE.....	88.9	91.6	90.2	
ETHANE.....	6.4	4.9	5.8	
PROPANE.....	2.0	1.3	1.8	
N-BUTANE.....	0.4	0.2	0.3	
ISOBUTANE.....	0.3	0.2	0.2	
N-PENTANE.....	0.2	0.1	0.1	
ISOPENTANE.....	TRACE	TRACE	0.0	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	1.5	1.2	1.1	
OXYGEN.....	0.1	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.1	0.2	0.2	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	TRACE	0.0	
HELIUM.....	0.07	0.09	0.08	
HEATING VALUE.....	1105	1073	1091	
SPECIFIC GRAVITY.....	0.629	0.605	0.616	

		INDEX SAMPLE 11992 9381	INDEX SAMPLE 11993 4554	INDEX SAMPLE 11994 4592
STATE.....	WEST VIRGINIA			
COUNTY.....	UPSHUR			
FIELD.....	TURKEY RUN			
WELL NAME.....	F. A. ALLMAN NO. 521			
LOCATION.....	NOT GIVEN			
OWNER.....	CUMPERLAND & ALLEGHENY GAS CO.			
COMPLETED.....	05/23/55			
SAMPLED.....	05/26/64			
FORMATION.....	DEVO-FIFTH			
GEOLOGIC PROVINCE CODE.....	160			
DEPTH, FEET.....	2655			
WELLHEAD PRESSURE, PSIG.....	620			
OPEN FLOW, MCFD.....	1818			
COMPONENT, MOLE PCT				
METHANE.....	84.6	78.1	74.5	
ETHANE.....	9.9	4.9	9.4	
PROPANE.....	3.0	---	---	
N-BUTANE.....	0.9	---	---	
ISOBUTANE.....	0.4	---	---	
N-PENTANE.....	0.1	---	---	
ISOPENTANE.....	0.3	---	---	
CYCLOPENTANE.....	TRACE	---	---	
HEXANES PLUS.....	0.2	---	---	
NITROGEN.....	0.5	1.6	2.4	
OXYGEN.....	TRACE	0.5	0.3	
ARGON.....	TRACE	---	---	
HYDROGEN.....	0.0	---	---	
HYDROGEN SULFIDE**.....	0.0	---	---	
CARBON DIOXIDE.....	TRACE	14.8	13.3	
HELIUM.....	0.05	0.08	0.07	
HEATING VALUE.....	1183	879	823	
SPECIFIC GRAVITY.....	0.667	0.732	0.742	

		INDEX SAMPLE 11995 4699	INDEX SAMPLE 11996 9469	INDEX SAMPLE 11997 9460
STATE.....	WEST VIRGINIA			
COUNTY.....	WAYNE			
FIELD.....	BRANCHLAND			
WELL NAME.....	NO. 6181			
LOCATION.....	NOT GIVEN			
OWNER.....	UNITED FUEL GAS CO.			
COMPLETED.....	--/7-700			
SAMPLED.....	04/14/49			
FORMATION.....	NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	160			
DEPTH, FEET.....	7760			
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			
OPEN FLOW, MCFD.....	NOT GIVEN			
COMPONENT, MOLE PCT				
METHANE.....	85.1	80.9	81.6	
ETHANE.....	8.1	10.3	10.4	
PROPANE.....	0.6	4.7	4.2	
N-BUTANE.....	0.2	1.1	1.0	
ISOBUTANE.....	0.1	0.2	0.3	
N-PENTANE.....	0.0	0.3	0.1	
ISOPENTANE.....	0.2	0.1	0.2	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.0	2.6	0.1	
NITROGEN.....	5.5	2.0	1.8	
OXYGEN.....	0.5	TRACE	0.1	
ARGON.....	0.1	0.0	0.0	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE**.....	---	0.0	0.0	
CARBON DIOXIDE.....	5.5	0.0	0.0	
HELIUM.....	0.11	0.10	0.09	
HEATING VALUE.....	930	1201	1184	
SPECIFIC GRAVITY.....	0.659	0.694	0.684	

		INDEX SAMPLE 11998 9468	INDEX SAMPLE 11999 9471	INDEX SAMPLE 12000 9473
STATE.....	WEST VIRGINIA			
COUNTY.....	WAYNE			
FIELD.....	CRUM-KERMIT			
WELL NAME.....	WILSON COAL LAND CO. NO. 54			
LOCATION.....	LINCOLN DIST.			
OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT			
COMPLETED.....	05/11/51			
SAMPLED.....	07/09/64			
FORMATION.....	MISS-BEREA			
GEOLOGIC PROVINCE CODE.....	160			
DEPTH, FEET.....	2326			
WELLHEAD PRESSURE, PSIG.....	405			
OPEN FLOW, MCFD.....	11			
COMPONENT, MOLE PCT				
METHANE.....	81.3	78.2	81.8	
ETHANE.....	8.9	11.7	9.9	
PROPANE.....	2.8	0.2	1.0	
N-BUTANE.....	0.9	1.1	1.0	
ISOBUTANE.....	0.3	0.3	0.3	
N-PENTANE.....	0.1	0.2	0.2	
ISOPENTANE.....	0.3	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	3.9	2.2	2.2	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.1	0.1	
HELIUM.....	0.17	0.08	0.11	
HEATING VALUE.....	1243	1243	1174	
SPECIFIC GRAVITY.....	0.679	0.705	0.682	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1009

INDEX 12001 SAMPLE 9579		INDEX 12002 SAMPLE 9647		INDEX 12003 SAMPLE 9455	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	WAYNE	COUNTY.....	WAYNE	COUNTY.....	WAYNE
FIELD.....	CRUM-KERMIT	FIELD.....	FORT GAY-HUBBARD TOWN	FIELD.....	HANY-COVE CREEK
WELL NAME.....	E. S. COLEMAN NO. 1	WELL NAME.....	BARNEY ASBURY B-1	WELL NAME.....	HOARD BALDWIN NO. 30
LOCATION.....	LINCOLN DIST.	LOCATION.....	BUTLER DIST.	LOCATION.....	STONEWALL DIST.
OWNER.....	ASHLAND OIL & REFINING CO.	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT
COMPLETED.....	08/26/43	COMPLETED.....	06/17/58	COMPLETED.....	05/13/43
SAMPLED.....	09/12/64	SAMPLED.....	09/29/64	SAMPLED.....	07/03/64
FORMATION.....	DEVO-SHALE	FORMATION.....	MISS-BEREA	FORMATION.....	MISS-BIG INJUN
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2186	DEPTH, FEET.....	2057	DEPTH, FEET.....	1220
WELLHEAD PRESSURE, PSIG.....	300	WELLHEAD PRESSURE, PSIG.....	583	WELLHEAD PRESSURE, PSIG.....	325
OPEN FLOW, MCFD.....	1107	OPEN FLOW, MCFD.....	208	OPEN FLOW, MCFD.....	165
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.4	METHANE.....	73.7	METHANE.....	80.9
ETHANE.....	13.1	ETHANE.....	12.0	ETHANE.....	9.6
PROPANE.....	5.7	PROPANE.....	7.4	PROPANE.....	4.3
N-BUTANE.....	1.2	N-BUTANE.....	2.0	N-BUTANE.....	0.9
ISOBUTANE.....	0.2	ISOBUTANE.....	0.7	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.4	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	1.8	NITROGEN.....	3.0	NITROGEN.....	3.3
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.07	HELIUM.....	0.16	HELIUM.....	0.12
HEATING VALUE.....	1232	HEATING VALUE.....	1281	HEATING VALUE.....	1158
SPECIFIC GRAVITY.....	0.712	SPECIFIC GRAVITY.....	0.757	SPECIFIC GRAVITY.....	0.683
INDEX 12004 SAMPLE 9462		INDEX 12005 SAMPLE 9464		INDEX 12006 SAMPLE 9475	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	WAYNE	COUNTY.....	WAYNE	COUNTY.....	WAYNE
FIELD.....	HANY-COVE CREEK	FIELD.....	HANY-COVE CREEK	FIELD.....	HANY-COVE CREEK
WELL NAME.....	C. E. COUNTS NO. 1	WELL NAME.....	C. E. COUNTS NO. 1	WELL NAME.....	HOARD BALDWIN NO. 2
LOCATION.....	GRANT DIST.	LOCATION.....	GRANT DIST.	LOCATION.....	GRANT DIST.
OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT
COMPLETED.....	06/21/48	COMPLETED.....	06/21/48	COMPLETED.....	02/01/62
SAMPLED.....	07/10/64	SAMPLED.....	07/10/64	SAMPLED.....	07/10/64
FORMATION.....	DEVO-SH-LIME	FORMATION.....	DEVO-SH-LIME	FORMATION.....	MISS-BIG INJUN
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	1516	DEPTH, FEET.....	2386	DEPTH, FEET.....	1215
WELLHEAD PRESSURE, PSIG.....	225	WELLHEAD PRESSURE, PSIG.....	435	WELLHEAD PRESSURE, PSIG.....	138
OPEN FLOW, MCFD.....	63	OPEN FLOW, MCFD.....	183	OPEN FLOW, MCFD.....	208
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	83.9	METHANE.....	79.4	METHANE.....	83.9
ETHANE.....	10.1	ETHANE.....	10.9	ETHANE.....	10.1
PROPANE.....	3.1	PROPANE.....	4.6	PROPANE.....	3.1
N-BUTANE.....	0.8	N-BUTANE.....	1.0	N-BUTANE.....	0.8
ISOBUTANE.....	0.5	ISOBUTANE.....	0.4	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	2.4	NITROGEN.....	3.0	NITROGEN.....	1.0
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1
HELIUM.....	0.09	HELIUM.....	0.12	HELIUM.....	0.07
HEATING VALUE.....	1154	HEATING VALUE.....	1184	HEATING VALUE.....	1176
SPECIFIC GRAVITY.....	0.670	SPECIFIC GRAVITY.....	0.696	SPECIFIC GRAVITY.....	0.669
INDEX 12007 SAMPLE 9467		INDEX 12008 SAMPLE 9474		INDEX 12009 SAMPLE 9466	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	WAYNE	COUNTY.....	WAYNE	COUNTY.....	WAYNE
FIELD.....	HERBERT	FIELD.....	HERBERT	FIELD.....	HERBERT
WELL NAME.....	LUCRETIA KNIGHT NO. 1	WELL NAME.....	OLIVER SPURLOCK NO. 2	WELL NAME.....	GIPSY WRIGHT NO. 1
LOCATION.....	UNION DIST.	LOCATION.....	UNION DIST.	LOCATION.....	STONEWALL DIST.
OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT
COMPLETED.....	06/04/59	COMPLETED.....	07/03/64	COMPLETED.....	12/16/59
SAMPLED.....	07/08/64	SAMPLED.....	07/03/64	SAMPLED.....	09/29/64
FORMATION.....	DEVO-CORNIFEROUS	FORMATION.....	SILU-BIG SIX	FORMATION.....	SILU-BIG SIX
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	3160	DEPTH, FEET.....	3809	DEPTH, FEET.....	3879
WELLHEAD PRESSURE, PSIG.....	780	WELLHEAD PRESSURE, PSIG.....	860	WELLHEAD PRESSURE, PSIG.....	1200
OPEN FLOW, MCFD.....	3585	OPEN FLOW, MCFD.....	219	OPEN FLOW, MCFD.....	243
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.1	METHANE.....	86.5	METHANE.....	76.6
ETHANE.....	4.3	ETHANE.....	4.6	ETHANE.....	2.6
PROPANE.....	1.6	PROPANE.....	1.8	PROPANE.....	0.6
N-BUTANE.....	0.6	N-BUTANE.....	0.7	N-BUTANE.....	0.3
ISOBUTANE.....	0.3	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	5.2	NITROGEN.....	5.1	NITROGEN.....	18.9
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.16	HELIUM.....	0.20	HELIUM.....	0.35
HEATING VALUE.....	1049	HEATING VALUE.....	1045	HEATING VALUE.....	878
SPECIFIC GRAVITY.....	0.636	SPECIFIC GRAVITY.....	0.643	SPECIFIC GRAVITY.....	0.668
INDEX 12010 SAMPLE 15690		INDEX 12011 SAMPLE 9470		INDEX 12012 SAMPLE 9465	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	WAYNE	COUNTY.....	WAYNE	COUNTY.....	WAYNE
FIELD.....	LOCKWOOD E	FIELD.....	LOST CREEK	FIELD.....	LYNN-CRETE E
WELL NAME.....	TRACT 2 NO.20530	WELL NAME.....	KOONCE & ZIMMERMAN NO. 2	WELL NAME.....	GUYAN OIL CO. NO. 4
LOCATION.....	EAST LYN DIST.	LOCATION.....	LINCOLN DIST.	LOCATION.....	STONEWALL DIST.
OWNER.....	COLUMBIA GAS TRANS. CORP.	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT	OWNER.....	OWENS, LIBBEY-OWENS GAS DEPT
COMPLETED.....	10/17/77	COMPLETED.....	02/14/41	COMPLETED.....	05/20/30
SAMPLED.....	07/06/79	SAMPLED.....	07/06/79	SAMPLED.....	07/03/64
FORMATION.....	MISS-BIG INJUN	FORMATION.....	MISS-BIG INJUN	FORMATION.....	DEVO-SHALE
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	1390	DEPTH, FEET.....	1171	DEPTH, FEET.....	1894
WELLHEAD PRESSURE, PSIG.....	430	WELLHEAD PRESSURE, PSIG.....	480	WELLHEAD PRESSURE, PSIG.....	685
OPEN FLOW, MCFD.....	3890	OPEN FLOW, MCFD.....	411	OPEN FLOW, MCFD.....	302
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	84.4	METHANE.....	81.1	METHANE.....	79.9
ETHANE.....	6.2	ETHANE.....	8.6	ETHANE.....	10.0
PROPANE.....	2.7	PROPANE.....	3.8	PROPANE.....	4.8
N-BUTANE.....	0.5	N-BUTANE.....	0.3	N-BUTANE.....	1.0
ISOBUTANE.....	0.2	ISOBUTANE.....	0.2	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	5.1	NITROGEN.....	4.6	NITROGEN.....	3.4
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.0
HELIUM.....	0.27	HELIUM.....	0.12	HELIUM.....	0.14
HEATING VALUE.....	1071	HEATING VALUE.....	1133	HEATING VALUE.....	1172
SPECIFIC GRAVITY.....	0.646	SPECIFIC GRAVITY.....	0.681	SPECIFIC GRAVITY.....	0.691

* CALCULATED GROSS BTU PER CU. FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12013 SAMPLE 9466			INDEX 12014 SAMPLE 4700			INDEX 12015 SAMPLE 9476		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	WAYNE		WAYNE			WAYNE		
FIELD.....	LYNN-CRETE E		NOT GIVEN			NCT GIVEN		
WELL NAME.....	CLYDE MILLER NO. 1		ISAAC R. SMITH, HRS. NO. 1			HOARD BALDWIN NO. 36		
LOCATION.....	STONEWALL DIST.		NOT GIVEN			STONEWALL DIST.		
OWNER.....	OWENS & LIBBEY-OWENS GAS DEPT		CHARTERS OIL & GAS CO.			OWENS & LIBBEY-OWENS GAS DEPT		
COMPLETED.....	04/24/53		02/12/49			--/--/00		
SAMPLED.....	07/09/64		--/--/00			08/11/64		
FORMATION.....	DEVO-BROWN SHALE&CORNFEROUS		STLU-CLINTON			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2096		4180			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	401		NOT GIVEN			NCT GIVEN		
OPEN FLOW, MCFD.....	75		984			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	81.4		67.3			80.7		
ETHANE.....	8.6		1.2			9.8		
PROPANE.....	3.9		0.4			4.4		
N-BUTANE.....	0.8		0.2			1.1		
ISOBUTANE.....	0.2		0.1			0.7		
N-PENTANE.....	0.1		0.0			0.3		
ISOPENTANE.....	0.2		0.0			0.2		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.1		0.0			0.2		
NITROGEN.....	4.3		29.5			2.3		
OXYGEN.....	TRACE		0.2			TRACE		
ARGON.....	TRACE		0.1			0.0		
HYDROGEN.....	0.1		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.13		0.30			0.17		
HEATING VALUE.....	1132		725			1199		
SPECIFIC GRAVITY.....	0.677		0.690			0.697		

INDEX 12016 SAMPLE 9323			INDEX 12017 SAMPLE 4423			INDEX 12018 SAMPLE 17012		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	WAYNE		WAYNE			WEBSTER		
FIELD.....	WAYNE DIVISION		WAYNE-LINCOLN			FCRT LICK DISTRICT		
WELL NAME.....	W. STALEY NO. 666		C. S. COUNTS NO. 1			MCWER LUMBER NO. 1768		
LOCATION.....	BUTLER DIST.		GRANT DIST.			SAMP QUAD.		
OWNER.....	COMMONWEALTH GAS CORP.		OWENS & LIBBEY-OWENS GAS DEPT			UNION DRILLING, INC.		
COMPLETED.....	05/05/60		10/29/47			11/15/81		
SAMPLED.....	04/23/69		02/12/48			08/18/83		
FORMATION.....	MISS-BEREA		MISS-LIME			DEVO-BENSON		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	1821		1516			2772		
WELLHEAD PRESSURE, PSIG.....	650		425			950		
OPEN FLOW, MCFD.....	189		NOT GIVEN			289		
COMPONENT, MOLE PCT								
METHANE.....	81.8		69.3			91.0		
ETHANE.....	5.8		2.6			1.9		
PROPANE.....	2.9		---			0.2		
N-BUTANE.....	0.8		---			0.0		
ISOBUTANE.....	0.1		---			0.0		
N-PENTANE.....	0.2		---			0.0		
ISOPENTANE.....	0.2		---			0.0		
CYCLOPENTANE.....	0.1		---			0.0		
HEXANES PLUS.....	0.1		---			0.0		
NITROGEN.....	7.1		4.2			3.5		
OXYGEN.....	0.0		0.5			0.1		
ARGON.....	0.0		---			TRACE		
HYDROGEN.....	0.3		---			0.4		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	TRACE		0.3			2.8		
HELIUM.....	0.54		0.13			0.09		
HEATING VALUE.....	1065		1161			962		
SPECIFIC GRAVITY.....	0.663		0.704			0.606		

INDEX 12019 SAMPLE 9456			INDEX 12020 SAMPLE 9440			INDEX 12021 SAMPLE 9453		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	WEITZEL		WEITZEL			WEITZEL		
FIELD.....	BIG RUN-BURCHFIELD		COBURN-EARNSHAW			KNOR FORK		
WELL NAME.....	JACKSON LAMBERT NO. 818		SAMUEL CUMMINGS NO. 761			PETER GLOVER FARM NO. 3		
LOCATION.....	CENTER DIST.		GRANT DIST.			CENTER DIST.		
OWNER.....	HOPE NATURAL GAS CO.		HOPE NATURAL GAS CO.			HOPE NATURAL GAS CO.		
COMPLETED.....	--/--/06		08/05/05			05/19/97		
SAMPLED.....	07/15/64		07/16/64			07/15/64		
FORMATION.....	DEVO-GORDON		DEVO-FOURTH SAND			MISS-BIG INJUN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2924		3095			1998		
WELLHEAD PRESSURE, PSIG.....	3		78			16		
OPEN FLOW, MCFD.....	18		16			26		
COMPONENT, MOLE PCT								
METHANE.....	46.7		79.3			77.6		
ETHANE.....	23.5		11.7			9.8		
PROPANE.....	16.0		4.1			4.7		
N-BUTANE.....	5.1		1.1			2.0		
ISOBUTANE.....	2.4		0.9			1.1		
N-PENTANE.....	0.8		0.3			0.9		
ISOPENTANE.....	1.6		0.3			0.4		
CYCLOPENTANE.....	0.2		TRACE			0.2		
HEXANES PLUS.....	0.2		0.3			1.4		
NITROGEN.....	2.1		1.6			1.5		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.2		
HELIUM.....	0.05		0.07			0.10		
HEATING VALUE.....	1735		1228			1323		
SPECIFIC GRAVITY.....	1.034		0.710			0.767		

INDEX 12022 SAMPLE 9690			INDEX 12023 SAMPLE 9694			INDEX 12024 SAMPLE 9695		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	WEITZEL		WEITZEL			WEITZEL		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	NO. 5192		NO. 5192			NO. 5414		
LOCATION.....	CHURCH DIST.		CHURCH DIST.			CHURCH DIST.		
OWNER.....	EQUITABLE GAS CO.		EQUITABLE GAS CO.			EQUITABLE GAS CO.		
COMPLETED.....	07/06/15		07/20/16			05/07/26		
SAMPLED.....	01/11/65		01/11/65			01/11/65		
FORMATION.....	DEVO-FOURTH SAND		DEVO-GORDON			DEVO-FIFTH		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	2888		3351			3265		
WELLHEAD PRESSURE, PSIG.....	85		51			25		
OPEN FLOW, MCFD.....	13		61			22		
COMPONENT, MOLE PCT								
METHANE.....	78.1		81.2			74.9		
ETHANE.....	12.9		10.3			14.5		
PROPANE.....	1.8		0.9			5.6		
N-BUTANE.....	1.1		1.0			1.6		
ISOBUTANE.....	0.9		0.9			1.1		
N-PENTANE.....	0.3		0.3			0.4		
ISOPENTANE.....	0.2		0.2			0.4		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.2		0.5			0.5		
NITROGEN.....	1.2		1.9			0.6		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.05		0.08			0.05		
HEATING VALUE.....	1246		0.703			1318		
SPECIFIC GRAVITY.....	0.716					0.757		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

STATE	INDEX	12025	INDEX	12026	INDEX	12027
COUNTY	SAMPLE	9696	SAMPLE	9697	SAMPLE	9698
WEST VIRGINIA	WEST VIRGINIA		WEST VIRGINIA		WEST VIRGINIA	
WEITZEL	WEITZEL		WEITZEL		WEITZEL	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NO. 1643	NO. 1643		NO. 1643		NO. 1643	
CHURCH DIST.	CHURCH DIST.		GRANT DIST.		GRANT DIST.	
EQUITABLE GAS CO.	EQUITABLE GAS CO.		EQUITABLE GAS CO.		EQUITABLE GAS CO.	
10/11/65	10/11/65		02/14/98		11/21/96	
01/11/65	01/11/65		01/11/65		01/11/65	
MISS-BIG INJUN	MISS-BIG INJUN		DEVO-GORDON		MISS-BIG INJUN	
160	160		160		160	
DEPTH, FEET	2004		2674		1760	
WELLHEAD PRESSURE, PSIG	72		49		41	
OPEN FLOW, MCFD	11		16		21	
COMPONENT, MOLE PCT						
METHANE	84.7		75.2		82.9	
ETHANE	7.8		11.4		7.8	
PROpane	2.8		5.0		3.1	
N-BUTANE	1.0		5.4		3.2	
ISOBUTANE	0.6		1.3		0.8	
N-PENTANE	0.3		0.6		0.5	
ISOPENTANE	0.1		0.6		0.3	
CYCLOPENTANE	0.1		0.1		0.1	
HEXANES PLUS	0.5		0.7		0.6	
NITROGEN	1.9		1.5		2.2	
OXYGEN	0.0		TRACE		TRACE	
ARGON	0.0		TRACE		TRACE	
HYDROGEN	TRACE		0.0		0.2	
HYDROGEN SULFIDE	0.0		0.0		0.0	
CARBON DIOXIDE	0.1		0.1		0.1	
HELIUM	0.11		0.09		0.14	
HEATING VALUE	1171		1337		1197	
SPECIFIC GRAVITY	0.676		0.776		0.695	

STATE	INDEX	12028	INDEX	12029	INDEX	12030
COUNTY	SAMPLE	9477	SAMPLE	4941	SAMPLE	4871
WEST VIRGINIA	WEST VIRGINIA		WEST VIRGINIA		WEST VIRGINIA	
WEITZEL	WEITZEL		WIRT		WIRT	
READER	READER		KANAWHA-CLENDENIN		NOT GIVEN	
JOSEPHINE BRAST NO. 1055	JOSEPHINE BRAST NO. 1055		NO. 6552		T. P. BEARD NO. 1, SER. 1301	
GREENE DIST.	GREENE DIST.		NOT GIVEN		STEELE DIST.	
HOPE NATURAL GAS CO.	HOPE NATURAL GAS CO.		UNITED FUEL GAS CO.		GODFREY L. CABOT, INC.	
04/06/09	04/06/09		04/26/50		01/10/50	
07/16/64	07/16/64		07/08/50		05/11/50	
MISS-BIG INJUN	MISS-BIG INJUN		DEVO-ORISKANY		DEVO-ORISKANY	
160	160		160		160	
DEPTH, FEET	2123		5302		5360	
WELLHEAD PRESSURE, PSIG	33		1400		1700	
OPEN FLOW, MCFD	9		862		10000	
COMPONENT, MOLE PCT						
METHANE	79.9		84.6		85.1	
ETHANE	10.0		8.2		8.8	
PROpane	4.2		2.9		2.9	
N-BUTANE	0.3		0.7		0.8	
ISOBUTANE	0.3		0.3		0.4	
N-PENTANE	0.5		0.2		0.3	
ISOPENTANE	0.5		TRACE		0.0	
CYCLOPENTANE	0.1		TRACE		TRACE	
HEXANES PLUS	0.6		0.2		0.3	
NITROGEN	1.6		2.5		1.1	
OXYGEN	0.0		0.6		0.1	
ARGON	TRACE		TRACE		TRACE	
HYDROGEN	TRACE		---		TRACE	
HYDROGEN SULFIDE	0.0		---		---	
CARBON DIOXIDE	0.0		---		---	
HELIUM	0.11		TRACE		0.05	
HEATING VALUE	1249		1121		1162	
SPECIFIC GRAVITY	0.723		0.660		0.665	

STATE	INDEX	12031	INDEX	12032	INDEX	12033
COUNTY	SAMPLE	15528	SAMPLE	4566	SAMPLE	4635
WEST VIRGINIA	WEST VIRGINIA		WEST VIRGINIA		WEST VIRGINIA	
WIRT	WIRT		WOOD		WOOD	
CHARLESTON 7-A	CHARLESTON 7-A		THOMPSON NO. 1069		KANAWHA-CLENDENIN	
B. N. WISEMAN NO. 1	B. N. WISEMAN NO. 1		STEELE DIST.		NO. 6335	
TUCKER DIST.	TUCKER DIST.		COLUMBIAN CARBON CO.		16.5 MI. S PARKERSBURG	
RAY RESOURCES CORP.	RAY RESOURCES CORP.		08/12/48		UNITED FUEL GAS CO.	
01/20/67	01/20/67		09/20/48		08/30/48	
11/20/78	11/20/78		DEVO-L		10/29/48	
MISS-BEREA	MISS-BEREA		160		DEVO-ORISKANY	
160	160		4843		160	
DEPTH, FEET	1641		4803		5309	
WELLHEAD PRESSURE, PSIG	750		1970		1700	
OPEN FLOW, MCFD	6500		4000		2588	
COMPONENT, MOLE PCT						
METHANE	85.8		73.0		75.9	
ETHANE	2.6		25.8		22.4	
PROpane	0.9		---		---	
N-BUTANE	0.3		---		---	
ISOBUTANE	0.1		---		---	
N-PENTANE	0.1		---		---	
ISOPENTANE	0.1		---		---	
CYCLOPENTANE	TRACE		---		---	
HEXANES PLUS	0.7		---		---	
NITROGEN	8.7		8.7		1.0	
OXYGEN	0.0		0.3		0.4	
ARGON	TRACE		---		---	
HYDROGEN	0.3		---		---	
HYDROGEN SULFIDE	0.0		---		---	
CARBON DIOXIDE	0.1		0.1		0.2	
HELIUM	0.2		1.202		0.07	
HEATING VALUE	957		1170		1170	
SPECIFIC GRAVITY	0.615		0.687		0.673	

STATE	INDEX	12034	INDEX	12035	INDEX	12036
COUNTY	SAMPLE	5086	SAMPLE	4656	SAMPLE	4732
WEST VIRGINIA	WEST VIRGINIA		WEST VIRGINIA		WEST VIRGINIA	
WOOD	WOOD		WOOD		WOOD	
KANAWHA-CLENDENIN	KANAWHA-CLENDENIN		NOT GIVEN		NOT GIVEN	
NO. 6551	NO. 6551		JOHN HAGUE NO. 1, SER. 1281		G. L. CABOT NO. 2	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
UNITED FUEL GAS CO.	UNITED FUEL GAS CO.		GODFREY L. CABOT, INC.		UNITED CARBON CO.	
01/24/51	01/24/51		10/09/48		03/02/49	
08/06/51	08/06/51		01/14/49		05/16/49	
MONOCLINAL SLOPE	MONOCLINAL SLOPE		DEVO-ORISKANY		DEVO-ORISKANY	
160	160		160		160	
DEPTH, FEET	5205		5089		4805	
WELLHEAD PRESSURE, PSIG	410		1300		1340	
OPEN FLOW, MCFD	2659		103		1000	
COMPONENT, MOLE PCT						
METHANE	82.0		85.1		84.1	
ETHANE	9.5		8.7		8.8	
PROpane	3.7		2.7		2.9	
N-BUTANE	0.9		0.8		0.8	
ISOBUTANE	0.5		0.4		0.4	
N-PENTANE	0.3		0.2		0.3	
ISOPENTANE	0.2		0.1		0.1	
CYCLOPENTANE	TRACE		TRACE		TRACE	
HEXANES PLUS	0.3		0.3		0.3	
NITROGEN	2.5		1.4		2.1	
OXYGEN	0.2		0.1		0.1	
ARGON	TRACE		TRACE		0.1	
HYDROGEN	0.0		0.1		0.0	
HYDROGEN SULFIDE	---		---		---	
CARBON DIOXIDE	0.0		0.1		0.1	
HELIUM	0.06		0.05		0.05	
HEATING VALUE	1174		1158		1157	
SPECIFIC GRAVITY	0.634		0.663		0.672	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12037 SAMPLE 9491		INDEX 12038 SAMPLE 4936		INDEX 12039 SAMPLE 4782	
STATE..... WEST VIRGINIA		STATE..... WEST VIRGINIA		STATE..... WEST VIRGINIA	
COUNTY..... WOOD		COUNTY..... WOOD		COUNTY..... WOOD	
FIELD..... NOT GIVEN		FIELD..... STEEL DIST.		FIELD..... STEEL DIST.-POND CREEK	
WELL NAME..... BIG RUN OIL CO. NO. 8840		WELL NAME..... J. A. RUBLE NO. 1, GW-1143		WELL NAME..... C. W. MOORE NO. 1 GW-1124	
LOCATION..... WILLIAMS DIST.		LOCATION..... NOT GIVEN		LOCATION..... NOT GIVEN	
OWNER..... HOPE NATURAL GAS CO.		OWNER..... COLUMBIAN CARBON CO.		OWNER..... COLUMBIAN CARBON CO.	
COMPLETED..... 03/-/44		COMPLETED..... 05/22/50		COMPLETED..... 08/01/49	
SAMPLED..... 07/16/64		SAMPLED..... 08/17/50		SAMPLED..... 09/22/49	
FORMATION..... DEVO-SHALE		FORMATION..... DEVO-ORISKANY		FORMATION..... DEVO-ORISKANY	
GEOLOGIC PROVINCE CODE..... 160		GEOLOGIC PROVINCE CODE..... 160		GEOLOGIC PROVINCE CODE..... 160	
DEPTH, FEET..... 2782		DEPTH, FEET..... 5160		DEPTH, FEET..... 4884	
WELLHEAD PRESSURE, PSIG..... 210		WELLHEAD PRESSURE, PSIG..... 1225		WELLHEAD PRESSURE, PSIG..... 1520	
OPEN FLOW, MCFD..... 37		OPEN FLOW, MCFD..... 13000		OPEN FLOW, MCFD..... 954	
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE..... 80.3	-----	METHANE..... 85.1	-----	METHANE..... 84.0	-----
ETHANE..... 11.4	-----	ETHANE..... 8.7	-----	ETHANE..... 8.9	-----
PROPANE..... 4.3	-----	PROPANE..... 2.9	-----	PROPANE..... 3.0	-----
N-BUTANE..... 1.0	-----	N-BUTANE..... 1.0	-----	N-BUTANE..... 0.9	-----
ISOBUTANE..... 0.3	-----	ISOBUTANE..... 0.2	-----	ISOBUTANE..... 0.4	-----
N-PENTANE..... 0.2	-----	N-PENTANE..... 0.3	-----	N-PENTANE..... 0.2	-----
ISOPENTANE..... 0.3	-----	ISOPENTANE..... 0.2	-----	ISOPENTANE..... 0.4	-----
CYCLOPENTANE..... 0.1	-----	CYCLOPENTANE..... TRACE	-----	CYCLOPENTANE..... TRACE	-----
HEXANES PLUS..... 0.2	-----	HEXANES PLUS..... 0.2	-----	HEXANES PLUS..... 0.3	-----
NITROGEN..... 1.8	-----	NITROGEN..... 1.0	-----	NITROGEN..... 1.7	-----
OXYGEN..... TRACE	-----	OXYGEN..... 0.2	-----	OXYGEN..... 0.1	-----
ARGON..... 0.0	-----	ARGON..... TRACE	-----	ARGON..... 0.0	-----
HYDROGEN..... 0.0	-----	HYDROGEN..... TRACE	-----	HYDROGEN..... 0.0	-----
HYDROGEN SULFIDE..... 0.0	-----	HYDROGEN SULFIDE..... 0.0	-----	HYDROGEN SULFIDE..... 0.0	-----
CARBON DIOXIDE..... TRACE	-----	CARBON DIOXIDE..... 0.2	-----	CARBON DIOXIDE..... 0.1	-----
HELIUM..... 0.09	-----	HELIUM..... 0.05	-----	HELIUM..... 0.05	-----
HEATING VALUE..... 1208	-----	HEATING VALUE..... 1165	-----	HEATING VALUE..... 1171	-----
SPECIFIC GRAVITY..... 0.697	-----	SPECIFIC GRAVITY..... 0.667	-----	SPECIFIC GRAVITY..... 0.676	-----

INDEX 12040 SAMPLE 4758		INDEX 12041 SAMPLE 4780		INDEX 12042 SAMPLE 9407	
STATE..... WEST VIRGINIA		STATE..... WEST VIRGINIA		STATE..... WEST VIRGINIA	
COUNTY..... WOOD		COUNTY..... WOOD		COUNTY..... WYOMING	
FIELD..... NOT GIVEN		FIELD..... JACOB GATES NO. 1 SER. 1282		FIELD..... BAILEYSVILLE	
WELL NAME..... BENJAMIN QUICK NO. 1		WELL NAME..... NOT GIVEN		WELL NAME..... W. H. RITTER NO. 184	
LOCATION..... NOT GIVEN		LOCATION..... GODFREY L. CABOT, INC.		LOCATION..... NOT GIVEN	
OWNER..... GODFREY L. CABOT, INC.		OWNER..... GODFREY L. CABOT, INC.		OWNER..... ASHLAND OIL & REFINING CO.	
COMPLETED..... 08/18/49		COMPLETED..... 03/03/49		COMPLETED..... 04/06/60	
SAMPLED..... 01/15/64		SAMPLED..... 11/15/49		SAMPLED..... 06/-/64	
FORMATION..... DEVO-ORISKANY		FORMATION..... DEVO-ORISKANY		FORMATION..... PENN-SALT SAND	
GEOLOGIC PROVINCE CODE..... 160		GEOLOGIC PROVINCE CODE..... 160		GEOLOGIC PROVINCE CODE..... 160	
DEPTH, FEET..... 5053		DEPTH, FEET..... 5225		DEPTH, FEET..... 1949	
WELLHEAD PRESSURE, PSIG..... 1780		WELLHEAD PRESSURE, PSIG..... 1600		WELLHEAD PRESSURE, PSIG..... 535	
OPEN FLOW, MCFD..... 174		OPEN FLOW, MCFD..... NOT GIVEN		OPEN FLOW, MCFD..... 22800	
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE..... 83.1	-----	METHANE..... 84.2	-----	METHANE..... 96.9	-----
ETHANE..... 8.6	-----	ETHANE..... 8.9	-----	ETHANE..... 2.1	-----
PROPANE..... 2.8	-----	PROPANE..... 2.9	-----	PROPANE..... 0.3	-----
N-BUTANE..... 0.9	-----	N-BUTANE..... 0.9	-----	N-BUTANE..... 0.0	-----
ISOBUTANE..... 0.5	-----	ISOBUTANE..... 0.4	-----	ISOBUTANE..... 0.0	-----
N-PENTANE..... 0.2	-----	N-PENTANE..... 0.4	-----	N-PENTANE..... 0.0	-----
ISOPENTANE..... 0.2	-----	ISOPENTANE..... 0.0	-----	ISOPENTANE..... 0.0	-----
CYCLOPENTANE..... 0.1	-----	CYCLOPENTANE..... 0.1	-----	CYCLOPENTANE..... 0.0	-----
HEXANES PLUS..... 0.3	-----	HEXANES PLUS..... 0.3	-----	HEXANES PLUS..... 0.0	-----
NITROGEN..... 2.9	-----	NITROGEN..... 1.8	-----	NITROGEN..... 0.5	-----
OXYGEN..... 0.3	-----	OXYGEN..... 0.1	-----	OXYGEN..... 0.0	-----
ARGON..... TRACE	-----	ARGON..... TRACE	-----	ARGON..... TRACE	-----
HYDROGEN..... TRACE	-----	HYDROGEN..... TRACE	-----	HYDROGEN..... 0.0	-----
HYDROGEN SULFIDE..... ---	-----	HYDROGEN SULFIDE..... ---	-----	HYDROGEN SULFIDE..... 0.0	-----
CARBON DIOXIDE..... 0.2	-----	CARBON DIOXIDE..... 0.1	-----	CARBON DIOXIDE..... 0.1	-----
HELIUM..... 0.05	-----	HELIUM..... 0.05	-----	HELIUM..... 0.06	-----
HEATING VALUE..... 1144	-----	HEATING VALUE..... 1154	-----	HEATING VALUE..... 1027	-----
SPECIFIC GRAVITY..... 0.679	-----	SPECIFIC GRAVITY..... 0.674	-----	SPECIFIC GRAVITY..... 0.570	-----

INDEX 12043 SAMPLE 9411		INDEX 12044 SAMPLE 9369		INDEX 12045 SAMPLE 9361	
STATE..... WEST VIRGINIA		STATE..... WEST VIRGINIA		STATE..... WEST VIRGINIA	
COUNTY..... WYOMING		COUNTY..... WYOMING		COUNTY..... WYOMING	
FIELD..... BAILEYSVILLE		FIELD..... BIG HUFF		FIELD..... GILBERT	
WELL NAME..... W. H. RITTER NO. 211		WELL NAME..... NO.		WELL NAME..... SUE BAILEY NO. 1	
LOCATION..... NOT GIVEN		LOCATION..... NOT GIVEN		LOCATION..... GILBERT QUAD.	
OWNER..... ASHLAND OIL & REFINING CO.		OWNER..... CABOT CORP.		OWNER..... CITIUS SERVICE OIL CO.	
COMPLETED..... 01/15/64		COMPLETED..... 09/20/55		COMPLETED..... 06/07/63	
SAMPLED..... 06/-/64		SAMPLED..... 05/12/64		SAMPLED..... 05/08/64	
FORMATION..... MISS-BIG LIME		FORMATION..... MISS-BEREA		FORMATION..... MISS-BEREA	
GEOLOGIC PROVINCE CODE..... 160		GEOLOGIC PROVINCE CODE..... 160		GEOLOGIC PROVINCE CODE..... 160	
DEPTH, FEET..... 3265		DEPTH, FEET..... 3864		DEPTH, FEET..... 3460	
WELLHEAD PRESSURE, PSIG..... 850		WELLHEAD PRESSURE, PSIG..... 430		WELLHEAD PRESSURE, PSIG..... 810	
OPEN FLOW, MCFD..... 1175		OPEN FLOW, MCFD..... 100		OPEN FLOW, MCFD..... 838	
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE..... 95.8	-----	METHANE..... 93.7	-----	METHANE..... 93.7	-----
ETHANE..... 2.9	-----	ETHANE..... 4.0	-----	ETHANE..... 4.5	-----
PROPANE..... 0.3	-----	PROPANE..... 0.1	-----	PROPANE..... 0.6	-----
N-BUTANE..... TRACE	-----	N-BUTANE..... 0.1	-----	N-BUTANE..... 0.2	-----
ISOBUTANE..... 0.0	-----	ISOBUTANE..... 0.0	-----	ISOBUTANE..... TRACE	-----
N-PENTANE..... 0.0	-----	N-PENTANE..... 0.0	-----	N-PENTANE..... TRACE	-----
ISOPENTANE..... 0.0	-----	ISOPENTANE..... 0.0	-----	ISOPENTANE..... TRACE	-----
CYCLOPENTANE..... 0.0	-----	CYCLOPENTANE..... 0.0	-----	CYCLOPENTANE..... TRACE	-----
HEXANES PLUS..... 0.0	-----	HEXANES PLUS..... 0.0	-----	HEXANES PLUS..... 0.1	-----
NITROGEN..... 0.7	-----	NITROGEN..... 1.5	-----	NITROGEN..... 0.7	-----
OXYGEN..... 0.0	-----	OXYGEN..... 0.0	-----	OXYGEN..... 0.1	-----
ARGON..... TRACE	-----	ARGON..... TRACE	-----	ARGON..... 0.0	-----
HYDROGEN..... 0.0	-----	HYDROGEN..... 0.0	-----	HYDROGEN..... 0.0	-----
HYDROGEN SULFIDE..... 0.0	-----	HYDROGEN SULFIDE..... 0.0	-----	HYDROGEN SULFIDE..... 0.0	-----
CARBON DIOXIDE..... 0.2	-----	CARBON DIOXIDE..... 0.1	-----	CARBON DIOXIDE..... 0.1	-----
HELIUM..... 0.06	-----	HELIUM..... 0.03	-----	HELIUM..... 0.04	-----
HEATING VALUE..... 1033	-----	HEATING VALUE..... 1037	-----	HEATING VALUE..... 1053	-----
SPECIFIC GRAVITY..... 0.576	-----	SPECIFIC GRAVITY..... 0.588	-----	SPECIFIC GRAVITY..... 0.590	-----

INDEX 12046 SAMPLE 9372		INDEX 12047 SAMPLE 9739		INDEX 12048 SAMPLE 9523	
STATE..... WEST VIRGINIA		STATE..... WEST VIRGINIA		STATE..... WEST VIRGINIA	
COUNTY..... WYOMING		COUNTY..... WYOMING		COUNTY..... WYOMING	
FIELD..... GILBERT		FIELD..... GILBERT & PLUMLEY		FIELD..... MANN-OCEANA	
WELL NAME..... NO. 20		WELL NAME..... GGP NO. 28, SER. NO. 1553		WELL NAME..... NO. 9023	
LOCATION..... NOT GIVEN		LOCATION..... HUFF CREEK DIST.		LOCATION..... OCEANA DIST.	
OWNER..... CABOT CORP.		OWNER..... CABOT CORP.		OWNER..... HOPE NATURAL GAS CO.	
COMPLETED..... 09/22/55		COMPLETED..... 11/06/64		COMPLETED..... 11/01/46	
SAMPLED..... 05/12/64		SAMPLED..... 02/16/65		SAMPLED..... 07/30/64	
FORMATION..... MISS-MAXTON & BEREA		FORMATION..... MISS-BEREA & RAVENCLIFF		FORMATION..... MISS-BEREA	
GEOLOGIC PROVINCE CODE..... 160		GEOLOGIC PROVINCE CODE..... 160		GEOLOGIC PROVINCE CODE..... 160	
DEPTH, FEET..... 2566		DEPTH, FEET..... 4041		DEPTH, FEET..... 3608	
WELLHEAD PRESSURE, PSIG..... 235		WELLHEAD PRESSURE, PSIG..... 820		WELLHEAD PRESSURE, PSIG..... 810	
OPEN FLOW, MCFD..... 13		OPEN FLOW, MCFD..... 10723		OPEN FLOW, MCFD..... 539	
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE..... 93.6	-----	METHANE..... 96.9	-----	METHANE..... 95.5	-----
ETHANE..... 1.3	-----	ETHANE..... 2.3	-----	ETHANE..... 3.3	-----
PROPANE..... 0.2	-----	PROPANE..... 0.2	-----	PROPANE..... 0.3	-----
N-BUTANE..... 0.0	-----	N-BUTANE..... TRACE	-----	N-BUTANE..... 0.1	-----
ISOBUTANE..... 0.0	-----	ISOBUTANE..... TRACE	-----	ISOBUTANE..... 0.0	-----
N-PENTANE..... 0.0	-----	N-PENTANE..... TRACE	-----	N-PENTANE..... 0.0	-----
ISOPENTANE..... 0.0	-----	ISOPENTANE..... TRACE	-----	ISOPENTANE..... 0.0	-----
CYCLOPENTANE..... 0.0	-----	CYCLOPENTANE..... TRACE	-----	CYCLOPENTANE..... 0.0	-----
HEXANES PLUS..... 0.0	-----	HEXANES PLUS..... TRACE	-----	HEXANES PLUS..... 0.0	-----
NITROGEN..... 4.7	-----	NITROGEN..... 0.4	-----	NITROGEN..... 0.6	-----
OXYGEN..... 0.0	-----	OXYGEN..... 0.0	-----	OXYGEN..... 0.6	-----
ARGON..... TRACE	-----	ARGON..... TRACE	-----	ARGON..... TRACE	-----
HYDROGEN..... 0.0	-----	HYDROGEN..... 0.0	-----	HYDROGEN..... 0.0	-----
HYDROGEN SULFIDE..... 0.0	-----	HYDROGEN SULFIDE..... 0.0	-----	HYDROGEN SULFIDE..... 0.0	-----
CARBON DIOXIDE..... 0.2	-----	CARBON DIOXIDE..... 0.1	-----	CARBON DIOXIDE..... 0.1	-----
HELIUM..... 0.20	-----	HELIUM..... 0.05	-----	HELIUM..... 0.04	-----
HEATING VALUE..... 977	-----	HEATING VALUE..... 1020	-----	HEATING VALUE..... 1040	-----
SPECIFIC GRAVITY..... 0.581	-----	SPECIFIC GRAVITY..... 0.568	-----	SPECIFIC GRAVITY..... 0.578	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1013

INDEX 12049 SAMPLE 4571		INDEX 12050 SAMPLE 4572		INDEX 12051 SAMPLE 4633	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	WYOMING	COUNTY.....	WYOMING	COUNTY.....	WYOMING
FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
WELL NAME.....	W. H. WALKER NO. 1263	WELL NAME.....	GOLDA HAYNES NO. 1272	WELL NAME.....	LILLIE BARRETT NO. 9194
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	OCEANA DIST.
OWNER.....	GODFREY L. CABOT, INC.	OWNER.....	GODFREY L. CABOT, INC.	OWNER.....	HOPE NATURAL GAS CO.
COMPLETED.....	05/27/48	COMPLETED.....	05/27/48	COMPLETED.....	03/26/48
SAMPLED.....	10/08/48	SAMPLED.....	10/08/48	SAMPLED.....	10/27/48
FORMATION.....	MISS-BIG LIME	FORMATION.....	MISS-MAXTON	FORMATION.....	MISS-RAVENCLIFF
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2524	DEPTH, FEET.....	1940	DEPTH, FEET.....	1548
WELLHEAD PRESSURE, PSIG.....	750	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	530
OPEN FLOW, MCFD.....	1594	OPEN FLOW, MCFD.....	1679	OPEN FLOW, MCFD.....	2214
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	94.5	METHANE.....	97.1	METHANE.....	95.2
ETHANE.....	5.0	ETHANE.....	2.5	ETHANE.....	4.0
PROpane.....	---	PROpane.....	---	PROpane.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	0.0	NITROGEN.....	0.0	NITROGEN.....	0.4
OXYGEN.....	0.3	OXYGEN.....	0.3	OXYGEN.....	0.2
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2
HELIUM.....	0.04	HELIUM.....	0.07	HELIUM.....	0.05
HEATING VALUE.....	1097	HEATING VALUE.....	1028	HEATING VALUE.....	1036
SPECIFIC GRAVITY.....	0.583	SPECIFIC GRAVITY.....	0.569	SPECIFIC GRAVITY.....	0.579

INDEX 12052 SAMPLE 9151		INDEX 12053 SAMPLE 9169		INDEX 12054 SAMPLE 9496	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	WYOMING	COUNTY.....	WYOMING	COUNTY.....	WYOMING
FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
WELL NAME.....	NO. 9015	WELL NAME.....	W. H. RITTER NO. 181	WELL NAME.....	NO. 10339
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	OCEANA DIST.
OWNER.....	UNITED FUEL GAS CO.	OWNER.....	ASHLAND OIL & REFINING CO.	OWNER.....	HOPE NATURAL GAS CO.
COMPLETED.....	09/24/63	COMPLETED.....	12/22/59	COMPLETED.....	09/08/61
SAMPLED.....	11/06/63	SAMPLED.....	11/15/63	SAMPLED.....	07/07/64
FORMATION.....	MISS-BEREA	FORMATION.....	MISS-BEREA	FORMATION.....	MISS-RAVENCLIFF
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	3412	DEPTH, FEET.....	3509	DEPTH, FEET.....	1915
WELLHEAD PRESSURE, PSIG.....	815	WELLHEAD PRESSURE, PSIG.....	600	WELLHEAD PRESSURE, PSIG.....	557
OPEN FLOW, MCFD.....	2116	OPEN FLOW, MCFD.....	750	OPEN FLOW, MCFD.....	4282
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	93.0	METHANE.....	97.3	METHANE.....	92.3
ETHANE.....	4.3	ETHANE.....	1.7	ETHANE.....	4.5
PROpane.....	0.5	PROpane.....	0.2	PROpane.....	0.9
N-BUTANE.....	---	N-BUTANE.....	0.0	N-BUTANE.....	0.2
ISOBUTANE.....	---	ISOBUTANE.....	0.0	ISOBUTANE.....	0.2
N-PENTANE.....	---	N-PENTANE.....	0.0	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	0.0	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	0.0	HEXANES PLUS.....	---
NITROGEN.....	1.5	NITROGEN.....	0.7	NITROGEN.....	1.3
OXYGEN.....	0.2	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	---	CARBON DIOXIDE.....	---
HELIUM.....	0.10	HELIUM.....	0.10	HELIUM.....	0.09
HEATING VALUE.....	1043	HEATING VALUE.....	1021	HEATING VALUE.....	1067
SPECIFIC GRAVITY.....	0.594	SPECIFIC GRAVITY.....	0.567	SPECIFIC GRAVITY.....	0.605

INDEX 12055 SAMPLE 4433		INDEX 12056 SAMPLE 9510		INDEX 12057 SAMPLE 17663	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	WYOMING	COUNTY.....	WYOMING	COUNTY.....	WYOMING
FIELD.....	OCEANA	FIELD.....	PINEVILLE	FIELD.....	POCOHONTAS EXTENSION
WELL NAME.....	C. W. MURPHY NO. 1	WELL NAME.....	NO. 9148	WELL NAME.....	POCOHONTAS LAND NO. 1-42R
LOCATION.....	PINEVILLE DIST.	LOCATION.....	BATELTSVILLE DIST.	LOCATION.....	RHODELL QUAD
OWNER.....	GODFREY L. CABOT, INC.	OWNER.....	HOPE NATURAL GAS CO.	OWNER.....	CABOT CORP.
COMPLETED.....	09/01/47	COMPLETED.....	09/14/49	COMPLETED.....	04/13/54
SAMPLED.....	01/08/48	SAMPLED.....	07/27/64	SAMPLED.....	05/07/85
FORMATION.....	MISS-GREENBRIER	FORMATION.....	MISS-BEREA	FORMATION.....	MISS-WEIR
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	2359	DEPTH, FEET.....	3340	DEPTH, FEET.....	4120
WELLHEAD PRESSURE, PSIG.....	760	WELLHEAD PRESSURE, PSIG.....	305	WELLHEAD PRESSURE, PSIG.....	840
OPEN FLOW, MCFD.....	1264	OPEN FLOW, MCFD.....	848	OPEN FLOW, MCFD.....	740
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	94.7	METHANE.....	94.7	METHANE.....	97.6
ETHANE.....	4.2	ETHANE.....	3.2	ETHANE.....	1.5
PROpane.....	---	PROpane.....	0.5	PROpane.....	---
N-BUTANE.....	---	N-BUTANE.....	0.1	N-BUTANE.....	0.0
ISOBUTANE.....	---	ISOBUTANE.....	0.1	ISOBUTANE.....	0.0
N-PENTANE.....	---	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.2	NITROGEN.....	1.1	NITROGEN.....	0.5
OXYGEN.....	0.4	OXYGEN.....	---	OXYGEN.....	---
ARGON.....	---	ARGON.....	0.1	ARGON.....	0.0
HYDROGEN.....	---	HYDROGEN.....	0.0	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	---	CARBON DIOXIDE.....	---
HELIUM.....	0.05	HELIUM.....	---	HELIUM.....	0.1
HEATING VALUE.....	1035	HEATING VALUE.....	1036	HEATING VALUE.....	1019
SPECIFIC GRAVITY.....	0.582	SPECIFIC GRAVITY.....	0.583	SPECIFIC GRAVITY.....	0.565

INDEX 12058 SAMPLE 9340		INDEX 12059 SAMPLE 9341		INDEX 12060 SAMPLE 4792	
STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA	STATE.....	WEST VIRGINIA
COUNTY.....	WYOMING	COUNTY.....	WYOMING	COUNTY.....	WYOMING
FIELD.....	WELCHLANDS	FIELD.....	WELCHLANDS	FIELD.....	WYOMING
WELL NAME.....	NO. 61	WELL NAME.....	NO. 61	WELL NAME.....	W. H. RITTER NO. 79
LOCATION.....	SLAB FORK DIST.	LOCATION.....	SLAB FORK DIST.	LOCATION.....	NOT GIVEN
OWNER.....	PEAKE PETROLEUM CO.	OWNER.....	PEAKE PETROLEUM CO.	OWNER.....	UNITED PRODUCING CO., INC.
COMPLETED.....	02/24/56	COMPLETED.....	02/24/56	COMPLETED.....	02/24/49
SAMPLED.....	04/30/64	SAMPLED.....	04/30/64	SAMPLED.....	08/31/49
FORMATION.....	MISS-WEIR	FORMATION.....	MISS-WEIR	FORMATION.....	PENN-SALT SAND
GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160	GEOLOGIC PROVINCE CODE.....	160
DEPTH, FEET.....	3373	DEPTH, FEET.....	3429	DEPTH, FEET.....	1887
WELLHEAD PRESSURE, PSIG.....	750	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	775
OPEN FLOW, MCFD.....	360	OPEN FLOW, MCFD.....	300	OPEN FLOW, MCFD.....	1641
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	97.9	METHANE.....	97.7	METHANE.....	96.9
ETHANE.....	0.9	ETHANE.....	1.1	ETHANE.....	2.1
PROpane.....	---	PROpane.....	---	PROpane.....	---
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	---
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.8	NITROGEN.....	0.0	NITROGEN.....	0.5
OXYGEN.....	---	OXYGEN.....	---	OXYGEN.....	---
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	0.2	HYDROGEN.....	0.2	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	---	CARBON DIOXIDE.....	---	CARBON DIOXIDE.....	---
HELIUM.....	0.10	HELIUM.....	0.09	HELIUM.....	0.06
HEATING VALUE.....	1039	HEATING VALUE.....	1031	HEATING VALUE.....	1031
SPECIFIC GRAVITY.....	0.560	SPECIFIC GRAVITY.....	0.561	SPECIFIC GRAVITY.....	0.572

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	12061 4523	INDEX SAMPLE	12062 4524	INDEX SAMPLE	12063 4525
STATE.....	WEST VIRGINIA			WEST VIRGINIA		WEST VIRGINIA	
COUNTY.....	WYOMING			WYOMING		WYOMING	
FIELD.....	WYOMING COUNTY			WYOMING COUNTY		WYOMING COUNTY	
WELL NAME.....	NO. 9112			NO. 9156		NO. 9139	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	HOPE NATURAL GAS CO.			HOPE NATURAL GAS CO.		HOPE NATURAL GAS CO.	
COMPLETED.....	08/17/47			12/02/47		12/15/47	
SAMPLED.....	05/20/48			05/20/48		05/20/48	
FORMATION.....	MISS-			MISS-		MISS-	
GEOLOGIC PROVINCE CODE.....	160			160		160	
DEPTH, FEET.....	3530			2556		3617	
WELLHEAD PRESSURE, PSIG.....	795			770		815	
OPEN FLOW, MCFD.....	3723			2055		1107	
COMPONENT, MOLE PCT							
METHANE.....	97.0			90.8		96.3	
ETHANE.....	2.0			7.9		2.9	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.4			0.6		0.0	
OXYGEN.....	0.2			0.3		0.3	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.3			0.3		0.5	
HELIUM.....	0.06			0.10		0.03	
HEATING VALUE.....	1018			1061		1027	
SPECIFIC GRAVITY.....	0.570			0.600		0.575	
		INDEX SAMPLE	12064 2184	INDEX SAMPLE	12065 1236	INDEX SAMPLE	12066 1238
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	ALBANY			BIG HORN		BIG HORN	
FIELD.....	REX LAKE			ALKALI DOME		BYRON	
WELL NAME.....	COUGHLIN NO. 3			NO. 1		HAVIS NO. 1	
LOCATION.....	SEC. 26, T16N, R77W			SEC. 10, T55N, R95W		SEC. 31, T56N, R96W	
OWNER.....	OHIO OIL CO.			VICTOR COTNER		CALIFORNIA CO.	
COMPLETED.....	06/01/30			04/04/25		-/-/00	
SAMPLED.....	09/24/30			10/09/25		10/10/25	
FORMATION.....	CRET-SHANNON			CRET-GRYBULL		CRET-TORCHLIGHT	
GEOLOGIC PROVINCE CODE.....	535			520		520	
DEPTH, FEET.....	385			380		2734	
WELLHEAD PRESSURE, PSIG.....	15			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	20			500		1000	
COMPONENT, MOLE PCT							
METHANE.....	85.3			80.0		80.2	
ETHANE.....	0.0			1.5		18.7	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	11.6			16.5		0.1	
OXYGEN.....	2.9			0.6		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE**.....	---			---		---	
CARBON DIOXIDE.....	0.2			1.2		0.6	
HELIUM.....	0.09			0.26		TRACE	
HEATING VALUE.....	864			837		1148	
SPECIFIC GRAVITY.....	0.620			0.644		0.655	
		INDEX SAMPLE	12067 1239	INDEX SAMPLE	12068 2140	INDEX SAMPLE	12069 15791
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	BIG HORN			BIG HORN		BIG HORN	
FIELD.....	BYRON			BYRON		DOBIE CREEK	
WELL NAME.....	BYRON-UNION NO. 1			COZZENS NO. 1		DOBIE CREEK NO. 11-1	
LOCATION.....	SEC. 22, T56N, R97W			SEC. 22, T56N, R97W		SEC. 11, T49N, R94W	
OWNER.....	BYRON-UNION OIL CO.			OHIO OIL CO.		AMERICAN QUASAR PET. CO.	
COMPLETED.....	-/-/00			-/-/00		12/24/78	
SAMPLED.....	10/10/25			09/12/30		07/25/79	
FORMATION.....	CRET-TORCHLIGHT			CRET-FRONTIER		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	2430			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		2250	
OPEN FLOW, MCFD.....	2000			NOT GIVEN		30	
COMPONENT, MOLE PCT							
METHANE.....	84.1			55.5		85.3	
ETHANE.....	15.1			27.0		8.4	
PROPANE.....	---			---		3.1	
N-BUTANE.....	---			---		0.8	
ISOBUTANE.....	---			---		0.2	
N-PENTANE.....	---			---		0.2	
ISOPENTANE.....	---			---		0.2	
CYCLOPENTANE.....	---			---		TRACE	
HEXANES PLUS.....	---			---		0.1	
NITROGEN.....	0.0			16.9		1.2	
OXYGEN.....	0.4			0.1		0.2	
ARGON.....	---			---		TRACE	
HYDROGEN.....	---			---		0.0	
HYDROGEN SULFIDE**.....	---			---		0.0	
CARBON DIOXIDE.....	0.4			0.2		0.1	
HELIUM.....	TRACE			0.15		0.01	
HEATING VALUE.....	1123			1047		1161	
SPECIFIC GRAVITY.....	0.635			0.760		0.665	
		INDEX SAMPLE	12070 17327	INDEX SAMPLE	12071 9408	INDEX SAMPLE	12072 1240
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	BIG HORN			BIG HORN		BIG HORN	
FIELD.....	DOBIE CREEK			FIVE MILE		GARLAND	
WELL NAME.....	DOBIE CREEK-GETTY 20-6			TORGENSEN NO. 1		NC. 3	
LOCATION.....	SEC. 20, T49N, R93W			SEC. 29, T49N, R93W		SEC. 3, T55N, R97W	
OWNER.....	AMERICAN QUASAR PET. CO.			HUSKY OIL CO.		ALLEN OIL CO.	
COMPLETED.....	10/15/82			04/15/61		-/-/00	
SAMPLED.....	06/12/84			06/19/64		10/13/25	
FORMATION.....	CRET-MUDDY			CRET-FRONTIER		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	3958			9026		1279	
WELLHEAD PRESSURE, PSIG.....	2200			2451		NOT GIVEN	
OPEN FLOW, MCFD.....	460			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	76.6			84.7		76.9	
ETHANE.....	14.3			8.8		18.4	
PROPANE.....	1.1			1.2		---	
N-BUTANE.....	1.2			0.7		---	
ISOBUTANE.....	0.8			0.7		---	
N-PENTANE.....	0.3			TRACE		---	
ISOPENTANE.....	0.2			0.4		---	
CYCLOPENTANE.....	0.1			TRACE		---	
HEXANES PLUS.....	0.2			3.1		---	
NITROGEN.....	0.5			1.2		1.9	
OXYGEN.....	TRACE			0.0		0.8	
ARGON.....	0.0			0.0		---	
HYDROGEN.....	0.0			0.0		---	
HYDROGEN SULFIDE**.....	0.0			0.0		---	
CARBON DIOXIDE.....	2.6			0.1		2.1	
HELIUM.....	0.01			TRACE		TRACE	
HEATING VALUE.....	1170			1170		1109	
SPECIFIC GRAVITY.....	0.730			0.657		0.679	

* CALCULATED BASED BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1016

		INDEX SAMPLE	12073 1241	INDEX SAMPLE	12074 1242	INDEX SAMPLE	12075 1243
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	BIG HORN			BIG HORN		BIG HORN	
FIELD.....	GARLAND			GARLAND		GARLAND	
WELL NAME.....	CROSS GAS NO. 1			NO. 1 NEVILLE		NO. 2 NEVILLE	
LOCATION.....	SEC. 33, T56N, R97W			SEC. 33, T56N, R97W		SEC. 33, T56N, R97W	
OWNER.....	OHIO OIL CO.			MONTANA-WYOMING OIL CO.		MONTANA-WYOMING OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/13/25			10/13/25		10/13/25	
FORMATION.....	CRET-CLOVERLY			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	1800			500		1560	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	80.7			76.1		72.1	
ETHANE.....	17.2			22.3		27.1	
PROpane.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	1.8			0.9		0.1	
OXYGEN.....	0.9			0.2		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.8			0.6		0.3	
HELIUM.....	0.03			TRACE		TRACE	
HEATING VALUE.....	1108			1171		1216	
SPECIFIC GRAVITY.....	0.651			0.676		0.694	
		INDEX SAMPLE	12076 1244	INDEX SAMPLE	12077 1245	INDEX SAMPLE	12078 1246
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	BIG HORN			BIG HORN		BIG HORN	
FIELD.....	GARLAND			GARLAND		GARLAND	
WELL NAME.....	LOVELL G & E NO. 1			NO. 1 GEO. EASTON		U.S. GOVT.	
LOCATION.....	SEC. 33, T56N, R97W			SEC. 33, T56N, R97W		SEC. 33, T56N, R97W	
OWNER.....	LOVELL GAS & ELECTRIC CO.			UTAH-WYOMING CONSOL. OIL CO.		UTAH-WYOMING CONSOL. OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/13/25			10/13/25		10/14/25	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	1780			1640		1300	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	81.5			73.3		74.1	
ETHANE.....	16.4			25.7		23.0	
PROpane.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	1.3			0.1		1.9	
OXYGEN.....	0.4			0.7		0.6	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.4			0.3		0.5	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	1121			1203		1163	
SPECIFIC GRAVITY.....	0.648			0.699		0.685	
		INDEX SAMPLE	12079 1247	INDEX SAMPLE	12080 1250	INDEX SAMPLE	12081 1251
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	BIG HORN			BIG HORN		BIG HORN	
FIELD.....	GARLAND			GARLAND		GARLAND	
WELL NAME.....	GEORGE EASTON NO. 2			B. A. SESSIONS NO. 1		OLD COLONY	
LOCATION.....	SEC. 33, T56N, R97W			SEC. 34, T56N, R97W		SEC. 33, T56N, R97W	
OWNER.....	OHIO OIL CO.			MOUNTAIN OIL & GAS CO.		OHIO OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/14/25			10/14/25		10/14/25	
FORMATION.....	CRET-CLOVERLY			NOT GIVEN		CRET-CLOVERLY	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	1535			1830		1782	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	72.8			74.1		76.3	
ETHANE.....	25.3			24.6		22.8	
PROpane.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	1.0			0.3		0.1	
OXYGEN.....	0.5			0.6		0.5	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.4			0.4		0.3	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	1131			1191		1182	
SPECIFIC GRAVITY.....	0.690			0.685		0.673	
		INDEX SAMPLE	12082 1252	INDEX SAMPLE	12083 2109	INDEX SAMPLE	12084 2121
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	BIG HORN			BIG HORN		BIG HORN	
FIELD.....	GARLAND			GARLAND		GARLAND	
WELL NAME.....	E. THOMAS NO. 1			CROSS GAS CO. NO. 2		CROSS GAS CO. NO. 3	
LOCATION.....	SEC. 33, T56N, R97W			SEC. 33, T56N, R97W		SEC. 33, T56N, R97W	
OWNER.....	CARTER OIL CO.			OHIO OIL CO.		OHIO OIL CO.	
COMPLETED.....	--/--/00			--/--/00		--/--/00	
SAMPLED.....	10/14/25			09/09/30		09/08/30	
FORMATION.....	NOT GIVEN			PENN-TENSLEEP		JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	1276			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	91.6			90.5		84.2	
ETHANE.....	7.0			6.2		15.4	
PROpane.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.1			1.8		TRACE	
OXYGEN.....	0.7			---		0.1	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.6			1.2		0.2	
HELIUM.....	TRACE			0.08		0.06	
HEATING VALUE.....	1053			1023		1129	
SPECIFIC GRAVITY.....	0.599			0.604		0.633	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12085 SAMPLE 2124		INDEX 12086 SAMPLE 2403		INDEX 12087 SAMPLE 9139	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	BIG HORN	BIG HORN		BIG HORN	
FIELD.....	GARLAND	GARLAND		MANDERSON	
WELL NAME.....	CROSS GAS CO. NO. 4	NO. 1		F32-19-G	
LOCATION.....	SEC. 9, T56N, R97W	SEC. 28, T56N, R97W		SEC. 19, T50N, R92W	
OWNER.....	OHIO OIL CO.	PORTLAND ASSOC., INC.		MOBIL OIL CORP.	
COMPLETED.....	-/-/00	-/-/00		09/13/61	
SAMPLED.....	09/11/30	09/19/31		10/30/63	
FORMATION.....	CRET-DAKOTA	MISS-MADISON		CRET-MUDDY	
GEOLOGIC PROVINCE CODE.....	520	520		520	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		5719	
WELLHEAD PRESSURE, PSIG.....	75	1550		1200	
OPEN FLOW, MCFD.....	NOT GIVEN	40000		1000	
COMPONENT, MOLE PCT					
METHANE.....	71.3	83.5		80.8	
ETHANE.....	22.5	9.7		12.4	
PROPANE.....	---	---		3.5	
N-BUTANE.....	---	---		0.9	
ISOBUTANE.....	---	---		0.4	
N-PENTANE.....	---	---		0.2	
ISOPENTANE.....	---	---		0.3	
CYCLOPENTANE.....	---	---		0.1	
HEXANES PLUS.....	---	---		0.3	
NITROGEN.....	5.7	5.5		0.9	
OXYGEN.....	0.3	0.1		TRACE	
ARGON.....	---	---		TRACE	
HYDROGEN.....	---	---		0.0	
HYDROGEN SULFIDE.....	---	---		0.0	
CARBON DIOXIDE.....	0.1	1.2		0.0	
HELIUM.....	0.03	0.11		0.03	
HEATING VALUE.....	1125	1020		1216	
SPECIFIC GRAVITY.....	0.691	0.638		0.695	

INDEX 12088 SAMPLE 13727		INDEX 12089 SAMPLE 1237		INDEX 12090 SAMPLE 5989	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	BIG HORN	BIG HORN		BIG HORN	
FIELD.....	NOT GIVEN	SPENCE DOME		TORCHLIGHT W	
WELL NAME.....	GOVT.-TRIGG NO. 16-9	NO. 1		TORCHLIGHT UNIT WELL NO. 2	
LOCATION.....	SEC. 9, T55N, R96W	SEC. 9, T54N, R94W		SEC. 14, T51N, R93W	
OWNER.....	CARDINAL PETROLEUM CO.	MILWAUKEE HIMES DEV. CO.		STANOLIND OIL & GAS CO.	
COMPLETED.....	07/05/73	08/04/75		12/14/55	
SAMPLED.....	-/-/00	10/09/25		12/20/55	
FORMATION.....	CRET-FRONTIER & PEAY	PENN-TENSLEEP		PERM-PHOSPHORIA	
GEOLOGIC PROVINCE CODE.....	520	520		520	
DEPTH, FEET.....	3870	260		3140	
WELLHEAD PRESSURE, PSIG.....	1578	NOT GIVEN		110	
OPEN FLOW, MCFD.....	6500	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	90.4	68.4		46.4	
ETHANE.....	4.7	22.1		24.6	
PROPANE.....	0.5	---		8.2	
N-BUTANE.....	0.1	---		4.7	
ISOBUTANE.....	0.4	---		2.2	
N-PENTANE.....	0.0	---		1.3	
ISOPENTANE.....	0.1	---		1.8	
CYCLOPENTANE.....	TRACE	---		0.3	
HEXANES PLUS.....	0.1	---		1.1	
NITROGEN.....	0.2	3.1		0.0	
OXYGEN.....	0.2	0.4		0.0	
ARGON.....	TRACE	---		0.0	
HYDROGEN.....	0.0	---		0.0	
HYDROGEN SULFIDE.....	0.0	---		9.3	
CARBON DIOXIDE.....	1.4	6.1		0.3	
HELIUM.....	0.04	TRACE		0.01	
HEATING VALUE.....	1039	1089		1616	
SPECIFIC GRAVITY.....	0.619	0.759		1.019	

INDEX 12091 SAMPLE 17086		INDEX 12092 SAMPLE 17531		INDEX 12093 SAMPLE 17578	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	CAMPBELL	CAMPBELL		CAMPBELL	
FIELD.....	AMOS DRAW	AMOS DRAW		AMOS DRAW	
WELL NAME.....	FLOYD BROTHERS NO. 1	NORTHWEST THRONE 2-35		NORTHWEST THRONE NO. 2-35	
LOCATION.....	SEC. 28, T51N, R75W	SEC. 35, T51N, R76W		SEC. 35, T51N, R76W	
OWNER.....	DAVIS OIL CO.	DAVIS OIL CO.		DAVIS OIL CO.	
COMPLETED.....	09/25/83	02/09/84		03/08/84	
SAMPLED.....	10/09/83	12/03/84		01/25/85	
FORMATION.....	CRET-MUDDY	CRET-MUDDY		CRET-MUDDY	
GEOLOGIC PROVINCE CODE.....	515	515		515	
DEPTH, FEET.....	9996	10393		10393	
WELLHEAD PRESSURE, PSIG.....	3829	1100		1100	
OPEN FLOW, MCFD.....	2537	NOT GIVEN		630	
COMPONENT, MOLE PCT					
METHANE.....	72.9	61.3		78.3	
ETHANE.....	11.8	11.4		12.1	
PROPANE.....	1.9	7.8		4.5	
N-BUTANE.....	5.8	6.2		1.0	
ISOBUTANE.....	0.0	2.1		0.6	
N-PENTANE.....	05.0	3.4		0.3	
ISOPENTANE.....	3.3	1.0		0.1	
CYCLOPENTANE.....	0.2	2.9		0.2	
HEXANES PLUS.....	0.4	1.6		0.7	
NITROGEN.....	0.5	0.3		TRACE	
OXYGEN.....	0.0	0.0		TRACE	
ARGON.....	0.1	0.1		0.0	
HYDROGEN.....	0.1	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	3.1	1.4		2.0	
HELIUM.....	0.01	0.01		0.01	
HEATING VALUE.....	1365	1726		1216	
SPECIFIC GRAVITY.....	0.831	1.040		0.722	

INDEX 12094 SAMPLE 17366		INDEX 12095 SAMPLE 8969		INDEX 12096 SAMPLE 9000	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	CAMPBELL	CAMPBELL		CAMPBELL	
FIELD.....	BUCK DRAW	DEAD HORSE CREEK		DEAD HORSE CREEK	
WELL NAME.....	WMT NO. 33-18	GOVT. NO. 1		GOVT. NISSELIUS NO. 1	
LOCATION.....	SEC. 18, T41N, R73W	SEC. 30, T29N, R75W		SEC. 27, T48N, R75W	
OWNER.....	LOUISIANA LAND & EXPL. CO.	CALIFORNIA OIL CO.		GEORGE S. ANDERMAN	
COMPLETED.....	05/-/63	09/-/57		01/-/62	
SAMPLED.....	08/-/84	05/24/63		06/07/63	
FORMATION.....	CRET-DAKOTA	CRET-PARKMAN		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	515	515		515	
DEPTH, FEET.....	12574	6791		6994	
WELLHEAD PRESSURE, PSIG.....	4000	153		NOT GIVEN	
OPEN FLOW, MCFD.....	5500	65		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	72.1	70.2		59.8	
ETHANE.....	10.7	12.4		8.7	
PROPANE.....	4.3	8.7		13.9	
N-BUTANE.....	1.2	2.9		6.3	
ISOBUTANE.....	0.7	1.3		2.5	
N-PENTANE.....	0.4	0.5		1.0	
ISOPENTANE.....	0.6	0.6		2.5	
CYCLOPENTANE.....	0.2	0.1		0.4	
HEXANES PLUS.....	0.4	0.4		1.3	
NITROGEN.....	5.8	2.1		2.6	
OXYGEN.....	1.4	TRACE		TRACE	
ARGON.....	0.1	TRACE		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	2.4	0.7		1.0	
HELIUM.....	0.01	0.01		0.23	
HEATING VALUE.....	1140	1370		1651	
SPECIFIC GRAVITY.....	0.765	0.815		0.998	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1017

INDEX SAMPLE	12097 9005	INDEX SAMPLE	12098 17873	INDEX SAMPLE	12099 17239
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL	
FIELD.....	DEAD HORSE CREEK	ECHETA	ECHETA	ELK DRAW	
WELL NAME.....	BASIN NO. 1	ECHETA NO. 1	ECHETA NO. 1	SAGE BRUSH FED. 1-11	
LOCATION.....	SEC. 22, T48N, R75W	SEC. 13, T51N, R75W	SEC. 13, T51N, R75W	SEC. 11, T51N, R76W	
OWNER.....	GEORGE G. ANDERMAN	DIAMOND SHAMROCK EXPL. CO.	DIAMOND SHAMROCK EXPL. CO.	AMINOIL U.S.A., INC.	
COMPLETED.....	12/16/60	02/06/85	02/06/85	12/19/82	
SAMPLED.....	06/07/63	10/17/83	10/17/83	01/10/84	
FORMATION.....	CRET-MESAVERDE	CRET-MUDDY	CRET-MUDDY	CRET-MUDDY	
GEOLOGIC PROVINCE CODE.....	515	515	515	515	
DEPTH, FEET.....	6879	9157	9157	10120	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	700	700	4000	
OPEN FLOW, MCFD.....	NOT GIVEN	1800	1800	1500	
COMPONENT, MOLE PCT					
METHANE.....	56.3	75.7	75.7	80.2	
ETHANE.....	16.4	12.3	12.3	10.9	
PROPANE.....	15.7	3.0	3.0	3.8	
N-BUTANE.....	4.0	1.4	1.4	0.8	
ISOBUTANE.....	2.2	0.7	0.7	0.6	
N-PENTANE.....	0.8	0.4	0.4	0.2	
ISOPENTANE.....	0.7	0.4	0.4	0.2	
CYCLOPENTANE.....	0.3	0.2	0.2	0.2	
HEXANES PLUS.....	0.8	0.5	0.5	0.4	
NITROGEN.....	1.6	0.9	0.9	0.5	
OXYGEN.....	0.0	0.0	0.0	TRACE	
ARGON.....	0.0	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.2	2.6	2.6	2.0	
HELIUM.....	0.01	0.01	0.01	0.01	
HEATING VALUE.....	0.997	1255	1255	1197	
SPECIFIC GRAVITY.....	0.999	0.758	0.758	0.712	

INDEX SAMPLE	12100 12228	INDEX SAMPLE	12101 13506	INDEX SAMPLE	12102 15213
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL	
FIELD.....	HILIGHT	INTERSTATE	INTERSTATE	KUEHNE SE	
WELL NAME.....	MILLS NO. 10	LOWERY-MC CLURE NO. 1	LOWERY-MC CLURE NO. 1	KUEHNE RANCH UNIT NO. 8	
LOCATION.....	SEC. 10, T44N, R71W	SEC. 31, T50N, R73W	SEC. 31, T50N, R73W	SEC. 20, T54N, R69W	
OWNER.....	INTERNATIONAL NUCLEAR CORP.	ANSCHUTZ CORP.	ANSCHUTZ CORP.	DAVIS OIL CO.	
COMPLETED.....	01/04/70	09/07/72	09/07/72	--/--/00	
SAMPLED.....	03/20/70	01/16/73	01/16/73	02/--/78	
FORMATION.....	CRET-MUDDY	CRET-MUDDY	CRET-MUDDY	PENN-PINNELUSA	
GEOLOGIC PROVINCE CODE.....	515	515	515	515	
DEPTH, FEET.....	9754	9597	9597	NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	2190	1660	1660	NOT GIVEN	
OPEN FLOW, MCFD.....	5910	4300	4300	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	67.3	75.3	75.3	21.0	
ETHANE.....	15.8	12.1	12.1	3.5	
PROPANE.....	9.5	6.1	6.1	1.8	
N-BUTANE.....	2.0	1.5	1.5	1.0	
ISOBUTANE.....	0.8	0.7	0.7	0.7	
N-PENTANE.....	0.2	0.4	0.4	0.6	
ISOPENTANE.....	0.4	0.1	0.1	0.4	
CYCLOPENTANE.....	TRACE	0.1	0.1	0.2	
HEXANES PLUS.....	0.1	0.3	0.3	0.6	
NITROGEN.....	2.5	1.7	1.7	56.4	
OXYGEN.....	0.1	TRACE	TRACE	0.0	
ARGON.....	0.0	0.0	0.0	0.3	
HYDROGEN.....	0.0	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.2	1.6	1.6	12.7	
HELIUM.....	0.01	0.02	0.02	0.80	
HEATING VALUE.....	1336	1253	1253	460	
SPECIFIC GRAVITY.....	0.806	0.750	0.750	1.009	

INDEX SAMPLE	12103 13580	INDEX SAMPLE	12104 14714	INDEX SAMPLE	12105 17092
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL	
FIELD.....	NOT GIVEN	PORCUPINE	PORCUPINE	PORCUPINE	
WELL NAME.....	THUNDER BASIN FED. NO. 1	BIRDSALL NO. 34-10	BIRDSALL NO. 34-10	FED. NO. 29-1	
LOCATION.....	SEC. 7, T42N, R70W	SEC. 10, T42N, R71W	SEC. 10, T42N, R71W	SEC. 29, T42N, R70W	
OWNER.....	YATES DRILLING CO.	L. R. FRENCH, JR.	L. R. FRENCH, JR.	CZAR RESOURCES, INC.	
COMPLETED.....	04/--/73	--/19/75	--/19/75	07/--/82	
SAMPLED.....	04/--/73	02/27/76	02/27/76	10/07/83	
FORMATION.....	CRET-MUDDY	CRET-TURNER	CRET-TURNER	CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	515	515	515	515	
DEPTH, FEET.....	10110	9430	9430	10400	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	3100	3100	2150	
OPEN FLOW, MCFD.....	6500	1813	1813	467	
COMPONENT, MOLE PCT					
METHANE.....	36.4	71.2	71.2	78.6	
ETHANE.....	21.2	12.4	12.4	11.3	
PROPANE.....	20.2	2.7	2.7	4.2	
N-BUTANE.....	8.0	1.3	1.3	0.9	
ISOBUTANE.....	5.3	0.8	0.8	0.5	
N-PENTANE.....	1.8	0.4	0.4	0.2	
ISOPENTANE.....	0.2	0.2	0.2	0.4	
CYCLOPENTANE.....	0.2	0.9	0.9	0.2	
HEXANES PLUS.....	1.2	0.7	0.7	1.9	
NITROGEN.....	1.4	0.0	0.0	TRACE	
OXYGEN.....	0.2	0.0	0.0	TRACE	
ARGON.....	0.0	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	0.9	0.9	1.6	
HELIUM.....	TRACE	0.01	0.01	0.03	
HEATING VALUE.....	1408	1198	1198	1198	
SPECIFIC GRAVITY.....	1.209	0.832	0.832	0.717	

INDEX SAMPLE	12106 16438	INDEX SAMPLE	12107 11304	INDEX SAMPLE	12108 11426
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL	
FIELD.....	POWELL N	RECLUSE	RECLUSE	RECLUSE	
WELL NAME.....	SARA ARMSTRONG-FED. NO. 2	GREENOUGH GOVT. NO. 5	GREENOUGH GOVT. NO. 5	GREENOUGH GOVT. NO. 5	
LOCATION.....	SEC. 9, T41N, R74W	SEC. 15, T56N, R74W	SEC. 15, T56N, R74W	SEC. 15, T56N, R74W	
OWNER.....	HPC, INC.	ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.	
COMPLETED.....	12/--/80	--/--/01	--/--/01	04/07/68	
SAMPLED.....	02/04/82	02/14/68	02/14/68	04/01/68	
FORMATION.....	CRET-FRONTIER	CRET-MUDDY	CRET-MUDDY	CRET-MUDDY	
GEOLOGIC PROVINCE CODE.....	515	515	515	515	
DEPTH, FEET.....	11795	7480	7480	7560	
WELLHEAD PRESSURE, PSIG.....	1000	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	128	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	80.6	55.3	55.3	52.6	
ETHANE.....	12.0	19.4	19.4	17.9	
PROPANE.....	4.0	15.0	15.0	17.1	
N-BUTANE.....	0.7	3.4	3.4	5.7	
ISOBUTANE.....	0.3	1.9	1.9	2.2	
N-PENTANE.....	0.1	0.6	0.6	1.3	
ISOPENTANE.....	0.2	0.5	0.5	1.4	
CYCLOPENTANE.....	0.2	0.2	0.2	0.3	
HEXANES PLUS.....	0.1	0.4	0.4	0.8	
NITROGEN.....	0.8	2.2	2.2	0.2	
OXYGEN.....	TRACE	0.1	0.1	TRACE	
ARGON.....	TRACE	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	1.1	1.1	0.1	
HELIUM.....	0.01	0.01	0.01	0.01	
HEATING VALUE.....	1187	1537	1537	1732	
SPECIFIC GRAVITY.....	0.689	0.937	0.937	1.011	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12109 SAMPLE 11436			INDEX 12110 SAMPLE 11467			INDEX 12111 SAMPLE 11626		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CAMPBELL		CAMPBELL			CAMPBELL		
FIELD.....	RECLUSE		RECLUSE			RECLUSE		
WELL NAME.....	FED. BOW & ARROW NO. 1		BOW & ARROW NO. 2			U.S. FAGERNESS NO. 2		
LOCATION.....	SEC. 25, T57N, R75W		SEC. 15, T57N, R75W			SEC. 15, T56N, R74W		
OWNER.....	ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.			APACHE CORP.		
COMPLETED.....	--/--/00		--/--/00			09/--/67		
SAMPLED.....	04/08/68		08/17/68			08/24/68		
FORMATION.....	CRET-MUDDY		CRET-MUDDY			CRET-MUDDY		
GEOLOGIC PROVINCE CODE.....	515		515			515		
DEPTH, FEET.....	7465		7604			7500		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1600		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			19000		
COMPONENT, MOLE PCT.....								
METHANE.....	20.2		59.3			75.3		
ETHANE.....	11.9		17.5			11.7		
PROPANE.....	26.8		13.9			7.2		
N-BUTANE.....	20.6		3.6			1.6		
ISOBUTANE.....	6.9		0.7			0.6		
N-PENTANE.....	5.3		0.7			0.2		
ISOPENTANE.....	4.5		0.2			0.1		
CYCLOPENTANE.....	0.6		0.2			0.1		
HEXANES PLUS.....	2.5		0.6			0.1		
NITROGEN.....	0.5		1.1			2.3		
OXYGEN.....	0.2		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.5			0.5		
HELIUM.....	TRACE		0.01			0.02		
HEATING VALUE.....	2612		1552			1260		
SPECIFIC GRAVITY.....	1.566		0.915			0.743		
INDEX 12112 SAMPLE 10055			INDEX 12113 SAMPLE 9023			INDEX 12114 SAMPLE 13967		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CAMPBELL		CAMPBELL			CAMPBELL		
FIELD.....	ROCKY POINT		ROZET			SPOTTED HORSE		
WELL NAME.....	NO. 2 NW 32		STATE OF WYOMING NO. 1			SKYLINE FED. NO. 16-34		
LOCATION.....	SEC. 34, T57N, R69W		NOT GIVEN			SEC. 34, T55N, R75W		
OWNER.....	MCCULLOCH OIL CORP. OF CALIF		PAN AMERICAN PETROLEUM CORP.			KISSINGER PETROLEUM CORP.		
COMPLETED.....	04/28/63		08/09/60			12/23/72		
SAMPLED.....	--/--/00		06/27/63			03/28/74		
FORMATION.....	CRET-MUDDY		CRET-MUDDY			CRET-MUDDY		
GEOLOGIC PROVINCE CODE.....	515		515			515		
DEPTH, FEET.....	3710		NOT GIVEN			8300		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1400		
OPEN FLOW, MCFD.....	18000		NOT GIVEN			700		
COMPONENT, MOLE PCT.....								
METHANE.....	88.8		77.4			77.3		
ETHANE.....	2.0		5.4			11.7		
PROPANE.....	3.1		5.8			5.5		
N-BUTANE.....	1.1		2.6			1.2		
ISOBUTANE.....	0.7		1.0			0.8		
N-PENTANE.....	0.3		0.6			0.3		
ISOPENTANE.....	0.3		0.3			0.3		
CYCLOPENTANE.....	TRACE		0.2			0.1		
HEXANES PLUS.....	0.2		0.5			0.5		
NITROGEN.....	3.0		0.6			1.4		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.7			1.1		
HELIUM.....	0.01		0.02			0.03		
HEATING VALUE.....	1112		1250			1242		
SPECIFIC GRAVITY.....	0.636		0.762			0.732		
INDEX 12115 SAMPLE 14012			INDEX 12116 SAMPLE 12183			INDEX 12117 SAMPLE 12852		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CAMPBELL		CAMPBELL			CAMPBELL		
FIELD.....	SPOTTED HORSE		WHITE			WILDCAT		
WELL NAME.....	COONES B NO. 1		ATLANTIC-ANDERSON NO. 1			U.S.A. NO. 1-2		
LOCATION.....	SEC. 2, T74N, R75W		SEC. 28, T55N, R71W			SEC. 2, T57N, R76W		
OWNER.....	PHILLIPS PETROLEUM CO.		ATLANTIC RICHFIELD CO.			ATLANTIC RICHFIELD CO.		
COMPLETED.....	--/--/00		--/--/01			05/28/71		
SAMPLED.....	05/25/74		--/--/00			--/--/00		
FORMATION.....	CRET-MUDDY		CRET-MUDDY			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	515		515			515		
DEPTH, FEET.....	8072		6034			7423		
WELLHEAD PRESSURE, PSIG.....	1700		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	500000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	75.2		59.5			63.3		
ETHANE.....	11.5		13.5			6.8		
PROPANE.....	6.0		16.6			13.1		
N-BUTANE.....	1.6		5.6			6.0		
ISOBUTANE.....	0.9		3.1			2.7		
N-PENTANE.....	0.2		1.3			0.7		
ISOPENTANE.....	1.1		1.2			3.2		
CYCLOPENTANE.....	0.3		0.2			0.5		
HEXANES PLUS.....	0.6		0.6			0.9		
NITROGEN.....	1.3		2.3			2.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.2		0.0			0.1		
HELIUM.....	0.03		0.01			0.01		
HEATING VALUE.....	1305		1642			1628		
SPECIFIC GRAVITY.....	0.771		0.978			0.969		
INDEX 12118 SAMPLE 17535			INDEX 12119 SAMPLE 915			INDEX 12120 SAMPLE 7776		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CAMPBELL		CAMPBELL			CAMPBELL		
FIELD.....	WILD CAT		ALLEN LAKE			9AGGS S		
WELL NAME.....	ELSTE WOLF NO. 1		NO. 1			BAGGS UNIT NO. 8		
LOCATION.....	SEC. 15, T43N, R71W		SEC. NE1/4-34, T23, R79			SEC. 10, T12N, R92W		
OWNER.....	DAVIS OIL CO.		LARAMIE SYNDICATE			PHILLIPS PETROLEUM CO.		
COMPLETED.....	04/09/84		--/--/00			12/31/53		
SAMPLED.....	12/11/84		06/24/24			11/19/60		
FORMATION.....	CRET-DAKOTA		JURA-STRAY			CRET-LEWIS		
GEOLOGIC PROVINCE CODE.....	515		535			535		
DEPTH, FEET.....	10332		1685			4100		
WELLHEAD PRESSURE, PSIG.....	1700		310			950		
OPEN FLOW, MCFD.....	618		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	79.4		97.4			90.0		
ETHANE.....	10.5		0.0			4.1		
PROPANE.....	0.0		---			1.1		
N-BUTANE.....	0.9		---			0.2		
ISOBUTANE.....	0.5		---			0.2		
N-PENTANE.....	0.2		---			0.1		
ISOPENTANE.....	0.3		---			0.1		
CYCLOPENTANE.....	0.1		---			0.0		
HEXANES PLUS.....	0.3		---			TRACE		
NITROGEN.....	1.7		---			3.1		
OXYGEN.....	0.1		0.0			0.7		
ARGON.....	TRACE		---			TRACE		
HYDROGEN.....	TRACE		---			TRACE		
HYDROGEN SULFIDE.....	0.0		---			0.0		
CARBON DIOXIDE.....	2.0		0.0			0.2		
HELIUM.....	0.03		0.02			0.03		
HEATING VALUE.....	ELSTE		0.84			1036		
SPECIFIC GRAVITY.....	0.714		0.564			0.613		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1019

INDEX 12121 SAMPLE 11242		INDEX 12122 SAMPLE 17010		INDEX 12123 SAMPLE 916	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CARBON	CARBON	CARBON	CARBON	
FIELD.....	BARREL SPRINGS	BARREL SPRINGS E	BELL SPRINGS	BELL SPRINGS	
WELL NAME.....	BARREL SPRINGS UNIT NO. 1	CIG FED. NO. 1C-7-15-92	NO. 1	NO. 1	
LOCATION.....	SEC. 15, T16N, R93W	SEC. 7, T15N, R92W	SEC. 6, T23N, R88W	SEC. 6, T23N, R88W	
OWNER.....	CLARK OIL & REFINING CO.	SNYDER OIL CO.	KASHING OIL CO.	KASHING OIL CO.	
COMPLETED.....	10/13/66	09/28/83	7/70	7/70	
SAMPLED.....	12/09/67	09/28/83	08/13/24	08/13/24	
FORMATION.....	CRET-ALMOND	CRET-MESAVERDE	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	8724	8784	1924	1924	
WELLHEAD PRESSURE, PSIG.....	2580	3000	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	1184	700	10000	10000	
COMPONENT, MOLE PCT.....					
METHANE.....	83.1	82.9	89.8	89.8	
ETHANE.....	7.6	8.5	1.0	1.0	
PROpane.....	2.6	0.5	---	---	
N-BUTANE.....	0.8	0.5	---	---	
ISOBUTANE.....	0.7	0.3	---	---	
N-PENTANE.....	0.2	0.1	---	---	
ISOPENTANE.....	0.3	0.2	---	---	
CYCLOPENTANE.....	TRACE	TRACE	---	---	
HEXANES PLUS.....	0.1	0.1	---	---	
NITROGEN.....	1.9	0.6	6.1	6.1	
OXYGEN.....	0.4	0.1	0.5	0.5	
ARGON.....	TRACE	TRACE	---	---	
HYDROGEN.....	TRACE	1.3	---	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	---	
CARBON DIOXIDE.....	0.1	0.2	2.3	2.3	
HELIUM.....	0.1	TRACE	0.00	0.00	
HEATING VALUE.....	1122	1096	928	928	
SPECIFIC GRAVITY.....	0.685	0.682	0.608	0.608	
INDEX 12124 SAMPLE 7434		INDEX 12125 SAMPLE 14237		INDEX 12126 SAMPLE 17722	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CARBON	CARBON	CARBON	CARBON	
FIELD.....	BELL SPRINGS	BLUE GAP	BLUE GAP	BLUE GAP	
WELL NAME.....	NO. 1	BLUE GAP UNIT II	CIG FEDERAL NO. 2A-8-15-92	CIG FEDERAL NO. 2A-8-15-92	
LOCATION.....	SEC. 19, T23N, R88W	SEC. 7, T14N, R92W	SEC. 8, T15N, R92W	SEC. 8, T15N, R92W	
OWNER.....	SINCLAIR OIL & GAS CO.	CIG EXPLORATION, INC.	SNYDER OIL CO.	SNYDER OIL CO.	
COMPLETED.....	01/27/60	05/13/74	11/21/84	11/21/84	
SAMPLED.....	03/11/60	11/22/74	06/13/85	06/13/85	
FORMATION.....	JURA-SUNDANCE	CRET-MESAVERDE	CRET-MESAVERDE	CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	2706	9126	8041	8041	
WELLHEAD PRESSURE, PSIG.....	1174	3875	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	8150	3980	2500	2500	
COMPONENT, MOLE PCT.....					
METHANE.....	97.4	87.1	81.3	81.3	
ETHANE.....	0.5	5.6	6.9	6.9	
PROpane.....	TRACE	0.5	2.9	2.9	
N-BUTANE.....	0.0	0.5	0.8	0.8	
ISOBUTANE.....	0.0	0.6	0.8	0.8	
N-PENTANE.....	0.0	0.1	0.3	0.3	
ISOPENTANE.....	0.0	0.3	0.3	0.3	
CYCLOPENTANE.....	0.0	0.1	0.2	0.2	
HEXANES PLUS.....	0.0	0.3	0.4	0.4	
NITROGEN.....	1.3	0.1	2.0	2.0	
OXYGEN.....	TRACE	TRACE	TRACE	TRACE	
ARGON.....	TRACE	0.0	0.0	0.0	
HYDROGEN.....	0.1	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.5	3.3	0.0	0.0	
HELIUM.....	0.20	TRACE	TRACE	TRACE	
HEATING VALUE.....	996	1108	1130	1130	
SPECIFIC GRAVITY.....	0.566	0.668	0.714	0.714	
INDEX 12127 SAMPLE 15313		INDEX 12128 SAMPLE 17870		INDEX 12129 SAMPLE 7482	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CARBON	CARBON	CARBON	CARBON	
FIELD.....	COAL GULCH	COAL GULCH	COAL GULCH	COAL GULCH	
WELL NAME.....	CHAMPLIN 444 AMOCO A NO. 1	COAL GULCH WINE NO. 1	NO. 1-14	NO. 1-14	
LOCATION.....	SEC. 17, T17N, R93W	SEC. 14, T18N, R93W	SEC. 14, T15N, R91W	SEC. 14, T15N, R91W	
OWNER.....	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	CONTINENTAL OIL CO.	CONTINENTAL OIL CO.	
COMPLETED.....	03/15/78	08/12/80	12/08/59	12/08/59	
SAMPLED.....	06/27/78	10/15/85	05/31/60	05/31/60	
FORMATION.....	CRET-ALMOND	MISS-MADISON	MIOC-DEEP CREEK	MIOC-DEEP CREEK	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	9168	8801	2616	2616	
WELLHEAD PRESSURE, PSIG.....	1950	2500	1207	1207	
OPEN FLOW, MCFD.....	2460	3000	2050	2050	
COMPONENT, MOLE PCT.....					
METHANE.....	82.4	83.5	90.0	90.0	
ETHANE.....	3.9	4.1	3.4	3.4	
PROpane.....	3.3	3.2	1.4	1.4	
N-BUTANE.....	0.8	0.8	0.4	0.4	
ISOBUTANE.....	0.7	0.7	0.1	0.1	
N-PENTANE.....	0.2	0.2	0.0	0.0	
ISOPENTANE.....	0.4	0.3	0.1	0.1	
CYCLOPENTANE.....	0.2	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.4	0.3	0.1	0.1	
NITROGEN.....	1.2	0.4	3.7	3.7	
OXYGEN.....	TRACE	0.0	0.2	0.2	
ARGON.....	TRACE	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.5	0.7	0.7	
HELIUM.....	TRACE	TRACE	0.02	0.02	
HEATING VALUE.....	1166	1158	1035	1035	
SPECIFIC GRAVITY.....	0.702	0.691	0.621	0.621	
INDEX 12130 SAMPLE 11755		INDEX 12131 SAMPLE 14795		INDEX 12132 SAMPLE 17269	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CARBON	CARBON	CARBON	CARBON	
FIELD.....	COW CREEK	COW CREEK S	COW CREEK S	COW CREEK S	
WELL NAME.....	COW CREEK NO. 2-13	ASHLAND FED. NO. 13-22X	SOCO HUSKYFED. NO. 1C-18-17-92	SOCO HUSKYFED. NO. 1C-18-17-92	
LOCATION.....	SEC. 13, T16N, R92W	SEC. 22, T16N, R91W	SEC. 18, T17N, R92W	SEC. 18, T17N, R92W	
OWNER.....	U.S. NATURAL RESOURCES, INC.	EXETER EXPLORATION CO.	SNYDER OIL CO.	SNYDER OIL CO.	
COMPLETED.....	06/18/67	07/24/76	08/25/82	08/25/82	
SAMPLED.....	02/04/69	09/24/76	04/20/84	04/20/84	
FORMATION.....	PENN-CHEROKEE	CRET-FRONTIER	CRET-MESAVERDE	CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	3237	7800	8462	8462	
WELLHEAD PRESSURE, PSIG.....	750	4000	3775	3775	
OPEN FLOW, MCFD.....	2000	10000	180	180	
COMPONENT, MOLE PCT.....					
METHANE.....	96.8	96.3	87.8	87.8	
ETHANE.....	0.2	0.7	3.2	3.2	
PROpane.....	TRACE	0.3	0.6	0.6	
N-BUTANE.....	0.0	0.0	0.5	0.5	
ISOBUTANE.....	0.0	0.0	0.2	0.2	
N-PENTANE.....	0.0	0.0	0.1	0.1	
ISOPENTANE.....	0.0	0.0	0.4	0.4	
CYCLOPENTANE.....	0.0	0.0	TRACE	TRACE	
HEXANES PLUS.....	0.0	0.0	0.0	0.0	
NITROGEN.....	0.3	0.2	0.0	0.0	
OXYGEN.....	TRACE	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	0.0	0.0	
HYDROGEN.....	0.1	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.5	2.5	2.8	2.8	
HELIUM.....	TRACE	1.0	TRACE	TRACE	
HEATING VALUE.....	984	996	1103	1103	
SPECIFIC GRAVITY.....	0.574	0.586	0.660	0.660	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

	INDEX SAMPLE	12133 15270		INDEX SAMPLE	12134 15013		INDEX SAMPLE	12135 5029
STATE.....	WYOMING		WYOMING		WYOMING			
COUNTY.....	CARBON		CARBON		CARBON			
FIELD.....	CRESTON UNIT		DEEP CREEK		DEEP CREEK UNIT			
WELL NAME.....	II No. 3		BROWN HILL UNIT NO. 8-31		DEEP CREEK UNIT NO. 1			
LOCATION.....	SEC. 5, T18N, R91W		SEC. 31, T16N, R90W		SEC. 30, T16N, R90W			
OWNER.....	AMOCO PRODUCTION CO.		BENSON-MONTIN-GREER DRILLING		AMERADA PETROLEUM CORP.			
COMPLETED.....	11/09/77		05/26/77		10/08/50			
SAMPLED.....	04/07/78		NOT GIVEN		04/01/51			
FORMATION.....	CRET-ERICSON		535		CRET-MESAVERDE			
GEOLOGIC PROVINCE CODE.....	535		535		535			
DEPTH, FEET.....	8253		NOT GIVEN		2432			
WELLHEAD PRESSURE, PSIG.....	3000		NOT GIVEN		965			
OPEN FLOW, MCFD.....	2979		NOT GIVEN		3728			
COMPONENT, MOLE PCT								
METHANE.....	84.9		98.4		98.2			
ETHANE.....	6.6		0.5		0.5			
PROPANE.....	2.5		0.1		0.1			
N-BUTANE.....	0.7		0.0		0.0			
ISOBUTANE.....	0.7		0.0		0.0			
N-PENTANE.....	0.3		0.0		0.1			
ISOPENTANE.....	0.3		0.0		0.0			
CYCLOPENTANE.....	0.1		0.0		0.0			
HEXANES PLUS.....	0.5		0.0		0.1			
NITROGEN.....	0.3		0.0		0.6			
OXYGEN.....	0.0		0.0		0.3			
ARGON.....	0.0		0.0		TRACE			
HYDROGEN.....	0.0		0.0		0.0			
HYDROGEN SULFIDE.....	0.0		0.0		0.0			
CARBON DIOXIDE.....	2.9		0.7		0.3			
HELIUM.....	0.01		TRACE		0.01			
HEATING VALUE.....	1154		1008		1015			
SPECIFIC GRAVITY.....	0.692		0.566		0.570			

	INDEX SAMPLE	12136 9640		INDEX SAMPLE	12137 2103		INDEX SAMPLE	12138 16635
STATE.....	WYOMING		WYOMING		WYOMING			
COUNTY.....	CARBON		CARBON		CARBON			
FIELD.....	DIAMOND DOME		DUTTON CREEK		ECHO SPRINGS			
WELL NAME.....	FED. NO. 1		NO. 6-X		ECHO SPRINGS NO.1-28			
LOCATION.....	SEC. 6, T20N, R77W		SEC. 1, T18N, R78W		SEC. 28, T20N, R93W			
OWNER.....	SUNSET INTERNATL. PET. CORP.		WIDEST REFINING CO.		JERRY CHAMBERS EXPL. CO.			
COMPLETED.....	07/-/53		02/01/27		09/07/82			
SAMPLED.....	11/10/64		09/03/30		09/03/82			
FORMATION.....	CRET-SHANNON		CRET-SHANNON		CRET-ALMOND			
GEOLOGIC PROVINCE CODE.....	535		535		535			
DEPTH, FEET.....	1470		1600		9597			
WELLHEAD PRESSURE, PSIG.....	154		235		4200			
OPEN FLOW, MCFD.....	346		750		400			
COMPONENT, MOLE PCT								
METHANE.....	97.5		64.9		85.3			
ETHANE.....	0.3		0.0		7.3			
PROPANE.....	0.1		---		0.2			
N-BUTANE.....	0.0		---		0.7			
ISOBUTANE.....	0.0		---		0.3			
N-PENTANE.....	0.0		---		0.1			
ISOPENTANE.....	0.0		---		0.2			
CYCLOPENTANE.....	0.0		---		TRACE			
HEXANES PLUS.....	0.0		---		0.1			
NITROGEN.....	1.9		34.9		0.7			
OXYGEN.....	TRACE		0.0		0.2			
ARGON.....	TRACE		---		0.1			
HYDROGEN.....	0.0		---		0.0			
HYDROGEN SULFIDE.....	0.0		---		0.0			
CARBON DIOXIDE.....	0.1		0.1		2.0			
HELIUM.....	0.07		0.10		TRACE			
HEATING VALUE.....	996		657		1115			
SPECIFIC GRAVITY.....	0.565		0.699		0.662			

	INDEX SAMPLE	12139 895		INDEX SAMPLE	12140 224		INDEX SAMPLE	12141 2142
STATE.....	WYOMING		WYOMING		WYOMING			
COUNTY.....	CARBON		CARBON		CARBON			
FIELD.....	EIGHT MILE LAKE		FERRIS		HATFIELD			
WELL NAME.....	NO. 1		NO. 2		NO. 2			
LOCATION.....	SEC. 2, T19N, R88W		SEC. 26, T26N, R87W		SEC. 35, T20N, R88W			
OWNER.....	HATFIELD OIL CO.		PRODUCERS & REFINERS CORP.		PRODUCERS & REFINERS CORP.			
COMPLETED.....	11/17/23		05/14/20		09/24/24			
SAMPLED.....	06/25/24		04/07/20		05/15/30			
FORMATION.....	CRET-DAKOTA		CRET-CLOVERLY		CRET-MUDDY			
GEOLOGIC PROVINCE CODE.....	535		535		535			
DEPTH, FEET.....	3954		17		3749			
WELLHEAD PRESSURE, PSIG.....	1710		1000		1500			
OPEN FLOW, MCFD.....	21000		10000		15000			
COMPONENT, MOLE PCT								
METHANE.....	98.3		97.5		96.7			
ETHANE.....	0.0		2.2		0.0			
PROPANE.....	---		---		---			
N-BUTANE.....	---		---		---			
ISOBUTANE.....	---		---		---			
N-PENTANE.....	---		---		---			
ISOPENTANE.....	---		---		---			
CYCLOPENTANE.....	---		---		---			
HEXANES PLUS.....	---		---		---			
NITROGEN.....	0.1		0.0		2.3			
OXYGEN.....	0.5		0.0		0.1			
ARGON.....	---		---		---			
HYDROGEN.....	---		---		---			
HYDROGEN SULFIDE.....	---		---		---			
CARBON DIOXIDE.....	1.0		0.4		0.9			
HELIUM.....	TRACE		TRACE		0.02			
HEATING VALUE.....	996		1027		980			
SPECIFIC GRAVITY.....	0.567		0.570		0.573			

	INDEX SAMPLE	12142 3062		INDEX SAMPLE	12143 15281		INDEX SAMPLE	12144 947
STATE.....	WYOMING		WYOMING		WYOMING			
COUNTY.....	CARBON		CARBON		CARBON			
FIELD.....	HORNE VALLEY		HORSESHOE RIDGE		MAHONEY DOME			
WELL NAME.....	HORN BROTHERS NO. 1		HORSESHOE RIDGE UNIT NO. 2		NO. 2			
LOCATION.....	SEC. 22, T22N, R78W		SEC. 1, T24N, R83W		SEC. 33, T26, R88			
OWNER.....	MARTIN J. GAYLORD		ENERGY RESERVES GROUP, INC.		PRODUCERS & REFINERS CORP.			
COMPLETED.....	12/-/39		03/06/78		11/03/24			
SAMPLED.....	12/27/41		05/10/78		---/-/00			
FORMATION.....	CRET-MUDDY		CRET-HATFIELD		JURA-SUNDANCE			
GEOLOGIC PROVINCE CODE.....	535		535		535			
DEPTH, FEET.....	750		2932		2902			
WELLHEAD PRESSURE, PSIG.....	3255		1083		1200			
OPEN FLOW, MCFD.....	7000		4588		3000			
COMPONENT, MOLE PCT								
METHANE.....	96.8		99.5		93.8			
ETHANE.....	---		0.1		0.0			
PROPANE.....	---		0.0		---			
N-BUTANE.....	---		0.0		---			
ISOBUTANE.....	---		0.0		---			
N-PENTANE.....	---		0.0		---			
ISOPENTANE.....	---		0.0		---			
CYCLOPENTANE.....	---		0.0		---			
HEXANES PLUS.....	---		0.0		---			
NITROGEN.....	0.5		0.3		4.7			
OXYGEN.....	0.2		0.0		0.5			
ARGON.....	---		0.0		---			
HYDROGEN.....	---		0.0		---			
HYDROGEN SULFIDE.....	---		0.0		---			
CARBON DIOXIDE.....	0.2		0.0		0.8			
HELIUM.....	TRACE		0.01		0.03			
HEATING VALUE.....	1022		1012		950			
SPECIFIC GRAVITY.....	0.571		0.559		0.583			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1081

		INDEX SAMPLE	12145 2141			INDEX SAMPLE	12146 2144			INDEX SAMPLE	12147 3063
STATE.....	WYOMING			WYOMING				WYOMING			
COUNTY.....	CARBON			CARBON				CARBON			
FIELD.....	MAHONEY DOME			MAHONEY DOME				MEDICINE BOW			
WELL NAME.....	NO. 2			NO. C-3				CROMBERG NO. 1			
LOCATION.....	SEC. 25, T26N, R88W			SEC. 34, T26N, R88W				SEC. 25, T21N, R79W			
OWNER.....	PRAIRIE OIL & GAS CO.			PRAIRIE OIL & GAS CO.				OHIO OIL CO.			
COMPLETED.....	02/14/60			04/23/67				03/26/65			
SAMPLED.....	09/16/60			09/12/60				03/26/65			
FORMATION.....	CRET-DAKOTA			JURA-SUNDANCE				JURA-SUNDANCE 1ST			
GEOLOGIC PROVINCE CODE.....	535			535				535			
DEPTH, FEET.....	2663			2758				5259			
WELLHEAD PRESSURE, PSIG.....	285			600				765			
OPEN FLOW, MCFD.....	2000			10000				750			
COMPONENT, MOLE PCT											
METHANE.....	90.5	-----		75.3	-----			70.7	-----		
ETHANE.....	5.3	-----		0.0	-----			28.9	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	2.1	-----		19.9	-----			0.0	-----		
OXYGEN.....	0.1	-----		2.0	-----			0.2	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	1.9	-----		2.8	-----			0.2	-----		
HELIUM.....	0.02	-----		0.07	-----			0.00	-----		
HEATING VALUE.....	1012	-----		763	-----			1234	-----		
SPECIFIC GRAVITY.....	0.608	-----		0.675	-----			0.700	-----		

		INDEX SAMPLE	12148 11227			INDEX SAMPLE	12149 4284			INDEX SAMPLE	12150 15099
STATE.....	WYOMING			WYOMING				WYOMING			
COUNTY.....	CARBON			CARBON				CARBON			
FIELD.....	MELTON			NOT GIVEN				NOT GIVEN			
WELL NAME.....	FED-MELTON NO. 1			BAGGS UNIT NO. 1				CHAMPLIN 242 AMOCO A NO. 1			
LOCATION.....	SEC. 26, T22N, R86W			NOT GIVEN				SEC. 1, T19N, R93W			
OWNER.....	FUNDAMENTAL OIL CORP.			KEAR-MCGEE CORP. & PHILLIPS				AMOCO PRODUCTION CO.			
COMPLETED.....	11/01/65			---/---/00				10/02/76			
SAMPLED.....	11/21/67			03/25/47				09/17/77			
FORMATION.....	CRET-DAKOTA			NOT GIVEN				CRET-ALMOND			
GEOLOGIC PROVINCE CODE.....	535			535				535			
DEPTH, FEET.....	3124			3770				9760			
WELLHEAD PRESSURE, PSIG.....	1400			NOT GIVEN				3650			
OPEN FLOW, MCFD.....	4000			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	93.8	-----		93.6	-----			84.9	-----		
ETHANE.....	2.6	-----		0.4	-----			7.9	-----		
PROPANE.....	0.8	-----		---	-----			2.8	-----		
N-BUTANE.....	0.1	-----		---	-----			0.6	-----		
ISOBUTANE.....	0.3	-----		---	-----			0.2	-----		
N-PENTANE.....	0.1	-----		---	-----			0.2	-----		
ISOPENTANE.....	0.2	-----		---	-----			0.1	-----		
CYCLOPENTANE.....	0.1	-----		---	-----			0.1	-----		
HEXANES PLUS.....	0.3	-----		---	-----			0.1	-----		
NITROGEN.....	1.3	-----		1.7	-----			0.2	-----		
OXYGEN.....	0.1	-----		0.3	-----			0.0	-----		
ARGON.....	TRACE	-----		---	-----			TRACE	-----		
HYDROGEN.....	TRACE	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	0.0	-----		---	-----			0.0	-----		
CARBON DIOXIDE.....	0.2	-----		4.0	-----			2.8	-----		
HELIUM.....	0.05	-----		TRACE	-----			0.01	-----		
HEATING VALUE.....	1063	-----		955	-----			1130	-----		
SPECIFIC GRAVITY.....	0.604	-----		0.604	-----			0.675	-----		

		INDEX SAMPLE	12151 6916			INDEX SAMPLE	12152 8113			INDEX SAMPLE	12153 8453
STATE.....	WYOMING			WYOMING				WYOMING			
COUNTY.....	CARBON			CARBON				CARBON			
FIELD.....	O'BRIEN SPRINGS			O'BRIEN SPRINGS				O'BRIEN SPRINGS			
WELL NAME.....	O'BRIEN SPRINGS UNIT NO. 3			O'BRIEN SPRINGS UNIT NO. 7				O'BRIEN SPRINGS UNIT NO. 1			
LOCATION.....	SEC. 34, T25N, R86W			SEC. 34, T25N, R86W				SEC. 5, T24N, R86W			
OWNER.....	ATLANTIC REFINING CO.			ATLANTIC REFINING CO.				ATLANTIC REFINING CO.			
COMPLETED.....	09/03/58			06/07/61				09/15/61			
SAMPLED.....	12/16/58			08/07/61				03/12/62			
FORMATION.....	JURA-NUGGET			CRET-CLOVERLY				CRET-FRONTIER			
GEOLOGIC PROVINCE CODE.....	535			535				535			
DEPTH, FEET.....	5418			4994				3075			
WELLHEAD PRESSURE, PSIG.....	1603			1930				NOT GIVEN			
OPEN FLOW, MCFD.....	5300			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	95.5	-----		95.6	-----			97.6	-----		
ETHANE.....	0.9	-----		2.0	-----			1.2	-----		
PROPANE.....	0.2	-----		0.2	-----			0.1	-----		
N-BUTANE.....	0.1	-----		TRACE	-----			0.1	-----		
ISOBUTANE.....	0.5	-----		0.1	-----			0.0	-----		
N-PENTANE.....	0.1	-----		TRACE	-----			TRACE	-----		
ISOPENTANE.....	TRACE	-----		TRACE	-----			0.1	-----		
CYCLOPENTANE.....	TRACE	-----		TRACE	-----			0.1	-----		
HEXANES PLUS.....	0.1	-----		TRACE	-----			0.1	-----		
NITROGEN.....	1.0	-----		TRACE	-----			0.2	-----		
OXYGEN.....	TRACE	-----		TRACE	-----			TRACE	-----		
ARGON.....	TRACE	-----		TRACE	-----			0.0	-----		
HYDROGEN.....	TRACE	-----		0.0	-----			0.0	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	1.3	-----		0.8	-----			0.5	-----		
HELIUM.....	0.10	-----		0.10	-----			0.02	-----		
HEATING VALUE.....	1013	-----		1013	-----			1029	-----		
SPECIFIC GRAVITY.....	0.590	-----		0.579	-----			0.575	-----		

		INDEX SAMPLE	12154 8595			INDEX SAMPLE	12155 9359			INDEX SAMPLE	12156 17532
STATE.....	WYOMING			WYOMING				WYOMING			
COUNTY.....	CARBON			CARBON				CARBON			
FIELD.....	O'BRIEN SPRINGS			O'BRIEN SPRINGS				O'BRIEN SPRINGS			
WELL NAME.....	O'BRIEN SPRINGS UNIT NO. 1			O'BRIEN SPRINGS UNIT NO. 7				FED. NO. 14-32			
LOCATION.....	SEC. 34, T24N, R86W			SEC. 34, T24N, R86W				SEC. 12, T25N, R86W			
OWNER.....	ATLANTIC REFINING CO.			ATLANTIC REFINING CO.				CENEX			
COMPLETED.....	09/28/61			04/27/64				04/27/82			
SAMPLED.....	06/16/62			05/10/62				---/---/00			
FORMATION.....	CRET-FRONTIER			CRET-MUDDY				CRET-FRONTIER			
GEOLOGIC PROVINCE CODE.....	535			535				535			
DEPTH, FEET.....	4000			3890				3383			
WELLHEAD PRESSURE, PSIG.....	1400			1525				1275			
OPEN FLOW, MCFD.....	200			820				220000			
COMPONENT, MOLE PCT											
METHANE.....	97.7	-----		94.2	-----			86.1	-----		
ETHANE.....	1.2	-----		3.2	-----			0.8	-----		
PROPANE.....	0.1	-----		0.5	-----			0.1	-----		
N-BUTANE.....	0.0	-----		0.2	-----			TRACE	-----		
ISOBUTANE.....	0.0	-----		TRACE	-----			0.0	-----		
N-PENTANE.....	0.0	-----		TRACE	-----			TRACE	-----		
ISOPENTANE.....	0.1	-----		0.3	-----			TRACE	-----		
CYCLOPENTANE.....	TRACE	-----		0.1	-----			0.1	-----		
HEXANES PLUS.....	0.0	-----		0.2	-----			0.1	-----		
NITROGEN.....	0.3	-----		0.8	-----			12.4	-----		
OXYGEN.....	TRACE	-----		0.0	-----			TRACE	-----		
ARGON.....	0.0	-----		0.0	-----			TRACE	-----		
HYDROGEN.....	0.0	-----		0.0	-----			TRACE	-----		
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----			0.0	-----		
CARBON DIOXIDE.....	0.4	-----		0.3	-----			0.3	-----		
HELIUM.....	0.14	-----		0.78	-----			0.02	-----		
HEATING VALUE.....	1018	-----		1058	-----			898	-----		
SPECIFIC GRAVITY.....	0.567	-----		0.597	-----			0.617	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12157 SAMPLE 2100			INDEX 12158 SAMPLE 17241			INDEX 12159 SAMPLE 10097		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CARBON		CARBON			CARBON		
FIELD.....	ROCK CREEK		SAVERLY			SEPARATION FLATS		
WELL NAME.....	DIAMOND CATTLE NO. 4		SAVERLY UNIT NO. G-15			UPPER BUZZARD RANCH 7-1		
LOCATION.....	SEC. 35, T20N, R78W		SEC. 15, T13N, R89W			SEC. 7, T24N, R87W		
OWNER.....	OHIO OIL CO.		BENSON-MONTIN-GREER DRILLING			AMAX PETROLEUM CORP.		
COMPLETED.....	--/--/00		11/13/83			05/12/64		
SAMPLED.....	09/03/30		04/--/84			08/30/65		
FORMATION.....	CRET-DAKOTA		CRET-MESAVERDE			CRET-MUDDY		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	2740		801			2848		
WELLHEAD PRESSURE, PSIG.....	5		95			1225		
OPEN FLOW, MCFD.....	NOT GIVEN		2000			6800		
COMPONENT, MOLE PCT								
METHANE.....	2.4	98.0	98.0	95.6		95.6		
ETHANE.....	93.6	0.4	0.4	1.6		1.6		
PROpane.....	---	0.1	0.1	0.4		0.4		
N-BUTANE.....	---	0.0	0.0	TRACE		TRACE		
ISOBUTANE.....	---	0.0	0.0	TRACE		TRACE		
N-PENTANE.....	---	0.0	0.0	TRACE		TRACE		
ISOPENTANE.....	---	0.0	0.0	TRACE		TRACE		
CYCLOPENTANE.....	---	0.0	0.0	TRACE		TRACE		
HEXANES PLUS.....	---	0.0	0.0	TRACE		TRACE		
NITROGEN.....	3.5	1.2	1.2	0.9		0.9		
OXYGEN.....	0.1	TRACE	TRACE	0.0		0.0		
ARGON.....	---	TRACE	TRACE	TRACE		TRACE		
HYDROGEN.....	---	0.0	0.0	0.0		0.0		
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0		0.0		
CARBON DIOXIDE.....	0.2	0.1	0.1	1.4		1.4		
HELIUM.....	0.00	0.03	0.03	0.03		0.03		
HEATING VALUE.....	1702	1002	1002	1007		1007		
SPECIFIC GRAVITY.....	1.033	0.562	0.562	0.583		0.583		
INDEX 12160 SAMPLE 3826			INDEX 12161 SAMPLE 16794			INDEX 12162 SAMPLE 16206		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CARBON		CARBON			CARBON		
FIELD.....	SHERARD		SHERARD DOME			STANDARD DRAW		
WELL NAME.....	MARY C. CARTER NO. 1		CENEX NO. 7-14			STANDARD DRAW NO. 4-4		
LOCATION.....	SEC. 31, T25N, R88W		SEC. 14, T25N, R89W			SEC. 4, T18N, R93W		
OWNER.....	SINCLAIR WYOMING OIL CO.		CENEX			COASTAL OIL & GAS CORP.		
COMPLETED.....	10/17/43		06/--/82			11/03/80		
SAMPLED.....	04/29/44		02/10/83			03/04/81		
FORMATION.....	CRET-DAKOTA		CRET-FRONTIER 3RD			CRET-ALMOND		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	2838		2306			8886		
WELLHEAD PRESSURE, PSIG.....	1140		1140			900		
OPEN FLOW, MCFD.....	150		500			4500		
COMPONENT, MOLE PCT								
METHANE.....	95.0	98.2	98.2	73.2		73.2		
ETHANE.....	4.1	0.2	0.2	6.1		6.1		
PROpane.....	---	0.0	0.0	2.1		2.1		
N-BUTANE.....	---	0.0	0.0	0.3		0.3		
ISOBUTANE.....	---	0.0	0.0	0.5		0.5		
N-PENTANE.....	---	0.0	0.0	TRACE		TRACE		
ISOPENTANE.....	---	0.0	0.0	0.1		0.1		
CYCLOPENTANE.....	---	0.0	0.0	TRACE		TRACE		
HEXANES PLUS.....	---	0.0	0.0	0.1		0.1		
NITROGEN.....	0.3	0.8	0.8	11.8		11.8		
OXYGEN.....	0.4	TRACE	TRACE	2.9		2.9		
ARGON.....	---	TRACE	TRACE	0.1		0.1		
HYDROGEN.....	---	0.2	0.2	0.0		0.0		
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0		0.0		
CARBON DIOXIDE.....	1.1	0.1	0.1	2.9		2.9		
HELIUM.....	0.05	0.03	0.03	0.01		0.01		
HEATING VALUE.....	1018	999	999	935		935		
SPECIFIC GRAVITY.....	0.583	0.561	0.561	0.712		0.712		
INDEX 12163 SAMPLE 16248			INDEX 12164 SAMPLE 12349			INDEX 12165 SAMPLE 12350		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CARBON		CARBON			CARBON		
FIELD.....	STANDARD DRAW		SUGAR CREEK			SUGAR CREEK		
WELL NAME.....	STANDARD DRAW NO. 3-16		U.S.A. TROWBRIDGE NO. 1			U.S.A. TROWBRIDGE NO. 1		
LOCATION.....	SEC. 16, T18N, R93W		SEC. 36, T19N, R90W			SEC. 36, T19N, R90W		
OWNER.....	MARATHON OIL CO.		TENNECO OIL CO.			TENNECO OIL CO.		
COMPLETED.....	10/19/80		06/--/68			06/--/68		
SAMPLED.....	04/23/81		08/07/70			08/07/70		
FORMATION.....	CRET-MESAVERDE		CRET-FRONTIER			PENN-TENSLEEP		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	9000		9000			12000		
WELLHEAD PRESSURE, PSIG.....	3900		NOT GIVEN			3348		
OPEN FLOW, MCFD.....	6000		1750			2000		
COMPONENT, MOLE PCT								
METHANE.....	83.1	95.7	95.7	76.6		76.6		
ETHANE.....	8.5	1.4	1.4	1.7		1.7		
PROpane.....	3.6	0.3	0.3	0.6		0.6		
N-BUTANE.....	0.8	0.1	0.1	0.2		0.2		
ISOBUTANE.....	0.6	0.1	0.1	0.2		0.2		
N-PENTANE.....	0.2	0.1	0.1	TRACE		TRACE		
ISOPENTANE.....	0.2	0.0	0.0	0.1		0.1		
CYCLOPENTANE.....	0.1	TRACE	TRACE	0.2		0.2		
HEXANES PLUS.....	0.1	TRACE	TRACE	0.6		0.6		
NITROGEN.....	0.5	1.0	1.0	0.0		0.0		
OXYGEN.....	0.0	0.2	0.2	0.1		0.1		
ARGON.....	0.0	TRACE	TRACE	0.1		0.1		
HYDROGEN.....	TRACE	0.1	0.1	TRACE		TRACE		
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.7		0.7		
CARBON DIOXIDE.....	2.2	1.0	1.0	9.5		9.5		
HELIUM.....	0.01	0.01	0.01	0.20		0.20		
HEATING VALUE.....	1161	1014	1014	866		866		
SPECIFIC GRAVITY.....	0.689	0.584	0.584	0.724		0.724		
INDEX 12166 SAMPLE 15398			INDEX 12167 SAMPLE 16034			INDEX 12168 SAMPLE 1892		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CARBON		CARBON			CARBON		
FIELD.....	WAMSUTTER		WAMSUTTER			WERTZ		
WELL NAME.....	ECHO SPRINGS NO. 1-2		CHAMPLIN 222D NO. 1			NO. 7		
LOCATION.....	SEC. 2, T19N, R93W		SEC. 27, T19N, R93W			SEC. 7, T26N, R89W		
OWNER.....	MARATHON OIL CO.		AMOCO PRODUCTION CO.			PRODUCERS & REFINERS CORP.		
COMPLETED.....	--/--/00		--/--/00			08/17/29		
SAMPLED.....	10/06/78		08/14/80			11/07/29		
FORMATION.....	NOT GIVEN		CRET-ALMOND			CRET-CLOVERLY		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	NOT GIVEN		6970			3637		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1100		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			22000		
COMPONENT, MOLE PCT								
METHANE.....	80.3	77.3	77.3	87.5		87.5		
ETHANE.....	7.0	10.6	10.6	10.1		10.1		
PROpane.....	3.8	7.1	7.1	---		---		
N-BUTANE.....	1.2	1.0	1.0	---		---		
ISOBUTANE.....	1.3	1.1	1.1	---		---		
N-PENTANE.....	0.5	0.2	0.2	---		---		
ISOPENTANE.....	0.7	0.2	0.2	---		---		
CYCLOPENTANE.....	0.2	TRACE	TRACE	---		---		
HEXANES PLUS.....	0.6	---	---	---		---		
NITROGEN.....	0.3	0.2	0.2	0.0		0.0		
OXYGEN.....	TRACE	0.0	0.0	0.2		0.2		
ARGON.....	---	0.0	0.0	---		---		
HYDROGEN.....	TRACE	0.0	0.0	---		---		
HYDROGEN SULFIDE.....	0.0	0.0	0.0	---		---		
CARBON DIOXIDE.....	4.0	2.2	2.2	0.00		0.00		
HELIUM.....	TRACE	0.01	0.01	1067		1067		
HEATING VALUE.....	1211	1230	1230	0.627		0.627		
SPECIFIC GRAVITY.....	0.746	0.742	0.742					

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1028

	INDEX SAMPLE	12169 2101		INDEX SAMPLE	12170 2122		INDEX SAMPLE	12171 2128
STATE.....	WYOMING		WYOMING		WYOMING		WYOMING	
COUNTY.....	CARBON		CARBON		CARBON		CARBON	
FIELD.....	WERTZ		WERTZ		WERTZ		WERTZ	
WELL NAME.....	NO. 8		NO. 1		NO. 1		NO. 1	
LOCATION.....	SEC. 7, T26N, R89W		SEC. 7, T26N, R89W		SEC. 7, T26N, R89W		SEC. 7, T26N, R89W	
OWNER.....	PRODUCERS & REFINERS CORP.		PRODUCERS & REFINERS CORP.		PRODUCERS & REFINERS CORP.		PRODUCERS & REFINERS CORP.	
COMPLETED.....	08/06/29		08/17/29		09/23/20		09/23/20	
SAMPLED.....	09/03/30		09/06/30		09/11/30		09/11/30	
FORMATION.....	JURA-SUNDANCE		CRET-DAKOTA		CRET-FRONTIER		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	535		535		535		535	
DEPTH, FEET.....	4100		3637		3427		3427	
WELLHEAD PRESSURE, PSIG.....	1320		1285		620		620	
OPEN FLOW, MCFD.....	57000		22000		42000		42000	
COMPONENT, MOLE PCT.....								
METHANE.....	95.9	-----	90.3	-----	81.8	-----	81.8	-----
ETHANE.....	0.0	-----	8.0	-----	10.9	-----	10.9	-----
PROPANE.....	---	-----	---	-----	---	-----	---	-----
N-BUTANE.....	---	-----	---	-----	---	-----	---	-----
ISOBUTANE.....	---	-----	---	-----	---	-----	---	-----
N-PENTANE.....	---	-----	---	-----	---	-----	---	-----
ISOPENTANE.....	---	-----	---	-----	---	-----	---	-----
CYCLOPENTANE.....	---	-----	---	-----	---	-----	---	-----
HEXANES PLUS.....	---	-----	---	-----	---	-----	---	-----
NITROGEN.....	0.0	-----	0.0	-----	4.8	-----	4.8	-----
OXYGEN.....	0.1	-----	0.1	-----	0.2	-----	0.2	-----
ARGON.....	---	-----	---	-----	---	-----	---	-----
HYDROGEN.....	---	-----	---	-----	---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----	---	-----	---	-----	---	-----
CARBON DIOXIDE.....	0.0	-----	1.5	-----	2.2	-----	2.2	-----
HELIUM.....	0.07	-----	0.03	-----	0.02	-----	0.02	-----
HEATING VALUE.....	1012	-----	1058	-----	1024	-----	1024	-----
SPECIFIC GRAVITY.....	0.555	-----	0.609	-----	0.650	-----	0.650	-----

	INDEX SAMPLE	12172 10855		INDEX SAMPLE	12173 10856		INDEX SAMPLE	12174 10857
STATE.....	WYOMING		WYOMING		WYOMING		WYOMING	
COUNTY.....	CARBON		CARBON		CARBON		CARBON	
FIELD.....	WEST SIDE CANAL		WEST SIDE CANAL		WEST SIDE CANAL		WEST SIDE CANAL	
WELL NAME.....	JONS NO. 1		JONS NO. 1		JONS NO. 1		JONS NO. 1	
LOCATION.....	SEC. 7, T12N, R91W		SEC. 7, T12N, R91W		SEC. 7, T12N, R91W		SEC. 7, T12N, R91W	
OWNER.....	SUPERIOR OIL CO.		SUPERIOR OIL CO.		SUPERIOR OIL CO.		SUPERIOR OIL CO.	
COMPLETED.....	10/03/66		10/03/66		10/03/66		10/03/66	
SAMPLED.....	01/30/67		01/30/67		01/30/67		01/30/67	
FORMATION.....	CRET-LANCE		CRET-FOX HILLS		CRET-LANCE		CRET-LANCE	
GEOLOGIC PROVINCE CODE.....	535		535		535		535	
DEPTH, FEET.....	3058		3396		2550		2550	
WELLHEAD PRESSURE, PSIG.....	1280		1125		1160		1160	
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....								
METHANE.....	97.9		96.4		96.5		96.5	
ETHANE.....	0.6		0.5		1.6		1.6	
PROPANE.....	TRACE		0.5		0.4		0.4	
N-BUTANE.....	0.1		0.2		0.3		0.3	
ISOBUTANE.....	0.0		0.0		0.0		0.0	
N-PENTANE.....	0.0		0.0		0.0		0.0	
ISOPENTANE.....	0.0		0.0		0.0		0.0	
CYCLOPENTANE.....	0.0		0.0		0.0		0.0	
HEXANES PLUS.....	0.0		0.0		0.0		0.0	
NITROGEN.....	0.3		0.5		0.5		0.5	
OXYGEN.....	0.1		0.0		0.0		0.0	
ARGON.....	TRACE		TRACE		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0		0.0	
CARBON DIOXIDE.....	1.0		0.7		0.7		0.7	
HELIUM.....	0.01		0.01		0.01		0.01	
HEATING VALUE.....	1006		1025		1027		1027	
SPECIFIC GRAVITY.....	0.570		0.579		0.580		0.580	

	INDEX SAMPLE	12175 16656		INDEX SAMPLE	12176 16657		INDEX SAMPLE	12177 16204
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CARBON		CARBON			CARBON		
FIELD.....	WEST SIDE CANAL		WEST SIDE CANAL			WILD ROSE		
WELL NAME.....	UNIT NO. 14		UNIT NO. 14			U.S.A. NO. 1-32		
LOCATION.....	SEC. 18, T12N, R91W		SEC. 18, T12N, R91W			SEC. 32, T17N, R93W		
OWNER.....	SOUTHLAND ROYALTY CO.		SOUTHLAND ROYALTY CO.			COASTAL OIL & GAS CORP.		
COMPLETED.....	03/01/82		03/01/82			11/24/80		
SAMPLED.....	09/21/82		09/21/82			03/04/81		
FORMATION.....	CRET-LEWIS		CRET-LANCE			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	4346		3010			9250		
WELLHEAD PRESSURE, PSIG.....	730		710			2100		
OPEN FLOW, MCFD.....	1000		4850			3925		
COMPONENT, MOLE PCT.....								
METHANE.....	89.9		96.4			82.6		
ETHANE.....	5.2		0.8			6.6		
PROPANE.....	1.9		0.2			2.9		
N-BUTANE.....	0.5		0.1			0.6		
ISOBUTANE.....	0.3		0.0			0.8		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.5		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			0.3		
HEXANES PLUS.....	0.1		TRACE			0.6		
NITROGEN.....	0.8		1.5			2.0		
OXYGEN.....	0.2		0.3			0.4		
ARGON.....	0.1		TRACE			0.0		
HYDROGEN.....	0.4		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.4			2.4		
HELIUM.....	TRACE		0.0			TRACE		
HEATING VALUE.....	1104		1008			1149		
SPECIFIC GRAVITY.....	0.628		0.577			0.704		

	INDEX SAMPLE	12178 16866		INDEX SAMPLE	12179 16799		INDEX SAMPLE	12180 16805
STATE.....	WYOMING		WYOMING		WYOMING		WYOMING	
COUNTY.....	CARBON		CONVERSE		CONVERSE		CONVERSE	
FIELD.....	WILD ROSE		BIG MUDDY		BIG MUDDY		BIG MUDDY	
WELL NAME.....	CCE FED. NO. 1C-30-17-93		R. B. WHITESIDE NO. 100		R. B. WHITESIDE NO. 96		R. B. WHITESIDE NO. 96	
LOCATION.....	SEC. 30, T17N, R93W		NOT GIVEN		NOT GIVEN		NOT GIVEN	
OWNER.....	SNYDER OIL CO.		CONOCO, INC.		CONOCO, INC.		CONOCO, INC.	
COMPLETED.....	04/04/83		07/11/78		07/27/78		07/27/78	
SAMPLED.....	04/04/83		03/09/83		03/15/83		03/15/83	
FORMATION.....	CRET-MESAVERDE & ALMOND U		CRET-WALL CREEK 2ND		CRET-WALL CREEK		CRET-WALL CREEK	
GEOLOGIC PROVINCE CODE.....	535		515		515		515	
DEPTH, FEET.....	3447		3114		3201		3201	
WELLHEAD PRESSURE, PSIG.....	3450		NOT GIVEN		NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	3000		NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....								
METHANE.....	83.2	-----	82.7	-----	78.3	-----	78.3	-----
ETHANE.....	8.0	-----	2.5	-----	3.4	-----	3.4	-----
PROPANE.....	3.2	-----	4.8	-----	6.0	-----	6.0	-----
N-BUTANE.....	0.9	-----	2.3	-----	2.3	-----	2.3	-----
ISOBUTANE.....	0.6	-----	1.7	-----	1.7	-----	1.7	-----
N-PENTANE.....	0.1	-----	0.4	-----	0.3	-----	0.3	-----
ISOPENTANE.....	0.4	-----	1.7	-----	1.5	-----	1.5	-----
CYCLOPENTANE.....	0.1	-----	0.4	-----	0.3	-----	0.3	-----
HEXANES PLUS.....	0.1	-----	0.6	-----	0.5	-----	0.5	-----
NITROGEN.....	0.3	-----	0.2	-----	0.5	-----	0.5	-----
OXYGEN.....	TRACE	-----	TRACE	-----	TRACE	-----	TRACE	-----
ARGON.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
HYDROGEN.....	0.2	-----	0.2	-----	0.2	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----	2.3	-----	0.9	-----	0.9	-----
HELIUM.....	TRACE	-----	TRACE	-----	0.07	-----	0.07	-----
HEATING VALUE.....	1147	-----	1271	-----	1259	-----	1259	-----
SPECIFIC GRAVITY.....	0.689	-----	0.760	-----	0.771	-----	0.771	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12181 SAMPLE 16962		INDEX 12182 SAMPLE 16963		INDEX 12183 SAMPLE 16964	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CONVERSE	CONVERSE	CONVERSE	CONVERSE	
FIELD.....	BIG MUDDY	BIG MUDDY	BIG MUDDY	BIG MUDDY	
WELL NAME.....	R. B. WHITESIDE NO. 82	R. B. WHITESIDE NO. 57	R. B. WHITESIDE	R. B. WHITESIDE	
LOCATION.....	T33N, R76W	T33N, R76W	T33N, R76W	T33N, R76W	
OWNER.....	CONOCO, INC.	CONOCO, INC.	CONOCO, INC.	CONOCO, INC.	
COMPLETED.....	01/09/79	--/--/79	10/--/78	10/--/78	
SAMPLED.....	06/03/83	06/02/83	06/03/83	06/03/83	
FORMATION.....	CRET-WALL CREEK 2ND	CRET-WALL CREEK 2ND	CRET-WALL CREEK 2ND	CRET-WALL CREEK 2ND	
GEOLOGIC PROVINCE CODE.....	515	515	515	515	
DEPTH, FEET.....	3060	3075	3092	3092	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	72.8	59.1	55.8	55.8	
ETHANE.....	7.5	4.8	6.5	6.5	
PROPANE.....	7.7	9.8	13.2	13.2	
N-BUTANE.....	2.6	5.9	7.2	7.2	
ISOBUTANE.....	1.9	1.3	4.3	4.3	
N-PENTANE.....	0.3	1.3	1.3	1.3	
ISOPENTANE.....	2.6	4.7	5.3	5.3	
CYCLOPENTANE.....	1.0	1.1	0.8	0.8	
HEXANES PLUS.....	1.2	1.8	1.4	1.4	
NITROGEN.....	1.0	6.8	2.1	2.1	
OXYGEN.....	TRACE	TRACE	TRACE	TRACE	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	0.2	0.2	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.0	0.0	
HELIUM.....	0.01	0.12	0.01	0.01	
HEATING VALUE.....	1447	1651	1796	1796	
SPECIFIC GRAVITY.....	0.853	1.038	1.096	1.096	

INDEX 12184 SAMPLE 16965		INDEX 12185 SAMPLE 2668		INDEX 12186 SAMPLE 8933	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CONVERSE	DOUGLAS	CONVERSE	FLAT TOP	
FIELD.....	BIG MUDDY	SILVER FARM NO. 1	RESE A-2	RESE A-2	
WELL NAME.....	R. B. WHITESIDE NO. 89	SEC. 33, T32N, R71W	SEC. 24, T33N, R69W	SEC. 24, T33N, R69W	
LOCATION.....	T33N, R76W	WHITE ROCK OIL CO.	TOYER OIL & GAS CO. OF TEXAS	TOYER OIL & GAS CO. OF TEXAS	
OWNER.....	CONOCO, INC.	--/--/00	--/--/00	--/--/00	
COMPLETED.....	08/--/78	03/25/34	04/04/62	04/04/62	
SAMPLED.....	06/03/83	NOT GIVEN	NOT GIVEN	NOT GIVEN	
FORMATION.....	CRET-WALL CREEK 2ND	515	515	515	
GEOLOGIC PROVINCE CODE.....	515	128	4497	4497	
DEPTH, FEET.....	3073	21	848	848	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	600	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	600	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	34.3	87.6	80.3	80.3	
ETHANE.....	13.9	3.2	9.3	9.3	
PROPANE.....	21.5	--	5.3	5.3	
N-BUTANE.....	9.2	--	0.5	0.5	
ISOBUTANE.....	6.2	--	0.7	0.7	
N-PENTANE.....	0.9	--	0.4	0.4	
ISOPENTANE.....	6.0	--	0.5	0.5	
CYCLOPENTANE.....	0.8	--	0.1	0.1	
HEXANES PLUS.....	1.2	--	0.3	0.3	
NITROGEN.....	0.8	8.6	1.9	1.9	
OXYGEN.....	TRACE	--	0.0	0.0	
ARGON.....	TRACE	--	0.0	0.0	
HYDROGEN.....	0.1	--	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	--	0.0	0.0	
CARBON DIOXIDE.....	1.1	0.1	TRACE	TRACE	
HELIUM.....	TRACE	0.07	0.01	0.01	
HEATING VALUE.....	2164	945	1256	1256	
SPECIFIC GRAVITY.....	1.304	0.508	0.722	0.722	

INDEX 12187 SAMPLE 11657		INDEX 12188 SAMPLE 9107		INDEX 12189 SAMPLE 9108	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CONVERSE	CONVERSE	CONVERSE	CONVERSE	
FIELD.....	FLAT TOP	GLENROCK S	GLENROCK S	GLENROCK S	
WELL NAME.....	GOVT. NO. 1	NO. 89	NO. 130	NO. 130	
LOCATION.....	SEC. 33, T33N, R69W	SEC. 17, T33N, R75W	SEC. 19, T33N, R75W	SEC. 19, T33N, R75W	
OWNER.....	KANSAS-NEBRASKA NATURAL GAS	CONTINENTAL OIL CO.	CONTINENTAL OIL CO.	CONTINENTAL OIL CO.	
COMPLETED.....	--/--/00	02/09/52	10/26/52	10/26/52	
SAMPLED.....	10/02/68	10/08/63	10/08/63	10/08/63	
FORMATION.....	CRET-TEAPOT	CRET-MUDDY U	CRET-MUDDY L	CRET-MUDDY L	
GEOLOGIC PROVINCE CODE.....	515	515	515	515	
DEPTH, FEET.....	7050	6210	6459	6459	
WELLHEAD PRESSURE, PSIG.....	1950	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OPEN FLOW, MCFD.....	2188	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	78.9	2.8	9.0	9.0	
ETHANE.....	9.2	17.7	33.7	33.7	
PROPANE.....	6.7	38.8	35.1	35.1	
N-BUTANE.....	1.7	20.5	10.3	10.3	
ISOBUTANE.....	0.9	3.4	4.3	4.3	
N-PENTANE.....	0.3	0.5	2.2	2.2	
ISOPENTANE.....	0.3	7.5	2.1	2.1	
CYCLOPENTANE.....	TRACE	0.6	0.8	0.8	
HEXANES PLUS.....	0.1	0.3	2.3	2.3	
NITROGEN.....	1.6	0.0	0.0	0.0	
OXYGEN.....	0.0	0.0	TRACE	TRACE	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	TRACE	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	TRACE	TRACE	
HELIUM.....	0.06	TRACE	TRACE	TRACE	
HEATING VALUE.....	1256	2879	2420	2420	
SPECIFIC GRAVITY.....	0.727	1.726	1.449	1.449	

INDEX 12190 SAMPLE 9109		INDEX 12191 SAMPLE 9366		INDEX 12192 SAMPLE 3046	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	CONVERSE	CONVERSE	CONVERSE	CONVERSE	
FIELD.....	GLENROCK S	LAPLACE	SHAWNEE CREEK	SHAWNEE CREEK	
WELL NAME.....	NO. 57	JEFF HAWKS A -GOVT. NO. 1	SALISBURY NO. 2	SALISBURY NO. 2	
LOCATION.....	SEC. 16, T33N, R75W	SEC. 23, T33N, R71W	SEC. 27, T32N, R69W	SEC. 27, T32N, R69W	
OWNER.....	CONTINENTAL OIL CO.	TEACOC INC.	WYOMING SOUTHERN OIL CO.	WYOMING SOUTHERN OIL CO.	
COMPLETED.....	05/17/52	05/17/64	05/--/71	05/--/71	
SAMPLED.....	10/08/63	05/15/64	12/13/41	12/13/41	
FORMATION.....	CRET-DAKOTA	CRET-FRONTIER	OLIG-WHITE RIVER	OLIG-WHITE RIVER	
GEOLOGIC PROVINCE CODE.....	515	515	515	515	
DEPTH, FEET.....	6445	11577	453	453	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	3895	162	162	
OPEN FLOW, MCFD.....	NOT GIVEN	500	2250	2250	
COMPONENT, MOLE PCT					
METHANE.....	43.0	81.9	95.6	95.6	
ETHANE.....	15.8	10.5	2.0	2.0	
PROPANE.....	21.6	3.6	--	--	
N-BUTANE.....	8.5	0.9	--	--	
ISOBUTANE.....	TRACE	0.5	--	--	
N-PENTANE.....	TRACE	0.2	--	--	
ISOPENTANE.....	7.8	0.2	--	--	
CYCLOPENTANE.....	0.7	0.2	--	--	
HEXANES PLUS.....	1.6	0.4	--	--	
NITROGEN.....	0.9	0.4	0.4	0.4	
OXYGEN.....	0.1	TRACE	0.2	0.2	
ARGON.....	0.0	0.0	--	--	
HYDROGEN.....	0.0	0.0	--	--	
HYDROGEN SULFIDE.....	0.0	0.0	--	--	
CARBON DIOXIDE.....	0.1	1.3	1.8	1.8	
HELIUM.....	0.01	0.02	0.01	0.01	
HEATING VALUE.....	2005	1999	1004	1004	
SPECIFIC GRAVITY.....	1.186	0.697	0.585	0.585	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1025

INDEX 12193 SAMPLE 9521			INDEX 12194 SAMPLE 13456			INDEX 12195 SAMPLE 1994		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	CROOK		CROOK			FREMONT		
FIELD.....	DONKEY CREEK		MILLER CREEK N			ALKALI BUTTE		
WELL NAME.....	E. C. STEVENSON NO. 10		RAUDSEP NO. 6-16			GOVT. NO. 1		
LOCATION.....	SEC. 29, T50N, R68W		SEC. 6, T51N, R68W			SEC. 1, T34N, R95W		
OWNER.....	TEXACO INC.		EXETER DRILLING & EXPL. CO.			TEXAS PRODUCTION CO.		
COMPLETED.....	10/-/61		07/27/71			11/13/28		
SAMPLED.....	08/03/64		10/20/72			04/10/30		
FORMATION.....	CRET-MUDDY		CRET-DAKOTA			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	515		515			530		
DEPTH, FEET.....	5863		6024			4151		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1030			600		
OPEN FLOW, MCFD.....	NOT GIVEN		10050			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	53.3		98.1			94.6		
ETHANE.....	17.1		0.1			4.5		
PROPANE.....	18.2		0.1			---		
N-BUTANE.....	5.0		TRACE			---		
ISOBUTANE.....	1.6		0.4			---		
N-PENTANE.....	0.9		0.0			---		
ISOPENTANE.....	0.9		0.2			---		
CYCLOPENTANE.....	0.3		0.1			---		
HEXANES PLUS.....	0.6		TRACE			---		
NITROGEN.....	1.6		0.1			---		
OXYGEN.....	TRACE		0.0			0.2		
ARGON.....	TRACE		TRACE			0.3		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.5		0.7			0.3		
HELIUM.....	TRACE		TRACE			0.02		
HEATING VALUE.....	1039		1024			1039		
SPECIFIC GRAVITY.....	0.988		0.576			0.582		

INDEX 12196 SAMPLE 2120			INDEX 12197 SAMPLE 13589			INDEX 12198 SAMPLE 4178		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	ALKALI BUTTE		ALKALI BUTTE			BEAVER CREEK		
WELL NAME.....	STATS NO. 1		ALKALI BUTTE UNIT NO. 8			UNIT NO. 3		
LOCATION.....	SEC. 36, T34N, R95W		SEC. 26, T34N, R95W			SEC. 14, T33N, R96W		
OWNER.....	TEXAS PRODUCTION CO.		TEXACO INC.			STANOLIND OIL & GAS CO.		
COMPLETED.....	12/28/70		12/28/70			08/24/46		
SAMPLED.....	09/08/30		04/17/73			12/01/46		
FORMATION.....	CRET-DAKOTA		CRET-MUDDY			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	4381		4572			9108		
WELLHEAD PRESSURE, PSIG.....	1905		2050			NOT GIVEN		
OPEN FLOW, MCFD.....	15000		11600			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	95.2		95.4			95.5		
ETHANE.....	4.3		2.5			3.7		
PROPANE.....	---		0.8			---		
N-BUTANE.....	---		0.2			---		
ISOBUTANE.....	---		0.2			---		
N-PENTANE.....	---		TRACE			---		
ISOPENTANE.....	---		TRACE			---		
CYCLOPENTANE.....	---		0.1			---		
HEXANES PLUS.....	---		0.4			---		
NITROGEN.....	0.0		0.0			0.0		
OXYGEN.....	0.1		0.0			0.2		
ARGON.....	---		0.0			---		
HYDROGEN.....	---		0.0			---		
HYDROGEN SULFIDE.....	---		0.0			---		
CARBON DIOXIDE.....	0.4		0.2			0.6		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	1041		1055			1034		
SPECIFIC GRAVITY.....	0.580		0.588			0.580		

INDEX 12199 SAMPLE 8477			INDEX 12200 SAMPLE 8965			INDEX 12201 SAMPLE 8966		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	BEAVER CREEK		BEAVER CREEK			BEAVER CREEK		
WELL NAME.....	BEAVER CREEK NO. 10		WADSON NO. 38			TENSLEEP NO. 22		
LOCATION.....	SEC. 16, T33N, R96W		SEC. 10, T33N, R96W			SEC. 14, T33N, R96W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		
COMPLETED.....	03/22/62		07/21/55			12/04/54		
SAMPLED.....	03/23/63		05/23/63			05/23/63		
FORMATION.....	PERM-PHOSPHORIA		PERM-PHOSPHORIA			PERM-PHOSPHORIA		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	11209		10935			10817		
WELLHEAD PRESSURE, PSIG.....	7200		NOT GIVEN			100		
OPEN FLOW, MCFD.....	7219		NOT GIVEN			20		
COMPONENT, MOLE PCT.....								
METHANE.....	81.8		45.4			69.3		
ETHANE.....	5.7		25.7			16.0		
PROPANE.....	1.8		12.5			5.6		
N-BUTANE.....	0.8		6.2			2.4		
ISOBUTANE.....	0.2		1.2			1.4		
N-PENTANE.....	0.2		1.2			0.6		
ISOPENTANE.....	0.2		0.1			0.6		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.2		0.7			0.4		
NITROGEN.....	2.5		1.4			1.2		
OXYGEN.....	0.2		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	5.1		0.0			1.7		
CARBON DIOXIDE.....	1.0		0.1			0.5		
HELIUM.....	0.01		0.01			0.02		
HEATING VALUE.....	1082		1771			1354		
SPECIFIC GRAVITY.....	0.687		1.062			0.805		

INDEX 12202 SAMPLE 8967			INDEX 12203 SAMPLE 8968			INDEX 12204 SAMPLE 912		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	BEAVER CREEK		BEAVER CREEK			BUFFALO ANTICLINE		
WELL NAME.....	FRONTIER NO. 6		NO. 18			NO. 1		
LOCATION.....	SEC. 15, T33N, R96W		SEC. 10, T33N, R96W			SEC. 17, T27N, R95W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.			KASOWING OIL CO.		
COMPLETED.....	03/19/47		11/7/55			06/09/24		
SAMPLED.....	05/23/63		05/23/63			08/13/24		
FORMATION.....	CRET-		CRET-			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	6770		3706			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	2300		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	8000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	92.1		82.4			87.9		
ETHANE.....	4.5		1.1			6.9		
PROPANE.....	1.0		8.1			---		
N-BUTANE.....	0.4		1.4			---		
ISOBUTANE.....	0.3		0.7			---		
N-PENTANE.....	TRACE		0.2			---		
ISOPENTANE.....	0.2		0.8			---		
CYCLOPENTANE.....	TRACE		0.2			---		
HEXANES PLUS.....	0.1		0.2			---		
NITROGEN.....	0.5		0.7			2.1		
OXYGEN.....	0.0		0.0			0.2		
ARGON.....	TRACE		0.0			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		0.1			2.7		
HELIUM.....	0.01		0.01			0.00		
HEATING VALUE.....	1092		1257			1014		
SPECIFIC GRAVITY.....	0.613		0.724			0.624		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12205 SAMPLE 12400			INDEX 12206 SAMPLE 8695			INDEX 12207 SAMPLE 8414		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	CASTLE GARDEN		CONANT CREEK			DINNY MOORE RESERVOIR		
WELL NAME.....	BRUNEL FED. NO. 1		UNIT NO. 33-16			UNIT NO. 23-3		
LOCATION.....	SEC. 13, T34N, R91W		SEC. 16, T35N, R90W			SEC. 3, T37N, R92W		
OWNER.....	EL PASO OIL & GAS CO.		SHELL OIL CO.			SHELL OIL CO.		
COMPLETED.....	08/10/70		08/02/62			05/12/61		
SAMPLED.....	08/30/70		10/04/62			02/17/62		
FORMATION.....	CRET-SHANNON		CRET-LANCE			EOCE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	3000		5600			7877		
WELLHEAD PRESSURE, PSIG.....	1105		1300			1400		
OPEN FLOW, MCFD.....	3306		625000			2591		
COMPONENT, MOLE PCT								
METHANE.....	96.4		98.5			78.7		
ETHANE.....	1.9		0.1			9.9		
PROPANE.....	0.5		0.1			5.3		
N-BUTANE.....	0.2		0.1			1.6		
ISOBUTANE.....	0.0		TRACE			1.5		
N-PENTANE.....	0.0		TRACE			0.4		
ISOPENTANE.....	0.0		0.0			0.6		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		0.0			0.2		
NITROGEN.....	0.5		0.9			0.3		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.4			1.4		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1031		1007			1270		
SPECIFIC GRAVITY.....	0.578		0.562			0.742		

INDEX 12208 SAMPLE 7603			INDEX 12209 SAMPLE 8251			INDEX 12210 SAMPLE 8835		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	DOLIS HILLS		FRENCHIE DRAW			FRENCHIE DRAW		
WELL NAME.....	DOLIS HILL FED. UNIT NO. 1		FRENCHIE DRAW NO. 1			UNIT NO. 2-8		
LOCATION.....	SEC. 21, T30N, R91W		SEC. 21, T37N, R89W			SEC. 21, T37N, R90W		
OWNER.....	GULF OIL CORP.		HUMBLE OIL & REFINING CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	10/31/59		08/18/61			06/25/62		
SAMPLED.....	07/13/60		10/19/61			01/08/63		
FORMATION.....	CRET-LANCE		EOCE-FORT UNION L			EOCE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	6780		9885			10115		
WELLHEAD PRESSURE, PSIG.....	2800		3490			3838		
OPEN FLOW, MCFD.....	21000		5074			2900		
COMPONENT, MOLE PCT								
METHANE.....	50.3		85.7			94.4		
ETHANE.....	7.6		7.1			2.8		
PROPANE.....	14.2		2.3			0.7		
N-BUTANE.....	11.6		0.4			0.3		
ISOBUTANE.....	3.7		0.7			TRACE		
N-PENTANE.....	4.1		0.1			0.1		
ISOPENTANE.....	4.4		0.2			0.3		
CYCLOPENTANE.....	0.8		0.3			0.1		
HEXANES PLUS.....	2.9		0.6			0.4		
NITROGEN.....	0.0		0.0			0.2		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		2.3			0.7		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	2073		1144			1076		
SPECIFIC GRAVITY.....	1.221		0.678			0.607		

INDEX 12211 SAMPLE 16626			INDEX 12212 SAMPLE 13409			INDEX 12213 SAMPLE 8415		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	FULLER RESERVOIR		GIRARD			HOWARD RANCH		
WELL NAME.....	DAVISON RANCH-FED. NO. 2-12		FED. NO. 1-8			UNIT NO. 23-15		
LOCATION.....	SEC. 12, T36N, R94W		SEC. 8, T28N, R95W			SEC. 15, T39N, R93W		
OWNER.....	ANR PRODUCTION CO.		MOUNTAIN PETROLEUM, LTD.			SHELL OIL CO.		
COMPLETED.....	02/17/82		10/02/72			01/04/61		
SAMPLED.....	08/27/82		10/02/72			02/17/62		
FORMATION.....	EOCE-FORT UNION		CRET-MUDDY			CRET-LANCE		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	3970		895			7610		
WELLHEAD PRESSURE, PSIG.....	1750		1200			3800		
OPEN FLOW, MCFD.....	853					2163		
COMPONENT, MOLE PCT								
METHANE.....	86.6		96.5			84.7		
ETHANE.....	4.7		0.1			8.9		
PROPANE.....	4.0		0.1			3.3		
N-BUTANE.....	1.5		TRACE			0.6		
ISOBUTANE.....	0.7		0.0			0.8		
N-PENTANE.....	0.4		0.0			0.1		
ISOPENTANE.....	0.6		0.0			0.4		
CYCLOPENTANE.....	0.1		0.0			0.1		
HEXANES PLUS.....	0.3		0.0			0.4		
NITROGEN.....	1.8		3.0			0.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.3		
HELIUM.....	0.02		0.08			0.01		
HEATING VALUE.....	1184		983			1196		
SPECIFIC GRAVITY.....	0.682		0.569			0.679		

INDEX 12214 SAMPLE 5645			INDEX 12215 SAMPLE 10379			INDEX 12216 SAMPLE 6850		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	KIRK DRAV		KIRK			LITTLE DOME		
WELL NAME.....	UNIT NO. 1		GOVT.-PADON NO. 1			TRIBAL NO. 1		
LOCATION.....	SEC. 27, T33N, R95W		SEC. 6, T28N, R92W			SEC. 19, T31N, R1W		
OWNER.....	SINCLAIR OIL & GAS CO.		BOBBY H. BURNS, ET AL.			PETROLEUM, INC.		
COMPLETED.....	06/16/54		05/31/54			07/09/58		
SAMPLED.....	06/22/54		02/02/66			10/30/58		
FORMATION.....	CRET-LAKOTA		CRET-CLOVERLY			TRIA-CROW MOUNTAIN		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	5500		2568			1300		
WELLHEAD PRESSURE, PSIG.....	2140		914			1100		
OPEN FLOW, MCFD.....	10000		13500			5		
COMPONENT, MOLE PCT								
METHANE.....	94.5		96.8			83.9		
ETHANE.....	2.3		0.6			6.2		
PROPANE.....	0.6		0.0			0.3		
N-BUTANE.....	0.2		0.0			0.4		
ISOBUTANE.....	TRACE		0.0			0.4		
N-PENTANE.....	0.1		0.0			0.0		
ISOPENTANE.....	0.2		0.0			0.3		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.1		0.0			0.1		
NITROGEN.....	1.7		1.5			7.2		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.2		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			TRACE		
HELIUM.....	0.04		TRACE			0.20		
HEATING VALUE.....	1039		1015			1040		
SPECIFIC GRAVITY.....	0.592		0.573			0.647		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1027

INDEX 12217 SAMPLE 5057		INDEX 12218 SAMPLE 16074		INDEX 12219 SAMPLE 16269	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	FREMONT	FREMONT		FREMONT	
FIELD.....	LONG CREEK	LYSITE		LYSITE	
WELL NAME.....	COIT, HEANEY NO. 1	LONG BUTTE NO. 1		LONG BUTTE UNIT 30-1X	
LOCATION.....	SEC. 5, T31N, R94W	SEC. 32, T39N, R91W		SEC. 30, T39N, R91W	
OWNER.....	BRITISH AMERICAN OIL CO. LTD	MONSANTO CO.		MONCRIEF OIL CO.	
COMPLETED.....	10/16/50	7/2/80		09/01/79	
SAMPLED.....	06/26/51	09/16/80		05/04/81	
FORMATION.....	PERM-PHOSPHORIA	CRET-MESAVERDE		CRET-SHANNON 1ST & 2ND	
GEOLOGIC PROVINCE CODE.....	530	530		530	
DEPTH, FEET.....	5186	NOT GIVEN		18152	
WELLHEAD PRESSURE, PSIG.....	2259	7250		10000	
OPEN FLOW, MCFD.....	10250	NOT GIVEN		5000	
COMPONENT, MOLE PCT					
METHANE.....	81.3	95.7		96.9	
ETHANE.....	9.5	0.2		0.1	
PROPANE.....	3.0	TRACE		TRACE	
N-BUTANE.....	0.8	0.0		TRACE	
ISOBUTANE.....	0.7	0.0		0.0	
N-PENTANE.....	0.3	0.0		TRACE	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.1	0.0		TRACE	
HEXANES PLUS.....	0.5	0.0		0.1	
NITROGEN.....	3.0	0.1		0.3	
OXYGEN.....	0.1	0.0		0.0	
ARGON.....	TRACE	0.0		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.7	3.9		2.4	
HELIUM.....	0.03	TRACE		TRACE	
HEATING VALUE.....	1161	973		989	
SPECIFIC GRAVITY.....	0.694	0.593		0.581	

INDEX 12220 SAMPLE 17074		INDEX 12221 SAMPLE 12343		INDEX 12222 SAMPLE 15284	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	FREMONT	FREMONT		FREMONT	
FIELD.....	LYSITE	MADDEN		MADDEN DEEP	
WELL NAME.....	LONG BUTTE UNIT NO. 25-1	MADDEN DEEP UNIT NO. 1		CHEVRON NO. 1-1	
LOCATION.....	SEC. 25, T39N, R92W	SEC. 2, T38N, R90W		SEC. 1, T38N, R91W	
OWNER.....	MONCRIEF OIL CO.	SOHIO PETROLEUM CO.		MONSANTO CO.	
COMPLETED.....	10/17/82	01/07/70		12/10/77	
SAMPLED.....	09/22/83	07/28/70		05/25/78	
FORMATION.....	CRET-SUSSEX B	CRET-FORT UNION		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	530	530		530	
DEPTH, FEET.....	18596	10020		14709	
WELLHEAD PRESSURE, PSIG.....	7040	3750		8025	
OPEN FLOW, MCFD.....	2100	14000		12400	
COMPONENT, MOLE PCT					
METHANE.....	96.0	93.3		94.2	
ETHANE.....	0.1	0.9		0.2	
PROPANE.....	TRACE	0.5		TRACE	
N-BUTANE.....	0.0	0.1		0.0	
ISOBUTANE.....	0.0	0.2		0.0	
N-PENTANE.....	0.0	0.1		0.0	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.0	0.1		0.0	
HEXANES PLUS.....	0.0	0.3		0.0	
NITROGEN.....	0.2	0.7		0.3	
OXYGEN.....	0.0	TRACE		TRACE	
ARGON.....	0.0	0.0		TRACE	
HYDROGEN.....	0.3	TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	3.4	0.1		5.1	
HELIUM.....	TRACE	0.01		TRACE	
HEATING VALUE.....	975	1026		958	
SPECIFIC GRAVITY.....	0.587	0.615		0.605	

INDEX 12223 SAMPLE 15614		INDEX 12224 SAMPLE 16542		INDEX 12225 SAMPLE 17141	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	FREMONT	FREMONT		FREMONT	
FIELD.....	MADDEN DEEP	MADDEN DEEP		MADDEN DEEP	
WELL NAME.....	FLATT NO. 1	SPRATT NO. 2-4		HENDRY NO. 2-8	
LOCATION.....	SEC. 28, T39N, R91W	SEC. 4, T38N, R90W		SEC. 8, T38N, R90W	
OWNER.....	MONSANTO CO.	MONSANTO CO.		MONSANTO CO.	
COMPLETED.....	02/16/79	07/18/81		06/14/82	
SAMPLED.....	05/03/79	02/07/82		11/29/83	
FORMATION.....	CRET-CODY	CRET-SHANNON 1ST		CRET-CODY	
GEOLOGIC PROVINCE CODE.....	530	530		530	
DEPTH, FEET.....	17859	17050		17168	
WELLHEAD PRESSURE, PSIG.....	10432	7300		7076	
OPEN FLOW, MCFD.....	2103	38334		250000	
COMPONENT, MOLE PCT					
METHANE.....	96.9	96.6		96.8	
ETHANE.....	0.1	0.1		0.1	
PROPANE.....	TRACE	TRACE		TRACE	
N-BUTANE.....	0.0	0.0		0.0	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.0		0.0	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.0	0.0		0.0	
HEXANES PLUS.....	0.0	0.0		0.0	
NITROGEN.....	0.3	0.2		0.1	
OXYGEN.....	0.0	TRACE		0.0	
ARGON.....	TRACE	TRACE		0.0	
HYDROGEN.....	TRACE	0.1		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	2.6	2.9		3.0	
HELIUM.....	TRACE	TRACE		TRACE	
HEATING VALUE.....	988	1087		982	
SPECIFIC GRAVITY.....	0.581	0.583		0.585	

INDEX 12226 SAMPLE 16152		INDEX 12227 SAMPLE 15590		INDEX 12228 SAMPLE 15591	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	FREMONT	FREMONT		FREMONT	
FIELD.....	MONETA HILLS	MUDDY RIDGE		MUDDY RIDGE	
WELL NAME.....	MONETA NO. 1-29	TRIBAL-CHEVRON NO. 30-11		TRIBAL-CHEVRON NO. 30-11	
LOCATION.....	SEC. 29, T38N, R90W	SEC. 30, T4N, R3E		SEC. 30, T4N, R3E	
OWNER.....	COLUMBIA GAS DEVELOPMENT	TOM BROWN, INC.		TOM BROWN, INC.	
COMPLETED.....	01/25/80	12/15/78		12/15/78	
SAMPLED.....	12/22/80	03/21/79		03/21/79	
FORMATION.....	CRET-SHANNON	CRET-MESAVERDE		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	530	530		530	
DEPTH, FEET.....	20065	12435		11880	
WELLHEAD PRESSURE, PSIG.....	10000	4200		3600	
OPEN FLOW, MCFD.....	1000	1700		1200	
COMPONENT, MOLE PCT					
METHANE.....	95.8	90.4		85.8	
ETHANE.....	0.2	5.5		8.2	
PROPANE.....	TRACE	1.2		2.9	
N-BUTANE.....	TRACE	0.3		0.6	
ISOBUTANE.....	TRACE	0.3		0.6	
N-PENTANE.....	TRACE	0.1		0.1	
ISOPENTANE.....	TRACE	0.2		0.3	
CYCLOPENTANE.....	0.1	0.1		TRACE	
HEXANES PLUS.....	0.1	0.1		0.1	
NITROGEN.....	0.3	0.2		0.3	
OXYGEN.....	0.1	0.0		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	TRACE		0.0	
HYDROGEN SULFIDE.....	0.0	1.6		1.0	
CARBON DIOXIDE.....	3.4	TRACE		TRACE	
HELIUM.....	TRACE	1087		1154	
HEATING VALUE.....	983	0.629		0.663	
SPECIFIC GRAVITY.....	0.595				

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12229 SAMPLE 16722			INDEX 12230 SAMPLE 16893			INDEX 12231 SAMPLE 16894		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	MUDDY RIDGE		MUDDY RIDGE			MUDDY RIDGE		
WELL NAME.....	TRIAL NO. 30-21		GOVT.-HORNBECK NO. 13-16F			GOVT.-HORNBECK NO. 13-1		
LOCATION.....	SEC. 30, T4N, R3E		SEC. 13, T4N, R2E			SEC. 13, T4N, R2E		
OWNER.....	TOM BROWN, INC.		GETTY OIL CO.			GETTY OIL CO.		
COMPLETED.....	10/10/81		02/15/83			01/31/83		
SAMPLED.....	12/06/82		04/26/83			04/26/83		
FORMATION.....	EOCE-FORT UNION		EOCE-FORT UNION			EOCE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	7350		7362			7012		
WELLHEAD PRESSURE, PSIG.....	1000		2500			2600		
OPEN FLOW, MCFD.....	500		944			1243		
COMPONENT, MOLE PCT								
METHANE.....	88.0		86.4			90.0		
ETHANE.....	6.5		7.1			6.1		
PROpane.....	2.2		2.2			0.8		
N-BUTANE.....	0.5		0.3			0.3		
ISOBUTANE.....	0.7		1.0			0.5		
N-PENTANE.....	0.1		0.2			0.0		
ISOPENTANE.....	0.4		0.3			0.5		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.2		
NITROGEN.....	0.8		0.7			0.6		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.2			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.6		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1141		1103			1105		
SPECIFIC GRAVITY.....	0.646		0.673			0.628		

INDEX 12232 SAMPLE 1814			INDEX 12233 SAMPLE 2112			INDEX 12234 SAMPLE 3044		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	MUSKRAT		MUSKRAT			MUSKRAT		
WELL NAME.....	NO. 1		CONNORHAN NO. 1			NO. 8-2		
LOCATION.....	SEC. 34, T34N, R92W		SEC. 34, T34N, R92W			SEC. 4, T33N, R92W		
OWNER.....	PRODUCERS & REFINERS CORP.		PRODUCERS & REFINERS CORP.			SINCLAIR OIL & GAS CO.		
COMPLETED.....	12/7/78		10/07/78			07/7/78		
SAMPLED.....	07/15/79		09/10/73			12/09/41		
FORMATION.....	CRET-FRONTIER		CRET-FRONTIER			CRET-LAKOTA		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	4340		4387			5306		
WELLHEAD PRESSURE, PSIG.....	1625		1410			2150		
OPEN FLOW, MCFD.....	47682		47682			40000		
COMPONENT, MOLE PCT								
METHANE.....	97.6		97.5			94.7		
ETHANE.....	1.6		0.2			4.7		
PROpane.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	0.4		2.2			0.2		
OXYGEN.....	0.0		0.0			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.5		0.2			0.2		
HELIUM.....	0.02		0.02			0.02		
HEATING VALUE.....	1017		991			1044		
SPECIFIC GRAVITY.....	0.569		0.567			0.582		

INDEX 12235 SAMPLE 6424			INDEX 12236 SAMPLE 6804			INDEX 12237 SAMPLE 9096		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	MUSKRAT		MUSKRAT			MUSKRAT		
WELL NAME.....	UNIT NO. B-3		FED.-TRAVIS NO. 1			NO. 7		
LOCATION.....	SEC. 7, T33N, R91W		SEC. 13, T34N, R91W			SEC. 1, T33N, R92W		
OWNER.....	SINCLAIR OIL & GAS CO.		SINCLAIR OIL & GAS CO.			SINCLAIR OIL & GAS CO.		
COMPLETED.....	07/10/57		06/09/58			04/26/63		
SAMPLED.....	10/25/57		09/17/58			10/7/63		
FORMATION.....	CRET-FRONTIER		CRET-SHANNON			PERM-PHOSPHORIA		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	4304		2784			4342		
WELLHEAD PRESSURE, PSIG.....	1767		1298			1090		
OPEN FLOW, MCFD.....	5950		4			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	97.1		93.3			68.1		
ETHANE.....	0.7		4.1			9.2		
PROpane.....	0.0		1.2			3.0		
N-BUTANE.....	0.1		1.5			0.6		
ISOBUTANE.....	0.0		0.2			0.6		
N-PENTANE.....	0.0		TRACE			0.5		
ISOPENTANE.....	0.2		TRACE			0.6		
CYCLOPENTANE.....	0.0		TRACE			0.6		
HEXANES PLUS.....	TRACE		0.1			0.6		
NITROGEN.....	0.6		0.2			13.8		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.0		TRACE			0.1		
HYDROGEN.....	TRACE		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		0.2			0.2		
HELIUM.....	0.01		0.01			0.05		
HEATING VALUE.....	1004		1084			1085		
SPECIFIC GRAVITY.....	0.576		0.604			0.769		

INDEX 12238 SAMPLE 4373			INDEX 12239 SAMPLE 4706			INDEX 12240 SAMPLE 4707		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	EAST ANTELOPE NO. 1		UNIT NO. 8			NO. C-7		
LOCATION.....	SEC. 26, T27N, R93W		NOT GIVEN			NOT GIVEN		
OWNER.....	CONTINENTAL OIL CO.		SINCLAIR OIL & GAS CO.			BRITISH AMERICAN OIL CO. LTD		
COMPLETED.....	7/7/00		7/7/00			7/7/00		
SAMPLED.....	11/18/47		7/7/00			7/7/00		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	2015		NOT GIVEN			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	94.0		67.7			83.9		
ETHANE.....	0.4		30.5			15.7		
PROpane.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	5.1		1.2			0.4		
OXYGEN.....	0.3		0.1			---		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.2		0.4			---		
HELIUM.....	0.01		0.03			0.02		
HEATING VALUE.....	959		1234			1131		
SPECIFIC GRAVITY.....	0.581		0.715			0.634		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1029

INDEX 12241 SAMPLE 7844			INDEX 12242 SAMPLE 9095			INDEX 12243 SAMPLE 12309		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
WELL NAME.....	UNIT 14-12		FED. TRAVIS NO. 1			SHOSHONI NO. 1		
LOCATION.....	SEC. 12, T3N, R2E		SEC. 13, T3AN, R91W			SEC. 21, T38N, R93W		
OWNER.....	SHELL OIL CO.		SINCLAIR OIL & GAS CO.			DIAMOND SHARROCK CORP.		
COMPLETED.....	08/07/60		06/09/58			10/17/69		
SAMPLED.....	02/08/61		09/05/63			06/30/70		
FORMATION.....	EOCE-FORT UNION		CRET-SHANNON			EOCE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	3838		2784			12385		
WELLHEAD PRESSURE, PSIG.....	1410		1298			3550		
OPEN FLOW, MCFD.....	1949		NOT GIVEN			4750		
COMPONENT, MOLE PCT								
METHANE.....	96.1		92.6			80.8		
ETHANE.....	3.0		4.4			10.6		
PROPANE.....	TRACE		1.5			3.3		
N-BUTANE.....	TRACE		0.3			0.5		
ISOBUTANE.....	0.2		0.9			0.9		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	TRACE		0.2			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			0.2		
NITROGEN.....	0.4		0.3			0.2		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	1039		1085			1164		
SPECIFIC GRAVITY.....	0.578		0.608			0.704		
INDEX 12244 SAMPLE 15977			INDEX 12245 SAMPLE 16035			INDEX 12246 SAMPLE 1955		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	PAVILLION		PAVILLION			PILOT BUTTE		
WELL NAME.....	U.S.A.-TRIBAL NO. 22-10		SHELL TRIBAL NO. 22-10			DYKEMON NO. 1		
LOCATION.....	SEC. 10, T3N, R2E		SEC. 10, T3N, R2E			SEC. 22, T3N, R1W-IND.RES.		
OWNER.....	SHELL OIL CO.		SHELL OIL CO.			KINNEY COASTAL OIL CO.		
COMPLETED.....	12/05/79		12/05/79			--/-/00		
SAMPLED.....	05/29/80		08/11/80			03/11/30		
FORMATION.....	EOCE-FORT UNION		EOCE-WIND RIVER			CRET-MUDDY		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	4819		3274			3340		
WELLHEAD PRESSURE, PSIG.....	1801		461			1000		
OPEN FLOW, MCFD.....	2431		2431			80000		
COMPONENT, MOLE PCT								
METHANE.....	94.9		96.2			72.6		
ETHANE.....	3.7		2.9			16.0		
PROPANE.....	0.3		0.1			---		
N-BUTANE.....	0.1		0.1			---		
ISOBUTANE.....	0.1		0.1			---		
N-PENTANE.....	0.1		TRACE			---		
ISOPENTANE.....	0.1		TRACE			---		
CYCLOPENTANE.....	TRACE		TRACE			---		
HEXANES PLUS.....	0.1		0.1			---		
NITROGEN.....	0.5		0.4			10.9		
OXYGEN.....	0.0		0.0			0.2		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.3		TRACE			0.2		
HELIUM.....	0.01		0.01			0.04		
HEATING VALUE.....	1056		1022			1022		
SPECIFIC GRAVITY.....	0.591		0.578			0.681		
INDEX 12247 SAMPLE 9192			INDEX 12248 SAMPLE 13395			INDEX 12249 SAMPLE 11791		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	PILOT BUTTE		POISON CREEK			POISON CREEK		
WELL NAME.....	TRIBAL D NO. 2		DAVISON NO. 6-1			PONY CREEK UNIT NO. 1		
LOCATION.....	SEC. 15, T3N, R1W		SEC. 15, T35N, R93W			SEC. 1, T37N, R91W		
OWNER.....	BRITISH AMERICAN OIL CO. LTD		J. M. HUBER CORP.			BUTTES GAS & OIL CO.		
COMPLETED.....	04/13/61		07/21/72			10/17/68		
SAMPLED.....	09/25/72		11/17/68			03/11/69		
FORMATION.....	CRET-MUDDY		EOCE-FORT UNION			EOCE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	3330		6713			8842		
WELLHEAD PRESSURE, PSIG.....	690		260			260		
OPEN FLOW, MCFD.....	NOT GIVEN		5600			1000		
COMPONENT, MOLE PCT								
METHANE.....	83.3		92.6			61.3		
ETHANE.....	10.1		4.3			15.5		
PROPANE.....	2.8		1.4			8.8		
N-BUTANE.....	0.9		0.3			1.6		
ISOBUTANE.....	0.2		0.2			2.5		
N-PENTANE.....	TRACE		TRACE			0.5		
ISOPENTANE.....	0.6		0.1			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.4		
NITROGEN.....	1.8		0.2			0.0		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			5.0		
HELIUM.....	0.04		0.01			TRACE		
HEATING VALUE.....	1165		1088			1384		
SPECIFIC GRAVITY.....	0.671		0.510			0.871		
INDEX 12250 SAMPLE 11831			INDEX 12251 SAMPLE 8723			INDEX 12252 SAMPLE 8724		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	PONY CREEK		RIVERTON DOME			RIVERTON DOME		
WELL NAME.....	PONY CREEK NO. 1		TRIBAL NO. 8			TRIBAL NO. 8		
LOCATION.....	SEC. 31, T37N, R91W		SEC. 31, T37N, R91W			SEC. 31, T37N, R91W		
OWNER.....	BUTTES GAS & OIL CO.		ATLANTIC REFINING CO.			ATLANTIC REFINING CO.		
COMPLETED.....	10/17/68		--/-/00			--/-/00		
SAMPLED.....	04/16/69		10/13/62			10/12/62		
FORMATION.....	EOCE-FORT UNION		CRET-CODY			CRET-CODY		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	8842		4669			4606		
WELLHEAD PRESSURE, PSIG.....	2600		6			778		
OPEN FLOW, MCFD.....	1648		3			2400		
COMPONENT, MOLE PCT								
METHANE.....	77.1		88.8			89.1		
ETHANE.....	11.1		5.4			5.3		
PROPANE.....	1.8		1.7			2.4		
N-BUTANE.....	0.3		0.4			0.9		
ISOBUTANE.....	0.7		0.4			0.6		
N-PENTANE.....	0.2		TRACE			0.2		
ISOPENTANE.....	0.5		0.1			0.4		
CYCLOPENTANE.....	0.2		TRACE			TRACE		
HEXANES PLUS.....	0.4		0.1			0.1		
NITROGEN.....	0.3		2.7			0.9		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	4.7		1.1			0.01		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	1190		1056			1141		
SPECIFIC GRAVITY.....	0.745		0.628			0.644		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12253 SAMPLE 8757			INDEX 12254 SAMPLE 8765			INDEX 12255 SAMPLE 8778		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	RIVERTON DOME		RIVERTON DOME			RIVERTON DOME		
WELL NAME.....	TRIBAL NO. 8		TRIBAL 1-96 NO. 8			TRIBAL NO. 8		
LOCATION.....	SEC. 31, T1S, R5E		SEC. 31, T1S, R5E			SEC. 31, T1S, R5E		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.			ATLANTIC REFINING CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	11/06/62		11/16/62			11/23/62		
FORMATION.....	CRET-MUDDY		CRET-DAKOTA			CRET-LAKOTA		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	9307		9517			9631		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		745			7		
OPEN FLOW, MCFD.....	35		7260			100		
COMPONENT, MOLE PCT								
METHANE.....	94.7		93.3			96.0		
ETHANE.....	3.6		3.4			2.0		
PROPANE.....	0.5		1.0			0.4		
N-BUTANE.....	TRACE		0.3			0.1		
ISOBUTANE.....	TRACE		0.2			TRACE		
N-PENTANE.....	TRACE		0.1			TRACE		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.3			TRACE		
NITROGEN.....	0.5		0.5			0.7		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.6			0.5		
HELIUM.....	0.01		0.01			0.02		
HEATING VALUE.....	1041		1077			1027		
SPECIFIC GRAVITY.....	0.584		0.509			0.579		

INDEX 12256 SAMPLE 8816			INDEX 12257 SAMPLE 9025			INDEX 12258 SAMPLE 9040		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	RIVERTON DOME		RIVERTON DOME			RIVERTON DOME		
WELL NAME.....	TRIBAL NO. 8		TRIBAL NO. 10			TRIBAL NO. 9		
LOCATION.....	SEC. 31, T1S, R5E		SEC. 31, T1S, R4E			SEC. 31, T1S, R5E		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.			ATLANTIC REFINING CO.		
COMPLETED.....	--/--/00		07/31/63			07/12/63		
SAMPLED.....	--/--/00		07/31/63			07/12/63		
FORMATION.....	CRET-GIVEN		CRET-DAKOTA			CRET-FRONTIER 1ST		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	NOT GIVEN		9444			8374		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			353		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			183		
COMPONENT, MOLE PCT								
METHANE.....	93.8		97.1			94.3		
ETHANE.....	3.3		0.4			3.8		
PROPANE.....	0.9		0.4			0.9		
N-BUTANE.....	0.3		0.2			0.3		
ISOBUTANE.....	0.3		0.0			TRACE		
N-PENTANE.....	0.1		0.0			TRACE		
ISOPENTANE.....	0.1		0.0			0.2		
CYCLOPENTANE.....	0.2		0.0			0.0		
HEXANES PLUS.....	0.5		0.0			0.0		
NITROGEN.....	0.5		0.5			0.4		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.01		0.02			0.01		
HELIUM.....	0.01		1031			1065		
HEATING VALUE.....	1095		0.573			0.593		
SPECIFIC GRAVITY.....	0.611							

INDEX 12259 SAMPLE 9054			INDEX 12260 SAMPLE 9057			INDEX 12261 SAMPLE 9064		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	RIVERTON DOME		RIVERTON DOME			RIVERTON DOME		
WELL NAME.....	TRIBAL NO. 9		TRIBAL NO. 9			TRIBAL NO. 9		
LOCATION.....	SEC. 31, T1S, R5E		SEC. 31, T1S, R5E			SEC. 31, T1S, R5E		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.			ATLANTIC REFINING CO.		
COMPLETED.....	07/21/63		07/31/63			08/11/63		
SAMPLED.....	07/21/63		07/31/63			08/11/63		
FORMATION.....	CRET-FRONTIER		CRET-MUDDY			CRET-MUDDY		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	8971		9716			9170		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			1642		
OPEN FLOW, MCFD.....	2750		80			6		
COMPONENT, MOLE PCT								
METHANE.....	91.4		95.1			75.8		
ETHANE.....	5.0		3.5			5.8		
PROPANE.....	1.6		0.6			2.3		
N-BUTANE.....	0.6		0.0			0.0		
ISOBUTANE.....	0.2		0.0			0.0		
N-PENTANE.....	0.1		0.0			0.0		
ISOPENTANE.....	0.2		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	0.1		0.0			0.0		
NITROGEN.....	0.6		0.6			13.0		
OXYGEN.....	0.0		0.2			2.2		
ARGON.....	0.0		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.4		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1102		1043			945		
SPECIFIC GRAVITY.....	0.620		0.583			0.683		

INDEX 12262 SAMPLE 9179			INDEX 12263 SAMPLE 10617			INDEX 12264 SAMPLE 10618		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	FREMONT		FREMONT			FREMONT		
FIELD.....	RIVERTON DOME		RIVERTON DOME			RIVERTON DOME		
WELL NAME.....	TRIBAL NO. 9		TRIBAL 1-96 NO. 14			TRIBAL 1-96 NO. 14		
LOCATION.....	SEC. 31, T1S, R5E		SEC. 36, T1S, R4E			SEC. 36, T1S, R4E		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC RICHFIELD CO.			ATLANTIC RICHFIELD CO.		
COMPLETED.....	08/05/63		06/15/66			06/15/66		
SAMPLED.....	08/05/63		06/15/66			06/15/66		
FORMATION.....	CRET-DAKOTA		CRET-MUDDY			CRET-MESAVERDE		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	9934		4652			4160		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		19250			1690		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	95.3		90.7			94.9		
ETHANE.....	3.6		5.2			1.6		
PROPANE.....	0.2		2.0			0.3		
N-BUTANE.....	0.0		0.6			TRACE		
ISOBUTANE.....	0.0		0.4			TRACE		
N-PENTANE.....	0.0		0.2			TRACE		
ISOPENTANE.....	0.0		0.1			0.1		
CYCLOPENTANE.....	0.0		0.1			0.1		
HEXANES PLUS.....	0.0		0.2			0.1		
NITROGEN.....	0.8		0.3			1.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.2			0.9		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1035		1024			1011		
SPECIFIC GRAVITY.....	0.577		0.631			0.588		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1081

		INDEX 12265 SAMPLE 10905	INDEX 12266 SAMPLE 10907	INDEX 12267 SAMPLE 10912
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	FREMONT		FREMONT	FREMONT
FIELD.....	RIVERTON DOME		RIVERTON DOME	RIVERTON DOME
WELL NAME.....	TRIBAL NO. 15		TRIBAL NO. 15	TRIBAL NO. 15
LOCATION.....	SEC. 25, T1S, R4E		SEC. 25, T1S, R4E	SEC. 25, T1S, R4E
OWNER.....	ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	03/22/67		03/22/67	04/06/67
FORMATION.....	CRET-CODY		CRET-MESAVERDE	CRET-SHANNON
GEOLOGIC PROVINCE CODE.....	530		530	530
DEPTH, FEET.....	4632		2374	5935
WELLHEAD PRESSURE, PSIG.....	2140		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	200
COMPONENT, MOLE PCT				
METHANE.....	81.4	79.9	95.1	
ETHANE.....	5.4	8.3	3.2	
PROpane.....	2.4	3.2	0.5	
N-BUTANE.....	0.5	0.5	0.0	
ISOBUTANE.....	0.5	0.5	0.0	
N-PENTANE.....	0.1	TRACE	0.0	
ISOPENTANE.....	0.1	TRACE	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	0.1	TRACE	0.0	
NITROGEN.....	7.7	6.5	1.2	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	1.1	0.4	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.8	0.5	TRACE	
HELIUM.....	0.01	0.01	0.02	
HEATING VALUE.....	1035	1077	1034	
SPECIFIC GRAVITY.....	0.666	0.676	0.580	

		INDEX 12268 SAMPLE 11135	INDEX 12269 SAMPLE 11136	INDEX 12270 SAMPLE 12229
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	FREMONT		FREMONT	FREMONT
FIELD.....	RIVERTON DOME		RIVERTON DOME	RIVERTON DOME
WELL NAME.....	TRIBAL NO. 16		TRIBAL NO. 16	TRIBAL NO. 18
LOCATION.....	SEC. 30, T1S, R5E		SEC. 30, T1S, R5E	SEC. 30, T1S, R5E
OWNER.....	ATLANTIC RICHFIELD CO.		ATLANTIC RICHFIELD CO.	ATLANTIC RICHFIELD CO.
COMPLETED.....	--/--/00		--/--/00	03/27/70
SAMPLED.....	09/19/67		09/19/67	04/--/70
FORMATION.....	CRET-MESAVERDE		CRET-MESAVERDE	EOLLE-WIND RIVER
GEOLOGIC PROVINCE CODE.....	530		530	530
DEPTH, FEET.....	2259		2276	2172
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	1092
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	3155
COMPONENT, MOLE PCT				
METHANE.....	85.7	61.4	87.0	
ETHANE.....	0.3	11.7	4.4	
PROpane.....	0.7	3.6	0.4	
N-BUTANE.....	0.2	1.5	0.3	
ISOBUTANE.....	0.4	2.9	0.8	
N-PENTANE.....	TRACE	0.9	0.1	
ISOPENTANE.....	0.3	0.6	0.7	
CYCLOPENTANE.....	0.1	0.3	0.7	
HEXANES PLUS.....	0.2	1.0	1.3	
NITROGEN.....	7.1	12.1	2.0	
OXYGEN.....	1.5	2.8	0.0	
ARGON.....	0.1	0.1	0.0	
HYDROGEN.....	0.2	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.3	1.2	
HELIUM.....	0.01	TRACE	11.6	
HEATING VALUE.....	993	1202	1061	
SPECIFIC GRAVITY.....	0.640	0.839	0.686	

		INDEX 12271 SAMPLE 9939	INDEX 12272 SAMPLE 12645	INDEX 12273 SAMPLE 14190
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	FREMONT		FREMONT	FREMONT
FIELD.....	RIVERTON DOME E		RIVERTON E	RIVERTON E
WELL NAME.....	TRIBAL NO. 1		TRIBAL NO. 6	TRIBAL NO. 41-20
LOCATION.....	SEC. 1, T1S, R5E		SEC. 32, T1N, R6E	SEC. 20, T1S, R6E
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	ENERGETICS, INC.
COMPLETED.....	03/08/65		11/16/70	03/26/74
SAMPLED.....	06/15/65		01/30/71	10/24/74
FORMATION.....	CRET-FRONTIER		PERM-PHOSPHORIA	CRET-CLOVERLY&JURA-MORRISON
GEOLOGIC PROVINCE CODE.....	530		530	530
DEPTH, FEET.....	9548		13666	1860
WELLHEAD PRESSURE, PSIG.....	4700		2690	5071
OPEN FLOW, MCFD.....	15300		10700	2700
COMPONENT, MOLE PCT				
METHANE.....	96.3	78.9	95.3	
ETHANE.....	1.3	0.2	2.3	
PROpane.....	0.2	0.2	0.8	
N-BUTANE.....	TRACE	TRACE	0.1	
ISOBUTANE.....	0.1	0.2	0.1	
N-PENTANE.....	0.1	0.1	TRACE	
ISOPENTANE.....	TRACE	0.0	0.1	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.1	0.2	0.1	
NITROGEN.....	1.0	14.3	0.5	
OXYGEN.....	0.0	TRACE	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	0.5	0.5	
HELIUM.....	0.01	0.22	0.01	
HEATING VALUE.....	1019	865	1047	
SPECIFIC GRAVITY.....	0.580	0.666	0.589	

		INDEX 12274 SAMPLE 227	INDEX 12275 SAMPLE 1300	INDEX 12276 SAMPLE 2095
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	FREMONT		FREMONT	FREMONT
FIELD.....	SAND DRAW		SAND DRAW	SAND DRAW
WELL NAME.....	NO. 1		NO. 3	NO. 9
LOCATION.....	SEC. 10, T32N, R9SW		SEC. 15, T32N, R9SW	SEC. 15, T32, R9S
OWNER.....	PRODUCERS & REFINERS CORP.		PRODUCERS & REFINERS CORP.	PRODUCERS & REFINERS CORP.
COMPLETED.....	03/06/18		10/27/24	11/05/29
SAMPLED.....	03/11/20		09/17/26	08/21/30
FORMATION.....	CRET-FRONTIER		CRET-FRONTIER	CRET-FRONTIER
GEOLOGIC PROVINCE CODE.....	530		530	530
DEPTH, FEET.....	2427		2295	2880
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	935
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	45241
COMPONENT, MOLE PCT				
METHANE.....	95.3	93.3	97.2	
ETHANE.....	3.0	9.9	1.6	
PROpane.....	---	---	---	
N-BUTANE.....	---	---	---	
ISOBUTANE.....	---	---	---	
N-PENTANE.....	---	---	---	
ISOPENTANE.....	---	---	---	
CYCLOPENTANE.....	---	---	---	
HEXANES PLUS.....	---	---	---	
NITROGEN.....	1.0	0.7	0.0	
OXYGEN.....	0.3	0.0	0.1	
ARGON.....	---	---	---	
HYDROGEN.....	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.0	---	---	
HELIUM.....	0.00	TRACE	0.03	
HEATING VALUE.....	1019	1033	1013	
SPECIFIC GRAVITY.....	0.577	0.592	0.574	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 12277 SAMPLE 2117	INDEX 12278 SAMPLE 2550	INDEX 12279 SAMPLE 9091
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	FREMONT	FREMONT	FREMONT	FREMONT
FIELD.....	SAND DRAW	SAND DRAW	SAND DRAW	SAND DRAW
WELL NAME.....	NO. 3	NO. 10	NO. 1-23	NO. 1-23
LOCATION.....	SEC. 15, T32N, R95W	SEC. 14, T32N, R95W	SEC. 23, T32N, R95W	SEC. 23, T32N, R95W
OWNER.....	PRODUCERS & REFINERS CORP.	PRODUCERS & REFINERS CORP.	SINCLAIR OIL & GAS CO.	SINCLAIR OIL & GAS CO.
COMPLETED.....	01/01/24	10/04/31	08/22/55	08/22/55
SAMPLED.....	09/09/30	09/20/32	09/10/63	09/10/63
FORMATION.....	CRET-FRONTIER	JURA-MORRISON	CRET-FRONTIER	CRET-FRONTIER
GEOLOGIC PROVINCE CODE.....	530	530	530	530
DEPTH, FEET.....	2422	4290	2588	381
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	1350	1350
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	98.5	84.0	97.1	1.5
ETHANE.....	1.1	11.4	0.4	0.4
PROpane.....	---	---	0.1	0.1
N-BUTANE.....	---	---	0.1	0.1
ISOBUTANE.....	---	---	TRACE	0.1
N-PENTANE.....	---	---	0.1	0.1
ISOPENTANE.....	---	---	TRACE	0.1
CYCLOPENTANE.....	---	---	0.1	0.1
HEXANES PLUS.....	---	---	0.4	0.4
NITROGEN.....	0.0	3.6	0.0	0.0
OXYGEN.....	0.1	0.7	0.0	0.0
ARGON.....	---	---	0.0	0.0
HYDROGEN.....	---	---	0.0	0.0
HYDROGEN SULFIDE**.....	---	---	0.2	0.2
CARBON DIOXIDE.....	0.4	0.03	0.01	0.01
HELIUM.....	0.01	1.055	1037	1037
HEATING VALUE.....	1018	0.633	0.577	0.577
SPECIFIC GRAVITY.....	0.565			
		INDEX 12280 SAMPLE 9092	INDEX 12281 SAMPLE 9093	INDEX 12282 SAMPLE 9094
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	FREMONT	FREMONT	FREMONT	FREMONT
FIELD.....	SAND DRAW	SAND DRAW	SAND DRAW	SAND DRAW
WELL NAME.....	NO. 11-15	NO. 2	NO. 13-10	NO. 13-10
LOCATION.....	SEC. 15, T32N, R95W	SEC. 10, T32N, R95W	SEC. 10, T32N, R95W	SEC. 10, T32N, R95W
OWNER.....	SINCLAIR OIL & GAS CO.	SINCLAIR OIL & GAS CO.	SINCLAIR OIL & GAS CO.	SINCLAIR OIL & GAS CO.
COMPLETED.....	07/7-700	06/18/54	10/17/42	10/17/42
SAMPLED.....	09/10/63	09/10/63	09/10/63	09/10/63
FORMATION.....	JURA-MORRISON	PERM-PHOSPHORIA	CRET-LAKOTA	CRET-LAKOTA
GEOLOGIC PROVINCE CODE.....	530	530	530	530
DEPTH, FEET.....	4284	7266	4310	352
WELLHEAD PRESSURE, PSIG.....	510	1926	352	352
OPEN FLOW, MCFD.....	4000	5800	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	94.8	82.5	91.7	1.8
ETHANE.....	2.4	6.7	1.8	0.4
PROpane.....	0.4	2.1	0.4	0.1
N-BUTANE.....	0.2	0.0	0.1	0.1
ISOBUTANE.....	0.1	0.6	0.1	0.1
N-PENTANE.....	TRACE	0.3	TRACE	0.1
ISOPENTANE.....	0.1	0.4	0.1	0.1
CYCLOPENTANE.....	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.3	0.1	0.1
NITROGEN.....	1.2	5.0	4.9	0.3
OXYGEN.....	TRACE	0.4	TRACE	0.0
ARGON.....	TRACE	TRACE	TRACE	0.0
HYDROGEN.....	0.0	0.3	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.3	0.3	0.3
CARBON DIOXIDE.....	0.1	0.3	0.03	0.03
HELIUM.....	0.03	0.03	0.91	0.601
HEATING VALUE.....	1042	1113		
SPECIFIC GRAVITY.....	0.590	0.683		
		INDEX 12283 SAMPLE 16670	INDEX 12284 SAMPLE 16671	INDEX 12285 SAMPLE 4184
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	FREMONT	FREMONT	FREMONT	FREMONT
FIELD.....	SAND MECA	SAND MECA	STEAMBOAT BUTTE	STEAMBOAT BUTTE
WELL NAME.....	BOYSEN-AMOCO TRIBAL NO. 1-18A	BOYSEN-AMOCO TRIBAL NO. 1-24	TRIBAL E LEASE NO. 6	TRIBAL E LEASE NO. 6
LOCATION.....	SEC. 18, T4N, R4E	SEC. 24, T4N, R4E	SEC. 5, T3N, R1W	SEC. 5, T3N, R1W
OWNER.....	MICHIGAN WISCONSIN PIPELINE	MICHIGAN WISCONSIN PIPELINE	BRITISH AMERICAN OIL CO. LTD	BRITISH AMERICAN OIL CO. LTD
COMPLETED.....	07/15/79	07/25/79	11/29/63	11/29/63
SAMPLED.....	09/28/82	09/28/82	11/10/46	11/10/46
FORMATION.....	EOCE-FORT UNION	EOCE-FORT UNION	PENNA-AMSDEN	PENNA-AMSDEN
GEOLOGIC PROVINCE CODE.....	530	530	530	530
DEPTH, FEET.....	15620	13139	7233	13600
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	8625	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	2250	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	93.4	95.7	0.0	0.0
ETHANE.....	3.4	2.6	4.1	4.1
PROpane.....	0.5	TRACE	---	---
N-BUTANE.....	0.1	0.0	---	---
ISOBUTANE.....	0.1	0.0	---	---
N-PENTANE.....	TRACE	0.0	---	---
ISOPENTANE.....	TRACE	0.0	---	---
CYCLOPENTANE.....	TRACE	0.0	---	---
HEXANES PLUS.....	TRACE	0.0	---	---
NITROGEN.....	0.0	0.3	95.2	95.2
OXYGEN.....	TRACE	0.1	0.1	0.1
ARGON.....	TRACE	TRACE	---	---
HYDROGEN.....	0.0	0.1	---	---
HYDROGEN SULFIDE**.....	0.0	0.0	---	---
CARBON DIOXIDE.....	1.7	3.3	0.2	0.2
HELIUM.....	TRACE	TRACE	0.43	0.43
HEATING VALUE.....	1027	979	73	73
SPECIFIC GRAVITY.....	0.595	0.590	0.969	0.969
		INDEX 12286 SAMPLE 9190	INDEX 12287 SAMPLE 9191	INDEX 12288 SAMPLE 8227
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	FREMONT	FREMONT	FREMONT	FREMONT
FIELD.....	STEAMBOAT BUTTE	STEAMBOAT BUTTE	WILDCAT	WILDCAT
WELL NAME.....	TRIBAL C NO. 7	TRIBAL C NO. 20	POISON CREEK UNIT NO. 1	POISON CREEK UNIT NO. 1
LOCATION.....	SEC. 32, T4N, R1W	SEC. 5, T3N, R1W	SEC. 32, T37N, R93W	SEC. 32, T37N, R93W
OWNER.....	BRITISH AMERICAN OIL CO. LTD	BRITISH AMERICAN OIL CO. LTD	HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.
COMPLETED.....	09/06/63	07/06/62	08/22/61	08/22/61
SAMPLED.....	11/29/63	11/29/63	10/05/61	10/05/61
FORMATION.....	CRET-FRONTIER 1ST	CRET-FRONTIER 1ST	EOCE-FORT UNION	EOCE-FORT UNION
GEOLOGIC PROVINCE CODE.....	530	530	530	530
DEPTH, FEET.....	2816	2820	6432	6432
WELLHEAD PRESSURE, PSIG.....	970	900	2500	2500
OPEN FLOW, MCFD.....	9500	2400	2447	2447
COMPONENT, MOLE PCT				
METHANE.....	96.8	97.0	86.6	86.6
ETHANE.....	1.5	1.5	7.1	7.1
PROpane.....	0.3	0.2	0.8	0.8
N-BUTANE.....	0.1	TRACE	0.6	0.6
ISOBUTANE.....	0.1	TRACE	0.6	0.6
N-PENTANE.....	TRACE	TRACE	0.1	0.1
ISOPENTANE.....	0.1	0.2	0.3	0.3
CYCLOPENTANE.....	0.1	TRACE	0.2	0.2
HEXANES PLUS.....	TRACE	TRACE	0.3	0.3
NITROGEN.....	0.8	0.8	0.0	0.0
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	TRACE	0.0	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.2	1.2	1.2
HELIUM.....	0.02	0.02	0.01	0.01
HEATING VALUE.....	1030	1033	1149	1149
SPECIFIC GRAVITY.....	0.575	0.572	0.663	0.663

* CALCULATED GROSS BTL PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1038

STATE	INDEX	12289	INDEX	12290	INDEX	12291
COUNTY	SAMPLE	8252	SAMPLE	8979	SAMPLE	8985
WYOMING	WYOMING		WYOMING		WYOMING	
FREMONT	FREMONT		FREMONT		FREMONT	
WILDCAT	WILDCAT		WILDCAT		WILDCAT	
OCEAN LAKE GOVT. NO. 1	OCEAN LAKE GOVT. NO. 1		OCEAN LAKE GOVT. NO. 1		OCEAN LAKE GOVT. NO. 1	
SEC. 21, T37N, R89W	SEC. 9, T3N, R3E		SEC. 9, T3N, R3E		SEC. 9, T3N, R3E	
HUMBLE OIL & REFINING CO.	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.		ATLANTIC REFINING CO.	
08/18/61	05/23/63		05/23/63		05/23/63	
10/19/61	05/24/63		05/24/63		05/24/63	
EOCE-FORT UNION L	EOCE-WIND RIVER		EOCE-WIND RIVER		EOCE-WIND RIVER	
530	530		530		530	
DEPTH, FEET	2508		2508		3858	
WELLHEAD PRESSURE, PSIG	1008		1008		510	
OPEN FLOW, MCFD	4000		4000		2	
COMPONENT, MOLE PCT						
METHANE	86.2		90.4		78.1	
ETHANE	7.8		4.6		0.1	
PROPANE	2.3		1.3		0.1	
N-BUTANE	0.5		0.2		0.0	
ISOBUTANE	0.6		0.3		0.0	
N-PENTANE	0.1		TRACE		0.0	
ISOPENTANE	0.2		TRACE		0.0	
CYCLOPENTANE	0.1		TRACE		0.0	
HEXANES PLUS	0.2		0.0		0.0	
NITROGEN	0.3		2.8		17.4	
OXYGEN	0.0		0.0		2.6	
ARGON	0.0		TRACE		0.2	
HYDROGEN	0.0		0.0		0.8	
HYDROGEN SULFIDE	0.0		0.0		0.0	
CARBON DIOXIDE	0.5		0.2		0.7	
HELIUM	0.02		0.04		0.02	
HEATING VALUE	1136		1053		798	
SPECIFIC GRAVITY	0.660		0.613		0.647	

STATE	INDEX	12292	INDEX	12293	INDEX	12294
COUNTY	SAMPLE	8987	SAMPLE	8988	SAMPLE	8990
WYOMING	WYOMING		WYOMING		WYOMING	
FREMONT	FREMONT		FREMONT		FREMONT	
WILDCAT	WILDCAT		WILDCAT		WILDCAT	
OCEAN LAKE GOVT. NO. 1	OCEAN LAKE GOVT. NO. 1		OCEAN LAKE GOVT. NO. 1		OCEAN LAKE GOVT. NO. 1	
SEC. 9, T3N, R3E	SEC. 9, T3N, R3E		SEC. 9, T3N, R3E		SEC. 9, T3N, R3E	
ATLANTIC REFINING CO.	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.		ATLANTIC REFINING CO.	
05/23/63	05/23/63		05/23/63		05/23/63	
05/24/63	05/24/63		05/24/63		05/24/63	
EOCE-WIND RIVER	EOCE-WIND RIVER		EOCE-WIND RIVER		EOCE-FORT UNION	
530	530		530		530	
DEPTH, FEET	3179		2747		5899	
WELLHEAD PRESSURE, PSIG	1310		890		NOT GIVEN	
OPEN FLOW, MCFD	2000		2		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE	91.5		75.6		55.4	
ETHANE	1.7		1.6		1.6	
PROPANE	0.7		0.2		0.3	
N-BUTANE	0.1		0.0		0.0	
ISOBUTANE	0.1		0.0		0.0	
N-PENTANE	TRACE		0.0		0.0	
ISOPENTANE	0.0		0.0		0.0	
CYCLOPENTANE	TRACE		0.0		0.0	
HEXANES PLUS	0.0		0.0		0.0	
NITROGEN	4.2		17.3		31.1	
OXYGEN	0.4		0.6		2.2	
ARGON	TRACE		0.1		0.1	
HYDROGEN	0.0		3.7		6.4	
HYDROGEN SULFIDE	0.0		0.0		0.0	
CARBON DIOXIDE	0.2		1.3		2.8	
HELIUM	0.02		0.0		0.04	
HEATING VALUE	1000		804		618	
SPECIFIC GRAVITY	0.599		0.633		0.702	

STATE	INDEX	12295	INDEX	12296	INDEX	12297
COUNTY	SAMPLE	10229	SAMPLE	14569	SAMPLE	9428
WYOMING	WYOMING		WYOMING		WYOMING	
FREMONT	FREMONT		FREMONT		FREMONT	
WILDCAT	WILDCAT		WILDCAT		WINKLEMAN DOME	
TRIGAL M-2	TRIGAL M-2		TRIGAL M-2		NOT GIVEN	
SEC. 32, T1S, R6E	SEC. 33, T27N, R93W		SEC. 33, T27N, R93W		SEC. 19, T2N, R1W	
PAN AMERICAN PETROLEUM CORP.	MAY PETROLEUM, INC.		MAY PETROLEUM, INC.		PAN AMERICAN PETROLEUM CORP.	
08/01/65	07/15/65		07/15/65		07/15/65	
10/15/65	01/24/76		01/24/76		07/07/64	
CRET-MUDDY	EOCE-FORT UNION		EOCE-FORT UNION		PERM-PHOSPHORIA	
530	530		530		530	
DEPTH, FEET	6510		2850		3200	
WELLHEAD PRESSURE, PSIG	2500		1136		NOT GIVEN	
OPEN FLOW, MCFD	9000		22000		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE	95.3		98.6		54.1	
ETHANE	2.3		0.1		19.5	
PROPANE	0.7		0.1		8.0	
N-BUTANE	0.8		0.0		2.9	
ISOBUTANE	TRACE		0.0		3.1	
N-PENTANE	TRACE		0.0		0.8	
ISOPENTANE	0.3		0.0		1.3	
CYCLOPENTANE	TRACE		0.0		0.3	
HEXANES PLUS	0.1		0.0		1.2	
NITROGEN	0.1		0.0		6.1	
OXYGEN	0.0		0.0		0.0	
ARGON	0.0		TRACE		0.1	
HYDROGEN	0.0		0.0		0.0	
HYDROGEN SULFIDE	0.0		0.1		0.1	
CARBON DIOXIDE	0.4		0.4		2.5	
HELIUM	0.01		0.01		0.01	
HEATING VALUE	1070		1470		1470	
SPECIFIC GRAVITY	0.598		0.563		0.948	

STATE	INDEX	12298	INDEX	12299	INDEX	12300
COUNTY	SAMPLE	2187	SAMPLE	2113	SAMPLE	1232
WYOMING	WYOMING		WYOMING		WYOMING	
HOT SPRINGS	HOT SPRINGS		HOT SPRINGS		HOT SPRINGS	
BLACK MOUNTAIN	ENOS CREEK DOME		ENOS CREEK DOME		GOLDEN EAGLE	
WELL NAME	WELLER NO. 2		WELLER NO. 2		WELLER NO. 2	
LOCATION	SEC. 35, T46N, R100W		SEC. 35, T46N, R100W		SEC. 12, T45N, R97W	
OWNER	UTAH OIL REFINING CO.		OHIO OIL CO.		MIDWEST REFINING CO.	
COMPLETED	08/01/27		--/--/00		12/07/23	
SAMPLED	09/01/30		09/01/30		09/06/25	
FORMATION	PERM-EMBAR		PERM-EMBAR		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE	520		520		520	
DEPTH, FEET	2915		3540		2455	
WELLHEAD PRESSURE, PSIG	NOT GIVEN		725		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN		8000		100	
COMPONENT, MOLE PCT						
METHANE	86.1		92.6		94.9	
ETHANE	0.5		0.0		0.0	
PROPANE	---		---		---	
N-BUTANE	---		---		---	
ISOBUTANE	---		---		---	
N-PENTANE	---		---		---	
ISOPENTANE	---		---		---	
CYCLOPENTANE	---		---		---	
HEXANES PLUS	---		---		---	
NITROGEN	1.6		0.3		4.4	
OXYGEN	0.7		0.0		0.5	
ARGON	---		---		---	
HYDROGEN	---		---		---	
HYDROGEN SULFIDE	---		---		---	
CARBON DIOXIDE	2.2		0.1		0.2	
HELIUM	0.00		0.06		TRACE	
HEATING VALUE	971		1009		961	
SPECIFIC GRAVITY	0.653		0.557		0.577	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12301 SAMPLE 1233			INDEX 12302 SAMPLE 8478			INDEX 12303 SAMPLE 9113		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	HOT SPRINGS		HOT SPRINGS			HOT SPRINGS		
FIELD.....	GOLDEN EAGLE		GOLDEN EAGLE			GOLDEN EAGLE		
WELL NAME.....	NO. 3		ON TIME 4 NO. 2			ON TIME 4 NO. 1		
LOCATION.....	SEC. 12, T45N, R97W		SEC. 12, T45N, R97W			SEC. 12, T45N, R97W		
OWNER.....	MIDWEST REFINING CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	--/7/20		01/10/62			--/7/00		
SAMPLED.....	09/06/25		03/20/62			10/15/63		
FORMATION.....	CRET-MESAVERDE		CRET-MUDDY			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	2606		6780			5766		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2100			1000		
OPEN FLOW, MCFD.....	NOT GIVEN		5000			600		
COMPONENT, MOLE PCT								
METHANE.....	97.3		72.5			92.0		
ETHANE.....	0.0		15.5			4.4		
PROpane.....	---		7.0			1.0		
N-BUTANE.....	---		1.4			0.3		
ISOBUTANE.....	---		0.8			TRACE		
N-PENTANE.....	---		0.2			0.2		
ISOPENTANE.....	---		0.3			0.1		
CYCLOPENTANE.....	---		TRACE			0.1		
HEXANES PLUS.....	---		0.1			0.2		
NITROGEN.....	1.5		0.2			0.4		
OXYGEN.....	0.5		TRACE			0.0		
ARGON.....	---		0.0			0.0		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE**.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.2			1.3		
HELIUM.....	TRACE		0.01			0.01		
HEATING VALUE.....	986		1294			1074		
SPECIFIC GRAVITY.....	0.570		0.758			0.618		
INDEX 12304 SAMPLE 9524			INDEX 12305 SAMPLE 9525			INDEX 12306 SAMPLE 9526		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	HOT SPRINGS		HOT SPRINGS			HOT SPRINGS		
FIELD.....	HAMILTON DOME		HAMILTON DOME			HAMILTON DOME		
WELL NAME.....	PLACER NO. 18		NOT GIVEN			RATHVON NO. 9T		
LOCATION.....	SEC. 14, T44N, R98W		SEC. 13&14, T44N, R98W			SEC. 24, T44N, R98W		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.			ATLANTIC REFINING CO.		
COMPLETED.....	07/--/44		--/7/00			01/21/56		
SAMPLED.....	07/31/64		07/31/64			07/31/64		
FORMATION.....	TRIA-CHUGWATER 4TH		MISS-MADISON			PENN-TENSLEEP		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	1701		5400			2590		
WELLHEAD PRESSURE, PSIG.....	50		NOT GIVEN			30		
OPEN FLOW, MCFD.....	90		NOT GIVEN			10		
COMPONENT, MOLE PCT								
METHANE.....	91.3		0.1			47.6		
ETHANE.....	1.0		0.2			14.4		
PROpane.....	0.9		TRACE			10.8		
N-BUTANE.....	0.8		TRACE			3.6		
ISOBUTANE.....	0.4		TRACE			1.6		
N-PENTANE.....	0.3		0.3			1.4		
ISOPENTANE.....	0.5		TRACE			0.2		
CYCLOPENTANE.....	0.1		0.2			0.3		
HEXANES PLUS.....	0.5		0.5			1.6		
NITROGEN.....	1.9		1.6			11.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE**.....	0.0		0.2			0.0		
CARBON DIOXIDE.....	0.2		96.4			6.5		
HELIUM.....	0.11		0.06			0.12		
HEATING VALUE.....	1070		59			1358		
SPECIFIC GRAVITY.....	0.634		1.526			1.001		
INDEX 12307 SAMPLE 9527			INDEX 12308 SAMPLE 2136			INDEX 12309 SAMPLE 9112		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	HOT SPRINGS		HOT SPRINGS			HOT SPRINGS		
FIELD.....	HAMILTON DOME		LITTLE DOME			LITTLE GRASS CREEK		
WELL NAME.....	PLACER NO. 4E		NO. 1			NO. 1		
LOCATION.....	SEC. 13, T44N, R98W		SEC. 11, T46N, R99W			SEC. 11, T46N, R99W		
OWNER.....	ATLANTIC REFINING CO.		MOUNTAIN STATES POWER CO.			CONTINENTAL OIL CO.		
COMPLETED.....	--/7/17		04/26/17			06/09/44		
SAMPLED.....	07/31/64		09/13/30			10/11/63		
FORMATION.....	PERM-EMBAR		CRET-FRONTIER			CRET-MUDDY		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	2345		2562			3568		
WELLHEAD PRESSURE, PSIG.....	15		710			808		
OPEN FLOW, MCFD.....	4		NOT GIVEN			2000		
COMPONENT, MOLE PCT								
METHANE.....	38.8		88.7			86.7		
ETHANE.....	15.6		1.5			7.7		
PROpane.....	15.4		---			1.8		
N-BUTANE.....	6.2		---			0.4		
ISOBUTANE.....	2.9		---			0.3		
N-PENTANE.....	1.6		---			0.1		
ISOPENTANE.....	1.6		---			0.3		
CYCLOPENTANE.....	0.5		---			0.1		
HEXANES PLUS.....	2.0		---			0.2		
NITROGEN.....	7.4		9.4			7.0		
OXYGEN.....	TPACE		0.2			0.0		
ARGON.....	0.1		---			0.0		
HYDROGEN.....	0.0		---			0.0		
HYDROGEN SULFIDE**.....	0.0		---			0.0		
CARBON DIOXIDE.....	3.8		0.1			0.4		
HELIUM.....	0.07		0.05			0.04		
HEATING VALUE.....	1709		925			1118		
SPECIFIC GRAVITY.....	1.132		0.602			0.648		
INDEX 12310 SAMPLE 8242			INDEX 12311 SAMPLE 879			INDEX 12312 SAMPLE 2118		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	HOT SPRINGS		JOHNSON			JOHNSON		
FIELD.....	WALKER DOME		BILLY CREEK			BILLY CREEK		
WELL NAME.....	1E, SMITH NO. 7		FIRST NATIONAL BANK NO. 1			FIRST NATIONAL BANK NO. 1		
LOCATION.....	SEC. 9, T46N, R99W		SEC. 17, T48N, R82W			SEC. 17, T48N, R82W		
OWNER.....	OHIO OIL CO.		CARTER OIL CO.			CARTER OIL CO.		
COMPLETED.....	08/30/61		01/01/23			01/01/23		
SAMPLED.....	10/11/61		05/07/24			09/03/50		
FORMATION.....	CRET-PLAY		CRET-WALL CREEK 2ND			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	520		515			515		
DEPTH, FEET.....	3480		5182			3098		
WELLHEAD PRESSURE, PSIG.....	763		1175			1150		
OPEN FLOW, MCFD.....	3400		NOT GIVEN			70000		
COMPONENT, MOLE PCT								
METHANE.....	94.5		93.4			97.5		
ETHANE.....	2.1		4.8			0.0		
PROpane.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	2.9		1.5			2.0		
OXYGEN.....	0.0		0.1			0.2		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE**.....	0.0		---			---		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.06		0.04			0.03		
HEATING VALUE.....	395		1036			988		
SPECIFIC GRAVITY.....	0.577		0.585			0.565		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1085

INDEX 12313 SAMPLE 8878		INDEX 12314 SAMPLE 9012		INDEX 12315 SAMPLE 16081	
STATE.....	WYOMING	WYOMING	JOHNSON	WYOMING	JOHNSON
COUNTY.....	JOHNSON	JOHNSON	DUGOUT	JOHNSON	LITTLE RUGHER DRAW
FIELD.....	STILLY CREEK	GOVT. JAFFA No. 4			LITTLE RUGHER DRAW No. 1
WELL NAME.....	HESSE No. 2	SEC. 33, T43N, R80W			SEC. 12, T49N, R78W
LOCATION.....	SEC. 17, T48N, R82W	TEXACO INC.			ELF AQUITAINE OIL & GAS
OWNER.....	MONTANA DAKOTA UTILITIES CO.	02/25/54			09/23/80
COMPLETED.....	10/30/62	02/14/63			09/24/80
SAMPLED.....	02/27/63	CRET-FRONTIER			CRET-MOWRY
FORMATION.....	CRET-FRONTIER	515			515
GEOLOGIC PROVINCE CODE.....	515	2014			11039
DEPTH, FEET.....	3252	48			4400
WELLHEAD PRESSURE, PSIG.....	1065	40			2500
OPEN FLOW, MCFD.....	42000				
COMPONENT, MOLE PCT.....					
METHANE.....	90.4	88.7			78.5
ETHANE.....	3.9	1.7			12.5
PROPANE.....	1.7	0.8			4.7
N-BUTANE.....	0.4	2.2			1.1
ISOBUTANE.....	0.1	0.7			0.6
N-PENTANE.....	TRACE	0.5			0.2
ISOPENTANE.....	0.2	0.9			0.2
CYCLOPENTANE.....	TRACE	0.3			0.1
HEXANES PLUS.....	TRACE	0.6			0.2
NITROGEN.....	1.0	0.2			0.2
OXYGEN.....	TRACE	TRACE			TRACE
ARGON.....	TRACE	0.0			0.0
HYDROGEN.....	0.0	0.0			0.0
HYDROGEN SULFIDE.....	0.0	0.0			0.0
CARBON DIOXIDE.....	0.2	0.1			1.6
HELIUM.....	0.82	TRACE			0.66
HEATING VALUE.....	1089	1227			1230
SPECIFIC GRAVITY.....	0.517	0.693			0.719

INDEX 12316 SAMPLE 17134		INDEX 12317 SAMPLE 8044		INDEX 12318 SAMPLE 10685	
STATE.....	WYOMING	WYOMING	LINCOLN	WYOMING	LINCOLN
COUNTY.....	JOHNSON	BIG PINEY-LABARGE			BIG PINEY-LABARGE
FIELD.....	SAPPHIRE	BN No. 39			S HOGSBACK No. 3-16
WELL NAME.....	SAPPHIRE	SEC. 4, T26N, R113W			SEC. 16, T26N, R113W
LOCATION.....	SEC. 17, T51N, R76W	BELCO PETROLEUM CORP.			BELCO PETROLEUM CORP.
OWNER.....	DAVIS OIL CO.	02/06/61			06/20/66
COMPLETED.....	06/28/83	06/26/61			07/27/66
SAMPLED.....	11/09/83	CRET-MUDDY & BEAR RIVER			CRET-MUDDY
FORMATION.....	CRET-MUDDY	535			535
GEOLOGIC PROVINCE CODE.....	515	7950			7982
DEPTH, FEET.....	10374	2520			3243
WELLHEAD PRESSURE, PSIG.....	1000	2321			10098
OPEN FLOW, MCFD.....	470				
COMPONENT, MOLE PCT.....					
METHANE.....	79.9	86.4			86.7
ETHANE.....	10.7	6.9			0.1
PROPANE.....	3.5	2.9			0.1
N-BUTANE.....	0.9	0.6			0.2
ISOBUTANE.....	0.6	0.1			0.1
N-PENTANE.....	0.3	0.1			0.1
ISOPENTANE.....	0.4	0.2			0.1
CYCLOPENTANE.....	0.1	TRACE			0.1
HEXANES PLUS.....	0.2	0.1			0.2
NITROGEN.....	0.3	1.9			11.7
OXYGEN.....	TRACE	0.1			0.2
ARGON.....	TRACE	0.1			TRACE
HYDROGEN.....	0.0	0.0			0.0
HYDROGEN SULFIDE.....	0.0	0.0			0.0
CARBON DIOXIDE.....	3.1	0.1			TRACE
HELIUM.....	0.01	TRACE			0.17
HEATING VALUE.....	1186	1133			920
SPECIFIC GRAVITY.....	0.717	0.653			0.620

INDEX 12319 SAMPLE 17227		INDEX 12320 SAMPLE 15457		INDEX 12321 SAMPLE 13579	
STATE.....	WYOMING	WYOMING	LINCOLN	WYOMING	LINCOLN
COUNTY.....	LINCOLN	BRUFF AREA			BRUFF UNIT
FIELD.....	BIRD CANYON	STATE LAND No. 36-1			BRUFF UNIT No. 1
WELL NAME.....	HAUN-FED. No. 20-5	SEC. 36, T19N, R113W			SEC. 22, T19N, R112W
LOCATION.....	SEC. 16, T26N, R111W	MOUNTAIN FUEL SUPPLY CO.			MOUNTAIN FUEL SUPPLY CO.
OWNER.....	ENERGETICS, INC.	02/11/78			--/--/00
COMPLETED.....	06/08/83	10/24/78			04/17/73
SAMPLED.....	03/27/84	CRET-FRONTIER			MISS-MADISON
FORMATION.....	CRET-BEAR RIVER	535			535
GEOLOGIC PROVINCE CODE.....	535	11367			18004
DEPTH, FEET.....	NOT GIVEN	2700			NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	976	2674			70
OPEN FLOW, MCFD.....					
COMPONENT, MOLE PCT.....					
METHANE.....	88.2	71.5			6.3
ETHANE.....	1.2	1.2			TRACE
PROPANE.....	2.6	4.1			TRACE
N-BUTANE.....	0.6	0.7			0.0
ISOBUTANE.....	0.4	0.6			0.0
N-PENTANE.....	0.1	0.2			0.0
ISOPENTANE.....	0.4	0.3			0.0
CYCLOPENTANE.....	0.1	0.1			0.0
HEXANES PLUS.....	0.3	0.5			0.0
NITROGEN.....	0.6	8.5			17.3
OXYGEN.....	TRACE	2.0			0.2
ARGON.....	TRACE	0.3			0.1
HYDROGEN.....	0.0	0.1			0.1
HYDROGEN SULFIDE.....	0.0	0.0			0.0
CARBON DIOXIDE.....	0.3	0.5			74.2
HELIUM.....	0.01	0.01			1.52
HEATING VALUE.....	1143	1111			64
SPECIFIC GRAVITY.....	0.648	0.739			1.345

INDEX 12322 SAMPLE 13591		INDEX 12323 SAMPLE 13606		INDEX 12324 SAMPLE 16395	
STATE.....	WYOMING	WYOMING	LINCOLN	WYOMING	LINCOLN
COUNTY.....	LINCOLN	BRUFF UNIT			CARTER CREEK
FIELD.....	BRUFF UNIT	SEC. 22, T19N, R112W			FEDERAL 1-30M
WELL NAME.....	BRUFF UNIT No. 1	MOUNTAIN FUEL SUPPLY CO.			SEC. 30, T19N, R119W
LOCATION.....	SEC. 22, T19N, R112W	--/--/00			CHEVRON U.S.A., INC.
OWNER.....	MOUNTAIN FUEL SUPPLY CO.	06/01/73			--/--/00
COMPLETED.....	04/27/73	PENN-MORGAN			12/10/81
SAMPLED.....	MISS-MADISON	535			MISS-MISSION CANYON
FORMATION.....	535	14635			535
GEOLOGIC PROVINCE CODE.....	17562	3322			2670
DEPTH, FEET.....	NOT GIVEN				
WELLHEAD PRESSURE, PSIG.....	39				
OPEN FLOW, MCFD.....					
COMPONENT, MOLE PCT.....					
METHANE.....	1.9	45.5			62.0
ETHANE.....	0.0	16.9			3.6
PROPANE.....	TRACE	1.5			0.5
N-BUTANE.....	0.0	6.5			0.4
ISOBUTANE.....	0.0	5.7			0.5
N-PENTANE.....	0.0	1.9			0.1
ISOPENTANE.....	0.0	2.0			0.2
CYCLOPENTANE.....	0.0	0.3			0.1
HEXANES PLUS.....	0.0	1.5			0.2
NITROGEN.....	5.6	0.2			0.7
OXYGEN.....	0.0	0.0			0.0
ARGON.....	0.0	0.0			TRACE
HYDROGEN.....	TRACE	0.1			0.1
HYDROGEN SULFIDE.....	0.0	0.0			21.3
CARBON DIOXIDE.....	92.1	0.5			7.3
HELIUM.....	0.27	0.06			0.02
HEATING VALUE.....	19	1890			961
SPECIFIC GRAVITY.....	1.475	1.136			0.832

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 12325 SAMPLE 16394	INDEX 12326 SAMPLE 6967	INDEX 12327 SAMPLE 16997
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	LINCOLN	LINCOLN	LINCOLN	LINCOLN
FIELD.....	CARTER CREEK-WHITNEY CANYON	EMIGRANT SPRINGS	FABIAN DITCH	FABIAN DITCH
WELL NAME.....	CHEVRON FEDERAL 1-20M	EMIGRANT SPRINGS UNIT NO. 1	SEC. 34, T20N, R112W	SEC. 34, T20N, R112W
LOCATION.....	SEC. 20, T17N, R119W	SEC. 21, T22N, R112W	SEC. 34, T20N, R112W	SEC. 34, T20N, R112W
OWNER.....	CHEVRON U.S.A., INC.	BELCO PETROLEUM CORP., ET AL	WARATHON OIL CO.	WARATHON OIL CO.
COMPLETED.....	10/24/81	09/22/58	--/--/00	--/--/00
SAMPLED.....	10/10/81	01/22/59	05/03/83	05/03/83
FORMATION.....	ORDOVIGIAN	CRET-FRONTIER	CRET-FRONTIER 2ND	CRET-FRONTIER 2ND
GEOLOGIC PROVINCE CODE.....	535	535	535	535
DEPTH, FEET.....	16262	10490	9600	9600
WELLHEAD PRESSURE, PSIG.....	4400	NOT GIVEN	3250	3250
OPEN FLOW, MCFD.....	11266	1891	500	500
COMPONENT, MOLE PCT				
METHANE.....	86.1	84.2	85.7	85.7
ETHANE.....	8.3	10.4	9.0	9.0
PROPANE.....	2.6	2.9	2.2	2.2
N-BUTANE.....	0.5	0.5	0.4	0.4
ISOBUTANE.....	0.5	0.5	0.3	0.3
N-PENTANE.....	0.1	TRACE	TRACE	TRACE
ISOPENTANE.....	0.1	0.4	0.4	0.4
CYCLOPENTANE.....	TRACE	0.1	0.1	0.1
HEXANES PLUS.....	0.1	0.1	0.1	0.1
NITROGEN.....	1.1	0.4	0.7	0.7
OXYGEN.....	TRACE	0.0	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.5	0.5	0.5
HELIUM.....	0.01	0.01	0.01	0.01
HEATING VALUE.....	1136	1171	1137	1137
SPECIFIC GRAVITY.....	0.652	0.667	0.651	0.651

		INDEX 12328 SAMPLE 16481	INDEX 12329 SAMPLE 16553	INDEX 12330 SAMPLE 2401
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	LINCOLN	LINCOLN	LINCOLN	LINCOLN
FIELD.....	FONTENELLE	FONTENELLE	FONTENELLE	FONTENELLE
WELL NAME.....	FED. NO. 23-25	FONTENELLE FED. NO. 35-22	NO. 1	NO. 1
LOCATION.....	SEC. 25, T26N, R112W	SEC. 35, T26N, R112W	SEC. 14, T21N, R117W	SEC. 14, T21N, R117W
OWNER.....	NATURAL GAS CORP. OF CALIF.	AMERICAN QUASAR PET. CO.	EMERALD OIL CO.	EMERALD OIL CO.
COMPLETED.....	08/12/81	06/28/82	--/--/00	--/--/00
SAMPLED.....	03/31/82	06/04/82	09/15/31	09/15/31
FORMATION.....	CRET-FRONTIER	ORDOVIGIAN	TERT-L	TERT-L
GEOLOGIC PROVINCE CODE.....	535	535	535	535
DEPTH, FEET.....	8664	16040	407	407
WELLHEAD PRESSURE, PSIG.....	3400	1400	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	1800	2200	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	91.8	1.7	74.8	74.8
ETHANE.....	4.8	TRACE	17.6	17.6
PROPANE.....	1.4	TRACE	---	---
N-BUTANE.....	0.3	0.0	---	---
ISOBUTANE.....	0.2	0.0	---	---
N-PENTANE.....	TRACE	0.0	---	---
ISOPENTANE.....	0.1	0.0	---	---
CYCLOPENTANE.....	0.1	0.0	---	---
HEXANES PLUS.....	0.1	0.0	---	---
NITROGEN.....	0.8	0.0	4.2	4.2
OXYGEN.....	TRACE	TRACE	0.4	0.4
ARGON.....	TRACE	TRACE	---	---
HYDROGEN.....	0.0	0.1	---	---
HYDROGEN SULFIDE.....	0.0	0.0	---	---
CARBON DIOXIDE.....	0.0	95.9	3.0	3.0
HELIUM.....	0.01	0.21	0.00	0.00
HEATING VALUE.....	1082	18	1073	1073
SPECIFIC GRAVITY.....	0.612	1.495	0.690	0.690

		INDEX 12331 SAMPLE 13981	INDEX 12332 SAMPLE 16604	INDEX 12333 SAMPLE 12419
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	LINCOLN	LINCOLN	LINCOLN	LINCOLN
FIELD.....	GREEN RIVER BEND	GREEN RIVER BEND	GREEN RIVER BEND	GREEN RIVER BEND
WELL NAME.....	ROCKING CHAIR NO. 43-22	GREEN RIV. BEND UNIT NO. 82-6	MOBIL OIL CO.	MOBIL OIL CO.
LOCATION.....	SEC. 22, T26N, R113W	SEC. 6, T26N, R112W	SEC. 6, T26N, R113W	SEC. 6, T26N, R113W
OWNER.....	WESTRANS PETROLEUM, INC.	BELCO PETROLEUM CORP.	MOBIL OIL CORP.	MOBIL OIL CORP.
COMPLETED.....	--/--/00	04/21/82	--/--/00	--/--/00
SAMPLED.....	04/--/74	08/10/82	09/11/70	09/11/70
FORMATION.....	CRET-FRONTIER	CRET-FRONTIER 2ND	CRET-FRONTIER	CRET-FRONTIER
GEOLOGIC PROVINCE CODE.....	535	535	535	535
DEPTH, FEET.....	7860	6340	6383	6383
WELLHEAD PRESSURE, PSIG.....	3117	2000	2550	2550
OPEN FLOW, MCFD.....	2941	2168	5498	5498
COMPONENT, MOLE PCT				
METHANE.....	94.4	89.3	79.2	79.2
ETHANE.....	3.6	2.2	6.0	6.0
PROPANE.....	0.2	0.5	2.7	2.7
N-BUTANE.....	TRACE	0.4	0.6	0.6
ISOBUTANE.....	0.1	0.4	0.4	0.4
N-PENTANE.....	TRACE	0.1	0.1	0.1
ISOPENTANE.....	TRACE	0.3	0.2	0.2
CYCLOPENTANE.....	TRACE	0.4	TRACE	TRACE
HEXANES PLUS.....	0.1	0.3	0.1	0.1
NITROGEN.....	1.5	0.7	8.7	8.7
OXYGEN.....	0.0	TRACE	1.7	1.7
ARGON.....	TRACE	0.1	0.1	0.1
HYDROGEN.....	TRACE	0.1	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.3	0.1	0.1
HELIUM.....	0.03	0.01	0.04	0.04
HEATING VALUE.....	1034	1140	1031	1031
SPECIFIC GRAVITY.....	0.584	0.647	0.681	0.681

		INDEX 12334 SAMPLE 7308	INDEX 12335 SAMPLE 16926	INDEX 12336 SAMPLE 8976
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	LINCOLN	LINCOLN	LINCOLN	LINCOLN
FIELD.....	HOGSBACK	HOGSBACK	HOGSBACK	HOGSBACK
WELL NAME.....	TROJAN 22-17	HOGSBACK NO. 1	LA BARGE	LA BARGE
LOCATION.....	SEC. 17, T26N, R113W	SEC. 26, T23N, R115W	SEC. 7, T26N, R112W	SEC. 7, T26N, R112W
OWNER.....	MOBIL OIL CO.	NATURAL GAS CORP. OF CALIF.	BELCO PETROLEUM CORP.	BELCO PETROLEUM CORP.
COMPLETED.....	01/30/58	04/19/82	12/06/58	12/06/58
SAMPLED.....	12/05/59	05/05/83	05/29/63	05/29/63
FORMATION.....	CRET-MUDDY & FRONTIER	PENN-AMSDEN	CRET-FRONTIER	CRET-FRONTIER
GEOLOGIC PROVINCE CODE.....	535	535	535	535
DEPTH, FEET.....	7302	5460	7015	7015
WELLHEAD PRESSURE, PSIG.....	3100	2200	1970	1970
OPEN FLOW, MCFD.....	2250	7600	6423	6423
COMPONENT, MOLE PCT				
METHANE.....	87.6	76.8	90.2	90.2
ETHANE.....	6.9	5.3	4.8	4.8
PROPANE.....	2.3	1.8	1.6	1.6
N-BUTANE.....	0.5	0.8	0.4	0.4
ISOBUTANE.....	0.4	0.4	0.1	0.1
N-PENTANE.....	0.0	0.3	0.2	0.2
ISOPENTANE.....	0.4	0.1	0.1	0.1
CYCLOPENTANE.....	0.1	0.4	0.1	0.1
HEXANES PLUS.....	0.2	0.4	0.1	0.1
NITROGEN.....	1.2	13.0	1.9	1.9
OXYGEN.....	TRACE	TRACE	0.0	0.0
ARGON.....	0.0	0.1	TRACE	TRACE
HYDROGEN.....	0.2	0.1	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.5	0.5
HELIUM.....	0.00	0.31	0.02	0.02
HEATING VALUE.....	1135	1155	1084	1084
SPECIFIC GRAVITY.....	0.646	0.695	0.627	0.627

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

INDEX 12337 SAMPLE 8983		INDEX 12338 SAMPLE 16603		INDEX 12339 SAMPLE 17712	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	LINCOLN	COUNTY.....	LINCOLN	COUNTY.....	LINCOLN
FIELD.....	LA GARGE	FIELD.....	LA GARGE SE	FIELD.....	LITTLE MONUMENT
WELL NAME.....	BNG NO. 45-B	WELL NAME.....	LARSON NO. 1-17	WELL NAME.....	WSA-B NO. 32-1
LOCATION.....	SEC. 4, T26N, R113W	LOCATION.....	SEC. 17, T26N, R112W	LOCATION.....	SEC. 32, T25N, R111W
OWNER.....	BELCO PETROLEUM CORP.	OWNER.....	BELCO PETROLEUM CORP.	OWNER.....	TEKACO PRODUCING, INC.
COMPLETED.....	10/14/60	COMPLETED.....	03/05/82	COMPLETED.....	10/10/84
SAMPLED.....	05/29/63	SAMPLED.....	08/10/82	SAMPLED.....	06/10/85
FORMATION.....	CRET-FRONTIER	FORMATION.....	CRET-FRONTIER 2ND	FORMATION.....	CRET-FRONTIER
GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	3751	DEPTH, FEET.....	7104	DEPTH, FEET.....	9286
WELLHEAD PRESSURE, PSIG.....	973	WELLHEAD PRESSURE, PSIG.....	2400	WELLHEAD PRESSURE, PSIG.....	3939
OPEN FLOW, MCFD.....	746	OPEN FLOW, MCFD.....	340	OPEN FLOW, MCFD.....	3120
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	64.9	METHANE.....	89.0	METHANE.....	84.8
ETHANE.....	4.3	ETHANE.....	3.9	ETHANE.....	3.1
PROPANE.....	1.7	PROPANE.....	2.2	PROPANE.....	0.6
N-BUTANE.....	0.5	N-BUTANE.....	0.5	N-BUTANE.....	0.2
ISOBUTANE.....	0.2	ISOBUTANE.....	0.4	ISOBUTANE.....	0.1
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1
NITROGEN.....	22.6	NITROGEN.....	0.9	NITROGEN.....	10.4
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	0.2	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.5
HELIUM.....	0.05	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	820	HEATING VALUE.....	1126	HEATING VALUE.....	958
SPECIFIC GRAVITY.....	0.735	SPECIFIC GRAVITY.....	0.639	SPECIFIC GRAVITY.....	0.637

INDEX 12340 SAMPLE 15029		INDEX 12341 SAMPLE 16674		INDEX 12342 SAMPLE 17571	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	LINCOLN	COUNTY.....	LINCOLN	COUNTY.....	LINCOLN
FIELD.....	BRUFF UNIT NO. 3	FIELD.....	MOXA ARCH	FIELD.....	ROAD HOLLOW UNIT
WELL NAME.....	SEC. 16, T19N, R112W	WELL NAME.....	WHISKEY BUTTES NO. 34	WELL NAME.....	ROAD HOLLOW UNIT NO. 4, 8, 10
LOCATION.....	SEC. 16, T19N, R112W	LOCATION.....	SEC. 7, T21N, R111W	LOCATION.....	SEC. 4, T19N, R119W
OWNER.....	MOUNTAIN FUEL SUPPLY CO.	OWNER.....	AMOCO PRODUCTION CO.	OWNER.....	EXXON CO., U.S.A.
COMPLETED.....	06/14/77	COMPLETED.....	05/05/82	COMPLETED.....	11/11/81
SAMPLED.....	06/14/77	SAMPLED.....	09/20/82	SAMPLED.....	01/25/85
FORMATION.....	CRET-FRONTIER	FORMATION.....	CRET-FRONTIER	FORMATION.....	ORDO-BIGHORN
GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	12111	DEPTH, FEET.....	11000	DEPTH, FEET.....	15057
WELLHEAD PRESSURE, PSIG.....	4910	WELLHEAD PRESSURE, PSIG.....	3800	WELLHEAD PRESSURE, PSIG.....	3600
OPEN FLOW, MCFD.....	4000	OPEN FLOW, MCFD.....	748	OPEN FLOW, MCFD.....	31
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.3	METHANE.....	37.9	METHANE.....	82.8
ETHANE.....	7.4	ETHANE.....	14.6	ETHANE.....	9.8
PROPANE.....	1.7	PROPANE.....	2.9	PROPANE.....	3.4
N-BUTANE.....	0.5	N-BUTANE.....	8.9	N-BUTANE.....	0.8
ISOBUTANE.....	0.6	ISOBUTANE.....	0.3	ISOBUTANE.....	0.7
N-PENTANE.....	0.3	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.8	ISOPENTANE.....	3.3	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.3	CYCLOPENTANE.....	0.4	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.8	HEXANES PLUS.....	1.3	HEXANES PLUS.....	0.3
NITROGEN.....	0.8	NITROGEN.....	0.7	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.7
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1187	HEATING VALUE.....	1207	HEATING VALUE.....	1193
SPECIFIC GRAVITY.....	0.679	SPECIFIC GRAVITY.....	1.240	SPECIFIC GRAVITY.....	0.690

INDEX 12343 SAMPLE 16191		INDEX 12344 SAMPLE 17872		INDEX 12345 SAMPLE 16602	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	LINCOLN	COUNTY.....	LINCOLN	COUNTY.....	LINCOLN
FIELD.....	SEVEN MILE GULCH	FIELD.....	SHUTE CREEK	FIELD.....	STEAD CANYON
WELL NAME.....	SEVEN MILE GULCH NO. 8	WELL NAME.....	COW HOLLOW NO. 1	WELL NAME.....	STEAD CANYON UNIT NO. 8-11
LOCATION.....	SEC. 2, T12N, R112W	LOCATION.....	SEC. 10, T12N, R112W	LOCATION.....	SEC. 11, T26N, R112W
OWNER.....	AMOCO PRODUCTION CO.	OWNER.....	AMOCO PRODUCTION CO.	OWNER.....	BELCO PETROLEUM CORP.
COMPLETED.....	11/14/80	COMPLETED.....	04/20/85	COMPLETED.....	04/03/82
SAMPLED.....	02/17/81	SAMPLED.....	09/-/85	SAMPLED.....	08/10/82
FORMATION.....	CRET-FRONTIER	FORMATION.....	CRET-FRONTIER 2ND	FORMATION.....	CRET-FRONTIER 2ND
GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	11286	DEPTH, FEET.....	10698	DEPTH, FEET.....	7693
WELLHEAD PRESSURE, PSIG.....	890	WELLHEAD PRESSURE, PSIG.....	792	WELLHEAD PRESSURE, PSIG.....	2500
OPEN FLOW, MCFD.....	420	OPEN FLOW, MCFD.....	1100	OPEN FLOW, MCFD.....	454
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.6	METHANE.....	82.6	METHANE.....	90.6
ETHANE.....	6.8	ETHANE.....	10.5	ETHANE.....	4.9
PROPANE.....	1.5	PROPANE.....	3.1	PROPANE.....	1.9
N-BUTANE.....	0.4	N-BUTANE.....	0.6	N-BUTANE.....	0.4
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.7	ISOPENTANE.....	0.3	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	2.0	NITROGEN.....	1.1	NITROGEN.....	0.8
OXYGEN.....	0.5	OXYGEN.....	0.2	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.4
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1127	HEATING VALUE.....	1179	HEATING VALUE.....	1100
SPECIFIC GRAVITY.....	0.661	SPECIFIC GRAVITY.....	0.682	SPECIFIC GRAVITY.....	0.626

INDEX 12346 SAMPLE 14689		INDEX 12347 SAMPLE 17355		INDEX 12348 SAMPLE 17377	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	LINCOLN	COUNTY.....	LINCOLN	COUNTY.....	LINCOLN
FIELD.....	WHISKY BUTTE NO. 2	FIELD.....	WHISKY BUTTE NO. 2	FIELD.....	WHISKY BUTTE NO. 2
WELL NAME.....	SEC. 11, T21N, R112W	WELL NAME.....	BROAD CANYON NO. 1	WELL NAME.....	BROAD CANYON NO. 1
LOCATION.....	SEC. 11, T21N, R112W	LOCATION.....	SEC. 28, T32N, R116W	LOCATION.....	SEC. 28, T32N, R116W
OWNER.....	AMOCO OIL & GAS CO.	OWNER.....	AMOCO OIL & GAS CO.	OWNER.....	AMOCO OIL & GAS CO.
COMPLETED.....	7/-/80	COMPLETED.....	07/-/84	COMPLETED.....	08/-/84
SAMPLED.....	06/07/76	SAMPLED.....	07/-/84	SAMPLED.....	08/-/84
FORMATION.....	CRET-FRONTIER 2ND	FORMATION.....	MISS-MADISON	FORMATION.....	PERM-PHOSPHORIA
GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	11972	DEPTH, FEET.....	16549	DEPTH, FEET.....	14935
WELLHEAD PRESSURE, PSIG.....	5745	WELLHEAD PRESSURE, PSIG.....	7030	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	3290	OPEN FLOW, MCFD.....	13000	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	85.4	METHANE.....	11.5	METHANE.....	31.1
ETHANE.....	9.2	ETHANE.....	0.1	ETHANE.....	0.6
PROPANE.....	2.6	PROPANE.....	0.1	PROPANE.....	0.0
N-BUTANE.....	0.4	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.3	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.3	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.8	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.8	NITROGEN.....	4.8	NITROGEN.....	13.6
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	2.5	HYDROGEN SULFIDE.....	34.9
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	80.4	CARBON DIOXIDE.....	19.5
HELIUM.....	0.01	HELIUM.....	0.43	HELIUM.....	0.12
HEATING VALUE.....	1149	HEATING VALUE.....	137	HEATING VALUE.....	550
SPECIFIC GRAVITY.....	0.657	SPECIFIC GRAVITY.....	1.375	SPECIFIC GRAVITY.....	1.024

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12349 SAMPLE 6426			INDEX 12350 SAMPLE 14551			INDEX 12351 SAMPLE 14902		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	LINCOLN		LINCOLN			LINCOLN		
FIELD.....	WILLOW CREEK		WILLOW CREEK			WILLOW CREEK		
WELL NAME.....	WILLOW CREEK UNIT NO. 1		ARNOLD LARSON NO. 1			FED. NO. 4-11		
LOCATION.....	SEC. 3, T24N, R114W		SEC. 2, T24N, R114W			SEC. 11, T24N, R114W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		RAINBOW RESOURCES, INC.			RAINBOW RESOURCES, INC.		
COMPLETED.....	06/25/57		07/09/75			07--/76		
SAMPLED.....	10/25/57		11/04/75			02/10/77		
FORMATION.....	EOCE-FORT UNION		CRET-HILLIARD			EOCE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	2370		2430			1450		
WELLHEAD PRESSURE, PSIG.....	1175		1250			696		
OPEN FLOW, MCFD.....	3600		2000			3800		
COMPONENT, MOLE PCT.....								
METHANE.....	82.5	-----	81.3	-----		74.7	-----	
ETHANE.....	10.2	-----	11.0	-----		14.5	-----	
PROpane.....	3.3	-----	4.4	-----		6.3	-----	
N-BUTANE.....	0.6	-----	0.7	-----		1.1	-----	
ISOBUTANE.....	0.7	-----	0.7	-----		1.9	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.2	-----	
ISOPENTANE.....	0.1	-----	0.1	-----		0.2	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.1	-----	
NITROGEN.....	1.9	-----	1.7	-----		1.8	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.1	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	TRACE	-----		0.1	-----	
HELIUM.....	0.10	-----	0.03	-----		0.02	-----	
HEATING VALUE.....	1170	-----	1196	-----		1269	-----	
SPECIFIC GRAVITY.....	0.676	-----	0.688	-----		0.739	-----	

INDEX 12352 SAMPLE 16019			INDEX 12353 SAMPLE 877			INDEX 12354 SAMPLE 7978		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	LINCOLN		NATRONA			NATRONA		
FIELD.....	WILSON RANCH		BOONE DOME			BOONE DOME		
WELL NAME.....	CHRISMAN, ET AL. NO. 1		NO. 3 BOONE DOME			BOONE DOME UNIT NO. 6		
LOCATION.....	SEC. 18, T20N, R112W		SEC. 15, T35N, R85W			SEC. 14, T35N, R85W		
OWNER.....	C & K PETROLEUM, INC.		NEW YORK OIL CO.			RICHFIELD OIL CORP.		
COMPLETED.....	08/18/78		05/17/23			08/30/60		
SAMPLED.....	07/24/80		05/18/24			05/18/61		
FORMATION.....	CRET-FRONTIER 2ND		CRET-SHANNON			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	535		530			530		
DEPTH, FEET.....	11147		1530			7590		
WELLHEAD PRESSURE, PSIG.....	2300		760			1650		
OPEN FLOW, MCFD.....	2503		4000			20000		
COMPONENT, MOLE PCT.....								
METHANE.....	81.0	-----	84.1	-----		67.7	-----	
ETHANE.....	11.8	-----	15.7	-----		8.7	-----	
PROpane.....	4.0	-----	---	-----		6.6	-----	
N-BUTANE.....	0.7	-----	---	-----		6.2	-----	
ISOBUTANE.....	0.6	-----	---	-----		4.4	-----	
N-PENTANE.....	0.1	-----	---	-----		2.0	-----	
ISOPENTANE.....	0.3	-----	---	-----		1.3	-----	
CYCLOPENTANE.....	TRACE	-----	---	-----		0.1	-----	
HEXANES PLUS.....	0.1	-----	---	-----		1.0	-----	
NITROGEN.....	0.8	-----	0.2	-----		1.4	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.4	-----	
ARGON.....	0.0	-----	---	-----		0.0	-----	
HYDROGEN.....	0.0	-----	---	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		0.0	-----	
CARBON DIOXIDE.....	0.01	-----	0.0	-----		0.2	-----	
HELIUM.....	1.02	-----	0.04	-----		15.7	-----	
HEATING VALUE.....	1292	-----	0.633	-----		0.925	-----	
SPECIFIC GRAVITY.....	0.690	-----		-----			-----	

INDEX 12355 SAMPLE 7979			INDEX 12356 SAMPLE 2185			INDEX 12357 SAMPLE 2166		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	NATRONA		NATRONA			NATRONA		
FIELD.....	BOONE DOME		CASPER CREEK N			CASPER CREEK S		
WELL NAME.....	BOONE DOME UNIT NO. 6		YOUNG NO. 4			NO. 4		
LOCATION.....	SEC. 14, T35N, R85W		SEC. 1, T36N, R82W			SEC. 34, T34N, R83W		
OWNER.....	RICHFIELD OIL CORP.		LAKOTA OIL & GAS CO.			EMPIRE STATE OIL CO.		
COMPLETED.....	08/30/60		--/--/00			01/27/20		
SAMPLED.....	05/18/61		10/02/30			09/23/30		
FORMATION.....	CRET-FRONTIER		CRET-MUDDY			JURA-SUNDANCE		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	7590		997			1447		
WELLHEAD PRESSURE, PSIG.....	2500		NOT GIVEN			450		
OPEN FLOW, MCFD.....	8500		100			18000		
COMPONENT, MOLE PCT.....								
METHANE.....	67.9	-----	65.6	-----		90.2	-----	
ETHANE.....	8.7	-----	15.6	-----		6.3	-----	
PROpane.....	5.8	-----	---	-----		---	-----	
N-BUTANE.....	6.1	-----	---	-----		---	-----	
ISOBUTANE.....	4.2	-----	---	-----		---	-----	
N-PENTANE.....	2.2	-----	---	-----		---	-----	
ISOPENTANE.....	1.4	-----	---	-----		---	-----	
CYCLOPENTANE.....	0.2	-----	---	-----		---	-----	
HEXANES PLUS.....	1.2	-----	---	-----		---	-----	
NITROGEN.....	1.7	-----	18.5	-----		1.7	-----	
OXYGEN.....	0.4	-----	0.1	-----		0.5	-----	
ARGON.....	0.0	-----	---	-----		---	-----	
HYDROGEN.....	0.0	-----	---	-----		---	-----	
HYDROGEN SULFIDE.....	0.0	-----	---	-----		---	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		1.2	-----	
HELIUM.....	0.10	-----	0.03	-----		0.00	-----	
HEATING VALUE.....	1565	-----	944	-----		1027	-----	
SPECIFIC GRAVITY.....	0.926	-----	0.711	-----		0.607	-----	

INDEX 12358 SAMPLE 5988			INDEX 12359 SAMPLE 8994			INDEX 12360 SAMPLE 9222		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	NATRONA		NATRONA			NATRONA		
FIELD.....	CLARK RANCH		CLARK RANCH			CLARK RANCH		
WELL NAME.....	UNIT NO. 3		WELL NO. 3			NO. 2-C		
LOCATION.....	SEC. 6, T35N, R84W		SEC. 6, T35N, R84W			SEC. 6, T35N, R84W		
OWNER.....	HOUSTON OIL CO. OF TEXAS		ATLANTIC REFINING CO.			ATLANTIC REFINING CO.		
COMPLETED.....	08/30/55		08/30/55			10/08/63		
SAMPLED.....	01/05/56		05/31/63			01/13/64		
FORMATION.....	CRET-FRONTIER		CRET-FRONTIER			CRET-LAKOTA		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	903		910			2463		
WELLHEAD PRESSURE, PSIG.....	490		200			915		
OPEN FLOW, MCFD.....	2300		31			2500		
COMPONENT, MOLE PCT.....								
METHANE.....	91.2	-----	92.6	-----		95.9	-----	
ETHANE.....	1.7	-----	1.5	-----		0.7	-----	
PROpane.....	1.6	-----	---	-----		0.1	-----	
N-BUTANE.....	0.5	-----	0.2	-----		0.0	-----	
ISOBUTANE.....	0.2	-----	0.1	-----		0.0	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.0	-----	
ISOPENTANE.....	0.1	-----	0.2	-----		0.0	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.0	-----	
HEXANES PLUS.....	1.4	-----	1.2	-----		0.0	-----	
NITROGEN.....	3.4	-----	1.2	-----		3.2	-----	
OXYGEN.....	TRACE	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.1	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.1	-----		TRACE	-----	
HELIUM.....	0.02	-----	0.06	-----		0.03	-----	
HEATING VALUE.....	1087	-----	1066	-----		987	-----	
SPECIFIC GRAVITY.....	0.617	-----	0.601	-----		0.572	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1089

INDEX 12361 SAMPLE 5142		INDEX 12362 SAMPLE 17655		INDEX 12363 SAMPLE 2162	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	NATRONA	COUNTY.....	NATRONA	COUNTY.....	NATRONA
FIELD.....	FISH CREEK	FIELD.....	GRIEVE	FIELD.....	IRON CREEK
WELL NAME.....	GOVT. NO. 2	WELL NAME.....	UNIT NO. 48	WELL NAME.....	NO. 5
LOCATION.....	NOT GIVEN	LOCATION.....	SEC. 27, T32N, R85W	LOCATION.....	SEC. 11, T32N, R82W
OWNER.....	ATLANTIC REFINING CO.	OWNER.....	FOREST OIL CORP.	OWNER.....	EMPIRE STATE OIL CO.
COMPLETED.....	--/--/00	COMPLETED.....	10/16/84	COMPLETED.....	04/17/21
SAMPLED.....	10/21/51	SAMPLED.....	04/25/85	SAMPLED.....	09/24/30
FORMATION.....	CRET-LAKOTA	FORMATION.....	CRET-MUDDY	FORMATION.....	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	530	GEOLOGIC PROVINCE CODE.....	530	GEOLOGIC PROVINCE CODE.....	530
DEPTH, FEET.....	995	DEPTH, FEET.....	6792	DEPTH, FEET.....	1463
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	4788	OPEN FLOW, MCFD.....	3500
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	94.7	METHANE.....	85.7	METHANE.....	85.5
ETHANE.....	0.9	ETHANE.....	5.6	ETHANE.....	8.8
PROPANE.....	0.8	PROPANE.....	3.9	PROPANE.....	---
N-BUTANE.....	0.1	N-BUTANE.....	1.2	N-BUTANE.....	---
ISOBUTANE.....	0.2	ISOBUTANE.....	0.6	ISOBUTANE.....	---
N-PENTANE.....	0.0	N-PENTANE.....	0.2	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	0.2	ISOPENTANE.....	---
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	---
NITROGEN.....	1.1	NITROGEN.....	0.8	NITROGEN.....	0.1
OXYGEN.....	---	OXYGEN.....	TRACE	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	---	ARGON.....	---
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	2.0	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	5.5
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.00
HEATING VALUE*.....	1012	HEATING VALUE*.....	1163	HEATING VALUE*.....	1024
SPECIFIC GRAVITY.....	0.598	SPECIFIC GRAVITY.....	0.667	SPECIFIC GRAVITY.....	0.653

INDEX 12364 SAMPLE 5611		INDEX 12365 SAMPLE 6636		INDEX 12366 SAMPLE 2163	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	NATRONA	COUNTY.....	NATRONA	COUNTY.....	NATRONA
FIELD.....	LANCE CREEK	FIELD.....	NOT GIVEN	FIELD.....	PINE DOME
WELL NAME.....	GOVT. NO. 1	WELL NAME.....	NOT GIVEN	WELL NAME.....	NO. 5
LOCATION.....	SEC. 13, T40N, R80W	LOCATION.....	SEC. 35, T39N, R89W	LOCATION.....	SEC. 26, T35N, R84W
OWNER.....	ARGO-ANSCHUTZ	OWNER.....	PURE OIL CO.	OWNER.....	DILLARD BAKER
COMPLETED.....	--/--/54	COMPLETED.....	--/--/00	COMPLETED.....	04/19/26
SAMPLED.....	04/26/54	SAMPLED.....	06/--/58	SAMPLED.....	09/24/30
FORMATION.....	CRET-L	FORMATION.....	CRET-U	FORMATION.....	PERM-EMBAR
GEOLOGIC PROVINCE CODE.....	530	GEOLOGIC PROVINCE CODE.....	530	GEOLOGIC PROVINCE CODE.....	530
DEPTH, FEET.....	2045	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	1791
WELLHEAD PRESSURE, PSIG.....	730	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	420
OPEN FLOW, MCFD.....	70	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	10000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.2	METHANE.....	92.6	METHANE.....	94.0
ETHANE.....	0.4	ETHANE.....	0.0	ETHANE.....	1.3
PROPANE.....	0.3	PROPANE.....	0.3	PROPANE.....	---
N-BUTANE.....	0.2	N-BUTANE.....	TRACE	N-BUTANE.....	---
ISOBUTANE.....	0.1	ISOBUTANE.....	0.0	ISOBUTANE.....	---
N-PENTANE.....	TRACE	N-PENTANE.....	0.0	N-PENTANE.....	---
ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE	ISOPENTANE.....	---
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.2	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	---
NITROGEN.....	2.5	NITROGEN.....	0.1	NITROGEN.....	3.7
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.1	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	2.8	CARBON DIOXIDE.....	0.3
HELIUM.....	0.04	HELIUM.....	0.01	HELIUM.....	0.66
HEATING VALUE*.....	1018	HEATING VALUE*.....	1021	HEATING VALUE*.....	976
SPECIFIC GRAVITY.....	0.581	SPECIFIC GRAVITY.....	0.607	SPECIFIC GRAVITY.....	0.577

INDEX 12367 SAMPLE 17058		INDEX 12368 SAMPLE 2105		INDEX 12369 SAMPLE 2165	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	NATRONA	COUNTY.....	NATRONA	COUNTY.....	NATRONA
FIELD.....	PINE MOUNTAIN	FIELD.....	POISON SPIDER	FIELD.....	POISON SPIDER
WELL NAME.....	HAKA-VIABLE FED. NO. 1	WELL NAME.....	NO. 3	WELL NAME.....	NO. 3
LOCATION.....	SEC. 26, T35N, R84W	LOCATION.....	SEC. 12, T33N, R83W	LOCATION.....	SEC. 12, T33N, R83W
OWNER.....	VIABLE RESOURCES, INC.	OWNER.....	EMPIRE STATE OIL CO.	OWNER.....	EMPIRE STATE OIL CO.
COMPLETED.....	08/11/83	COMPLETED.....	01/01/23	COMPLETED.....	01/01/23
SAMPLED.....	08/11/83	SAMPLED.....	05/04/30	SAMPLED.....	05/23/30
FORMATION.....	PENN-TENSLEEP	FORMATION.....	JURA-SUNDANCE	FORMATION.....	JURA-SUNDANCE
GEOLOGIC PROVINCE CODE.....	530	GEOLOGIC PROVINCE CODE.....	530	GEOLOGIC PROVINCE CODE.....	530
DEPTH, FEET.....	1758	DEPTH, FEET.....	1242	DEPTH, FEET.....	1365
WELLHEAD PRESSURE, PSIG.....	300	WELLHEAD PRESSURE, PSIG.....	50	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	4500	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	90.1	METHANE.....	74.1	METHANE.....	67.6
ETHANE.....	3.2	ETHANE.....	24.0	ETHANE.....	29.8
PROPANE.....	0.3	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	0.1	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	0.0	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	TRACE	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	0.0	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.1	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	4.5	NITROGEN.....	1.5	NITROGEN.....	2.4
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	---	ARGON.....	---
HYDROGEN.....	0.3	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	0.0	HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2
HELIUM.....	0.79	HELIUM.....	0.04	HELIUM.....	0.05
HEATING VALUE*.....	987	HEATING VALUE*.....	1181	HEATING VALUE*.....	1219
SPECIFIC GRAVITY.....	0.557	SPECIFIC GRAVITY.....	0.583	SPECIFIC GRAVITY.....	0.714

INDEX 12370 SAMPLE 2249		INDEX 12371 SAMPLE 967		INDEX 12372 SAMPLE 968	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	NATRONA	COUNTY.....	NATRONA	COUNTY.....	NATRONA
FIELD.....	POWDER RIVER	FIELD.....	SALT CREEK	FIELD.....	SALT CREEK
WELL NAME.....	CUYLER NO. 1	WELL NAME.....	NO. 33X	WELL NAME.....	NO. 33X
LOCATION.....	SEC. 24, T36N, R83W	LOCATION.....	SEC. 33, T40N, R79W	LOCATION.....	SEC. 33, T40N, R79W
OWNER.....	CUYLER OIL CO.	OWNER.....	WYOMING ASSOCIATED OIL CORP.	OWNER.....	WYOMING ASSOCIATED OIL CORP.
COMPLETED.....	10/29/30	COMPLETED.....	--/--/00	COMPLETED.....	--/--/00
SAMPLED.....	12/18/30	SAMPLED.....	01/01/25	SAMPLED.....	01/01/25
FORMATION.....	CRET-WALL CREEK	FORMATION.....	CRET-DAKOTA & LAKOTA	FORMATION.....	CRET-DAKOTA & LAKOTA
GEOLOGIC PROVINCE CODE.....	530	GEOLOGIC PROVINCE CODE.....	530	GEOLOGIC PROVINCE CODE.....	530
DEPTH, FEET.....	1314	DEPTH, FEET.....	2200	DEPTH, FEET.....	2262
WELLHEAD PRESSURE, PSIG.....	5130	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	10000	OPEN FLOW, MCFD.....	21000	OPEN FLOW, MCFD.....	4000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	99.5	METHANE.....	75.3	METHANE.....	49.0
ETHANE.....	0.0	ETHANE.....	21.6	ETHANE.....	48.0
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	0.4	NITROGEN.....	1.0	NITROGEN.....	0.1
OXYGEN.....	0.0	OXYGEN.....	0.7	OXYGEN.....	0.5
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---	HYDROGEN SULFIDE**.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	1.4	CARBON DIOXIDE.....	2.4
HELIUM.....	0.00	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE*.....	1098	HEATING VALUE*.....	1150	HEATING VALUE*.....	1357
SPECIFIC GRAVITY.....	0.557	SPECIFIC GRAVITY.....	0.683	SPECIFIC GRAVITY.....	0.819

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ADSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12373 SAMPLE 8971			INDEX 12374 SAMPLE 8973			INDEX 12375 SAMPLE 878		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	NATRONA		NATRONA			NATRONA		
FIELD.....	SHERWOOD		SHERWOOD			TEAFOT		
WELL NAME.....	NO. 1		NO. 2			NO. 301A		
LOCATION.....	SEC. 3, T40N, R77W		SEC. 40, T40N, R77W			SEC. 3, T38N, R78W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.			PRODUCERS MAMMOTH OIL CO.		
COMPLETED.....	08/12/56		11/01/57			12/14/22		
SAMPLED.....	05/25/63		05/25/63			05/12/24		
FORMATION.....	CRET-MUDDY		CRET-FRONTIER			CRET-WALL CREEK 2ND		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	10735		9531			2914		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1100			960		
OPEN FLOW, MCFD.....	265		5900			24000		
COMPONENT, MOLE PCT.....								
METHANE.....	77.8		77.9			76.5		
ETHANE.....	10.2		11.9			21.3		
PROPANE.....	4.7		5.4			---		
N-BUTANE.....	1.6		1.5			---		
ISOBUTANE.....	0.8		0.8			---		
N-PENTANE.....	0.4		0.2			---		
ISOPENTANE.....	0.6		0.5			---		
CYCLOPENTANE.....	0.2		TRACE			---		
HEXANES PLUS.....	0.6		0.6			---		
NITROGEN.....	2.0		0.8			0.7		
OXYGEN.....	TRACE		TRACE			0.6		
ARGON.....	0.0		0.0			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	1.2		0.8			0.7		
HELIUM.....	0.02		0.02			0.95		
HEATING VALUE.....	1255		1250			1157		
SPECIFIC GRAVITY.....	0.747		0.732			0.672		

INDEX 12376 SAMPLE 16467			INDEX 12377 SAMPLE 17930			INDEX 12378 SAMPLE 9789		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	NATRONA		NATRONA			NATRONA		
FIELD.....	TEEPEE FLATS		TEEPEE FLATS			WALLACE CREEK		
WELL NAME.....	TEEPEE FLATS NO. 16-1		TEEPEE FLATS NO. 18-1			WELL NO. 4		
LOCATION.....	SEC. 16, T37N, R86W		SEC. 18, T37N, R86W			SEC. 23, T34N, R87W		
OWNER.....	MONCRIEF OIL CO.		MONCRIEF OIL CO.			NATIONAL COOP. REFINERY ASSN		
COMPLETED.....	01/16/81		03/23/85			12/21/64		
SAMPLED.....	03/26/82		12/09/85			03/08/65		
FORMATION.....	CRET-FRONTIER		CRET-LAKOTA			CRET-MUDDY		
GEOLOGIC PROVINCE CODE.....	530		530			530		
DEPTH, FEET.....	18245		13936			11017		
WELLHEAD PRESSURE, PSIG.....	8900		11652			3300		
OPEN FLOW, MCFD.....	11000		5000			15100		
COMPONENT, MOLE PCT.....								
METHANE.....	97.5		95.8			97.7		
ETHANE.....	0.8		0.3			0.1		
PROPANE.....	0.1		TRACE			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.3		1.1			2.0		
OXYGEN.....	TRACE		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		0.7			TRACE		
HELIUM.....	TRACE		0.01			0.05		
HEATING VALUE.....	1005		976			994		
SPECIFIC GRAVITY.....	0.573		0.587			0.564		

INDEX 12379 SAMPLE 7304			INDEX 12380 SAMPLE 10076			INDEX 12381 SAMPLE 16986		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	NATRONA		NATRONA			NIOBRARA		
FIELD.....	WALTMAN		WALTMAN			ART HILLS N		
WELL NAME.....	UNIT NO. 2		UNIT NO. 4			FED. NO. 32-12		
LOCATION.....	SEC. 1, T36N, R87W		SEC. 24, T36N, R87W			SEC. 12, T37N, R63W		
OWNER.....	CALIFORNIA CO.		CALIFORNIA CO.			MILSTONE PETROLEUM, INC.		
COMPLETED.....	08/20/59		08/17/65			06/24/82		
SAMPLED.....	12/09/59		08/17/65			07/20/83		
FORMATION.....	CRET-LANCE		CRET-FORT UNION			PENN-LEO		
GEOLOGIC PROVINCE CODE.....	530		530			515		
DEPTH, FEET.....	6140		4278			6694		
WELLHEAD PRESSURE, PSIG.....	1845		1630			3475		
OPEN FLOW, MCFD.....	4		20000			421		
COMPONENT, MOLE PCT.....								
METHANE.....	81.0		93.7			54.1		
ETHANE.....	9.5		2.2			11.6		
PROPANE.....	0.0		0.7			7.7		
N-BUTANE.....	1.1		0.7			4.0		
ISOBUTANE.....	1.3		0.2			1.4		
N-PENTANE.....	0.0		0.2			0.2		
ISOPENTANE.....	0.1		TRACE			2.2		
CYCLOPENTANE.....	TRACE		0.1			0.3		
HEXANES PLUS.....	0.1		0.2			0.8		
NITROGEN.....	1.7		5.7			5.7		
OXYGEN.....	TRACE		0.0			0.3		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.2		0.0			0.3		
HYDROGEN SULFIDE.....	0.0		0.0			6.3		
CARBON DIOXIDE.....	0.1		1.5			4.7		
HELIUM.....	0.02		0.01			0.13		
HEATING VALUE.....	1211		1025			1364		
SPECIFIC GRAVITY.....	0.700		0.605			0.967		

INDEX 12382 SAMPLE 17405			INDEX 12383 SAMPLE 15625			INDEX 12384 SAMPLE 370		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	NIOBRARA		NIOBRARA			NIOBRARA		
FIELD.....	BOGGY CREEK		BUCK CREEK			LANCIE CREEK		
WELL NAME.....	CHEROKEE FED. NO. 23-13		MAYNARD FED. NO. 43-18			BUCK CREEK WELL NO. 1		
LOCATION.....	SEC. 13, T40N, R64W		SEC. 13, T36N, R63W			SEC. 34, T36N, R65W		
OWNER.....	CHEROKEE OIL PRODUCTION INC.		BURLINGTON NORTHERN, ET AL.			BUCK CREEK OIL CO.		
COMPLETED.....	06/01/83		03/23/78			01/7/79		
SAMPLED.....	09/01/84		05/23/79			06/01/20		
FORMATION.....	CRET-TURNER		PENN-LEO			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	515		515			515		
DEPTH, FEET.....	4898		6180			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	450		1800			440		
OPEN FLOW, MCFD.....	18		1599			12000		
COMPONENT, MOLE PCT.....								
METHANE.....	56.2		32.7			69.0		
ETHANE.....	10.9		5.7			29.1		
PROPANE.....	15.8		3.3			---		
N-BUTANE.....	7.4		7.4			---		
ISOBUTANE.....	3.0		0.6			---		
N-PENTANE.....	1.8		0.5			---		
ISOPENTANE.....	2.0		0.5			---		
CYCLOPENTANE.....	0.5		0.1			---		
HEXANES PLUS.....	1.1		0.3			---		
NITROGEN.....	1.2		39.6			0.9		
OXYGEN.....	TRACE		TRACE			0.6		
ARGON.....	0.0		0.1			---		
HYDROGEN.....	0.0		TRACE			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.5		14.3			0.2		
HELIUM.....	0.01		0.76			TRACE		
HEATING VALUE.....	1739		648			1220		
SPECIFIC GRAVITY.....	1.035		0.974			0.706		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1041

INDEX 12385 SAMPLE 371		INDEX 12386 SAMPLE 2102		INDEX 12387 SAMPLE 2145	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	NIOBRARA	NIOBRARA		NIOBRARA	
FIELD.....	LANCE CREEK	LANCE CREEK		LANCE CREEK	
WELL NAME.....	DHIO NO. 4	SCHURICHT NO. 1		ROHLF NO. 2	
LOCATION.....	SEC. 4, T35N, R65W	SEC. 5, T35N, R65W		SEC. 32, T36N, R65W	
OWNER.....	OHIO OIL CO.	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	7/7/00	11/20/28		09/26/23	
SAMPLED.....	05/24/20	05/22/30		09/15/30	
FORMATION.....	NOT GIVEN	CRET-LAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	515	515		515	
DEPTH, FEET.....	NOT GIVEN	3135		3030	
WELLHEAD PRESSURE, PSIG.....	400	575		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	20000		35000	
COMPONENT, MOLE PCT					
METHANE.....	74.2	71.1		69.1	
ETHANE.....	25.0	28.3		25.0	
PROPANE.....	---	---		---	
N-BUTANE.....	---	---		---	
ISOBUTANE.....	---	---		---	
N-PENTANE.....	---	---		---	
ISOPENTANE.....	---	---		---	
CYCLOPENTANE.....	---	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	0.0	0.0		5.1	
OXYGEN.....	0.4	0.1		0.1	
ARGON.....	---	---		---	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE**.....	---	---		---	
CARBON DIOXIDE.....	0.5	0.5		0.7	
HELIUM.....	0.10	0.03		0.03	
HEATING VALUE*.....	1200	1227		1148	
SPECIFIC GRAVITY.....	0.686	0.701		0.707	
INDEX 12388 SAMPLE 2164		INDEX 12389 SAMPLE 3059		INDEX 12390 SAMPLE 3061	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	NIOBRARA	NIOBRARA		NIOBRARA	
FIELD.....	LANCE CREEK	LANCE CREEK		LANCE CREEK	
WELL NAME.....	DIELMAN NO. 1	ELIZABETH LAMB NO. 17		ELIZABETH LAMB NO. 8	
LOCATION.....	SEC. 7, T35N, R65W	SEC. 5, T35N, R65W		SEC. 5, T35N, R65E	
OWNER.....	CONTINENTAL OIL CO.	OHIO OIL CO.		OHIO OIL CO.	
COMPLETED.....	08/23/27	7/7/00		07/7/36	
SAMPLED.....	09/23/30	12/19/41		12/19/41	
FORMATION.....	CRET-HUDDY	PENN-MINNELUSA		JURA-SUNDANCE BASAL	
GEOLOGIC PROVINCE CODE.....	515	515		515	
DEPTH, FEET.....	3420	5004		3951	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	185		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	41.9	66.4		16.3	
ETHANE.....	56.6	31.0		83.0	
PROPANE.....	---	---		---	
N-BUTANE.....	---	---		---	
ISOBUTANE.....	---	---		---	
N-PENTANE.....	---	---		---	
ISOPENTANE.....	---	---		---	
CYCLOPENTANE.....	---	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	0.2	2.0		0.2	
OXYGEN.....	0.1	0.2		0.2	
ARGON.....	---	---		---	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE**.....	---	---		---	
CARBON DIOXIDE.....	1.2	0.3		0.3	
HELIUM.....	0.2	0.09		0.00	
HEATING VALUE*.....	1439	1228		1652	
SPECIFIC GRAVITY.....	0.848	0.720		0.970	
INDEX 12391 SAMPLE 3717		INDEX 12392 SAMPLE 3739		INDEX 12393 SAMPLE 3060	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	NIOBRARA	NIOBRARA		NIOBRARA	
FIELD.....	LANCE CREEK	LANCE CREEK		LANCE CREEK E	
WELL NAME.....	ELIOTT B NO. 3	ROHLF NO. 2 LEASE NO. 15		SEC. C-1 LEACH NO. 1	
LOCATION.....	SEC. 6, T35N, R65W	SEC. 32, T36N, R65W		SEC. 29, T36N, R64W	
OWNER.....	ARGO OIL CORP.	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	07/07/43	01/13/44		12/7/38	
SAMPLED.....	02/04/44	03/26/44		12/22/41	
FORMATION.....	PENN-CONVERSE 1ST	PENN-CONVERSE		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	515	515		515	
DEPTH, FEET.....	4435	4425		3808	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		8000	
COMPONENT, MOLE PCT					
METHANE.....	9.3	5.2		59.9	
ETHANE.....	18.6	65.0		38.0	
PROPANE.....	---	---		---	
N-BUTANE.....	---	---		---	
ISOBUTANE.....	---	---		---	
N-PENTANE.....	---	---		---	
ISOPENTANE.....	---	---		---	
CYCLOPENTANE.....	---	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	70.0	28.7		1.7	
OXYGEN.....	0.3	0.5		0.2	
ARGON.....	---	---		---	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE**.....	---	---		---	
CARBON DIOXIDE.....	0.8	0.3		0.2	
HELIUM.....	1.01	0.26		0.03	
HEATING VALUE*.....	428	1217		1288	
SPECIFIC GRAVITY.....	0.941	0.999		0.753	
INDEX 12394 SAMPLE 9111		INDEX 12395 SAMPLE 2660		INDEX 12396 SAMPLE 2669	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	NIOBRARA	NIOBRARA		NIOBRARA	
FIELD.....	LITTLE BUCK CREEK	MULE CREEK W		MULE CREEK W	
WELL NAME.....	METER SAMPLE	NO. C-1		NO. C-1	
LOCATION.....	SEC. 26, T36N, R64W	SEC. 2, T39N, R61W		SEC. 2, T39N, R61W	
OWNER.....	CONTINENTAL OIL CO.	FALL RIVER ROYALTY & PROD.		FALL RIVER ROYALTY & PROD.	
COMPLETED.....	7/7/00	10/22/33		7/7/00	
SAMPLED.....	10/07/63	11/21/33		04/20/34	
FORMATION.....	PENN-LEO	PENN-AMSDEN		PENN-AMSDEN	
GEOLOGIC PROVINCE CODE.....	515	515		515	
DEPTH, FEET.....	5750	2242		2525	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	250		300	
OPEN FLOW, MCFD.....	NOT GIVEN	528		200	
COMPONENT, MOLE PCT					
METHANE.....	32.3	17.5		22.6	
ETHANE.....	8.6	11.1		16.9	
PROPANE.....	6.9	---		---	
N-BUTANE.....	2.8	---		---	
ISOBUTANE.....	0.8	---		---	
N-PENTANE.....	1.2	---		---	
ISOPENTANE.....	0.7	---		---	
CYCLOPENTANE.....	0.3	---		---	
HEXANES PLUS.....	1.4	---		---	
NITROGEN.....	36.2	69.4		59.0	
OXYGEN.....	TRACE	0.1		0.1	
ARGON.....	0.1	---		---	
HYDROGEN.....	0.0	---		---	
HYDROGEN SULFIDE**.....	0.0	---		---	
CARBON DIOXIDE.....	8.1	---		---	
HELIUM.....	0.60	1.82		1.40	
HEATING VALUE*.....	946	376		532	
SPECIFIC GRAVITY.....	1.024	0.890		0.876	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12397 SAMPLE 7194			INDEX 12398 SAMPLE 14874			INDEX 12399 SAMPLE 2402		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	NIOBRARA		NIOBRARA			PARK		
FIELD.....	MULE CREEK W		YOUNG WOMAN CREEK			BADGER BASIN		
WELL NAME.....	NO. 3		MMK FED. NO. 3			NO. 1		
LOCATION.....	SEC. 2, T40N, R61W		SEC. 26, T35N, R64W			SEC. 17, T57N, R101W		
OWNER.....	WEST MULE CREEK UNIT, INC.		SIMASKO PRODUCTION CO.			RESOLUTE OIL CO.		
COMPLETED.....	11/09/56		10/19/76			07/27/31		
SAMPLED.....	09/01/59		12/17/76			09/19/31		
FORMATION.....	PENN-MINNELUSA		CRET-DAKOTA			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	515		515			520		
DEPTH, FEET.....	2332		3576			8250		
WELLHEAD PRESSURE, PSIG.....	750		1000			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		2163			350		
COMPONENT, MOLE PCT								
METHANE.....	29.3	---	94.3	---		36.8	---	
ETHANE.....	6.7	---	0.5	---		59.2	---	
PROPANE.....	0.2	---	0.9	---		---	---	
N-BUTANE.....	0.1	---	0.3	---		---	---	
ISOBUTANE.....	0.1	---	0.6	---		---	---	
N-PENTANE.....	TRACE	---	0.1	---		---	---	
ISOPENTANE.....	0.3	---	0.2	---		---	---	
CYCLOPENTANE.....	TRACE	---	TRACE	---		---	---	
HEXANES PLUS.....	0.1	---	0.2	---		---	---	
NITROGEN.....	60.9	---	0.5	---		3.2	---	
OXYGEN.....	TRACE	---	0.0	---		0.4	---	
ARGON.....	0.1	---	TRACE	---		---	---	
HYDROGEN.....	0.0	---	0.0	---		---	---	
HYDROGEN SULFIDE.....	0.1	---	0.0	---		---	---	
CARBON DIOXIDE.....	0.7	---	0.7	---		---	---	
HELIUM.....	1.50	---	TRACE	---		0.00	---	
HEATING VALUE.....	447	---	1041	---		1434	---	
SPECIFIC GRAVITY.....	0.855	---	0.616	---		0.867	---	

INDEX 12400 SAMPLE 14316			INDEX 12401 SAMPLE 17721			INDEX 12402 SAMPLE 2139		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	PARK		PARK			PARK		
FIELD.....	BADGER BASIN W		BADGER CREEK			BIG POLECAT		
WELL NAME.....	GPE 21-58-102 BN NO. 1		FEDERAL 5277 NO. 2-24			DANIEL J. DANKER		
LOCATION.....	SEC. 23, T58N, R102W		SEC. 24, T50N, R100W			SEC. 1, T57N, R98W		
OWNER.....	GAS PRODUCING ENTERPRISES		ANSCHUTZ CORP.			DANIEL J. DANKER		
COMPLETED.....	04/1/00		01/26/80			--/--/00		
SAMPLED.....	04/--/74		06/19/85			09/13/30		
FORMATION.....	CRET-DAKOTA		CRET-FRONTIER			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	11398		4556			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	2810		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		1250			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	55.2	---	85.7	---		70.6	---	
ETHANE.....	8.1	---	8.3	---		18.0	---	
PROPANE.....	2.6	---	0.3	---		---	---	
N-BUTANE.....	0.4	---	0.3	---		---	---	
ISOBUTANE.....	0.3	---	0.6	---		---	---	
N-PENTANE.....	0.0	---	0.1	---		---	---	
ISOPENTANE.....	0.1	---	0.4	---		---	---	
CYCLOPENTANE.....	TRACE	---	0.2	---		---	---	
HEXANES PLUS.....	TRACE	---	0.4	---		---	---	
NITROGEN.....	26.0	---	1.6	---		10.0	---	
OXYGEN.....	63.0	---	0.2	---		1.0	---	
ARGON.....	0.3	---	TRACE	---		---	---	
HYDROGEN.....	0.0	---	0.0	---		---	---	
HYDROGEN SULFIDE.....	0.0	---	0.0	---		---	---	
CARBON DIOXIDE.....	0.7	---	0.8	---		0.3	---	
HELIUM.....	0.02	---	0.01	---		0.19	---	
HEATING VALUE.....	799	---	1135	---		1038	---	
SPECIFIC GRAVITY.....	1.411	---	0.663	---		0.693	---	

INDEX 12403 SAMPLE 9010			INDEX 12404 SAMPLE 1253			INDEX 12405 SAMPLE 1254		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	PARK		PARK			PARK		
FIELD.....	BIG POLECAT		DANKER ANTICLINE			DANKER ANTICLINE		
WELL NAME.....	GOUT, SEDGWICK NO. 1		MCMAHON NO. 4			MCMAHON NO. 4		
LOCATION.....	SEC. 34, T57N, R94W		SEC. 16, T57N, R98W			SEC. 27, T57N, R98W		
OWNER.....	SOHIO PETROLEUM CO.		MCMAHON OIL & GAS CO.			MCMAHON OIL & GAS CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	06/12/63		10/19/25			10/19/25		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	NOT GIVEN		2490			2232		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	92.7	---	88.5	---		81.8	---	
ETHANE.....	0.8	---	10.0	---		17.2	---	
PROPANE.....	0.1	---	---	---		---	---	
N-BUTANE.....	TRACE	---	---	---		---	---	
ISOBUTANE.....	TRACE	---	---	---		---	---	
N-PENTANE.....	TRACE	---	---	---		---	---	
ISOPENTANE.....	TRACE	---	---	---		---	---	
CYCLOPENTANE.....	TRACE	---	---	---		---	---	
HEXANES PLUS.....	TRACE	---	---	---		---	---	
NITROGEN.....	5.1	---	0.7	---		0.5	---	
OXYGEN.....	0.9	---	0.6	---		0.4	---	
ARGON.....	TRACE	---	---	---		---	---	
HYDROGEN.....	0.0	---	---	---		---	---	
HYDROGEN SULFIDE.....	0.0	---	---	---		---	---	
CARBON DIOXIDE.....	0.2	---	0.2	---		0.2	---	
HELIUM.....	0.03	---	TRACE	---		TRACE	---	
HEATING VALUE.....	956	---	1076	---		1137	---	
SPECIFIC GRAVITY.....	0.586	---	0.612	---		0.646	---	

INDEX 12406 SAMPLE 2189			INDEX 12407 SAMPLE 2190			INDEX 12408 SAMPLE 2191		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	PARK		PARK			PARK		
FIELD.....	ELK BASIN		ELK BASIN			ELK BASIN		
WELL NAME.....	NO. 17		NO. 17			NO. 23, ELK NO. 3		
LOCATION.....	SEC. 30, T58N, R99W		SEC. 19, T58N, R99W			SEC. 24, T58N, R99W		
OWNER.....	MIDWEST REFINING CO.		MIDWEST REFINING CO.			OHIO OIL CO.		
COMPLETED.....	05/02/17		10/02/17			02/24/22		
SAMPLED.....	10/02/30		09/30/30			10/01/30		
FORMATION.....	CRET-FRONTIER 1ST		CRET-FRONTIER 2ND			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	1420		1550			2532		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			800		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			36000		
COMPONENT, MOLE PCT								
METHANE.....	10.4	---	---	---		77.5	---	
ETHANE.....	88.7	---	84.9	---		19.7	---	
PROPANE.....	---	---	10.7	---		---	---	
N-BUTANE.....	---	---	---	---		---	---	
ISOBUTANE.....	---	---	---	---		---	---	
N-PENTANE.....	---	---	---	---		---	---	
ISOPENTANE.....	---	---	---	---		---	---	
CYCLOPENTANE.....	---	---	---	---		---	---	
HEXANES PLUS.....	---	---	---	---		---	---	
NITROGEN.....	0.5	---	4.1	---		2.5	---	
OXYGEN.....	0.1	---	0.1	---		0.1	---	
ARGON.....	---	---	---	---		---	---	
HYDROGEN.....	---	---	---	---		---	---	
HYDROGEN SULFIDE.....	---	---	---	---		---	---	
CARBON DIOXIDE.....	0.3	---	0.1	---		0.3	---	
HELIUM.....	0.00	---	0.02	---		0.07	---	
HEATING VALUE.....	11695	---	1099	---		1138	---	
SPECIFIC GRAVITY.....	0.999	---	---	---		0.666	---	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1043

		INDEX SAMPLE	12409 3707	INDEX SAMPLE	12410 3708	INDEX SAMPLE	12411 3709
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	PARK			PARK		PARK	
FIELD.....	ELK BASIN			ELK BASIN		ELK BASIN	
WELL NAME.....	MACK 4, NO. 4			NE P. R. R. NO. 2		ELK 2, NO. 101	
LOCATION.....	SEC. 30, T58N, R99W			SEC. 1, T57N, R99W		SEC. 24, T58N, R100W	
OWNER.....	OHIO OIL CO.			MACKINNIE OIL & DRILLING CO.		CONTINENTAL OIL CO.	
COMPLETED.....	03/09/43			07/06/43		09/08/43	
SAMPLED.....	11/05/43			10/05/43		11/04/43	
FORMATION.....	PENN-TENSLEEP			PENN-TENSLEEP		PENN-TENSLEEP	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	4338			4711		3938	
WELLHEAD PRESSURE, PSIG.....	2082			1906		1660	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	44.4			43.3		37.7	
ETHANE.....	45.9			42.4		43.9	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	3.3			0.1		1.7	
OXYGEN.....	0.3			0.3		0.4	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	6.1			13.9		16.3	
HELIUM.....	TRACE			TRACE		TRACE	
HEATING VALUE.....	1272			1198		1169	
SPECIFIC GRAVITY.....	0.856			0.902		0.940	
		INDEX SAMPLE	12412 9018	INDEX SAMPLE	12413 9019	INDEX SAMPLE	12414 9020
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	PARK			PARK		PARK	
FIELD.....	ELK BASIN			ELK BASIN		ELK BASIN	
WELL NAME.....	UNIT NO. 189			UNIT NO. 153		UNIT NO. 189	
LOCATION.....	SEC. 19, T58N, R99W			SEC. 25, T58N, R100W		SEC. 19, T58N, R99W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	08/22/61			07/26/49		08/22/61	
SAMPLED.....	06/09/63			06/09/63		06/09/63	
FORMATION.....	DEV-O-JEFFERSON			PENN-TENSLEEP		ORDO-BIGHORN	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	5307			5800		5529	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			95		5	
OPEN FLOW, MCFD.....	157			154		44	
COMPONENT, MOLE PCT							
METHANE.....	59.0			47.3		63.3	
ETHANE.....	14.3			17.1		12.9	
PROPANE.....	6.8			7.1		6.5	
N-BUTANE.....	5.7			3.2		5.6	
ISOBUTANE.....	1.6			0.5		1.6	
N-PENTANE.....	2.5			0.9		2.4	
ISOPENTANE.....	2.0			0.8		2.2	
CYCLOPENTANE.....	0.5			0.2		0.5	
HEXANES PLUS.....	2.7			0.9		2.8	
NITROGEN.....	2.0			2.5		1.5	
OXYGEN.....	0.1			0.2		TRACE	
ARGON.....	0.0			TRACE		0.0	
HYDROGEN.....	0.0			---		0.0	
HYDROGEN SULFIDE.....	0.1			11.7		TRACE	
CARBON DIOXIDE.....	2.8			4.2		0.7	
HELIUM.....	0.04			0.05		0.01	
HEATING VALUE.....	1626			1372		1643	
SPECIFIC GRAVITY.....	1.004			0.978		0.972	
		INDEX SAMPLE	12415 9021	INDEX SAMPLE	12416 9119	INDEX SAMPLE	12417 9120
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	PARK			PARK		PARK	
FIELD.....	ELK BASIN			ELK BASIN S		ELK BASIN S	
WELL NAME.....	UNIT NO. 56			UNIT NO. 7		NOT GIVEN	
LOCATION.....	SEC. 25, T58N, R100W			SEC. 20, T57N, R99W		SEC. 19, T57N, R99W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
COMPLETED.....	06/14/61			07/14/60		07/-/53	
SAMPLED.....	06/09/63			10/10/63		10/10/63	
FORMATION.....	MISS-MADISON			CRET-DAKOTA		CRET-PEAY & FRONTIER	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	4844			5276		4944	
WELLHEAD PRESSURE, PSIG.....	18			160		800	
OPEN FLOW, MCFD.....	15			1000		1000	
COMPONENT, MOLE PCT							
METHANE.....	54.4			84.5		91.4	
ETHANE.....	19.8			7.6		4.7	
PROPANE.....	9.8			3.0		1.7	
N-BUTANE.....	2.2			1.1		0.6	
ISOBUTANE.....	2.1			0.5		0.2	
N-PENTANE.....	1.5			0.3		0.1	
ISOPENTANE.....	1.4			0.6		0.3	
CYCLOPENTANE.....	0.2			0.1		TRACE	
HEXANES PLUS.....	1.3			0.5		0.1	
NITROGEN.....	4.0			1.5		0.6	
OXYGEN.....	TRACE			0.3		TRACE	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.3		0.2	
HELIUM.....	0.02			0.03		0.02	
HEATING VALUE.....	1605			1193		1103	
SPECIFIC GRAVITY.....	0.971			0.687		0.621	
		INDEX SAMPLE	12418 1314	INDEX SAMPLE	12419 6119	INDEX SAMPLE	12420 9563
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	PARK			PARK		PARK	
FIELD.....	GARLAND			HEART MOUNTAIN		HEART MOUNTAIN	
WELL NAME.....	HARRIMAN NO. 1			T-25-8-P		NO. 1	
LOCATION.....	SEC. 10, T56N, R98W			SEC. 8, T54N, R102W		SEC. 8, T54N, R102W	
OWNER.....	HENRY S. HARRIMAN			MOBIL OIL CO.		MONTANA POWER CO.	
COMPLETED.....	08/18/26			02/03/56		--/-/49	
SAMPLED.....	10/01/26			08/03/56		09/15/64	
FORMATION.....	CRET-FRONTIER			CRET-DAKOTA		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	2040			4213		2300	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			1765		480	
OPEN FLOW, MCFD.....	NOT GIVEN			1350		20000	
COMPONENT, MOLE PCT							
METHANE.....	79.2			81.3		85.4	
ETHANE.....	14.3			9.8		7.8	
PROPANE.....	---			3.9		3.1	
N-BUTANE.....	---			1.1		0.5	
ISOBUTANE.....	---			0.7		0.9	
N-PENTANE.....	---			0.3		0.1	
ISOPENTANE.....	---			0.3		0.2	
CYCLOPENTANE.....	---			0.3		0.3	
HEXANES PLUS.....	---			TRACE		TRACE	
NITROGEN.....	5.1			0.2		0.1	
OXYGEN.....	1.1			2.1		1.5	
ARGON.....	---			TRACE		TRACE	
HYDROGEN.....	---			0.0		0.0	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.0		0.3	
HELIUM.....	TRACE			0.63		0.02	
HEATING VALUE.....	1059			1197		1151	
SPECIFIC GRAVITY.....	0.657			0.697		0.663	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	12421 9566	INDEX SAMPLE	12422 13387	INDEX SAMPLE	12423 897
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	PARK			PARK		PARK	
FIELD.....	HEART MOUNTAIN			HEART MOUNTAIN		HORSE CENTER	
WELL NAME.....	NO. 25-8-P			TAGGART NO. 5-8		NO. 1	
LOCATION.....	SEC. 8, T54N, R102W			SEC. 8, T54N, R102W		NOT GIVEN	
OWNER.....	MONTANA POWER CO.			MONTANA POWER CO.		NOT GIVEN	
COMPLETED.....	--/--/53			02/05/72		--/--/00	
SAMPLED.....	09/15/64			09/19/72		06/20/74	
FORMATION.....	CRET-DAKOTA			CRET-DAKOTA		TRIA-CHUGWATER	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	4200			4475		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	1710			1680		NOT GIVEN	
OPEN FLOW, MCFD.....	2500			3000		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	22.9	---	---	78.5	---	0.0	---
ETHANE.....	20.9	---	---	11.1	---	0.0	---
PROPANE.....	25.3	---	---	5.1	---	---	---
N-BUTANE.....	12.2	---	---	1.3	---	---	---
ISOBUTANE.....	8.9	---	---	1.0	---	---	---
N-PENTANE.....	1.4	---	---	0.4	---	---	---
ISOPENTANE.....	2.0	---	---	0.2	---	---	---
CYCLOPENTANE.....	0.6	---	---	TRACE	---	---	---
HEXANES PLUS.....	1.5	---	---	0.2	---	---	---
NITROGEN.....	0.2	---	---	2.5	---	2.0	---
OXYGEN.....	0.1	---	---	0.0	---	0.0	---
ARGON.....	0.0	---	---	0.0	---	---	---
HYDROGEN.....	0.0	---	---	0.0	---	---	---
HYDROGEN SULFIDE**.....	0.0	---	---	0.0	---	---	---
CARBON DIOXIDE.....	0.0	---	---	0.1	---	98.0	---
HELIUM.....	TRACE	---	---	0.03	---	TRACE	---
HEATING VALUE.....	1323	---	---	1240	---	0	---
SPECIFIC GRAVITY.....	1.387	---	---	0.723	---	1.518	---
		INDEX SAMPLE	12424 2119	INDEX SAMPLE	12425 2138	INDEX SAMPLE	12426 9011
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	PARK			PARK		PARK	
FIELD.....	LITTLE BUFFALO BASIN			LITTLE BUFFALO BASIN		LITTLE BUFFALO BASIN	
WELL NAME.....	NO. 2			NO. 12		NO. 29	
LOCATION.....	SEC. 3, T47N, R100W			SEC. 12, T47N, R100W		SEC. 12, T47N, R100W	
OWNER.....	OHIO OIL CO.			MIDWEST REFINING CO.		PAN AMERICAN PETROLEUM CORP.	
COMPLETED.....	09/01/29			--/--/00		06/28/59	
SAMPLED.....	09/10/30			09/10/30		06/10/63	
FORMATION.....	CRET-FRONTIER			CRET-FRONTIER		CRET-MUDDY	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	1146			NOT GIVEN		2041	
WELLHEAD PRESSURE, PSIG.....	540			540		410	
OPEN FLOW, MCFD.....	30000			60000		1340	
COMPONENT, MOLE PCT.....							
METHANE.....	81.7	---	---	86.3	---	87.7	---
ETHANE.....	14.5	---	---	10.7	---	5.6	---
PROPANE.....	---	---	---	---	---	1.7	---
N-BUTANE.....	---	---	---	---	---	0.3	---
ISOBUTANE.....	---	---	---	---	---	0.3	---
N-PENTANE.....	---	---	---	---	---	TRACE	---
ISOPENTANE.....	---	---	---	---	---	0.3	---
CYCLOPENTANE.....	---	---	---	---	---	TRACE	---
HEXANES PLUS.....	---	---	---	---	---	0.1	---
NITROGEN.....	3.6	---	---	2.7	---	1.6	---
OXYGEN.....	0.1	---	---	0.1	---	TRACE	---
ARGON.....	---	---	---	---	---	TRACE	---
HYDROGEN.....	---	---	---	---	---	0.0	---
HYDROGEN SULFIDE**.....	---	---	---	---	---	0.1	---
CARBON DIOXIDE.....	0.1	---	---	0.2	---	0.0	---
HELIUM.....	0.04	---	---	0.04	---	0.04	---
HEATING VALUE.....	1087	---	---	1066	---	1058	---
SPECIFIC GRAVITY.....	0.643	---	---	0.521	---	0.627	---
		INDEX SAMPLE	12427 9014	INDEX SAMPLE	12428 1255	INDEX SAMPLE	12429 1256
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	PARK			PARK		PARK	
FIELD.....	LITTLE BUFFALO BASIN			LITTLE POLECAT DOME		LITTLE POLECAT DOME	
WELL NAME.....	NO. 29			WHITESIDE NO. 1		WHITESIDE NO. 1	
LOCATION.....	SEC. 12, T47N, R100W			SEC. 30, T57N, R98W		SEC. 30, T57N, R98W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.			TRANSCONTINENTAL OIL CO.		TRANSCONTINENTAL OIL CO.	
COMPLETED.....	10/12/56			--/--/00		--/--/00	
SAMPLED.....	06/10/63			10/19/25		11/01/25	
FORMATION.....	CRET-DAKOTA			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	2305			4182		4182	
WELLHEAD PRESSURE, PSIG.....	230			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	2400			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	87.9	---	---	94.4	---	95.4	---
ETHANE.....	5.9	---	---	2.4	---	2.5	---
PROPANE.....	2.2	---	---	---	---	---	---
N-BUTANE.....	0.4	---	---	---	---	---	---
ISOBUTANE.....	0.4	---	---	---	---	---	---
N-PENTANE.....	TRACE	---	---	---	---	---	---
ISOPENTANE.....	0.3	---	---	---	---	---	---
CYCLOPENTANE.....	TRACE	---	---	---	---	---	---
HEXANES PLUS.....	2.2	---	---	---	---	---	---
NITROGEN.....	0.2	---	---	1.2	---	1.0	---
OXYGEN.....	TRACE	---	---	0.6	---	0.6	---
ARGON.....	0.0	---	---	---	---	---	---
HYDROGEN.....	0.0	---	---	---	---	---	---
HYDROGEN SULFIDE**.....	0.0	---	---	---	---	---	---
CARBON DIOXIDE.....	TRACE	---	---	0.4	---	0.6	---
HELIUM.....	0.05	---	---	0.4	---	TRACE	---
HEATING VALUE.....	1103	---	---	1017	---	1011	---
SPECIFIC GRAVITY.....	0.638	---	---	0.593	---	0.581	---
		INDEX SAMPLE	12430 16580	INDEX SAMPLE	12431 16581	INDEX SAMPLE	12432 2110
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	PARK			PARK		PARK	
FIELD.....	METEETSE			METEETSE		OREGON BASIN	
WELL NAME.....	FEED NO. 2-21			FEED NO. 1-28		CACTUS NO. 1	
LOCATION.....	SEC. 21, T49N, R99W			SEC. 28, T49N, R99W		SEC. 5, T51N, R100W	
OWNER.....	TERRA RESOURCES, INC.			TERRA RESOURCES, INC.		OHIO OIL CO.	
COMPLETED.....	03/05/82			02/25/82		08/15/25	
SAMPLED.....	07/16/82			07/15/82		09/10/30	
FORMATION.....	CRET-MUDDY			CRET-MUDDY		PENN-TENSLEEP	
GEOLOGIC PROVINCE CODE.....	520			520		520	
DEPTH, FEET.....	9008			8900		3480	
WELLHEAD PRESSURE, PSIG.....	2390			2410		NOT GIVEN	
OPEN FLOW, MCFD.....	2784			427		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	87.6	---	---	81.0	---	87.0	---
ETHANE.....	7.0	---	---	7.0	---	11.1	---
PROPANE.....	1.4	---	---	1.7	---	---	---
N-BUTANE.....	0.5	---	---	0.4	---	---	---
ISOBUTANE.....	0.3	---	---	0.3	---	---	---
N-PENTANE.....	0.1	---	---	0.1	---	---	---
ISOPENTANE.....	0.2	---	---	0.2	---	---	---
CYCLOPENTANE.....	0.2	---	---	0.1	---	---	---
HEXANES PLUS.....	0.3	---	---	0.2	---	---	---
NITROGEN.....	1.9	---	---	8.7	---	0.0	---
OXYGEN.....	0.0	---	---	TRACE	---	0.1	---
ARGON.....	0.0	---	---	TRACE	---	---	---
HYDROGEN.....	0.1	---	---	0.1	---	---	---
HYDROGEN SULFIDE**.....	0.0	---	---	---	---	---	---
CARBON DIOXIDE.....	0.4	---	---	0.2	---	1.5	---
HELIUM.....	0.02	---	---	0.01	---	0.05	---
HEATING VALUE.....	1111	---	---	1041	---	1064	---
SPECIFIC GRAVITY.....	0.643	---	---	0.567	---	0.625	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1045

INDEX 12433 SAMPLE 2111		INDEX 12434 SAMPLE 2127		INDEX 12435 SAMPLE 2129	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	PARK	COUNTY.....	PARK	COUNTY.....	PARK
FIELD.....	OREGON BASIN	FIELD.....	OREGON BASIN	FIELD.....	OREGON BASIN
WELL NAME.....	SIDNEY NO. 1	WELL NAME.....	WILSON NO. 2	WELL NAME.....	HALENE NO. 1
LOCATION.....	SEC. 5, T51N, R100W	LOCATION.....	SEC. 8 NW, T50N, R100W	LOCATION.....	SEC. 29, T51N, R100W
OWNER.....	OHIO OIL CO.	OWNER.....	OHIO OIL CO.	OWNER.....	ENALAC OIL CO.
COMPLETED.....	12/03/16	COMPLETED.....	07/03/28	COMPLETED.....	01/01/15
SAMPLED.....	09/10/30	SAMPLED.....	09/11/30	SAMPLED.....	05/11/30
FORMATION.....	JURA-MORRISON	FORMATION.....	PERM-EMBAR	FORMATION.....	CRET-CLOVERLY
GEOLOGIC PROVINCE CODE.....	520	GEOLOGIC PROVINCE CODE.....	520	GEOLOGIC PROVINCE CODE.....	520
DEPTH, FEET.....	1320	DEPTH, FEET.....	3572	DEPTH, FEET.....	1368
WELLHEAD PRESSURE, PSIG.....	705	WELLHEAD PRESSURE, PSIG.....	150	WELLHEAD PRESSURE, PSIG.....	225
OPEN FLOW, MCFD.....	25000	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	86.6	METHANE.....	78.4	METHANE.....	82.7
ETHANE.....	10.1	ETHANE.....	17.2	ETHANE.....	2.9
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	3.2	NITROGEN.....	4.1	NITROGEN.....	13.2
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.8
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3
HELIUM.....	0.05	HELIUM.....	0.12	HELIUM.....	0.07
HEATING VALUE.....	1058	HEATING VALUE.....	1102	HEATING VALUE.....	890
SPECIFIC GRAVITY.....	0.619	SPECIFIC GRAVITY.....	0.658	SPECIFIC GRAVITY.....	0.630
INDEX 12436 SAMPLE 7930		INDEX 12437 SAMPLE 11046		INDEX 12438 SAMPLE 11047	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	PARK	COUNTY.....	PARK	COUNTY.....	PARK
FIELD.....	OREGON BASIN	FIELD.....	OREGON BASIN	FIELD.....	OREGON BASIN
WELL NAME.....	SIDNEY NO. 6	WELL NAME.....	CUSTER NO. 17	WELL NAME.....	CUSTER NO. 17
LOCATION.....	SEC. 5, T51N, R100W	LOCATION.....	SEC. 32, T52N, R100W	LOCATION.....	SEC. 32, T52N, R100W
OWNER.....	OHIO OIL CO.	OWNER.....	MARATHON OIL CO., ET AL.	OWNER.....	MARATHON OIL CO., ET AL.
COMPLETED.....	02/01/61	COMPLETED.....	07/24/67	COMPLETED.....	07/24/67
SAMPLED.....	04/17/67	SAMPLED.....	07/26/67	SAMPLED.....	07/26/67
FORMATION.....	TRIA-CHUGWATER	FORMATION.....	CAMB-FLATHEAD	FORMATION.....	CAMB-FLATHEAD
GEOLOGIC PROVINCE CODE.....	520	GEOLOGIC PROVINCE CODE.....	520	GEOLOGIC PROVINCE CODE.....	520
DEPTH, FEET.....	2348	DEPTH, FEET.....	5983	DEPTH, FEET.....	6035
WELLHEAD PRESSURE, PSIG.....	1013	WELLHEAD PRESSURE, PSIG.....	2510	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	3008	OPEN FLOW, MCFD.....	532	OPEN FLOW, MCFD.....	3
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	90.5	METHANE.....	87.9	METHANE.....	84.6
ETHANE.....	4.8	ETHANE.....	5.8	ETHANE.....	6.8
PROPANE.....	1.3	PROPANE.....	2.1	PROPANE.....	2.8
N-BUTANE.....	0.9	N-BUTANE.....	0.7	N-BUTANE.....	0.8
ISOBUTANE.....	0.3	ISOBUTANE.....	0.6	ISOBUTANE.....	0.8
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.4
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.5
NITROGEN.....	2.1	NITROGEN.....	1.7	NITROGEN.....	2.7
OXYGEN.....	0.2	OXYGEN.....	0.0	OXYGEN.....	0.9
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.18	HELIUM.....	0.16	HELIUM.....	0.23
HEATING VALUE.....	1070	HEATING VALUE.....	1134	HEATING VALUE.....	1160
SPECIFIC GRAVITY.....	0.617	SPECIFIC GRAVITY.....	0.650	SPECIFIC GRAVITY.....	0.677
INDEX 12439 SAMPLE 9433		INDEX 12440 SAMPLE 16512		INDEX 12441 SAMPLE 9032	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	PARK	COUNTY.....	PARK	COUNTY.....	PARK
FIELD.....	OREGON BASIN SE	FIELD.....	OREGON BASIN SE	FIELD.....	SILVERTIP
WELL NAME.....	GOVT. SIMMONS NO. 1	WELL NAME.....	DUNCAN STATE 2537 NO. 12-30A	WELL NAME.....	NO. 68-28
LOCATION.....	SEC. 1, T50N, R100W	LOCATION.....	SEC. 10, T50N, R99W	LOCATION.....	SEC. 28, T57N, R100W
OWNER.....	OHIO PETROLEUM CO.	OWNER.....	ANSCHUTZ CORP.	OWNER.....	TEXACO INC.
COMPLETED.....	12/08/55	COMPLETED.....	--/--/81	COMPLETED.....	--/--/48
SAMPLED.....	07/14/64	SAMPLED.....	04/30/82	SAMPLED.....	07/03/63
FORMATION.....	CRET-MUDDY	FORMATION.....	CRET-MUDDY	FORMATION.....	CRET-PEAY
GEOLOGIC PROVINCE CODE.....	520	GEOLOGIC PROVINCE CODE.....	520	GEOLOGIC PROVINCE CODE.....	520
DEPTH, FEET.....	5771	DEPTH, FEET.....	6800	DEPTH, FEET.....	6000
WELLHEAD PRESSURE, PSIG.....	2100	WELLHEAD PRESSURE, PSIG.....	2100	WELLHEAD PRESSURE, PSIG.....	700
OPEN FLOW, MCFD.....	5000	OPEN FLOW, MCFD.....	1000	OPEN FLOW, MCFD.....	200
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	91.4	METHANE.....	24.7	METHANE.....	51.2
ETHANE.....	5.6	ETHANE.....	24.2	ETHANE.....	16.5
PROPANE.....	1.1	PROPANE.....	0.3	PROPANE.....	8.8
N-BUTANE.....	0.3	N-BUTANE.....	0.0	N-BUTANE.....	6.5
ISOBUTANE.....	0.2	ISOBUTANE.....	0.0	ISOBUTANE.....	2.7
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	1.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	3.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.4
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.8	NITROGEN.....	73.3	NITROGEN.....	6.5
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.4
HELIUM.....	0.02	HELIUM.....	TRACE	HELIUM.....	0.02
HEATING VALUE.....	1087	HEATING VALUE.....	283	HEATING VALUE.....	1663
SPECIFIC GRAVITY.....	0.612	SPECIFIC GRAVITY.....	0.868	SPECIFIC GRAVITY.....	1.090
INDEX 12442 SAMPLE 9034		INDEX 12443 SAMPLE 9035		INDEX 12444 SAMPLE 10424	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	PARK	COUNTY.....	PARK	COUNTY.....	PARK
FIELD.....	SILVERTIP	FIELD.....	SILVERTIP	FIELD.....	SILVERTIP
WELL NAME.....	NO. 31-33	WELL NAME.....	NO. 55-33	WELL NAME.....	74-A-33
LOCATION.....	SEC. 33, T58N, R100W	LOCATION.....	SEC. 33, T58N, R100W	LOCATION.....	SEC. 33, T58N, R100W
OWNER.....	TEXACO INC.	OWNER.....	TEXACO INC.	OWNER.....	TEXACO INC.
COMPLETED.....	--/--/49	COMPLETED.....	07/--/63	COMPLETED.....	07/23/65
SAMPLED.....	07/03/63	SAMPLED.....	07/03/63	SAMPLED.....	02/28/66
FORMATION.....	PERM-EMBAR & PENN-TENSLEEP	FORMATION.....	MISS-MADISON	FORMATION.....	CRET-LANCE
GEOLOGIC PROVINCE CODE.....	520	GEOLOGIC PROVINCE CODE.....	520	GEOLOGIC PROVINCE CODE.....	520
DEPTH, FEET.....	8800	DEPTH, FEET.....	9037	DEPTH, FEET.....	1723
WELLHEAD PRESSURE, PSIG.....	1400	WELLHEAD PRESSURE, PSIG.....	40	WELLHEAD PRESSURE, PSIG.....	625
OPEN FLOW, MCFD.....	600	OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	58.3	METHANE.....	37.0	METHANE.....	80.6
ETHANE.....	12.0	ETHANE.....	24.2	ETHANE.....	8.3
PROPANE.....	1.9	PROPANE.....	11.7	PROPANE.....	4.8
N-BUTANE.....	1.9	N-BUTANE.....	8.3	N-BUTANE.....	1.2
ISOBUTANE.....	0.6	ISOBUTANE.....	2.8	ISOBUTANE.....	1.0
N-PENTANE.....	0.6	N-PENTANE.....	0.6	N-PENTANE.....	0.3
ISOPENTANE.....	0.7	ISOPENTANE.....	2.4	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.6	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	0.3	NITROGEN.....	2.2	NITROGEN.....	3.2
OXYGEN.....	0.2	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	16.2	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	4.3	CARBON DIOXIDE.....	4.8	CARBON DIOXIDE.....	0.1
HELIUM.....	0.03	HELIUM.....	0.04	HELIUM.....	0.06
HEATING VALUE.....	1194	HEATING VALUE.....	1896	HEATING VALUE.....	1195
SPECIFIC GRAVITY.....	0.883	SPECIFIC GRAVITY.....	1.200	SPECIFIC GRAVITY.....	0.705

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12445 SAMPLE 9029			INDEX 12446 SAMPLE 9030			INDEX 12447 SAMPLE 13988		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	PARK		PARK			PARK		
FIELD.....	WHISTLE CREEK		WHISTLE CREEK			WHISTLE CREEK S		
WELL NAME.....	NO. 4-16		NO. 45-16			GOVT.-SEABOARD NO. 1		
LOCATION.....	SEC. 45, T56N, R98W		LOT 45, T56N, R98W			SEC. 35, T56N, R98W		
OWNER.....	TEXACO INC.		TEXACO INC.			PHILLIPS PETROLEUM CO.		
COMPLETED.....	06/17/52		09/12/52			02/01/73		
SAMPLED.....	07/03/63		07/03/63			04/30/74		
FORMATION.....	PENN-TENSLEEP		JURA-MORRISON			CRET-PEAY		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	5832		4373			3112		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			800		
OPEN FLOW, MCFD.....	33		8			7000		
COMPONENT, MOLE PCT.....								
METHANE.....	64.7		47.5			91.2		
ETHANE.....	13.0		6.9			5.1		
PROPANE.....	7.2		9.7			1.3		
N-BUTANE.....	5.8		12.6			0.2		
ISOBUTANE.....	1.9		3.0			0.4		
N-PENTANE.....	1.6		3.0			TRACE		
ISOPENTANE.....	2.2		5.9			0.1		
CYCLOPENTANE.....	0.3		0.8			0.1		
HEXANES PLUS.....	1.8		6.5			0.1		
NITROGEN.....	1.3		1.1			0.5		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			0.8		
HELIUM.....	0.01		0.03			0.01		
HEATING VALUE.....	16.01		22.47			1082		
SPECIFIC GRAVITY.....	0.938		1.330			0.617		

INDEX 12448 SAMPLE 8231			INDEX 12449 SAMPLE 8246			INDEX 12450 SAMPLE 8263		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	PARK		PARK			PARK		
FIELD.....	WILDCAT		WILDCAT			WILDCAT		
WELL NAME.....	MCCULLOCH PEAKS GOVT. NO. 1		MCCULLOCH PEAKS GOVT. NO. 1			MCCULLOCH PEAKS GOVT. NO. 1		
LOCATION.....	SEC. 21, T54N, R100W		SEC. 21, T54N, R100W			SEC. 21, T54N, R100W		
OWNER.....	ATLANTIC REFINING CO.		ATLANTIC REFINING CO.			ATLANTIC REFINING CO.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	10/06/61		10/06/61			11/01/61		
FORMATION.....	EOCE-FORT UNION		EOCE-FORT UNION			CRET-MEETEETSE		
GEOLOGIC PROVINCE CODE.....	520		520			520		
DEPTH, FEET.....	3496		4750			7230		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	300		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	79.8		80.6			67.0		
ETHANE.....	8.6		7.8			12.2		
PROPANE.....	5.0		4.9			10.0		
N-BUTANE.....	1.3		1.3			3.3		
ISOBUTANE.....	1.6		0.4			0.8		
N-PENTANE.....	0.3		0.3			0.8		
ISOPENTANE.....	0.6		0.6			1.2		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	0.4		0.4			0.6		
NITROGEN.....	2.3		2.4			1.2		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.1		
HELIUM.....	0.04		0.15			0.02		
HEATING VALUE.....	12.49		12.44			1506		
SPECIFIC GRAVITY.....	0.730		0.726			0.879		

INDEX 12451 SAMPLE 15465			INDEX 12452 SAMPLE 2856			INDEX 12453 SAMPLE 2204		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	PARK		SHERIDAN			SUBLETTE		
FIELD.....	WILDCAT		WILDCAT			BIG PINEY		
WELL NAME.....	SELLER DRAW UNIT NO. 1		ANNA KESTER			NO. 1		
LOCATION.....	SEC. 21, T48N, R98W		SEC. 24, T58N, R85W			SEC. 5, T29N, R111W		
OWNER.....	AMERICAN QUASAR PET. CO.		ANNA KESTER			BENEFICIAL OIL CO.		
COMPLETED.....	--/--/00		12/--/40			09/28/27		
SAMPLED.....	10/26/78		02/02/41			10/03/30		
FORMATION.....	CRET-MUDDY		EOCE-WASATCH BASAL			EOCE-WASATCH		
GEOLOGIC PROVINCE CODE.....	520		515			535		
DEPTH, FEET.....	19580		434			2582		
WELLHEAD PRESSURE, PSIG.....	10280		50			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	93.5		90.0			88.6		
ETHANE.....	1.9		0.0			0.0		
PROPANE.....	0.2		---			---		
N-BUTANE.....	0.1		---			---		
ISOBUTANE.....	TRACE		---			---		
N-PENTANE.....	TRACE		---			---		
ISOPENTANE.....	TRACE		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.1		---			---		
NITROGEN.....	2.0		9.2			10.9		
OXYGEN.....	0.4		0.3			0.1		
ARGON.....	TRACE		---			---		
HYDROGEN.....	TRACE		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	1.6		0.5			0.5		
HELIUM.....	0.01		TRACE			0.00		
HEATING VALUE.....	9.95		---			8.98		
SPECIFIC GRAVITY.....	0.595		0.599			0.605		

INDEX 12454 SAMPLE 3032			INDEX 12455 SAMPLE 6752			INDEX 12456 SAMPLE 8984		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	BIG PINEY		BIG PINEY			BIG PINEY		
WELL NAME.....	CRISMAN NO. 1		TRESHER STATE NO. 9			C-3		
LOCATION.....	SEC. 19, T29N, R113W		SEC. 19, T29N, R113W			SEC. 14, T28N, R113W		
OWNER.....	SUNSET OIL & GAS CO.		GULF OIL CORP.			BELCO PETROLEUM CORP.		
COMPLETED.....	09/--/41		04/28/58			06/29/53		
SAMPLED.....	11/29/41		07/16/58			05/29/63		
FORMATION.....	EOCE-WASATCH		PALE-ALMY			PALE-ALMY		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	944		2684			2261		
WELLHEAD PRESSURE, PSIG.....	393		1025			140		
OPEN FLOW, MCFD.....	13400		58000			16514		
COMPONENT, MOLE PCT.....								
METHANE.....	83.5		89.2			80.9		
ETHANE.....	15.1		7.0			3.1		
PROPANE.....	---		2.2			0.3		
N-BUTANE.....	---		0.4			0.1		
ISOBUTANE.....	---		0.5			0.1		
N-PENTANE.....	---		TRACE			TRACE		
ISOPENTANE.....	---		0.3			0.1		
CYCLOPENTANE.....	---		0.1			0.1		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	0.9		0.2			12.0		
OXYGEN.....	0.2		TRACE			2.6		
ARGON.....	---		TRACE			0.1		
HYDROGEN.....	---		0.0			0.0		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.2		TRACE			0.2		
HELIUM.....	0.05		0.03			0.02		
HEATING VALUE.....	1116		1134			903		
SPECIFIC GRAVITY.....	0.635		0.633			0.649		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

INDEX 12457 SAMPLE 8991			INDEX 12458 SAMPLE 8992			INDEX 12459 SAMPLE 16301		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	BIG PINEY		BIG PINEY			BIG PINEY		
WELL NAME.....	B-35		E-24			GREEN RIVER BEND UNIT 73-17		
LOCATION.....	SEC. 35, T29N, R113W		SEC. 31, T29N, R112W			SEC. 17, T27N, R112W		
OWNER.....	PAN AMERICAN PETROLEUM CORP.		PAN AMERICAN PETROLEUM CORP.			BELCO PETROLEUM CORP.		
COMPLETED.....	12/03/59		12/03/59			11/22/80		
SAMPLED.....	05/28/63		05/28/63			08/05/81		
FORMATION.....	CRET-MESAVERDE		PALE-ALMY			CRET-FRONTIER 2ND		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	3050		NOT GIVEN			7266		
WELLHEAD PRESSURE, PSIG.....	1100		600			325		
OPEN FLOW, MCFD.....	1500		300			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.7	-----	91.1	-----		93.9	-----	
ETHANE.....	6.4	-----	5.7	-----		3.5	-----	
PROPANE.....	2.1	-----	1.5	-----		1.1	-----	
N-BUTANE.....	0.5	-----	0.4	-----		0.3	-----	
ISOBUTANE.....	0.4	-----	0.2	-----		0.1	-----	
N-PENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
ISOPENTANE.....	0.3	-----	0.2	-----		0.1	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.1	-----	
NITROGEN.....	0.6	-----	0.5	-----		0.5	-----	
OXYGEN.....	0.0	-----	0.0	-----		0.0	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.7	-----	0.1	-----		0.2	-----	
HELIUM.....	0.02	-----	0.03	-----		0.01	-----	
HEATING VALUE.....	1120	-----	1105	-----		1065	-----	
SPECIFIC GRAVITY.....	0.640	-----	0.620	-----		0.596	-----	
INDEX 12460 SAMPLE 6764			INDEX 12461 SAMPLE 8418			INDEX 12462 SAMPLE 8419		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	BIRCH CREEK		BIRCH CREEK			BIRCH CREEK		
WELL NAME.....	BIRCH CREEK UNIT NO. 1		BIRCH CREEK UNIT NO. 13			BIRCH CREEK UNIT NO. 13		
LOCATION.....	SEC. 14, T27N, R113W		SEC. 22, T27N, R113W			SEC. 22, T27N, R113W		
OWNER.....	CALIFORNIA CO.		CALIFORNIA CO.			CALIFORNIA CO.		
COMPLETED.....	04/10/57		12/14/61			12/14/61		
SAMPLED.....	07/29/58		02/24/62			02/24/62		
FORMATION.....	CRET-BEAR RIVER		CRET-BEAR RIVER			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	7543		7940			7068		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		3250			3150		
OPEN FLOW, MCFD.....	1440		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.2	-----	87.7	-----		92.1	-----	
ETHANE.....	5.5	-----	6.8	-----		4.3	-----	
PROPANE.....	2.9	-----	2.9	-----		1.1	-----	
N-BUTANE.....	0.6	-----	0.7	-----		0.2	-----	
ISOBUTANE.....	0.2	-----	0.4	-----		TRACE	-----	
N-PENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
ISOPENTANE.....	0.9	-----	0.4	-----		0.6	-----	
CYCLOPENTANE.....	0.0	-----	0.1	-----		0.3	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.3	-----	
NITROGEN.....	0.5	-----	0.9	-----		0.8	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		0.1	-----	
ARGON.....	TRACE	-----	0.0	-----		0.0	-----	
HYDROGEN.....	0.0	-----	0.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.0	-----		0.2	-----	
HELIUM.....	0.02	-----	0.02	-----		0.02	-----	
HEATING VALUE.....	1152	-----	1149	-----		1098	-----	
SPECIFIC GRAVITY.....	0.648	-----	0.650	-----		0.620	-----	
INDEX 12463 SAMPLE 14787			INDEX 12464 SAMPLE 13213			INDEX 12465 SAMPLE 13214		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	BIRCH CREEK		BIRD CANYON			BIRD CANYON		
WELL NAME.....	BIRCH CREEK UNIT 94		FED. NO. 22-25			FED. NO. 22-25		
LOCATION.....	SEC. 11, T27N, R113W		SEC. 25, T27N, R112W			SEC. 25, T27N, R112W		
OWNER.....	CHEVRON OIL CO.		WESTERN PETROLEUM, INC..			WESTERN PETROLEUM, INC.		
COMPLETED.....	09/25/76		05/12/72			05/12/72		
SAMPLED.....	09/27/76		05/12/72			05/12/72		
FORMATION.....	CRET-FRONTIER & BEAR RIVER		CRET-BEAR RIVER			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	7779		8822			8142		
WELLHEAD PRESSURE, PSIG.....	2250		NOT GIVEN			3700		
OPEN FLOW, MCFD.....	7000		435			1000		
COMPONENT, MOLE PCT								
METHANE.....	90.7	-----	92.3	-----		92.9	-----	
ETHANE.....	5.1	-----	4.1	-----		4.3	-----	
PROPANE.....	2.0	-----	1.3	-----		1.3	-----	
N-BUTANE.....	0.5	-----	0.2	-----		0.2	-----	
ISOBUTANE.....	0.2	-----	0.2	-----		0.2	-----	
N-PENTANE.....	0.1	-----	0.1	-----		0.1	-----	
ISOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
CYCLOPENTANE.....	0.1	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.1	-----	
NITROGEN.....	0.7	-----	1.2	-----		0.7	-----	
OXYGEN.....	0.0	-----	0.1	-----		TRACE	-----	
ARGON.....	TRACE	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.2	-----		0.2	-----	
HELIUM.....	0.01	-----	0.01	-----		0.01	-----	
HEATING VALUE.....	1112	-----	1069	-----		1079	-----	
SPECIFIC GRAVITY.....	0.626	-----	0.607	-----		0.606	-----	
INDEX 12466 SAMPLE 13982			INDEX 12467 SAMPLE 16574			INDEX 12468 SAMPLE 17050		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	BIRD CANYON		BIRD CANYON			CASTLE CREEK UNIT		
WELL NAME.....	BIRD CANYON NO. 41-36		FED. NO. 30-31			CASTLE CREEK NO. 21-28		
LOCATION.....	SEC. 36, T27N, R112W		SEC. 36, T27N, R111W			SEC. 28, T32N, R114W		
OWNER.....	WESTTRANS PETROLEUM, INC.		ENERGETICS, INC.			SELEFON OIL & GAS CO.		
COMPLETED.....	07/06/72		-7/-700			07/22/82		
SAMPLED.....	-7/-700		07/11/82			09/02/83		
FORMATION.....	CRET-FRONTIER		CRET-BEAR RIVER			CRET-MESAVERDE		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	8542		10290			5252		
WELLHEAD PRESSURE, PSIG.....	1900		NOT GIVEN			1490		
OPEN FLOW, MCFD.....	3190		2172			3703		
COMPONENT, MOLE PCT								
METHANE.....	90.5	-----	95.1	-----		89.8	-----	
ETHANE.....	5.2	-----	3.1	-----		5.3	-----	
PROPANE.....	1.8	-----	0.6	-----		1.9	-----	
N-BUTANE.....	0.3	-----	0.1	-----		0.5	-----	
ISOBUTANE.....	0.4	-----	TRACE	-----		0.5	-----	
N-PENTANE.....	0.1	-----	TRACE	-----		0.1	-----	
ISOPENTANE.....	0.2	-----	0.1	-----		0.4	-----	
CYCLOPENTANE.....	TRACE	-----	0.1	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	TRACE	-----		0.2	-----	
NITROGEN.....	0.5	-----	0.5	-----		0.8	-----	
OXYGEN.....	0.0	-----	0.0	-----		TRACE	-----	
ARGON.....	0.0	-----	TRACE	-----		TRACE	-----	
HYDROGEN.....	0.1	-----	0.1	-----		0.3	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.3	-----		0.1	-----	
HELIUM.....	0.01	-----	0.01	-----		0.03	-----	
HEATING VALUE.....	1111	-----	1042	-----		1124	-----	
SPECIFIC GRAVITY.....	0.626	-----	0.583	-----		0.634	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12469 SAMPLE 8779		INDEX 12470 SAMPLE 16659		INDEX 12471 SAMPLE 16801	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	SUBLETTE	SUBLETTE	SUBLETTE	SUBLETTE	
FIELD.....	CHIMNEY BUTTE	CHIMNEY BUTTE	CHIMNEY BUTTE	CHIMNEY BUTTE	
WELL NAME.....	C-8, UNIT NO. 17	C-75-36	C-75-36	C-75-23	
LOCATION.....	SEC. 35, T28N, R113W	SEC. 36, T28N, R113W	SEC. 36, T28N, R113W	SEC. 23, T28N, R113W	
OWNER.....	BELCO PETROLEUM CORP.	BELCO PETROLEUM CORP.	BELCO PETROLEUM CORP.	BELCO PETROLEUM CORP.	
COMPLETED.....	10/04/62	03/29/82	03/29/82	09/14/82	
SAMPLED.....	11/27/62	09/~/82	03/05/83	03/05/83	
FORMATION.....	CRET-FRONTIER	CRET-MESAVERDE	CRET-MESAVERDE	PALE---	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	6720	2900	2560	1000	
WELLHEAD PRESSURE, PSIG.....	2725	1225	1000	100	
OPEN FLOW, MCFD.....	17195	1579			
COMPONENT, MOLE PCT					
METHANE.....	92.4	92.3	85.7		
ETHANE.....	2.9	3.2	4.0		
PROPANE.....	1.2	1.7	3.8		
N-BUTANE.....	0.4	0.4	1.3		
ISOBUTANE.....	0.2	0.4	1.8		
N-PENTANE.....	TRACE	0.1	0.3		
ISOPENTANE.....	TRACE	0.2	1.1		
CYCLOPENTANE.....	TRACE	TRACE	0.3		
HEXANES PLUS.....	TRACE	0.1	0.5		
NITROGEN.....	2.0	0.9	0.5		
OXYGEN.....	0.2	0.1	TRACE		
ARGON.....	TRACE	TRACE	TRACE		
HYDROGEN.....	0.1	0.1	0.2		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	0.1	0.4	0.4		
HELIUM.....	0.02	0.02	0.01		
HEATING VALUE.....	1048	1082	1240		
SPECIFIC GRAVITY.....	0.604	0.615	0.709		

INDEX 12472 SAMPLE 12280		INDEX 12473 SAMPLE 2202		INDEX 12474 SAMPLE 6625	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	SUBLETTE	SUBLETTE	SUBLETTE	SUBLETTE	
FIELD.....	DEER HILL UNIT	DEER HILL UNIT	DEER HILL UNIT	DEER HILL UNIT	
WELL NAME.....	DEER HILL UNIT NO. 2-23	NO. 2	NO. 2	DRY PINEY UNIT NO. 3	
LOCATION.....	SEC. 23, T30N, R113W	SEC. 12, T28N, R114W	SEC. 12, T28N, R114W	SEC. 4, T27N, R114W	
OWNER.....	CHAROLIER & ASSOCIATES, INC.	CHARLES LACKEY	CHARLES LACKEY	MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	11/23/69	04/30/28	04/30/28	02/12/58	
SAMPLED.....	06/02/70	10/10/30	10/10/30	05/04/58	
FORMATION.....	SALE-ALMY	CRET-ADAVILLE	CRET-ADAVILLE	CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	2946	510	7641		
WELLHEAD PRESSURE, PSIG.....	3400	5	2677		
OPEN FLOW, MCFD.....	2235	NOT GIVEN	5080		
COMPONENT, MOLE PCT					
METHANE.....	91.7	80.0	90.6		
ETHANE.....	2.7	17.9	5.5		
PROPANE.....	0.6	---	1.6		
N-BUTANE.....	0.1	---	0.5		
ISOBUTANE.....	0.4	---	0.3		
N-PENTANE.....	TRACE	---	0.1		
ISOPENTANE.....	0.1	---	0.2		
CYCLOPENTANE.....	TRACE	---	0.1		
HEXANES PLUS.....	3.5	---	0.6		
NITROGEN.....	0.3	1.5	0.1		
OXYGEN.....	0.3	0.3	0.1		
ARGON.....	TRACE	---	TRACE		
HYDROGEN.....	0.4	---	TRACE		
HYDROGEN SULFIDE.....	0.0	---	0.0		
CARBON DIOXIDE.....	0.0	0.3	0.1		
HELIUM.....	0.06	0.00	TRACE		
HEATING VALUE.....	1020	1111	1112		
SPECIFIC GRAVITY.....	0.599	0.654	0.626		

INDEX 12475 SAMPLE 13612		INDEX 12476 SAMPLE 13613		INDEX 12477 SAMPLE 7191	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	SUBLETTE	SUBLETTE	SUBLETTE	SUBLETTE	
FIELD.....	DRY PINEY	DRY PINEY	DRY PINEY	FIGURE FOUR	
WELL NAME.....	DRY PINEY UNIT NO. 22	DRY PINEY UNIT NO. 22	DRY PINEY UNIT NO. 22	FIGURE FOUR CANYON NO. 1	
LOCATION.....	SEC. 10, T27N, R114W	SEC. 10, T27N, R114W	SEC. 10, T27N, R114W	SEC. 15, T27N, R112W	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	CARTER OIL CO.	
COMPLETED.....	09/07/72	09/07/72	09/07/72	07/13/59	
SAMPLED.....	04/06/73	04/06/73	04/06/73	08/~/59	
FORMATION.....	CRET-FRONTIER	CRET-BEAR RIVER	CRET-BEAR RIVER	CRET-FRONTIER 2ND	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	6450	8143	7626		
WELLHEAD PRESSURE, PSIG.....	1400	1800	18000		
OPEN FLOW, MCFD.....	2040	1210	NOT GIVEN		
COMPONENT, MOLE PCT					
METHANE.....	88.4	87.0	95.4		
ETHANE.....	5.6	6.3	2.7		
PROPANE.....	2.5	3.1	0.8		
N-BUTANE.....	0.5	0.6	0.1		
ISOBUTANE.....	0.2	0.6	TRACE		
N-PENTANE.....	TRACE	0.1	TRACE		
ISOPENTANE.....	0.2	0.2	0.1		
CYCLOPENTANE.....	TRACE	TRACE	0.1		
HEXANES PLUS.....	0.1	0.1	0.1		
NITROGEN.....	2.0	1.6	0.5		
OXYGEN.....	0.0	0.0	TRACE		
ARGON.....	0.0	TRACE	0.1		
HYDROGEN.....	TRACE	0.0	TRACE		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	0.1	0.0	0.2		
HELIUM.....	0.04	0.03	0.01		
HEATING VALUE.....	1108	1144	1052		
SPECIFIC GRAVITY.....	0.637	0.656	0.589		

INDEX 12478 SAMPLE 17352		INDEX 12479 SAMPLE 15714		INDEX 12480 SAMPLE 8982	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	SUBLETTE	SUBLETTE	SUBLETTE	SUBLETTE	
FIELD.....	FIGURE FOUR CANYON	FIGURE FOUR CANYON	FIGURE FOUR CANYON	GOAT HILL	
WELL NAME.....	FIGURE FOUR CANYON 2-12	FIGURE FOUR CANYON 2-12	FIGURE FOUR CANYON 2-12	GOAT HILL NO. 3	
LOCATION.....	SEC. 12, T27N, R112W	SEC. 9, T28N, R114W	SEC. 9, T28N, R114W	SEC. 32, T31N, R113W	
OWNER.....	BELCO DEVELOPMENT CORP.	BELCO PETROLEUM CORP.	BELCO PETROLEUM CORP.	BELCO PETROLEUM CORP.	
COMPLETED.....	10/09/83	11/14/77	06/06/62	06/06/62	
SAMPLED.....	07/12/84	07/27/79	05/27/63	05/27/63	
FORMATION.....	CRET-BEAR RIVER	CRET-FRONTIER	PALE-ALMY	PALE-ALMY	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	9393	7166	2229		
WELLHEAD PRESSURE, PSIG.....	4350	1875	745		
OPEN FLOW, MCFD.....	2271	2328	41441		
COMPONENT, MOLE PCT					
METHANE.....	93.7	85.9	85.8		
ETHANE.....	3.9	3.4	5.9		
PROPANE.....	0.7	1.2	3.2		
N-BUTANE.....	0.2	1.2	0.8		
ISOBUTANE.....	TRACE	1.1	0.9		
N-PENTANE.....	0.1	0.1	0.1		
ISOPENTANE.....	TRACE	0.4	0.2		
CYCLOPENTANE.....	TRACE	0.1	TRACE		
HEXANES PLUS.....	TRACE	0.1	0.2		
NITROGEN.....	1.0	1.6	2.7		
OXYGEN.....	0.1	0.0	0.0		
ARGON.....	TRACE	0.0	0.0		
HYDROGEN.....	0.0	0.0	0.0		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	0.2	0.1	0.1		
HELIUM.....	0.01	0.03	0.10		
HEATING VALUE.....	1048	1189	1138		
SPECIFIC GRAVITY.....	0.592	0.684	0.664		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1049

INDEX 12481 SAMPLE 7129		INDEX 12482 SAMPLE 8977		INDEX 12483 SAMPLE 12154	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	SUBLETTE	SUBLETTE		SUBLETTE	
FIELD.....	GREEN RIVER BEND	GREEN RIVER BEND		GREEN RIVER BEND	
WELL NAME.....	GREEN RIVER BEND UNIT NO. 1	T-5		GRB UNIT NO. T-79-7	
LOCATION.....	SEC. 19, T27N, R112W	SEC. 36, T27N, R113W		SEC. 7, T27N, R112W	
OWNER.....	PAN AMERICAN PETROLEUM CORP.	BELCO PETROLEUM CORP.		BELCO PETROLEUM CORP.	
COMPLETED.....	02/20/59	11/24/62		09/25/69	
SAMPLED.....	06/25/59	09/09/63		12/19/67	
FORMATION.....	CRET-FRONTIER 2ND	PALE-ALMY		PALE-ALMY & BIRCH CREEK	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	728	2458		2771	
WELLHEAD PRESSURE, PSIG.....	2500	920		1157	
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		2443	
COMPONENT, MOLE PCT					
METHANE.....	94.1	82.2		90.7	
ETHANE.....	3.6	7.2		4.0	
PROPANE.....	0.2	3.0		1.9	
N-BUTANE.....	0.2	1.1		0.4	
ISOBUTANE.....	0.2	1.0		0.6	
N-PENTANE.....	TRACE	0.2		0.0	
ISOPENTANE.....	TRACE	0.2		0.2	
CYCLOPENTANE.....	TRACE	0.3		0.1	
HEXANES PLUS.....	0.1	0.7		0.1	
NITROGEN.....	0.5	3.0		1.3	
OXYGEN.....	0.0	0.2		TRACE	
ARGON.....	TRACE	0.0		TRACE	
HYDROGEN.....	0.0	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.0		0.7	
HELIUM.....	0.00	0.01		0.05	
HEATING VALUE.....	1060	1196		1091	
SPECIFIC GRAVITY.....	0.594	0.708		0.625	

INDEX 12484 SAMPLE 17365		INDEX 12485 SAMPLE 6055		INDEX 12486 SAMPLE 8818	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	SUBLETTE	SUBLETTE		SUBLETTE	
FIELD.....	GREEN RIVER BEND	HOGSBACK		HOGSBACK	
WELL NAME.....	GREEN RIVER BEND NO. 81-36	HOGSBACK UNIT 87-19		HOGSBACK NO. 76-36	
LOCATION.....	SEC. 36, T27N, R113W	SEC. 19, T27N, R113W		SEC. 36, T27N, R114W	
OWNER.....	BELCO DEVELOPMENT CORP.	GENERAL PETROLEUM CORP.		MOBIL OIL CO.	
COMPLETED.....	09/25/83	10/31/55		08/-/62	
SAMPLED.....	07/31/84	05/09/56		01/03/63	
FORMATION.....	CRET-FRONTIER & MUDDY	CRET-FRONTIER		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	6845	6488		7543	
WELLHEAD PRESSURE, PSIG.....	2890	2300		2300	
OPEN FLOW, MCFD.....	3557	15500		1950	
COMPONENT, MOLE PCT					
METHANE.....	90.7	36.5		86.5	
ETHANE.....	5.9	42.0		6.7	
PROPANE.....	0.5	0.0		0.0	
N-BUTANE.....	0.6	0.0		0.8	
ISOBUTANE.....	0.1	0.0		0.7	
N-PENTANE.....	0.1	0.0		0.7	
ISOPENTANE.....	0.4	4.8		0.3	
CYCLOPENTANE.....	0.1	0.3		TRACE	
HEXANES PLUS.....	0.2	0.1		0.1	
NITROGEN.....	1.1	9.2		1.4	
OXYGEN.....	0.1	1.3		TRACE	
ARGON.....	TRACE	0.6		TRACE	
HYDROGEN.....	0.0	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.0		0.0	
HELIUM.....	0.01	0.01		0.03	
HEATING VALUE.....	1097	1752		1147	
SPECIFIC GRAVITY.....	0.621	1.152		0.656	

INDEX 12487 SAMPLE 15709		INDEX 12488 SAMPLE 17156		INDEX 12489 SAMPLE 2200	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	SUBLETTE	SUBLETTE		SUBLETTE	
FIELD.....	JOHNSON RIDGE	JOHNSON RIDGE		LA BARGE	
WELL NAME.....	NO. 5H-1	NO. 34		NO. 5H-1	
LOCATION.....	SEC. 33, T30N, R113W	SEC. 34, T30N, R113W		SEC. 34, T27N, R113W	
OWNER.....	BELCO PETROLEUM CORP.	BELCO DEVELOPMENT CORP.		CALIFORNIA CO.	
COMPLETED.....	02/17/78	09/09/85		04/01/27	
SAMPLED.....	07/27/79	01/09/84		10/09/50	
FORMATION.....	EOCF-FORT UNION	CRET-MESAVERDE TRANSITIONAL		CRET-FRONTIER 1ST	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	2150	2800		660	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	1205		5	
OPEN FLOW, MCFD.....	2229	3068		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	85.9	85.9		69.6	
ETHANE.....	7.3	7.3		28.6	
PROPANE.....	2.9	0.6		---	
N-BUTANE.....	0.6	0.6		---	
ISOBUTANE.....	0.8	0.7		---	
N-PENTANE.....	0.2	0.2		---	
ISOPENTANE.....	0.2	0.2		---	
CYCLOPENTANE.....	0.1	0.1		---	
HEXANES PLUS.....	0.1	0.2		---	
NITROGEN.....	0.8	0.1		0.6	
OXYGEN.....	TRACE	0.1		0.3	
ARGON.....	TRACE	TRACE		---	
HYDROGEN.....	0.0	0.0		---	
HYDROGEN SULFIDE.....	0.0	0.0		---	
CARBON DIOXIDE.....	1.2	2.2		0.9	
HELIUM.....	0.02	0.02		0.03	
HEATING VALUE.....	1149	1143		1218	
SPECIFIC GRAVITY.....	0.668	0.674		0.709	

INDEX 12490 SAMPLE 2201		INDEX 12491 SAMPLE 8980		INDEX 12492 SAMPLE 11238	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	SUBLETTE	SUBLETTE		SUBLETTE	
FIELD.....	LA BARGE	LA BARGE		LA BARGE E	
WELL NAME.....	NO. 5H-2	BNG NO. 34		EAST LA BARGE NO. 20-21	
LOCATION.....	SEC. 4, T27N, R113W	SEC. 4, T26N, R113W		SEC. 21, T27N, R112W	
OWNER.....	CALIFORNIA CO.	BELCO PETROLEUM CORP.		BELCO PETROLEUM CORP.	
COMPLETED.....	06/18/27	05/20/60		05/12/67	
SAMPLED.....	05/03/30	05/29/63		12/05/67	
FORMATION.....	CRET-SECOND SAND	CRET-FRONTIER & MUDDY		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	790	6928		7038	
WELLHEAD PRESSURE, PSIG.....	5	1031		2106	
OPEN FLOW, MCFD.....	NOT GIVEN	5976		9558	
COMPONENT, MOLE PCT					
METHANE.....	64.1	85.4		95.5	
ETHANE.....	34.1	6.8		2.9	
PROPANE.....	---	2.9		0.5	
N-BUTANE.....	---	1.8		0.1	
ISOBUTANE.....	---	0.5		TRACE	
N-PENTANE.....	---	0.1		0.1	
ISOPENTANE.....	---	0.2		0.1	
CYCLOPENTANE.....	---	TRACE		TRACE	
HEXANES PLUS.....	---	0.1		0.1	
NITROGEN.....	0.7	2.7		0.4	
OXYGEN.....	0.3	0.0		0.0	
ARGON.....	---	TRACE		TRACE	
HYDROGEN.....	---	0.0		0.1	
HYDROGEN SULFIDE.....	---	0.0		0.0	
CARBON DIOXIDE.....	0.7	0.3		0.3	
HELIUM.....	0.03	0.04		0.01	
HEATING VALUE.....	1267	1128		1050	
SPECIFIC GRAVITY.....	0.734	0.661		0.586	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12493 SAMPLE 17719			INDEX 12494 SAMPLE 16609			INDEX 12495 SAMPLE 16497		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	LA BARGE E		LA BARGE N			NEW FORK		
WELL NAME.....	EAST LA BARGE NO. 40-32		N LA BARGE UNIT NO. 27-17			NEW FORK NO. 1		
LOCATION.....	SEC. 17, T27N, R112W		SEC. 17, T27N, R113W			SEC. 25, T30N, R108W		
OWNER.....	BELNORTH PETROLEUM CORP.		BELCO PETROLEUM CORP.			AMERICAN HUNTER EXP. CO.		
COMPLETED.....	11/16/84		08/20/80			04/14/82		
SAMPLED.....	--/--/80		08/10/82			04/14/82		
FORMATION.....	CRET-MESAVERDE		CRET-FRONTIER 1ST & 2ND			EGGE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	2487		6301			10812		
WELLHEAD PRESSURE, PSIG.....	1143		1100			NOT GIVEN		
OPEN FLOW, MCFD.....	4358		1756			1476		
COMPONENT, MOLE PCT								
METHANE.....	88.0		91.3			79.6		
ETHANE.....	0.7		4.9			4.4		
PROPANE.....	2.9		1.5			5.0		
N-BUTANE.....	0.6		0.4			3.7		
ISOBUTANE.....	0.9		0.2			5.9		
N-PENTANE.....	0.1		0.1			0.7		
ISOPENTANE.....	0.2		0.1			0.8		
CYCLOPENTANE.....	TRACE		0.1			0.4		
HEXANES PLUS.....	0.1		0.1			0.7		
NITROGEN.....	1.2		0.7			0.6		
OXYGEN.....	0.1		TRACE			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.0		
HELIUM.....	0.02		0.02			TRACE		
HEATING VALUE.....	1137		1094			1386		
SPECIFIC GRAVITY.....	0.650		0.618			0.798		
INDEX 12496 SAMPLE 16606			INDEX 12497 SAMPLE 16605			INDEX 12498 SAMPLE 10096		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	OTE CREEK		PINE GROVES			PINEDALE		
WELL NAME.....	OTE CREEK NO. 3-8		FOGARTY CREEK UNIT NO. 8-20			PINEDALE UNIT NO. 8		
LOCATION.....	SEC. 8, T32N, R114W		SEC. 8, T28N, R114W			SEC. 20, T33N, R109W		
OWNER.....	BELCO PETROLEUM CORP.		BELCO PETROLEUM CORP.			MOUNTAIN FUEL SUPPLY CO.		
COMPLETED.....	10/30/80		01/13/78			01/06/64		
SAMPLED.....	08/10/82		08/10/82			08/27/65		
FORMATION.....	CRET-MESAVERDE		CRET-FRONTIER 2ND			EGGE-FORT UNION		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	5174		7967			7275		
WELLHEAD PRESSURE, PSIG.....	1100		650			5250		
OPEN FLOW, MCFD.....	129		827			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	83.5		90.0			93.4		
ETHANE.....	7.4		5.0			4.4		
PROPANE.....	0.9		0.9			0.8		
N-BUTANE.....	0.9		0.5			0.1		
ISOBUTANE.....	1.6		0.3			0.3		
N-PENTANE.....	0.3		0.1			TRACE		
ISOPENTANE.....	0.5		0.3			0.1		
CYCLOPENTANE.....	0.2		0.2			TRACE		
HEXANES PLUS.....	0.4		0.2			TRACE		
NITROGEN.....	1.0		1.3			0.7		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.1		0.1			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.03		0.04			0.01		
HEATING VALUE.....	1226		1113			1063		
SPECIFIC GRAVITY.....	0.702		0.634			0.596		
INDEX 12499 SAMPLE 8208			INDEX 12500 SAMPLE 8349			INDEX 12501 SAMPLE 12296		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	RILEY RIDGE		RILEY RIDGE			RILEY RIDGE		
WELL NAME.....	TIP TOP 22-19G		TIP TOP 22-19G			HOBACK II UNIT, NO. 2		
LOCATION.....	SEC. 19, T28N, R113W		SEC. 19, T28N, R113W			SEC. 15, T28N, R115W		
OWNER.....	MOBIL OIL CO.		MOBIL OIL CO.			HUMBLE OIL & REFINING CO.		
COMPLETED.....	12/06/61		--/--/00			06/11/70		
SAMPLED.....	09/13/61		12/28/61			06/14/70		
FORMATION.....	PENN-TENSLEEP		ORDO-BIGHORN			MISS-MADISON		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	12878		15095			15750		
WELLHEAD PRESSURE, PSIG.....	3098		6790			1500		
OPEN FLOW, MCFD.....	336		9800			70		
COMPONENT, MOLE PCT								
METHANE.....	26.3		6.7			25.8		
ETHANE.....	0.1		0.1			0.2		
PROPANE.....	TRACE		0.2			0.0		
N-BUTANE.....	TRACE		0.1			0.0		
ISOBUTANE.....	TRACE		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	TRACE		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	TRACE		0.0			0.0		
NITROGEN.....	8.4		6.5			9.0		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			3.9		
CARBON DIOXIDE.....	64.2		84.5			60.4		
HELIUM.....	75		78			0.64		
HEATING VALUE.....	268		1.416			290		
SPECIFIC GRAVITY.....	1.213					1.204		
INDEX 12502 SAMPLE 12337			INDEX 12503 SAMPLE 15731			INDEX 12504 SAMPLE 15732		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	RILEY RIDGE		RILEY RIDGE			RILEY RIDGE		
WELL NAME.....	HOBACK II UNIT, NO. 2		TIP TOP UNIT F14-13G			TIP TOP UNIT F14-13G		
LOCATION.....	SEC. 15, T28N, R115W		SEC. 13, T28N, R114W			SEC. 13, T28N, R114W		
OWNER.....	HUMBLE OIL & REFINING CO.		MOBIL OIL CORP.			MOBIL OIL CORP.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	07/08/70		08/01/79			08/01/79		
FORMATION.....	CRET-MOWRY		ORDO-BIGHORN			ORDO-BIGHORN		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	8687		15153			15153		
WELLHEAD PRESSURE, PSIG.....	2580		2578			2578		
OPEN FLOW, MCFD.....	660		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.0		7.3			10.0		
ETHANE.....	7.0		TRACE			TRACE		
PROPANE.....	1.1		0.1			0.0		
N-BUTANE.....	1.1		0.0			0.0		
ISOBUTANE.....	0.9		0.0			0.0		
N-PENTANE.....	0.3		0.0			0.0		
ISOPENTANE.....	0.9		0.0			0.0		
CYCLOPENTANE.....	0.4		0.0			0.0		
HEXANES PLUS.....	0.3		0.0			0.0		
NITROGEN.....	0.3		7.7			10.7		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		0.1			0.1		
HYDROGEN.....	TRACE		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		1.6			1.2		
CARBON DIOXIDE.....	0.1		82.2			76.6		
HELIUM.....	0.05		0.85			1.32		
HEATING VALUE.....	1237		1.394			109		
SPECIFIC GRAVITY.....	0.721					1.348		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1051

STATE	INDEX	12505	INDEX	12506	INDEX	12507
COUNTY	SAMPLE	15733	SAMPLE	15734	SAMPLE	15735
WYOMING	WYOMING		WYOMING		WYOMING	
SUBLETTE	SUBLETTE		SUBLETTE		SUBLETTE	
RILEY RIDGE	RILEY RIDGE		RILEY RIDGE		RILEY RIDGE	
TIP TOP UNIT F14-13G	TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G	
SEC. 13, T28N, R114W	SEC. 13, T28N, R114W		SEC. 13, T28N, R114W		SEC. 13, T28N, R114W	
MOBIL OIL CORP.	MOBIL OIL CORP.		MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED	COMPLETED		COMPLETED		COMPLETED	
08/22/79	08/22/79		08/17/79		08/17/79	
MISS-MADISON	MISS-MADISON		MISS-MADISON		MISS-MADISON	
535	535		535		535	
DEPTH, FEET	14335		14335		14335	
WELLHEAD PRESSURE, PSIG	3120		NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE	23.6		23.8		22.0	
ETHANE	0.1		0.1		0.1	
PROPANE	0.0		0.0		0.0	
N-BUTANE	0.0		0.0		0.0	
ISOBUTANE	0.0		0.0		0.0	
N-PENTANE	0.0		0.0		0.0	
ISOPENTANE	0.0		0.0		0.0	
CYCLOPENTANE	0.0		0.0		0.0	
HEXANES PLUS	0.0		0.0		0.0	
NITROGEN	8.0		7.7		7.5	
OXYGEN	0.0		0.0		0.0	
ARGON	0.1		0.1		0.1	
HYDROGEN	TRACE		TRACE		TRACE	
HYDROGEN SULFIDE	5.7		6.0		6.4	
CARBON DIOXIDE	62.0		62.7		63.4	
HELIUM	0.61		0.59		0.51	
HEATING VALUE	277		271		266	
SPECIFIC GRAVITY	1.227		1.234		1.243	

STATE	INDEX	12508	INDEX	12509	INDEX	12510
COUNTY	SAMPLE	15736	SAMPLE	15737	SAMPLE	15751
WYOMING	WYOMING		WYOMING		WYOMING	
SUBLETTE	SUBLETTE		SUBLETTE		SUBLETTE	
RILEY RIDGE	RILEY RIDGE		RILEY RIDGE		RILEY RIDGE	
TIP TOP UNIT F14-13G	TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G	
SEC. 13, T28N, R114W	SEC. 13, T28N, R114W		SEC. 13, T28N, R114W		SEC. 13, T28N, R114W	
MOBIL OIL CORP.	MOBIL OIL CORP.		MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED	COMPLETED		COMPLETED		COMPLETED	
08/07/79	08/07/79		08/07/79		09/08/79	
DEVO-DARBY	DEVO-DARBY		DEVO-DARBY		PERM-PHOSPHORIA	
535	535		535		535	
DEPTH, FEET	14818		14818		12757	
WELLHEAD PRESSURE, PSIG	2962		2962		3145	
OPEN FLOW, MCFD	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE	19.4		19.4		23.2	
ETHANE	0.1		0.1		0.1	
PROPANE	0.0		0.0		0.0	
N-BUTANE	0.0		0.0		0.0	
ISOBUTANE	0.0		0.0		0.0	
N-PENTANE	0.0		0.0		0.0	
ISOPENTANE	0.0		0.0		0.0	
CYCLOPENTANE	0.0		0.0		0.0	
HEXANES PLUS	0.0		0.0		0.0	
NITROGEN	7.9		7.9		8.3	
OXYGEN	0.0		0.0		0.1	
ARGON	0.1		0.1		0.1	
HYDROGEN	0.1		0.0		TRACE	
HYDROGEN SULFIDE	4.6		4.5		9.2	
CARBON DIOXIDE	67.2		67.3		62.4	
HELIUM	0.66		0.66		0.62	
HEATING VALUE	228		227		270	
SPECIFIC GRAVITY	1.270		1.270		1.229	

STATE	INDEX	12511	INDEX	12512	INDEX	12513
COUNTY	SAMPLE	15752	SAMPLE	15753	SAMPLE	15755
WYOMING	WYOMING		WYOMING		WYOMING	
SUBLETTE	SUBLETTE		SUBLETTE		SUBLETTE	
RILEY RIDGE	RILEY RIDGE		RILEY RIDGE		RILEY RIDGE	
TIP TOP UNIT F14-13G	TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G	
SEC. 13, T28N, R114W	SEC. 13, T28N, R114W		SEC. 13, T28N, R114W		SEC. 13, T28N, R114W	
MOBIL OIL CORP.	MOBIL OIL CORP.		MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED	COMPLETED		COMPLETED		COMPLETED	
09/04/79	09/04/79		09/04/79		09/04/79	
PERM-PHOSPHORIA	PERM-PHOSPHORIA		PERM-PHOSPHORIA		PERM-PHOSPHORIA	
535	535		535		535	
DEPTH, FEET	12774		12774		13006	
WELLHEAD PRESSURE, PSIG	3155		3155		3145	
OPEN FLOW, MCFD	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE	23.6		23.8		23.6	
ETHANE	0.1		0.1		0.1	
PROPANE	0.0		0.0		0.0	
N-BUTANE	0.0		0.0		0.0	
ISOBUTANE	0.0		0.0		0.0	
N-PENTANE	0.0		0.0		0.0	
ISOPENTANE	0.0		0.0		0.0	
CYCLOPENTANE	0.0		0.0		0.0	
HEXANES PLUS	0.0		0.0		0.0	
NITROGEN	7.8		8.0		8.0	
OXYGEN	0.0		0.0		TRACE	
ARGON	0.1		0.1		0.1	
HYDROGEN	0.0		0.0		TRACE	
HYDROGEN SULFIDE	6.2		6.2		2.0	
CARBON DIOXIDE	61.6		61.3		63.7	
HELIUM	0.62		0.63		0.62	
HEATING VALUE	281		283		254	
SPECIFIC GRAVITY	1.225		1.224		1.240	

STATE	INDEX	12514	INDEX	12515	INDEX	12516
COUNTY	SAMPLE	15756	SAMPLE	15757	SAMPLE	15758
WYOMING	WYOMING		WYOMING		WYOMING	
SUBLETTE	SUBLETTE		SUBLETTE		SUBLETTE	
RILEY RIDGE	RILEY RIDGE		RILEY RIDGE		RILEY RIDGE	
TIP TOP UNIT F14-13G	TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G	
SEC. 13, T28N, R114W	SEC. 13, T28N, R114W		SEC. 13, T28N, R114W		SEC. 13, T28N, R114W	
MOBIL OIL CORP.	MOBIL OIL CORP.		MOBIL OIL CORP.		MOBIL OIL CORP.	
COMPLETED	COMPLETED		COMPLETED		COMPLETED	
09/06/79	09/06/79		09/06/79		09/04/79	
PERM-PHOSPHORIA	PERM-PHOSPHORIA		PERM-PHOSPHORIA		PERM-PHOSPHORIA	
535	535		535		535	
DEPTH, FEET	12842		12842		13006	
WELLHEAD PRESSURE, PSIG	3147		3147		3145	
OPEN FLOW, MCFD	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE	23.2		21.7		23.0	
ETHANE	0.1		0.1		0.1	
PROPANE	0.0		0.0		0.0	
N-BUTANE	0.0		0.0		0.0	
ISOBUTANE	0.0		0.0		0.0	
N-PENTANE	0.0		0.0		0.0	
ISOPENTANE	0.0		0.0		0.0	
CYCLOPENTANE	0.0		0.0		0.0	
HEXANES PLUS	0.0		0.0		0.0	
NITROGEN	7.8		7.2		7.7	
OXYGEN	0.0		0.0		0.0	
ARGON	0.1		0.1		0.1	
HYDROGEN	TRACE		TRACE		TRACE	
HYDROGEN SULFIDE	6.3		6.8		6.4	
CARBON DIOXIDE	61.9		63.5		62.1	
HELIUM	0.65		0.64		0.57	
HEATING VALUE	277		265		276	
SPECIFIC GRAVITY	1.229		1.245		1.231	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12517 SAMPLE 15759			INDEX 12518 SAMPLE 15760			INDEX 12519 SAMPLE 15802		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	RILEY RIDGE		RILEY RIDGE			RILEY RIDGE		
WELL NAME.....	TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G			TIP TOP UNIT F14-13G		
LOCATION.....	SEC. 13, T28N, R114W		SEC. 13, T28N, R114W			SEC. 13, T28N, R114W		
OWNER.....	MOBIL OIL CORP.		MOBIL OIL CORP.			MOBIL OIL CORP.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	08/27/79		08/27/79			10/11/79		
FORMATION.....	PENN-TENSLEEP		PENN-TENSLEEP			---COMINGLED DEEP ZONES		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	13084		13084			12760		
WELLHEAD PRESSURE, PSIG.....	3145		3145			3120		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			6834		
COMPONENT, MOLE PCT.....								
METHANE.....	22.8		22.7			22.3		
ETHANE.....	0.1		0.1			0.1		
PROpane.....	0.0		0.0			0.0		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	7.7		7.7			7.8		
ARGON.....	0.1		0.0			0.0		
HYDROGEN.....	0.1		0.0			0.1		
HYDROGEN SULFIDE.....	TRACE		TRACE			TRACE		
CARBON DIOXIDE.....	5.6		5.2			5.8		
HELIUM.....	62.2		62.2			63.3		
HEATING VALUE.....	0.56		0.56			0.61		
SPECIFIC GRAVITY.....	1.234		1.234			1.239		
INDEX 12520 SAMPLE 15803			INDEX 12521 SAMPLE 15830			INDEX 12522 SAMPLE 15831		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	RILEY RIDGE		RILEY RIDGE			RILEY RIDGE		
WELL NAME.....	TIP TOP UNIT F14-13G		TIP TOP UNIT F14-13G			TIP TOP UNIT F14-13G		
LOCATION.....	SEC. 13, T28N, R114W		SEC. 13, T28N, R114W			SEC. 13, T28N, R114W		
OWNER.....	MOBIL OIL CORP.		MOBIL OIL CORP.			MOBIL OIL CORP.		
COMPLETED.....	--/--/00		--/--/00			--/--/00		
SAMPLED.....	10/11/79		10/26/79			10/26/79		
FORMATION.....	---COMINGLED DEEP ZONES		MISS-MADISON			MISS-MADISON		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	12760		13904			13904		
WELLHEAD PRESSURE, PSIG.....	3120		3300			3300		
OPEN FLOW, MCFD.....	6834		7200			7200		
COMPONENT, MOLE PCT.....								
METHANE.....	22.2		24.0			23.3		
ETHANE.....	0.1		0.1			0.1		
PROpane.....	0.0		0.0			0.0		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	7.7		10.0			9.6		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	TRACE		TRACE			TRACE		
CARBON DIOXIDE.....	5.9		5.9			6.1		
HELIUM.....	63.3		59.2			60.2		
HEATING VALUE.....	0.61		0.52			0.59		
SPECIFIC GRAVITY.....	1.239		1.208			1.218		
INDEX 12523 SAMPLE 16082			INDEX 12524 SAMPLE 16083			INDEX 12525 SAMPLE 16100		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	RILEY RIDGE		RILEY RIDGE			RILEY RIDGE		
WELL NAME.....	RILEY RIDGE-FED. NO. 8-24		RILEY RIDGE-FED. NO. 8-24			TIP TOP TS4-26		
LOCATION.....	SEC. 8, T29N, R114W		SEC. 8, T29N, R114W			SEC. 2, T28N, R114W		
OWNER.....	AMERICAN QUASAR PET. CO.		AMERICAN QUASAR PET. CO.			MOBIL OIL CORP.		
COMPLETED.....	--/--/00		--/--/00			10/07/80		
SAMPLED.....	09/24/80		09/24/80			10/13/80		
FORMATION.....	MISS-MADISON		MISS-MADISON			MISS-MADISON		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	14437		14437			14627		
WELLHEAD PRESSURE, PSIG.....	3050		3050			2910		
OPEN FLOW, MCFD.....	150000		150000			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	19.4		18.8			18.7		
ETHANE.....	0.1		0.1			0.1		
PROpane.....	0.0		0.0			0.1		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	7.3		7.4			7.3		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.1		0.0			0.1		
HYDROGEN SULFIDE.....	TRACE		0.0			0.0		
CARBON DIOXIDE.....	4.2		3.7			3.5		
HELIUM.....	67.4		59.4			67.7		
HEATING VALUE.....	0.54		0.56			0.59		
SPECIFIC GRAVITY.....	1.227		1.284			1.288		
INDEX 12526 SAMPLE 16560			INDEX 12527 SAMPLE 16564			INDEX 12528 SAMPLE 16646		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SUBLETTE		SUBLETTE			SUBLETTE		
FIELD.....	RILEY RIDGE		RILEY RIDGE			RILEY RIDGE		
WELL NAME.....	FOGARTY CREEK UNIT NO. 11-24		RILEY RIDGE-FED. NO. 12-43			RILEY RIDGE N FED. NO. 33-24		
LOCATION.....	SEC. 24, T28N, R115W		SEC. 12, T29N, R115W			SEC. 33, T30N, R114W		
OWNER.....	AMERICAN QUASAR PET. CO.		AMERICAN QUASAR PET. CO.			AMERICAN QUASAR PET. CO.		
COMPLETED.....	08/09/82		--/--/00			--/--/00		
SAMPLED.....	06/24/82		05/03/82			08/26/82		
FORMATION.....	ORDO-BIGHORN		MISS-MADISON			MISS-MADISON		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	17316		14480			15893		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		4280			NOT GIVEN		
OPEN FLOW, MCFD.....	9950		9956			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	7.8		17.3			14.4		
ETHANE.....	TRACE		TRACE			TRACE		
PROpane.....	0.0		0.0			0.0		
N-BUTANE.....	0.0		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	4.6		7.2			6.5		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	0.1		0.1			0.1		
HYDROGEN SULFIDE.....	TRACE		1.6			TRACE		
CARBON DIOXIDE.....	1.6		0.1			2.2		
HELIUM.....	87.2		72.8			76.2		
HEATING VALUE.....	0.63		0.50			0.50		
SPECIFIC GRAVITY.....	1.432		1.285			1.337		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1053

		INDEX SAMPLE	12529 8978	INDEX SAMPLE	12530 17091	INDEX SAMPLE	12531 5599
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SUBLETTE			SUBLETTE		SUBLETTE	
FIELD.....	STAR CORRAL			STAR CORRAL		TIP TOP	
WELL NAME.....	STAR CORRAL NO. 1			JOHNSON RIDGE NO. 6		TIP TOP 18-20	
LOCATION.....	SEC. 16, T30N, R113W			SEC. 20, T30N, R113W		SEC. 20, T28N, R113W	
OWNER.....	HELCO PETROLEUM CORP.			HELCO PETROLEUM CORP.		GENERAL PETROLEUM CORP.	
COMPLETED.....	08/18/61			07/14/82		03/01/54	
SAMPLED.....	05/29/63			10/12/83		02/27/54	
FORMATION.....	PALE-ALMY			CRET-MESAVERDE		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	4505			3106		6660	
WELLHEAD PRESSURE, PSIG.....	409			1200		3150	
OPEN FLOW, MCFD.....	1204			NOT GIVEN		1900	
COMPONENT, MOLE PCT							
METHANE.....	86.4			64.5		87.1	
ETHANE.....	5.0			7.8		7.2	
PROPANE.....	2.6			0.7		0.0	
N-BUTANE.....	0.7			0.7		0.5	
ISOBUTANE.....	0.9			0.8		0.4	
N-PENTANE.....	0.1			0.2		0.2	
ISOPENTANE.....	0.2			0.2		0.3	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	3.5			2.0		0.9	
OXYGEN.....	0.2			0.2		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.3		0.1	
HELIUM.....	0.10			0.03		0.02	
HEATING VALUE.....	1104			1149		1155	
SPECIFIC GRAVITY.....	0.653			0.669		0.655	
		INDEX SAMPLE	12532 15343	INDEX SAMPLE	12533 13083	INDEX SAMPLE	12534 9413
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SUBLETTE			SWEETWATER		SWEETWATER	
FIELD.....	TIP TOP			ANTELOPE		BAXTER BASIN #	
WELL NAME.....	TIP TOP F44-7G			FED. A NO. 1		UPRR NO. 1-7	
LOCATION.....	SEC. 7, T28N, R113W			SEC. 24, T17N, R100W		SEC. 7, T18N, R103W	
OWNER.....	MORIL OIL CORP.			SKELLY OIL CO.		UNION PACIFIC RAILROAD CO.	
COMPLETED.....	06/10/78			06/16/71		10/19/59	
SAMPLED.....	08/10/78			10/10/71		06/17/64	
FORMATION.....	CRET-FRONTIER			CRET-ALMOND		CRET-FRONTIER & DAKOTA	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	6372			5363		2481	
WELLHEAD PRESSURE, PSIG.....	9707			15000		350	
OPEN FLOW, MCFD.....	9707			15000		800	
COMPONENT, MOLE PCT							
METHANE.....	77.3			98.3		94.8	
ETHANE.....	7.5			0.0		1.9	
PROPANE.....	5.7			0.0		0.4	
N-BUTANE.....	3.4			0.0		0.0	
ISOBUTANE.....	2.0			0.0		0.0	
N-PENTANE.....	0.7			0.0		0.0	
ISOPENTANE.....	1.6			0.0		0.0	
CYCLOPENTANE.....	0.2			0.0		0.0	
HEXANES PLUS.....	0.5			0.0		0.0	
NITROGEN.....	1.0			1.5		1.3	
OXYGEN.....	TRACE			0.1		0.0	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.1		1.5	
HELIUM.....	0.01			0.04		0.10	
HEATING VALUE.....	1379			996		1005	
SPECIFIC GRAVITY.....	0.795			0.562		0.587	
		INDEX SAMPLE	12535 2108	INDEX SAMPLE	12536 2123	INDEX SAMPLE	12537 2146
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	BAXTER BASIN N			BAXTER BASIN N		BAXTER BASIN N	
WELL NAME.....	APNOLD NO. 1			UNION PACIFIC NO. 1		UNION PACIFIC NO. 1	
LOCATION.....	SEC. 24, T19N, R104W			SEC. 11, T19N, R104W		SEC. 11, T19N, R104W	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.			MOUNTAIN FUEL SUPPLY CO.		MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	08/26/29			11/01/25		11/01/25	
SAMPLED.....	09/02/30			09/05/30		09/12/30	
FORMATION.....	JURA-SUNDANCE			CRET-DAKOTA		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	3504			2920		2391	
WELLHEAD PRESSURE, PSIG.....	200			1325		NOT GIVEN	
OPEN FLOW, MCFD.....	3800			15000		10000	
COMPONENT, MOLE PCT							
METHANE.....	98.4			96.2		89.8	
ETHANE.....	0.0			0.3		0.7	
PROPANE.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	0.0			2.3		9.2	
OXYGEN.....	0.0			0.7		0.1	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	1.5			0.5		0.2	
HELIUM.....	0.09			0.0		0.04	
HEATING VALUE.....	997			980		922	
SPECIFIC GRAVITY.....	0.569			0.574		0.598	
		INDEX SAMPLE	12538 8407	INDEX SAMPLE	12539 8470	INDEX SAMPLE	12540 13516
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	BAXTER BASIN N			BAXTER BASIN N		BAXTER BASIN N	
WELL NAME.....	UNION PACIFIC 11-19-104 NO. 4			UNION PACIFIC NO. 4		CHAMPLIN NO. 104 NO. 1	
LOCATION.....	SEC. 11, T19N, R104W			SEC. 11, T19N, R104W		SEC. 7, T20N, R103W	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.			MOUNTAIN FUEL SUPPLY CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	---/00			---/00		12/01/71	
SAMPLED.....	02/05/62			03/19/62		01/---/73	
FORMATION.....	PENN-WEBER			PENN-MORGAN		JURA-MORRISON	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	5214			7507		4158	
WELLHEAD PRESSURE, PSIG.....	2770			3346		1700	
OPEN FLOW, MCFD.....	8170			5862		7800	
COMPONENT, MOLE PCT							
METHANE.....	1.5			1.5		95.4	
ETHANE.....	0.1			0.1		2.6	
PROPANE.....	0.1			0.1		0.6	
N-BUTANE.....	TRACE			TRACE		0.1	
ISOBUTANE.....	0.0			0.0		0.1	
N-PENTANE.....	0.0			TRACE		0.1	
ISOPENTANE.....	0.0			0.1		TRACE	
CYCLOPENTANE.....	TRACE			0.2		TRACE	
HEXANES PLUS.....	TRACE			0.2		TRACE	
NITROGEN.....	21.8			14.2		0.8	
OXYGEN.....	0.6			0.1		TRACE	
ARGON.....	0.2			0.1		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.2			0.7		0.0	
CARBON DIOXIDE.....	72.1			92.0		0.1	
HELIUM.....	0.36			0.64		0.03	
HEATING VALUE.....	20			1149		1040	
SPECIFIC GRAVITY.....	1.370			1.423		0.581	

* CALCULATED GROSS BTL PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12541 SAMPLE 15023		INDEX 12542 SAMPLE 918		INDEX 12543 SAMPLE 951	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	SWEETWATER	SWEETWATER		SWEETWATER	
FIELD.....	BAXTER BASIN N	BAXTER BASIN S		BAXTER BASIN S	
WELL NAME.....	CHAMPLIN NO. 4-11	NO. 1		NO. 29	
LOCATION.....	SEC. 11, T19N, R103W	SEC. 36, T17N, R104W		SEC. 36, T18, R104	
OWNER.....	CHANDLER & ASSOCIATES, INC.	PRODUCERS & REFINERS CORP.		MINWEST REFINING CO.	
COMPLETED.....	--/--/00	--/--/00		--/--/00	
SAMPLED.....	06/14/77	08/12/24		12/24/24	
FORMATION.....	NOT GIVEN	CRET-DAKOTA		CRET-FRONTIER	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	NOT GIVEN	3422		1728	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		800	
OPEN FLOW, MCFD.....	NOT GIVEN	25000		4000	
COMPONENT, MOLE PCT					
METHANE.....	97.3	69.0		92.4	
ETHANE.....	1.8	3.6		3.5	
PROPANE.....	0.1	---		---	
N-BUTANE.....	0.0	---		---	
ISOBUTANE.....	0.0	---		---	
N-PENTANE.....	0.0	---		---	
ISOPENTANE.....	0.0	---		---	
CYCLOPENTANE.....	0.0	---		---	
HEXANES PLUS.....	0.0	---		---	
NITROGEN.....	0.4	23.8		1.1	
OXYGEN.....	0.0	0.2		0.3	
ARGON.....	TRACE	---		---	
HYDROGEN.....	0.0	---		---	
HYDROGEN SULFIDE.....	0.0	---		---	
CARBON DIOXIDE.....	0.4	2.4		6.5	
HELIUM.....	0.03	0.97		0.09	
HEATING VALUE.....	1020	763		999	
SPECIFIC GRAVITY.....	0.570	0.691		0.601	

INDEX 12544 SAMPLE 1143		INDEX 12545 SAMPLE 2147		INDEX 12546 SAMPLE 2148	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	SWEETWATER	SWEETWATER		SWEETWATER	
FIELD.....	BAXTER BASIN S	BAXTER BASIN S		BAXTER BASIN S	
WELL NAME.....	POSTEN NO. 2	POSTEN NO. 2		MURPHY NO. 1	
LOCATION.....	SEC. 13, T17N, R104W	SEC. 22, T16N, R104W		SEC. 26, T17N, R104W	
OWNER.....	PRODUCERS & REFINERS CORP.	MOUNTAIN FUEL SUPPLY CO.		MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	08/26/25	11/02/28		11/04/29	
SAMPLED.....	08/26/25	08/15/30		08/15/30	
FORMATION.....	CRET-DAKOTA	CRET-FRONTIER		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	19	2365		3410	
WELLHEAD PRESSURE, PSIG.....	735	810		810	
OPEN FLOW, MCFD.....	22500	7000		33000	
COMPONENT, MOLE PCT					
METHANE.....	68.2	92.8		70.9	
ETHANE.....	6.4	4.2		1.1	
PROPANE.....	---	---		---	
N-BUTANE.....	---	---		---	
ISOBUTANE.....	---	---		---	
N-PENTANE.....	---	---		---	
ISOPENTANE.....	---	---		---	
CYCLOPENTANE.....	---	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	21.1	2.0		26.0	
OXYGEN.....	0.8	0.1		0.4	
ARGON.....	---	---		---	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE.....	---	---		---	
CARBON DIOXIDE.....	2.8	0.8		1.1	
HELIUM.....	0.77	0.08		0.90	
HEATING VALUE.....	805	1015		738	
SPECIFIC GRAVITY.....	0.702	0.591		0.674	

INDEX 12547 SAMPLE 3034		INDEX 12548 SAMPLE 3035		INDEX 12549 SAMPLE 3036	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	SWEETWATER	SWEETWATER		SWEETWATER	
FIELD.....	BAXTER BASIN S	BAXTER BASIN S		BAXTER BASIN S	
WELL NAME.....	U.P.R.R. NO. 1	U.P.R.R. NO. 1		POSTEN NO. 2	
LOCATION.....	SEC. 11, T17N, R104W	SEC. 23, T17N, R104W		SEC. 22, T16N, R104W	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.	WYOMING CALIFORNIA PET. CO.		MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	--/--/25	--/--/00		--/--/28	
SAMPLED.....	12/02/41	12/02/41		12/02/41	
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	2418	3283		2805	
WELLHEAD PRESSURE, PSIG.....	490	565		540	
OPEN FLOW, MCFD.....	23500	7000		63000	
COMPONENT, MOLE PCT					
METHANE.....	89.5	75.0		75.1	
ETHANE.....	1.4	1.7		0.3	
PROPANE.....	---	---		---	
N-BUTANE.....	---	---		---	
ISOBUTANE.....	---	---		---	
N-PENTANE.....	---	---		---	
ISOPENTANE.....	---	---		---	
CYCLOPENTANE.....	---	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	7.1	19.2		20.7	
OXYGEN.....	0.1	0.3		0.2	
ARGON.....	---	---		---	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE.....	---	---		---	
CARBON DIOXIDE.....	2.6	2.1		2.3	
HELIUM.....	0.26	0.11		0.79	
HEATING VALUE.....	922	800		777	
SPECIFIC GRAVITY.....	0.513	0.551		0.664	

INDEX 12550 SAMPLE 3037		INDEX 12551 SAMPLE 3038		INDEX 12552 SAMPLE 3039	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	SWEETWATER	SWEETWATER		SWEETWATER	
FIELD.....	BAXTER BASIN S	BAXTER BASIN S		BAXTER BASIN S	
WELL NAME.....	JOE HAY NO. 1	JOE HAY NO. 1		HALLETT NO. 2	
LOCATION.....	SEC. 12, T16N, R104W	SEC. 26, T17N, R104W		SEC. 24, T17N, R104W	
OWNER.....	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.		WYOMING CALIFORNIA PET. CO.	
COMPLETED.....	--/--/22	--/--/20		--/--/29	
SAMPLED.....	12/02/41	12/02/41		12/02/41	
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA		CRET-DAKOTA	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	2475	3540		3098	
WELLHEAD PRESSURE, PSIG.....	625	737		735	
OPEN FLOW, MCFD.....	18000	13000		6800	
COMPONENT, MOLE PCT					
METHANE.....	75.7	76.5		76.4	
ETHANE.....	1.3	0.5		0.5	
PROPANE.....	---	---		---	
N-BUTANE.....	---	---		---	
ISOBUTANE.....	---	---		---	
N-PENTANE.....	---	---		---	
ISOPENTANE.....	---	---		---	
CYCLOPENTANE.....	---	---		---	
HEXANES PLUS.....	---	---		---	
NITROGEN.....	18.9	12.9		20.6	
OXYGEN.....	0.1	0.0		0.6	
ARGON.....	---	---		---	
HYDROGEN.....	---	---		---	
HYDROGEN SULFIDE.....	---	---		---	
CARBON DIOXIDE.....	2.1	2.2		1.3	
HELIUM.....	0.74	0.72		0.72	
HEATING VALUE.....	927	777		783	
SPECIFIC GRAVITY.....	0.659	0.658		0.654	

* CALCULATED GROSS BTL PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12553 SAMPLE 3040		INDEX 12554 SAMPLE 3041		INDEX 12555 SAMPLE 3042	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	BAKTER BASIN S	BAKTER BASIN S	BAKTER BASIN S	BAKTER BASIN S	BAKTER BASIN S
WELL NAME.....	U.P.R.R. NO. 2	U.P.R.R. NO. 1	U.P.R.R. NO. 1	PAT SULLIVAN NO. 1	PAT SULLIVAN NO. 1
LOCATION.....	SEC. 23, T17N, R104W	SEC. 21, T16N, R104W	SEC. 21, T16N, R104W	SEC. 10, T16N, R104W	SEC. 10, T16N, R104W
OWNER.....	WYOMING CALIFORNIA PET. CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.
COMPLETED.....	11/-/33	04/-/23	04/-/23	06/-/30	06/-/30
SAMPLED.....	12/02/41	12/02/41	12/02/41	12/02/41	12/02/41
FORMATION.....	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	535	535	535	535	535
DEPTH, FEET.....	3570	2905	2620	2620	2620
WELLHEAD PRESSURE, PSIG.....	653	650	500	500	500
OPEN FLOW, MCFD.....	23500	65000	12000	12000	12000
COMPONENT, MOLE PCT					
METHANE.....	73.5	75.6	74.7	74.7	74.7
ETHANE.....	1.4	1.3	0.6	0.6	0.6
PROpane.....	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---
NITROGEN.....	21.2	19.4	21.5	21.5	21.5
OXYGEN.....	0.6	0.2	0.1	0.1	0.1
ARGON.....	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---
CARBON DIOXIDE.....	2.5	2.7	2.3	2.3	2.3
HELIUM.....	0.76	0.75	0.83	0.83	0.83
HEATING VALUE.....	770	783	757	757	757
SPECIFIC GRAVITY.....	0.673	0.665	0.665	0.665	0.665
INDEX 12556 SAMPLE 3769		INDEX 12557 SAMPLE 6779		INDEX 12558 SAMPLE 17226	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	BAKTER BASIN S	BAKTER BASIN S	BAKTER BASIN S	BAKTER BASIN S	BAKTER BASIN S
WELL NAME.....	UNIT WELL NO. 1	FED. NO. 4-8	FED. NO. 4-8	HAUN-FED. NO. 40-9	HAUN-FED. NO. 40-9
LOCATION.....	SEC. 21, T16N, R104W	SEC. 8, T15N, R104W	SEC. 8, T15N, R104W	SEC. 9, T26N, R111W	SEC. 9, T26N, R111W
OWNER.....	MOUNTAIN FUEL SUPPLY CO.	CAULKINS OIL CO.	CAULKINS OIL CO.	ENERGETICS, INC.	ENERGETICS, INC.
COMPLETED.....	11/01/43	08/17/83	08/17/83	03/29/84	03/29/84
SAMPLED.....	04/01/44	09/07/58	09/07/58	03/29/84	03/29/84
FORMATION.....	CRET-DAKOTA	CRET-LAKOTA	CRET-LAKOTA	CRET-BEAR RIVER & FRONTIER	CRET-BEAR RIVER & FRONTIER
GEOLOGIC PROVINCE CODE.....	535	535	535	535	535
DEPTH, FEET.....	2818	NOT GIVEN	9204	9204	9204
WELLHEAD PRESSURE, PSIG.....	640	NOT GIVEN	500	500	500
OPEN FLOW, MCFD.....	3000	NOT GIVEN	280	280	280
COMPONENT, MOLE PCT					
METHANE.....	76.6	91.6	88.0	88.0	88.0
ETHANE.....	1.7	3.9	3.6	3.6	3.6
PROpane.....	---	0.3	0.8	0.8	0.8
N-BUTANE.....	---	0.0	0.4	0.4	0.4
ISOBUTANE.....	---	0.0	0.1	0.1	0.1
N-PENTANE.....	---	0.0	0.0	0.0	0.0
ISOPENTANE.....	---	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	---	0.0	0.1	0.1	0.1
HEXANES PLUS.....	---	0.2	0.2	0.2	0.2
NITROGEN.....	18.3	0.4	1.6	1.6	1.6
OXYGEN.....	0.5	TRACE	TRACE	TRACE	TRACE
ARGON.....	---	0.0	0.0	0.0	0.0
HYDROGEN.....	---	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	2.2	0.0	0.4	0.4	0.4
HELIUM.....	0.73	0.04	0.01	0.01	0.01
HEATING VALUE.....	806	1065	1132	1132	1132
SPECIFIC GRAVITY.....	0.660	0.623	0.652	0.652	0.652
INDEX 12559 SAMPLE 8826		INDEX 12560 SAMPLE 13552		INDEX 12561 SAMPLE 14110	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	BITTER CREEK	BRADY DEEP UNIT	BRADY DEEP UNIT	BRADY DEEP UNIT	BRADY DEEP UNIT
WELL NAME.....	BITTER CREEK 36 NO. 3	BRADY UNIT 41-2 NO. 2	BRADY UNIT 41-2 NO. 2	BRADY UNIT NO. 6 D	BRADY UNIT NO. 6 D
LOCATION.....	SEC. 36, T17N, R99W	SEC. 2, T16N, R101W	SEC. 2, T16N, R101W	SEC. 2, T16W, R101W	SEC. 2, T16W, R101W
OWNER.....	CONTINENTAL OIL CO.	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.
COMPLETED.....	01/03/63	05/01/70	05/01/70	05/01/70	05/01/70
SAMPLED.....	01/03/63	05/01/73	05/01/73	05/01/73	05/01/73
FORMATION.....	CRET-LANCE	PENN-WEBER	PENN-WEBER	CRET-DAKOTA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	535	535	535	535	535
DEPTH, FEET.....	7844	13825	11116	11116	11116
WELLHEAD PRESSURE, PSIG.....	1526	NOT GIVEN	329	329	329
OPEN FLOW, MCFD.....	17	NOT GIVEN	2500	2500	2500
COMPONENT, MOLE PCT					
METHANE.....	79.5	76.2	92.4	92.4	92.4
ETHANE.....	9.5	8.4	3.2	3.2	3.2
PROpane.....	4.4	4.2	0.8	0.8	0.8
N-BUTANE.....	1.3	1.2	0.2	0.2	0.2
ISOBUTANE.....	0.2	0.2	0.1	0.1	0.1
N-PENTANE.....	0.3	0.5	0.1	0.1	0.1
ISOPENTANE.....	0.8	0.4	0.2	0.2	0.2
CYCLOPENTANE.....	0.1	0.1	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.4	0.4	0.1	0.1	0.1
NITROGEN.....	0.6	0.2	2.0	2.0	2.0
OXYGEN.....	TRACE	TRACE	0.1	0.1	0.1
ARGON.....	0.0	0.0	TRACE	TRACE	TRACE
HYDROGEN.....	0.1	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.8	0.0	0.7	0.7	0.7
HELIUM.....	0.01	3.20	0.02	0.02	0.02
HEATING VALUE.....	1245	1195	1045	1045	1045
SPECIFIC GRAVITY.....	0.736	0.736	0.608	0.608	0.608
INDEX 12562 SAMPLE 14595		INDEX 12563 SAMPLE 14596		INDEX 12564 SAMPLE 14597	
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	BRADY DEEP UNIT	BRADY DEEP UNIT	BRADY DEEP UNIT	BRADY DEEP UNIT	BRADY DEEP UNIT
WELL NAME.....	BRADY NO. 3W	BRADY NO. 9N	BRADY NO. 9N	BRADY NO. 5N	BRADY NO. 5N
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.
COMPLETED.....	02/26/76	02/27/76	02/27/76	02/27/76	02/27/76
SAMPLED.....	02/26/76	JURA-NUGGET	JURA-NUGGET	JURA-NUGGET	JURA-NUGGET
FORMATION.....	PENN-WEBER	PENN-WEBER	PENN-WEBER	PENN-WEBER	PENN-WEBER
GEOLOGIC PROVINCE CODE.....	535	535	535	535	535
DEPTH, FEET.....	14400	12600	12000	12000	12000
WELLHEAD PRESSURE, PSIG.....	2800	1000	1000	1000	1000
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT					
METHANE.....	57.0	5.1	5.6	5.6	5.6
ETHANE.....	0.8	0.6	0.5	0.5	0.5
PROpane.....	2.3	2.6	2.8	2.8	2.8
N-BUTANE.....	0.5	2.5	2.4	2.4	2.4
ISOBUTANE.....	0.5	0.9	1.9	1.9	1.9
N-PENTANE.....	0.1	0.9	0.5	0.5	0.5
ISOPENTANE.....	0.2	1.2	1.6	1.6	1.6
CYCLOPENTANE.....	TRACE	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.1	0.9	0.5	0.5	0.5
NITROGEN.....	6.9	8.4	8.9	8.9	8.9
OXYGEN.....	TRACE	TRACE	TRACE	TRACE	TRACE
ARGON.....	0.1	0.1	0.1	0.1	0.1
HYDROGEN.....	0.0	TRACE	TRACE	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.3	0.1	0.1	0.1
CARBON DIOXIDE.....	2.4	7.2	73.9	73.9	73.9
HELIUM.....	0.15	0.23	0.25	0.25	0.25
HEATING VALUE.....	793	430	413	413	413
SPECIFIC GRAVITY.....	0.916	1.474	1.463	1.463	1.463

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 12565 SAMPLE 14598	INDEX 12566 SAMPLE 14599	INDEX 12567 SAMPLE 14600
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	SWEETWATER		SWEETWATER	SWEETWATER
FIELD.....	BRADY DEEP UNIT		BRADY DEEP UNIT	BRADY DEEP UNIT
WELL NAME.....	BRADY NO. 2W		BRADY NO. 16W	BRADY NO. 13W
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	CHAMPLIN PETROLEUM CO.		CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	02/26/76		02/26/76	02/26/76
FORMATION.....	PENN-WEBER		PENN-WEBER	PENN-WEBER
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	14400		14400	14400
WELLHEAD PRESSURE, PSIG.....	2800		2800	2800
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	57.3	55.3	57.3	
ETHANE.....	6.0	6.2	6.2	
PROpane.....	0.8	2.8	2.8	
N-BUTANE.....	0.8	0.3	0.8	
ISOBUTANE.....	0.6	0.7	0.6	
N-PENTANE.....	0.1	0.2	0.1	
ISOPENTANE.....	0.4	0.2	0.4	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.1	0.1	
NITROGEN.....	0.0	5.2	5.6	
OXYGEN.....	0.0	TRACE	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	1.5	1.5	4.3	
CARBON DIOXIDE.....	24.8	27.6	24.7	
HELIUM.....	0.14	0.15	0.15	
HEATING VALUE.....	849	845	845	
SPECIFIC GRAVITY.....	0.920	0.938	0.916	

		INDEX 12568 SAMPLE 14601	INDEX 12569 SAMPLE 14602	INDEX 12570 SAMPLE 14603
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	SWEETWATER		SWEETWATER	SWEETWATER
FIELD.....	BRADY DEEP UNIT		BRADY DEEP UNIT	BRADY DEEP UNIT
WELL NAME.....	BRADY NO. 20D		BRADY NO. 31N	BRADY NO. 11W
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	CHAMPLIN PETROLEUM CO.		CHAMPLIN PETROLEUM CO.	CHAMPLIN PETROLEUM CO.
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	02/26/76		02/26/76	02/26/76
FORMATION.....	JURA-DAKOTA		JURA-NUGGET	PENN-WEBER
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	11400		12600	14400
WELLHEAD PRESSURE, PSIG.....	3000		1100	2800
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	92.4	7.8	54.4	
ETHANE.....	5.2	0.4	6.0	
PROpane.....	0.9	2.8	6.9	
N-BUTANE.....	0.2	2.5	0.7	
ISOBUTANE.....	0.2	1.7	0.8	
N-PENTANE.....	0.0	0.3	0.1	
ISOPENTANE.....	0.1	1.6	0.3	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.1	12.2	5.7	
NITROGEN.....	0.3	0.0	0.0	
OXYGEN.....	0.0	0.2	TRACE	
ARGON.....	TRACE	0.0	0.0	
HYDROGEN.....	0.0	0.0	1.1	
HYDROGEN SULFIDE.....	0.6	69.6	27.5	
CARBON DIOXIDE.....	0.02	0.34	0.17	
HELIUM.....	1075	410	814	
HEATING VALUE.....	1075	1427	0.943	
SPECIFIC GRAVITY.....	0.607			

		INDEX 12571 SAMPLE 14606	INDEX 12572 SAMPLE 14607	INDEX 12573 SAMPLE 16151
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	SWEETWATER		SWEETWATER	SWEETWATER
FIELD.....	BRADY DEEP UNIT		BRADY DEEP UNIT	BRUFF
WELL NAME.....	BRADY NO. 8N		BRADY NO. 1W	GOV. R. M. DONLEY NO. 1
LOCATION.....	NOT GIVEN		NOT GIVEN	SEC. 2, T18N, R112W
OWNER.....	CHAMPLIN PETROLEUM CO.		CHAMPLIN PETROLEUM CO.	TEXACO INC.
COMPLETED.....	--/--/00		--/--/00	08/18/80
SAMPLED.....	02/27/76		02/26/76	12/15/80
FORMATION.....	JURA-NUGGET		PENN-WEBER	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	12600		14400	12030
WELLHEAD PRESSURE, PSIG.....	1000		2800	4400
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	10240
COMPONENT, MOLE PCT				
METHANE.....	7.6	55.4	88.1	
ETHANE.....	0.7	6.2	6.7	
PROpane.....	2.7	2.8	2.1	
N-BUTANE.....	2.1	0.0	0.4	
ISOBUTANE.....	1.5	0.8	0.4	
N-PENTANE.....	0.3	0.3	0.1	
ISOPENTANE.....	1.2	0.1	0.2	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.3	0.2	0.2	
NITROGEN.....	10.7	6.0	TRACE	
OXYGEN.....	0.1	0.1	0.0	
ARGON.....	0.2	0.1	0.0	
HYDROGEN.....	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.1	0.9	0.0	
CARBON DIOXIDE.....	72.3	25.8	0.7	
HELIUM.....	0.27	0.14	0.01	
HEATING VALUE.....	361	839	1121	
SPECIFIC GRAVITY.....	1.426	0.935	0.642	

		INDEX 12574 SAMPLE 16161	INDEX 12575 SAMPLE 16197	INDEX 12576 SAMPLE 17225
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	SWEETWATER		SWEETWATER	SWEETWATER
FIELD.....	BRUFF		BRUFF	BUCKHORN CANYON
WELL NAME.....	A. P. TRIPP NO. 1		CHAMPLIN NO. 149-J	LITTLE MONUMENT U.II NO30-11
LOCATION.....	SEC. 14, T19N, R112W		SEC. 11, T19N, R112W	SEC. 11, T25N, R111W
OWNER.....	TEXACO INC.		AMOCO PRODUCTION CO.	ENERGETICS, INC.
COMPLETED.....	07/31/80		09/30/80	08/15/83
SAMPLED.....	01/05/81		02/17/81	02/29/84
FORMATION.....	CRET-FRONTIER		CRET-FRONTIER	CRET-FRONTIER
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	11332		11424	9355
WELLHEAD PRESSURE, PSIG.....	5600		1250	850
OPEN FLOW, MCFD.....	2250		4027	117
COMPONENT, MOLE PCT				
METHANE.....	88.4	88.1	92.6	
ETHANE.....	1.9	1.3	3.8	
PROpane.....	1.8	0.2	1.2	
N-BUTANE.....	0.3	0.2	0.3	
ISOBUTANE.....	0.2	0.2	0.1	
N-PENTANE.....	0.1	0.0	0.1	
ISOPENTANE.....	0.1	0.5	0.1	
CYCLOPENTANE.....	TRACE	0.2	0.1	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	0.6	1.3	1.1	
OXYGEN.....	TRACE	0.3	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.5	0.5	0.4	
HELIUM.....	0.01	0.01	TRACE	
HEATING VALUE.....	1114	1113	1068	
SPECIFIC GRAVITY.....	0.633	0.642	0.607	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1057

INDEX 12577 SAMPLE 15870		INDEX 12578 SAMPLE 15901		INDEX 12579 SAMPLE 16169	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	SWEETWATER	COUNTY.....	SWEETWATER	COUNTY.....	SWEETWATER
FIELD.....	DEER LAKES	FIELD.....	CAMEL ROCK	FIELD.....	CAMEL ROCK
WELL NAME.....	SEC. 28, T25N, R96W	WELL NAME.....	AMOCO-CHAMPLIN NO. 33-34	WELL NAME.....	FEDERAL NO. 21-4
LOCATION.....	TEXAS OIL & GAS CORP.	LOCATION.....	SEC. 33, T18N, R102W	LOCATION.....	SEC. 4, T17N, R102W
OWNER.....	12/18/78	OWNER.....	HOUSTON OIL & MINERALS CORP.	OWNER.....	HOUSTON OIL & MINERALS CORP.
COMPLETED.....	06/26/78	COMPLETED.....	11/30/77	COMPLETED.....	08/18/80
SAMPLED.....	12/18/78	SAMPLED.....	02/08/80	SAMPLED.....	01/12/81
FORMATION.....	CRET-ALMOND	FORMATION.....	CRET-FRONTIER	FORMATION.....	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	12750	DEPTH, FEET.....	5138	DEPTH, FEET.....	5617
WELLHEAD PRESSURE, PSIG.....	7700	WELLHEAD PRESSURE, PSIG.....	1750	WELLHEAD PRESSURE, PSIG.....	1525
OPEN FLOW, MCFD.....	2100	OPEN FLOW, MCFD.....	7062	OPEN FLOW, MCFD.....	2153
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	92.9	METHANE.....	87.1	METHANE.....	59.1
ETHANE.....	0.8	ETHANE.....	5.3	ETHANE.....	3.5
PROpane.....	0.1	PROpane.....	0.3	PROpane.....	1.6
N-BUTANE.....	0.0	N-BUTANE.....	0.2	N-BUTANE.....	0.4
ISOBUTANE.....	0.0	ISOBUTANE.....	0.1	ISOBUTANE.....	0.3
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	0.4	NITROGEN.....	2.0	NITROGEN.....	30.1
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.2
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.2
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	5.7	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	3.5
HELIUM.....	TRACE	HELIUM.....	0.43	HELIUM.....	0.76
HEATING VALUE.....	958	HEATING VALUE.....	1021	HEATING VALUE.....	740
SPECIFIC GRAVITY.....	0.617	SPECIFIC GRAVITY.....	0.618	SPECIFIC GRAVITY.....	0.762

INDEX 12580 SAMPLE 16398		INDEX 12581 SAMPLE 3048		INDEX 12582 SAMPLE 8993	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	SWEETWATER	COUNTY.....	SWEETWATER	COUNTY.....	SWEETWATER
FIELD.....	CAMEL ROCK	FIELD.....	CANYON CREEK	FIELD.....	CANYON CREEK
WELL NAME.....	FEDERAL NO. 21-4	WELL NAME.....	NO. 1	WELL NAME.....	UNIT NO. 3
LOCATION.....	SEC. 4, T17N, R102W	LOCATION.....	SEC. 10, T12N, R101W	LOCATION.....	SEC. 3, T12N, R101W
OWNER.....	TENNECO OIL EXPL. & PROD. CO.	OWNER.....	WEST STATES OIL CO.	OWNER.....	MOUNTAIN FUEL SUPPLY CO.
COMPLETED.....	06/18/80	COMPLETED.....	08/11/81	COMPLETED.....	07/24/82
SAMPLED.....	12/27/81	SAMPLED.....	05/31/83	SAMPLED.....	05/31/83
FORMATION.....	CRET-DAKOTA	FORMATION.....	EDC-WASATCH	FORMATION.....	CRET-MESAVERDE
GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	5000	DEPTH, FEET.....	2680	DEPTH, FEET.....	5431
WELLHEAD PRESSURE, PSIG.....	1650	WELLHEAD PRESSURE, PSIG.....	1075	WELLHEAD PRESSURE, PSIG.....	1833
OPEN FLOW, MCFD.....	2000	OPEN FLOW, MCFD.....	750	OPEN FLOW, MCFD.....	6360
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	59.3	METHANE.....	88.4	METHANE.....	88.5
ETHANE.....	3.4	ETHANE.....	10.8	ETHANE.....	5.7
PROpane.....	1.7	PROpane.....	---	PROpane.....	2.1
N-BUTANE.....	0.4	N-BUTANE.....	---	N-BUTANE.....	0.6
ISOBUTANE.....	0.3	ISOBUTANE.....	---	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	---	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	---	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	---	HEXANES PLUS.....	0.3
NITROGEN.....	30.0	NITROGEN.....	0.6	NITROGEN.....	0.2
OXYGEN.....	0.2	OXYGEN.....	5.1	OXYGEN.....	0.0
ARGON.....	0.2	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	3.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	2.0
HELIUM.....	0.78	HELIUM.....	0.04	HELIUM.....	0.01
HEATING VALUE.....	752	HEATING VALUE.....	1089	HEATING VALUE.....	1115
SPECIFIC GRAVITY.....	0.764	SPECIFIC GRAVITY.....	0.612	SPECIFIC GRAVITY.....	0.653

INDEX 12583 SAMPLE 6062		INDEX 12584 SAMPLE 17780		INDEX 12585 SAMPLE 14561	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	SWEETWATER	COUNTY.....	SWEETWATER	COUNTY.....	SWEETWATER
FIELD.....	DEER LAKES	FIELD.....	MURCH BUTTES	FIELD.....	DEADMAN WASH
WELL NAME.....	GOVT. NO. 1	WELL NAME.....	UNIT NO. 31	WELL NAME.....	CHAMPLIN 195 AMOCO NO. A-1
LOCATION.....	SEC. 12, T18N, R102W	LOCATION.....	SEC. 21, T16N, R112W	LOCATION.....	SEC. 5, T20N, R101W
OWNER.....	MOHAWK FUEL SUPPLY CO.	OWNER.....	MOHAWK C.C.	OWNER.....	AMOCO PRODUCTION CO.
COMPLETED.....	01/10/78	COMPLETED.....	08/11/84	COMPLETED.....	05/01/74
SAMPLED.....	05/16/86	SAMPLED.....	07/19/85	SAMPLED.....	01/15/76
FORMATION.....	CRET-ROCK SPRINGS	FORMATION.....	PENN-MORGAN	FORMATION.....	CRET-FRONTIER
GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	895	DEPTH, FEET.....	18096	DEPTH, FEET.....	7800
WELLHEAD PRESSURE, PSIG.....	264	WELLHEAD PRESSURE, PSIG.....	8365	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	3000	OPEN FLOW, MCFD.....	11160	OPEN FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	97.2	METHANE.....	43.5	METHANE.....	97.9
ETHANE.....	1.7	ETHANE.....	5.8	ETHANE.....	1.0
PROpane.....	0.2	PROpane.....	0.2	PROpane.....	0.1
N-BUTANE.....	0.1	N-BUTANE.....	0.5	N-BUTANE.....	0.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.3	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	0.4	NITROGEN.....	0.3	NITROGEN.....	0.3
OXYGEN.....	0.0	OXYGEN.....	0.3	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.1	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	6.2	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	29.3	CARBON DIOXIDE.....	0.6
HELIUM.....	0.02	HELIUM.....	0.03	HELIUM.....	0.01
HEATING VALUE.....	1033	HEATING VALUE.....	1007	HEATING VALUE.....	1212
SPECIFIC GRAVITY.....	0.573	SPECIFIC GRAVITY.....	0.959	SPECIFIC GRAVITY.....	0.567

INDEX 12586 SAMPLE 8821		INDEX 12587 SAMPLE 14504		INDEX 12588 SAMPLE 17699	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	SWEETWATER	COUNTY.....	SWEETWATER	COUNTY.....	SWEETWATER
FIELD.....	DESERET SPRINGS	FIELD.....	DESERET SPRINGS	FIELD.....	DRIPPING ROCK
WELL NAME.....	SEC. 16, T20N, R98W	WELL NAME.....	UNIT NO. 2	WELL NAME.....	LIKER FEDERAL NO. 32-1
LOCATION.....	MORIL OIL CO.	LOCATION.....	SEC. 5, T20N, R98W	LOCATION.....	SEC. 32, T14N, R94W
OWNER.....	08/23/82	OWNER.....	MEGA PETROLEUM CO.	OWNER.....	CELSIUS ENERGY CO.
COMPLETED.....	12/13/82	COMPLETED.....	10/21/75	COMPLETED.....	12/10/84
SAMPLED.....	12/13/82	SAMPLED.....	06/06/85	SAMPLED.....	06/06/85
FORMATION.....	CRET-ALMOND	FORMATION.....	CRET-LEWIS	FORMATION.....	CRET-FOX HILLS
GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535	GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	5615	DEPTH, FEET.....	5466	DEPTH, FEET.....	10550
WELLHEAD PRESSURE, PSIG.....	1900	WELLHEAD PRESSURE, PSIG.....	1150	WELLHEAD PRESSURE, PSIG.....	5050
OPEN FLOW, MCFD.....	54000	OPEN FLOW, MCFD.....	3050	OPEN FLOW, MCFD.....	550
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	89.0	METHANE.....	88.2	METHANE.....	79.4
ETHANE.....	5.7	ETHANE.....	6.1	ETHANE.....	10.1
PROpane.....	1.2	PROpane.....	1.3	PROpane.....	4.2
N-BUTANE.....	0.5	N-BUTANE.....	0.3	N-BUTANE.....	1.0
ISOBUTANE.....	0.4	ISOBUTANE.....	0.3	ISOBUTANE.....	0.8
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3
NITROGEN.....	0.7	NITROGEN.....	0.0	NITROGEN.....	1.4
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.4	CARBON DIOXIDE.....	2.0	CARBON DIOXIDE.....	1.6
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	TRACE
HEATING VALUE.....	1105	HEATING VALUE.....	1101	HEATING VALUE.....	1203
SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.647	SPECIFIC GRAVITY.....	0.719

* CALCULATED GROSS BTU PER CU. FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12589 SAMPLE 17727			INDEX 12590 SAMPLE 16413			INDEX 12591 SAMPLE 17354		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SWEETWATER		SWEETWATER			SWEETWATER		
FIELD.....	DRIPPING ROCK		ECHO SPRINGS			FABIAN DITCH		
WELL NAME.....	CEDAR BREAKS NO. 6-1		CHAMPLIN 254 AMOCO C NO. 1			STRANGE NO. 1-22		
LOCATION.....	SEC. 6, T13N, R94W		SEC. 21, T20N, R93W			SEC. 22, T22N, R112W		
OWNER.....	CELSIUS ENERGY CO.		AMOCO PRODUCTION CO.			TENNECO OIL EXPL. & PROD. CO		
COMPLETED.....	06/25/84		10/02/81			07/12/84		
SAMPLED.....	06/26/85		01/22/82			07/13/84		
FORMATION.....	CRET-ALMOND		CRET-ALMOND U			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	13010		9804			12030		
WELLHEAD PRESSURE, PSIG.....	280		3950			4500		
OPEN FLOW, MCFD.....	1249		2519			305		
COMPONENT, MOLE PCT.....								
METHANE.....	94.5		86.9			81.0		
ETHANE.....	0.9		7.6			9.5		
PROpane.....	0.1		2.1			3.1		
N-BUTANE.....	0.0		0.4			0.6		
ISOBUTANE.....	0.0		0.4			0.8		
N-PENTANE.....	0.0		0.1			0.1		
ISOPENTANE.....	0.0		0.2			0.7		
CYCLOPENTANE.....	0.0		TRACE			0.3		
HEXANES PLUS.....	0.0		0.1			0.2		
NITROGEN.....	0.9		0.4			2.3		
OXYGEN.....	0.2		TRACE			0.4		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.4		1.3			0.6		
HELIUM.....	TRACE		0.01			0.01		
HEATING VALUE.....	976		1116			1189		
SPECIFIC GRAVITY.....	0.597		0.653			0.704		

INDEX 12592 SAMPLE 15117			INDEX 12593 SAMPLE 15118			INDEX 12594 SAMPLE 1894		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SWEETWATER		SWEETWATER			SWEETWATER		
FIELD.....	HAY RESERVOIR		HAY RESERVOIR			WIAWATHA		
WELL NAME.....	HAY RESERVOIR NO. 3		HAY RESERVOIR NO. 5			NEWBERGER NO. 1		
LOCATION.....	SEC. 27, T24N, R97W		SEC. 22, T24N, R97W			SEC. 13, T12N, R100W		
OWNER.....	DAVIS OIL CO.		DAVIS OIL CO.			MOUNTAIN FUEL SUPPLY CO.		
COMPLETED.....	08/3/76		04/08/77			09/19/79		
SAMPLED.....	09/30/77		09/30/77			11/13/79		
FORMATION.....	CRET-LEWIS		CRET-LEWIS			TERT-		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	9970		10152			2375		
WELLHEAD PRESSURE, PSIG.....	5800		5400			60		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			20000		
COMPONENT, MOLE PCT.....								
METHANE.....	80.4		85.8			70.8		
ETHANE.....	11.0		3.1			18.2		
PROpane.....	4.6		0.7			---		
N-BUTANE.....	1.2		0.6			---		
ISOBUTANE.....	0.7		0.3			---		
N-PENTANE.....	0.2		0.2			---		
ISOPENTANE.....	0.3		0.1			---		
CYCLOPENTANE.....	0.1		TRACE			---		
HEXANES PLUS.....	0.2		0.1			---		
NITROGEN.....	0.3		0.1			10.2		
OXYGEN.....	0.0		0.0			0.8		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	1.0		0.9			0.1		
HELIUM.....	TRACE		TRACE			0.00		
HEATING VALUE.....	1230		1151			1043		
SPECIFIC GRAVITY.....	0.711		0.657			0.693		

INDEX 12595 SAMPLE 7217			INDEX 12596 SAMPLE 15613			INDEX 12597 SAMPLE 17229		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SWEETWATER		SWEETWATER			SWEETWATER		
FIELD.....	HIAMATHA W		HIGGINS			HORN CANYON		
WELL NAME.....	HIAMATHA B NO. 1		HIGGINS NO. 7			BLUE FOREST		
LOCATION.....	SEC. 24, T12N, R101W		SEC. 33, T18N, R98W			SEC. 5, T24N, R110W		
OWNER.....	SKELLY OIL CO.		CHAMPLIN PETROLEUM CO.			ENERGETICS, INC.		
COMPLETED.....	03/25/56		05/06/78			03/17/83		
SAMPLED.....	09/-/59		04/30/78			03/29/84		
FORMATION.....	CRET-LANCE		JURA-NUGGET			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	4555		16030			11218		
WELLHEAD PRESSURE, PSIG.....	1475		4200			950		
OPEN FLOW, MCFD.....	3200		6000			832		
COMPONENT, MOLE PCT.....								
METHANE.....	93.6		93.5			86.1		
ETHANE.....	3.8		2.2			6.4		
PROpane.....	0.8		0.5			3.6		
N-BUTANE.....	0.1		0.1			1.0		
ISOBUTANE.....	0.1		0.1			0.2		
N-PENTANE.....	TRACE		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.5		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	0.2		0.9			0.9		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.2		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.0			0.5		
HELIUM.....	0.01		0.04			0.01		
HEATING VALUE.....	1065		1027			1175		
SPECIFIC GRAVITY.....	0.601		0.605			0.675		

INDEX 12598 SAMPLE 14377			INDEX 12599 SAMPLE 14616			INDEX 12600 SAMPLE 15001		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SWEETWATER		SWEETWATER			SWEETWATER		
FIELD.....	KINNEY		KINNEY			LEUCITE HILLS		
WELL NAME.....	KINNEY UNIT NO. 1		KINNEY UNIT NO. 2			AMOCO CHAMPLIN NO. 1-1		
LOCATION.....	SEC. 18, T13N, R99W		SEC. 18, T13N, R99W			SEC. 1, T21N, R104W		
OWNER.....	MOUNTAIN FUEL SUPPLY CO.		MOUNTAIN FUEL SUPPLY CO.			KENNETH D. LUFF		
COMPLETED.....	03/29/75		10/01/75			02/25/77		
SAMPLED.....	05/22/75		02/25/76			05/19/77		
FORMATION.....	JURA-NUGGET		CRET-DAKOTA			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	14722		14015			5584		
WELLHEAD PRESSURE, PSIG.....	4100		8745			600		
OPEN FLOW, MCFD.....	4000		2915			2800		
COMPONENT, MOLE PCT.....								
METHANE.....	93.1		96.0			89.9		
ETHANE.....	0.4		0.5			5.8		
PROpane.....	TRACE		TRACE			5.0		
N-BUTANE.....	0.0		0.0			0.6		
ISOBUTANE.....	0.0		0.0			0.3		
N-PENTANE.....	0.0		0.0			0.2		
ISOPENTANE.....	0.0		0.0			0.2		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	0.0		0.5			0.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.5		3.2			0.3		
HELIUM.....	0.08		0.01			0.02		
HEATING VALUE.....	950		978			1119		
SPECIFIC GRAVITY.....	0.597		0.589			0.631		

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12601 SAMPLE 15002			INDEX 12602 SAMPLE 16195			INDEX 12603 SAMPLE 17483		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SWEETWATER		SWEETWATER			SWEETWATER		
FIELD.....	LEUCITE HILLS		LEUCITE HILLS			LEUCITE HILLS		
WELL NAME.....	AMOCO CHAMPLIN NO. 1-5		AMOCO CHAMPLIN NO. 3-17			AMODAKO-RED. NO. 8-32		
LOCATION.....	SEC. 5, T21N, R103W		SEC. 17, T21N, R103W			SEC. 32, T22N, R103W		
OWNER.....	KENNETH D. LUFF		LUFF EXPLORATION CO.			LUFF EXPLORATION CO.		
COMPLETED.....	01/20/77		01/20/80			03/03/83		
SAMPLED.....	05/13/77		02/21/81			10/10/84		
FORMATION.....	CRET-FRONTIER		JURA-MORRISON			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	6387		6020			6532		
WELLHEAD PRESSURE, PSIG.....	800		1925			520		
OPEN FLOW, MCFD.....	1559		1041			1450		
COMPONENT, MOLE PCT.....								
METHANE.....	93.7		90.4			94.1		
ETHANE.....	3.8		4.4			3.5		
PROPANE.....	1.1		1.9			0.8		
N-BUTANE.....	0.3		0.7			0.2		
ISOBUTANE.....	0.1		0.4			0.1		
N-PENTANE.....	TRACE		0.3			0.1		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	0.6		1.3			0.6		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.4			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.5		
HELIUM.....	0.02		0.02			0.01		
HEATING VALUE.....	1069		1156			1060		
SPECIFIC GRAVITY.....	0.599		0.535			0.598		
INDEX 12604 SAMPLE 17228			INDEX 12605 SAMPLE 15205			INDEX 12606 SAMPLE 15743		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SWEETWATER		SWEETWATER			SWEETWATER		
FIELD.....	LINCOLN ROAD		LINCOLN ROAD UNIT			LOST CREEK		
WELL NAME.....	LMU FED. NO. 30-28		LINCOLN ROAD UNIT NO. 1			RED DESERT NO. 1		
LOCATION.....	SEC. 28, T25N, R111W		SEC. 9, T24N, R111W			SEC. 4, T23N, R94W		
OWNER.....	ENERGETICS, INC.		C & K PETROLEUM, INC.			PICHIGAN WISCONSIN PIPELINE		
COMPLETED.....	05/13/83		03/03/77			08/10/78		
SAMPLED.....	03/28/84		02/05/78			09/05/79		
FORMATION.....	CRET-FRONTIER		CRET-FRONTIER			CRET-LEWIS		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	10010		9641			11794		
WELLHEAD PRESSURE, PSIG.....	900		514			4900		
OPEN FLOW, MCFD.....	1477		NOT GIVEN			1825		
COMPONENT, MOLE PCT.....								
METHANE.....	94.9		90.5			85.7		
ETHANE.....	2.4		6.1			6.1		
PROPANE.....	0.6		1.4			2.8		
N-BUTANE.....	0.2		0.3			0.2		
ISOBUTANE.....	TRACE		0.2			0.6		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.6		0.6			0.2		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.1			1.5		
HELIUM.....	0.01		0.01			TRACE		
HEATING VALUE.....	1047		1195			1141		
SPECIFIC GRAVITY.....	0.595		0.621			0.663		
INDEX 12607 SAMPLE 2160			INDEX 12608 SAMPLE 2161			INDEX 12609 SAMPLE 9568		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SWEETWATER		SWEETWATER			SWEETWATER		
FIELD.....	LOST SOLDIER		LOST SOLDIER			LOST SOLDIER		
WELL NAME.....	NO. 32		NO. 65			WEST WPTZ NO. 2		
LOCATION.....	SEC. 10, T26N, R90W		SEC. 11, T26N, R90W			SEC. 2, T25N, R90W		
OWNER.....	PRAIRIE OIL & GAS CO.		PRAIRIE OIL & GAS CO.			SINCLAIR OIL & GAS CO.		
COMPLETED.....	05/11/72		05/11/75			04/09/53		
SAMPLED.....	09/25/30		03/24/30			10/~/64		
FORMATION.....	CRET-FRONTIER		CRET-LAKOTA			PENN-TENSLEEP		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	301		1510			4990		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	75.4		91.1			17.7		
ETHANE.....	8.5		3.1			6.2		
PROPANE.....	---		---			13.0		
N-BUTANE.....	---		---			5.6		
ISOBUTANE.....	---		---			0.5		
N-PENTANE.....	---		---			2.7		
ISOPENTANE.....	---		---			0.5		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			1.4		
NITROGEN.....	4.7		0.3			15.1		
OXYGEN.....	1.2		0.1			0.0		
ARGON.....	---		---			0.2		
HYDROGEN.....	---		---			0.6		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	8.1		3.7			31.7		
HELIUM.....	0.00		0.0			1.30		
HEATING VALUE.....	928		978			105		
SPECIFIC GRAVITY.....	0.706		0.625			1.290		
INDEX 12610 SAMPLE 12939			INDEX 12611 SAMPLE 5648			INDEX 12612 SAMPLE 17150		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	SWEETWATER		SWEETWATER			SWEETWATER		
FIELD.....	MASTEPSON		MIDDLE MOUNTAIN			MONUMENT BUTTE		
WELL NAME.....	GOVT. MCCONNELL R NO. 1		MIDDLE MOUNTAIN UNIT NO. 3			MONUMENT BUTTE UNIT NO. 31-3		
LOCATION.....	SEC. 30, T23N, R101W		SEC. 10, T12N, R103W			SEC. 3, T25N, R110W		
OWNER.....	TEXACO INC.		STANOLIND OIL & GAS CO.			ENERGETICS, INC.		
COMPLETED.....	05/10/71		12/14/53			12/~/82		
SAMPLED.....	07/14/71		07/13/54			12/~/83		
FORMATION.....	CRET-DAKOTA		CRET-MESAVERDE			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	6749		6449			11508		
WELLHEAD PRESSURE, PSIG.....	2180		1702			1025		
OPEN FLOW, MCFD.....	5000		5930			1797		
COMPONENT, MOLE PCT.....								
METHANE.....	97.4		94.9			89.4		
ETHANE.....	1.0		7.1			3.7		
PROPANE.....	0.3		2.4			4.4		
N-BUTANE.....	0.1		0.7			0.3		
ISOBUTANE.....	0.0		0.3			0.6		
N-PENTANE.....	0.1		0.5			0.2		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.3			0.2		
NITROGEN.....	0.1		0.0			0.2		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.5			0.6		
HELIUM.....	0.02		0.22			0.01		
HEATING VALUE.....	1031		1147			1125		
SPECIFIC GRAVITY.....	0.577		0.573			0.652		

* CALCULATED BOSS HTL PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX SAMPLE	12613 8630	INDEX SAMPLE	12614 16545	INDEX SAMPLE	12615 6160
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	MOXA	MOXA ARCH	MOXA ARCH	MUD FLAT	MUD FLAT
WELL NAME.....	MOXA UNIT NO. 1	7 MILE GULCH NO. 7	7 MILE GULCH NO. 7	UNION PACIFIC NO. 1	UNION PACIFIC NO. 1
LOCATION.....	SEC. 22, T19N, R112W	SEC. 13, T20N, R112W	SEC. 13, T20N, R112W	SEC. 23, T20N, R104W	SEC. 23, T20N, R104W
OWNER.....	TEXACO INC.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.
COMPLETED.....	09/22/61	05/17/82	05/17/82	08/30/56	08/30/56
SAMPLED.....	08/04/63	06/03/82	06/03/82	10/10/56	10/10/56
FORMATION.....	CRET-FRONTIER	CRET-FRONTIER	CRET-FRONTIER	CRET-DAKOTA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	535	535	535	535	535
DEPTH, FEET.....	11415	11676	11676	1494	1494
WELLHEAD PRESSURE, PSIG.....	5700	4933	4933	1462	1462
OPEN FLOW, MCF/D.....	1300	4702	4702	7000	7000
COMPONENT, MOLE PCT					
METHANE.....	91.6	81.9	81.9	94.1	94.1
ETHANE.....	5.7	11.1	11.1	1.4	1.4
PROPANE.....	1.5	3.3	3.3	0.6	0.6
N-BUTANE.....	0.2	0.7	0.7	TRACE	TRACE
ISOBUTANE.....	TRACE	0.5	0.5	TRACE	TRACE
N-PENTANE.....	TRACE	0.1	0.1	TRACE	TRACE
ISOPENTANE.....	0.1	0.2	0.2	TRACE	TRACE
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.1	0.2	0.2	TRACE	TRACE
NITROGEN.....	0.2	1.0	1.0	1.1	1.1
OXYGEN.....	TRACE	TRACE	TRACE	TRACE	TRACE
ARGON.....	0.0	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.1	0.1	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.5	0.5	0.0	0.0
HELIUM.....	0.01	0.01	0.01	0.01	0.01
HEATING VALUE.....	1089	1190	1190	1003	1003
SPECIFIC GRAVITY.....	0.511	0.685	0.685	0.576	0.576

INDEX SAMPLE	12614 16561	INDEX SAMPLE	12617 9749	INDEX SAMPLE	12618 9795
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	NICKY	NITCHEE GULCH	NITCHEE GULCH	NITCHEE GULCH	NITCHEE GULCH
WELL NAME.....	NICKY UNIT NO. 1-13A	UNIT NO. 4	UNIT NO. 4	UNIT NO. 6-7	UNIT NO. 6-7
LOCATION.....	SEC. 13, T24N, R96W	SEC. 17, T25N, R103W	SEC. 17, T25N, R103W	SEC. 7, T23N, R103W	SEC. 7, T23N, R103W
OWNER.....	ENERGY RESERVES GROUP, INC.	ARMAK PETROLEUM CORP.	ARMAK PETROLEUM CORP.	ARMAK PETROLEUM CORP.	ARMAK PETROLEUM CORP.
COMPLETED.....	05/11/81	10/03/53	10/03/53	01/31/65	01/31/65
SAMPLED.....	06/20/82	03/17/65	03/17/65	03/07/65	03/07/65
FORMATION.....	CRET-ALMOND	CRET-DAKOTA & FRONTIER	CRET-DAKOTA & FRONTIER	CRET-DAKOTA	CRET-DAKOTA
GEOLOGIC PROVINCE CODE.....	535	535	535	535	535
DEPTH, FEET.....	12307	7832	7832	8628	8628
WELLHEAD PRESSURE, PSIG.....	5817	2900	2900	2520	2520
OPEN FLOW, MCF/D.....	643	1400C	1400C	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT					
METHANE.....	93.7	93.1	93.1	94.9	94.9
ETHANE.....	0.4	0.5	0.5	1.9	1.9
PROPANE.....	TRACE	1.3	1.3	0.4	0.4
N-BUTANE.....	0.0	0.2	0.2	0.1	0.1
ISOBUTANE.....	0.0	TRACE	TRACE	TRACE	TRACE
N-PENTANE.....	0.0	TRACE	TRACE	TRACE	TRACE
ISOPENTANE.....	0.0	TRACE	TRACE	0.1	0.1
CYCLOPENTANE.....	0.0	TRACE	TRACE	0.1	0.1
HEXANES PLUS.....	0.0	0.1	0.1	0.3	0.3
NITROGEN.....	0.2	0.3	0.3	1.3	1.3
OXYGEN.....	TRACE	TRACE	TRACE	0.3	0.3
ARGON.....	TRACE	0.0	0.0	TRACE	TRACE
HYDROGEN.....	0.1	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	5.6	0.4	0.4	0.5	0.5
HELIUM.....	TRACE	0.02	0.02	0.01	0.01
HEATING VALUE.....	957	1054	1054	1033	1033
SPECIFIC GRAVITY.....	0.611	0.590	0.590	0.592	0.592

INDEX SAMPLE	12619 17315	INDEX SAMPLE	12620 6734	INDEX SAMPLE	12621 6738
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	NITCHEE GULCH	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELL NAME.....	UNIT NO. 12-18	DESERT SPRINGS NO. 1	DESERT SPRINGS NO. 1	DESERT SPRINGS NO. 2	DESERT SPRINGS NO. 2
LOCATION.....	SEC. 18, T23N, R103W	SEC. 26, T21N, R98W	SEC. 26, T21N, R98W	SEC. 22, T21N, R98W	SEC. 22, T21N, R98W
OWNER.....	TERRA RESOURCES, INC.	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.
COMPLETED.....	02/07/83	01/21/58	01/21/58	03/25/58	03/25/58
SAMPLED.....	06/07/84	07/06/58	07/06/58	07/06/58	07/06/58
FORMATION.....	CRET-FRONTIER 3RD	CRET-ALMOND	CRET-ALMOND	CRET-LEWIS E	CRET-LEWIS E
GEOLOGIC PROVINCE CODE.....	535	535	535	535	535
DEPTH, FEET.....	2050	5847	5847	5083	5083
WELLHEAD PRESSURE, PSIG.....	840	1900	1900	1824	1824
OPEN FLOW, MCF/D.....	1800	7700	7700	28100	28100
COMPONENT, MOLE PCT					
METHANE.....	74.8	84.3	84.3	84.6	84.6
ETHANE.....	3.4	6.5	6.5	6.8	6.8
PROPANE.....	0.7	2.2	2.2	1.2	1.2
N-BUTANE.....	0.2	0.4	0.4	1.0	1.0
ISOBUTANE.....	0.1	0.4	0.4	1.1	1.1
N-PENTANE.....	0.1	0.0	0.0	0.3	0.3
ISOPENTANE.....	TRACE	0.4	0.4	0.2	0.2
CYCLOPENTANE.....	TRACE	0.1	0.1	0.2	0.2
HEXANES PLUS.....	0.1	0.1	0.1	0.5	0.5
NITROGEN.....	0.4	0.0	0.0	1.7	1.7
OXYGEN.....	0.0	TRACE	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.3	0.3	0.2	0.2
HELIUM.....	0.01	0.01	0.01	0.01	0.01
HEATING VALUE.....	1059	1124	1124	1208	1208
SPECIFIC GRAVITY.....	0.591	0.646	0.646	0.633	0.633

INDEX SAMPLE	12622 13354	INDEX SAMPLE	12623 15088	INDEX SAMPLE	12624 16442
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	WYOMING
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
FIELD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELL NAME.....	CONTINENTAL DIVIDE NO. 16-1	FIVE MILE GULCH UNIT NO. 1	FIVE MILE GULCH UNIT NO. 1	SHERIDA RIDGE UNIT NO. 12	SHERIDA RIDGE UNIT NO. 12
LOCATION.....	SEC. 16, T21N, R93W	SEC. 27, T21N, R93W	SEC. 27, T21N, R93W	SEC. 28, T22N, R95W	SEC. 28, T22N, R95W
OWNER.....	TERRA RESOURCES, INC.	AMOCO PRODUCTION CO.	AMOCO PRODUCTION CO.	DIAMOND SHAMROCK CORP.	DIAMOND SHAMROCK CORP.
COMPLETED.....	06/23/72	01/09/77	01/09/77	09/29/81	09/29/81
SAMPLED.....	08/16/72	09/17/77	09/17/77	03/04/82	03/04/82
FORMATION.....	CRET-LEWIS	CRET-ALMOND	CRET-ALMOND	CRET-MESAVERDE	CRET-MESAVERDE
GEOLOGIC PROVINCE CODE.....	535	535	535	535	535
DEPTH, FEET.....	3513	10796	10796	10246	10246
WELLHEAD PRESSURE, PSIG.....	1280	3600	3600	3600	3600
OPEN FLOW, MCF/D.....	14500	NOT GIVEN	NOT GIVEN	699	699
COMPONENT, MOLE PCT					
METHANE.....	90.7	86.3	86.3	73.9	73.9
ETHANE.....	2.7	7.9	7.9	11.6	11.6
PROPANE.....	2.0	1.8	1.8	5.5	5.5
N-BUTANE.....	0.8	0.4	0.4	1.9	1.9
ISOBUTANE.....	0.6	0.3	0.3	1.3	1.3
N-PENTANE.....	0.0	0.2	0.2	0.5	0.5
ISOPENTANE.....	0.6	0.1	0.1	0.5	0.5
CYCLOPENTANE.....	TRACE	TRACE	TRACE	0.5	0.5
HEXANES PLUS.....	0.1	0.1	0.1	0.6	0.6
NITROGEN.....	2.2	0.0	0.0	TRACE	TRACE
OXYGEN.....	TRACE	TRACE	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.8	0.8	0.4	0.4
HELIUM.....	0.02	TRACE	TRACE	TRACE	TRACE
HEATING VALUE.....	1097	1086	1086	1283	1283
SPECIFIC GRAVITY.....	0.634	0.562	0.562	0.786	0.786

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1061

INDEX SAMPLE	12625 16530	INDEX SAMPLE	12626 9168	INDEX SAMPLE	12627 15642
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	
FIELD.....	NOT GIVEN	PATRICK DRAW	PATRICK DRAW	PICKETT LAKE UNIT	
WELL NAME.....	FED. NO. 12-1	ARCH UNIT NO. 71	ARCH UNIT NO. 71	PICKETT LAKE NO. 1	
LOCATION.....	SEC. 21, T24N, R103W	SEC. 11, T19N, R99W	SEC. 11, T19N, R99W	SEC. 24, T26N, R97W	
OWNER.....	WOODS PETROLEUM CORP.	FOREST OIL CORP.	FOREST OIL CORP.	DAVIS OIL CO.	
COMPLETED.....	02/19/82	05/16/83	11/11/53	02/09/79	
SAMPLED.....	06/01/82	11/11/53	02/12/79	02/12/79	
FORMATION.....	NOT GIVEN	CRET-ALMOND NO. 6	CRET-LEWIS	CRET-LEWIS	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	NOT GIVEN	4294	1342	1342	
WELLHEAD PRESSURE, PSIG.....	4600	250	6275	6275	
OPEN FLOW, MCFD.....	960	NOT GIVEN	8198	8198	
COMPONENT, MOLE PCT					
METHANE.....	95.4	81.9	88.0	88.0	
ETHANE.....	2.6	10.0	6.7	6.7	
PROPANE.....	0.3	3.9	1.4	1.4	
N-BUTANE.....	TRACE	0.9	0.2	0.2	
ISOBUTANE.....	TRACE	0.8	0.5	0.5	
N-PENTANE.....	0.0	0.1	0.1	0.1	
ISOPENTANE.....	TRACE	0.3	0.3	0.3	
CYCLOPENTANE.....	TRACE	0.1	0.1	0.1	
HEXANES PLUS.....	TRACE	0.2	0.3	0.3	
NITROGEN.....	0.6	0.5	0.5	0.5	
OXYGEN.....	0.1	TRACE	0.0	0.0	
ARGON.....	TRACE	0.0	0.0	0.0	
HYDROGEN.....	0.1	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	1.3	1.8	1.8	
HELIUM.....	TRACE	TRACE	TRACE	TRACE	
HEATING VALUE.....	1021	1198	1108	1108	
SPECIFIC GRAVITY.....	0.579	0.638	0.548	0.548	

INDEX SAMPLE	12628 9405	INDEX SAMPLE	12629 8799	INDEX SAMPLE	12630 10434
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	
FIELD.....	PINE CANYON	PIONEER	PIONEER	PIONEER	
WELL NAME.....	PINE CANYON UNIT NO. 1	UNIT NO. 4	UNIT NO. 7	UNIT NO. 7	
LOCATION.....	SEC. 3, T23N, R103W	SEC. 12, T13N, R100W	SEC. 2, T13N, R99W	SEC. 2, T13N, R99W	
OWNER.....	SDIO PETROLEUM CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	
COMPLETED.....	02/-/64	09/23/62	07/04/63	07/04/63	
SAMPLED.....	06/16/64	11/28/62	03/04/66	03/04/66	
FORMATION.....	CRET-DAKOTA	CRET-ALMOND	ECOE-WASATCH	ECOE-WASATCH	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	8342	4660	2324	2324	
WELLHEAD PRESSURE, PSIG.....	16500	1615	780	780	
OPEN FLOW, MCFD.....	1400	4630	2930	2930	
COMPONENT, MOLE PCT					
METHANE.....	86.5	90.1	98.3	98.3	
ETHANE.....	8.2	0.2	0.2	0.2	
PROPANE.....	3.2	1.6	0.3	0.3	
N-BUTANE.....	1.1	0.4	0.0	0.0	
ISOBUTANE.....	0.7	0.4	0.0	0.0	
N-PENTANE.....	0.1	0.1	0.0	0.0	
ISOPENTANE.....	1.2	0.4	0.0	0.0	
CYCLOPENTANE.....	0.3	0.3	0.0	0.0	
HEXANES PLUS.....	0.4	0.4	0.0	0.0	
NITROGEN.....	1.0	0.5	0.5	0.5	
OXYGEN.....	0.0	0.1	0.0	0.0	
ARGON.....	0.0	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.2	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	1.3	0.7	0.7	
HELIUM.....	0.01	0.01	0.01	0.01	
HEATING VALUE.....	1204	1110	1007	1007	
SPECIFIC GRAVITY.....	0.687	0.643	0.567	0.567	

INDEX SAMPLE	12631 16998	INDEX SAMPLE	12632 9403	INDEX SAMPLE	12633 12346
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	
FIELD.....	PIPELINE CROSSING	POINT OF ROCKS	POINT OF ROCKS	POWDER SPRINGS	
WELL NAME.....	PIPELINE CROSSING NO. 1-20	UPRR NO. 44-25	UPRR NO. 44-25	GOVERN POLLY NO. 1	
LOCATION.....	SEC. 20, T18N, R111W	SEC. 25, T20N, R101W	SEC. 25, T20N, R101W	SEC. 23, T12N, R97W	
OWNER.....	MARATHON OIL CO.	UNION PACIFIC RAILROAD CO.	UNION PACIFIC RAILROAD CO.	INEXCO OIL CO.	
COMPLETED.....	06/-/82	09/27/53	06/17/54	02/-/70	
SAMPLED.....	05/03/83	06/17/54	06/17/54	07/20/70	
FORMATION.....	CRET-DAKOTA 1ST	CRET-BLAIR	CRET-BLAIR	ECOE-FORT UNION	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	10000	3446	5400	5400	
WELLHEAD PRESSURE, PSIG.....	2700	1455	1950	1950	
OPEN FLOW, MCFD.....	1000	2069	5600	5600	
COMPONENT, MOLE PCT					
METHANE.....	85.6	98.3	79.8	79.8	
ETHANE.....	6.7	0.8	9.1	9.1	
PROPANE.....	0.1	0.3	0.3	0.3	
N-BUTANE.....	0.4	0.0	1.6	1.6	
ISOBUTANE.....	0.3	0.0	1.3	1.3	
N-PENTANE.....	0.1	0.0	0.4	0.4	
ISOPENTANE.....	0.3	0.0	4.1	4.1	
CYCLOPENTANE.....	TRACE	0.0	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.0	0.2	0.2	
NITROGEN.....	0.8	0.0	1.0	1.0	
OXYGEN.....	TRACE	0.0	TRACE	TRACE	
ARGON.....	2.3	TRACE	TRACE	TRACE	
HYDROGEN.....	0.3	0.0	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.1	0.3	0.2	0.2	
HELIUM.....	0.01	0.01	0.02	0.02	
HEATING VALUE.....	1204	1111	1264	1264	
SPECIFIC GRAVITY.....	0.661	0.566	0.727	0.727	

INDEX SAMPLE	12634 17172	INDEX SAMPLE	12635 17060	INDEX SAMPLE	12636 15195
STATE.....	WYOMING	WYOMING	WYOMING	WYOMING	
COUNTY.....	SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER	
FIELD.....	PRETTY WATER CREEK	RED DESERT	RED DESERT	RED LAKES	
WELL NAME.....	FED. NO. 1-2	ACT DIVIDE NO. 24	ACT DIVIDE NO. 24	CHAPLIN 337 AMOCO A NO. 1	
LOCATION.....	SEC. 2, T13N, R104W	SEC. 3, T13N, R96W	SEC. 3, T13N, R96W	SEC. 5, T18N, R94W	
OWNER.....	GREAT WESTERN DRILLING CO.	HOME PETROLEUM CORP.	HOME PETROLEUM CORP.	AMOCO PRODUCTION CO.	
COMPLETED.....	08/22/81	04/03/82	01/10/77	01/10/77	
SAMPLED.....	02/09/84	02/09/84	01/10/78	01/10/78	
FORMATION.....	PERM-PHOSPHORIA	CRET-LEWIS	CRET-ALMOND	CRET-ALMOND	
GEOLOGIC PROVINCE CODE.....	535	535	535	535	
DEPTH, FEET.....	6910	9634	5734	5734	
WELLHEAD PRESSURE, PSIG.....	1854	4100	3275	3275	
OPEN FLOW, MCFD.....	5390	1206	2130	2130	
COMPONENT, MOLE PCT					
METHANE.....	34.7	67.6	80.6	80.6	
ETHANE.....	2.5	11.5	9.4	9.4	
PROPANE.....	1.5	7.3	3.9	3.9	
N-BUTANE.....	0.1	3.3	0.8	0.8	
ISOBUTANE.....	0.9	1.7	0.7	0.7	
N-PENTANE.....	0.9	0.6	0.2	0.2	
ISOPENTANE.....	0.6	3.5	0.3	0.3	
CYCLOPENTANE.....	0.1	0.4	TRACE	TRACE	
HEXANES PLUS.....	0.7	1.0	0.1	0.1	
NITROGEN.....	27.6	2.0	0.5	0.5	
OXYGEN.....	TRACE	0.1	TRACE	TRACE	
ARGON.....	0.2	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.3	TRACE	TRACE	
HYDROGEN SULFIDE.....	TRACE	0.0	0.0	0.0	
CARBON DIOXIDE.....	28.2	0.8	3.3	3.3	
HELIUM.....	0.92	TRACE	0.01	0.01	
HEATING VALUE.....	606	1491	1163	1163	
SPECIFIC GRAVITY.....	1.046	0.887	0.708	0.708	

• CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 • DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 12637 SAMPLE 13162	INDEX 12638 SAMPLE 14981	INDEX 12639 SAMPLE 7649
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	SWEETWATER		SWEETWATER	SWEETWATER
FIELD.....	ROBIN		SALT WELLS S	SAND BUTTE
WELL NAME.....	GOVT. UNION NO. 2		SOUTH SALT WELLS UNIT NO. 1	NO. 2
LOCATION.....	SEC. 4, T19N, R97W		SEC. 14, T14N, R103W	SEC. 5, T17N, R99W
OWNER.....	TEXACO INC.		RESERVE OIL, INC.	CONTINENTAL OIL CO.
COMPLETED.....	04/17/72		07/15/75	02/03/60
SAMPLED.....	02/23/72		04/11/77	08/17/60
FORMATION.....	CRET-MESAVERDE & ERICSON		CRET-FRONTIER	CRET-ALMOND
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	7018		6658	4816
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		1200	1810
OPEN FLOW, MCFD.....	352		900	15500
COMPONENT, MOLE PCT				
METHANE.....	89.6	93.9	88.4	
ETHANE.....	0.4	4.1	6.0	
PROPANE.....	1.9	0.9	2.2	
N-BUTANE.....	0.5	0.2	0.9	
ISOBUTANE.....	0.4	0.1	0.3	
N-PENTANE.....	0.2	TRACE	0.1	
ISOPENTANE.....	0.1	0.1	0.2	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.2	TRACE	0.1	
NITROGEN.....	0.1	0.3	0.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.0	
HELIUM.....	0.01	0.02	0.01	
HEATING VALUE.....	1101	1062	1109	
SPECIFIC GRAVITY.....	0.651	0.594	0.646	

		INDEX 12640 SAMPLE 13964	INDEX 12641 SAMPLE 16212	INDEX 12642 SAMPLE 13152
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	SWEETWATER		SWEETWATER	SWEETWATER
FIELD.....	SIMILE SPRING		SIMILE SPRING	STAGE STOP
WELL NAME.....	GOVT. NO. 30-1		LEAR FEDERAL NO. 1	STAGE STOP UNIT NO. 15
LOCATION.....	SEC. 30, T18N, R104W		SEC. 30, T18N, R104W	SEC. 27, T18N, R99W
OWNER.....	POLYMBUS CORP.		COLUMBINE EXPLORATION CORP.	ODDESSA NATURAL CORP.
COMPLETED.....	02/20/74		--/-/00	06/17/71
SAMPLED.....	03/21/74		03/24/81	02/20/72
FORMATION.....	CRET-FRONTIER		CRET-FRONTIER	CRET-ALMOND
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	4632		4767	5450
WELLHEAD PRESSURE, PSIG.....	1650		1400	1780
OPEN FLOW, MCFD.....	3000		NOT GIVEN	3560
COMPONENT, MOLE PCT				
METHANE.....	80.3	84.0	90.6	
ETHANE.....	6.6	7.5	4.9	
PROPANE.....	1.3	1.4	4.9	
N-BUTANE.....	0.4	0.3	0.4	
ISOBUTANE.....	0.4	0.2	0.2	
N-PENTANE.....	0.1	0.1	0.2	
ISOPENTANE.....	0.5	0.1	0.2	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.5	0.3	0.3	
NITROGEN.....	2.9	0.7	0.3	
OXYGEN.....	0.6	0.1	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.2	1.1	
HELIUM.....	0.03	0.02	0.01	
HEATING VALUE.....	1112	1111	1098	
SPECIFIC GRAVITY.....	0.655	0.627	0.630	

		INDEX 12643 SAMPLE 12259	INDEX 12644 SAMPLE 8188	INDEX 12645 SAMPLE 15125
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	SWEETWATER		SWEETWATER	SWEETWATER
FIELD.....	STAGE STOP UNIT		STATE LINE	STORM SHELTER
WELL NAME.....	STAGE STOP UNIT NO. 7		STATE LINE UNIT FED. NO. 14	STORM SHELTER UNIT NO. 6
LOCATION.....	SEC. 24, T18N, R99W		SEC. 2, T12N, R93W	SEC. 20, T23N, R111W
OWNER.....	EL PASO OIL & GAS CO.		GULF OIL CORP.	DAVIS OIL CO.
COMPLETED.....	10/19/69		03/17/61	--/-/00
SAMPLED.....	05/12/70		10/27/61	10/19/77
FORMATION.....	CRET-ALMOND		EDGE-WASATCH	CRET-FRONTIER
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	6540		2374	10486
WELLHEAD PRESSURE, PSIG.....	2034		860	4000
OPEN FLOW, MCFD.....	2875		2390	3117
COMPONENT, MOLE PCT				
METHANE.....	80.2	94.6	77.9	
ETHANE.....	1.4	3.4	12.2	
PROPANE.....	1.5	0.3	4.0	
N-BUTANE.....	1.4	TRACE	0.6	
ISOBUTANE.....	1.6	0.2	0.6	
N-PENTANE.....	1.3	TRACE	0.1	
ISOPENTANE.....	0.9	TRACE	0.5	
CYCLOPENTANE.....	0.4	TRACE	0.5	
HEXANES PLUS.....	1.7	TRACE	0.6	
NITROGEN.....	1.3	1.2	2.4	
OXYGEN.....	0.0	TRACE	0.3	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	TRACE	0.1	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	TRACE	0.0	
HELIUM.....	0.1	0.02	0.02	
HEATING VALUE.....	1315	1034	1216	
SPECIFIC GRAVITY.....	0.777	0.581	0.719	

		INDEX 12646 SAMPLE 4578	INDEX 12647 SAMPLE 4579	INDEX 12648 SAMPLE 5618
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	SWEETWATER		SWEETWATER	SWEETWATER
FIELD.....	TABLE ROCK		TABLE ROCK	TABLE ROCK
WELL NAME.....	TABLE ROCK NO. 3		TABLE ROCK NO. 1	TABLE ROCK UNIT NO. 5
LOCATION.....	SEC. 2, T18N, R93W		SEC. 1, T18N, R98W	SEC. 2, T18N, R98W
OWNER.....	TEXAS CO.		TEXAS CO.	TEXAS CO.
COMPLETED.....	08/09/49		04/13/49	01/16/50
SAMPLED.....	09/30/49		09/30/48	05/08/54
FORMATION.....	EDGE-WASATCH		EDGE-WASATCH	CRET-MESAVERDE
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	3770		3308	5764
WELLHEAD PRESSURE, PSIG.....	1250		1250	1985
OPEN FLOW, MCFD.....	9500		5692	13800
COMPONENT, MOLE PCT				
METHANE.....	83.0	90.0	87.6	
ETHANE.....	1.9	7.2	2.4	
PROPANE.....	---	---	2.4	
N-BUTANE.....	---	---	0.5	
ISOBUTANE.....	---	---	0.3	
N-PENTANE.....	---	---	0.1	
ISOPENTANE.....	---	---	0.3	
CYCLOPENTANE.....	---	---	0.1	
HEXANES PLUS.....	---	---	0.6	
NITROGEN.....	0.7	2.5	0.6	
OXYGEN.....	0.2	0.2	TRACE	
ARGON.....	---	---	0.0	
HYDROGEN.....	---	---	0.1	
HYDROGEN SULFIDE.....	---	---	---	
CARBON DIOXIDE.....	0.01	0.1	2.3	
HELIUM.....	1.12	10.1	0.01	
HEATING VALUE.....	1041	1041	1117	
SPECIFIC GRAVITY.....	0.639	0.602	0.657	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	12649 8047	INDEX SAMPLE	12650 10879	INDEX SAMPLE	12651 14425
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	TABLE ROCK			TABLE ROCK		TABLE ROCK	
WELL NAME.....	TABLE ROCK UNIT NO. 1			TABLE ROCK UNIT NO. 15		TABLE ROCK UNIT NO. 19	
LOCATION.....	SEC. 26, T19N, R98W			SEC. 2, T19N, R98W		SEC. 35, T19N, R98W	
OWNER.....	TEXACO INC.			TEXACO INC.		TEXACO INC.	
COMPLETED.....	03/08/61			09/08/65		07/30/75	
SAMPLED.....	06/29/61			02/28/67		07/30/75	
FORMATION.....	CRET-ALMOND			JURA-NUGGET		MISS-MADISON	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	15213			15213		15020	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			5000		5210	
OPEN FLOW, MCFD.....	NOT GIVEN			6800		20000	
COMPONENT, MOLE PCT							
METHANE.....	85.4			95.4		75.0	
ETHANE.....	7.4			0.5		2.0	
PROPANE.....	2.6			0.1		0.6	
N-BUTANE.....	0.5			0.0		0.2	
ISOBUTANE.....	0.7			0.0		0.1	
N-PENTANE.....	0.1			0.0		TRACE	
ISOPENTANE.....	0.2			0.0		TRACE	
CYCLOPENTANE.....	0.1			0.0		TRACE	
HEXANES PLUS.....	0.3			0.0		TRACE	
NITROGEN.....	TRACE			1.2		4.8	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		1.8	
CARBON DIOXIDE.....	2.0			2.1		15.0	
HELIUM.....	0.01			0.03		0.28	
HEATING VALUE.....	1138			978		837	
SPECIFIC GRAVITY.....	0.674			0.530		0.752	
		INDEX SAMPLE	12652 14511	INDEX SAMPLE	12653 15119	INDEX SAMPLE	12654 15157
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	TABLE ROCK			TABLE ROCK		TABLE ROCK	
WELL NAME.....	TABLE ROCK UNIT NO. 19			TABLE ROCK UNIT NO. 21		DELANEY RIM NO. 2	
LOCATION.....	SEC. 35, T19N, R98W			SEC. 10, T18N, R98W		SEC. 7, T18N, R97W	
OWNER.....	NEUMIN PRODUCTION CO.			TEXACO INC.		TEXACO INC.	
COMPLETED.....	07/28/75			12/09/76		08/30/75	
SAMPLED.....	10/24/75			09/29/77		11/28/77	
FORMATION.....	MISS-MADISON			MISS-MADISON		CRET-LEWIS	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	19000			18287		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	5200			5400		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			9923		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.7			72.4		89.5	
ETHANE.....	2.0			2.0		5.3	
PROPANE.....	0.5			0.4		2.7	
N-BUTANE.....	0.3			0.3		0.8	
ISOBUTANE.....	0.1			0.0		0.2	
N-PENTANE.....	TRACE			0.1		0.2	
ISOPENTANE.....	0.1			0.2		0.2	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	4.8			5.2		0.5	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.1		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	2.2			1.7		0.0	
CARBON DIOXIDE.....	15.8			17.0		0.2	
HELIUM.....	0.29			0.33		0.01	
HEATING VALUE.....	836			827		1131	
SPECIFIC GRAVITY.....	0.768			0.783		0.637	
		INDEX SAMPLE	12655 15158	INDEX SAMPLE	12656 15159	INDEX SAMPLE	12657 15187
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	TABLE ROCK			TABLE ROCK		TABLE ROCK	
WELL NAME.....	TABLE ROCK NO. 15			CHAMPLIN NO. 21-15		TABLE ROCK UNIT NO. 22	
LOCATION.....	SEC. 2, T18N, R98W			SEC. 15, T18N, R98W		SEC. 2, T18N, R98W	
OWNER.....	TEXACO INC.			CHAMPLIN PETROLEUM CO.		TEXACO INC.	
COMPLETED.....	11/28/77			11/28/77		11/01/77	
SAMPLED.....	11/28/77			11/28/77		01/10/78	
FORMATION.....	JURA-NUGGET			CRET-ALMOND		MISS-MADISON	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		18116	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	94.0			91.0		74.0	
ETHANE.....	0.5			4.6		2.1	
PROPANE.....	TRACE			0.4		0.5	
N-BUTANE.....	TRACE			0.4		0.2	
ISOBUTANE.....	0.0			0.2		0.1	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	TRACE			0.1		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	TRACE			0.1		0.1	
NITROGEN.....	1.9			0.1		4.6	
OXYGEN.....	0.2			0.0		0.1	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.0			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		1.4	
CARBON DIOXIDE.....	3.1			2.0		16.5	
HELIUM.....	0.03			TRACE		0.30	
HEATING VALUE.....	829			0.527		829	
SPECIFIC GRAVITY.....	0.597					0.768	
		INDEX SAMPLE	12658 15188	INDEX SAMPLE	12659 16925	INDEX SAMPLE	12660 8629
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	TABLE ROCK			TABLE ROCK		TEN MILE DRAW	
WELL NAME.....	TABLE ROCK UNIT NO. 22			TABLE ROCK UNIT NO. 37		UNIT NO. 4	
LOCATION.....	SEC. 2, T19N, R98W			SEC. 2, T19N, R98W		SEC. 33, T21N, R99W	
OWNER.....	TEXACO INC.			TEXACO INC.		JOHN L. KEMMERER, JR.	
COMPLETED.....	11/01/77			05/07/82		07/26/82	
SAMPLED.....	01/03/78			05/03/78		07/24/82	
FORMATION.....	MISS-MADISON			PENN-WEBER		CRET-LANCE	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	21116			17240		2134	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			5380		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			1050		4220	
COMPONENT, MOLE PCT							
METHANE.....	75.1			75.2		95.2	
ETHANE.....	2.0			1.5		1.1	
PROPANE.....	0.4			0.7		0.6	
N-BUTANE.....	0.2			0.8		TRACE	
ISOBUTANE.....	TRACE			0.9		0.0	
N-PENTANE.....	0.1			0.6		0.1	
ISOPENTANE.....	0.1			1.0		0.0	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	0.1			0.6		TRACE	
NITROGEN.....	4.5			4.4		2.5	
OXYGEN.....	TRACE			0.1		0.2	
ARGON.....	0.1			TRACE		TRACE	
HYDROGEN.....	0.0			0.2		0.0	
HYDROGEN SULFIDE.....	1.3			0.6		0.0	
CARBON DIOXIDE.....	10.8			10.2		0.2	
HELIUM.....	0.30			0.12		0.03	
HEATING VALUE.....	836			981		1004	
SPECIFIC GRAVITY.....	0.758			0.773		0.591	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX SAMPLE	12661 15790	INDEX SAMPLE	12662 6778	INDEX SAMPLE	12663 16693
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	TIERNEY			TRAIL UNIT AREA		TRITON	
WELL NAME.....	TIERNEY II UNIT NO. 4-22			UNIT WELL NO. 2		TRITON UNIT NO. 6	
LOCATION.....	SEC. 22, T19N, R94W			SEC. 10, T13N, R100W		SEC. 5, T14N, R95W	
OWNER.....	MARATHON OIL CO.			MOUNTAIN FUEL SUPPLY CO.		HPC, INC.	
COMPLETED.....	05/28/79			08/01/58		11/16/81	
SAMPLED.....	09/27/79			07/31/58		10/17/82	
FORMATION.....	CRET-MESAVERDE			CRET-MESAVERDE		CRET-LEWIS	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	9567			5470		13276	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2349		6700	
OPEN FLOW, MCFD.....	2109			45500		620	
COMPONENT, MOLE PCT.....							
METHANE.....	80.3			85.9		96.8	
ETHANE.....	9.1			6.5		0.8	
PROPANE.....	0.3			2.4		0.1	
N-BUTANE.....	0.9			0.7		0.0	
ISOBUTANE.....	0.9			0.7		0.0	
N-PENTANE.....	0.2			0.3		0.0	
ISOPENTANE.....	0.2			0.6		0.0	
CYCLOPENTANE.....	TRACE			0.4		0.0	
HEXANES PLUS.....	0.1			0.3		0.0	
NITROGEN.....	0.3			0.1		0.1	
OXYGEN.....	0.0			TRACE		TRACE	
ARGON.....	0.0			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	3.5			1.3		2.6	
HELIUM.....	0.01			0.01		TRACE	
HEATING VALUE.....	1171			1197		298	
SPECIFIC GRAVITY.....	0.714			0.691		0.578	
		INDEX SAMPLE	12664 9556	INDEX SAMPLE	12665 10481	INDEX SAMPLE	12666 15102
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	WAMSUTTER			WAMSUTTER		WAMSUTTER UNIT	
WELL NAME.....	WAMSUTTER A NO. 4			WAMSUTTER UNIT A NO. 6		CHAMPLIN UPRR4-31 NO. 2	
LOCATION.....	SEC. 1, T20N, R95W			SEC. 29, T21S, R94W		NOT GIVEN	
OWNER.....	MARATHON OIL CO.			MARATHON OIL CO.		CHAMPLIN PETROLEUM CO.	
COMPLETED.....	10/23/63			07/16/65		-7--/00	
SAMPLED.....	09/07/54			03/27/66		09/14/77	
FORMATION.....	CRET-MESAVERDE & ALMOND			CRET-MESAVERDE		CRET-LEWIS	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	9545			9869		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	5000			4900		1425	
OPEN FLOW, MCFD.....	11100			1080		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	90.4			85.7		92.2	
ETHANE.....	5.0			6.2		4.7	
PROPANE.....	1.9			2.0		1.6	
N-BUTANE.....	0.4			0.4		0.4	
ISOBUTANE.....	0.1			0.4		0.2	
N-PENTANE.....	0.1			0.2		0.2	
ISOPENTANE.....	TRACE			0.1		0.1	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	0.1			2.3		0.0	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	TRACE			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.4	
CARBON DIOXIDE.....	1.2			0.0		0.0	
HELIUM.....	0.01			0.01		0.01	
HEATING VALUE.....	1092			1099		1102	
SPECIFIC GRAVITY.....	0.625			0.633		0.617	
		INDEX SAMPLE	12667 17178	INDEX SAMPLE	12668 17179	INDEX SAMPLE	12669 8087
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	WILD HARE GULCH			WILD HARE GULCH		WILDCAT	
WELL NAME.....	SEVEN MILE GULCH NO. 14			SEVEN MILE GULCH NO. 14		PLUNGE UNIT NO. 2	
LOCATION.....	SEC. 18, T20N, R111W			SEC. 18, T20N, R111W		SEC. 17, T25N, R102W	
OWNER.....	ANADARKO PRODUCTION CO.			ANADARKO PRODUCTION CO.		ATLANTIC REFINING CO.	
COMPLETED.....	05/17/82			05/17/82		-7--/00	
SAMPLED.....	02/15/84			02/15/84		07/17/81	
FORMATION.....	CRET-FRONTIER			CRET-DAKOTA		CRET-MESAVERDE	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	11919			12534		8317	
WELLHEAD PRESSURE, PSIG.....	3500			3600		NOT GIVEN	
OPEN FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....							
METHANE.....	81.0			73.5		73.9	
ETHANE.....	11.7			13.1		9.7	
PROPANE.....	6.7			4.9		7.2	
N-BUTANE.....	0.7			1.0		1.2	
ISOBUTANE.....	0.6			0.8		1.8	
N-PENTANE.....	0.1			0.4		0.4	
ISOPENTANE.....	0.4			0.4		0.1	
CYCLOPENTANE.....	0.1			0.1		TRACE	
HEXANES PLUS.....	0.2			0.2		2.2	
NITROGEN.....	0.9			0.9		0.6	
OXYGEN.....	0.1			0.1		TRACE	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.6	
CARBON DIOXIDE.....	2.5			0.5		5.4	
HELIUM.....	0.01			0.0		0.01	
HEATING VALUE.....	1209			1237		1242	
SPECIFIC GRAVITY.....	0.695			0.715		0.787	
		INDEX SAMPLE	12670 8716	INDEX SAMPLE	12671 12107	INDEX SAMPLE	12672 13202
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SWEETWATER			SWEETWATER		SWEETWATER	
FIELD.....	WILDCAT			WILDCAT		WILDCAT	
WELL NAME.....	ROWLAND NO. 1			EDUCITE HILLS UNIT NO. 1		EDUCITE FLD. NO. 1	
LOCATION.....	SEC. 2, T19N, R100W			SEC. 29, T22N, R103W		SEC. 14, T21N, R100W	
OWNER.....	CHANDLER & RYLLESBY, INC.			MOUNTAIN FUEL SUPPLY CO.		DAVIS OIL CO.	
COMPLETED.....	10/02/62			09/27/65		10/07/71	
SAMPLED.....	NOT GIVEN			11/06/66		05/03/75	
FORMATION.....	CRET-MESAVERDE			CRET-DAKOTA		CRET-ALMOND	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	NOT GIVEN			7277		3505	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN			2146		375	
OPEN FLOW, MCFD.....	NOT GIVEN			7016		2000	
COMPONENT, MOLE PCT.....							
METHANE.....	95.1			94.8		90.3	
ETHANE.....	0.4			2.3		3.4	
PROPANE.....	0.3			0.5		1.7	
N-BUTANE.....	0.1			0.1		0.3	
ISOBUTANE.....	0.1			0.1		0.8	
N-PENTANE.....	TRACE			0.0		TRACE	
ISOPENTANE.....	0.1			0.2		0.1	
CYCLOPENTANE.....	TRACE			0.5		0.1	
HEXANES PLUS.....	TRACE			0.3		0.8	
NITROGEN.....	2.3			0.0		0.1	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	0.0			0.1		TRACE	
HYDROGEN.....	0.4			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.3		2.4	
CARBON DIOXIDE.....	2.4			0.02		0.01	
HELIUM.....	0.01			1.001		10.67	
HEATING VALUE.....	1209			0.600		0.637	
SPECIFIC GRAVITY.....	0.584						

* CALCULATED FROM PVT DATA AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

STATE	INDEX	INDEX	INDEX
COUNTY	12673	12674	12675
FIELD	14627	14669	17051
WYOMING	WYOMING	WYOMING	WYOMING
SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
WILDCAT	WILDCAT	WILDCAT	WILDCAT
WELL NAME	WELL NO. 1-18	BLACK ROCK FED. NO. A-1	WINDMILL DRAW UNIT NO. 3
LOCATION	SEC. 18, T17N, R94W	SEC. 14, T23N, R39W	SEC. 12, T15N, R94W
OWNER	LADD PETROLEUM CORP.	ANADARKO PRODUCTION CO.	CITIES SERVICE OIL & GAS COR
COMPLETED	10/16/76	03/04/73	10/13/81
SAMPLED	03/29/76	05/20/76	06/11/83
FORMATION	CRET-MESAVERDE	CRET-LEWIS	CRET-MESAVERDE
GEOLOGIC PROVINCE CODE	535	535	535
DEPTH, FEET	10690	6825	10931
WELLHEAD PRESSURE, PSIG	5022	1933	2500
OPEN FLOW, MCFD	1626	4800	735
COMPONENT, MOLE PCT			
METHANE	73.0	84.4	84.4
ETHANE	10.1	6.6	6.4
PROPANE	5.1	4.1	1.7
N-BUTANE	2.7	1.2	0.4
ISOBUTANE	1.9	0.9	0.5
N-PENTANE	1.8	0.2	TRACE
ISOPENTANE	1.5	0.3	0.7
CYCLOPENTANE	0.1	0.1	0.3
HEXANES PLUS	0.0	0.2	0.4
NITROGEN	0.0	2.0	0.2
OXYGEN	TRACE	TRACE	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	0.3
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	1.4	0.2	0.2
HELIUM	TRACE	0.02	TRACE
HEATING VALUE	1419	1182	1116
SPECIFIC GRAVITY	0.839	0.633	0.638

STATE	INDEX	INDEX	INDEX
COUNTY	12676	12677	12678
FIELD	17253	9580	17324
WYOMING	WYOMING	WYOMING	WYOMING
SWEETWATER	SWEETWATER	SWEETWATER	SWEETWATER
WILDCAT	WILDCAT	WILDCAT	WILDCAT
WELL NAME	DRIPPING ROCK NO. 1	WELL NO. 1	WINDMILL DRAW NO. 4
LOCATION	SEC. 17, T14N, R94W	SEC. 33, T23N, R105W	SEC. 1, T15N, R94W
OWNER	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	CITIES SERVICE OIL & GAS COR
COMPLETED	01/15/84	12/23/64	10/07/82
SAMPLED	04/19/84	12/13/64	06/14/84
FORMATION	CRET-ALMOND	CRET-FORT UNION	CRET-MESAVERDE
GEOLOGIC PROVINCE CODE	535	535	535
DEPTH, FEET	13557	7168	10948
WELLHEAD PRESSURE, PSIG	9500	NOT GIVEN	4330
OPEN FLOW, MCFD		4.00	1734
COMPONENT, MOLE PCT			
METHANE	42.4	92.0	62.8
ETHANE	6.3	5.6	5.6
PROPANE	0.5	1.2	0.9
N-BUTANE	0.1	0.2	0.2
ISOBUTANE	0.1	0.7	0.1
N-PENTANE	0.1	0.1	0.1
ISOPENTANE	TRACE	0.1	0.1
CYCLOPENTANE	TRACE	TRACE	0.1
HEXANES PLUS	0.1	0.2	0.1
NITROGEN	0.0	1.6	0.0
OXYGEN	TRACE	0.0	TRACE
ARGON	TRACE	TRACE	TRACE
HYDROGEN	0.0	0.0	0.0
HYDROGEN SULFIDE	0.0	0.0	0.0
CARBON DIOXIDE	1.4	0.1	0.0
HELIUM	TRACE	0.02	TRACE
HEATING VALUE	1024	1076	1061
SPECIFIC GRAVITY	0.618	0.614	0.632

STATE	INDEX	INDEX	INDEX
COUNTY	12679	12680	12681
FIELD	4726	16190	13163
WYOMING	WYOMING	WYOMING	WYOMING
TETON	TETON	UINTA	UINTA
WELL NAME	RAMSHORN	BRUFF	BUTCHER KNIFE SPRINGS
LOCATION	SEC. 5, T43N, R114W	CHAMPLIN NO. 136-F	BUTCHER KNIFE SPRINGS NO. 1
OWNER	U.S. GEOLOGICAL SURVEY	AMOCO PRODUCTION CO.	MOUNTAIN FUEL SUPPLY CO.
COMPLETED	05/22/49	04/28/49	04/11/00
SAMPLED	--/--/00	02/17/81	03/08/72
FORMATION	PERM-DINWOODY	CRET-DAKOTA	PENN-MORGAN
GEOLOGIC PROVINCE CODE	525	535	535
DEPTH, FEET	190	12044	8213
WELLHEAD PRESSURE, PSIG	NOT GIVEN	750	NOT GIVEN
OPEN FLOW, MCFD	NOT GIVEN	165	600
COMPONENT, MOLE PCT			
METHANE	0.1	87.1	54.5
ETHANE	TRACE	7.2	6.3
PROPANE	0.0	0.0	1.4
N-BUTANE	0.0	0.3	0.6
ISOBUTANE	0.0	0.3	0.6
N-PENTANE	0.0	TRACE	0.2
ISOPENTANE	0.0	0.7	0.4
CYCLOPENTANE	0.0	0.1	0.1
HEXANES PLUS	0.0	0.2	0.3
NITROGEN	97.9	1.4	6.0
OXYGEN	0.2	0.2	TRACE
ARGON	0.0	TRACE	TRACE
HYDROGEN	0.0	TRACE	0.1
HYDROGEN SULFIDE	0.0	0.0	6.4
CARBON DIOXIDE	1.3	0.8	23.1
HELIUM	0.52	0.01	0.17
HEATING VALUE	1	110	828
SPECIFIC GRAVITY	0.970	0.646	0.929

STATE	INDEX	INDEX	INDEX
COUNTY	12682	12683	12684
FIELD	13285	13288	13299
WYOMING	WYOMING	WYOMING	WYOMING
UINTA	UINTA	UINTA	UINTA
WELL NAME	BUTCHER KNIFE SPRINGS	BUTCHER KNIFE SPRINGS	BUTCHER KNIFE SPRINGS
LOCATION	SEC. 29, T15N, R112W	SEC. 25, T15N, R112W	SEC. 29, T15N, R112W
OWNER	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.
COMPLETED	--/--/00	--/--/00	--/--/00
SAMPLED	05/22/72	07/03/72	07/15/72
FORMATION	PENN-MEYER	PENN-MORGAN	PENN-MORGAN
GEOLOGIC PROVINCE CODE	535	535	535
DEPTH, FEET	17260	18200	18200
WELLHEAD PRESSURE, PSIG	NOT GIVEN	NOT GIVEN	2000
OPEN FLOW, MCFD	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE	77.6	53.4	53.4
ETHANE	1.2	7.3	7.4
PROPANE	TRACE	1.7	1.2
N-BUTANE	TRACE	0.9	0.6
ISOBUTANE	0.0	0.7	0.6
N-PENTANE	0.0	0.3	0.2
ISOPENTANE	0.3	0.4	0.2
CYCLOPENTANE	TRACE	0.2	0.1
HEXANES PLUS	TRACE	0.5	0.2
NITROGEN	4.1	6.0	3.5
OXYGEN	TRACE	0.0	0.0
ARGON	TRACE	TRACE	TRACE
HYDROGEN	1.7	0.1	0.0
HYDROGEN SULFIDE	0.0	0.0	11.8
CARBON DIOXIDE	14.7	23.8	20.2
HELIUM	0.13	0.19	0.16
HEATING VALUE	826	862	862
SPECIFIC GRAVITY	0.716	0.665	0.925

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

		INDEX 12685 SAMPLE 15575	INDEX 12686 SAMPLE 17163	INDEX 12687 SAMPLE 4289
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	UINTA		UINTA	UINTA
FIELD.....	BUTCHER KNIFE SPRINGS		BUTCHER KNIFE SPRINGS	CHURCH BUTTES
WELL NAME.....	BUTCHER KNIFE SPRINGS NO. 6		UNIT NO. 8	UNIT NO. 1
LOCATION.....	SEC. 2, T14N, R113W		SEC. 12, T14N, R113W	SEC. 8, T16N, R112W
OWNER.....	WEXPRO CO.		CELSIUS ENERGY CO.	MOUNTAIN FUEL SUPPLY CO.
COMPLETED.....	11/18/73		10/11/83	04/28/86
SAMPLED.....	03/06/79		01/23/84	03/17/87
FORMATION.....	CRET-DAKOTA		CRET-DAKOTA	CRET-
GEOLOGIC PROVINCE CODE.....	535		535	531
DEPTH, FEET.....	1319		1300	12550
WELLHEAD PRESSURE, PSIG.....	5100		518	5425
OPEN FLOW, MCFD.....	8000		7550	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	85.0	89.5	85.9	85.9
ETHANE.....	7.5	6.2	1.6	---
PROPANE.....	2.9	1.6	---	---
N-BUTANE.....	0.7	0.3	---	---
ISOBUTANE.....	0.7	0.3	---	---
N-PENTANE.....	0.2	0.1	---	---
ISOPENTANE.....	0.6	0.2	---	---
CYCLOPENTANE.....	0.2	TRACE	---	---
HEXANES PLUS.....	0.6	0.1	---	---
NITROGEN.....	1.3	0.7	0.5	---
OXYGEN.....	0.0	0.1	0.1	---
ARGON.....	0.0	TRACE	---	---
HYDROGEN.....	0.1	0.0	---	---
HYDROGEN SULFIDE.....	0.0	0.0	---	---
CARBON DIOXIDE.....	0.2	0.2	0.6	---
HELIUM.....	0.02	0.02	0.01	---
HEATING VALUE.....	1191	1077	1070	---
SPECIFIC GRAVITY.....	0.683	0.631	0.607	---
		INDEX 12688 SAMPLE 4418	INDEX 12689 SAMPLE 11014	INDEX 12690 SAMPLE 11015
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	UINTA		UINTA	UINTA
FIELD.....	CHURCH BUTTES		CHURCH BUTTES	CHURCH BUTTES
WELL NAME.....	UNIT NO. 3		CHURCH BUTTES UNIT NO. 19	CHURCH BUTTES UNIT NO. 19
LOCATION.....	SEC. 12, T16N, R113W		SEC. 8, T16N, R112W	SEC. 8, T16N, R112W
OWNER.....	UNION PACIFIC & MT. FUEL SUP		MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL SUPPLY CO.
COMPLETED.....	08/13/87		7/7/03	7/7/03
SAMPLED.....	01/16/88		05/30/87	05/30/87
FORMATION.....	CRET-DAKOTA		PENN-MORGAN	MISS-MADISON
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	12933		18060	18431
WELLHEAD PRESSURE, PSIG.....	5398		8021	7987
OPEN FLOW, MCFD.....	NOT GIVEN		2450	10500
COMPONENT, MOLE PCT				
METHANE.....	79.9	55.4	6.1	---
ETHANE.....	17.5	7.2	0.3	---
PROPANE.....	---	1.4	0.1	---
N-BUTANE.....	---	0.8	0.0	---
ISOBUTANE.....	---	0.5	0.0	---
N-PENTANE.....	---	0.2	0.0	---
ISOPENTANE.....	---	0.4	0.0	---
CYCLOPENTANE.....	---	0.1	0.0	---
HEXANES PLUS.....	---	0.4	0.0	---
NITROGEN.....	1.5	10.5	6.4	---
OXYGEN.....	0.4	0.0	0.1	---
ARGON.....	---	0.1	0.1	---
HYDROGEN.....	---	2.6	0.0	---
HYDROGEN SULFIDE.....	---	0.0	0.1	---
CARBON DIOXIDE.....	0.7	20.4	86.6	---
HELIUM.....	0.01	0.15	0.26	---
HEATING VALUE.....	1123	829	70	---
SPECIFIC GRAVITY.....	0.656	0.882	1.429	---
		INDEX 12691 SAMPLE 11259	INDEX 12692 SAMPLE 17147	INDEX 12693 SAMPLE 17353
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	UINTA		UINTA	UINTA
FIELD.....	CHURCH BUTTES		CHURCH BUTTES	CHURCH BUTTES
WELL NAME.....	UNIT NO. 19		CHURCH BUTTES UNIT NO. 36	CHURCH BUTTES NO. 31
LOCATION.....	SEC. 8, T16N, R112W		SEC. 15, T17N, R112W	SEC. 9, T17N, R112W
OWNER.....	MOUNTAIN FUEL SUPPLY CO.		WEXPRO CO.	MT. FUEL SUPPLY & CHAMPLIN P
COMPLETED.....	--/7/00		11/12/82	--/7/00
SAMPLED.....	01/18/83		12/7/83	07/12/84
FORMATION.....	PENN-MORGAN		CRET-FRONTIER	MISS-MADISON
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	17740		12160	18398
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		4361	13723
COMPONENT, MOLE PCT				
METHANE.....	51.8	87.8	2.8	---
ETHANE.....	6.9	8.4	0.1	---
PROPANE.....	1.2	1.9	0.2	---
N-BUTANE.....	0.7	0.3	0.2	---
ISOBUTANE.....	0.3	0.3	0.1	---
N-PENTANE.....	0.1	0.1	0.1	---
ISOPENTANE.....	0.4	0.2	0.5	---
CYCLOPENTANE.....	TRACE	0.1	0.3	---
HEXANES PLUS.....	0.1	0.1	0.3	---
NITROGEN.....	10.6	0.3	7.8	---
OXYGEN.....	0.9	TRACE	0.6	---
ARGON.....	0.1	TRACE	0.1	---
HYDROGEN.....	0.0	0.0	TRACE	---
HYDROGEN SULFIDE.....	3.7	0.0	0.9	---
CARBON DIOXIDE.....	22.9	0.6	85.5	---
HELIUM.....	0.17	0.01	0.5	---
HEATING VALUE.....	763	1131	107	---
SPECIFIC GRAVITY.....	0.923	0.642	1.461	---
		INDEX 12694 SAMPLE 16070	INDEX 12695 SAMPLE 16426	INDEX 12696 SAMPLE 16504
STATE.....	WYOMING		WYOMING	WYOMING
COUNTY.....	UINTA		UINTA	UINTA
FIELD.....	CLEAR CREEK		EAST PAINTER	GLASSCOCK HOLLOW
WELL NAME.....	PRV22-9B		J.R. BROADBENT NO. 1	MILLIS WT UNIT NO. 1
LOCATION.....	SEC. 9, T16N, R119W		SEC. 8, T15N, R119W	SEC. 10, T15N, R120W
OWNER.....	CHEVRON U.S.A., INC.		AMOCO PROD CO & CHEVRON USA	AMOCO PRODUCTION CO.
COMPLETED.....	04/22/80		01/12/81	12/13/80
SAMPLED.....	09/17/80		12/29/81	04/14/82
FORMATION.....	JURA-NUGGET		JURA-NUGGET	JURA-NUGGET
GEOLOGIC PROVINCE CODE.....	535		535	535
DEPTH, FEET.....	8713		11370	13744
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2500	1900
OPEN FLOW, MCFD.....	3228		2500	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	79.3	81.2	75.7	---
ETHANE.....	11.0	11.6	1.4	---
PROPANE.....	4.8	6.5	0.5	---
N-BUTANE.....	1.1	0.6	1.0	---
ISOBUTANE.....	1.0	0.5	0.9	---
N-PENTANE.....	0.2	0.1	0.2	---
ISOPENTANE.....	0.3	0.1	0.2	---
CYCLOPENTANE.....	0.1	TRACE	TRACE	---
HEXANES PLUS.....	0.2	0.1	0.1	---
NITROGEN.....	1.9	1.8	2.9	---
OXYGEN.....	TRACE	0.0	0.0	---
ARGON.....	0.0	TRACE	TRACE	---
HYDROGEN.....	0.0	0.0	0.0	---
HYDROGEN SULFIDE.....	0.0	0.0	0.0	---
CARBON DIOXIDE.....	0.1	0.0	0.0	---
HELIUM.....	0.02	0.02	0.02	---
HEATING VALUE.....	1231	1231	1235	---
SPECIFIC GRAVITY.....	0.714	0.682	0.726	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1067

INDEX 12697 SAMPLE 17065			INDEX 12698 SAMPLE 17119			INDEX 12699 SAMPLE 17911		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	UINTA		UINTA			UINTA		
FIELD.....	GLASSCOCK HOLLOW		HENRY			LUCKEY DITCH		
WELL NAME.....	BROKEN CIRCLE NO. 2-35-4C		HENRY UNIT NO. 8			LUCKEY DITCH STATE NO. 1		
LOCATION.....	SEC. 35, T19N, R12W		SEC. 35, T19N, R113W			SEC. 16, T12N, R14W		
OWNER.....	GULF OIL EXPL. & PROD. CO.		FOREST OIL CORP.			SUN EXPLORATION & PRODUCTION		
COMPLETED.....	12/1/82		07/21/83			05/25/85		
SAMPLED.....	08/14/83		10/13/83			11/16/85		
FORMATION.....	JURA-WATTON CANYON		CRET-DAKOTA			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	1985		13522			15235		
WELLHEAD PRESSURE, PSIG.....	1700		3900			4400		
OPEN FLOW, MCFD.....	250		1635			8785		
COMPONENT, MOLE PCT.....								
METHANE.....	72.6		84.5			78.6		
ETHANE.....	14.0		7.3			7.8		
PROPANE.....	1.3		1.5			3.5		
N-BUTANE.....	1.3		0.8			1.2		
ISOBUTANE.....	1.1		0.2			0.4		
N-PENTANE.....	0.1		0.2			0.3		
ISOPENTANE.....	0.9		0.3			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.3			0.3		
NITROGEN.....	2.7		1.0			1.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.3		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.0			0.0		
HELIUM.....	0.02		0.01			0.02		
HEATING VALUE.....	1283		1175			1133		
SPECIFIC GRAVITY.....	0.761		0.684			0.712		
INDEX 12700 SAMPLE 16902			INDEX 12701 SAMPLE 16903			INDEX 12702 SAMPLE 16352		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	UINTA		UINTA			UINTA		
FIELD.....	MOXLA ARCH-VERNE		MOXLA ARCH-VERNE			NOT GIVEN		
WELL NAME.....	CHAMPLIN 185 AMOCO "H" NO. 1		CHAMPLIN 185 AMOCO "H" NO. 1			HENRY UNIT NO. 1		
LOCATION.....	SEC. 1, T18N, R113W		SEC. 1, T18N, R113W			SEC. 5, T13N, R113W		
OWNER.....	AMOCO PRODUCTION CO. (USA)		AMOCO PRODUCTION CO. (USA)			FOREST OIL CORP.		
COMPLETED.....	02/03/82		11/03/82			1/1/80		
SAMPLED.....	04/26/83		04/26/83			10/04/81		
FORMATION.....	CRET-DAKOTA		CRET-FRONTIER			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	12072		11320			NOT GIVEN		
WELLHEAD PRESSURE, PSIG.....	5000		4400			NOT GIVEN		
OPEN FLOW, MCFD.....	2200		444			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	82.0		76.2			85.5		
ETHANE.....	5.6		13.5			7.9		
PROPANE.....	0.2		0.3			0.7		
N-BUTANE.....	0.6		1.1			0.2		
ISOBUTANE.....	0.5		0.5			0.5		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.4		0.6			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.3		
NITROGEN.....	1.1		1.0			1.0		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.0		0.8			0.9		
HELIUM.....	0.01		0.01			0.02		
HEATING VALUE.....	1160		1260			1148		
SPECIFIC GRAVITY.....	0.575		0.734			0.664		
INDEX 12703 SAMPLE 14770			INDEX 12704 SAMPLE 15196			INDEX 12705 SAMPLE 17389		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	UINTA		UINTA			UINTA		
FIELD.....	RYCKMAN CREEK		WHITNEY CANYON			WHITNEY CANYON-CARTER CREEK		
WELL NAME.....	RYCKMAN CREEK UNIT NO. 1		AMOCO-CHEVRON-GULF W1 NO. 1			FEC. NO. 2-6E		
LOCATION.....	SEC. 19, T17N, R119W		SEC. 19, T17N, R119W			SEC. 17, T17N, R119W		
OWNER.....	AMOCO PRODUCTION CO.		AMOCO PRODUCTION CO.			CHEVRON U.S.A., INC.		
COMPLETED.....	1/1/80		08/22/77			10/1/83		
SAMPLED.....	01/11/78		01/11/78			08/23/84		
FORMATION.....	JURA-NUGGET		TRIA-THAYNES			MISS-MISSION CANYON		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	7455		9178			12840		
WELLHEAD PRESSURE, PSIG.....	2200		2450			3200		
OPEN FLOW, MCFD.....	NOT GIVEN		4700			23000		
COMPONENT, MOLE PCT.....								
METHANE.....	78.2		82.5			5.1		
ETHANE.....	11.5		5.3			0.5		
PROPANE.....	2.2		2.2			0.1		
N-BUTANE.....	1.2		0.7			0.1		
ISOBUTANE.....	1.1		0.7			0.0		
N-PENTANE.....	0.3		0.2			0.1		
ISOPENTANE.....	0.2		0.3			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.1		
NITROGEN.....	2.4		3.3			0.0		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.7		
CARBON DIOXIDE.....	0.0		TRACE			92.3		
HELIUM.....	0.02		0.07			0.01		
HEATING VALUE.....	1239		1085			80		
SPECIFIC GRAVITY.....	0.722		0.570			1.478		
INDEX 12706 SAMPLE 17591			INDEX 12707 SAMPLE 14734			INDEX 12708 SAMPLE 15010		
STATE.....	WYOMING		WYOMING			WYOMING		
COUNTY.....	UINTA		UINTA			UINTA		
FIELD.....	WHITNEY CANYON-CARTER CREEK		WILDCAT			WILDCAT		
WELL NAME.....	FEC. NO. 2-6E		CHAMPLIN 224 AMOCO A NO. 1			BRUFF UNIT NO. 4		
LOCATION.....	SEC. 17, T18N, R119W		SEC. 19, T17N, R118W			SEC. 17, T18N, R112W		
OWNER.....	CHEVRON U.S.A., INC.		AMOCO PRODUCTION CO.			AMOCO PRODUCTION CO.		
COMPLETED.....	1/1/83		1/1/80			04/11/77		
SAMPLED.....	01/10/85		07/27/75			05/20/77		
FORMATION.....	MISS-MISSION CANYON		JURA-NUGGET			CRET-FRONTIER		
GEOLOGIC PROVINCE CODE.....	535		535			535		
DEPTH, FEET.....	12840		7450			11514		
WELLHEAD PRESSURE, PSIG.....	3350		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	24000		NOT GIVEN			4024		
COMPONENT, MOLE PCT.....								
METHANE.....	55.3		67.5			93.8		
ETHANE.....	1.1		1.3			3.5		
PROPANE.....	1.3		1.3			0.4		
N-BUTANE.....	0.4		0.2			0.1		
ISOBUTANE.....	0.3		0.2			0.1		
N-PENTANE.....	0.2		0.4			0.2		
ISOPENTANE.....	0.1		0.7			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	0.1		1.3			1.2		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	12.5		0.0			0.0		
CARBON DIOXIDE.....	2.0		0.0			0.0		
HELIUM.....	0.02		0.01			0.02		
HEATING VALUE.....	830		1425			1064		
SPECIFIC GRAVITY.....	0.928		0.330			0.600		

* CALCULATED GROSS PTL PEP CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

INDEX 12709 SAMPLE 14707		INDEX 12710 SAMPLE 14708		INDEX 12711 SAMPLE 15647	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	UINTA	UINTA		UINTA	
FIELD.....	YELLOW CREEK	YELLOW CREEK		YELLOW CREEK	
WELL NAME.....	AMOCO GULF W1 UNIT NO. 1	AMOCO GULF W1 UNIT NO. 1		BURNT HILL STATE NO. 1-31	
LOCATION.....	SEC. 2, T14N, R121W	SEC. 2, T14N, R121W		SEC. 31, T15N, R120W	
OWNER.....	AMOCO & GULF	AMOCO & GULF		MESA PETROLEUM CO.	
COMPLETED.....	07/27/76	07/27/76		10/20/78	
SAMPLED.....	06/09/76	06/10/76		06/09/79	
FORMATION.....	JURA-TWIN CREEK	JURA-TWIN CREEK		JURA-TWIN CREEK	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	5260	5260		6007	
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		1575	
OPEN FLOW, MCFD.....	2750	2750		9000	
COMPONENT, MOLE PCT.....					
METHANE.....	77.5	77.6		77.4	
ETHANE.....	8.8	8.7		9.0	
PROPANE.....	4.0	4.1		4.1	
N-BUTANE.....	1.3	1.3		1.2	
ISOBUTANE.....	1.2	1.2		1.2	
N-PENTANE.....	0.3	0.4		0.3	
ISOPENTANE.....	0.6	0.5		0.5	
CYCLOPENTANE.....	0.1	TRACE		0.1	
HEXANES PLUS.....	0.3	0.3		0.3	
NITROGEN.....	0.8	0.7		0.6	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	TRACE		TRACE	
HELIUM.....	0.08	0.08		0.08	
HEATING VALUE.....	1188	1186		1186	
SPECIFIC GRAVITY.....	0.728	0.724		0.726	

INDEX 12712 SAMPLE 15648		INDEX 12713 SAMPLE 15832		INDEX 12714 SAMPLE 15947	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	UINTA	UINTA		UINTA	
FIELD.....	YELLOW CREEK	YELLOW CREEK		YELLOW CREEK	
WELL NAME.....	BURNT HILL STATE NO. 2-31	YELLOW CREEK NO. 3-36		AMOCO-ANSCHUTZ NO. 1	
LOCATION.....	SEC. 31, T15N, R120W	SEC. 36, T15N, R121W		SEC. 11, T14N, R121W	
OWNER.....	MESA PETROLEUM CO.	MESA PETROLEUM CO.		AMOCO PRODUCTION CO.	
COMPLETED.....	01/15/79	01/15/79		12/04/79	
SAMPLED.....	06/09/79	11/07/79		04/18/80	
FORMATION.....	JURA-TWIN CREEK	JURA-TWIN CREEK		JURA-TWIN CREEK	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	5733	5770		5968	
WELLHEAD PRESSURE, PSIG.....	1600	2550		900	
OPEN FLOW, MCFD.....	12500	9044		3500	
COMPONENT, MOLE PCT.....					
METHANE.....	77.4	76.9		77.6	
ETHANE.....	9.1	9.3		9.7	
PROPANE.....	4.1	4.1		4.3	
N-BUTANE.....	1.2	1.3		1.3	
ISOBUTANE.....	1.1	1.3		1.3	
N-PENTANE.....	0.3	0.3		0.3	
ISOPENTANE.....	0.4	0.5		0.4	
CYCLOPENTANE.....	TRACE	TRACE		0.1	
HEXANES PLUS.....	0.2	0.2		0.3	
NITROGEN.....	0.1	0.7		0.7	
OXYGEN.....	0.0	0.0		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	TRACE	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	TRACE	TRACE		0.1	
HELIUM.....	0.08	0.07		0.05	
HEATING VALUE.....	1171	1189		1208	
SPECIFIC GRAVITY.....	0.719	0.726		0.729	

INDEX 12715 SAMPLE 2188		INDEX 12716 SAMPLE 10049		INDEX 12717 SAMPLE 9143	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	WASHAKIE	WASHAKIE		WASHAKIE	
FIELD.....	HIDDEN DOME	HIDDEN DOME		NOT GIVEN	
WELL NAME.....	TENSLEEP NO. 2, WELL NO. 1	NEIBER DOME UNIT NO. 8		NO. 31	
LOCATION.....	SEC. 5, T47N, R90W	SEC. 30, T45N, R91W		SEC. 17, T48N, R92W	
OWNER.....	OHIO OIL CO.	CHEVRON OIL CO.		PURE OIL CO.	
COMPLETED.....	05/15/79	09/19/54		01/03/52	
SAMPLED.....	09/03/80	07/14/55		11/06/53	
FORMATION.....	CRET-FRONTIER	MIOC-CRISTELLARIA		CRET-FRONTIER 2ND	
GEOLOGIC PROVINCE CODE.....	520	520		520	
DEPTH, FEET.....	1320	10486		7706	
WELLHEAD PRESSURE, PSIG.....	70	22		1700	
OPEN FLOW, MCFD.....	2000	NOT GIVEN		4130	
COMPONENT, MOLE PCT.....					
METHANE.....	98.8	37.2		85.9	
ETHANE.....	0.3	32.1		8.1	
PROPANE.....	---	12.1		2.5	
N-BUTANE.....	---	6.1		0.9	
ISOBUTANE.....	---	0.4		0.4	
N-PENTANE.....	---	1.7		0.1	
ISOPENTANE.....	---	2.1		0.5	
CYCLOPENTANE.....	---	0.4		0.1	
HEXANES PLUS.....	---	2.1		0.3	
NITROGEN.....	0.4	3.3		0.9	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	---	0.1		TRACE	
HYDROGEN.....	---	0.0		0.0	
HYDROGEN SULFIDE.....	---	0.0		0.0	
CARBON DIOXIDE.....	0.6	0.2		0.3	
HELIUM.....	0.93	0.01		0.01	
HEATING VALUE.....	1066	1845		1169	
SPECIFIC GRAVITY.....	0.564	1.113		0.667	

INDEX 12718 SAMPLE 9144		INDEX 12719 SAMPLE 9145		INDEX 12720 SAMPLE 9156	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	WASHAKIE	WASHAKIE		WASHAKIE	
FIELD.....	NOT GIVEN	WORLAND		WORLAND	
WELL NAME.....	NO. 35 F4	NO. 7 F3		NO. 5E	
LOCATION.....	SEC. 28, T48N, R92W	SEC. 21, T48N, R92W		SEC. 21, T48N, R92W	
OWNER.....	PURE OIL CO.	PURE OIL CO.		PURE OIL CO.	
COMPLETED.....	06/14/55	02/02/55		08/29/47	
SAMPLED.....	11/06/63	02/06/63		11/06/63	
FORMATION.....	CRET-FRONTIER 4TH	CRET-FRONTIER 3RD		PERM-EMBAR	
GEOLOGIC PROVINCE CODE.....	520	520		520	
DEPTH, FEET.....	7395	7287		10078	
WELLHEAD PRESSURE, PSIG.....	1700	1700		200	
OPEN FLOW, MCFD.....	2750	3540		574	
COMPONENT, MOLE PCT.....					
METHANE.....	82.8	88.2		68.2	
ETHANE.....	3.5	5.9		9.3	
PROPANE.....	3.6	5.0		2.5	
N-BUTANE.....	1.1	0.4		1.1	
ISOBUTANE.....	0.5	0.5		0.4	
N-PENTANE.....	0.2	TRACE		0.2	
ISOPENTANE.....	0.3	0.1		0.5	
CYCLOPENTANE.....	0.1	0.1		0.1	
HEXANES PLUS.....	0.2	0.3		0.3	
NITROGEN.....	1.3	0.7		8.3	
OXYGEN.....	0.0	TRACE		0.1	
ARGON.....	TRACE	0.0		0.1	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		6.4	
CARBON DIOXIDE.....	0.4	0.7		2.0	
HELIUM.....	3.0	1401		0.03	
HEATING VALUE.....	1192	1123		1053	
SPECIFIC GRAVITY.....	0.687	0.642		0.772	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

1069

INDEX 12721 SAMPLE 9001		INDEX 12722 SAMPLE 8999		INDEX 12723 SAMPLE 9004	
STATE.....	WYOMING	STATE.....	WYOMING	STATE.....	WYOMING
COUNTY.....	WESTON	COUNTY.....	WESTON	COUNTY.....	WESTON
FIELD.....	CLARETON	FIELD.....	FIDLER CREEK	FIELD.....	MUSH CREEK
WELL NAME.....	1. R. ELLIOTT NO. 2	WELL NAME.....	GILMER NO. 3	WELL NAME.....	UPRIKE NO. 2
LOCATION.....	SEC. 1, T43N, R65W	LOCATION.....	SEC. 18, T46N, R64W	LOCATION.....	SEC. 21, T44N, R63W
OWNER.....	TEXACO INC.	OWNER.....	TEXACO INC.	OWNER.....	TEXACO INC.
COMPLETED.....	07/11/53	COMPLETED.....	05/30/59	COMPLETED.....	06/12/48
SAMPLED.....	05/06/63	SAMPLED.....	06/05/63	SAMPLED.....	06/06/63
FORMATION.....	CRET-MUDDY & NEWCASTLE	FORMATION.....	CRET-MUDDY & NEWCASTLE	FORMATION.....	CRET-MUDDY & NEWCASTLE
GEOLOGIC PROVINCE CODE.....	515	GEOLOGIC PROVINCE CODE.....	515	GEOLOGIC PROVINCE CODE.....	515
DEPTH, FEET.....	5847	DEPTH, FEET.....	4480	DEPTH, FEET.....	4145
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	WELLHEAD PRESSURE, PSIG.....	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	OPEN FLOW, MCFD.....	5	OPEN FLOW, MCFD.....	2
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	56.5	METHANE.....	32.7	METHANE.....	68.9
ETHANE.....	15.5	ETHANE.....	22.5	ETHANE.....	9.2
PROPANE.....	13.5	PROPANE.....	27.5	PROPANE.....	10.4
N-BUTANE.....	5.5	N-BUTANE.....	7.0	N-BUTANE.....	4.1
ISOBUTANE.....	2.1	ISOBUTANE.....	3.4	ISOBUTANE.....	1.8
N-PENTANE.....	0.9	N-PENTANE.....	1.7	N-PENTANE.....	0.6
ISOPENTANE.....	1.7	ISOPENTANE.....	1.5	ISOPENTANE.....	1.4
CYCLOPENTANE.....	0.4	CYCLOPENTANE.....	0.4	CYCLOPENTANE.....	0.3
HEXANES PLUS.....	1.2	HEXANES PLUS.....	1.1	HEXANES PLUS.....	0.7
NITROGEN.....	1.2	NITROGEN.....	2.0	NITROGEN.....	1.0
CO2.....	0.0	CO2.....	0.0	CO2.....	0.0
ARSEN.....	0.0	ARSEN.....	0.0	ARSEN.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	1.5
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1565	HEATING VALUE.....	1577	HEATING VALUE.....	1464
SPECIFIC GRAVITY.....	0.992	SPECIFIC GRAVITY.....	1.229	SPECIFIC GRAVITY.....	0.875

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 1 SAMPLE 14308			INDEX 2 SAMPLE 14536			INDEX 3 SAMPLE 11926		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	ESCAMBIA		ESCAMBIA			HALE		
FIELD.....	BIG ESCAMBIA CREEK		BIG ESCAMBIA CREEK			GULF COAST AREA		
LOCATION.....	6 IN. TO HALLARD PLANT		NOT GIVEN			18, 24 & 12 IN. LINES		
OWNER.....	EXXON CO., U.S.A.		EXXON CO., U.S.A.			SOUTHERN NATURAL GAS CO.		
SAMPLED.....	03/19/75		11/12/75			06/06/59		
FORMATION.....	JURA-SMACKOVER		JURA-SMACKOVER			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	840		740			1200		
FLOW, MCFD.....	1400		5042			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	97.7		72.3			94.6		
ETHANE.....	14.4		12.1			2.8		
PROPANE.....	15.7		7.1			0.7		
N-BUTANE.....	11.8		3.1			0.2		
ISOBUTANE.....	7.4		1.5			0.0		
N-PENTANE.....	4.2		0.8			0.0		
ISOPENTANE.....	0.2		0.2			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.8		0.1			0.0		
NITROGEN.....	1.5		4.1			0.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		TRACE			0.8		
HELIUM.....	0.1		12.4			0.01		
HEATING VALUE.....	1029		1034			1033		
SPECIFIC GRAVITY.....	1.273		0.775			0.589		

INDEX 4 SAMPLE 14218			INDEX 5 SAMPLE 15864			INDEX 6 SAMPLE 11925		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	HALE		HALE			MARENGO		
FIELD.....	GULF COAST AREA		GULF COAST AREA			GULF COAST AREA		
LOCATION.....	18, 20 & 24 IN.		2-13 & 1-24 IN.			20, 2-36 & 42 IN. LINES		
OWNER.....	SOUTHERN NATURAL GAS CO.		SOUTHERN NATURAL GAS CO.			TRANSCONTINENTAL GAS PL. COR		
SAMPLED.....	11/11/74		12/17/79			06/16/59		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	210		210			210		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	950		1180			800		
FLOW, MCFD.....	1120000		940000			600000		
COMPONENT, MOLE PCT								
METHANE.....	95.3		95.8			95.2		
ETHANE.....	2.1		1.6			2.7		
PROPANE.....	0.3		0.3			0.5		
N-BUTANE.....	TRACE		0.1			0.0		
ISOBUTANE.....	TRACE		0.1			0.0		
N-PENTANE.....	TRACE		TRACE			0.0		
ISOPENTANE.....	TRACE		TRACE			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	TRACE		0.1			0.0		
NITROGEN.....	0.4		0.4			0.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.7			0.7		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1018		1029			1026		
SPECIFIC GRAVITY.....	0.577		0.580			0.580		

INDEX 7 SAMPLE 14220			INDEX 8 SAMPLE 15465			INDEX 9 SAMPLE 14219		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	PICKENS		PICKENS			PICKENS		
FIELD.....	GULF COAST AREA		GULF COAST AREA			GULF COAST AREA		
LOCATION.....	30 IN., 2-36 & 1-42 IN.		1-30, 2-36 & 1-42 IN.			22, 24 & 26 IN.		
OWNER.....	TRANSCONTINENTAL GAS PL. COR		TRANSCONTINENTAL GAS PL. COR			SOUTHERN NATURAL GAS CO.		
SAMPLED.....	11/11/74		12/17/79			11/11/74		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	210		210			200		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	800		550			750		
FLOW, MCFD.....	1500000		3000000			641000		
COMPONENT, MOLE PCT								
METHANE.....	95.4		95.5			95.3		
ETHANE.....	2.1		1.8			2.2		
PROPANE.....	0.2		0.3			0.4		
N-BUTANE.....	0.1		0.1			0.1		
ISOBUTANE.....	TRACE		0.1			0.1		
N-PENTANE.....	TRACE		TRACE			TRACE		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		0.1			0.1		
NITROGEN.....	0.4		0.4			0.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.7			0.8		
HELIUM.....	TRACE		TRACE			0.01		
HEATING VALUE.....	1023		1029			1027		
SPECIFIC GRAVITY.....	0.575		0.580			0.585		

INDEX 10 SAMPLE 11927			INDEX 11 SAMPLE 15862			INDEX 12 SAMPLE 15853		
STATE.....	ALABAMA		ALABAMA			ALABAMA		
COUNTY.....	PICKENS		PICKENS			PICKENS		
FIELD.....	LOUISIANA		LOUISIANA			LOUISIANA		
LOCATION.....	NOT GIVEN		2-22 IN.			24 IN.		
OWNER.....	SOUTHERN NATURAL GAS CO.		SOUTHERN NATURAL GAS CO.			SOUTHERN NATURAL GAS CO.		
SAMPLED.....	06/06/59		12/14/79			12/14/79		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	200		200			200		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	350		482			730		
FLOW, MCFD.....	NOT GIVEN		388000			322000		
COMPONENT, MOLE PCT								
METHANE.....	94.2		95.8			95.7		
ETHANE.....	2.6		0.7			1.3		
PROPANE.....	0.5		0.2			0.3		
N-BUTANE.....	0.2		0.1			0.1		
ISOBUTANE.....	0.0		TRACE			0.1		
N-PENTANE.....	0.0		TRACE			TRACE		
ISOPENTANE.....	0.0		0.0			TRACE		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		TRACE			TRACE		
NITROGEN.....	1.3		0.0			0.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.6			0.2		
HELIUM.....	0.01		TRACE			0.01		
HEATING VALUE.....	1021		1020			1028		
SPECIFIC GRAVITY.....	0.588		0.574			0.573		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1071

INDEX SAMPLE 13		INDEX SAMPLE 14		INDEX SAMPLE 15	
STATE.....	ALASKA	ALASKA		ARIZONA	
COUNTY.....	N SLOPE-NPR4	N SLOPE-NPR4		APACHE	
FIELD.....	SOUTH BARROW EAST & BARROW E	SOUTH BARROW EAST & BARROW E		NAVAJO SPRINGS E	
LOCATION.....	TRANSMISSION LINE	TRANSMISSION LINE		NOT GIVEN	
OWNER.....	U.S. GEOLOGICAL SURVEY	U.S. GEOLOGICAL SURVEY		ARIZONA HELIUM CORP.	
SAMPLED.....	03/29/83	03/29/83		03/21/69	
FORMATION.....	JURA-BARROW	JURA-BARROW		PERM-COCONINO	
GEOLOGIC PROVINCE CODE.....	972	972		590	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	855	NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	7700	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	94.3	95.0		TRACE	
ETHANE.....	0.6	0.7		0.0	
PROPANE.....	0.0	TRACE		0.0	
N-BUTANE.....	0.2	0.1		0.0	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.1	0.0		0.0	
ISOPENTANE.....	0.1	0.0		0.0	
CYCLOPENTANE.....	TRACE	0.0		0.0	
HEXANES PLUS.....	0.1	0.0		0.0	
NITROGEN.....	4.0	3.5		90.0	
OXYGEN.....	0.0	0.0		0.1	
ARGON.....	TRACE	TRACE		0.8	
HYDROGEN.....	0.2	0.2		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.2		0.6	
HELIUM.....	0.18	0.15		8.43	
HEATING VALUE.....	987	979		0	
SPECIFIC GRAVITY.....	0.583	0.573		0.903	
INDEX SAMPLE 16		INDEX SAMPLE 17		INDEX SAMPLE 18	
STATE.....	ARIZONA	ARKANSAS		ARKANSAS	
COUNTY.....	APACHE	CLARK		CLARK	
FIELD.....	PINTA	LOUISIANA & ARKANSAS FIELDS		NOT GIVEN	
LOCATION.....	SEC. 24, T20N, R26E	18 IN. A LINE		20 IN. LINE	
OWNER.....	KERR-MCGEE CORP.	ARKANSAS LOUISIANA GAS CO.		ARKANSAS LOUISIANA GAS CO.	
SAMPLED.....	05/06/62	06/26/79		06/07/73	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	590	400		400	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	85	NOT GIVEN		65	
FLOW, MCFD.....	2500	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	TRACE	87.3		95.3	
ETHANE.....	0.0	4.9		1.5	
PROPANE.....	TRACE	1.3		0.3	
N-BUTANE.....	0.0	0.2		0.0	
ISOBUTANE.....	0.0	0.0		0.0	
N-PENTANE.....	0.0	0.1		0.0	
ISOPENTANE.....	0.0	0.1		0.0	
CYCLOPENTANE.....	0.0	TRACE		0.0	
HEXANES PLUS.....	0.0	0.1		0.0	
NITROGEN.....	89.6	4.7		0.6	
OXYGEN.....	TRACE	0.0		0.0	
ARGON.....	0.6	TRACE		TRACE	
HYDROGEN.....	0.0	TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	1.2	0.0		2.3	
HELIUM.....	8.50	0.03		0.05	
HEATING VALUE.....	0	1036		1000	
SPECIFIC GRAVITY.....	0.905	0.632		0.590	
INDEX SAMPLE 19		INDEX SAMPLE 20		INDEX SAMPLE 21	
STATE.....	ARKANSAS	ARKANSAS		ARKANSAS	
COUNTY.....	CLARK	CLARK		CLARK	
FIELD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
LOCATION.....	18 IN. "A" LINE	18 IN. A LINE		20 IN. LINE	
OWNER.....	LOUISIANA GAS CO.	LOUISIANA GAS CO.		LOUISIANA GAS CO.	
SAMPLED.....	06/07/73	10/25/83		10/25/83	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	400	400		400	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	240	285		650	
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	86.9	83.4		95.0	
ETHANE.....	4.2	5.8		1.6	
PROPANE.....	1.2	2.0		0.3	
N-BUTANE.....	0.3	0.8		0.0	
ISOBUTANE.....	0.4	0.5		0.0	
N-PENTANE.....	0.1	0.3		TRACE	
ISOPENTANE.....	0.2	0.2		TRACE	
CYCLOPENTANE.....	TRACE	0.1		TRACE	
HEXANES PLUS.....	0.1	0.2		TRACE	
NITROGEN.....	5.6	6.4		0.5	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	TRACE	TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.0		2.3	
HELIUM.....	0.04	0.03		0.06	
HEATING VALUE.....	1024	1085		1002	
SPECIFIC GRAVITY.....	0.636	0.667		0.590	
INDEX SAMPLE 22		INDEX SAMPLE 23		INDEX SAMPLE 24	
STATE.....	ARKANSAS	ARKANSAS		ARKANSAS	
COUNTY.....	CLARK	HOT SPRING		HOT SPRING	
FIELD.....	OKLA., ARK. & LA.	GULF COAST AREA		GULF COAST AREA	
LOCATION.....	20 IN. "A" LINE	2-30 IN. & 1-36 IN. LINES		2-30 IN. & 1-36 IN.	
OWNER.....	ARKANSAS LOUISIANA GAS CO.	NATURAL GAS PIPELINE CO. OF		NATURAL GAS PIPELINE CO. OF	
SAMPLED.....	06/26/79	06/03/69		11/05/74	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	400	NOT GIVEN		400	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	620	830		710	
FLOW, MCFD.....	NOT GIVEN	1000000		1300000	
COMPONENT, MOLE PCT					
METHANE.....	93.2	94.9		95.6	
ETHANE.....	3.2	3.0		2.3	
PROPANE.....	0.8	0.5		0.3	
N-BUTANE.....	0.2	0.2		0.1	
ISOBUTANE.....	0.1	0.0		0.1	
N-PENTANE.....	0.1	0.0		TRACE	
ISOPENTANE.....	0.0	0.0		TRACE	
CYCLOPENTANE.....	TRACE	0.0		TRACE	
HEXANES PLUS.....	0.1	0.0		TRACE	
NITROGEN.....	0.7	0.6		0.7	
OXYGEN.....	0.1	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	TRACE	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	1.6	0.8		0.8	
HELIUM.....	0.04	0.04		TRACE	
HEATING VALUE.....	1042	1035		1026	
SPECIFIC GRAVITY.....	0.607	0.588		0.583	

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE 14208	INDEX SAMPLE 15851	INDEX SAMPLE 15852
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	HOT SPRING		HOT SPRING	HOT SPRING
FIELD.....	GULF COAST AREA		GULF COAST AREA	GULF COAST AREA
LOCATION.....	24 IN.		24 IN.	2-30 & 1-36 IN.
OWNER.....	TEXAS EASTERN TRANS. CORP.		TEXAS EASTERN TRANS. CORP.	NATURAL GAS PIPELINE CO. OF
SAMPLED.....	11/05/74		12/11/79	12/11/79
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	400		400	400
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	715		713	858
FLOW, MCFD.....	210000		200000	1600000
COMPONENT, MOLE PCT				
METHANE.....	92.2	93.8	96.6	
ETHANE.....	4.6	3.3	1.6	
PROPANE.....	0.8	0.5	0.4	
N-BUTANE.....	0.1	0.2	0.1	
ISOBUTANE.....	0.1	0.1	0.1	
N-PENTANE.....	0.1	0.1	0.1	
ISOPENTANE.....	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	TRACE	0.1	0.1	
NITROGEN.....	1.1	0.6	0.2	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.0	1.3	0.6	
HELIUM.....	0.02	0.01	0.01	
HEATING VALUE.....	1044	1044	1034	
SPECIFIC GRAVITY.....	0.602	0.601	0.582	

		INDEX SAMPLE 11921	INDEX SAMPLE 11923	INDEX SAMPLE 14209
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	HOT SPRING		LINCOLN	LINCOLN
FIELD.....	NOT GIVEN		GULF COAST AREA	GULF COAST AREA
LOCATION.....	24 IN. LINE		22, 24 & 36 IN. LOOPS	22, 24, & 26 IN. LOOP
OWNER.....	TEXAS EASTERN TRANS. CORP.		MISS. RIVER TRANS. CORP.	MISS. RIVER TRANS. CORP.
SAMPLED.....	06/03/69		06/03/69	11/06/74
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	400		400	240
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	777		335	720
FLOW, MCFD.....	250000		500000	600000
COMPONENT, MOLE PCT				
METHANE.....	92.3	94.5	96.1	
ETHANE.....	4.0	3.0	2.5	
PROPANE.....	0.6	0.0	0.6	
N-BUTANE.....	0.2	0.0	0.1	
ISOBUTANE.....	0.0	0.0	0.1	
N-PENTANE.....	0.0	0.0	0.1	
ISOPENTANE.....	0.0	0.0	TRACE	
CYCLOPENTANE.....	0.0	0.0	TRACE	
HEXANES PLUS.....	0.0	0.0	0.1	
NITROGEN.....	1.5	0.9	0.3	
OXYGEN.....	0.1	0.0	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.2	1.1	0.0	
HELIUM.....	0.02	TRACE	TRACE	
HEATING VALUE.....	1029	1024	1050	
SPECIFIC GRAVITY.....	0.601	0.589	0.581	

		INDEX SAMPLE 15853	INDEX SAMPLE 15676	INDEX SAMPLE 17115
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	LINCOLN		LOGAN	LOGAN
FIELD.....	GULF COAST AREA		ARKANSAS FIELDS	NORTHWEST ARKANSAS FIELDS
LOCATION.....	24 IN.		16 IN.	16 IN. LINE
OWNER.....	MISS. RIVER TRANS. CORP.		ARKANSAS LOUISIANA GAS CO.	ARKANSAS LOUISIANA GAS CO.
SAMPLED.....	12/11/79		06/25/79	10/24/83
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	240		NOT GIVEN	345
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	608		800	650
FLOW, MCFD.....	417000		80000	65000
COMPONENT, MOLE PCT				
METHANE.....	96.2	97.4	97.4	
ETHANE.....	2.1	1.2	1.2	
PROPANE.....	0.4	0.1	0.1	
N-BUTANE.....	0.1	0.0	0.0	
ISOBUTANE.....	0.1	0.0	0.0	
N-PENTANE.....	0.1	0.0	0.0	
ISOPENTANE.....	TRACE	0.0	0.0	
CYCLOPENTANE.....	TRACE	0.0	0.0	
HEXANES PLUS.....	0.1	0.0	0.0	
NITROGEN.....	0.5	0.4	0.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.7	0.8	
HELIUM.....	TRACE	0.07	0.09	
HEATING VALUE.....	1035	1011	1011	
SPECIFIC GRAVITY.....	0.582	0.569	0.570	

		INDEX SAMPLE 13623	INDEX SAMPLE 15675	INDEX SAMPLE 17114
STATE.....	ARKANSAS		ARKANSAS	ARKANSAS
COUNTY.....	LOGAN		LOGAN	LOGAN
FIELD.....	NOT GIVEN		TEXAS, OKLAHOMA & ARKANSAS	W. AR. OK & TX PANHANDLE
LOCATION.....	30 IN. LINE		30 IN. LINE	30 IN. LINE
OWNER.....	ARKANSAS LOUISIANA GAS CO.		ARKANSAS LOUISIANA GAS CO.	ARKANSAS LOUISIANA GAS CO.
SAMPLED.....	06/07/73		06/25/79	10/24/83
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	345		345	345
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	870		870	500
FLOW, MCFD.....	300000		325000	400000
COMPONENT, MOLE PCT				
METHANE.....	96.5	94.8	94.7	
ETHANE.....	1.5	2.1	1.5	
PROPANE.....	0.7	0.4	0.2	
N-BUTANE.....	0.0	0.1	0.1	
ISOBUTANE.....	0.0	TRACE	0.0	
N-PENTANE.....	0.0	TRACE	0.1	
ISOPENTANE.....	0.0	TRACE	0.0	
CYCLOPENTANE.....	0.0	TRACE	TRACE	
HEXANES PLUS.....	0.0	0.1	0.1	
NITROGEN.....	0.5	0.5	0.5	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	2.1	1.8	2.6	
HELIUM.....	0.05	0.05	0.06	
HEATING VALUE.....	1002	1017	1004	
SPECIFIC GRAVITY.....	0.587	0.591	0.596	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

		INDEX SAMPLE 37 3165	INDEX SAMPLE 38 15767	INDEX SAMPLE 39 17440
STATE.....	ARKANSAS		CALIFORNIA	CALIFORNIA
COUNTY.....	POPE		CONTRA COSTA	CONTRA COSTA
FIELD.....	TATES ISLAND		CANADIAN GAS	CANADIAN GAS
LOCATION.....	DRIP LINE		36 IN. LINE NO. 400	36 IN. LINE VALVE 146
OWNER.....	ARKANSAS LOUISIANA GAS CO.		PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	02/16/42		09/12/79	09/19/84
FORMATION.....	PENN-ATOKA SAND		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	345		730	730
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	400		510	810
FLOW, MCFD.....	NOT GIVEN		248000	600000
COMPONENT, MOLE PCT				
METHANE.....	95.6	89.3	96.2	
ETHANE.....	3.2	3.1	1.5	
PROpane.....	---	0.3	TRACE	
N-BUTANE.....	---	0.0	0.1	
ISOBUTANE.....	---	0.0	0.0	
N-PENTANE.....	---	0.0	0.1	
ISOPENTANE.....	---	0.0	TRACE	
CYCLOPENTANE.....	---	0.0	TRACE	
HEXANES PLUS.....	---	0.0	TRACE	
NITROGEN.....	---	5.8	1.6	
OXYGEN.....	0.1	1.1	TRACE	
ARGON.....	---	0.1	TRACE	
HYDROGEN.....	---	0.0	0.0	
HYDROGEN SULFIDE.....	---	0.0	0.0	
CARBON DIOXIDE.....	0.9	0.4	0.2	
HELIUM.....	0.12	TRACE	0.05	
HEATING VALUE.....	1026	968	1009	
SPECIFIC GRAVITY.....	0.580	0.608	0.572	

		INDEX SAMPLE 40 14067	INDEX SAMPLE 41 14069	INDEX SAMPLE 42 17441
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	CONTRA COSTA		CONTRA COSTA	CONTRA COSTA
FIELD.....	DUTCH SLOUGH		FIELDS W OF SACRAMENTO RIVER	OAKLEY
LOCATION.....	12 IN. LINE NO. 316		16 IN. LINE NO. 114	12 IN. LINE
OWNER.....	PACIFIC GAS & ELECTRIC CO.		PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	07/11/74		07/11/74	09/19/84
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730		730	730
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	450		280	550
FLOW, MCFD.....	12000		76800	55000
COMPONENT, MOLE PCT				
METHANE.....	93.7	94.0	92.9	
ETHANE.....	3.9	3.9	4.1	
PROpane.....	1.1	0.7	4.2	
N-BUTANE.....	0.2	0.1	0.3	
ISOBUTANE.....	0.2	0.1	0.2	
N-PENTANE.....	0.0	0.0	TRACE	
ISOPENTANE.....	0.3	0.1	0.2	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.1	TRACE	0.1	
NITROGEN.....	0.8	1.6	0.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.4	0.5	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1068	1033	1080	
SPECIFIC GRAVITY.....	0.604	0.591	0.609	

		INDEX SAMPLE 43 14068	INDEX SAMPLE 44 15768	INDEX SAMPLE 45 15766
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	CONTRA COSTA		CONTRA COSTA	CONTRA COSTA
FIELD.....	RIO VISTA		SACRAMENTO RIVER E	SACRAMENTO RIVER W
LOCATION.....	12 IN. LINE NO. 131		12 & 16 IN. STAN PAK 4	16 IN. LINE NO. 114
OWNER.....	PACIFIC GAS & ELECTRIC CO.		PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/12/79		09/12/79	09/12/79
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730		730	730
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	310		310	310
FLOW, MCFD.....	17000		20000	22000
COMPONENT, MOLE PCT				
METHANE.....	93.7	93.8	93.5	
ETHANE.....	2.8	2.9	2.9	
PROpane.....	0.8	0.6	0.7	
N-BUTANE.....	0.1	0.1	0.2	
ISOBUTANE.....	0.2	0.1	0.1	
N-PENTANE.....	0.0	TRACE	0.0	
ISOPENTANE.....	0.1	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	1.9	1.8	2.0	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	0.5	0.4	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1040	1041	1041	
SPECIFIC GRAVITY.....	0.594	0.594	0.599	

		INDEX SAMPLE 46 17439	INDEX SAMPLE 47 15763	INDEX SAMPLE 48 17436
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	CONTRA COSTA		FRESNO	FRESNO
FIELD.....	SACRAMENTO RIVER W&E		CHENEY	CHENEY
LOCATION.....	16 IN. LINE VALVE 50		4 IN. DISCHARGE	4 IN. DISCHARGE
OWNER.....	PACIFIC GAS & ELECTRIC CO.		PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/19/84		09/11/79	09/18/84
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730		745	745
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	315		360	485
FLOW, MCFD.....	44000		550	200
COMPONENT, MOLE PCT				
METHANE.....	92.8	84.9	83.6	
ETHANE.....	3.3	5.4	5.9	
PROpane.....	0.9	4.3	4.5	
N-BUTANE.....	0.2	0.1	1.4	
ISOBUTANE.....	0.2	1.3	1.5	
N-PENTANE.....	TRACE	0.3	0.3	
ISOPENTANE.....	0.1	0.3	0.6	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.1	0.2	0.2	
NITROGEN.....	1.9	0.0	1.3	
OXYGEN.....	TRACE	0.0	TRACE	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.4	0.6	
HELIUM.....	TRACE	0.01	0.01	
HEATING VALUE.....	1249	1219	1219	
SPECIFIC GRAVITY.....	0.604	0.695	0.708	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 49 SAMPLE 14059			INDEX 50 SAMPLE 14058			INDEX 51 SAMPLE 14085		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	FRESNO		FRESNO			KERN		
FIELD.....	CHENEY RANCH GAS		RAISIN CITY			BELRIDGE N		
LOCATION.....	4 IN. NO. 204 LINE		PACIFIC GAS & ELECTRIC			METER STA. NO. 4319, 12 IN.		
OWNER.....	PACIFIC GAS & ELECTRIC CO.		TEGACO INC.			SOUTHERN CALIFORNIA GAS CO.		
SAMPLED.....	07/10/74		07/09/74			07/15/74		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	500		550			430		
FLOW, MCFD.....	5000		500			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	88.7		95.0			92.1		
ETHANE.....	7.0		2.5			5.0		
PROPANE.....	0.6		0.5			0.8		
N-BUTANE.....	0.1		0.1			0.0		
ISOBUTANE.....	0.2		0.1			TRACE		
N-PENTANE.....	TRACE		0.0			TRACE		
ISOPENTANE.....	TRACE		0.1			TRACE		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.1			TRACE		
NITROGEN.....	1.2		1.5			0.8		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.0		0.0			1.1		
HELIUM.....	0.03		0.01			TRACE		
HEATING VALUE.....	1076		1035			1043		
SPECIFIC GRAVITY.....	0.623		0.584			0.600		

INDEX 52 SAMPLE 15775			INDEX 53 SAMPLE 14078			INDEX 54 SAMPLE 15872		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	KERN		KERN			KERN		
FIELD.....	BELRIDGE N		BUENA VISTA HILLS & ELK HILL			COLES LEVEE N		
LOCATION.....	16 IN. LINE NO. 102		METER STA. NO. 4432, 10 IN.			10 IN. LINE 103		
OWNER.....	SOUTHERN CALIFORNIA GAS CO.		SOUTHERN CALIFORNIA GAS CO.			SOUTHERN CALIFORNIA GAS CO.		
SAMPLED.....	09/18/79		07/15/74			12/28/79		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	390		380			430		
FLOW, MCFD.....	10000		3000			3000		
COMPONENT, MOLE PCT								
METHANE.....	92.6		84.6			88.9		
ETHANE.....	4.5		7.1			7.8		
PROPANE.....	0.3		0.5			0.1		
N-BUTANE.....	TRACE		0.0			0.0		
ISOBUTANE.....	0.0		0.0			0.0		
N-PENTANE.....	TRACE		0.0			0.0		
ISOPENTANE.....	0.0		0.0			0.0		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	0.1		0.0			0.0		
NITROGEN.....	0.9		3.6			1.0		
OXYGEN.....	TRACE		0.8			0.1		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.5		2.4			2.0		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1032		1022			1043		
SPECIFIC GRAVITY.....	0.600		0.647			0.618		

INDEX 55 SAMPLE 17452			INDEX 56 SAMPLE 14080			INDEX 57 SAMPLE 15871		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	KERN		KERN			KERN		
FIELD.....	COLES LEVEE N		COLES LEVEE S			COLES LEVEE S		
LOCATION.....	10 IN. LINE NO. 103		METER STA. NO. 4709 & 4710			34 IN. LINE 225		
OWNER.....	SOUTHERN CALIFORNIA GAS CO.		SOUTHERN CALIFORNIA GAS CO.			SOUTHERN CALIFORNIA GAS CO.		
SAMPLED.....	09/18/84		07/15/74			12/31/79		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	420		100			650		
FLOW, MCFD.....	3060		NOT GIVEN			70000		
COMPONENT, MOLE PCT								
METHANE.....	84.2		91.4			91.7		
ETHANE.....	10.4		0.3			6.2		
PROPANE.....	2.1		0.9			0.7		
N-BUTANE.....	TRACE		TRACE			0.0		
ISOBUTANE.....	0.0		TRACE			0.0		
N-PENTANE.....	0.1		TRACE			0.0		
ISOPENTANE.....	0.0		TRACE			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	TRACE		TRACE			0.0		
NITROGEN.....	1.0		0.5			0.4		
OXYGEN.....	0.1		TRACE			0.0		
ARGON.....	TRACE		0.0			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.0		1.1			1.1		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1098		1062			1058		
SPECIFIC GRAVITY.....	0.652		0.607			0.605		

INDEX 58 SAMPLE 17451			INDEX 59 SAMPLE 15778			INDEX 60 SAMPLE 17449		
STATE.....	CALIFORNIA		CALIFORNIA			CALIFORNIA		
COUNTY.....	KERN		KERN			KERN		
FIELD.....	COLES LEVEE S		CYMRIC			CYMRIC		
LOCATION.....	34 IN. LINE NO. 225		10 IN. LINE NO. 133			10 IN. LINE NO. 133		
OWNER.....	SOUTHERN CALIFORNIA GAS CO.		SOUTHERN CALIFORNIA GAS CO.			SOUTHERN CALIFORNIA GAS CO.		
SAMPLED.....	09/19/84		09/19/79			09/18/84		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	745		745			745		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	42500		5900			350		
FLOW, MCFD.....	42500		5000			1200		
COMPONENT, MOLE PCT								
METHANE.....	91.3		87.8			85.9		
ETHANE.....	7.1		6.2			6.4		
PROPANE.....	0.8		0.1			3.3		
N-BUTANE.....	0.1		0.1			1.6		
ISOBUTANE.....	0.0		0.0			0.4		
N-PENTANE.....	0.1		TRACE			0.2		
ISOPENTANE.....	TRACE		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		TRACE			TRACE		
NITROGEN.....	0.3		3.0			2.3		
OXYGEN.....	TRACE		0.2			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.3		3.3			TRACE		
HELIUM.....	TRACE		TRACE			TRACE		
HEATING VALUE.....	1080		989			1136		
SPECIFIC GRAVITY.....	0.605		0.630			0.657		

* CALCULATED 3000S BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

INDEX SAMPLE 14082		INDEX SAMPLE 1956		INDEX SAMPLE 15776	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	KERN	COUNTY.....	KERN	COUNTY.....	KERN
FIELD.....	CYMRIC, BELGIAN & MCKITTRICK	FIELD.....	ELK HILLS	FIELD.....	GOSFORD
LOCATION.....	METER STA. NO. 4320, 8 IN.	LOCATION.....	SEC. 36, T30S, R24E	LOCATION.....	4 IN. LINE NO. 5024
OWNER.....	SOUTHERN CALIFORNIA GAS CO.	OWNER.....	STANDARD OIL CO. OF CALIF.	OWNER.....	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	07/15/74	SAMPLED.....	03/14/30	SAMPLED.....	09/18/79
FORMATION.....	NOT GIVEN	FORMATION.....	PLIO-ETCHEGGIN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	745	GEOLOGIC PROVINCE CODE.....	745	GEOLOGIC PROVINCE CODE.....	745
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	380	PRESSURE, PSIG.....	235	PRESSURE, PSIG.....	380
FLOW, MCFD.....	5000	FLOW, MCFD.....	2550	FLOW, MCFD.....	1500
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	91.2	METHANE.....	86.0	METHANE.....	86.5
ETHANE.....	4.6	ETHANE.....	7.8	ETHANE.....	7.1
PROpane.....	0.1	PROpane.....	---	PROpane.....	3.3
N-BUTANE.....	TRACE	N-BUTANE.....	---	N-BUTANE.....	0.7
ISOBUTANE.....	TRACE	ISOBUTANE.....	---	ISOBUTANE.....	0.3
N-PENTANE.....	TRACE	N-PENTANE.....	---	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	---	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	---	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	---	HEXANES PLUS.....	TRACE
NITROGEN.....	2.3	NITROGEN.....	1.6	NITROGEN.....	0.9
OXYGEN.....	0.1	OXYGEN.....	0.3	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	---	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.6	CARBON DIOXIDE.....	4.4	CARBON DIOXIDE.....	0.9
HELIUM.....	TRACE	HELIUM.....	0.00	HELIUM.....	0.01
HEATING VALUE.....	1009	HEATING VALUE.....	1011	HEATING VALUE.....	1131
SPECIFIC GRAVITY.....	0.603	SPECIFIC GRAVITY.....	0.645	SPECIFIC GRAVITY.....	0.654

INDEX SAMPLE 17448		INDEX SAMPLE 14087		INDEX SAMPLE 14084	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	KERN	COUNTY.....	KERN	COUNTY.....	KERN
FIELD.....	GOSFORD	FIELD.....	LOST HILLS	FIELD.....	MCDONALD ANTICLINE
LOCATION.....	4 IN. LINE NO. 5024	LOCATION.....	METER STA. NO. 4334, 6 IN.	LOCATION.....	METER STA. NO. 4324, 6 IN.
OWNER.....	SOUTHERN CALIFORNIA GAS CO.	OWNER.....	SOUTHERN CALIFORNIA GAS CO.	OWNER.....	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	09/15/84	SAMPLED.....	07/15/74	SAMPLED.....	07/15/74
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	745	GEOLOGIC PROVINCE CODE.....	745	GEOLOGIC PROVINCE CODE.....	745
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	358	PRESSURE, PSIG.....	389	PRESSURE, PSIG.....	389
FLOW, MCFD.....	210	FLOW, MCFD.....	2000	FLOW, MCFD.....	2000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	77.5	METHANE.....	90.2	METHANE.....	81.5
ETHANE.....	8.0	ETHANE.....	4.0	ETHANE.....	7.9
PROpane.....	4.9	PROpane.....	1.2	PROpane.....	5.6
N-BUTANE.....	0.9	N-BUTANE.....	0.2	N-BUTANE.....	1.5
ISOBUTANE.....	0.2	ISOBUTANE.....	0.2	ISOBUTANE.....	1.1
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	0.1
ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	5.3	NITROGEN.....	0.3	NITROGEN.....	1.1
OXYGEN.....	1.2	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.1	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	3.2	CARBON DIOXIDE.....	0.3
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1107	HEATING VALUE.....	1030	HEATING VALUE.....	1229
SPECIFIC GRAVITY.....	0.710	SPECIFIC GRAVITY.....	0.632	SPECIFIC GRAVITY.....	0.709

INDEX SAMPLE 17450		INDEX SAMPLE 14081		INDEX SAMPLE 14079	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	KERN	COUNTY.....	KERN	COUNTY.....	KERN
FIELD.....	MCKITTRICK, ELK HILLS	FIELD.....	RIO BRAVO	FIELD.....	SAN JOAQUIN VALLEY AREA
LOCATION.....	12 IN. LINE NO. 303	LOCATION.....	METER STA. NO. 5943, 8 IN.	LOCATION.....	METER STA. NO. 4702, 10 IN.
OWNER.....	SOUTHERN CALIFORNIA GAS CO.	OWNER.....	SOUTHERN CALIFORNIA GAS CO.	OWNER.....	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	07/15/84	SAMPLED.....	07/15/74	SAMPLED.....	07/15/74
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	745	GEOLOGIC PROVINCE CODE.....	745	GEOLOGIC PROVINCE CODE.....	745
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	375	PRESSURE, PSIG.....	580	PRESSURE, PSIG.....	380
FLOW, MCFD.....	7600	FLOW, MCFD.....	12000	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	84.7	METHANE.....	88.3	METHANE.....	87.7
ETHANE.....	9.2	ETHANE.....	8.5	ETHANE.....	8.0
PROpane.....	1.1	PROpane.....	0.5	PROpane.....	0.5
N-BUTANE.....	0.2	N-BUTANE.....	0.1	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.1	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	0.1	NITROGEN.....	1.3	NITROGEN.....	2.4
OXYGEN.....	0.1	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	4.5	CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	0.4
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1062	HEATING VALUE.....	1071	HEATING VALUE.....	1043
SPECIFIC GRAVITY.....	0.561	SPECIFIC GRAVITY.....	0.621	SPECIFIC GRAVITY.....	0.622

INDEX SAMPLE 14083		INDEX SAMPLE 14086		INDEX SAMPLE 15777	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	KERN	COUNTY.....	KERN	COUNTY.....	KERN
FIELD.....	SAN JOAQUIN VALLEY AREA	FIELD.....	TRICO, TRICO NW & HARVESTER	FIELD.....	YOLUWNE
LOCATION.....	METER STA. NO. 4339, 12 IN.	LOCATION.....	METER STA. NO. 952-2, 12 IN.	LOCATION.....	4 IN. LINE NO. 5023
OWNER.....	SOUTHERN CALIFORNIA GAS CO.	OWNER.....	SOUTHERN CALIFORNIA GAS CO.	OWNER.....	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	07/15/74	SAMPLED.....	07/15/74	SAMPLED.....	09/18/79
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	745	GEOLOGIC PROVINCE CODE.....	745	GEOLOGIC PROVINCE CODE.....	745
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	380	PRESSURE, PSIG.....	380	PRESSURE, PSIG.....	380
FLOW, MCFD.....	12000	FLOW, MCFD.....	2000	FLOW, MCFD.....	7000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	87.9	METHANE.....	99.2	METHANE.....	82.0
ETHANE.....	8.1	ETHANE.....	0.2	ETHANE.....	9.5
PROpane.....	4.7	PROpane.....	TRACE	PROpane.....	4.8
N-BUTANE.....	TRACE	N-BUTANE.....	0.0	N-BUTANE.....	0.7
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.5
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	0.6	NITROGEN.....	0.2	NITROGEN.....	0.6
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.5	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	1.0
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1054	HEATING VALUE.....	1008	HEATING VALUE.....	1171
SPECIFIC GRAVITY.....	0.627	SPECIFIC GRAVITY.....	0.559	SPECIFIC GRAVITY.....	0.690

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE 14056	INDEX SAMPLE 15873	INDEX SAMPLE 14088
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	KINGS		KINGS	KINGS
FIELD.....	KETTLEMAN HILLS		KETTLEMAN HILLS	SAV. JOAQUIN VALLEY AREA
LOCATION.....	22 IN. SP NO. 1		26 IN. LINE	METER STA. NO. 4228, 8 IN.
OWNER.....	PACIFIC GAS & ELECTRIC CO.		SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	07/09/74		01/01/80	07/15/74
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	745		745	745
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	400		400	395
FLOW, MCFD.....	11000		5000	3000
COMPONENT, MOLE PCT.....				
METHANE.....	93.8	93.5	94.8	
ETHANE.....	4.2	4.4	3.3	
PROpane.....	TRACE	0.2	TRACE	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	1.0	1.1	1.0	
OXYGEN.....	0.1	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.8	0.9	0.8	
HELIUM.....	0.06	TRACE	TRACE	
HEATING VALUE.....	1025	1031	1019	
SPECIFIC GRAVITY.....	0.587	0.592	0.582	

		INDEX SAMPLE 17435	INDEX SAMPLE 14055	INDEX SAMPLE 15762
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	KINGS		KINGS	KINGS
FIELD.....	TEXAS GAS		TEXAS GAS FIELDS	TEXAS GAS FIELDS
LOCATION.....	2-34 DISCH.		34 IN. NO. 300	2-34 IN. DISCHARGE
OWNER.....	PACIFIC GAS & ELECTRIC CO.		PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/18/84		07/09/74	09/11/79
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	745		745	745
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	755		540	604
FLOW, MCFD.....	1021000		950000	650000
COMPONENT, MOLE PCT.....				
METHANE.....	89.9	86.8	88.9	
ETHANE.....	6.1	7.1	7.1	
PROpane.....	1.5	1.7	1.5	
N-BUTANE.....	0.2	0.1	0.2	
ISOBUTANE.....	0.1	0.2	0.1	
N-PENTANE.....	0.1	TRACE	TRACE	
ISOPENTANE.....	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	0.1	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	1.3	2.2	1.3	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.9	1.6	0.8	
HELIUM.....	0.04	0.06	0.03	
HEATING VALUE.....	1073	1070	1082	
SPECIFIC GRAVITY.....	0.621	0.644	0.625	

		INDEX SAMPLE 17574	INDEX SAMPLE 14133	INDEX SAMPLE 15785
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	KINGS		LOS ANGELES	LOS ANGELES
FIELD.....	TULARE LAKE		CASTAIC JUNCTION	CASTAIC, PICO PORTERIO
LOCATION.....	SEC. 17, T22S, R20E		METER 4512 TO LINE 163&1001	8 IN.
OWNER.....	SHELL CALIFORNIA PROD., INC.		SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	01/19/85		08/16/74	09/19/79
FORMATION.....	MIOC-TEMLOR		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	745		760	760
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN		300	272
FLOW, MCFD.....	500		4500	2100
COMPONENT, MOLE PCT.....				
METHANE.....	72.3	93.9	96.2	
ETHANE.....	10.6	3.8	3.2	
PROpane.....	8.6	0.2	TRACE	
N-BUTANE.....	3.2	0.0	0.0	
ISOBUTANE.....	1.8	0.0	0.0	
N-PENTANE.....	0.7	0.0	0.0	
ISOPENTANE.....	1.0	0.0	0.0	
CYCLOPENTANE.....	0.2	0.0	0.0	
HEXANES PLUS.....	0.6	0.0	0.0	
NITROGEN.....	0.5	1.6	0.4	
OXYGEN.....	0.1	0.3	0.0	
ARGON.....	0.0	TRACE	0.0	
HYDROGEN.....	TRACE	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.2	0.1	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1425	1024	1032	
SPECIFIC GRAVITY.....	0.825	0.585	0.572	

		INDEX SAMPLE 17458	INDEX SAMPLE 1372	INDEX SAMPLE 1373
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	LOS ANGELES		LOS ANGELES	LOS ANGELES
FIELD.....	CASTAIC, PICO PORTERIO		DOMINGUEZ	DOMINGUEZ
LOCATION.....	8 IN. LINE		NOT GIVEN	NOT GIVEN
OWNER.....	SOUTHERN CALIFORNIA GAS CO.		UNION OIL CO. OF CALIF.	UNION OIL CO. OF CALIF.
SAMPLED.....	09/26/84		03/25/27	03/25/27
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	760		760	760
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	240		NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	1500		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT.....				
METHANE.....	95.9	74.4	74.3	
ETHANE.....	3.4	22.5	22.3	
PROpane.....	0.1	---	---	
N-BUTANE.....	0.0	---	---	
ISOBUTANE.....	0.0	---	---	
N-PENTANE.....	0.0	---	---	
ISOPENTANE.....	0.0	---	---	
CYCLOPENTANE.....	0.0	---	---	
HEXANES PLUS.....	0.0	---	---	
NITROGEN.....	0.4	1.3	1.8	
OXYGEN.....	TRACE	1.2	1.1	
ARGON.....	TRACE	---	---	
HYDROGEN.....	0.0	---	---	
HYDROGEN SULFIDE.....	0.0	---	---	
CARBON DIOXIDE.....	0.2	0.6	0.5	
HELIUM.....	TRACE	1.00	1.00	
HEATING VALUE.....	1035	1157	1152	
SPECIFIC GRAVITY.....	0.576	0.684	0.683	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1077

STATE	INDEX SAMPLE	85 14096	INDEX SAMPLE	86 14131	INDEX SAMPLE	87 15786
CALIFORNIA	CALIFORNIA		CALIFORNIA		CALIFORNIA	
LOS ANGELES	LOS ANGELES		LOS ANGELES		LOS ANGELES	
ROSECRANS LASCIENE	ROSECRANS LASCIENE		HONOR RANCHO		INGENWOOD	
METER 732, 15 IN. LINE 77	METER 732, 15 IN. LINE 77		FIELD METER 4510 TO LINE 174		10 IN.	
SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.		SOUTHERN CALIFORNIA GAS CO.		SCOUTHERN CALIFORNIA GAS CO.	
07/12/74	07/12/74		07/12/74		09/20/79	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
760	760		760		760	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
170	170		200		154	
2500	2500		1600		3000	
COMPONENT, MOLE PCT	COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	90.3	86.6	88.9			
ETHANE	7.2	11.6	6.5			
PROPANE	TRACE	0.3	0.4			
N-BUTANE	TRACE	0.1	TRACE			
ISOBUTANE	TRACE	TRACE	TRACE			
N-PENTANE	TRACE	TRACE	TRACE			
ISOPENTANE	TRACE	0.0	TRACE			
CYCLOPENTANE	TRACE	TRACE	TRACE			
HEXANES PLUS	TRACE	TRACE	TRACE			
NITROGEN	2.2	0.4	1.0			
OXYGEN	0.0	0.0	0.2			
ARGON	TRACE	0.0	TRACE			
HYDROGEN	0.1	0.0	0.0			
HYDROGEN SULFIDE	0.0	0.0	0.0			
CARBON DIOXIDE	0.1	0.9	2.4			
HELIUM	TRACE	TRACE	TRACE			
HEATING VALUE	1044	1095	1038			
SPECIFIC GRAVITY	0.599	0.626	0.624			

STATE	INDEX SAMPLE	88 14097	INDEX SAMPLE	89 14099	INDEX SAMPLE	90 14098
CALIFORNIA	CALIFORNIA		CALIFORNIA		CALIFORNIA	
LOS ANGELES	LOS ANGELES		LOS ANGELES		LOS ANGELES	
LOS ANGELES BASIN FIELDS	LOS ANGELES BASIN FIELDS		LOS ANGELES BASIN FIELDS		LOS ANGELES, DOWNTOWN	
16 IN. LINE 125	16 IN. LINE 125		METER STA. NO. A-2		MTR NO. 6004, 6 IN. LINE 296	
SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.		LOMITA GASOLINE CO.		SOUTHERN CALIFORNIA GAS CO.	
07/12/74	07/12/74		07/12/74		07/12/74	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
760	760		760		760	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
156	156		60		160	
6500	6500		2500		2000	
COMPONENT, MOLE PCT	COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	86.3	81.8	80.3			
ETHANE	7.6	6.4	8.3			
PROPANE	1.8	0.5	2.4			
N-BUTANE	TRACE	0.7	2.0			
ISOBUTANE	TRACE	0.7	1.2			
N-PENTANE	TRACE	0.1	0.1			
ISOPENTANE	TRACE	0.1	0.8			
CYCLOPENTANE	TRACE	TRACE	0.1			
HEXANES PLUS	TRACE	TRACE	0.1			
NITROGEN	2.7	3.4	0.0			
OXYGEN	0.2	0.0	TRACE			
ARGON	TRACE	TRACE	TRACE			
HYDROGEN	0.0	0.0	TRACE			
HYDROGEN SULFIDE	0.0	0.0	0.0			
CARBON DIOXIDE	1.5	2.3	0.6			
HELIUM	TRACE	0.01	TRACE			
HEATING VALUE	1097	1112	1293			
SPECIFIC GRAVITY	0.635	0.695	0.735			

STATE	INDEX SAMPLE	91 1965	INDEX SAMPLE	92 1962	INDEX SAMPLE	93 14132
CALIFORNIA	CALIFORNIA		CALIFORNIA		CALIFORNIA	
LOS ANGELES	LOS ANGELES		LOS ANGELES		LOS ANGELES	
PONTEBELLC	PONTEBELLC		SANTA FE SPRINGS		TORREY CANYON	
STANDARD OIL CO. OF CALIF.	STANDARD OIL CO. OF CALIF.		SEC. 5, T3S, R11W		LINE 1001 FIELD METER 3723	
03/17/30	03/17/30		STANDARD OIL CO. OF CALIF.		SCOUTHERN CALIFORNIA GAS CO.	
07/10/74	07/10/74		03/15/30		08/16/74	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
760	760		760		760	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
2000	2000		2000		300	
385	385		385		8000	
COMPONENT, MOLE PCT	COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	89.6	77.1	89.7			
ETHANE	5.1	21.9	4.2			
PROPANE	---	---	1.9			
N-BUTANE	---	---	0.2			
ISOBUTANE	---	---	0.1			
N-PENTANE	---	---	TRACE			
ISOPENTANE	---	---	TRACE			
CYCLOPENTANE	---	---	TRACE			
HEXANES PLUS	---	---	TRACE			
NITROGEN	1.4	0.4	1.1			
OXYGEN	0.3	0.3	0.1			
ARGON	---	---	TRACE			
HYDROGEN	---	---	0.0			
HYDROGEN SULFIDE	---	---	0.0			
CARBON DIOXIDE	5.7	3.3	0.6			
HELIUM	0.00	0.00	TRACE			
HEATING VALUE	963	1173	1079			
SPECIFIC GRAVITY	0.633	0.669	0.619			

STATE	INDEX SAMPLE	94 14062	INDEX SAMPLE	95 14061	INDEX SAMPLE	96 14060
CALIFORNIA	CALIFORNIA		CALIFORNIA		CALIFORNIA	
MADERA	MADERA		MADERA		MADERA	
CHOCCHILLA	CHOCCHILLA		GILL RANCH		MOFFAT RANCH	
4 IN. NO. 186 LINE	4 IN. NO. 186 LINE		6 IN. NO. 133 LINE		4 IN. NO. 183 LINE	
PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.		TEXACO INC.		PACIFIC GAS & ELECTRIC CO.	
07/10/74	07/10/74		07/10/74		07/10/74	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
745	745		745		745	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
1420	1420		400		150	
4000	4000		3000		200	
COMPONENT, MOLE PCT	COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE	40.5	21.2	83.9			
ETHANE	0.4	0.4	0.3			
PROPANE	0.1	TRACE	TRACE			
N-BUTANE	0.0	0.0	TRACE			
ISOBUTANE	0.0	0.0	TRACE			
N-PENTANE	0.0	0.0	0.0			
ISOPENTANE	0.0	0.0	0.0			
CYCLOPENTANE	0.0	0.0	0.0			
HEXANES PLUS	0.0	0.0	0.0			
NITROGEN	5.0	0.0	0.2			
OXYGEN	0.0	0.0	0.0			
ARGON	TRACE	TRACE	TRACE			
HYDROGEN	0.0	TRACE	TRACE			
HYDROGEN SULFIDE	0.0	0.0	0.0			
CARBON DIOXIDE	TRACE	0.4	0.4			
HELIUM	0.01	0.01	0.03			
HEATING VALUE	420	31	206			
SPECIFIC GRAVITY	0.801	0.593	0.601			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE 97 15764	INDEX SAMPLE 98 17437	INDEX SAMPLE 99 1966
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	MADERA		MADERA	ORANGE
FIELD.....	VERNALIS		VERNALIS	HUNTINGTON BEACH
LOCATION.....	6 IN. SUCTION		6 IN. SUCTION	NOT GIVEN
OWNER.....	PACIFIC GAS & ELECTRIC CO.		PACIFIC GAS & ELECTRIC CO.	STANDARD OIL CO. OF CALIF.
SAMPLED.....	09/12/79		09/19/84	03/17/30
FORMATION.....	NOT GIVEN		NOT GIVEN	MIOC-
GEOLOGIC PROVINCE CODE.....	745		745	760
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	150		410	NOT GIVEN
FLOW, MCFD.....	6000		3000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	89.4	88.4	63.6	
ETHANE.....	0.6	0.7	35.5	
PROpane.....	0.1	0.1	---	
N-BUTANE.....	0.0	0.0	---	
ISOBUTANE.....	0.0	0.0	---	
N-PENTANE.....	0.0	0.0	---	
ISOPENTANE.....	0.0	0.0	---	
CYCLOPENTANE.....	0.0	0.0	---	
HEXANES PLUS.....	0.0	0.0	---	
NITROGEN.....	9.9	10.7	0.3	
OXYGEN.....	0.0	0.1	0.3	
ARGON.....	TRACE	TRACE	---	
HYDROGEN.....	0.0	0.0	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	0.1	TRACE	0.3	
HELIUM.....	0.01	0.01	0.00	
HEATING VALUE.....	919	911	1280	
SPECIFIC GRAVITY.....	0.601	0.604	0.736	

		INDEX SAMPLE 100 14100	INDEX SAMPLE 101 1964	INDEX SAMPLE 102 15772
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	ORANGE		ORANGE	SACRAMENTO
FIELD.....	HUNTINGTON BEACH		MURPHY-COYTE	BEEHIVE BEND AREA
LOCATION.....	METER STA. NO. 2343		SEC. 18, T3S, R10W	12 IN.
OWNER.....	SIGNAL OIL CO.		STANDARD OIL CO. OF CALIF.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	07/12/74		03/17/30	09/14/79
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	760		760	730
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	150		NOT GIVEN	500
FLOW, MCFD.....	2000		NOT GIVEN	80000
COMPONENT, MOLE PCT				
METHANE.....	79.5	76.4	92.1	
ETHANE.....	3.4	22.1	2.4	
PROpane.....	2.2	---	0.2	
N-BUTANE.....	0.5	---	0.0	
ISOBUTANE.....	0.5	---	0.0	
N-PENTANE.....	TRACE	---	0.0	
ISOPENTANE.....	0.1	---	0.0	
CYCLOPENTANE.....	TRACE	---	0.0	
HEXANES PLUS.....	TRACE	---	0.0	
NITROGEN.....	8.8	0.9	5.1	
OXYGEN.....	0.1	0.5	0.0	
ARGON.....	0.1	---	TRACE	
HYDROGEN.....	TRACE	---	0.0	
HYDROGEN SULFIDE.....	0.0	---	0.0	
CARBON DIOXIDE.....	4.5	0.2	0.2	
HELIUM.....	TRACE	0.00	0.02	
HEATING VALUE.....	972	1170	981	
SPECIFIC GRAVITY.....	0.695	0.673	0.591	

		INDEX SAMPLE 103 17445	INDEX SAMPLE 104 14073	INDEX SAMPLE 105 15769
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	SACRAMENTO		SACRAMENTO	SACRAMENTO
FIELD.....	BEEHIVE BEND, T. HUNTER, ZANORA		MARYSVILLE & HERSHEY JCT.	RIO VISTA E
LOCATION.....	12 IN. LINE		12 IN. LINE 172	12 IN.
OWNER.....	PACIFIC GAS & ELECTRIC CO.		PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/21/84		07/11/74	09/13/79
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730		730	730
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	500		500	700
FLOW, MCFD.....	60000		70000	40000
COMPONENT, MOLE PCT				
METHANE.....	93.9	91.9	92.7	
ETHANE.....	0.3	0.3	3.4	
PROpane.....	TRACE	TRACE	1.2	
N-BUTANE.....	0.0	TRACE	0.0	
ISOBUTANE.....	0.0	0.0	0.2	
N-PENTANE.....	0.0	TRACE	TRACE	
ISOPENTANE.....	0.0	TRACE	0.2	
CYCLOPENTANE.....	0.0	TRACE	0.1	
HEXANES PLUS.....	0.0	TRACE	0.1	
NITROGEN.....	5.7	7.6	1.7	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.1	0.2	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	957	730	1065	
SPECIFIC GRAVITY.....	0.579	0.588	0.609	

		INDEX SAMPLE 106 17442	INDEX SAMPLE 107 14070	INDEX SAMPLE 108 14066
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	SACRAMENTO		SACRAMENTO	SAN JOAQUIN
FIELD.....	RIO VISTA, LINDSEY SLOUGH		RIVER ISLANDS	LATHROP
LOCATION.....	12 IN. LINE		12 IN. LINE 196	10 IN. NO. 304
OWNER.....	PACIFIC GAS & ELECTRIC CO.		PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/20/84		07/11/74	07/11/74
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PPOVINCE CODE.....	730		730	730
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	645		482	400
FLOW, MCFD.....	50000		48000	50000
COMPONENT, MOLE PCT				
METHANE.....	91.8	93.4	82.6	
ETHANE.....	3.8	1.1	0.3	
PROpane.....	1.3	0.9	TRACE	
N-BUTANE.....	0.3	0.1	0.0	
ISOBUTANE.....	0.2	0.2	0.0	
N-PENTANE.....	TRACE	0.0	0.0	
ISOPENTANE.....	0.2	0.2	0.0	
CYCLOPENTANE.....	0.1	TRACE	0.0	
HEXANES PLUS.....	0.1	TRACE	0.0	
NITROGEN.....	1.9	1.7	16.6	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.3	0.4	
HELIUM.....	TRACE	TRACE	0.01	
HEATING VALUE.....	1066	1044	842	
SPECIFIC GRAVITY.....	0.613	0.597	0.628	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1079

		INDEX SAMPLE	109 15765	INDEX SAMPLE	110 17438	INDEX SAMPLE	111 14064
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	SAN JOAQUIN			SAN JOAQUIN		SAN JOAQUIN	
FIELD.....	LATHROP			LATHROP, UNION ISLAND		MCNULIN RANCH	
LOCATION.....	12 IN. SUCTION			12 IN. SUCTION		6 IN. NO. 194 LINE	
OWNER.....	PACIFIC GAS & ELECTRIC CO.			PACIFIC GAS & ELECTRIC CO.		PACIFIC GAS & ELECTRIC CO.	
SAMPLED.....	09/12/79			09/19/84		07/10/74	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	730			730		730	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	200			700		150	
FLOW, MCFD.....	15000			50000		2500	
COMPONENT, MOLE PCT							
METHANE.....	85.6	-----		84.9	-----	85.1	-----
ETHANE.....	0.5	-----		0.4	-----	0.6	-----
PROPANE.....	TRACE	-----		0.1	-----	0.1	-----
N-BUTANE.....	0.0	-----		0.0	-----	TRACE	-----
ISOBUTANE.....	0.0	-----		0.0	-----	TRACE	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.1	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	TRACE	-----
NITROGEN.....	13.5	-----		14.1	-----	13.5	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.0	-----	0.5	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	876	-----		870	-----	880	-----
SPECIFIC GRAVITY.....	0.617	-----		0.622	-----	0.620	-----
		INDEX SAMPLE	112 14065	INDEX SAMPLE	113 14063	INDEX SAMPLE	114 17453
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	SAN JOAQUIN			SAN JOAQUIN		SANTA BARBARA	
FIELD.....	ROBERTS ISLAND			VERNALIS		CAT CANYON & SANTA MARIA BASIN	
LOCATION.....	8 IN. NO. 176			6 IN. NO. 112 LINE		8 IN. LINE	
OWNER.....	PACIFIC GAS & ELECTRIC CO.			PACIFIC GAS & ELECTRIC CO.		SOUTHERN CALIFORNIA GAS CO.	
SAMPLED.....	07/11/74			07/10/74		09/26/84	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	730			730		750	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	1700			450		390	
FLOW, MCFD.....	250			5000		1500	
COMPONENT, MOLE PCT							
METHANE.....	92.9	-----		89.5	-----	77.2	-----
ETHANE.....	0.3	-----		0.6	-----	10.6	-----
PROPANE.....	TRACE	-----		0.1	-----	0.8	-----
N-BUTANE.....	0.0	-----		0.0	-----	0.1	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.0	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.1	-----
ISOPENTANE.....	0.0	-----		0.0	-----	TRACE	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	TRACE	-----
NITROGEN.....	6.8	-----		9.7	-----	2.5	-----
OXYGEN.....	0.0	-----		0.0	-----	0.2	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.1	-----	8.5	-----
HELIUM.....	0.01	-----		0.01	-----	TRACE	-----
HEATING VALUE.....	846	-----		1000	-----	1000	-----
SPECIFIC GRAVITY.....	0.584	-----		0.599	-----	0.713	-----
		INDEX SAMPLE	115 17454	INDEX SAMPLE	116 14091	INDEX SAMPLE	117 14090
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	SANTA BARBARA			SANTA BARBARA		SANTA BARBARA	
FIELD.....	EL MOLINO			GAVIOTA & CALIENTE		MOLINO	
LOCATION.....	12 IN. LINE			12 IN. LINE 1010		12 IN. LINE 260	
OWNER.....	SOUTHERN CALIFORNIA GAS CO.			SOUTHERN CALIFORNIA GAS CO.		SOUTHERN CALIFORNIA GAS CO.	
SAMPLED.....	09/26/84			07/15/74		07/16/74	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	750			750		750	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	240			340		830	
FLOW, MCFD.....	1500			3000		14000	
COMPONENT, MOLE PCT							
METHANE.....	88.5	-----		90.0	-----	95.4	-----
ETHANE.....	0.5	-----		0.6	-----	4.1	-----
PROPANE.....	0.7	-----		0.4	-----	TRACE	-----
N-BUTANE.....	0.8	-----		0.4	-----	0.0	-----
ISOBUTANE.....	0.6	-----		0.4	-----	0.0	-----
N-PENTANE.....	0.2	-----		TRACE	-----	0.0	-----
ISOPENTANE.....	0.2	-----		TRACE	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		TRACE	-----	0.0	-----
NITROGEN.....	0.1	-----		0.4	-----	0.3	-----
OXYGEN.....	TRACE	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		TRACE	-----	0.0	-----
HELIUM.....	TRACE	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1152	-----		1115	-----	1040	-----
SPECIFIC GRAVITY.....	0.645	-----		0.623	-----	0.576	-----
		INDEX SAMPLE	118 15781	INDEX SAMPLE	119 14089	INDEX SAMPLE	120 15780
STATE.....	CALIFORNIA			CALIFORNIA		CALIFORNIA	
COUNTY.....	SANTA BARBARA			SANTA BARBARA		SANTA BARBARA	
FIELD.....	SANTA MARIA VALLEY			SANTA MARIA VALLEY		SANTA MARIA, ET AL.	
LOCATION.....	10 IN. NO. 250			METER STA. NO. 5805, 12 IN.		10 IN. DISCHARGE	
OWNER.....	SOUTHERN CALIFORNIA GAS CO.			SOUTHERN CALIFORNIA GAS CO.		SOUTHERN CALIFORNIA GAS CO.	
SAMPLED.....	07/17/74			07/17/74		09/19/79	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	750			750		750	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	779			1379		400	
FLOW, MCFD.....	5000			13000		8000	
COMPONENT, MOLE PCT							
METHANE.....	81.9	-----		73.3	-----	80.4	-----
ETHANE.....	7.2	-----		2.5	-----	6.7	-----
PROPANE.....	4.4	-----		1.4	-----	2.4	-----
N-BUTANE.....	1.3	-----		TRACE	-----	0.1	-----
ISOBUTANE.....	1.2	-----		0.1	-----	0.0	-----
N-PENTANE.....	0.3	-----		0.0	-----	TRACE	-----
ISOPENTANE.....	0.6	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	0.4	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.4	-----		TRACE	-----	TRACE	-----
NITROGEN.....	0.4	-----		3.3	-----	3.3	-----
OXYGEN.....	0.0	-----		0.1	-----	0.4	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.0	-----	0.0	-----
HELIUM.....	TRACE	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1275	-----		1011	-----	1000	-----
SPECIFIC GRAVITY.....	0.723	-----		0.551	-----	0.595	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF GAS DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 121 SAMPLE 14092		INDEX 122 SAMPLE 15770		INDEX 123 SAMPLE 14071	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	SANTA BARBARA	COUNTY.....	SOLANO	COUNTY.....	SOLANO
FIELD.....	SUMMERLAND & CARPINTERIA	FIELD.....	LINDSEY SLOUGH	FIELD.....	LINDSEY SLOUGH & RIO VISTA W
LOCATION.....	16 IN. LINE 1003	LOCATION.....	12 IN.	LOCATION.....	16 IN. LINE 200
OWNER.....	SOUTHERN CALIFORNIA GAS CO.	OWNER.....	PACIFIC GAS & ELECTRIC CO.	OWNER.....	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	07/16/74	SAMPLED.....	09/13/79	SAMPLED.....	07/11/74
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	75	GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	375	PRESSURE, PSIG.....	500	PRESSURE, PSIG.....	480
FLOW, MCFD.....	4000	FLOW, MCFD.....	70000	FLOW, MCFD.....	80000
COMPONENT, MOLE PCT					
METHANE.....	83.0	METHANE.....	94.9	METHANE.....	94.1
ETHANE.....	9.0	ETHANE.....	3.6	ETHANE.....	3.0
PROpane.....	12.2	PROpane.....	0.3	PROpane.....	0.8
N-BUTANE.....	0.7	N-BUTANE.....	0.1	N-BUTANE.....	0.1
ISOBUTANE.....	0.5	ISOBUTANE.....	0.2	ISOBUTANE.....	0.1
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	TRACE
NITROGEN.....	0.3	NITROGEN.....	2.8	NITROGEN.....	1.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3
HELIUM.....	TRACE	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	1155	HEATING VALUE.....	1065	HEATING VALUE.....	1034
SPECIFIC GRAVITY.....	0.586	SPECIFIC GRAVITY.....	0.620	SPECIFIC GRAVITY.....	0.589

INDEX 124 SAMPLE 17443		INDEX 125 SAMPLE 15771		INDEX 126 SAMPLE 14072	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	SOLANO	COUNTY.....	SOLANO	COUNTY.....	SOLANO
FIELD.....	LINDSEY SLOUGH & RIO VISTA NW	FIELD.....	MILLAR, W. ET AL.	FIELD.....	MILLAR, SAXON & BUNKER
LOCATION.....	12 IN. LINE	LOCATION.....	10 IN. LINE 220	LOCATION.....	10 IN. LINE 220
OWNER.....	PACIFIC GAS & ELECTRIC CO.	OWNER.....	PACIFIC GAS & ELECTRIC CO.	OWNER.....	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/20/84	SAMPLED.....	09/13/79	SAMPLED.....	07/11/74
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	700	PRESSURE, PSIG.....	550	PRESSURE, PSIG.....	518
FLOW, MCFD.....	41900	FLOW, MCFD.....	7000	FLOW, MCFD.....	6200
COMPONENT, MOLE PCT					
METHANE.....	90.3	METHANE.....	83.3	METHANE.....	81.9
ETHANE.....	4.5	ETHANE.....	1.1	ETHANE.....	1.3
PROpane.....	10.6	PROpane.....	0.2	PROpane.....	0.3
N-BUTANE.....	0.4	N-BUTANE.....	0.1	N-BUTANE.....	TRACE
ISOBUTANE.....	0.3	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.1
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	0.3	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	2.2	NITROGEN.....	13.1	NITROGEN.....	16.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	0.01	HELIUM.....	0.01
HEATING VALUE.....	1087	HEATING VALUE.....	0.77	HEATING VALUE.....	864
SPECIFIC GRAVITY.....	0.624	SPECIFIC GRAVITY.....	0.629	SPECIFIC GRAVITY.....	0.633

INDEX 127 SAMPLE 17444		INDEX 128 SAMPLE 15773		INDEX 129 SAMPLE 17446	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	SOLANO	COUNTY.....	SUTTER	COUNTY.....	SUTTER
FIELD.....	TREHONT, MILLAR, SAXON & BUNKER	FIELD.....	NORTHERN CALIFORNIA GAS	FIELD.....	NORTHERN CALIFORNIA GAS
LOCATION.....	10 IN. LINE NO. 220	LOCATION.....	34 IN. INLET	LOCATION.....	34 IN. INLET
OWNER.....	PACIFIC GAS & ELECTRIC CO.	OWNER.....	PACIFIC GAS & ELECTRIC CO.	OWNER.....	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/20/84	SAMPLED.....	09/14/79	SAMPLED.....	09/21/84
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	520	PRESSURE, PSIG.....	500	PRESSURE, PSIG.....	520
FLOW, MCFD.....	42000	FLOW, MCFD.....	25000	FLOW, MCFD.....	40000
COMPONENT, MOLE PCT					
METHANE.....	89.1	METHANE.....	94.4	METHANE.....	95.6
ETHANE.....	7.7	ETHANE.....	0.4	ETHANE.....	0.3
PROpane.....	0.7	PROpane.....	TRACE	PROpane.....	TRACE
N-BUTANE.....	0.1	N-BUTANE.....	TRACE	N-BUTANE.....	0.0
ISOBUTANE.....	0.2	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	6.8	NITROGEN.....	5.0	NITROGEN.....	4.0
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.01	HELIUM.....	TRACE	HELIUM.....	TRACE
HEATING VALUE.....	992	HEATING VALUE.....	969	HEATING VALUE.....	974
SPECIFIC GRAVITY.....	0.613	SPECIFIC GRAVITY.....	0.560	SPECIFIC GRAVITY.....	0.573

INDEX 130 SAMPLE 14074		INDEX 131 SAMPLE 14075		INDEX 132 SAMPLE 14093	
STATE.....	CALIFORNIA	STATE.....	CALIFORNIA	STATE.....	CALIFORNIA
COUNTY.....	SUTTER	COUNTY.....	SUTTER	COUNTY.....	VENTURA
FIELD.....	NOT GIVEN	FIELD.....	SUTTER CREEK & SUTTER BUTTES	FIELD.....	FEDERAL OFFSHORE 401 & 402
LOCATION.....	16 IN. LINE 167	LOCATION.....	6 IN. LINE NO. 121	LOCATION.....	16 IN. LINE 1004
OWNER.....	PACIFIC GAS & ELECTRIC CO.	OWNER.....	PACIFIC GAS & ELECTRIC CO.	OWNER.....	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	07/12/74	SAMPLED.....	07/12/74	SAMPLED.....	07/16/74
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	730	GEOLOGIC PROVINCE CODE.....	755
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	600	PRESSURE, PSIG.....	400	PRESSURE, PSIG.....	1000
FLOW, MCFD.....	7500	FLOW, MCFD.....	600	FLOW, MCFD.....	14000
COMPONENT, MOLE PCT					
METHANE.....	92.6	METHANE.....	95.4	METHANE.....	79.5
ETHANE.....	0.3	ETHANE.....	0.1	ETHANE.....	2.3
PROpane.....	TRACE	PROpane.....	TRACE	PROpane.....	4.6
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	1.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	0.5
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE
NITROGEN.....	7.1	NITROGEN.....	4.3	NITROGEN.....	TRACE
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	1.5
HELIUM.....	943	HELIUM.....	968	HELIUM.....	1035
HEATING VALUE.....	943	HEATING VALUE.....	968	HEATING VALUE.....	1035
SPECIFIC GRAVITY.....	0.585	SPECIFIC GRAVITY.....	0.573	SPECIFIC GRAVITY.....	0.755

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1081

		INDEX SAMPLE 17455	INDEX SAMPLE 15782	INDEX SAMPLE 17456
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	VENTURA		VENTURA	VENTURA
FIELD.....	MOBIL'S OFFSHORE FIELDS		RINCON OFFSHORE	SCHOOL CANYON
LOCATION.....	10 IN. DISCH.		16 IN. LINE NO. 1004	6 IN. DISCH.
OWNER.....	SOUTHERN CALIFORNIA GAS CO.		SOUTHERN CALIFORNIA GAS CO.	SOUTHERN CALIFORNIA GAS CO.
SAMPLED.....	09/25/84		09/19/79	09/25/84
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	75		958	755
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	945		750	123
FLOW, MCFD.....	6700		7000	2500
COMPONENT, MOLE PCT				
METHANE.....	87.5	82.4	82.2	
ETHANE.....	2.9	2.4	7.9	
PROpane.....	3.9	2.2	4.3	
N-BUTANE.....	1.2	2.6	TRACE	
ISOBUTANE.....	0.4	0.7	TRACE	
N-PENTANE.....	0.1	0.3	0.0	
ISOPENTANE.....	0.1	0.3	TRACE	
CYCLOPENTANE.....	TRACE	0.2	TRACE	
HEXANES PLUS.....	TRACE	0.1	TRACE	
NITROGEN.....	0.0	0.1	3.3	
OXYGEN.....	0.0	0.0	0.2	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	3.9	5.8	1.5	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1100	1160	1086	
SPECIFIC GRAVITY.....	0.673	0.742	0.667	
		INDEX SAMPLE 15784	INDEX SAMPLE 17457	INDEX SAMPLE 1969
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	VENTURA		VENTURA	VENTURA
FIELD.....	TORREY CANYON		TORREY CANYON	NOT GIVEN
LOCATION.....	10 IN. DISCH.		10 IN. LINE	ASSOC. OIL & GAS CO.
OWNER.....	SOUTHERN CALIFORNIA GAS CO.		SOUTHERN CALIFORNIA GAS CO.	
SAMPLED.....	09/19/79		09/26/84	03/18/30
FORMATION.....	NOT GIVEN		NOT GIVEN	PLIG-
GEOLOGIC PROVINCE CODE.....	755		755	755
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	255		252	NOT GIVEN
FLOW, MCFD.....	11500		8000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	89.7	86.8	83.3	
ETHANE.....	6.2	6.0	15.7	
PROpane.....	2.3	1.4	---	
N-BUTANE.....	0.3	0.3	---	
ISOBUTANE.....	0.2	0.2	---	
N-PENTANE.....	TRACE	TRACE	---	
ISOPENTANE.....	TRACE	0.0	---	
CYCLOPENTANE.....	TRACE	TRACE	---	
HEXANES PLUS.....	TRACE	TRACE	---	
NITROGEN.....	0.8	0.6	0.6	
OXYGEN.....	0.0	0.1	0.3	
ARGON.....	TRACE	TRACE	---	
HYDROGEN.....	0.0	0.0	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	0.4	4.2	0.2	
HELIUM.....	TRACE	TRACE	0.00	
HEATING VALUE.....	1096	1040	1125	
SPECIFIC GRAVITY.....	0.622	0.652	0.639	
		INDEX SAMPLE 15783	INDEX SAMPLE 14095	INDEX SAMPLE 14077
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	VENTURA		VENTURA	YOLCO
FIELD.....	VENTURA		VENTURA	CANADIAN GAS
LOCATION.....	6 IN.		15 IN. LINE 37	20 IN. NO. 302 W LINE
OWNER.....	SOUTHERN CALIFORNIA GAS CO.		SOUTHERN CALIFORNIA GAS CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/27/84		09/27/84	07/12/74
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	755		755	730
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	150		400	695
FLOW, MCFD.....	6000		5000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	86.4	86.9	87.9	
ETHANE.....	5.5	5.2	6.1	
PROpane.....	1.6	0.4	1.0	
N-BUTANE.....	TRACE	TRACE	0.5	
ISOBUTANE.....	TRACE	TRACE	0.5	
N-PENTANE.....	TRACE	TRACE	0.2	
ISOPENTANE.....	TRACE	0.0	0.4	
CYCLOPENTANE.....	TRACE	TRACE	0.4	
HEXANES PLUS.....	TRACE	TRACE	0.5	
NITROGEN.....	4.2	3.6	2.4	
OXYGEN.....	0.2	TRACE	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.0	0.1	0.1	
HELIUM.....	TRACE	TRACE	0.06	
HEATING VALUE.....	1015	1007	1123	
SPECIFIC GRAVITY.....	0.632	0.616	0.650	
		INDEX SAMPLE 15774	INDEX SAMPLE 17447	INDEX SAMPLE 14076
STATE.....	CALIFORNIA		CALIFORNIA	CALIFORNIA
COUNTY.....	YOLCO		YOLCO	YOLCO
FIELD.....	NORTHERN CALIFORNIA GAS		NORTHERN CALIFORNIA GAS	VARIOUS
LOCATION.....	20 IN. INLET		20 IN. INLET	20 IN. NO. 302 E LINE
OWNER.....	PACIFIC GAS & ELECTRIC CO.		PACIFIC GAS & ELECTRIC CO.	PACIFIC GAS & ELECTRIC CO.
SAMPLED.....	09/14/79		09/21/84	07/11/74
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	NOT GIVEN		730	730
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	1000		705	800
FLOW, MCFD.....	100000		70000	31000
COMPONENT, MOLE PCT				
METHANE.....	95.1	96.2	96.0	
ETHANE.....	0.3	0.3	0.3	
PROpane.....	TRACE	TRACE	TRACE	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	0.0	0.0	3.6	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.0	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	969	969	979	
SPECIFIC GRAVITY.....	0.575	0.570	0.570	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 145 SAMPLE 15433			INDEX 146 SAMPLE 17039			INDEX 147 SAMPLE 13434		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		CHEYENNE			CHEYENNE		
FIELD.....	COMPOSITE		NORTHEAST COLORADO FIELDS			NOT GIVEN		
LOCATION.....	20 IN. DISCHARGE		20 IN. DISCHARGE			2-20 IN. DISCHARGE LINES		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	10/19/78		09/01/83			10/02/72		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	450		450			450		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	725		634			520		
FLOW, MCFD.....	50000		137000			275000		
COMPONENT, MOLE PCT								
METHANE.....	88.4		89.2			76.2		
ETHANE.....	10.2		6.3			6.6		
PROPANE.....	1.0		0.9			2.2		
N-BUTANE.....	0.0		0.1			0.2		
ISOBUTANE.....	0.0		TRACE			0.2		
N-PENTANE.....	0.0		TRACE			TRACE		
ISOPENTANE.....	0.0		0.1			0.0		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		TRACE			TRACE		
NITROGEN.....	0.3		2.1			14.0		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.1		0.3			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	2.143		1.8			0.1		
HELIUM.....	0.02		0.05			0.37		
HEATING VALUE.....	1074		1038			961		
SPECIFIC GRAVITY.....	0.643		0.623			0.673		
INDEX 148 SAMPLE 17038			INDEX 149 SAMPLE 8694			INDEX 150 SAMPLE 16994		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	CHEYENNE		GARFIELD			HUERFANO		
FIELD.....	WATTENBURG (WY & DEN. AREA)		PRAIRIE CANYON & CARBONERA			SHEEP MOUNTAIN		
LOCATION.....	20 IN. DISCHARGE		NOT GIVEN			GATHERING SYSTEM		
OWNER.....	COLORADO INTERSTATE GAS CO.		WESTERN SLOPE GAS CO.			ARCO OIL & GAS CO.		
SAMPLED.....	09/01/83		07/06/82			07/27/83		
FORMATION.....	NOT GIVEN		NOT GIVEN			CRET-DAKOTA & JURA-ENTRADA		
GEOLOGIC PROVINCE CODE.....	450		395			455		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	773		NOT GIVEN			1450		
FLOW, MCFD.....	50000		NOT GIVEN			85000		
COMPONENT, MOLE PCT								
METHANE.....	83.8		68.3			1.5		
ETHANE.....	9.7		3.3			0.2		
PROPANE.....	1.9		1.0			0.0		
N-BUTANE.....	0.2		0.3			0.2		
ISOBUTANE.....	0.1		0.3			0.0		
N-PENTANE.....	0.0		0.1			0.4		
ISOPENTANE.....	0.0		0.1			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	TRACE		0.1			0.1		
NITROGEN.....	1.0		10.9			1.1		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.3		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	3.0		14.0			96.5		
HELIUM.....	0.02		0.57			0.03		
HEATING VALUE.....	1087		815			52		
SPECIFIC GRAVITY.....	0.660		0.787			1.516		
INDEX 151 SAMPLE 8342			INDEX 152 SAMPLE 8343			INDEX 153 SAMPLE 16120		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	JACKSON		JACKSON			LA PLATA		
FIELD.....	MCCALLUM UNIT		MCCALLUM UNIT			COLORADO		
LOCATION.....	MORRISON PCDL		DAKOTA-LAKOTA RESERVOIR			8 IN.		
OWNER.....	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.			WESTERN SLOPE GAS CO.		
SAMPLED.....	11/02/61		11/02/61			10/28/80		
FORMATION.....	JURA-MORRISON		CRET-DAKOTA-LAKOTA			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	545		545			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	800		710			750		
FLOW, MCFD.....	34590		72021			14500		
COMPONENT, MOLE PCT								
METHANE.....	2.3		3.1			95.0		
ETHANE.....	0.5		0.3			1.2		
PROPANE.....	2.1		1.4			0.2		
N-BUTANE.....	1.1		0.3			TRACE		
ISOBUTANE.....	0.4		0.0			0.1		
N-PENTANE.....	0.5		0.2			TRACE		
ISOPENTANE.....	0.4		0.1			0.0		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.5		0.3			0.1		
NITROGEN.....	0.1		1.8			TRACE		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	91.7		92.3			1.3		
HELIUM.....	0.02		0.17			0.01		
HEATING VALUE.....	105		111			998		
SPECIFIC GRAVITY.....	1.326		1.495			0.598		
INDEX 154 SAMPLE 12061			INDEX 155 SAMPLE 14481			INDEX 156 SAMPLE 8323		
STATE.....	COLORADO		COLORADO			COLORADO		
COUNTY.....	LA PLATA		LA PLATA			LA PLATA		
FIELD.....	IGNACIO		IGNACIO			NOT GIVEN		
LOCATION.....	TIFANY COMPRESSOR STA.		8 IN.			IGNACIO PLANT		
OWNER.....	WESTERN SLOPE GAS CO.		WESTERN SLOPE GAS CO.			EL PASO NATURAL GAS CO.		
SAMPLED.....	10/06/69		10/01/79			12/05/61		
FORMATION.....	CRET-MESAVERDE & DAKOTA		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	580		NOT GIVEN			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	525		700			467		
FLOW, MCFD.....	13000		7400			162900		
COMPONENT, MOLE PCT								
METHANE.....	94.7		94.7			87.7		
ETHANE.....	1.1		1.5			5.6		
PROPANE.....	0.2		0.2			2.5		
N-BUTANE.....	0.0		TRACE			0.6		
ISOBUTANE.....	0.0		TRACE			0.2		
N-PENTANE.....	0.0		TRACE			TRACE		
ISOPENTANE.....	0.0		TRACE			0.3		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.3		TRACE			TRACE		
NITROGEN.....	0.0		0.0			0.7		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.6		3.1			0.0		
HELIUM.....	0.01		0.11			0.01		
HEATING VALUE.....	985		993			1122		
SPECIFIC GRAVITY.....	0.598		0.594			0.647		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1083

	INDEX SAMPLE 157 8324	INDEX SAMPLE 158 6914	INDEX SAMPLE 159 1736
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	LA PLATA	LA PLATA	LAS ANIMAS
FIELD.....	NOT GIVEN	SAN JUAN BASIN	SAN FRANCISCO CREEK
LOCATION.....	IGNACIO PLANT	NOT GIVEN	SEC. 9, T34S, R62W
OWNER.....	EL PASO NATURAL GAS CO.	PACIFIC NORTHWEST PIPELINE	MOUNTAIN STATES OIL CORP.
SAMPLED.....	12/05/61	12/22/58	04/06/59
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	580	580	455
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	466	650	NOT GIVEN
FLOW, MCFD.....	54400	118167	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	94.3	94.3	11.7
ETHANE.....	1.5	2.1	73.7
PROPANE.....	0.5	0.4	---
N-BUTANE.....	0.1	0.2	---
ISOBUTANE.....	TRACE	0.0	---
N-PENTANE.....	0.0	TRACE	---
ISOPENTANE.....	TRACE	TRACE	---
CYCLOPENTANE.....	TRACE	TRACE	---
HEXANES PLUS.....	0.0	TRACE	---
NITROGEN.....	0.8	0.0	9.0
OXYGEN.....	TRACE	TRACE	2.4
ARGON.....	0.0	0.0	---
HYDROGEN.....	0.1	TRACE	---
HYDROGEN SULFIDE.....	0.0	0.0	---
CARBON DIOXIDE.....	3.0	2.8	3.1
HELIUM.....	0.07	TRACE	0.02
HEATING VALUE.....	999	1010	1439
SPECIFIC GRAVITY.....	0.598	0.598	0.999

	INDEX SAMPLE 160 16010	INDEX SAMPLE 161 5463	INDEX SAMPLE 162 8332
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	LOGAN	SPRINGDALE S	MESA
FIELD.....	SOUTHERN WYOMING	SEC. 28, T8N, R53W	BAR X
LOCATION.....	20 IN. MERINO W	SHELL OIL CO.	6 IN. LINE
OWNER.....	CITIES SERVICE CO.	NOT GIVEN	EL PASO NATURAL GAS CO.
SAMPLED.....	07/15/80	04/06/53	12/07/61
FORMATION.....	NOT GIVEN	CRET-DAKOTA	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	540	540	595
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	560	NOT GIVEN	600
FLOW, MCFD.....	60000	NOT GIVEN	3800
COMPONENT, MOLE PCT			
METHANE.....	84.0	52.9	78.8
ETHANE.....	9.8	16.0	4.3
PROPANE.....	5.1	1.5	1.5
N-BUTANE.....	0.7	5.3	0.5
ISOBUTANE.....	0.6	2.6	0.3
N-PENTANE.....	0.1	0.1	0.2
ISOPENTANE.....	0.2	1.1	0.2
CYCLOPENTANE.....	TRACE	0.2	0.3
HEXANES PLUS.....	0.1	0.6	0.5
NITROGEN.....	0.8	10.1	10.1
OXYGEN.....	0.0	TRACE	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	2.3	0.0	3.2
HELIUM.....	0.01	0.01	0.20
HEATING VALUE.....	1155	1075	0.796
SPECIFIC GRAVITY.....	0.681	1.008	0.701

	INDEX SAMPLE 163 2211	INDEX SAMPLE 164 3052	INDEX SAMPLE 165 17758
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	MOFFAT	MOFFAT	MORGAN
FIELD.....	ILES	POWDER WASH	JOULESBURG BASIN
LOCATION.....	54, R92W	SEC. 4, 5, 8, 31, T12N&11N, R97W	16 IN. LINE
OWNER.....	MIDWEST REFINING CO.	MOUNTAIN FUEL SUPPLY CO.	COLORADO INTERSTATE GAS CO.
SAMPLED.....	10/08/30	11/27/41	07/17/85
FORMATION.....	JURA-SUNDANCE	EDGE-WASATCH	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	535	535	540
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	600	650
FLOW, MCFD.....	NOT GIVEN	55000	7000
COMPONENT, MOLE PCT			
METHANE.....	83.6	90.6	84.9
ETHANE.....	11.6	7.8	8.3
PROPANE.....	---	---	1.3
N-BUTANE.....	---	---	0.3
ISOBUTANE.....	---	---	0.1
N-PENTANE.....	---	---	0.1
ISOPENTANE.....	---	---	0.1
CYCLOPENTANE.....	---	---	0.1
HEXANES PLUS.....	---	---	0.1
NITROGEN.....	0.8	1.3	3.3
OXYGEN.....	0.2	0.1	0.0
ARGON.....	---	---	TRACE
HYDROGEN.....	---	---	TRACE
HYDROGEN SULFIDE.....	---	---	0.0
CARBON DIOXIDE.....	3.8	0.2	1.5
HELIUM.....	0.00	0.03	0.04
HEATING VALUE.....	1055	1073	1073
SPECIFIC GRAVITY.....	0.653	0.601	0.652

	INDEX SAMPLE 166 16012	INDEX SAMPLE 167 8334	INDEX SAMPLE 168 8690
STATE.....	COLORADO	COLORADO	COLORADO
COUNTY.....	WYOMING & KANSAS	RIO BLANCO	RIO BLANCO
FIELD.....	16 IN.	4 CORNERS & PICEANCE CREEK	DOUGLAS N
LOCATION.....	COLORADO	EL PASO NATURAL GAS CO.	COMPOSITE SAMPLE
OWNER.....	INTERSTATE GAS CO.	NOT GIVEN	PHILLIPS PETROLEUM CO.
SAMPLED.....	07/15/80	02/27/61	09/21/62
FORMATION.....	NOT GIVEN	NOT GIVEN	CRET-
GEOLOGIC PROVINCE CODE.....	540	595	595
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	1600	786	NOT GIVEN
FLOW, MCFD.....	53000	280000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	87.3	90.8	95.8
ETHANE.....	6.9	4.6	2.1
PROPANE.....	0.8	1.3	0.1
N-BUTANE.....	0.1	0.1	0.0
ISOBUTANE.....	0.1	0.1	0.0
N-PENTANE.....	TRACE	TRACE	0.0
ISOPENTANE.....	TRACE	TRACE	0.0
CYCLOPENTANE.....	TRACE	TRACE	0.0
HEXANES PLUS.....	TRACE	0.0	0.0
NITROGEN.....	0.7	1.0	1.7
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	0.0	0.0
HYDROGEN.....	0.0	0.1	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	2.0	1.8	0.1
HELIUM.....	0.03	0.02	0.11
HEATING VALUE.....	1055	1011	1011
SPECIFIC GRAVITY.....	0.653	0.614	0.573

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE 169 8333	INDEX SAMPLE 170 8011	INDEX SAMPLE 171 13661
STATE.....	COLORADO			COLORADO
COUNTY.....	RIO BLANCO		RIO BLANCO	RIO BLANCO
FIELD.....	PICANCE CREEK		RANGELY	RANGELY
LOCATION.....	10 IN. LINE		COMPOSITE SAMPLE	FIELD COMP. STA. 8 IN. LINE
OWNER.....	EL PASO NATURAL GAS CO.		CALIFORNIA OIL CO.	CHEVRON OIL CO.
SAMPLED.....	12/07/61		06/07/61	07/31/73
FORMATION.....	NOT GIVEN		PENN-WEBER	PENN-WEBER
GEOLOGIC PROVINCE CODE.....	595		595	595
DEPTH, FEET.....	NCT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	49		NOT GIVEN	1800
FLOW, MCFD.....	10800		NOT GIVEN	5000
COMPONENT, MOLE PCT				
METHANE.....	91.1	61.7	55.7	
ETHANE.....	4.8	7.8	15.9	
PROPANE.....	1.4	3.1	8.6	
N-BUTANE.....	0.1	1.1	2.6	
ISOBUTANE.....	0.1	0.1	2.1	
N-PENTANE.....	TRACE	0.5	0.6	
ISOPENTANE.....	0.1	0.2	0.9	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	TRACE	0.4	0.3	
NITROGEN.....	0.7	22.8	11.6	
OXYGEN.....	TRACE	TRACE	0.0	
ARGON.....	0.0	0.1	0.1	
HYDROGEN.....	0.1	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.8	0.9	1.4	
HELIUM.....	0.03	0.40	0.18	
HEATING VALUE.....	1057	970	1314	
SPECIFIC GRAVITY.....	0.619	0.794	0.891	
		INDEX SAMPLE 172 13732	INDEX SAMPLE 173 2208	INDEX SAMPLE 174 16011
STATE.....	COLORADO		COLORADO	COLORADO
COUNTY.....	RIO BLANCO		ROUT	WELD
FIELD.....	RANGELY		TOW CREEK	WESTERN WYOMING
LOCATION.....	HAGOOD COMPRESSOR PLANT		NOT GIVEN	22 IN. & 24 IN.
OWNER.....	CHEVRON OIL CO.		TEXAS PRODUCTION CO.	COLORADO INTERSTATE GAS CO.
SAMPLED.....	10/01/73		10/04/30	07/14/80
FORMATION.....	PENN-WEBER		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	595		535	540
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NCT GIVEN
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	540
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	315000
COMPONENT, MOLE PCT				
METHANE.....	45.4	35.8	89.1	
ETHANE.....	13.9	48.4	5.8	
PROPANE.....	11.3	---	1.1	
N-BUTANE.....	4.9	---	0.2	
ISOBUTANE.....	4.5	---	0.1	
N-PENTANE.....	3.0	---	0.1	
ISOPENTANE.....	1.8	---	0.1	
CYCLOPENTANE.....	0.3	---	TRACE	
HEXANES PLUS.....	1.8	---	0.1	
NITROGEN.....	10.6	2.5	1.7	
OXYGEN.....	TRACE	0.1	TRACE	
ARGON.....	TRACE	---	0.0	
HYDROGEN.....	TRACE	---	0.0	
HYDROGEN SULFIDE.....	0.0	---	0.0	
CARBON DIOXIDE.....	1.1	1.1	1.7	
HELIUM.....	0.21	0.07	0.02	
HEATING VALUE.....	1641	1230	1059	
SPECIFIC GRAVITY.....	1.089	0.932	0.529	
		INDEX SAMPLE 175 17762	INDEX SAMPLE 176 17756	INDEX SAMPLE 177 8284
STATE.....	COLORADO		COLORADO	GEORGIA
COUNTY.....	WESTERN WYOMING		WELD	MONTGOMERY
FIELD.....	36 IN. WIC - TRAILBLAZER SYS		WYOMING FIELDS	NOT GIVEN
LOCATION.....	COLORADO INTERSTATE GAS CO.		MAIN LINE, 22 IN. & 24 IN.	NOT GIVEN
OWNER.....	NOT GIVEN		COLORADO INTERSTATE GAS CO.	DIXIE DRILLING CO.
SAMPLED.....	07/16/80		07/16/80	05/05/61
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	540		540	130
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	770		600	NCT GIVEN
FLOW, MCFD.....	250000		200000	NCT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	84.5	84.4	84.1	
ETHANE.....	9.1	5.2	0.0	
PROPANE.....	2.0	0.9	0.1	
N-BUTANE.....	0.4	0.0	0.0	
ISOBUTANE.....	0.3	TRACE	0.0	
N-PENTANE.....	0.1	0.1	0.0	
ISOPENTANE.....	0.1	0.1	0.0	
CYCLOPENTANE.....	0.1	TRACE	0.0	
HEXANES PLUS.....	0.1	0.1	0.0	
NITROGEN.....	3.4	2.0	11.6	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	TRACE	TRACE	0.2	
HYDROGEN.....	TRACE	TRACE	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.9	0.7	
HELIUM.....	0.01	0.02	0.00	
HEATING VALUE.....	1112	1030	955	
SPECIFIC GRAVITY.....	0.653	0.530	0.641	
		INDEX SAMPLE 178 8285	INDEX SAMPLE 179 8286	INDEX SAMPLE 180 3528
STATE.....	GEORGIA		GEORGIA	INDIANA
COUNTY.....	MONTGOMERY		WHEELER	PIKE
FIELD.....	NOT GIVEN		NOT GIVEN	AFORD
LOCATION.....	NOT GIVEN		OIL SPRINGS	SEC. 17, T1N, R7W
OWNER.....	DIXIE DRILLING CO.		DIXIE DRILLING CO.	HOOGER GAS CO.
SAMPLED.....	05/05/61		05/29/51	05/15/42
FORMATION.....	NOT GIVEN		NOT GIVEN	MISS-BROWN SAND
GEOLOGIC PROVINCE CODE.....	130		130	315
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	40
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	50.2	42.0	84.8	
ETHANE.....	TRACE	0.0	0.4	
PROPANE.....	0.0	0.0	---	
N-BUTANE.....	0.0	0.0	---	
ISOBUTANE.....	0.0	0.0	---	
N-PENTANE.....	0.0	0.0	---	
ISOPENTANE.....	0.0	0.0	---	
CYCLOPENTANE.....	0.0	0.0	---	
HEXANES PLUS.....	0.0	0.0	---	
NITROGEN.....	4.1	5.4	7.0	
OXYGEN.....	0.1	TRACE	0.4	
ARGON.....	0.7	0.7	---	
HYDROGEN.....	0.0	TRACE	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	
CARBON DIOXIDE.....	2.8	3.3	1.2	
HELIUM.....	TRACE	0.00	0.17	
HEATING VALUE.....	909	974	974	
SPECIFIC GRAVITY.....	0.778	0.917	0.528	

* CALCULATED 1000 BTU PER CU FT. CRY. AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1085

	INDEX SAMPLE	181 7543	INDEX SAMPLE	182 7546	INDEX SAMPLE	183 8768
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	BARTON		BARTON		BARTON	
FIELD.....	BARBER COUNTY FIELDS		MEDICINE LODGE W		ADOLPH STORAGE	
LOCATION.....	OUTLET		NOT GIVEN		NOT GIVEN	
OWNER.....	KANSAS POWER & LIGHT CO.		KANSAS POWER & LIGHT CO.		KANSAS-NEBRASKA NATURAL GAS	
SAMPLED.....	05/10/60		05/12/60		11/07/62	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	375		375		385	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	92.1		92.6		77.0	
ETHANE.....	4.2		4.3		4.1	
PROPANE.....	0.1		1.9		1.8	
N-BUTANE.....	0.0		0.6		0.7	
ISOBUTANE.....	0.0		0.3		0.3	
N-PENTANE.....	0.0		0.2		0.2	
ISOPENTANE.....	0.0		0.2		0.2	
CYCLOPENTANE.....	0.0		0.1		0.1	
HEXANES PLUS.....	0.0		0.3		0.2	
NITROGEN.....	3.4		3.3		11.7	
OXYGEN.....	0.0		0.1		TRACE	
ARGON.....	0.0		TRACE		0.1	
HYDROGEN.....	0.0		TRACE		0.1	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.1		0.0		0.2	
HELIUM.....	0.10		0.02		1.29	
HEATING VALUE.....	1011		1091		986	
SPECIFIC GRAVITY.....	0.541		0.645		0.668	

	INDEX SAMPLE	184 8769	INDEX SAMPLE	185 4505	INDEX SAMPLE	186 6346
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	BARTON		BARTON		BARTON	
FIELD.....	ADOLPH, SWEENEY, HACKSVILLE		BEHRENS		HUGOTON, MCKINNEY & OTHERS	
LOCATION.....	NOT GIVEN		PIPELINE TO JONES PLANT		SE OF GREAT BEND	
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		A. J. JONES OIL & OPER. CO.		KANSAS POWER & LIGHT CO.	
SAMPLED.....	11/07/62		06/-/48		05/19/57	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385		385		385	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	78.8		80.8		77.3	
ETHANE.....	4.0		11.9		5.3	
PROPANE.....	0.7		---		2.8	
N-BUTANE.....	0.7		---		0.6	
ISOBUTANE.....	0.4		---		0.4	
N-PENTANE.....	0.1		---		0.2	
ISOPENTANE.....	0.2		---		TRACE	
CYCLOPENTANE.....	0.1		---		TRACE	
HEXANES PLUS.....	0.1		---		0.1	
NITROGEN.....	12.3		5.7		11.6	
OXYGEN.....	TRACE		0.2		TRACE	
ARGON.....	0.1		---		TRACE	
HYDROGEN.....	0.1		---		0.0	
HYDROGEN SULFIDE.....	0.0		---		0.0	
CARBON DIOXIDE.....	0.1		0.6		0.1	
HELIUM.....	1.34		0.82		0.48	
HEATING VALUE.....	978		1032		1016	
SPECIFIC GRAVITY.....	0.665		0.640		0.681	

	INDEX SAMPLE	187 6650	INDEX SAMPLE	188 9791	INDEX SAMPLE	189 2858
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	BARTON		BARTON		BARTON	
FIELD.....	NOT GIVEN		NOT GIVEN		OTIS	
LOCATION.....	NOT GIVEN		24, 26 & 36 IN. LINES		INLET	
OWNER.....	NATURAL GAS PIPELINE CO. OF		NATURAL GAS PIPELINE CO. OF		PRODUCERS GAS CO.	
SAMPLED.....	06/-/58		03/12/65		06/30/41	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385		385		385	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		8000	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	81.2		83.9		73.5	
ETHANE.....	5.8		10.5		10.4	
PROPANE.....	0.5		2.2		---	
N-BUTANE.....	0.5		0.4		---	
ISOBUTANE.....	0.3		0.3		---	
N-PENTANE.....	0.1		0.1		---	
ISOPENTANE.....	0.1		TRACE		---	
CYCLOPENTANE.....	TRACE		TRACE		---	
HEXANES PLUS.....	0.1		0.1		---	
NITROGEN.....	7.6		5.0		13.8	
OXYGEN.....	TRACE		0.0		0.4	
ARGON.....	TRACE		TRACE		---	
HYDROGEN.....	0.0		0.0		---	
HYDROGEN SULFIDE.....	0.0		0.0		---	
CARBON DIOXIDE.....	0.3		0.3		0.5	
HELIUM.....	0.30		0.25		1.36	
HEATING VALUE.....	1050		1056		931	
SPECIFIC GRAVITY.....	0.663		0.630		0.664	

	INDEX SAMPLE	190 4485	INDEX SAMPLE	191 4488	INDEX SAMPLE	192 4506
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	BARTON		BARTON		BARTON	
FIELD.....	NOT GIVEN		OTIS		OTIS	
LOCATION.....	NOT GIVEN		NOT GIVEN		OUTLET	
OWNER.....	NORTHERN NATURAL GAS CO.		PRODUCERS GAS CO.		PRODUCERS GAS CO.	
SAMPLED.....	NOT GIVEN		06/-/48		06/-/48	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385		385		385	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	75.8		72.3		78.2	
ETHANE.....	11.4		15.4		10.4	
PROPANE.....	---		---		---	
N-BUTANE.....	---		---		---	
ISOBUTANE.....	---		---		---	
N-PENTANE.....	---		---		---	
ISOPENTANE.....	---		---		---	
CYCLOPENTANE.....	---		---		---	
HEXANES PLUS.....	---		---		---	
NITROGEN.....	9.8		10.2		10.6	
OXYGEN.....	0.3		0.5		0.2	
ARGON.....	---		---		---	
HYDROGEN.....	---		---		---	
HYDROGEN SULFIDE.....	---		---		---	
CARBON DIOXIDE.....	0.3		0.4		0.3	
HELIUM.....	1.36		1.18		0.32	
HEATING VALUE.....	982		1008		979	
SPECIFIC GRAVITY.....	0.650		0.674		0.652	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 193 SAMPLE 4509			INDEX 194 SAMPLE 4511			INDEX 195 SAMPLE 4512		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARTON		BARTON			BARTON		
FIELD.....	OTIS		OTIS			OTIS		
LOCATION.....	INLET		INLET			OUTLET		
OWNER.....	PRODUCERS GAS CO.		NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		
SAMPLED.....	06/-/748		06/-/748			06/-/748		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	76.4		72.3			76.6		
ETHANE.....	11.5		15.8			13.2		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	10.2		10.0			8.3		
OXYGEN.....	0.1		0.2			0.2		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.4		0.4			0.4		
HELIUM.....	1.41		1.33			1.34		
HEATING VALUE.....	980		1016			1013		
SPECIFIC GRAVITY.....	0.652		0.674			0.654		
INDEX 196 SAMPLE 4990			INDEX 197 SAMPLE 4991			INDEX 198 SAMPLE 4487		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARTON		BARTON			BARTON		
FIELD.....	PAWNEE		PAWNEE			PAWNEE ROCK		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		NORTHERN NATURAL GAS CO.			PRODUCERS GAS CO.		
SAMPLED.....	02/14/51		02/14/51			05/-/748		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	75.3		77.8			74.3		
ETHANE.....	3.8		3.2			10.1		
PROPANE.....	1.7		2.0			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	1.1		1.4			---		
NITROGEN.....	15.6		12.4			13.2		
OXYGEN.....	0.2		0.1			0.3		
ARGON.....	0.1		0.1			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.4		0.5			0.5		
HELIUM.....	1.76		1.37			1.56		
HEATING VALUE.....	924		976			934		
SPECIFIC GRAVITY.....	0.679		0.680			0.659		
INDEX 199 SAMPLE 4493			INDEX 200 SAMPLE 4508			INDEX 201 SAMPLE 4510		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARTON		BARTON			BARTON		
FIELD.....	PAWNEE ROCK		PAWNEE ROCK			PAWNEE ROCK		
LOCATION.....	OUTLET		LINE TO PRODUCERS PLANT			LINE TO NORTHERN PLANT		
OWNER.....	PRODUCERS GAS CO.		PRODUCERS GAS CO.			NORTHERN NATURAL GAS CO.		
SAMPLED.....	06/-/748		06/-/748			06/-/748		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	78.0		76.6			75.6		
ETHANE.....	11.3		12.2			13.9		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	8.8		9.2			8.5		
OXYGEN.....	0.1		0.2			0.1		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.4		0.4			0.7		
HELIUM.....	1.35		1.37			1.37		
HEATING VALUE.....	993		995			1011		
SPECIFIC GRAVITY.....	0.645		0.652			0.559		
INDEX 202 SAMPLE 4484			INDEX 203 SAMPLE 4489			INDEX 204 SAMPLE 148		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	BARTON		BARTON			BUTLER		
FIELD.....	PAWNEE ROCK & OTIS		PAWNEE ROCK & OTIS			EL CORADO		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	NORTHERN NATURAL GAS CO.		PRODUCERS GAS CO.			EMPIRE GAS & FUEL CO.		
SAMPLED.....	05/-/748		05/-/748			03/12/20		
FORMATION.....	NOT GIVEN		NOT GIVEN			PENN-		
GEOLOGIC PROVINCE CODE.....	385		385			370		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			11000		
COMPONENT, MOLE PCT.....								
METHANE.....	76.8		76.4			71.8		
ETHANE.....	11.7		11.1			7.8		
PROPANE.....	---		---			---		
N-BUTANE.....	---		---			---		
ISOBUTANE.....	---		---			---		
N-PENTANE.....	---		---			---		
ISOPENTANE.....	---		---			---		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			---		
NITROGEN.....	9.3		10.5			18.6		
OXYGEN.....	0.4		0.3			0.4		
ARGON.....	---		---			---		
HYDROGEN.....	---		---			---		
HYDROGEN SULFIDE.....	---		---			---		
CARBON DIOXIDE.....	0.5		0.3			0.4		
HELIUM.....	1.27		1.35			0.89		
HEATING VALUE.....	988		973			867		
SPECIFIC GRAVITY.....	0.652		0.651			0.672		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1087

		INDEX SAMPLE	205 13249			INDEX SAMPLE	206 15671			INDEX SAMPLE	207 17110
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	CHASE			COUNTY.....	CHASE			COUNTY.....	CHASE		
FIELD.....	NOT GIVEN			FIELD.....	PAMPA & WESTERN OKLAHOMA			FIELD.....	RAWLINS, WY AREA		
LOCATION.....	20 IN. LINE			LOCATION.....	20 IN. LINE			LOCATION.....	20 IN. BYPASS		
OWNER.....	CITIES SERVICE GAS CO.			OWNER.....	CITIES SERVICE CO.			OWNER.....	NORTHWEST CENTRAL PIPELINE C		
SAMPLED.....	06/02/72			SAMPLED.....	06/21/79			SAMPLED.....	10/20/83		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	370			GEOLOGIC PROVINCE CODE.....	370			GEOLOGIC PROVINCE CODE.....	340		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	407			PRESSURE, PSIG.....	307			PRESSURE, PSIG.....	245		
FLOW, MCFD.....	107000			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	27000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	85.1	-----		METHANE.....	85.1	-----		METHANE.....	92.4	-----	
ETHANE.....	6.2	-----		ETHANE.....	6.3	-----		ETHANE.....	3.9	-----	
PROPANE.....	4.5	-----		PROPANE.....	2.1	-----		PROPANE.....	0.2	-----	
N-BUTANE.....	0.1	-----		N-BUTANE.....	0.1	-----		N-BUTANE.....	0.0	-----	
ISOBUTANE.....	0.1	-----		ISOBUTANE.....	TRACE	-----		ISOBUTANE.....	0.0	-----	
N-PENTANE.....	TRACE	-----		N-PENTANE.....	TRACE	-----		N-PENTANE.....	0.0	-----	
ISOPENTANE.....	TRACE	-----		ISOPENTANE.....	TRACE	-----		ISOPENTANE.....	0.0	-----	
CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.0	-----	
HEXANES PLUS.....	TRACE	-----		HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.0	-----	
NITROGEN.....	5.5	-----		NITROGEN.....	5.5	-----		NITROGEN.....	3.1	-----	
OXYGEN.....	0.0	-----		OXYGEN.....	0.0	-----		OXYGEN.....	0.1	-----	
ARGON.....	TRACE	-----		ARGON.....	TRACE	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.3	-----		CARBON DIOXIDE.....	0.3	-----		CARBON DIOXIDE.....	0.2	-----	
HELIUM.....	0.27	-----		HELIUM.....	0.26	-----		HELIUM.....	0.10	-----	
HEATING VALUE.....	1045	-----		HEATING VALUE.....	1038	-----		HEATING VALUE.....	1011	-----	
SPECIFIC GRAVITY.....	0.638	-----		SPECIFIC GRAVITY.....	0.634	-----		SPECIFIC GRAVITY.....	0.591	-----	
		INDEX SAMPLE	208 1191			INDEX SAMPLE	209 16835			INDEX SAMPLE	210 13308
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	COWLEY			COUNTY.....	DICKINSON			COUNTY.....	DICKINSON		
FIELD.....	RAINBOW BEND			FIELD.....	HUGOTON ANADARKO C KS W PANH			FIELD.....	HUGOTON AREA		
LOCATION.....	NOT GIVEN			LOCATION.....	2-24 IN.			LOCATION.....	DISCHARGE		
OWNER.....	MARLAND OIL CO.			OWNER.....	MICHIGAN WISCONSIN PIPELINE			OWNER.....	MICHIGAN WISCONSIN PIPELINE		
SAMPLED.....	12/10/25			SAMPLED.....	03/17/83			SAMPLED.....	07/27/72		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	370			GEOLOGIC PROVINCE CODE.....	380			GEOLOGIC PROVINCE CODE.....	380		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	793			PRESSURE, PSIG.....	793			PRESSURE, PSIG.....	773		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	220000			FLOW, MCFD.....	650000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	37.5	-----		METHANE.....	92.4	-----		METHANE.....	87.9	-----	
ETHANE.....	54.0	-----		ETHANE.....	2.3	-----		ETHANE.....	5.7	-----	
PROPANE.....	---	-----		PROPANE.....	0.4	-----		PROPANE.....	1.4	-----	
N-BUTANE.....	---	-----		N-BUTANE.....	0.2	-----		N-BUTANE.....	0.1	-----	
ISOBUTANE.....	---	-----		ISOBUTANE.....	0.0	-----		ISOBUTANE.....	0.1	-----	
N-PENTANE.....	---	-----		N-PENTANE.....	TRACE	-----		N-PENTANE.....	TRACE	-----	
ISOPENTANE.....	---	-----		ISOPENTANE.....	0.1	-----		ISOPENTANE.....	0.0	-----	
CYCLOPENTANE.....	---	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	TRACE	-----	
HEXANES PLUS.....	---	-----		HEXANES PLUS.....	TRACE	-----		HEXANES PLUS.....	TRACE	-----	
NITROGEN.....	7.3	-----		NITROGEN.....	3.1	-----		NITROGEN.....	4.4	-----	
OXYGEN.....	0.8	-----		OXYGEN.....	0.1	-----		OXYGEN.....	0.0	-----	
ARGON.....	---	-----		ARGON.....	TRACE	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	---	-----		HYDROGEN.....	0.2	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	---	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.5	-----		CARBON DIOXIDE.....	0.0	-----		CARBON DIOXIDE.....	0.2	-----	
HELIUM.....	0.10	-----		HELIUM.....	0.08	-----		HELIUM.....	0.08	-----	
HEATING VALUE.....	1348	-----		HEATING VALUE.....	1003	-----		HEATING VALUE.....	1036	-----	
SPECIFIC GRAVITY.....	0.852	-----		SPECIFIC GRAVITY.....	0.597	-----		SPECIFIC GRAVITY.....	0.619	-----	
		INDEX SAMPLE	211 15491			INDEX SAMPLE	212 5317			INDEX SAMPLE	213 5336
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	DOUGLAS			COUNTY.....	DOUGLAS			COUNTY.....	DOUGLAS		
FIELD.....	PANHANDLE W. ET AL.			FIELD.....	NOT GIVEN			FIELD.....	NOT GIVEN		
LOCATION.....	24 IN.			LOCATION.....	NOT GIVEN			LOCATION.....	NOT GIVEN		
OWNER.....	MICHIGAN WISCONSIN PIPELINE			OWNER.....	CITIES SERVICE OIL CO.			OWNER.....	CITIES SERVICE OIL CO.		
SAMPLED.....	11/17/78			SAMPLED.....	11/17/52			SAMPLED.....	11/21/52		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	380			GEOLOGIC PROVINCE CODE.....	335			GEOLOGIC PROVINCE CODE.....	335		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	700			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	590000			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	91.0	-----		METHANE.....	77.1	-----		METHANE.....	76.6	-----	
ETHANE.....	3.1	-----		ETHANE.....	5.9	-----		ETHANE.....	6.2	-----	
PROPANE.....	0.8	-----		PROPANE.....	2.8	-----		PROPANE.....	2.9	-----	
N-BUTANE.....	0.1	-----		N-BUTANE.....	0.3	-----		N-BUTANE.....	0.3	-----	
ISOBUTANE.....	TRACE	-----		ISOBUTANE.....	0.2	-----		ISOBUTANE.....	0.2	-----	
N-PENTANE.....	0.1	-----		N-PENTANE.....	0.0	-----		N-PENTANE.....	0.0	-----	
ISOPENTANE.....	TRACE	-----		ISOPENTANE.....	0.0	-----		ISOPENTANE.....	0.0	-----	
CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.0	-----		CYCLOPENTANE.....	0.0	-----	
HEXANES PLUS.....	TRACE	-----		HEXANES PLUS.....	0.0	-----		HEXANES PLUS.....	0.0	-----	
NITROGEN.....	4.2	-----		NITROGEN.....	12.5	-----		NITROGEN.....	12.6	-----	
OXYGEN.....	0.0	-----		OXYGEN.....	0.0	-----		OXYGEN.....	TRACE	-----	
ARGON.....	TRACE	-----		ARGON.....	0.1	-----		ARGON.....	0.1	-----	
HYDROGEN.....	0.1	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.6	-----		CARBON DIOXIDE.....	0.7	-----		CARBON DIOXIDE.....	0.7	-----	
HELIUM.....	0.08	-----		HELIUM.....	0.34	-----		HELIUM.....	0.25	-----	
HEATING VALUE.....	1006	-----		HEATING VALUE.....	976	-----		HEATING VALUE.....	979	-----	
SPECIFIC GRAVITY.....	0.604	-----		SPECIFIC GRAVITY.....	0.677	-----		SPECIFIC GRAVITY.....	0.679	-----	
		INDEX SAMPLE	214 5339			INDEX SAMPLE	215 5351			INDEX SAMPLE	216 5361
STATE.....	KANSAS			STATE.....	KANSAS			STATE.....	KANSAS		
COUNTY.....	DOUGLAS			COUNTY.....	DOUGLAS			COUNTY.....	DOUGLAS		
FIELD.....	NOT GIVEN			FIELD.....	NOT GIVEN			FIELD.....	NOT GIVEN		
LOCATION.....	NOT GIVEN			LOCATION.....	NOT GIVEN			LOCATION.....	NOT GIVEN		
OWNER.....	CITIES SERVICE OIL CO.			OWNER.....	CITIES SERVICE GAS CO.			OWNER.....	CITIES SERVICE OIL CO.		
SAMPLED.....	11/23/52			SAMPLED.....	12/05/52			SAMPLED.....	01/08/53		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	335			GEOLOGIC PROVINCE CODE.....	335			GEOLOGIC PROVINCE CODE.....	335		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	76.8	-----		METHANE.....	78.5	-----		METHANE.....	80.4	-----	
ETHANE.....	6.9	-----		ETHANE.....	6.5	-----		ETHANE.....	6.7	-----	
PROPANE.....	0.3	-----		PROPANE.....	2.4	-----		PROPANE.....	2.9	-----	
N-BUTANE.....	0.2	-----		N-BUTANE.....	0.4	-----		N-BUTANE.....	0.4	-----	
ISOBUTANE.....	0.0	-----		ISOBUTANE.....	0.2	-----		ISOBUTANE.....	0.2	-----	
N-PENTANE.....	0.0	-----		N-PENTANE.....	0.1	-----		N-PENTANE.....	0.1	-----	
ISOPENTANE.....	0.0	-----		ISOPENTANE.....	0.0	-----		ISOPENTANE.....	TRACE	-----	
CYCLOPENTANE.....	0.0	-----		CYCLOPENTANE.....	0.0	-----		CYCLOPENTANE.....	0.0	-----	
HEXANES PLUS.....	0.0	-----		HEXANES PLUS.....	0.0	-----		HEXANES PLUS.....	TRACE	-----	
NITROGEN.....	10.6	-----		NITROGEN.....	10.7	-----		NITROGEN.....	8.6	-----	
OXYGEN.....	TRACE	-----		OXYGEN.....	0.0	-----		OXYGEN.....	TRACE	-----	
ARGON.....	0.1	-----		ARGON.....	0.1	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	TRACE	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.6	-----		CARBON DIOXIDE.....	0.7	-----		CARBON DIOXIDE.....	0.2	-----	
HELIUM.....	0.13	-----		HELIUM.....	0.28	-----		HELIUM.....	0.29	-----	
HEATING VALUE.....	1003	-----		HEATING VALUE.....	1003	-----		HEATING VALUE.....	1034	-----	
SPECIFIC GRAVITY.....	0.672	-----		SPECIFIC GRAVITY.....	0.674	-----		SPECIFIC GRAVITY.....	0.663	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 217 SAMPLE 12135			INDEX 218 SAMPLE 13309			INDEX 219 SAMPLE 15488		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	ELLSWORTH		ELLSWORTH			ELLSWORTH		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
LOCATION.....	NOT GIVEN		24, 26 & 36 IN. LINES			24, 26 & 36 IN.		
OWNER.....	HELEX CO.		NORTHERN NATURAL GAS PIPELINE CO. OF			NORTHERN NATURAL GAS PIPELINE CO. OF		
SAMPLED.....	12/05/69		07/26/72			11/16/78		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		NOT GIVEN			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		647			580		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	76.4		88.3			85.3		
ETHANE.....	5.8		4.6			3.6		
PROPANE.....	2.9		1.7			1.2		
N-BUTANE.....	1.0		0.4			0.3		
ISOBUTANE.....	0.0		0.2			0.1		
N-PENTANE.....	0.0		0.1			0.1		
ISOPENTANE.....	0.0		TRACE			0.1		
CYCLOPENTANE.....	0.0		TRACE			0.1		
HEXANES PLUS.....	0.0		0.1			0.1		
NITROGEN.....	13.2		3.9			7.2		
OXYGEN.....	0.0		0.0			1.0		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	0.1		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.4			0.6		
HELIUM.....	0.40		0.15			0.15		
HEATING VALUE.....	987		1051			991		
SPECIFIC GRAVITY.....	0.680		0.626			0.639		
INDEX 220 SAMPLE 16834			INDEX 221 SAMPLE 5542			INDEX 222 SAMPLE 6815		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	ELLSWORTH		FINNEY			FINNEY		
FIELD.....	OK, NM, TX PAN & PERM. BASIN		HUGOTON			HUGOTON		
LOCATION.....	42 IN.		20 IN. DISCHARGE			24 IN. INLET		
OWNER.....	NATURAL GAS PIPELINE CO. OF		NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		
SAMPLED.....	03/17/83		08/12/53			--/--/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	142		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	91.5		72.5			71.1		
ETHANE.....	3.6		5.7			5.8		
PROPANE.....	0.0		0.6			3.2		
N-BUTANE.....	0.2		0.8			0.9		
ISOBUTANE.....	0.1		0.4			0.3		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.1		TRACE			0.3		
CYCLOPENTANE.....	TRACE		0.0			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	2.9		15.2			17.6		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	TRACE		0.1			0.1		
HYDROGEN.....	0.3		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.1		
HELIUM.....	0.12		0.42			0.45		
HEATING VALUE.....	1042		1002			970		
SPECIFIC GRAVITY.....	0.603		0.712			0.718		
INDEX 223 SAMPLE 6816			INDEX 224 SAMPLE 6817			INDEX 225 SAMPLE 13314		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	FINNEY		FINNEY			FINNEY		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
LOCATION.....	24 IN. INLET		20 IN. OUTLET			DISCHARGE		
OWNER.....	NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		
SAMPLED.....	09/30/58		09/30/58			07/25/72		
FORMATION.....	NOT GIVEN		NOT GIVEN			PERM-CHASE GROUP		X
GEOLOGIC PROVINCE CODE.....	360		NOT GIVEN			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			800		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			200000		
COMPONENT, MOLE PCT								
METHANE.....	63.5		73.2			72.2		
ETHANE.....	5.0		5.9			6.4		
PROPANE.....	2.9		0.3			3.7		
N-BUTANE.....	0.8		0.7			0.9		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.2		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	26.2		15.6			15.4		
OXYGEN.....	0.1		0.1			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			TRACE		
HELIUM.....	0.59		0.42			0.40		
HEATING VALUE.....	866		988			1004		
SPECIFIC GRAVITY.....	0.740		0.705			0.712		
INDEX 226 SAMPLE 15501			INDEX 227 SAMPLE 16819			INDEX 228 SAMPLE 5337		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	FINNEY		FINNEY			FRANKLIN		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
LOCATION.....	20 IN. DISCHARGE		26 IN. DISCHARGE			26 IN.		
OWNER.....	NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.			CITIES SERVICE OIL CO.		
SAMPLED.....	11/14/78		03/15/83			10/21/52		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			335		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	200000		600			NOT GIVEN		
FLOW, MCFD.....	200000		51000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.1		72.4			71.4		
ETHANE.....	6.2		5.3			5.6		
PROPANE.....	3.6		3.6			4.7		
N-BUTANE.....	1.0		0.8			0.2		
ISOBUTANE.....	0.4		0.1			0.0		
N-PENTANE.....	0.2		0.1			0.0		
ISOPENTANE.....	0.2		0.2			0.0		
CYCLOPENTANE.....	0.1		TRACE			0.0		
HEXANES PLUS.....	0.2		TRACE			0.0		
NITROGEN.....	15.5		15.3			17.7		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	TRACE		0.1			0.1		
HYDROGEN.....	0.1		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.2			0.0		
HELIUM.....	0.42		0.43			0.45		
HEATING VALUE.....	1014		990			952		
SPECIFIC GRAVITY.....	0.719		0.708			0.705		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1089

INDEX SAMPLE 229 5531		INDEX SAMPLE 230 6722		INDEX SAMPLE 231 6726	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	GRANT	GRANT		GRANT	
FIELD.....	HUGOTON	HUGOTON		HUGOTON	
LOCATION.....	26 IN. OUTLET	NOT GIVEN		20 IN.	
OWNER.....	CITIES SERVICE OIL CO.	HUGOTON PRODUCTION CO.		CITIES SERVICE GAS CO.	
SAMPLED.....	08/12/53	07/17/58		07/17/58	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN	280		360	
FLOW, MCFD.....	NOT GIVEN	79000		60000	
COMPONENT, MOLE PCT					
METHANE.....	66.1	71.7		74.6	
ETHANE.....	11.3	5.8		6.1	
PROPANE.....	8.0	3.7		2.9	
N-BUTANE.....	0.9	1.2		0.6	
ISOBUTANE.....	0.6	0.5		0.1	
N-PENTANE.....	0.2	0.3		0.0	
ISOPENTANE.....	0.0	0.2		0.2	
CYCLOPENTANE.....	TRACE	0.1		0.0	
HEXANES PLUS.....	0.2	0.4		0.0	
NITROGEN.....	12.4	14.7		14.5	
OXYGEN.....	TRACE	TRACE		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.1		TRACE	
HELIUM.....	0.32	0.40		0.40	
HEATING VALUE.....	1149	1045		972	
SPECIFIC GRAVITY.....	0.772	0.731		0.687	

INDEX SAMPLE 232 6727		INDEX SAMPLE 233 6728		INDEX SAMPLE 234 6729	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	GRANT	GRANT		GRANT	
FIELD.....	HUGOTON	HUGOTON		HUGOTON	
LOCATION.....	26 IN.	26 IN.		20 IN.	
OWNER.....	CITIES SERVICE GAS CO.	CITIES SERVICE GAS CO.		CITIES SERVICE GAS CO.	
SAMPLED.....	07/17/58	07/17/58		07/17/58	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	320	350		320	
FLOW, MCFD.....	20000	32000		17000	
COMPONENT, MOLE PCT					
METHANE.....	74.5	73.8		74.7	
ETHANE.....	6.0	5.9		6.1	
PROPANE.....	3.2	3.2		2.5	
N-BUTANE.....	0.9	0.5		0.5	
ISOBUTANE.....	0.5	0.1		0.1	
N-PENTANE.....	0.2	0.1		TRACE	
ISOPENTANE.....	0.2	0.3		0.1	
CYCLOPENTANE.....	0.1	0.0		0.1	
HEXANES PLUS.....	0.1	0.0		0.1	
NITROGEN.....	13.9	15.1		15.2	
OXYGEN.....	TRACE	0.0		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		0.1	
HELIUM.....	0.40	0.30		0.40	
HEATING VALUE.....	1018	957		960	
SPECIFIC GRAVITY.....	0.707	0.691		0.684	

INDEX SAMPLE 235 6730		INDEX SAMPLE 236 7342		INDEX SAMPLE 237 7343	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	GRANT	GRANT		GRANT	
FIELD.....	HUGOTON	HUGOTON		HUGOTON	
LOCATION.....	22 IN.	26 IN. INLET		26 IN. INLET	
OWNER.....	CITIES SERVICE GAS CO.	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
SAMPLED.....	07/17/58	01/21/60		01/21/60	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	320	320		320	
FLOW, MCFD.....	45000	69600		2300	
COMPONENT, MOLE PCT					
METHANE.....	69.0	67.6		72.6	
ETHANE.....	4.4	3.4		6.4	
PROPANE.....	2.2	2.2		3.0	
N-BUTANE.....	0.5	0.5		0.2	
ISOBUTANE.....	0.4	0.3		TRACE	
N-PENTANE.....	TRACE	TRACE		0.0	
ISOPENTANE.....	0.3	0.3		0.1	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.1	0.1		TRACE	
NITROGEN.....	23.4	23.6		17.0	
OXYGEN.....	TRACE	TRACE		0.0	
ARGON.....	0.1	0.1		TRACE	
HYDROGEN.....	0.0	0.2		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.0		0.1	
HELIUM.....	0.20	0.60		0.40	
HEATING VALUE.....	873	870		943	
SPECIFIC GRAVITY.....	0.717	0.714		0.692	

INDEX SAMPLE 238 7344		INDEX SAMPLE 239 7345		INDEX SAMPLE 240 7346	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	GRANT	GRANT		GRANT	
FIELD.....	HUGOTON	HUGOTON		HUGOTON	
LOCATION.....	26 IN. INLET	26 IN. INLET		26 IN.	
OWNER.....	CITIES SERVICE OIL CO.	CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
SAMPLED.....	01/21/60	01/21/60		01/22/60	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	270	270		360	
FLOW, MCFD.....	43500	49500		384600	
COMPONENT, MOLE PCT					
METHANE.....	73.2	73.7		72.3	
ETHANE.....	4.5	3.3		2.5	
PROPANE.....	2.1	2.1		2.7	
N-BUTANE.....	0.5	0.2		0.2	
ISOBUTANE.....	0.4	0.2		0.2	
N-PENTANE.....	0.3	TRACE		TRACE	
ISOPENTANE.....	0.3	TRACE		0.0	
CYCLOPENTANE.....	TRACE	TRACE		0.0	
HEXANES PLUS.....	0.1	0.1		TRACE	
NITROGEN.....	1.0	0.1		17.8	
OXYGEN.....	0.0	TRACE		TRACE	
ARGON.....	0.1	TRACE		TRACE	
HYDROGEN.....	0.1	0.1		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		0.1	
HELIUM.....	0.40	0.40		0.40	
HEATING VALUE.....	879	875		934	
SPECIFIC GRAVITY.....	0.705	0.691		0.654	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE 241 7533	INDEX SAMPLE 242 13239	INDEX SAMPLE 243 13240
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	GRANT		GRANT	GRANT
FIELD.....	HUGOTON		HUGOTON	HUGOTON
LOCATION.....	NOT GIVEN		MOBIL LINE	ASHLAND LINE
OWNER.....	HUGOTON PRODUCTION CO.		CITIES SERVICE GAS CO.	CITIES SERVICE GAS CO.
SAMPLED.....	05/03/60		05/06/72	06/06/72
FORMATION.....	NOT GIVEN		PERM-CHASE GROUP	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN		285	140
FLOW, MCFD.....	NOT GIVEN		190000	105000
COMPONENT, MOLE PCT				
METHANE.....	74.5	74.1	73.6	
ETHANE.....	7.1	6.3	5.8	
PROPANE.....	2.7	2.4	2.2	
N-BUTANE.....	0.3	0.6	0.9	
ISOBUTANE.....	0.2	0.3	0.5	
N-PENTANE.....	TRACE	TRACE	0.1	
ISOPENTANE.....	TRACE	TRACE	0.1	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	TRACE	TRACE	0.1	
NITROGEN.....	14.7	14.7	14.7	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	C.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	C.1	TRACE	0.2	
HELIUM.....	0.40	0.43	0.43	
HEATING VALUE.....	969	982	1007	
SPECIFIC GRAVITY.....	0.683	0.691	0.710	

		INDEX SAMPLE 244 13241	INDEX SAMPLE 245 13242	INDEX SAMPLE 246 13243
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	GRANT		GRANT	GRANT
FIELD.....	HUGOTON		HUGOTON	HUGOTON
LOCATION.....	AMOCO A & B LINES		AMOCO C SYSTEM	HELEX DISCHARGE
OWNER.....	CITIES SERVICE GAS CO.		CITIES SERVICE GAS CO.	CITIES SERVICE GAS CO.
SAMPLED.....	06/06/72		06/06/72	06/06/72
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	335		345	335
FLOW, MCFD.....	320000		65000	460000
COMPONENT, MOLE PCT				
METHANE.....	73.3	69.5	73.8	
ETHANE.....	6.6	4.7	6.8	
PROPANE.....	2.9	2.5	0.7	
N-BUTANE.....	0.1	0.6	TRACE	
ISOBUTANE.....	0.1	0.4	TRACE	
N-PENTANE.....	TRACE	0.1	TRACE	
ISOPENTANE.....	TRACE	0.1	0.0	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	TRACE	
NITROGEN.....	16.4	21.3	12.5	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	TRACE	0.0	
HELIUM.....	0.38	0.55	0.04	
HEATING VALUE.....	952	900	948	
SPECIFIC GRAVITY.....	0.691	0.709	0.646	

		INDEX SAMPLE 247 13244	INDEX SAMPLE 248 13245	INDEX SAMPLE 249 15658
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	GRANT		GRANT	GRANT
FIELD.....	HUGOTON		HUGOTON	HUGOTON
LOCATION.....	26 IN. DISCHARGE		DISCHARGE	36 IN. STAT. DISCHARGE
OWNER.....	CITIES SERVICE GAS CO.		KANSAS POWER & LIGHT CO.	KANSAS POWER & LIGHT CO.
SAMPLED.....	06/06/72		06/06/72	06/19/79
FORMATION.....	PERM-CHASE GROUP	X	PERM-CHASE GROUP	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	811		600	480
FLOW, MCFD.....	130000		200000	70000
COMPONENT, MOLE PCT				
METHANE.....	74.0	74.1	74.1	
ETHANE.....	6.2	6.7	6.5	
PROPANE.....	2.3	2.2	2.9	
N-BUTANE.....	0.6	0.4	0.1	
ISOBUTANE.....	0.4	0.2	0.1	
N-PENTANE.....	0.1	0.1	TRACE	
ISOPENTANE.....	0.0	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	TRACE	TRACE	
NITROGEN.....	14.8	14.8	15.1	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	
HELIUM.....	0.43	0.41	0.41	
HEATING VALUE.....	989	974	958	
SPECIFIC GRAVITY.....	0.697	0.687	0.680	

		INDEX SAMPLE 250 15659	INDEX SAMPLE 251 15660	INDEX SAMPLE 252 15661
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	GRANT		GRANT	GRANT
FIELD.....	HUGOTON		HUGOTON	HUGOTON
LOCATION.....	26 IN. AMOCO A&B		HELEX DISCHARGE	AMOCO C SYSTEM
OWNER.....	CITIES SERVICE CO.		CITIES SERVICE CO.	CITIES SERVICE CO.
SAMPLED.....	06/19/79		06/19/79	06/19/79
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	320		320	320
FLOW, MCFD.....	277800		438951	39900
COMPONENT, MOLE PCT				
METHANE.....	72.8	80.3	69.6	
ETHANE.....	6.6	6.9	4.6	
PROPANE.....	2.7	0.6	2.3	
N-BUTANE.....	0.2	0.1	0.7	
ISOBUTANE.....	0.1	0.0	0.3	
N-PENTANE.....	TRACE	TRACE	0.2	
ISOPENTANE.....	TRACE	TRACE	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	TRACE	TRACE	0.1	
NITROGEN.....	17.0	12.0	21.5	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	
HELIUM.....	0.45	0.05	0.55	
HEATING VALUE.....	936	961	899	
SPECIFIC GRAVITY.....	0.686	0.648	0.710	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1091

	INDEX SAMPLE	253 15662	INDEX SAMPLE	254 15663	INDEX SAMPLE	255 15664
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	GRANT		GRANT		GRANT	
FIELD.....	HUGOTON		HUGOTON		HUGOTON	
LOCATION.....	20 IN. MOBIL LINE		26 IN. DISCHARGE		26 IN. ASHLAND LINE	
OWNER.....	CITIES SERVICE CO.		CITIES SERVICE CO.		CITIES SERVICE CO.	
SAMPLED.....	06/19/79		06/19/79		06/19/79	
FORMATION.....	PERM-CHASE GROUP		NOT GIVEN		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE.....	360		NOT GIVEN		360	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	250		NOT GIVEN		62	
FLOW, MCFD.....	109350		NOT GIVEN		88326	
COMPONENT, MOLE PCT						
METHANE.....	74.1		80.3		73.3	
ETHANE.....	6.2		6.9		6.9	
PROPANE.....	3.1		0.5		3.3	
N-BUTANE.....	0.5		TRACE		0.9	
ISOBUTANE.....	0.2		TRACE		0.4	
N-PENTANE.....	0.1		TRACE		0.5	
ISOPENTANE.....	TRACE		NOT GIVEN		0.1	
CYCLOPENTANE.....	TRACE		TRACE		0.1	
HEXANES PLUS.....	TRACE		TRACE		0.2	
NITROGEN.....	15.2		12.1		14.9	
OXYGEN.....	0.0		0.0		0.0	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	TRACE		TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.0		TRACE		0.0	
HELIUM.....	0.43		0.05		0.43	
HEATING VALUE.....	970		1009		1009	
SPECIFIC GRAVITY.....	0.689		0.642		0.710	

	INDEX SAMPLE	256 17103	INDEX SAMPLE	257 17123	INDEX SAMPLE	258 17124
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	GRANT		GRANT		GRANT	
FIELD.....	HUGOTON		HUGOTON		HUGOTON	
LOCATION.....	24 IN. DISCHARGE		26 IN. ASHLAND LINE		20 IN. MOBIL LINE	
OWNER.....	KANSAS POWER & LIGHT CO.		NORTHWEST CENTRAL PIPELINE C		NORTHWEST CENTRAL PIPELINE C	
SAMPLED.....	10/18/83		10/24/83		10/24/83	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360		360		360	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	550		85		157	
FLOW, MCFD.....	40000		22000		65000	
COMPONENT, MOLE PCT						
METHANE.....	70.4		73.2		74.1	
ETHANE.....	4.2		6.5		6.5	
PROPANE.....	4.3		3.3		2.8	
N-BUTANE.....	1.3		0.9		0.3	
ISOBUTANE.....	0.5		0.2		0.0	
N-PENTANE.....	0.3		0.1		0.0	
ISOPENTANE.....	0.3		0.1		0.0	
CYCLOPENTANE.....	0.1		TRACE		0.1	
HEXANES PLUS.....	0.3		0.1		0.1	
NITROGEN.....	14.7		15.4		15.5	
OXYGEN.....	0.0		0.0		0.0	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	TRACE		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	TRACE		0.0		TRACE	
HELIUM.....	0.97		0.44		0.44	
HEATING VALUE.....	1059		995		971	
SPECIFIC GRAVITY.....	0.739		0.705		0.692	

	INDEX SAMPLE	259 17125	INDEX SAMPLE	260 17126	INDEX SAMPLE	261 17127
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	GRANT		GRANT		GRANT	
FIELD.....	HUGOTON		HUGOTON		HUGOTON	
LOCATION.....	AMOCO 6 IN. SYSTEM		HELIX DISCH.		26 IN. DISCHARGE	
OWNER.....	NORTHWEST CENTRAL PIPELINE C		NORTHWEST CENTRAL PIPELINE C		NORTHWEST CENTRAL PIPELINE C	
SAMPLED.....	10/25/83		10/25/83		10/25/83	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360		360		360	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	334		100		764	
FLOW, MCFD.....	20000		210000		213000	
COMPONENT, MOLE PCT						
METHANE.....	65.7		77.7		78.1	
ETHANE.....	4.9		7.5		7.5	
PROPANE.....	2.6		0.9		0.8	
N-BUTANE.....	0.7		0.4		0.1	
ISOBUTANE.....	0.2		TRACE		TRACE	
N-PENTANE.....	0.1		TRACE		TRACE	
ISOPENTANE.....	0.1		0.0		0.0	
CYCLOPENTANE.....	0.1		TRACE		TRACE	
HEXANES PLUS.....	0.2		0.1		TRACE	
NITROGEN.....	24.7		13.4		13.1	
OXYGEN.....	0.0		0.0		0.0	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.0		TRACE		TRACE	
HELIUM.....	0.60		0.19		0.20	
HEATING VALUE.....	881		953		950	
SPECIFIC GRAVITY.....	0.732		0.658		0.653	

	INDEX SAMPLE	262 17144	INDEX SAMPLE	263 6391	INDEX SAMPLE	264 6392
STATE.....	KANSAS		KANSAS		KANSAS	
COUNTY.....	GRANT		GRANT		GRANT	
FIELD.....	HUGOTON		NOT GIVEN		NOT GIVEN	
LOCATION.....	AMOCO A & B 26 IN. LINE		STA. INLET		STA. INLET	
OWNER.....	NORTHWEST CENTRAL PIPELINE C		KANSAS POWER & LIGHT CO.		KANSAS POWER & LIGHT CO.	
SAMPLED.....	12/05/83		08/20/57		08/20/57	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360		360		360	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	327		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	140000		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	71.7		72.1		74.1	
ETHANE.....	6.8		6.5		9.7	
PROPANE.....	3.1		1.0		2.7	
N-BUTANE.....	0.1		0.3		0.3	
ISOBUTANE.....	0.1		0.5		0.2	
N-PENTANE.....	0.1		0.3		0.0	
ISOPENTANE.....	TRACE		0.2		0.1	
CYCLOPENTANE.....	TRACE		TRACE		0.0	
HEXANES PLUS.....	TRACE		0.1		TRACE	
NITROGEN.....	17.5		15.1		15.1	
OXYGEN.....	0.0		TRACE		TRACE	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	TRACE		0.1		0.1	
HELIUM.....	0.44		0.41		0.42	
HEATING VALUE.....	959		1017		952	
SPECIFIC GRAVITY.....	0.692		0.721		0.686	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 265 SAMPLE 12133			INDEX 266 SAMPLE 13746			INDEX 267 SAMPLE 880		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	GRANT		GRANT			GREENWOOD		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
LOCATION.....	PLANT INLET		INLET FEED GAS			SEC. 8, T23S, R11E		
OWNER.....	CITIES SERVICE HELIX, INC.		CITIES SERVICE HELIX, INC.			EMPIRE GASOLINE CO.		
SAMPLED.....	11/26/69		10/11/73			05/20/74		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			365		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	353		353			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	73.1		73.4			5.9		
ETHANE.....	1.0		0.1			64.3		
PROPANE.....	2.9		2.8					
N-BUTANE.....	0.3		0.3					
ISOBUTANE.....	0.1		0.1					
N-PENTANE.....	TRACE		0.1					
ISOPENTANE.....	TRACE		TRACE					
CYCLOPENTANE.....	TRACE		TRACE					
HEXANES PLUS.....	TRACE		0.1					
NITROGEN.....	15.9		15.4			28.5		
OXYGEN.....	0.0		0.0			1.0		
ARGON.....	TRACE		0.0					
HYDROGEN.....	0.1		0.0					
HYDROGEN SULFIDE.....	0.0		0.0					
CARBON DIOXIDE.....	0.0		0.0			0.1		
HELIUM.....	0.44		0.42			0.28		
HEATING VALUE.....	937		955			1212		
SPECIFIC GRAVITY.....	0.586		0.692			0.996		
INDEX 268 SAMPLE 10825			INDEX 269 SAMPLE 6398			INDEX 270 SAMPLE 6399		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HARPER		HARPER			HARPER		
FIELD.....	BAUER		SPILVEY-GRABS			SPILVEY-GRABS		
LOCATION.....	SEC. 9, T31S, R6W		OUTLET			NOT GIVEN		
OWNER.....	PETROLEUM, INC.		KANSAS POWER & LIGHT CO.			KANSAS POWER & LIGHT CO.		
SAMPLED.....	12/17/66		08/29/57			08/29/57		
FORMATION.....	MISS-		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	73.6		90.3			89.4		
ETHANE.....	8.5		5.0			5.0		
PROPANE.....	5.7		1.2			1.9		
N-BUTANE.....	2.4		TRACE			0.7		
ISOBUTANE.....	0.3		TRACE			0.4		
N-PENTANE.....	0.7		0.0			0.2		
ISOPENTANE.....	0.7		TRACE			0.1		
CYCLOPENTANE.....	0.2		0.0			0.1		
HEXANES PLUS.....	0.6		0.0			0.2		
NITROGEN.....	6.4		3.0			1.8		
OXYGEN.....	2.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.1		
HELIUM.....	0.27		0.18			0.11		
HEATING VALUE.....	1250		1039			1108		
SPECIFIC GRAVITY.....	0.773		0.605			0.635		
INDEX 271 SAMPLE 15666			INDEX 272 SAMPLE 13248			INDEX 273 SAMPLE 17105		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	HARVEY		HARVEY			HARVEY		
FIELD.....	HUGOTON & P.E.P.L.		NOT GIVEN			RAWLINS, WY AREA		
LOCATION.....	25 IN. DISCHARGE		2-26 IN. LINES			2-25 IN. DISCH.		
OWNER.....	CITIES SERVICE CO.		CITIES SERVICE GAS CO.			NORTHWEST CENTRAL PIPELINE C		
SAMPLED.....	06/20/79		06/20/77			10/19/78		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	375		375			375		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	750		792			730		
FLOW, MCFD.....	300000		455000			59000		
COMPONENT, MOLE PCT.....								
METHANE.....	80.5		80.0			80.5		
ETHANE.....	6.5		5.3			6.8		
PROPANE.....	6.2		1.0			2.4		
N-BUTANE.....	0.4		0.1			0.4		
ISOBUTANE.....	0.0		0.1			0.4		
N-PENTANE.....	TRACE		TRACE			0.1		
ISOPENTANE.....	TRACE		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			0.1		
NITROGEN.....	11.8		12.0			0.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			1.9		
HELIUM.....	0.08		0.08			0.03		
HEATING VALUE.....	957		1501			1101		
SPECIFIC GRAVITY.....	0.645		0.649			0.633		
INDEX 274 SAMPLE 5535			INDEX 275 SAMPLE 5541			INDEX 276 SAMPLE 6719		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	KEARNY		KEARNY			KEARNY		
FIELD.....	HUGOTON		HUGOTON			HUGOTON		
LOCATION.....	NOT GIVEN		NOT GIVEN			SEC. 29, T24S, R36W		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	04/12/53		04/12/53			07/15/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			203		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	72.9		72.7			68.8		
ETHANE.....	7.0		6.2			6.0		
PROPANE.....	6.7		3.3			4.4		
N-BUTANE.....	1.0		0.3			1.0		
ISOBUTANE.....	0.3		0.2			0.5		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.0		0.0			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		TRACE			0.1		
NITROGEN.....	19.2		17.8			19.2		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			TRACE		
HELIUM.....	0.0		0.0			0.50		
HEATING VALUE.....	1227		965			965		
SPECIFIC GRAVITY.....	0.713		0.712			0.728		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1099

INDEX SAMPLE 277 6720		INDEX SAMPLE 278 6721		INDEX SAMPLE 279 6725	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	KEARNY	COUNTY.....	KEARNY	COUNTY.....	KEARNY
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
LOCATION.....	SEC. 29, T24S, R36W	LOCATION.....	SEC. 29, T24S, R36W	LOCATION.....	SEC. 16, T24S, R35W
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	KANSAS-NEBRASKA NATURAL GAS
SAMPLED.....	07/16/58	SAMPLED.....	07/16/58	SAMPLED.....	07/16/58
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	740	PRESSURE, PSIG.....	200	PRESSURE, PSIG.....	400
FLOW, MCFD.....	80000	FLOW, MCFD.....	80000	FLOW, MCFD.....	90000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	72.1	METHANE.....	73.2	METHANE.....	75.8
ETHANE.....	5.3	ETHANE.....	5.1	ETHANE.....	5.5
PROPANE.....	3.2	PROPANE.....	3.2	PROPANE.....	2.4
N-BUTANE.....	0.8	N-BUTANE.....	0.9	N-BUTANE.....	0.5
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.2
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.3	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	17.5	NITROGEN.....	13.0	NITROGEN.....	14.9
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.50	HELIUM.....	0.40	HELIUM.....	0.40
HEATING VALUE.....	951	HEATING VALUE.....	961	HEATING VALUE.....	961
SPECIFIC GRAVITY.....	0.708	SPECIFIC GRAVITY.....	0.711	SPECIFIC GRAVITY.....	0.681

INDEX SAMPLE 280 7366		INDEX SAMPLE 281 7367		INDEX SAMPLE 282 7368	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	KEARNY	COUNTY.....	KEARNY	COUNTY.....	KEARNY
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
LOCATION.....	SEC. 29, T24S, R36W	LOCATION.....	SEC. 29, T24S, R36W	LOCATION.....	SEC. 29, T24S, R36W
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
SAMPLED.....	02/02/60	SAMPLED.....	02/02/60	SAMPLED.....	02/02/60
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	8000	FLOW, MCFD.....	8400	FLOW, MCFD.....	12300
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	71.2	METHANE.....	66.3	METHANE.....	70.9
ETHANE.....	5.9	ETHANE.....	5.8	ETHANE.....	5.6
PROPANE.....	2.8	PROPANE.....	3.3	PROPANE.....	2.9
N-BUTANE.....	0.8	N-BUTANE.....	0.9	N-BUTANE.....	0.6
ISOBUTANE.....	0.5	ISOBUTANE.....	0.4	ISOBUTANE.....	0.3
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	TRACE
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0
NITROGEN.....	17.8	NITROGEN.....	21.9	NITROGEN.....	18.8
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.44	HELIUM.....	0.31	HELIUM.....	0.46
HEATING VALUE.....	960	HEATING VALUE.....	925	HEATING VALUE.....	929
SPECIFIC GRAVITY.....	0.711	SPECIFIC GRAVITY.....	0.731	SPECIFIC GRAVITY.....	0.701

INDEX SAMPLE 283 7369		INDEX SAMPLE 284 7370		INDEX SAMPLE 285 13435	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	KEARNY	COUNTY.....	KEARNY	COUNTY.....	KEARNY
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
LOCATION.....	SEC. 29, T24S, R36W	LOCATION.....	SEC. 20, T24S, R36W	LOCATION.....	20 IN. DISCHARGE
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
SAMPLED.....	10/03/72	SAMPLED.....	10/03/72	SAMPLED.....	10/03/72
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	800
FLOW, MCFD.....	11000	FLOW, MCFD.....	11000	FLOW, MCFD.....	140000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	65.5	METHANE.....	67.7	METHANE.....	71.4
ETHANE.....	5.9	ETHANE.....	6.1	ETHANE.....	6.2
PROPANE.....	3.2	PROPANE.....	3.4	PROPANE.....	3.3
N-BUTANE.....	0.8	N-BUTANE.....	0.9	N-BUTANE.....	0.7
ISOBUTANE.....	0.4	ISOBUTANE.....	0.4	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	21.6	NITROGEN.....	20.3	NITROGEN.....	17.4
OXYGEN.....	1.4	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.39	HELIUM.....	0.58	HELIUM.....	0.46
HEATING VALUE.....	915	HEATING VALUE.....	945	HEATING VALUE.....	961
SPECIFIC GRAVITY.....	0.740	SPECIFIC GRAVITY.....	0.727	SPECIFIC GRAVITY.....	0.707

INDEX SAMPLE 286 15432		INDEX SAMPLE 287 17037		INDEX SAMPLE 288 15665	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	KEARNY	COUNTY.....	KEARNY	COUNTY.....	KINGMAN
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	CENTRAL KANSAS
LOCATION.....	20 IN. DISCHARGE	LOCATION.....	20 IN. DISCHARGE	LOCATION.....	18 & 16 IN. DISCHARGE
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	KANSAS POWER & LIGHT CO.
SAMPLED.....	10/18/78	SAMPLED.....	08/31/83	SAMPLED.....	06/20/79
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	375
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	739	PRESSURE, PSIG.....	816	PRESSURE, PSIG.....	360
FLOW, MCFD.....	34500	FLOW, MCFD.....	78400	FLOW, MCFD.....	60000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	71.0	METHANE.....	69.5	METHANE.....	76.8
ETHANE.....	6.2	ETHANE.....	5.1	ETHANE.....	6.4
PROPANE.....	3.3	PROPANE.....	3.4	PROPANE.....	2.5
N-BUTANE.....	0.8	N-BUTANE.....	0.8	N-BUTANE.....	0.3
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	0.1
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	17.4	NITROGEN.....	13.7	NITROGEN.....	13.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.2	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.46	HELIUM.....	0.47	HELIUM.....	0.38
HEATING VALUE.....	967	HEATING VALUE.....	972	HEATING VALUE.....	980
SPECIFIC GRAVITY.....	0.712	SPECIFIC GRAVITY.....	0.729	SPECIFIC GRAVITY.....	0.674

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	289 2839			INDEX SAMPLE	290 2840			INDEX SAMPLE	291 2841
STATE	KANSAS			STATE	KANSAS			STATE	KANSAS		
COUNTY	KINGMAN			COUNTY	KINGMAN			COUNTY	KINGMAN		
FIELD	CUNNINGHAM			FIELD	CUNNINGHAM			FIELD	CUNNINGHAM		
LOCATION	NOT GIVEN			LOCATION	NOT GIVEN			LOCATION	NOT GIVEN		
OWNER	SKELLY OIL CO.			OWNER	SKELLY OIL CO.			OWNER	SKELLY OIL CO.		
SAMPLED	09/07/40			SAMPLED	09/07/40			SAMPLED	09/07/40		
FORMATION	PERM-LANSING-KANSAS CITY			FORMATION	ORDO-VIOLA			FORMATION	ORDO-VIOLA		
GEOLOGIC PROVINCE CODE	375			GEOLOGIC PROVINCE CODE	375			GEOLOGIC PROVINCE CODE	375		
DEPTH, FEET	NOT GIVEN			DEPTH, FEET	NOT GIVEN			DEPTH, FEET	NOT GIVEN		
PRESSURE, PSIG	NOT GIVEN			PRESSURE, PSIG	NOT GIVEN			PRESSURE, PSIG	NOT GIVEN		
FLOW, MCFD	NOT GIVEN			FLOW, MCFD	NOT GIVEN			FLOW, MCFD	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE	61.1			METHANE	68.5			METHANE	70.6		
ETHANE	24.4			ETHANE	15.6			ETHANE	13.5		
PROpane	---			PROpane	---			PROpane	---		
N-BUTANE	---			N-BUTANE	---			N-BUTANE	---		
ISOBUTANE	---			ISOBUTANE	---			ISOBUTANE	---		
N-PENTANE	---			N-PENTANE	---			N-PENTANE	---		
ISOPENTANE	---			ISOPENTANE	---			ISOPENTANE	---		
CYCLOPENTANE	---			CYCLOPENTANE	---			CYCLOPENTANE	---		
HEXANES PLUS	---			HEXANES PLUS	---			HEXANES PLUS	---		
NITROGEN	12.4			NITROGEN	12.8			NITROGEN	13.8		
OXYGEN	0.6			OXYGEN	0.6			OXYGEN	0.8		
ARGON	---			ARGON	---			ARGON	---		
HYDROGEN	---			HYDROGEN	---			HYDROGEN	---		
HYDROGEN SULFIDE	---			HYDROGEN SULFIDE	---			HYDROGEN SULFIDE	---		
CARBON DIOXIDE	0.6			CARBON DIOXIDE	0.4			CARBON DIOXIDE	0.6		
HELIUM	0.93			HELIUM	1.13			HELIUM	1.10		
HEATING VALUE	1056			HEATING VALUE	991			HEATING VALUE	953		
SPECIFIC GRAVITY	0.732			SPECIFIC GRAVITY	0.692			SPECIFIC GRAVITY	0.684		
		INDEX SAMPLE	292 13247			INDEX SAMPLE	293 7538			INDEX SAMPLE	294 17104
STATE	KANSAS			STATE	KANSAS			STATE	KANSAS		
COUNTY	KINGMAN			COUNTY	KINGMAN			COUNTY	KINGMAN		
FIELD	NOT GIVEN			FIELD	SPIVEY-GRABS			FIELD	SPIVEY-ULYSSES		
LOCATION	DISCHARGE			LOCATION	COMPOSITE OF PROCESSED GAS			LOCATION	16, 18, & 24 IN. LINES INLET		
OWNER	KANSAS POWER & LIGHT CO.			OWNER	KANSAS POWER & LIGHT CO.			OWNER	KANSAS POWER & LIGHT CO.		
SAMPLED	06/07/72			SAMPLED	10/05/50			SAMPLED	10/19/83		
FORMATION	NOT GIVEN			FORMATION	MIS-			FORMATION	NOT GIVEN		
GEOLOGIC PROVINCE CODE	375			GEOLOGIC PROVINCE CODE	375			GEOLOGIC PROVINCE CODE	375		
DEPTH, FEET	NOT GIVEN			DEPTH, FEET	NOT GIVEN			DEPTH, FEET	NOT GIVEN		
PRESSURE, PSIG	600			PRESSURE, PSIG	NOT GIVEN			PRESSURE, PSIG	436		
FLOW, MCFD	150000			FLOW, MCFD	NOT GIVEN			FLOW, MCFD	27000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE	74.6			METHANE	89.6			METHANE	84.3		
ETHANE	6.8			ETHANE	5.6			ETHANE	5.6		
PROpane	3.0			PROpane	1.5			PROpane	1.7		
N-BUTANE	0.3			N-BUTANE	0.1			N-BUTANE	0.2		
ISOBUTANE	0.2			ISOBUTANE	0.1			ISOBUTANE	0.2		
N-PENTANE	TRACE			N-PENTANE	0.0			N-PENTANE	0.2		
ISOPENTANE	0.0			ISOPENTANE	TRACE			ISOPENTANE	0.1		
CYCLOPENTANE	TRACE			CYCLOPENTANE	TRACE			CYCLOPENTANE	0.1		
HEXANES PLUS	TRACE			HEXANES PLUS	TRACE			HEXANES PLUS	0.2		
NITROGEN	14.5			NITROGEN	2.7			NITROGEN	6.8		
OXYGEN	0.0			OXYGEN	TRACE			OXYGEN	0.0		
ARGON	TRACE			ARGON	0.0			ARGON	TRACE		
HYDROGEN	0.0			HYDROGEN	0.0			HYDROGEN	TRACE		
HYDROGEN SULFIDE	0.0			HYDROGEN SULFIDE	0.0			HYDROGEN SULFIDE	0.0		
CARBON DIOXIDE	TRACE			CARBON DIOXIDE	0.1			CARBON DIOXIDE	0.1		
HELIUM	0.41			HELIUM	0.20			HELIUM	0.23		
HEATING VALUE	972			HEATING VALUE	1056			HEATING VALUE	1047		
SPECIFIC GRAVITY	0.684			SPECIFIC GRAVITY	0.612			SPECIFIC GRAVITY	0.631		
		INDEX SAMPLE	295 17106			INDEX SAMPLE	296 15668			INDEX SAMPLE	297 15669
STATE	KANSAS			STATE	KANSAS			STATE	KANSAS		
COUNTY	LYON			COUNTY	LYON			COUNTY	LYON		
FIELD	ANADARKO BASIN			FIELD	HUGOTON			FIELD	HUGOTON		
LOCATION	300 LINE 30 IN. SUCTION			LOCATION	24 IN.-100 LINE			LOCATION	26 IN. - 200 LINE		
OWNER	PANHANDLE EASTERN PIPELINE C			OWNER	PANHANDLE EASTERN PIPELINE C			OWNER	PANHANDLE EASTERN PIPELINE C		
SAMPLED	10/25/81			SAMPLED	06/21/79			SAMPLED	06/21/79		
FORMATION	NOT GIVEN			FORMATION	NOT GIVEN			FORMATION	NOT GIVEN		
GEOLOGIC PROVINCE CODE	335			GEOLOGIC PROVINCE CODE	335			GEOLOGIC PROVINCE CODE	335		
DEPTH, FEET	NOT GIVEN			DEPTH, FEET	NOT GIVEN			DEPTH, FEET	NOT GIVEN		
PRESSURE, PSIG	860			PRESSURE, PSIG	435			PRESSURE, PSIG	635		
FLOW, MCFD	274000			FLOW, MCFD	NOT GIVEN			FLOW, MCFD	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE	63.1			METHANE	89.7			METHANE	89.8		
ETHANE	4.5			ETHANE	3.7			ETHANE	3.8		
PROpane	5.8			PROpane	0.4			PROpane	0.2		
N-BUTANE	1.1			N-BUTANE	0.1			N-BUTANE	0.2		
ISOBUTANE	0.5			ISOBUTANE	0.1			ISOBUTANE	TRACE		
N-PENTANE	0.2			N-PENTANE	TRACE			N-PENTANE	TRACE		
ISOPENTANE	0.0			ISOPENTANE	TRACE			ISOPENTANE	TRACE		
CYCLOPENTANE	0.5			CYCLOPENTANE	TRACE			CYCLOPENTANE	TRACE		
HEXANES PLUS	0.4			HEXANES PLUS	0.1			HEXANES PLUS	0.1		
NITROGEN	15.4			NITROGEN	4.0			NITROGEN	0.0		
OXYGEN	0.0			OXYGEN	0.0			OXYGEN	0.0		
ARGON	0.1			ARGON	TRACE			ARGON	TRACE		
HYDROGEN	TRACE			HYDROGEN	TRACE			HYDROGEN	TRACE		
HYDROGEN SULFIDE	0.0			HYDROGEN SULFIDE	0.0			HYDROGEN SULFIDE	0.0		
CARBON DIOXIDE	0.5			CARBON DIOXIDE	0.0			CARBON DIOXIDE	0.0		
HELIUM	0.05			HELIUM	0.15			HELIUM	0.16		
HEATING VALUE	1099			HEATING VALUE	1062			HEATING VALUE	1005		
SPECIFIC GRAVITY	0.801			SPECIFIC GRAVITY	0.612			SPECIFIC GRAVITY	0.611		
		INDEX SAMPLE	299 15670			INDEX SAMPLE	299 17107			INDEX SAMPLE	300 17108
STATE	KANSAS			STATE	KANSAS			STATE	KANSAS		
COUNTY	LYON			COUNTY	LYON			COUNTY	LYON		
FIELD	HUGOTON			FIELD	HUGOTON & ANADARKO BASIN			FIELD	HUGOTON & ANADARKO BASIN		
LOCATION	36 IN. - 400 LINE			LOCATION	100 LINE 24 IN. SUCTION			LOCATION	200 LINE 25 IN. SUCTION		
OWNER	PANHANDLE EASTERN PIPELINE C			OWNER	PANHANDLE EASTERN PIPELINE C			OWNER	PANHANDLE EASTERN PIPELINE C		
SAMPLED	06/21/79			SAMPLED	10/20/83			SAMPLED	10/20/83		
FORMATION	NOT GIVEN			FORMATION	NOT GIVEN			FORMATION	NOT GIVEN		
GEOLOGIC PROVINCE CODE	335			GEOLOGIC PROVINCE CODE	335			GEOLOGIC PROVINCE CODE	335		
DEPTH, FEET	NOT GIVEN			DEPTH, FEET	NOT GIVEN			DEPTH, FEET	NOT GIVEN		
PRESSURE, PSIG	772			PRESSURE, PSIG	589			PRESSURE, PSIG	692		
FLOW, MCFD	NOT GIVEN			FLOW, MCFD	190000			FLOW, MCFD	240000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE	87.7			METHANE	31.9			METHANE	90.2		
ETHANE	4.1			ETHANE	3.3			ETHANE	3.2		
PROpane	6.4			PROpane	0.2			PROpane	0.2		
N-BUTANE	0.1			N-BUTANE	0.0			N-BUTANE	0.1		
ISOBUTANE	0.0			ISOBUTANE	0.0			ISOBUTANE	0.0		
N-PENTANE	0.2			N-PENTANE	0.1			N-PENTANE	0.1		
ISOPENTANE	TRACE			ISOPENTANE	TRACE			ISOPENTANE	TRACE		
CYCLOPENTANE	TRACE			CYCLOPENTANE	TRACE			CYCLOPENTANE	TRACE		
HEXANES PLUS	TRACE			HEXANES PLUS	0.1			HEXANES PLUS	0.1		
NITROGEN	0.0			NITROGEN	0.0			NITROGEN	0.0		
OXYGEN	0.0			OXYGEN	0.0			OXYGEN	0.0		
ARGON	TRACE			ARGON	TRACE			ARGON	TRACE		
HYDROGEN	TRACE			HYDROGEN	TRACE			HYDROGEN	TRACE		
HYDROGEN SULFIDE	0.0			HYDROGEN SULFIDE	0.0			HYDROGEN SULFIDE	0.0		
CARBON DIOXIDE	0.7			CARBON DIOXIDE	0.3			CARBON DIOXIDE	0.3		
HELIUM	0.27			HELIUM	0.56			HELIUM	0.29		
HEATING VALUE	962			HEATING VALUE	991			HEATING VALUE	1001		
SPECIFIC GRAVITY	0.614			SPECIFIC GRAVITY	0.522			SPECIFIC GRAVITY	0.603		

* CALCULATED 6000 BBL PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 301 SAMPLE 17109			INDEX 302 SAMPLE 13250			INDEX 303 SAMPLE 13251		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	LYON		LYON			LYON		
FIELD.....	HUGGTON & ANADARKO BASIN		NOT GIVEN			NOT GIVEN		
LOCATION.....	400 LINE 36 IN. SUCTION		100 LINE			200 LINE		
OWNER.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		
SAMPLED.....	10/20/83		7/7/80			06/08/72		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	335		335			335		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	770		560			782		
FLOW, MCFD.....	607000		188			247000		
COMPONENT, MOLE PCT								
METHANE.....	67.9		84.8			84.2		
ETHANE.....	5.8		0.9			5.4		
PROPANE.....	0.4		1.2			1.0		
N-BUTANE.....	0.1		0.1			0.1		
ISOBUTANE.....	0.0		TRACE			0.1		
N-PENTANE.....	0.1		TRACE			TRACE		
ISOPENTANE.....	TRACE		0.0			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		TRACE			TRACE		
NITROGEN.....	0.0		7.8			6.7		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.4		
HELIUM.....	0.29		0.02			0.11		
HEATING VALUE.....	964		939			1003		
SPECIFIC GRAVITY.....	0.612		0.530			0.623		
INDEX 304 SAMPLE 13252			INDEX 305 SAMPLE 13253			INDEX 306 SAMPLE 13618		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	LYON		LYON			LYON		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
LOCATION.....	300 LINE		400 LINE			100 LINE		
OWNER.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		
SAMPLED.....	06/08/72		06/08/72			06/08/72		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	335		335			335		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	897		825			400		
FLOW, MCFD.....	417000		777			188000		
COMPONENT, MOLE PCT								
METHANE.....	76.3		81.5			83.7		
ETHANE.....	7.7		4.7			3.8		
PROPANE.....	4.3		0.9			1.6		
N-BUTANE.....	0.5		0.1			0.1		
ISOBUTANE.....	0.3		0.1			0.1		
N-PENTANE.....	0.1		TRACE			TRACE		
ISOPENTANE.....	0.1		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			TRACE		
NITROGEN.....	10.4		0.1			8.6		
OXYGEN.....	0.0		1.8			0.0		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		1.0			0.0		
HELIUM.....	0.02		0.03			0.03		
HEATING VALUE.....	1063		945			1000		
SPECIFIC GRAVITY.....	0.700		0.552			0.633		
INDEX 307 SAMPLE 13619			INDEX 308 SAMPLE 13620			INDEX 309 SAMPLE 13621		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	LYON		LYON			LYON		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
LOCATION.....	200 LINE		300 LINE			400 INLET LINE		
OWNER.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		
SAMPLED.....	06/06/73		06/06/73			06/06/73		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	335		335			335		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	490		550			510		
FLOW, MCFD.....	342000		417000			777000		
COMPONENT, MOLE PCT								
METHANE.....	83.7		77.4			90.2		
ETHANE.....	5.8		7.5			4.7		
PROPANE.....	1.2		3.7			0.9		
N-BUTANE.....	0.0		0.5			0.1		
ISOBUTANE.....	0.0		0.4			0.1		
N-PENTANE.....	0.0		0.1			TRACE		
ISOPENTANE.....	0.0		0.1			TRACE		
CYCLOPENTANE.....	0.0		0.1			TRACE		
HEXANES PLUS.....	0.0		TRACE			TRACE		
NITROGEN.....	8.9		10.0			3.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.0			0.0		
HELIUM.....	0.09		0.02			0.04		
HEATING VALUE.....	983		1053			1028		
SPECIFIC GRAVITY.....	0.633		0.689			0.610		
INDEX 310 SAMPLE 15667			INDEX 311 SAMPLE 11793			INDEX 312 SAMPLE 5533		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	LYON		MARTON			MEADE		
FIELD.....	WESTERN OKLAHOMA		DURHAM & DURHAM E			HUGGTON		
LOCATION.....	30 IN.-300 LINE		NOT GIVEN			24 IN. DISCHARGE		
OWNER.....	PANHANDLE EASTERN PIPELINE C		ROULEAU & STEWART NATURAL GAS			MICHIGAN WISCONSIN PIPELINE		
SAMPLED.....	06/21/79		03/20/69			08/14/53		
FORMATION.....	BERM-CHASE GROUP		MISS---			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	335		335			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	637		123			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		2300			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	80.9		68.0			71.7		
ETHANE.....	5.1		5.9			7.0		
PROPANE.....	2.4		3.6			3.6		
N-BUTANE.....	0.4		1.3			0.5		
ISOBUTANE.....	0.1		0.9			0.4		
N-PENTANE.....	0.1		0.5			0.0		
ISOPENTANE.....	0.1		0.1			0.0		
CYCLOPENTANE.....	TRACE		0.1			0.0		
HEXANES PLUS.....	0.1		0.3			0.0		
NITROGEN.....	0.0		17.8			15.8		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	TRACE		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.1			0.1		
HELIUM.....	0.22		0.02			0.71		
HEATING VALUE.....	1068		975			975		
SPECIFIC GRAVITY.....	0.666		0.753			0.702		

* CALCULATED GROSS BTL PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	313 7534	INDEX SAMPLE	314 3190	INDEX SAMPLE	315 1346
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MCRAE			MONTGOMERY		MONTGOMERY	
FIELD.....	MCKINNEY			BOLTON		NOT GIVEN	
LOCATION.....	COMPOSITE GAS-MCKINNEY FIELD			SEC. 20, T33S, R15E		CONFY	
OWNER.....	KANSAS POWER & LIGHT CO.			CONSOLIDATED GAS, OIL & MFG.		EMPIRE GAS & FUEL CO.	
SAMPLED.....	05/02/60			03/24/62		02/14/67	
FORMATION.....	NOT GIVEN			MISS-LIME		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			365		365	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			500		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			1500		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	82.8	-----		93.8	-----	47.7	-----
ETHANE.....	6.0	-----		1.0	-----	37.9	-----
PROpane.....	1.3	-----		---	-----	---	-----
N-BUTANE.....	0.7	-----		---	-----	---	-----
ISOBUTANE.....	0.2	-----		---	-----	---	-----
N-PENTANE.....	0.4	-----		---	-----	---	-----
ISOPENTANE.....	0.1	-----		---	-----	---	-----
CYCLOPENTANE.....	0.2	-----		---	-----	---	-----
HEXANES PLUS.....	4.0	-----		3.6	-----	11.5	-----
NITROGEN.....	0.1	-----		0.3	-----	2.1	-----
OXYGEN.....	TRACE	-----		---	-----	---	-----
ARGON.....	0.1	-----		---	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.2	-----		1.1	-----	0.8	-----
CARBON DIOXIDE.....	0.10	-----		0.21	-----	0.12	-----
HELIUM.....	1155	-----		968	-----	1162	-----
HEATING VALUE.....	0.691	-----		0.586	-----	0.809	-----
SPECIFIC GRAVITY.....							
		INDEX SAMPLE	316 5705	INDEX SAMPLE	317 5706	INDEX SAMPLE	318 6999
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MORTON			MORTON		MORTON	
FIELD.....	GREENWOOD			GREENWOOD		GREENWOOD	
LOCATION.....	HOOKER STA. INLET			HOOKER STA. OUTLET		INLET	
OWNER.....	NATURAL GAS PIPELINE CO. OF			NATURAL GAS PIPELINE CO. OF		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	10/14/54			10/15/54		03/99/59	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	325			680		NOT GIVEN	
FLOW, MCFD.....	43000			43000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	68.1	-----		68.0	-----	65.8	-----
ETHANE.....	6.1	-----		6.0	-----	5.5	-----
PROpane.....	1.1	-----		1.1	-----	1.1	-----
N-BUTANE.....	0.6	-----		0.4	-----	0.6	-----
ISOBUTANE.....	0.2	-----		0.2	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	0.2	-----		0.2	-----	0.1	-----
HEXANES PLUS.....	19.4	-----		19.3	-----	20.8	-----
NITROGEN.....	0.0	-----		TRACE	-----	TRACE	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.1	-----
ARGON.....	0.1	-----		0.1	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.1	-----		TRACE	-----	0.1	-----
CARBON DIOXIDE.....	0.52	-----		0.53	-----	0.60	-----
HELIUM.....	976	-----		979	-----	962	-----
HEATING VALUE.....	0.738	-----		0.737	-----	0.746	-----
SPECIFIC GRAVITY.....							
		INDEX SAMPLE	319 7000	INDEX SAMPLE	320 7374	INDEX SAMPLE	321 7380
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MORTON			MORTON		MORTON	
FIELD.....	GREENWOOD			GREENWOOD		GREENWOOD	
LOCATION.....	24 IN. 12 IN.			24 IN. GREENWOOD DISCHARGE		SEC. 18, T33S, R43W	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	03/20/59			02/02/60		02/04/60	
FORMATION.....	NOT GIVEN			NOT GIVEN		PENN-VIRGIL	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		750	
FLOW, MCFD.....	NOT GIVEN			104000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	67.9	-----		66.0	-----	52.3	-----
ETHANE.....	6.2	-----		5.4	-----	8.1	-----
PROpane.....	1.0	-----		1.0	-----	5.0	-----
N-BUTANE.....	0.4	-----		0.3	-----	5.6	-----
ISOBUTANE.....	0.2	-----		0.2	-----	2.2	-----
N-PENTANE.....	0.2	-----		0.2	-----	2.2	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.5	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	1.0	-----
HEXANES PLUS.....	19.5	-----		19.2	-----	13.0	-----
NITROGEN.....	0.1	-----		TRACE	-----	TRACE	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.1	-----		0.1	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.4	-----		0.1	-----	0.1	-----
CARBON DIOXIDE.....	0.60	-----		0.55	-----	0.0	-----
HELIUM.....	952	-----		950	-----	1477	-----
HEATING VALUE.....	0.731	-----		0.740	-----	1.010	-----
SPECIFIC GRAVITY.....							
		INDEX SAMPLE	322 13439	INDEX SAMPLE	323 17036	INDEX SAMPLE	324 15430
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	MORTON			MORTON		MORTON	
FIELD.....	GREENWOOD			GREENWOOD		GREENWOOD GAS AREA	
LOCATION.....	12 IN. INLET			12 IN. SUCTION		24 IN. INLET	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	10/03/72			08/31/73		10/18/78	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	50000			20300		238	
FLOW, MCFD.....						33800	
COMPONENT, MOLE PCT							
METHANE.....	71.7	-----		67.7	-----	70.4	-----
ETHANE.....	7.9	-----		6.9	-----	7.6	-----
PROpane.....	3.7	-----		3.8	-----	4.1	-----
N-BUTANE.....	0.4	-----		0.5	-----	0.3	-----
ISOBUTANE.....	0.2	-----		0.3	-----	0.1	-----
N-PENTANE.....	TRACE	-----		0.0	-----	TRACE	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	16.3	-----		19.6	-----	TRACE	-----
NITROGEN.....	0.0	-----		0.0	-----	17.2	-----
OXYGEN.....	0.1	-----		0.2	-----	0.0	-----
ARGON.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN.....	0.0	-----		0.2	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.02	-----		0.77	-----	TRACE	-----
HELIUM.....	977	-----		940	-----	969	-----
HEATING VALUE.....	0.705	-----		0.720	-----	0.710	-----
SPECIFIC GRAVITY.....							

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1097

INDEX 325 SAMPLE 15431		INDEX 326 SAMPLE 17035		INDEX 327 SAMPLE 13246	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	MORTON	MORTON		MORTON	
FIELD.....	GREENWOOD GAS AREA	GREENWOOD-SPARKS		KEYES & GREENWOOD	
LOCATION.....	12 IN. INLET	24 IN. SUCTION		DISCHARGE LINE	
OWNER.....	PHILLIPS PETROLEUM CO.	COLORADO INTERSTATE GAS CO.		PANHANDLE EASTERN PIPELINE C	
SAMPLED.....	10/18/78	08/31/83		06/06/72	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	238	230		457	
FLOW, MCFD.....	43800	21700		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	63.6	63.3		65.8	
ETHANE.....	6.7	5.6		6.2	
PROPANE.....	4.5	4.6		3.6	
N-BUTANE.....	1.4	1.7		1.1	
ISOBUTANE.....	0.5	0.5		0.6	
N-PENTANE.....	0.4	0.4		0.3	
ISOPENTANE.....	0.4	0.4		0.3	
CYCLOPENTANE.....	0.1	0.1		0.1	
HEXANES PLUS.....	0.3	0.3		0.4	
NITROGEN.....	21.2	20.2		20.8	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	0.1		0.1	
HYDROGEN.....	0.0	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.4		0.2	
HELIUM.....	0.57	0.64		0.74	
HEATING VALUE.....	1002	1027		976	
SPECIFIC GRAVITY.....	0.773	0.795		0.756	

INDEX 328 SAMPLE 15657		INDEX 329 SAMPLE 17102		INDEX 330 SAMPLE 7373	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	MORTON	MORTON		MORTON	
FIELD.....	KEYES & GREENWOOD	KEYES & GREENWOOD		MOCANE-LAVERNE GAS AREA	
LOCATION.....	24 IN. DISCHARGE	20 IN. DISCHARGE		20 IN. MOCANE OUTLET	
OWNER.....	PANHANDLE EASTERN PIPELINE C	PANHANDLE EASTERN PIPELINE C		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	06/19/79	10/18/83		02/02/60	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	500	500		NOT GIVEN	
FLOW, MCFD.....	40000	30000		13000	
COMPONENT, MOLE PCT.....					
METHANE.....	43.1	69.2		85.9	
ETHANE.....	7.0	4.3		1.3	
PROPANE.....	17.3	3.4		1.8	
N-BUTANE.....	3.5	1.0		0.6	
ISOBUTANE.....	3.2	0.2		0.0	
N-PENTANE.....	2.9	0.2		0.0	
ISOPENTANE.....	3.2	0.0		TRACE	
CYCLOPENTANE.....	0.4	0.5		TRACE	
HEXANES PLUS.....	1.5	0.9		TRACE	
NITROGEN.....	10.8	17.0		2.2	
OXYGEN.....	0.0	0.4		TRACE	
ARGON.....	0.0	TRACE		0.0	
HYDROGEN.....	TRACE	0.1		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.1		0.1	
HELIUM.....	0.40	0.11		0.14	
HEATING VALUE.....	1816	1037		1071	
SPECIFIC GRAVITY.....	1.171	0.755		0.616	

INDEX 331 SAMPLE 13440		INDEX 332 SAMPLE 15429		INDEX 333 SAMPLE 7001	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	MORTON	MORTON		MORTON	
FIELD.....	MOCANE-LAVERNE GAS AREA	MOCANE-LAVERNE GAS AREA		SPARKS FIELD	
LOCATION.....	24 IN. INLET	20 IN. INLET		SPARKS FIELD	
OWNER.....	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	10/30/72	10/18/73		03/29/59	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	658	NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	60000	19300		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	89.1	93.0		82.6	
ETHANE.....	6.3	5.1		3.9	
PROPANE.....	0.8	0.8		2.4	
N-BUTANE.....	0.0	0.1		0.4	
ISOBUTANE.....	0.0	0.0		0.1	
N-PENTANE.....	0.0	TRACE		0.1	
ISOPENTANE.....	0.0	TRACE		0.2	
CYCLOPENTANE.....	0.0	TRACE		0.2	
HEXANES PLUS.....	0.0	0.1		0.2	
NITROGEN.....	1.3	3.7		6.2	
OXYGEN.....	0.0	TRACE		TRACE	
ARGON.....	TRACE	0.0		0.1	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.4		0.4	
HELIUM.....	0.17	0.20		0.40	
HEATING VALUE.....	1036	1022		1029	
SPECIFIC GRAVITY.....	0.608	0.604		0.670	

INDEX 334 SAMPLE 7371		INDEX 335 SAMPLE 7379		INDEX 336 SAMPLE 7372	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	MORTON	MORTON		MORTON	
FIELD.....	SPARKS	SPARKS		SPARKS, GREENWOOD, & MOCANE	
LOCATION.....	12 IN. LINE	12 IN. LINE		12 & 24 IN. LINES	
OWNER.....	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	02/02/60	02/04/60		02/02/60	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	22000	25000		140000	
COMPONENT, MOLE PCT.....					
METHANE.....	81.9	82.1		65.5	
ETHANE.....	4.0	4.0		6.6	
PROPANE.....	1.2	1.3		1.9	
N-BUTANE.....	0.6	0.9		0.3	
ISOBUTANE.....	0.6	0.4		0.3	
N-PENTANE.....	0.2	0.2		0.5	
ISOPENTANE.....	0.2	0.2		0.5	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.2	0.1		0.1	
NITROGEN.....	7.4	9.9		21.2	
OXYGEN.....	TRACE	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.1	0.1		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	2.3	2.7		0.1	
HELIUM.....	0.56	0.60		0.59	
HEATING VALUE.....	1001	999		952	
SPECIFIC GRAVITY.....	0.671	0.655		0.743	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	337 4502	INDEX SAMPLE	338 4507	INDEX SAMPLE	339 4503
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	ASH CREEK			NOT GIVEN		PAWNEE	
LOCATION.....	INLET FROM ASH CREEK FIELD			SEC. 1, T21S, R16W		INLET FROM PAWNEE FIELD	
OWNER.....	A. R. JONES OIL & OPER. CO.			BEN F. BRACK OIL CO.		A. R. JONES OIL & OPER. CO.	
SAMPLED.....	06/-/48			06/-/48		06/-/48	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	390			NOT GIVEN		300	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	82.8	-----		80.5	-----	80.4	-----
ETHANE.....	10.5	-----		13.4	-----	12.4	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	5.2	-----		4.7	-----	5.9	-----
OXYGEN.....	0.1	-----		0.2	-----	0.1	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.6	-----		0.5	-----	0.4	-----
HELIUM.....	0.79	-----		0.74	-----	0.93	-----
HEATING VALUE.....	1027	-----		1056	-----	1037	-----
SPECIFIC GRAVITY.....	0.631	-----		0.643	-----	0.641	-----
		INDEX SAMPLE	340 4070	INDEX SAMPLE	341 4501	INDEX SAMPLE	342 4504
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PAWNEE		PAWNEE	
FIELD.....	PAWNEE ROCK			RYAN		RYAN	
LOCATION.....	SEC. 134 T20S, R16W			INLET FROM RYAN FIELD		INLET FROM RYAN FIELD	
OWNER.....	STANOLIND OIL & GAS CO.			A. R. JONES OIL & OPER. CO.		A. R. JONES OIL & OPER. CO.	
SAMPLED.....	09/21/48			06/-/48		06/-/48	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	30			385		40	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	48.7	-----		73.8	-----	69.2	-----
ETHANE.....	47.7	-----		12.4	-----	17.4	-----
PROpane.....	---	-----		---	-----	---	-----
N-BUTANE.....	---	-----		---	-----	---	-----
ISOBUTANE.....	---	-----		---	-----	---	-----
N-PENTANE.....	---	-----		---	-----	---	-----
ISOPENTANE.....	---	-----		---	-----	---	-----
CYCLOPENTANE.....	---	-----		---	-----	---	-----
HEXANES PLUS.....	---	-----		---	-----	---	-----
NITROGEN.....	2.1	-----		11.3	-----	11.0	-----
OXYGEN.....	0.0	-----		0.2	-----	0.1	-----
ARGON.....	---	-----		---	-----	---	-----
HYDROGEN.....	---	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	---	-----
CARBON DIOXIDE.....	1.2	-----		0.9	-----	0.7	-----
HELIUM.....	0.32	-----		1.82	-----	1.60	-----
HEATING VALUE.....	1348	-----		970	-----	1013	-----
SPECIFIC GRAVITY.....	0.810	-----		0.661	-----	0.687	-----
		INDEX SAMPLE	343 9268	INDEX SAMPLE	344 2898	INDEX SAMPLE	345 16828
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	PAWNEE			PRATT		RICE	
FIELD.....	SHADY			CUNNINGHAM		ANADARKO	
LOCATION.....	T22 & 23S, R16W			SKELLY OIL CO. PLANT		30 IN. "D" FROM BEAVER	
OWNER.....	KANSAS POWER & LIGHT CO.			SKELLY OIL CO.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	03/-/76			10/04/41		03/16/83	
FORMATION.....	NOT GIVEN			OROO-VIOLA		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	430			NOT GIVEN		615	
FLOW, MCFD.....	1750			NOT GIVEN		250000	
COMPONENT, MOLE PCT							
METHANE.....	84.5	-----		65.0	-----	92.3	-----
ETHANE.....	5.8	-----		20.6	-----	3.1	-----
PROpane.....	1.6	-----		---	-----	0.6	-----
N-BUTANE.....	0.5	-----		---	-----	0.1	-----
ISOBUTANE.....	0.3	-----		---	-----	TRACE	-----
N-PENTANE.....	0.1	-----		---	-----	TRACE	-----
ISOPENTANE.....	0.1	-----		---	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		---	-----	TRACE	-----
NITROGEN.....	7.7	-----		12.1	-----	7.6	-----
OXYGEN.....	0.0	-----		0.5	-----	0.0	-----
ARGON.....	TRACE	-----		---	-----	TRACE	-----
HYDROGEN.....	0.0	-----		---	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----		0.7	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.7	-----	0.6	-----
HELIUM.....	0.91	-----		1.10	-----	0.13	-----
HEATING VALUE.....	1011	-----		1028	-----	1010	-----
SPECIFIC GRAVITY.....	0.641	-----		0.711	-----	0.593	-----
		INDEX SAMPLE	346 15507	INDEX SAMPLE	347 16827	INDEX SAMPLE	348 15508
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RICE			RICE		RICE	
FIELD.....	ANADARKO BASIN			ANADARKO BASIN		BEAVER	
LOCATION.....	26 IN. "C" FROM ANADARKO			26 IN. "C" FROM ANADARKO		30 IN. "D" FROM BEAVER	
OWNER.....	NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	11/16/78			03/16/83		11/16/78	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	380			NOT GIVEN		650	
FLOW, MCFD.....	400000			300000		950000	
COMPONENT, MOLE PCT							
METHANE.....	84.2	-----		91.5	-----	90.1	-----
ETHANE.....	5.8	-----		3.0	-----	3.7	-----
PROpane.....	2.6	-----		0.8	-----	0.9	-----
N-BUTANE.....	0.7	-----		0.2	-----	0.2	-----
ISOBUTANE.....	0.3	-----		TRACE	-----	0.1	-----
N-PENTANE.....	0.2	-----		---	-----	0.1	-----
ISOPENTANE.....	0.2	-----		TRACE	-----	0.0	-----
CYCLOPENTANE.....	0.1	-----		TRACE	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		---	-----	0.2	-----
NITROGEN.....	5.0	-----		2.6	-----	4.0	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.1	-----		0.2	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.3	-----	0.5	-----
HELIUM.....	0.20	-----		0.13	-----	0.16	-----
HEATING VALUE.....	1083	-----		1027	-----	1031	-----
SPECIFIC GRAVITY.....	0.660	-----		0.504	-----	0.616	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1099

INDEX 349 SAMPLE 15506		INDEX 350 SAMPLE 16826		INDEX 351 SAMPLE 6281	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	RICE	RICE		RICE	
FIELD.....	BURDETT	BURDETT		HUGOTON	
LOCATION.....	20 IN. "B" FROM BURDETT	20 IN. "B" FROM BURDETT		HOLCOMB GAS SAMPLE	
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	11/16/78	03/16/83		04/08/57	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385	385		385	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	550	555		NOT GIVEN	
FLOW, MCFD.....	220000	73000		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	71.4	72.6		72.9	
ETHANE.....	6.2	5.5		6.0	
PROPANE.....	3.5	3.0		3.2	
N-BUTANE.....	1.0	0.5		0.9	
ISOBUTANE.....	0.4	0.5		0.9	
N-PENTANE.....	0.2	0.0		0.1	
ISOPENTANE.....	0.2	0.2		0.2	
CYCLOPENTANE.....	0.1	0.0		TRACE	
HEXANES PLUS.....	0.2	0.0		0.0	
NITROGEN.....	16.3	17.0		15.7	
OXYGEN.....	0.0	0.0		TRACE	
ARGON.....	TRACE	1.1		TRACE	
HYDROGEN.....	0.1	0.2		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	TRACE	0.1		0.1	
HELIUM.....	0.44	0.0		0.44	
HEATING VALUE.....	1004	948		991	
SPECIFIC GRAVITY.....	0.721	0.697		0.708	
INDEX 352 SAMPLE 6282		INDEX 353 SAMPLE 6283		INDEX 354 SAMPLE 6807	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	RICE	RICE		RICE	
FIELD.....	HUGOTON	HUGOTON		HUGOTON	
LOCATION.....	MULLINVILLE-MACKSVILLE	NOT GIVEN		HOLCOMB LINE	
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	04/08/57	04/08/57		04/08/57	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385	385		385	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	79.2	73.2		78.7	
ETHANE.....	6.8	5.9		5.9	
PROPANE.....	2.6	2.6		2.6	
N-BUTANE.....	0.6	0.6		0.6	
ISOBUTANE.....	0.2	0.2		0.2	
N-PENTANE.....	TRACE	TRACE		0.1	
ISOPENTANE.....	TRACE	TRACE		0.2	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	TRACE	TRACE		TRACE	
NITROGEN.....	10.2	10.2		10.8	
OXYGEN.....	0.0	0.0		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	TRACE	TRACE		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		0.1	
HELIUM.....	0.38	0.36		0.35	
HEATING VALUE.....	1012	1012		1018	
SPECIFIC GRAVITY.....	0.664	0.665		0.674	
INDEX 355 SAMPLE 13328		INDEX 356 SAMPLE 15504		INDEX 357 SAMPLE 16824	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	RICE	RICE		RICE	
FIELD.....	HUGOTON	HUGOTON		HUGOTON	
LOCATION.....	26 IN. A INLET	26 IN. "A" FROM SUBLETTE		26 IN. "A" FROM SUBLETTE	
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	07/26/77	11/16/78		03/16/83	
FORMATION.....	CHASE GROUP	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385	385		385	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	100	300		345	
FLOW, MCFD.....	290000	170000		200000	
COMPONENT, MOLE PCT.....					
METHANE.....	76.3	75.4		84.2	
ETHANE.....	5.2	5.1		6.6	
PROPANE.....	5.3	5.3		3.0	
N-BUTANE.....	0.7	0.9		0.5	
ISOBUTANE.....	0.4	0.4		0.2	
N-PENTANE.....	0.1	0.1		0.1	
ISOPENTANE.....	TRACE	0.2		0.2	
CYCLOPENTANE.....	TRACE	0.1		TRACE	
HEXANES PLUS.....	TRACE	0.2		0.1	
NITROGEN.....	12.4	12.6		0.4	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.1		0.2	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	TRACE		0.0	
HELIUM.....	0.37	0.67		0.18	
HEATING VALUE.....	1014	1034		1068	
SPECIFIC GRAVITY.....	0.590	0.701		0.643	
INDEX 358 SAMPLE 13326		INDEX 359 SAMPLE 2843		INDEX 360 SAMPLE 15503	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	RICE	RICE		RICE	
FIELD.....	HUGOTON, ET AL.	LYONS		MACKSVILLE	
LOCATION.....	20 IN. "B" INLET	T19 & 20 S, R8W		24 IN. "B" FROM MACKSVILLE	
OWNER.....	NORTHERN NATURAL GAS CO.	CITIES SERVICE GAS CO.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	07/26/77	09/26/40		11/16/78	
FORMATION.....	CHASE GROUP	CAMP-ARBUCKLE		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385	385		385	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	53	300		300	
FLOW, MCFD.....	190000	130000		130000	
COMPONENT, MOLE PCT.....					
METHANE.....	72.1	31.3		75.7	
ETHANE.....	6.4	34.4		6.0	
PROPANE.....	3.7	---		3.2	
N-BUTANE.....	0.9	---		0.9	
ISOBUTANE.....	0.4	---		0.4	
N-PENTANE.....	0.2	---		0.2	
ISOPENTANE.....	TRACE	---		0.2	
CYCLOPENTANE.....	TRACE	---		0.2	
HEXANES PLUS.....	0.1	---		0.2	
NITROGEN.....	15.8	33.7		12.6	
OXYGEN.....	0.1	0.1		0.2	
ARGON.....	TRACE	---		TRACE	
HYDROGEN.....	0.0	---		TRACE	
HYDROGEN SULFIDE.....	0.0	---		0.0	
CARBON DIOXIDE.....	TRACE	0.3		0.1	
HELIUM.....	0.41	1.73		0.39	
HEATING VALUE.....	999	734		1032	
SPECIFIC GRAVITY.....	0.713	0.871		0.702	

• CALCULATED Gross BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 • DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 361 SAMPLE 14825		INDEX 362 SAMPLE 13320		INDEX 363 SAMPLE 13321	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	RICE	COUNTY.....	RICE	COUNTY.....	RICE
FIELD.....	MACKSVILLE	FIELD.....	MACKSVILLE AREA, ET AL.	FIELD.....	NOT GIVEN
LOCATION.....	24 IN. B FROM MACKSVILLE	LOCATION.....	24 IN. B INLET	LOCATION.....	30 IN. F DISCHARGE
OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.
SAMPLED.....	03/16/73	SAMPLED.....	07/26/72	SAMPLED.....	07/26/72
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	385	GEOLOGIC PROVINCE CODE.....	385	GEOLOGIC PROVINCE CODE.....	385
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	495	PRESSURE, PSIG.....	562	PRESSURE, PSIG.....	590
FLOW, MCFD.....	103000	FLOW, MCFD.....	350000	FLOW, MCFD.....	835000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	89.7	METHANE.....	82.7	METHANE.....	90.0
ETHANE.....	3.7	ETHANE.....	1.7	ETHANE.....	4.2
PROpane.....	0.9	PROpane.....	1.3	PROpane.....	1.0
N-BUTANE.....	0.3	N-BUTANE.....	0.2	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.1	ISOBUTANE.....	0.1
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	0.0	NITROGEN.....	0.0	NITROGEN.....	0.0
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	0.8	CARBON DIOXIDE.....	1.0
HELIUM.....	0.16	HELIUM.....	0.05	HELIUM.....	0.06
HEATING VALUE.....	1029	HEATING VALUE.....	1021	HEATING VALUE.....	1020
SPECIFIC GRAVITY.....	0.614	SPECIFIC GRAVITY.....	0.529	SPECIFIC GRAVITY.....	0.611

INDEX 364 SAMPLE 13323		INDEX 365 SAMPLE 13324		INDEX 366 SAMPLE 13325	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	RICE	COUNTY.....	RICE	COUNTY.....	RICE
FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
LOCATION.....	HELIUM PLANT DISCHARGE	LOCATION.....	26 IN. A DISCHARGE	LOCATION.....	30 IN. D INLET
OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.
SAMPLED.....	07/26/72	SAMPLED.....	07/26/72	SAMPLED.....	07/26/72
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	385	GEOLOGIC PROVINCE CODE.....	385	GEOLOGIC PROVINCE CODE.....	385
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	520	PRESSURE, PSIG.....	520	PRESSURE, PSIG.....	609
FLOW, MCFD.....	420000	FLOW, MCFD.....	235000	FLOW, MCFD.....	160000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	84.4	METHANE.....	87.0	METHANE.....	83.4
ETHANE.....	2.0	ETHANE.....	0.4	ETHANE.....	4.3
PROpane.....	0.1	PROpane.....	0.4	PROpane.....	1.0
N-BUTANE.....	0.0	N-BUTANE.....	0.1	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.1
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	13.1	NITROGEN.....	5.8	NITROGEN.....	3.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	1.0
HELIUM.....	0.11	HELIUM.....	7.19	HELIUM.....	0.04
HEATING VALUE.....	901	HEATING VALUE.....	1003	HEATING VALUE.....	1015
SPECIFIC GRAVITY.....	0.623	SPECIFIC GRAVITY.....	0.615	SPECIFIC GRAVITY.....	0.616

INDEX 367 SAMPLE 13327		INDEX 368 SAMPLE 13329		INDEX 369 SAMPLE 13330	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	RICE	COUNTY.....	RICE	COUNTY.....	RICE
FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
LOCATION.....	26 IN. C DISCHARGE	LOCATION.....	30 IN. D DISCHARGE	LOCATION.....	24 IN. B DISCHARGE
OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.
SAMPLED.....	07/26/72	SAMPLED.....	07/26/72	SAMPLED.....	07/26/72
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	385	GEOLOGIC PROVINCE CODE.....	385	GEOLOGIC PROVINCE CODE.....	385
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	800	PRESSURE, PSIG.....	850	PRESSURE, PSIG.....	757
FLOW, MCFD.....	425000	FLOW, MCFD.....	615000	FLOW, MCFD.....	350000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	85.8	METHANE.....	85.7	METHANE.....	85.4
ETHANE.....	4.6	ETHANE.....	3.4	ETHANE.....	5.2
PROpane.....	0.5	PROpane.....	0.4	PROpane.....	1.0
N-BUTANE.....	TRACE	N-BUTANE.....	TRACE	N-BUTANE.....	0.1
ISOBUTANE.....	0.1	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.1
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	8.6	NITROGEN.....	9.9	NITROGEN.....	6.5
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.6
HELIUM.....	0.09	HELIUM.....	0.04	HELIUM.....	0.07
HEATING VALUE.....	970	HEATING VALUE.....	939	HEATING VALUE.....	1001
SPECIFIC GRAVITY.....	0.620	SPECIFIC GRAVITY.....	0.619	SPECIFIC GRAVITY.....	0.625

INDEX 370 SAMPLE 15509		INDEX 371 SAMPLE 15510		INDEX 372 SAMPLE 15511	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	RICE	COUNTY.....	RICE	COUNTY.....	RICE
FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
LOCATION.....	A-26 IN. DISCHARGE	LOCATION.....	B-24 IN. DISCHARGE	LOCATION.....	C-26 IN. DISCHARGE
OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.
SAMPLED.....	11/16/78	SAMPLED.....	11/16/78	SAMPLED.....	11/16/78
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	385	GEOLOGIC PROVINCE CODE.....	385	GEOLOGIC PROVINCE CODE.....	385
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	520	PRESSURE, PSIG.....	550	PRESSURE, PSIG.....	800
FLOW, MCFD.....	150000	FLOW, MCFD.....	195000	FLOW, MCFD.....	285000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	87.5	METHANE.....	85.3	METHANE.....	86.7
ETHANE.....	5.2	ETHANE.....	4.8	ETHANE.....	4.5
PROpane.....	0.1	PROpane.....	0.7	PROpane.....	0.7
N-BUTANE.....	0.1	N-BUTANE.....	0.2	N-BUTANE.....	0.2
ISOBUTANE.....	TRACE	ISOBUTANE.....	0.1	ISOBUTANE.....	TRACE
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	0.1
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	6.1	NITROGEN.....	0.0	NITROGEN.....	7.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.19	HELIUM.....	0.16	HELIUM.....	0.15
HEATING VALUE.....	959	HEATING VALUE.....	954	HEATING VALUE.....	953
SPECIFIC GRAVITY.....	0.615	SPECIFIC GRAVITY.....	0.623	SPECIFIC GRAVITY.....	0.623

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

	INDEX SAMPLE 373 15512	INDEX SAMPLE 374 15513	INDEX SAMPLE 375 16829
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	RICE	RICE	RICE
FIELD.....	NOT GIVEN	NOT GIVEN	OK., SW KAN. & TX. PANHANDLE
LOCATION.....	D-30 IN. DISCHARGE	E-30 IN. DISCHARGE	A-26 IN. DISCHARGE
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.
SAMPLED.....	11/16/78	11/16/78	03/16/83
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	385	385	385
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	860	940	515
FLOW, MCFD.....	520000	650000	119000
COMPONENT, MOLE PCT			
METHANE.....	87.5	87.3	90.8
ETHANE.....	0.5	0.4	0.4
PROpane.....	0.6	0.8	0.5
N-BUTANE.....	0.2	0.2	0.1
ISOBUTANE.....	0.1	TRACE	0.0
N-PENTANE.....	TRACE	TRACE	0.0
ISOPENTANE.....	TRACE	TRACE	0.1
CYCLOPENTANE.....	TRACE	0.1	TRACE
HEXANES PLUS.....	0.1	TRACE	TRACE
NITROGEN.....	7.4	5.5	0.0
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	0.3	TRACE
HYDROGEN.....	0.1	0.0	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	0.5	0.7
HELIUM.....	0.12	0.13	0.18
HEATING VALUE.....	980	997	1009
SPECIFIC GRAVITY.....	0.617	0.611	0.602

	INDEX SAMPLE 376 16830	INDEX SAMPLE 377 16831	INDEX SAMPLE 378 16832
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	RICE	RICE	RICE
FIELD.....	OK., SW KAN. & TX. PANHANDLE	OK., SW KAN. & TX. PANHANDLE	OK., SW KAN. & TX. PANHANDLE
LOCATION.....	B-24 IN. DISCHARGE	C-26 IN. DISCH.	D-30 IN. DISCH.
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.
SAMPLED.....	03/16/83	03/16/83	03/16/83
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	385	385	385
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	590	720	720
FLOW, MCFD.....	91000	416000	309000
COMPONENT, MOLE PCT			
METHANE.....	89.6	91.9	87.3
ETHANE.....	3.8	3.4	0.6
PROpane.....	1.0	0.4	0.5
N-BUTANE.....	0.3	TRACE	0.5
ISOBUTANE.....	0.1	TRACE	0.2
N-PENTANE.....	0.1	TRACE	0.2
ISOPENTANE.....	0.1	TRACE	0.4
CYCLOPENTANE.....	0.0	TRACE	0.2
HEXANES PLUS.....	0.1	TRACE	0.2
NITROGEN.....	3.6	3.1	0.4
OXYGEN.....	0.0	0.0	TRACE
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.2	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.8	0.7	0.5
HELIUM.....	0.17	0.14	0.20
HEATING VALUE.....	1033	1003	1039
SPECIFIC GRAVITY.....	0.618	0.592	0.636

	INDEX SAMPLE 379 16833	INDEX SAMPLE 380 13322	INDEX SAMPLE 381 4812
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	RICE	RICE	RUSH
FIELD.....	OK., SW KAN. & TX. PANHANDLE	OKLAHOMA-TEXAS AREA	BRACK THALHEIM LEASE
LOCATION.....	E-30 IN. DISCH.	25 IN. C INLET	SEC. 27, T19S, R16W
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	KANSAS-NEBRASKA NATURAL GAS
SAMPLED.....	03/16/83	07/25/72	01/09/50
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	385	385	385
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	780	560	NOT GIVEN
FLOW, MCFD.....	422000	610000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	88.8	84.9	54.0
ETHANE.....	4.5	6.0	3.8
PROpane.....	0.3	2.6	2.0
N-BUTANE.....	0.1	0.7	0.7
ISOBUTANE.....	0.0	0.3	0.4
N-PENTANE.....	0.0	0.2	0.1
ISOPENTANE.....	0.1	0.1	0.4
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.1	0.0
NITROGEN.....	7.1	4.9	34.0
OXYGEN.....	0.0	0.0	0.3
ARGON.....	TRACE	TRACE	0.2
HYDROGEN.....	0.2	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.6	0.3	0.5
HELIUM.....	0.20	0.20	3.07
HEATING VALUE.....	996	1080	729
SPECIFIC GRAVITY.....	0.608	0.582	0.757

	INDEX SAMPLE 382 4813	INDEX SAMPLE 383 4811	INDEX SAMPLE 394 13321
STATE.....	KANSAS	KANSAS	KANSAS
COUNTY.....	RUSH	RUSH	RUSH
FIELD.....	BRACK-RANKIN ESTATE	CAMPBELL-KUHN-CHRISTIANSON	CENTRAL KANSAS
LOCATION.....	SEC. 27, T19S, R16W	SEC. 28, T19S, R16W	8 IN. DISCHARGE
OWNER.....	KANSAS-NEBRASKA NATURAL GAS	KANSAS-NEBRASKA NATURAL GAS	KANSAS-NEBRASKA NATURAL GAS
SAMPLED.....	01/09/50	01/09/50	07/25/72
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	385	385	385
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	315
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	14500
COMPONENT, MOLE PCT			
METHANE.....	69.6	53.0	74.7
ETHANE.....	2.2	3.6	3.4
PROpane.....	0.9	0.7	1.9
N-BUTANE.....	1.2	0.6	0.6
ISOBUTANE.....	0.5	0.3	0.5
N-PENTANE.....	0.3	0.2	0.5
ISOPENTANE.....	0.7	0.3	0.0
CYCLOPENTANE.....	0.1	TRACE	0.1
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	16.9	30.5	16.4
OXYGEN.....	0.1	0.2	0.0
ARGON.....	0.1	0.2	0.1
HYDROGEN.....	0.0	TRACE	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.6	0.1	0.1
HELIUM.....	1.68	3.29	1.37
HEATING VALUE.....	974	692	936
SPECIFIC GRAVITY.....	0.726	0.754	0.684

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	385 15467	INDEX SAMPLE	386 17072	INDEX SAMPLE	387 5914
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	CENTRAL KANSAS			CENTRAL KS FIELDS		FLYNN	
LOCATION.....	R 1A, DISCHARGE			INLET 1		NOT GIVEN	
OWNER.....	KANSAS-NEBRASKA NATURAL GAS			AIRCO INDUSTRIAL GASES		KANSAS-NEBRASKA NATURAL GAS	
SAMPLED.....	11/16/73			09/27/83		08/16/55	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	335			270		NOT GIVEN	
FLOW, MCF/D.....	14000			8000		NOT GIVEN	
COMPONENT, MOLE PCT						NOT GIVEN	
METHANE.....	79.0			80.0		80.8	
ETHANE.....	1.7			1.7		1.8	
PROPANE.....	1.5			1.2		2.6	
N-BUTANE.....	0.5			0.2		0.1	
ISOBUTANE.....	0.3			0.5		0.2	
N-PENTANE.....	0.2			0.3		TRACE	
ISOPENTANE.....	0.1			0.3		TRACE	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.3			0.3		0.1	
NITROGEN.....	11.0			11.3		0.7	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			0.1		0.1	
HYDROGEN.....	0.1			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			TRACE		0.4	
HELIUM.....	1.15			1.36		1.03	
HEATING VALUE.....	979			970		1063	
SPECIFIC GRAVITY.....	0.663			0.656		0.654	
		INDEX SAMPLE	388 6345	INDEX SAMPLE	389 6347	INDEX SAMPLE	390 14642
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	HUGOTON, MCKINNEY & OTHERS			HUGOTON, MCKINNEY & OTHERS		INLET GAS	
LOCATION.....	8 IN. LINE			8 IN. LINE		OTIS KANSAS	
OWNER.....	KANSAS POWER & LIGHT CO.			KANSAS POWER & LIGHT CO.		KANSAS REFINED HELIUM CO.	
SAMPLED.....	06/19/57			05/19/57		04/23/75	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCF/D.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	79.9			80.2		75.0	
ETHANE.....	1.8			1.7		4.1	
PROPANE.....	0.4			0.4		1.4	
N-BUTANE.....	0.4			0.3		0.4	
ISOBUTANE.....	0.1			0.3		0.5	
N-PENTANE.....	0.1			0.1		0.1	
ISOPENTANE.....	0.1			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	11.3			11.2		11.7	
OXYGEN.....	TRACE			0.0		0.0	
ARGON.....	TRACE			TRACE		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.0	
HELIUM.....	1.00			1.03		2.00	
HEATING VALUE.....	979			974		915	
SPECIFIC GRAVITY.....	0.656			0.652		0.665	
		INDEX SAMPLE	391 4809	INDEX SAMPLE	392 6588	INDEX SAMPLE	393 6589
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	RUSH			RUSH		RUSH	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
LOCATION.....	SEC. 34, T19S, R16W			SEC. 22, T18S, R17W		SEC. 26, T17S, R16W	
OWNER.....	KANSAS-NEBRASKA NATURAL GAS			KANSAS POWER & LIGHT CO.		KANSAS POWER & LIGHT CO.	
SAMPLED.....	05/10/50			05/-758		05/-758	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCF/D.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	61.9			79.5		79.2	
ETHANE.....	1.5			1.4		1.0	
PROPANE.....	0.3			0.4		1.0	
N-BUTANE.....	0.4			0.4		0.4	
ISOBUTANE.....	0.3			0.3		0.4	
N-PENTANE.....	0.2			TRACE		TRACE	
ISOPENTANE.....	0.2			TRACE		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	21.2			11.3		11.3	
OXYGEN.....	0.1			TRACE		TRACE	
ARGON.....	0.1			TRACE		0.3	
HYDROGEN.....	TRACE			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.0		0.0	
HELIUM.....	2.42			0.64		0.89	
HEATING VALUE.....	837			988		986	
SPECIFIC GRAVITY.....	0.734			0.660		0.665	
		INDEX SAMPLE	394 6590	INDEX SAMPLE	395 6803	INDEX SAMPLE	396 7540
STATE.....	KANSAS			KANSAS		KANSAS	
COUNTY.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FIELD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
LOCATION.....	SEC. 27, T17S, R17W			HOLCOMB LINE		OTIS, KANSAS	
OWNER.....	KANSAS POWER & LIGHT CO.			NORTHERN NATURAL GAS CO.		KANSAS POWER & LIGHT CO.	
SAMPLED.....	05/-758			NOT GIVEN		05/03/60	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385		385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCF/D.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.8			74.0		73.8	
ETHANE.....	1.1			0.3		0.7	
PROPANE.....	0.1			0.9		2.0	
N-BUTANE.....	0.4			0.4		0.6	
ISOBUTANE.....	0.4			0.3		0.4	
N-PENTANE.....	0.1			TRACE		0.2	
ISOPENTANE.....	0.2			TRACE		0.1	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	11.8			10.2		7.8	
OXYGEN.....	TRACE			TRACE		0.1	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.2	
HELIUM.....	0.86			0.50		0.90	
HEATING VALUE.....	989			0.68		10.3	
SPECIFIC GRAVITY.....	0.667			0.701		0.670	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ADSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1103

	INDEX SAMPLE	397 8075		INDEX SAMPLE	398 8076		INDEX SAMPLE	399 8077
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
LOCATION.....	4 IN. LINE		INLET			8 IN. LINE TO KNNG		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS		
SAMPLED.....	07/19/61		07/19/61			07/19/61		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	240		238			240		
FLOW, MCF.....	1500		7300			6000		
COMPONENT, MOLE PCT.....								
METHANE.....	68.8		73.6			74.1		
ETHANE.....	1.4		5.4			5.8		
PROPANE.....	2.5		2.5			2.8		
N-BUTANE.....	0.4		0.8			0.8		
ISOBUTANE.....	0.3		0.6			0.6		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	22.8		15.2			13.9		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.20		0.90			0.90		
HEATING VALUE.....	1001		980			1001		
SPECIFIC GRAVITY.....	0.692		0.702			0.700		

	INDEX SAMPLE	400 8078		INDEX SAMPLE	401 8079		INDEX SAMPLE	402 8080
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
LOCATION.....	8 IN. LINE TO KNNG		5 IN. LINE TO KNNG			NOT GIVEN		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS		
SAMPLED.....	07/19/61		07/19/61			07/19/61		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	393		245			610		
FLOW, MCF.....	7000		NOT GIVEN			10000		
COMPONENT, MOLE PCT.....								
METHANE.....	74.5		74.1			69.2		
ETHANE.....	1.4		1.4			5.3		
PROPANE.....	2.3		1.8			3.5		
N-BUTANE.....	0.8		1.8			0.9		
ISOBUTANE.....	0.5		1.5			0.5		
N-PENTANE.....	0.2		0.6			0.2		
ISOPENTANE.....	0.1		0.4			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.4			0.1		
NITROGEN.....	15.4		8.5			18.6		
OXYGEN.....	TRACE		0.2			TRACE		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.6			TRACE		
HELIUM.....	0.20		3.90			0.40		
HEATING VALUE.....	986		1153			970		
SPECIFIC GRAVITY.....	0.701		0.747			0.724		

	INDEX	403		INDEX	404		INDEX	405
	SAMPLE	8082		SAMPLE	8093		SAMPLE	8110
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
LOCATION.....	4 IN. LINE TO KNNG PLANT		TIE IN FROM NORTHERN NAT.			NOT GIVEN		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS		
SAMPLED.....	07/19/61		07/20/61			08/04/61		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	270		NOT GIVEN			NOT GIVEN		
FLOW, MCF.....	1000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	83.5		69.8			69.4		
ETHANE.....	4.1		5.0			5.2		
PROpane.....	1.6		3.3			3.4		
N-BUTANE.....	0.5		0.8			0.8		
ISOBUTANE.....	0.4		0.5			0.5		
N-PENTANE.....	0.1		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	6.1		18.8			19.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.1			TRACE		
HELIUM.....	0.20		0.50			0.40		
HEATING VALUE.....	1034		958			960		
SPECIFIC GRAVITY.....	0.642		0.721			0.722		

	INDEX SAMPLE	406 9265		INDEX SAMPLE	407 14643		INDEX SAMPLE	408 5245
STATE.....	KANSAS			KANSAS			KANSAS	
COUNTY.....	RUSH			RUSH			RUSH	
FIELD.....	NOT GIVEN			NOT GIVEN			PAWNEE & ASH CREEK	
LOCATION.....	NOT GIVEN			PLANT OUTLET			DISCHARGE	
OWNER.....	KANSAS POWER & LIGHT CO.			KANSAS REFINED HELIUM CO.			P. JONES OIL & OPER. CO.	
SAMPLED.....	03/27/64			04/23/76			06/18/52	
FORMATION.....	NOT GIVEN			NOT GIVEN			NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385			385			385	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN			NOT GIVEN	
PRESSURE, PSIG.....	330			NOT GIVEN			NOT GIVEN	
FLOW, MCF.....	162			NOT GIVEN			NOT GIVEN	
COMPONENT, MOLE PCT.....								
METHANE.....	81.9			83.5			73.1	
ETHANE.....	3.0			4.6			4.1	
PROpane.....	1.9			1.7			2.1	
N-BUTANE.....	0.3			0.4			0.8	
ISOBUTANE.....	0.3			0.2			0.3	
N-PENTANE.....	TRACE			0.0			0.3	
ISOPENTANE.....	TRACE			0.0			0.3	
CYCLOPENTANE.....	TRACE			0.0			0.1	
HEXANES PLUS.....	TRACE			0.0			0.1	
NITROGEN.....	0.0			0.0			16.2	
OXYGEN.....	TRACE			0.0			0.1	
ARGON.....	0.1			0.1			0.1	
HYDROGEN.....	0.0			0.0			0.1	
HYDROGEN SULFIDE.....	0.0			0.0			0.0	
CARBON DIOXIDE.....	0.3			0.0			0.74	
HELIUM.....	0.62			0.0			1.74	
HEATING VALUE.....	1024			913			943	
SPECIFIC GRAVITY.....	0.653			0.643			0.645	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 409 SAMPLE 16823			INDEX 410 SAMPLE 8081			INDEX 411 SAMPLE 5915		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	PAWNEE & EDWARDS CO. KS AREA		PAWNEE ROCK			REICHEL		
LOCATION.....	8 IN. DISCHARGE		6 IN. LINE TO KNNG PLANT			FIELD LINE		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS		
SAMPLED.....	03/16/53		09/19/51			08/16/55		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	335		252			NOT GIVEN		
FLOW, MCFD.....	1500		1000			NOT GIVEN		
COMPONENT, MOLE PCT.....								
METHANE.....	86.4		78.4			72.4		
ETHANE.....	3.7		5.3			3.4		
PROPANE.....	1.4		2.5			1.4		
N-BUTANE.....	0.5		1.0			0.5		
ISOBUTANE.....	0.2		0.8			0.4		
N-PENTANE.....	0.1		0.4			0.1		
ISOPENTANE.....	0.2		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.4			0.2		
NITROGEN.....	0.3		9.1			19.2		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.2		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.2			0.1		
HELIUM.....	0.60		1.23			1.88		
HEATING VALUE.....	1020		1065			888		
SPECIFIC GRAVITY.....	0.630		0.695			0.685		
INDEX 412 SAMPLE 5944			INDEX 413 SAMPLE 8381			INDEX 414 SAMPLE 8517		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		RUSH			RUSH		
FIELD.....	REICHEL		REICHEL			REICHEL		
LOCATION.....	REICHEL WELLS		5 & 8 IN. OUTLET			8 IN. DISCH. TO CTIS PLANT		
OWNER.....	U.S. BUREAU OF MINES		KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS		
SAMPLED.....	09/22/55		01/24/52			04/19/62		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	385		385			385		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		2000			3000		
COMPONENT, MOLE PCT.....								
METHANE.....	72.4		71.5			70.0		
ETHANE.....	3.3		3.0			3.1		
PROPANE.....	1.4		1.2			1.4		
N-BUTANE.....	0.5		0.8			0.5		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.1		0.1			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	20.7		20.7			22.3		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.62		2.02			2.09		
HEATING VALUE.....	883		851			837		
SPECIFIC GRAVITY.....	0.596		0.680			0.586		
INDEX 415 SAMPLE 8083			INDEX 416 SAMPLE 13332			INDEX 417 SAMPLE 15496		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	RUSH		SCOTT			SCOTT		
FIELD.....	SWEENEY		BRADSHAW			BRADSHAW		
LOCATION.....	4 IN. INLET		10 IN. SYRACUSE INLET			SYRACUSE 10 IN. INLET		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS		
SAMPLED.....	07/15/51		07/25/72			11/15/79		
FORMATION.....	NOT GIVEN		PERA-CHASE GROUP			PERA-CHASE GROUP		
GEOLOGIC PROVINCE CODE.....	385		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	112		385			365		
FLOW, MCFD.....	2000		14000			12000		
COMPONENT, MOLE PCT.....								
METHANE.....	84.4		55.9			57.0		
ETHANE.....	4.7		7.4			7.1		
PROPANE.....	1.2		1.7			1.7		
N-BUTANE.....	0.7		1.0			1.2		
ISOBUTANE.....	0.5		0.5			0.5		
N-PENTANE.....	0.2		0.4			0.3		
ISOPENTANE.....	0.1		TRACE			0.3		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.1			0.3		
NITROGEN.....	5.8		32.1			30.6		
OXYGEN.....	0.0		0.1			0.0		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	TRACE		TRACE			0.0		
CARBON DIOXIDE.....	0.5		TRACE			0.0		
HELIUM.....	0.70		0.72			0.69		
HEATING VALUE.....	1036		827			873		
SPECIFIC GRAVITY.....	0.594		0.790			0.791		
INDEX 418 SAMPLE 7377			INDEX 419 SAMPLE 7378			INDEX 420 SAMPLE 13333		
STATE.....	KANSAS		KANSAS			KANSAS		
COUNTY.....	SCOTT		SCOTT			SCOTT		
FIELD.....	HUGGTON		HUGGTON			HUGGTON		
LOCATION.....	3-12 IN. OUTLET LINES		12-14 IN. INLET			12 IN. DEERFIELD INLET		
OWNER.....	KANSAS-NEBRASKA NATURAL GAS		KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS		
SAMPLED.....	02/05/50		02/25/50			07/25/72		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	800		330			385		
FLOW, MCFD.....	134015		136014			10000		
COMPONENT, MOLE PCT.....								
METHANE.....	70.3		62.7			73.2		
ETHANE.....	3.1		5.2			6.4		
PROPANE.....	1.1		3.3			3.4		
N-BUTANE.....	0.9		0.9			0.8		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.2		0.3			0.3		
ISOPENTANE.....	0.1		0.3			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	14.4		10.3			14.8		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.2		0.1			0.0		
HYDROGEN SULFIDE.....	0.1		0.1			0.0		
CARBON DIOXIDE.....	0.0		0.0			TRACE		
HELIUM.....	0.61		0.60			0.66		
HEATING VALUE.....	961		966			1000		
SPECIFIC GRAVITY.....	0.718		0.720			0.704		

* CALCULATED GROSS HTU OF CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1105

INDEX 421 SAMPLE 13334		INDEX 422 SAMPLE 13337		INDEX 423 SAMPLE 15492	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	SCOTT	COUNTY.....	SCOTT	COUNTY.....	SCOTT
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
LOCATION.....	12 IN. LAKIN INLET	LOCATION.....	12 IN. HOLCOMB INLET	LOCATION.....	DEERFIELD 12 IN. INLET
OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	KANSAS-NEBRASKA NATURAL GAS
SAMPLED.....	07/25/72	SAMPLED.....	07/25/72	SAMPLED.....	11/15/78
FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	385	PRESSURE, PSIG.....	385	PRESSURE, PSIG.....	365
FLOW, MCFD.....	85975	FLOW, MCFD.....	51000	FLOW, MCFD.....	18350
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	71.8	METHANE.....	69.5	METHANE.....	72.4
ETHANE.....	6.5	ETHANE.....	6.3	ETHANE.....	6.3
PROPANE.....	3.6	PROPANE.....	3.6	PROPANE.....	3.5
N-BUTANE.....	1.0	N-BUTANE.....	1.0	N-BUTANE.....	0.9
ISOBUTANE.....	0.4	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.1	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	15.7	NITROGEN.....	18.3	NITROGEN.....	15.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.43	HELIUM.....	0.44	HELIUM.....	0.42
HEATING VALUE.....	1002	HEATING VALUE.....	973	HEATING VALUE.....	1005
SPECIFIC GRAVITY.....	0.714	SPECIFIC GRAVITY.....	0.727	SPECIFIC GRAVITY.....	0.713

INDEX 424 SAMPLE 15497		INDEX 425 SAMPLE 15498		INDEX 426 SAMPLE 16821	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	SCOTT	COUNTY.....	SCOTT	COUNTY.....	SCOTT
FIELD.....	HUGOTON	FIELD.....	HUGOTON	FIELD.....	HUGOTON
LOCATION.....	HOLCOMB 12 IN. INLET	LOCATION.....	LAKIN 12 IN. INLET	LOCATION.....	LAKIN 12 IN. INLET
OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	KANSAS-NEBRASKA NATURAL GAS
SAMPLED.....	11/15/78	SAMPLED.....	11/15/78	SAMPLED.....	03/12/83
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	365	PRESSURE, PSIG.....	365	PRESSURE, PSIG.....	365
FLOW, MCFD.....	67300	FLOW, MCFD.....	121300	FLOW, MCFD.....	42000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	68.5	METHANE.....	72.1	METHANE.....	71.2
ETHANE.....	6.8	ETHANE.....	6.5	ETHANE.....	6.5
PROPANE.....	3.5	PROPANE.....	3.8	PROPANE.....	3.7
N-BUTANE.....	1.0	N-BUTANE.....	1.1	N-BUTANE.....	1.2
ISOBUTANE.....	0.4	ISOBUTANE.....	0.4	ISOBUTANE.....	0.2
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.4
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	15.5	NITROGEN.....	15.1	NITROGEN.....	15.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1
HELIUM.....	0.48	HELIUM.....	0.41	HELIUM.....	0.41
HEATING VALUE.....	971	HEATING VALUE.....	1027	HEATING VALUE.....	1016
SPECIFIC GRAVITY.....	0.734	SPECIFIC GRAVITY.....	0.723	SPECIFIC GRAVITY.....	0.725

INDEX 427 SAMPLE 16822		INDEX 428 SAMPLE 13335		INDEX 429 SAMPLE 13336	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	SCOTT	COUNTY.....	SCOTT	COUNTY.....	SCOTT
FIELD.....	HUGOTON	FIELD.....	HUGOTON & BRADSHAW	FIELD.....	HUGOTON & BRADSHAW
LOCATION.....	12 IN. HELIUM PLT. INLET	LOCATION.....	20 IN. DISCHARGE	LOCATION.....	HELIUM PLANT INLET
OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	KANSAS-NEBRASKA NATURAL GAS
SAMPLED.....	07/25/72	SAMPLED.....	07/25/72	SAMPLED.....	07/25/72
FORMATION.....	NOT GIVEN	FORMATION.....	PERM-CHASE GROUP	FORMATION.....	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	365	PRESSURE, PSIG.....	360	PRESSURE, PSIG.....	385
FLOW, MCFD.....	86000	FLOW, MCFD.....	185000	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	69.0	METHANE.....	75.0	METHANE.....	66.8
ETHANE.....	5.5	ETHANE.....	5.7	ETHANE.....	6.1
PROPANE.....	2.9	PROPANE.....	3.6	PROPANE.....	3.6
N-BUTANE.....	0.7	N-BUTANE.....	0.2	N-BUTANE.....	1.0
ISOBUTANE.....	0.2	ISOBUTANE.....	0.1	ISOBUTANE.....	0.5
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.3
NITROGEN.....	20.6	NITROGEN.....	15.4	NITROGEN.....	20.5
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.2	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.53	HELIUM.....	0.26	HELIUM.....	0.49
HEATING VALUE.....	917	HEATING VALUE.....	944	HEATING VALUE.....	962
SPECIFIC GRAVITY.....	0.713	SPECIFIC GRAVITY.....	0.674	SPECIFIC GRAVITY.....	0.740

INDEX 430 SAMPLE 15490		INDEX 431 SAMPLE 15493		INDEX 432 SAMPLE 16820	
STATE.....	KANSAS	STATE.....	KANSAS	STATE.....	KANSAS
COUNTY.....	SCOTT	COUNTY.....	SCOTT	COUNTY.....	SCOTT
FIELD.....	HUGOTON & BRADSHAW	FIELD.....	HUGOTON & BRADSHAW	FIELD.....	HUGOTON & BRADSHAW
LOCATION.....	20 IN. DISCHARGE	LOCATION.....	12 IN. HELIUM PLANT INLET	LOCATION.....	20 IN. DISCHARGE
OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	KANSAS-NEBRASKA NATURAL GAS	OWNER.....	KANSAS-NEBRASKA NATURAL GAS
SAMPLED.....	11/15/78	SAMPLED.....	11/15/78	SAMPLED.....	03/15/83
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	320	PRESSURE, PSIG.....	365	PRESSURE, PSIG.....	320
FLOW, MCFD.....	215500	FLOW, MCFD.....	200300	FLOW, MCFD.....	84000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.0	METHANE.....	67.0	METHANE.....	69.6
ETHANE.....	6.5	ETHANE.....	5.9	ETHANE.....	6.8
PROPANE.....	3.5	PROPANE.....	3.6	PROPANE.....	3.9
N-BUTANE.....	0.1	N-BUTANE.....	1.0	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.3	ISOBUTANE.....	TRACE
N-PENTANE.....	TRACE	N-PENTANE.....	0.3	N-PENTANE.....	0.0
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.0
NITROGEN.....	15.3	NITROGEN.....	20.6	NITROGEN.....	20.8
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	2.3
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.1	HYDROGEN.....	0.1	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	0.1
HELIUM.....	0.30	HELIUM.....	0.50	HELIUM.....	0.15
HEATING VALUE.....	939	HEATING VALUE.....	953	HEATING VALUE.....	941
SPECIFIC GRAVITY.....	0.659	SPECIFIC GRAVITY.....	0.741	SPECIFIC GRAVITY.....	0.695

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE 433 15655	INDEX SAMPLE 434 13235	INDEX SAMPLE 435 17100
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	SEWARD		SEWARD	SEWARD
FIELD.....	ANADARKO AREA		FIELDS S OF LIBERAL INLET	FORGANA, OK ARFA
LOCATION.....	20 IN. HUBER LINE		TEXAS 100 & 200 LINES	20 IN. HUBER LINE
OWNER.....	PANHANDLE EASTERN PIPELINE CO		PANHANDLE EASTERN PIPELINE CO	PANHANDLE EASTERN PIPELINE CO
SAMPLED.....	06/18/79		06/05/72	10/17/83
FORMATION.....	PERM-CHASE GROUP		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	400		518	500
FLOW, MCFD.....	NOT GIVEN		193800	25000
COMPONENT, MOLE PCT				
METHANE.....	85.4	83.6	90.8	
ETHANE.....	3.6	7.3	3.3	
PROPANE.....	1.8	2.4	1.6	
N-BUTANE.....	0.5	0.2	0.5	
ISOBUTANE.....	0.2	0.1	0.2	
N-PENTANE.....	0.2	TRACE	0.1	
ISOPENTANE.....	0.2	TRACE	0.2	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.1	TRACE	0.1	
NITROGEN.....	6.5	3.8	2.7	
OXYGEN.....	1.1	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.2	0.2	
CARBON DIOXIDE.....	0.2	0.22	0.15	
HELIUM.....	0.11	1050	1026	
HEATING VALUE.....	1026	0.643	0.620	
SPECIFIC GRAVITY.....	0.647			
		INDEX SAMPLE 436 17101	INDEX SAMPLE 437 17098	INDEX SAMPLE 438 5528
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	SEWARD		SEWARD	HUGOTON
FIELD.....	GRANT CO., KS AREA		HANSFORD-BORGER TX AREA	20 & 24 IN. DISCHARGE
LOCATION.....	26 IN. GRANT CO. LINE		24 & 26 IN. TX 300 INLET	NORTHERN NATURAL GAS CO.
OWNER.....	PANHANDLE EASTERN PIPELINE CO		PANHANDLE EASTERN PIPELINE CO	NORTHERN NATURAL GAS CO.
SAMPLED.....	10/17/83		10/17/83	08/13/53
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	500		500	NOT GIVEN
FLOW, MCFD.....	15000		240000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	71.3	81.3	73.0	
ETHANE.....	6.4	3.5	5.3	
PROPANE.....	3.5	0.8	0.6	
N-BUTANE.....	1.0	0.3	0.3	
ISOBUTANE.....	0.3	0.2	0.1	
N-PENTANE.....	0.2	0.3	0.0	
ISOPENTANE.....	0.2	0.1	0.0	
CYCLOPENTANE.....	TRACE	0.1	0.0	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	16.3	0.5	16.1	
OXYGEN.....	TRACE	0.0	TRACE	
ARGON.....	TRACE	TRACE	0.1	
HYDROGEN.....	TRACE	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.32	0.0	
HELIUM.....	0.45	0.47	0.47	
HEATING VALUE.....	994	1062	972	
SPECIFIC GRAVITY.....	0.715	0.668	0.701	
		INDEX SAMPLE 439 5539	INDEX SAMPLE 440 5540	INDEX SAMPLE 441 5545
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	SEWARD		SEWARD	HUGOTON
FIELD.....	HUGOTON		HUGOTON	HUGOTON
LOCATION.....	20 & 24 IN. LINE		20 IN. DISCHARGE	22 IN. DISCHARGE
OWNER.....	NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.	PANHANDLE EASTERN PIPELINE CO
SAMPLED.....	08/13/53		08/13/53	08/13/53
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	74.5	76.9	73.0	
ETHANE.....	6.5	2.2	4.0	
PROPANE.....	3.4	0.2	3.7	
N-BUTANE.....	0.6	0.2	1.0	
ISOBUTANE.....	0.3	0.0	0.5	
N-PENTANE.....	TRACE	0.0	0.2	
ISOPENTANE.....	TRACE	0.1	0.1	
CYCLOPENTANE.....	TRACE	0.0	0.1	
HEXANES PLUS.....	TRACE	0.0	0.1	
NITROGEN.....	14.2	13.9	13.7	
OXYGEN.....	TRACE	TRACE	TRACE	
ARGON.....	0.1	0.1	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	TRACE	0.1	
HELIUM.....	0.42	0.45	0.39	
HEATING VALUE.....	990	957	1033	
SPECIFIC GRAVITY.....	0.692	0.668	0.715	
		INDEX SAMPLE 442 13231	INDEX SAMPLE 443 13232	INDEX SAMPLE 444 13313
STATE.....	KANSAS		KANSAS	KANSAS
COUNTY.....	SEWARD		SEWARD	HUGOTON
FIELD.....	HUGOTON		HUGOTON	HUGOTON
LOCATION.....	GRANT CO. INLET		SEWARD CO. LINE	20 IN. A DISCHARGE
OWNER.....	PANHANDLE EASTERN PIPELINE CO		PANHANDLE EASTERN PIPELINE CO	NORTHERN NATURAL GAS CO.
SAMPLED.....	06/05/72		06/05/72	07/25/72
FORMATION.....	NOT GIVEN		NOT GIVEN	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE.....	360		360	360
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	509		190	500
FLOW, MCFD.....	761000		16200	80000
COMPONENT, MOLE PCT				
METHANE.....	71.6	82.1	73.3	
ETHANE.....	6.3	8.6	5.3	
PROPANE.....	4.0	2.2	3.5	
N-BUTANE.....	1.2	0.2	0.8	
ISOBUTANE.....	0.6	0.2	0.6	
N-PENTANE.....	0.4	TRACE	0.1	
ISOPENTANE.....	0.3	TRACE	0.1	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.4	TRACE	TRACE	
NITROGEN.....	14.6	6.0	15.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.3	TRACE	
HELIUM.....	0.21	0.30	0.44	
HEATING VALUE.....	1057	1056	987	
SPECIFIC GRAVITY.....	0.739	0.651	0.702	

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1107

INDEX 445 SAMPLE 13338		INDEX 446 SAMPLE 15496		INDEX 447 SAMPLE 15489	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	SEWARD	SEWARD		SEWARD	
FIELD.....	HUGOTON	HUGOTON		HUGOTON	
LOCATION.....	24 IN. H. DISCHARGE	A-20 IN. H. DISCHARGE		6-24 IN. DISCHARGE	
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	07/25/72	11/14/78		11/14/78	
FORMATION.....	PERM-CHASE GROUP	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	780	500		800	
FLOW, MCFD.....	210000	70000		140000	
COMPONENT, MOLE PCT.....					
METHANE.....	74.2	73.7		73.7	
ETHANE.....	5.8	5.4		5.6	
PROPANE.....	3.9	3.4		4.2	
N-BUTANE.....	0.9	0.9		1.2	
ISOBUTANE.....	0.5	0.5		0.6	
N-PENTANE.....	0.3	0.2		0.3	
ISOPENTANE.....	0.0	0.2		0.3	
CYCLOPENTANE.....	TRACE	0.1		0.1	
HEXANES PLUS.....	0.1	0.3		0.3	
NITROGEN.....	12.5	15.4		12.2	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	TRACE		TRACE	
HELIUM.....	0.37	0.87		0.66	
HEATING VALUE.....	1040	1056		1020	
SPECIFIC GRAVITY.....	0.710	0.707		0.725	

INDEX 448 SAMPLE 15654		INDEX 449 SAMPLE 15656		INDEX 450 SAMPLE 16817	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	SEWARD	SEWARD		SEWARD	
FIELD.....	HUGOTON	HUGOTON		HUGOTON	
LOCATION.....	16 IN. SEWARD CO. LINE	26 IN. GRANT CO. INLET		8 IN. SUCTION	
OWNER.....	PANHANDLE EASTERN PIPELINE C	PANHANDLE EASTERN PIPELINE C		NORTHERN NATURAL GAS CO.	
SAMPLED.....	06/18/79	06/18/79		03/15/83	
FORMATION.....	PERM-CHASE GROUP	PERM-CHASE GROUP		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	490	490		115	
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	75.5	75.0		72.0	
ETHANE.....	5.3	5.4		5.6	
PROPANE.....	3.9	2.3		1.7	
N-BUTANE.....	0.8	0.7		0.5	
ISOBUTANE.....	0.3	0.3		0.2	
N-PENTANE.....	0.2	0.2		0.1	
ISOPENTANE.....	0.2	0.1		0.2	
CYCLOPENTANE.....	TRACE	TRACE		TRACE	
HEXANES PLUS.....	0.1	0.1		0.1	
NITROGEN.....	14.1	12.8		20.8	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		0.1	
HYDROGEN.....	TRACE	TRACE		0.2	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	TRACE	0.18		0.1	
HELIUM.....	0.45	0.48		0.60	
HEATING VALUE.....	392	1009		880	
SPECIFIC GRAVITY.....	0.691	0.589		0.693	

INDEX 451 SAMPLE 16818		INDEX 452 SAMPLE 17097		INDEX 453 SAMPLE 13237	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	SEWARD	SEWARD		SEWARD	
FIELD.....	HUGOTON	HUGOTON		HUGOTON & PANHANDLE	
LOCATION.....	A-20 IN. SUCTION	26 IN. HUGOTON INLET		100,300&400 DISCHARGE LINES	
OWNER.....	NORTHERN NATURAL GAS CO.	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
SAMPLED.....	03/15/83	10/17/83		06/05/72	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	408	500		800	
FLOW, MCFD.....	P700	70000		441000	
COMPONENT, MOLE PCT.....					
METHANE.....	74.3	71.9		64.1	
ETHANE.....	5.0	6.3		6.5	
PROPANE.....	3.7	3.6		1.7	
N-BUTANE.....	0.8	0.7		0.0	
ISOBUTANE.....	0.3	0.4		0.0	
N-PENTANE.....	0.1	0.2		0.0	
ISOPENTANE.....	0.1	0.2		0.0	
CYCLOPENTANE.....	TRACE	0.1		0.0	
HEXANES PLUS.....	0.1	0.2		0.0	
NITROGEN.....	14.1	12.0		7.0	
OXYGEN.....	TRACE	TRACE		TRACE	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.2	0.1		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.1		0.2	
HELIUM.....	0.47	0.44		TRACE	
HEATING VALUE.....	872	1022		999	
SPECIFIC GRAVITY.....	0.694	0.721		0.634	

INDEX 454 SAMPLE 13238		INDEX 455 SAMPLE 13236		INDEX 456 SAMPLE 15652	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	SEWARD	SEWARD		SEWARD	
FIELD.....	HUGOTON & PANHANDLE	HUGOTON, GREENWOOD & KEYES		HUGOTON, GREENWOOD & KEYES	
LOCATION.....	200 DISCHARGE LINE	HUGOTON INLET		26 IN. HUGOTON INLET	
OWNER.....	PANHANDLE EASTERN PIPELINE C	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
SAMPLED.....	06/05/72	06/05/72		06/18/79	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360	360		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	800	509		490	
FLOW, MCFD.....	300000	243900		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	70.7	73.3		75.6	
ETHANE.....	5.6	5.8		6.8	
PROPANE.....	3.7	3.4		2.1	
N-BUTANE.....	0.6	0.7		0.7	
ISOBUTANE.....	0.4	0.5		0.5	
N-PENTANE.....	0.1	0.2		0.2	
ISOPENTANE.....	TRACE	0.1		0.2	
CYCLOPENTANE.....	TRACE	0.1		TRACE	
HEXANES PLUS.....	0.1	0.1		0.1	
NITROGEN.....	13.6	13.8		12.3	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	TRACE	TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	0.4		0.3	
HELIUM.....	0.02	0.04		0.37	
HEATING VALUE.....	1061	1029		1024	
SPECIFIC GRAVITY.....	0.730	0.711		0.696	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	457 13617	INDEX SAMPLE	458 13616	INDEX SAMPLE	459 11049
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	SEWARD			SEWARD		SEWARD	
FIELD	HUGOTON-GRANT CO.			HUGOTON-SEWARD CO.		KISMET	
LOCATION	16 IN. INLET			18 IN. INLET		NOT GIVEN	
OWNER	PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		A. L. ABERCROMBIE, INC.	
SAMPLED	06/04/73			06/04/73		08/04/67	
FORMATION	NOT GIVEN			NOT GIVEN		-COMMINGLED	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	520			500		NOT GIVEN	
FLOW, MCFD	86000			23000		NOT GIVEN	
COMPONENT, MOLE PCT						NOT GIVEN	
METHANE	73.3			77.2		76.1	
ETHANE	6.1			4.3		4.9	
PROPANE	3.6			2.9		4.1	
N-BUTANE	0.9			0.6		1.5	
ISOBUTANE	0.5			0.4		0.9	
N-PENTANE	0.2			0.1		0.3	
ISOPENTANE	0.2			0.2		0.6	
CYCLOPENTANE	TRACE			TRACE		0.1	
HEXANES PLUS	0.1			0.1		0.3	
NITROGEN	14.3			12.6		9.8	
OXYGEN	0.0			0.0		0.0	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.0			TRACE		TRACE	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.0			0.0		0.1	
HELIUM	0.42			0.42		0.25	
HEATING VALUE	1015			1004		1121	
SPECIFIC GRAVITY	0.710			0.682		0.728	

		INDEX SAMPLE	460 7093	INDEX SAMPLE	461 7095	INDEX SAMPLE	462 12134
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	SEWARD			SEWARD		SEWARD	
FIELD	NOT GIVEN			NOT GIVEN		NOT GIVEN	
LOCATION	NOT GIVEN			18 & 26 IN. INLET		PLANT INLET	
OWNER	PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		NATIONAL HELIUM CORP.	
SAMPLED	06/17/59			06/17/59		11/26/69	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	470			500		NOT GIVEN	
FLOW, MCFD	425			375		NOT GIVEN	
COMPONENT, MOLE PCT						NOT GIVEN	
METHANE	78.8			72.5		78.2	
ETHANE	6.8			6.7		6.6	
PROPANE	3.2			3.2		3.2	
N-BUTANE	0.3			1.0		0.6	
ISOBUTANE	0.3			0.8		0.2	
N-PENTANE	0.1			0.3		0.2	
ISOPENTANE	0.2			0.6		TRACE	
CYCLOPENTANE	TRACE			0.1		TRACE	
HEXANES PLUS	0.1			0.2		0.1	
NITROGEN	7.4			14.1		10.4	
OXYGEN	0.0			0.0		0.0	
ARGON	0.1			0.1		TRACE	
HYDROGEN	0.0			TRACE		0.1	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.0			0.2		0.1	
HELIUM	0.40			0.40		0.35	
HEATING VALUE	1040			1038		1034	
SPECIFIC GRAVITY	0.676			0.723		0.680	

		INDEX SAMPLE	463 13233	INDEX SAMPLE	464 13234	INDEX SAMPLE	465 15653
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	SEWARD			SEWARD		SEWARD	
FIELD	NOT GIVEN			NOT GIVEN		PANHANDLE AREA	
LOCATION	HUBER LINE INLET			TEXAS 300 INLET LINE		24 & 26 IN. TEXAS 300 INLET	
OWNER	PANHANDLE EASTERN PIPELINE C			PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C	
SAMPLED	05/05/72			06/05/72		06/18/79	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	320			524		500	
FLOW, MCFD	35500			196100		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	88.4			81.1		87.4	
ETHANE	5.9			7.6		4.5	
PROPANE	2.4			2.2		1.0	
N-BUTANE	0.4			0.2		0.1	
ISOBUTANE	0.3			0.2		0.0	
N-PENTANE	0.1			TRACE		0.1	
ISOPENTANE	0.1			TRACE		0.0	
CYCLOPENTANE	TRACE			TRACE		TRACE	
HEXANES PLUS	0.1			TRACE		TRACE	
NITROGEN	2.0			3.0		6.4	
OXYGEN	0.0			0.0		0.0	
ARGON	0.0			TRACE		TRACE	
HYDROGEN	0.2			TRACE		TRACE	
HYDROGEN SULFIDE	7.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.2		0.1	
HELIUM	0.13			0.37		0.22	
HEATING VALUE	1105			1028		1000	
SPECIFIC GRAVITY	0.635			0.653		0.616	

		INDEX SAMPLE	466 17099	INDEX SAMPLE	467 13745	INDEX SAMPLE	468 9269
STATE	KANSAS			KANSAS		KANSAS	
COUNTY	SEWARD			SEWARD		STAFFORD	
FIELD	SEWARD CO., KS AREA			UNDESIGNATED		BELPRE	
LOCATION	16 IN. SEWARD CO. LINE			LIBERAL PLANT INLET LINE		NOT GIVEN	
OWNER	PANHANDLE EASTERN PIPELINE C			NATIONAL HELIUM CORP.		KANSAS POWER & LIGHT CO.	
SAMPLED	10/17/73			10/09/73		03/77/64	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	360			360		385	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	180			500		450	
FLOW, MCFD	15000			NOT GIVEN		1250	
COMPONENT, MOLE PCT							
METHANE	73.9			77.5		76.6	
ETHANE	5.7			6.8		4.5	
PROPANE	3.0			3.2		2.3	
N-BUTANE	0.9			0.6		0.9	
ISOBUTANE	0.4			0.4		0.4	
N-PENTANE	0.2			0.1		0.1	
ISOPENTANE	0.2			0.3		0.3	
CYCLOPENTANE	0.1			TRACE		0.1	
HEXANES PLUS	0.1			0.1		0.2	
NITROGEN	14.9			10.8		13.9	
OXYGEN	TRACE			0.0		0.0	
ARGON	TRACE			TRACE		TRACE	
HYDROGEN	0.0			TRACE		0.0	
HYDROGEN SULFIDE	6.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.1		0.2	
HELIUM	0.46			0.37		0.35	
HEATING VALUE	998			937		991	
SPECIFIC GRAVITY	0.705			0.686		0.691	

* CALCULATED GROSS BTU PER CU. FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1109

INDEX SAMPLE 469 9270		INDEX SAMPLE 470 8518		INDEX SAMPLE 471 9267	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	STAFFORD	STAFFORD		STAFFORD	
FIELD.....	DILLWIN W	MACKSVILLE		MACKSVILLE	
LOCATION.....	NOT GIVEN	FIELD OUTLET TO OTIS PLANT		NOT GIVEN	
OWNER.....	KANSAS POWER & LIGHT CO.	KANSAS-NEBRASKA NATURAL GAS		KANSAS POWER & LIGHT CO.	
SAMPLED.....	03/-/64	04/19/62		03/-/64	
FORMATION.....	NOT GIVEN	NOT GIVEN		ORDO-VIOLA	
GEOLOGIC PROVINCE CODE.....	385	385		385	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	420	300		430	
FLOW, MCFD.....	1250	4000		1500	
COMPONENT, MOLE PCT.....					
METHANE.....	87.2	81.0		87.7	
ETHANE.....	3.8	3.9		3.9	
PROPANE.....	1.5	0.5		1.6	
N-BUTANE.....	0.5	0.5		0.6	
ISOBUTANE.....	0.3	0.3		0.1	
N-PENTANE.....	0.1	0.2		0.1	
ISOPENTANE.....	0.1	0.2		0.3	
CYCLOPENTANE.....	0.1	TRACE		0.1	
HEXANES PLUS.....	0.1	0.1		0.2	
NITROGEN.....	9.4	9.1		4.9	
OXYGEN.....	0.0	TRACE		0.0	
ARGON.....	TRACE	0.1		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.3		0.3	
HELIUM.....	0.71	1.36		0.72	
HEATING VALUE.....	1034	981		1035	
SPECIFIC GRAVITY.....	0.530	0.534		0.533	

INDEX SAMPLE 472 9266		INDEX SAMPLE 473 9273		INDEX SAMPLE 474 5751	
STATE.....	KANSAS	KANSAS		KANSAS	
COUNTY.....	STAFFORD	STAFFORD		STEVENS	
FIELD.....	NOT GIVEN	RAITTS SHAKE		HUGOTON	
LOCATION.....	FARMINGTON & FOLEY GAS COMP.	NOT GIVEN		KANSAS 12 IN. LINE	
OWNER.....	KANSAS POWER & LIGHT CO.	KANSAS POWER & LIGHT CO.		HUGOTON-PLAINS GAS & OIL CO.	
SAMPLED.....	03/-/64	03/-/64		01/07/55	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	385	385		360	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	420	420		NOT GIVEN	
FLOW, MCFD.....	2200	750		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	83.1	75.3		73.3	
ETHANE.....	4.0	4.2		4.6	
PROPANE.....	1.5	2.5		1.9	
N-BUTANE.....	0.6	1.1		0.6	
ISOBUTANE.....	0.3	0.3		0.3	
N-PENTANE.....	0.1	0.2		0.1	
ISOPENTANE.....	0.3	0.2		0.1	
CYCLOPENTANE.....	0.2	TRACE		TRACE	
HEXANES PLUS.....	0.1	0.1		0.1	
NITROGEN.....	9.3	12.0		12.2	
OXYGEN.....	0.2	0.0		0.1	
ARGON.....	TRACE	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.2	0.2		TRACE	
HELIUM.....	0.67	1.20		0.60	
HEATING VALUE.....	1016	1014		979	
SPECIFIC GRAVITY.....	0.534	0.547		0.563	

INDEX SAMPLE 475 1189		INDEX SAMPLE 476 10057		INDEX SAMPLE 477 15271	
STATE.....	KANSAS	KENTUCKY		LOUISIANA	
COUNTY.....	CLARK	CLARK		ASCENSION	
FIELD.....	AREA COMPOSITE	TRAPP		PLANT SAMPLE	
LOCATION.....	ARK. CITY COMPRESSOR STA.	TRAPP, KENTUCKY		CYLINDER NO. 9181	
OWNER.....	EMPIRE GAS & FUEL CO.	MELCHER-ATKINS OIL CO., LTD.		AGRICOL CHEMICAL CO.	
SAMPLED.....	08/12/65	08/12/65		04/-/78	
FORMATION.....	NOT GIVEN	ORDO-ST. PETER		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	375	300		220	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN	500		500	
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT.....					
METHANE.....	57.2	87.7		94.2	
ETHANE.....	30.4	1.3		2.6	
PROPANE.....	---	0.7		0.9	
N-BUTANE.....	---	0.2		0.3	
ISOBUTANE.....	---	0.0		0.2	
N-PENTANE.....	---	0.0		0.1	
ISOPENTANE.....	---	0.0		0.1	
CYCLOPENTANE.....	---	0.0		0.1	
HEXANES PLUS.....	---	0.0		0.1	
NITROGEN.....	11.4	6.7		0.3	
OXYGEN.....	0.3	0.3		0.3	
ARGON.....	---	0.1		TRACE	
HYDROGEN.....	---	0.0		TRACE	
HYDROGEN SULFIDE.....	---	0.0		0.0	
CARBON DIOXIDE.....	0.4	2.5		0.4	
HELIUM.....	0.30	0.20		TRACE	
HEATING VALUE.....	1124	1480		1052	
SPECIFIC GRAVITY.....	0.755	0.625		0.500	

INDEX SAMPLE 478 15272		INDEX SAMPLE 479 13008		INDEX SAMPLE 480 11427	
STATE.....	LOUISIANA	LOUISIANA		LOUISIANA	
COUNTY.....	ASCENSION	CAMERON		CAMERON	
FIELD.....	PLANT SAMPLE	CAMERON E BLK. 365		CAMERON E BLK. 64	
LOCATION.....	CYLINDER 9134	NOT GIVEN		NOT GIVEN	
OWNER.....	AGRICOL CHEMICAL CO.	TEXACO INC.		MOBIL OIL CORP.	
SAMPLED.....	7/-/70	08/12/71		04/08/69	
FORMATION.....	NOT GIVEN	PLIO-9500 H SAND		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	NOT GIVEN	NOT GIVEN		220	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	5	NOT GIVEN		10.0	
FLOW, MCFD.....	NOT GIVEN	72000		5000	
COMPONENT, MOLE PCT.....					
METHANE.....	4.1	75.9		92.5	
ETHANE.....	---	0.7		1.7	
PROPANE.....	TRACE	0.5		1.3	
N-BUTANE.....	0.3	0.1		0.4	
ISOBUTANE.....	0.0	0.3		0.3	
N-PENTANE.....	0.0	0.0		0.2	
ISOPENTANE.....	0.0	TRACE		TRACE	
CYCLOPENTANE.....	0.0	TRACE		0.1	
HEXANES PLUS.....	0.0	0.1		0.1	
NITROGEN.....	22.3	0.3		0.4	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.0	0.0		0.0	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	2.9		0.0	
CARBON DIOXIDE.....	TRACE	0.2		0.7	
HELIUM.....	0.0	TRACE		TRACE	
HEATING VALUE.....	233	1030		1089	
SPECIFIC GRAVITY.....	0.359	0.517		0.517	

* CALCULATED FROM ALL PCP CL FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY.
 ** DUE TO THE ASSUMPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE.

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE 481 11818	INDEX SAMPLE 482 11750	INDEX SAMPLE 483 11736
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	CAMERON	JEFFERSON	JEFFERSON	LAFAYETTE
FIELD.....	BLK. 110	GRAND ISLE BLK. 16	GRAND ISLE BLK. 16	BAY MARCHAND BLK. 2
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	MOBILE OIL CORP.	HUMBLE OIL & REFINING CO.	HUMBLE OIL & REFINING CO.	CHEVRON OIL CO.
SAMPLED.....	01/28/69	01/28/69	01/28/69	01/28/69
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	220	220	220	220
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	1060	1050	1050	NOT GIVEN
FLOW, MCFD.....	25000	24000	24000	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	96.7	91.8	92.0	92.0
ETHANE.....	1.4	3.2	3.2	3.2
PROPANE.....	0.3	1.6	1.6	1.6
N-BUTANE.....	0.2	0.6	0.5	0.5
ISOBUTANE.....	0.0	0.3	0.2	0.2
N-PENTANE.....	0.1	0.2	0.2	0.2
ISOPENTANE.....	0.1	TRACE	0.0	0.0
CYCLOPENTANE.....	0.1	0.2	0.1	0.1
HEXANES PLUS.....	0.1	0.3	0.3	0.3
NITROGEN.....	0.4	0.9	1.3	1.3
OXYGEN.....	TRACE	TRACE	0.3	0.3
ARGON.....	TRACE	0.0	TRACE	TRACE
HYDROGEN.....	TRACE	0.1	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.7	0.3	0.3	0.3
HELIUM.....	TRACE	TRACE	TRACE	TRACE
HEATING VALUE.....	1037	1038	1072	1072
SPECIFIC GRAVITY.....	0.585	0.529	0.614	0.614

		INDEX SAMPLE 484 11749	INDEX SAMPLE 485 1659	INDEX SAMPLE 486 1660
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	PLAQUEMINES	RICHLAND	RICHLAND	RICHLAND
FIELD.....	DELTA BLK. 73 W	NOT GIVEN	NOT GIVEN	NOT GIVEN
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	HUMBLE OIL & REFINING CO.	RICHLAND PARISH FIELD	RICHLAND PARISH FIELD	RICHLAND PARISH FIELD
SAMPLED.....	01/28/69	NAT. GAS & FUEL CORP. ARK.	NAT. GAS & FUEL CORP. ARK.	NAT. GAS & FUEL CORP. ARK.
FORMATION.....	NOT GIVEN	06/26/72	06/26/72	06/26/72
GEOLOGIC PROVINCE CODE.....	220	NOT GIVEN	NOT GIVEN	NOT GIVEN
DEPTH, FEET.....	NOT GIVEN	230	230	230
PRESSURE, PSIG.....	1075	NOT GIVEN	NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	45000	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	93.2	89.0	90.5	90.5
ETHANE.....	3.3	5.6	4.6	4.6
PROPANE.....	1.3	---	---	---
N-BUTANE.....	0.4	---	---	---
ISOBUTANE.....	0.2	---	---	---
N-PENTANE.....	0.2	---	---	---
ISOPENTANE.....	0.2	---	---	---
CYCLOPENTANE.....	0.1	---	---	---
HEXANES PLUS.....	0.1	---	---	---
NITROGEN.....	0.5	4.7	4.3	4.3
OXYGEN.....	0.1	0.4	0.4	0.4
ARGON.....	TRACE	---	---	---
HYDROGEN.....	TRACE	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	---
CARBON DIOXIDE.....	0.2	0.2	0.2	0.2
HELIUM.....	TRACE	0.10	0.10	0.10
HEATING VALUE.....	1083	1002	999	999
SPECIFIC GRAVITY.....	0.569	0.635	0.593	0.593

		INDEX SAMPLE 487 11823	INDEX SAMPLE 488 11824	INDEX SAMPLE 489 11745
STATE.....	LOUISIANA	LOUISIANA	LOUISIANA	LOUISIANA
PARISH.....	ST. MARY	ST. MARY	ST. MARY	TERREBOURNE
FIELD.....	EUGENE ISLAND BLK. 126	EUGENE ISLAND BLK. 128	EUGENE ISLAND BLK. 128	TIMBALIER S BLK. 135
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	TRANSCO PIPELINE CO.	TRANSCO PIPELINE CO.	TRANSCO PIPELINE CO.	GULF OIL CO.
SAMPLED.....	01/28/69	01/13/69	01/13/69	01/23/69
FORMATION.....	MCC	MCC	MCC	MCC
GEOLOGIC PROVINCE CODE.....	220	220	220	951
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	900	900	1300	1300
FLOW, MCFD.....	15134	7000	21000	21000
COMPONENT, MOLE PCT				
METHANE.....	90.9	89.8	88.0	88.0
ETHANE.....	4.7	5.1	4.9	4.9
PROPANE.....	1.8	2.1	2.4	2.4
N-BUTANE.....	0.4	0.5	0.8	0.8
ISOBUTANE.....	0.4	0.5	0.7	0.7
N-PENTANE.....	0.3	0.3	0.9	0.9
ISOPENTANE.....	0.0	0.1	0.1	0.1
CYCLOPENTANE.....	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.1	0.1	0.1	0.1
NITROGEN.....	0.4	0.0	0.0	0.0
OXYGEN.....	TRACE	0.0	0.4	0.4
ARGON.....	TRACE	0.1	TRACE	TRACE
HYDROGEN.....	0.1	0.1	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.6	0.3	0.3	0.3
HELIUM.....	TRACE	TRACE	TRACE	TRACE
HEATING VALUE.....	1101	1134	1124	1124
SPECIFIC GRAVITY.....	0.624	0.436	0.655	0.655

		INDEX SAMPLE 490 14828	INDEX SAMPLE 491 11481	INDEX SAMPLE 492 7431
STATE.....	MARYLAND	MICHIGAN	MICHIGAN	MICHIGAN
COUNTY.....	GARRETT	KENT	KENT	NEWAYGO
FIELD.....	NEGRO MOUNTAIN	WALKER	WALKER	ENSLEY
LOCATION.....	6 IN. WELLHEAD	NOT GIVEN	NOT GIVEN	SEC. 7 & 17, T11N, R11W
OWNER.....	COLUMBIA GAS TRANS. CORP.	SMITH PETROLEUM CO.	SMITH PETROLEUM CO.	HESS & RYDER
SAMPLED.....	10/22/76	05/07/68	05/07/68	03/03/60
FORMATION.....	NOT GIVEN	DEFO-DUNDEE	DEFO-DUNDEE	MIS-
GEOLOGIC PROVINCE CODE.....	160	305	305	305
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	2200	NOT GIVEN	NOT GIVEN	314
FLOW, MCFD.....	200	NOT GIVEN	NOT GIVEN	4000
COMPONENT, MOLE PCT				
METHANE.....	99.0	84.0	65.4	65.4
ETHANE.....	1.3	9.5	2.4	2.4
PROPANE.....	TRACE	2.8	0.3	0.3
N-BUTANE.....	0.0	0.7	0.2	0.2
ISOBUTANE.....	0.0	0.3	0.6	0.6
N-PENTANE.....	0.0	0.1	0.0	0.0
ISOPENTANE.....	0.0	0.1	0.0	0.0
CYCLOPENTANE.....	0.0	0.1	0.0	0.0
HEXANES PLUS.....	0.0	0.1	0.0	0.0
NITROGEN.....	0.5	2.1	23.5	23.5
OXYGEN.....	0.0	0.1	0.1	0.1
ARGON.....	0.0	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	TRACE	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.1	0.0	0.0
HELIUM.....	0.04	0.11	1.70	1.70
HEATING VALUE.....	1016	1143	852	852
SPECIFIC GRAVITY.....	0.565	0.662	0.707	0.707

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1111

INDEX SAMPLE 493 11480		INDEX SAMPLE 494 11478		INDEX SAMPLE 495 11497	
STATE.....	MICHIGAN	MICHIGAN		MICHIGAN	
COUNTY.....	OSCEOLA	OTSEGO		ST. CLAIR	
FIELD.....	MIDDLE BRANCH	OTSEGO		PESSEV	
LOCATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
OWNER.....	MICHIGAN CONSOLIDATED GAS CO	R. FRUEHAUF		CONSUMERS POWER CO.	
SAMPLED.....	05/05/68	05/03/68		05/07/68	
FORMATION.....	MISS-MICHIGAN STRAY	DEVU-ANTRIM		SILU-NIAGARAN	
GEOLOGIC PROVINCE CODE.....	305	305		305	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	80.0	93.7		88.1	
ETHANE.....	3.9	2.2		2.2	
PROPANE.....	3.0	0.1		1.6	
N-BUTANE.....	0.9	0.0		0.8	
ISOBUTANE.....	0.0	0.0		0.9	
N-PENTANE.....	0.0	0.0		0.1	
ISOPENTANE.....	0.0	0.0		0.3	
CYCLOPENTANE.....	0.0	0.0		TRACE	
HEXANES PLUS.....	0.0	0.0		0.5	
NITROGEN.....	0.0	0.0		0.0	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.1	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.1	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.1	5.7		TRACE	
HELIUM.....	0.35	0.02		0.12	
HEATING VALUE.....	1075	956		1099	
SPECIFIC GRAVITY.....	0.670	0.512		0.646	

INDEX SAMPLE 496 11484		INDEX SAMPLE 497 14211		INDEX SAMPLE 498 15855	
STATE.....	MICHIGAN	MISSISSIPPI		MISSISSIPPI	
COUNTY.....	WEXFORD	BOLIVAR		BOLIVAR	
FIELD.....	CHERRY GROVE	GULF COAST AREA		GULF COAST AREA	
LOCATION.....	NOT GIVEN	26, 30, & 36 IN.		26, 30 & 36 IN. LINES	
OWNER.....	NORTHERN GAS CO.	TRUNKLINE GAS CO.		TRUNKLINE GAS CO.	
SAMPLED.....	05/07/68	11/07/74		12/12/79	
FORMATION.....	MISS-MICHIGAN STRAY	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	305	240		240	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN	810		900	
FLOW, MCFD.....	NOT GIVEN	1049000		1500000	
COMPONENT, MOLE PCT					
METHANE.....	78.5	96.9		97.2	
ETHANE.....	9.2	1.9		1.6	
PROPANE.....	3.4	0.2		0.3	
N-BUTANE.....	0.0	0.1		0.1	
ISOBUTANE.....	0.0	0.0		TRACE	
N-PENTANE.....	0.0	0.0		TRACE	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	0.0	0.0		TRACE	
HEXANES PLUS.....	0.0	0.0		0.1	
NITROGEN.....	0.0	0.3		0.3	
OXYGEN.....	0.1	0.0		0.0	
ARGON.....	0.1	TRACE		TRACE	
HYDROGEN.....	0.1	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.0	0.0		0.0	
HELIUM.....	0.24	TRACE		TRACE	
HEATING VALUE.....	1085	1024		1030	
SPECIFIC GRAVITY.....	0.582	0.576		0.574	

INDEX SAMPLE 499 11920		INDEX SAMPLE 500 14215		INDEX SAMPLE 501 15859	
STATE.....	MISSISSIPPI	MISSISSIPPI		MISSISSIPPI	
COUNTY.....	BOLIVAR	CALHOUN		CALHOUN	
FIELD.....	NOT GIVEN	GULF COAST AREA		LOUISIANA	
LOCATION.....	26, 30 & 36 IN. LINES	2-30 IN. & 1-36 IN.		2-30 & 1-36 IN.	
OWNER.....	TRUNKLINE GAS CO.	COLUMBIA GULF TRANS. CO.		COLUMBIA GULF TRANS. CO.	
SAMPLED.....	06/04/69	11/08/74		12/13/79	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	240	200		200	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	900	1000		710	
FLOW, MCFD.....	800000	1500000		1325000	
COMPONENT, MOLE PCT					
METHANE.....	95.9	96.8		97.4	
ETHANE.....	2.5	1.9		1.4	
PROPANE.....	0.0	0.2		0.1	
N-BUTANE.....	0.0	TRACE		TRACE	
ISOBUTANE.....	0.0	TRACE		TRACE	
N-PENTANE.....	0.0	TRACE		TRACE	
ISOPENTANE.....	0.0	TRACE		TRACE	
CYCLOPENTANE.....	0.0	TRACE		TRACE	
HEXANES PLUS.....	0.0	TRACE		TRACE	
NITROGEN.....	0.0	0.0		0.2	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.0	TRACE		TRACE	
HYDROGEN.....	0.0	0.0		0.0	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	0.7	0.8		0.5	
HELIUM.....	TRACE	TRACE		TRACE	
HEATING VALUE.....	1027	1020		1020	
SPECIFIC GRAVITY.....	0.581	0.574		0.569	

INDEX SAMPLE 502 14212		INDEX SAMPLE 503 15856		INDEX SAMPLE 504 11919	
STATE.....	MISSISSIPPI	MISSISSIPPI		MISSISSIPPI	
COUNTY.....	COAHOMA	COAHOMA		DE SOTO	
FIELD.....	GULF COAST AREA	GULF COAST AREA		NOT GIVEN	
LOCATION.....	2-26, 1-30 & 1-36 IN.	2-26, 1-30 & 1-36 IN. LINES		2-26 IN. LINES	
OWNER.....	TEXAS GAS TRANSMISSION CORP.	TEXAS GAS TRANSMISSION CORP.		TEXAS GAS TRANSMISSION CORP.	
SAMPLED.....	11/07/74	12/17/79		06/04/69	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	240	240		250	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	650	650		600	
FLOW, MCFD.....	1600000	1640000		1614000	
COMPONENT, MOLE PCT					
METHANE.....	94.1	96.2		95.1	
ETHANE.....	2.6	2.0		2.8	
PROPANE.....	0.2	0.3		0.0	
N-BUTANE.....	TRACE	0.0		0.0	
ISOBUTANE.....	0.0	TRACE		0.0	
N-PENTANE.....	TRACE	TRACE		0.0	
ISOPENTANE.....	0.0	0.0		0.0	
CYCLOPENTANE.....	TRACE	TRACE		0.0	
HEXANES PLUS.....	0.1	0.0		0.0	
NITROGEN.....	1.2	0.5		0.7	
OXYGEN.....	0.0	0.0		0.0	
ARGON.....	0.0	TRACE		0.0	
HYDROGEN.....	0.0	0.0		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	1.7	0.9		1.0	
HELIUM.....	0.01	TRACE		0.01	
HEATING VALUE.....	1013	1024		1021	
SPECIFIC GRAVITY.....	0.595	0.581		0.583	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	505 14214	INDEX SAMPLE	506 15858	INDEX SAMPLE	507 14217
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	GRENADA			GRENADA		GRENADA	
FIELD.....	GULF COAST AREA			GULF COAST AREA		GULF COAST AREA	
LOCATION.....	30 IN.			30 IN.		30 & 35 IN.	
OWNER.....	TENNESSEE GAS PIPELINE CO.			TENNESSEE GAS PIPELINE CO.		TENNESSEE GAS PIPELINE CO.	
SAMPLED.....	11/07/74			12/13/79		11/08/74	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	200			200		200	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	565			510		875	
FLOW, MCFD.....	560000			529000		1693000	
COMPONENT, MOLE PCT							
METHANE.....	97.0	-----		97.2	-----	97.3	-----
ETHANE.....	1.8	-----		1.5	-----	1.8	-----
PROPANE.....	0.1	-----		0.1	-----	0.1	-----
N-BUTANE.....	TRACE	-----		0.0	-----	0.0	-----
ISOBUTANE.....	TRACE	-----		0.0	-----	0.0	-----
N-PENTANE.....	TRACE	-----		0.0	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		0.0	-----	0.0	-----
HEXANES PLUS.....	TRACE	-----		0.0	-----	0.0	-----
NITROGEN.....	0.3	-----		0.3	-----	0.4	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.8	-----		0.7	-----	0.5	-----
HELIUM.....	TRACE	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1017	-----		1019	-----	1020	-----
SPECIFIC GRAVITY.....	0.573	-----		0.573	-----	0.571	-----

		INDEX SAMPLE	508 15861	INDEX SAMPLE	509 14216	INDEX SAMPLE	510 15860
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	LOWNDES			LOWNDES		MONROE	
FIELD.....	GULF COAST AREA			GULF COAST AREA		GULF COAST AREA	
LOCATION.....	1-30 & 1-36 IN.			3-30 IN. & 1-35 IN.		2-30 & 1-36 IN.	
OWNER.....	TENNESSEE GAS PIPELINE CO.			TEXAS EASTERN TRANS. CORP.		TEXAS EASTERN TRANS. CORP.	
SAMPLED.....	12/14/79			11/08/74		12/13/79	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	200			200		200	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	580			838		1000	
FLOW, MCFD.....	636000			1500000		1890000	
COMPONENT, MOLE PCT							
METHANE.....	97.6	-----		96.4	-----	97.0	-----
ETHANE.....	1.5	-----		2.1	-----	1.6	-----
PROPANE.....	0.1	-----		0.1	-----	0.1	-----
N-BUTANE.....	0.0	-----		0.1	-----	0.1	-----
ISOBUTANE.....	0.0	-----		0.1	-----	0.1	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		TRACE	-----	0.1	-----
NITROGEN.....	0.4	-----		0.0	-----	0.4	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.5	-----	0.5	-----
HELIUM.....	TRACE	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1018	-----		1029	-----	1031	-----
SPECIFIC GRAVITY.....	0.568	-----		0.578	-----	0.578	-----

		INDEX SAMPLE	511 14213	INDEX SAMPLE	512 15857	INDEX SAMPLE	513 11924
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	PANOLA			PANOLA		PERRY	
FIELD.....	GULF COAST AREA			TEXAS AREA		GULF COAST AREA	
LOCATION.....	24, 28 & 2-26 IN.			1-26, 1-24 & 2-30 IN.		24 & 30 IN. LINES	
OWNER.....	TENNESSEE GAS PIPELINE CO.			TENNESSEE GAS PIPELINE CO.		FLORIDA GAS TRANSMISSION CO.	
SAMPLED.....	11/07/74			11/12/79		06/09/69	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	250			250		210	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	694			694		972	
FLOW, MCFD.....	1200000			1275000		660000	
COMPONENT, MOLE PCT							
METHANE.....	95.8	-----		95.6	-----	94.5	-----
ETHANE.....	2.7	-----		2.2	-----	3.3	-----
PROPANE.....	0.3	-----		0.5	-----	0.7	-----
N-BUTANE.....	0.1	-----		0.1	-----	0.2	-----
ISOBUTANE.....	0.1	-----		0.1	-----	0.0	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	TRACE	-----		0.1	-----	0.0	-----
NITROGEN.....	0.4	-----		0.5	-----	0.4	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.6	-----		0.0	-----	0.8	-----
HELIUM.....	TRACE	-----		TRACE	-----	TRACE	-----
HEATING VALUE.....	1033	-----		1033	-----	1041	-----
SPECIFIC GRAVITY.....	0.581	-----		0.585	-----	0.590	-----

		INDEX SAMPLE	514 14221	INDEX SAMPLE	515 15866	INDEX SAMPLE	516 14141
STATE.....	MISSISSIPPI			MISSISSIPPI		MISSISSIPPI	
COUNTY.....	PERRY			PERRY		RANKIN	
FIELD.....	GULF COAST AREA			TEXAS, LA. & OFFSHORE		PINEY WOODS & THOMASVILLE	
LOCATION.....	24 & 30 IN. LINES			1-24 IN. & 1-30 IN.		PLANT RESIDUE	
OWNER.....	FLORIDA GAS TRANSMISSION CO.			FLORIDA GAS TRANSMISSION CO.		SHELL OIL CO.	
SAMPLED.....	11/12/74			11/12/74		09/11/74	
FORMATION.....	NOT GIVEN			NOT GIVEN		JURA-SMACKOVER	
GEOLOGIC PROVINCE CODE.....	210			210		210	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	920			780		NOT GIVEN	
FLOW, MCFD.....	476000			745000		40000	
COMPONENT, MOLE PCT							
METHANE.....	95.1	-----		96.1	-----	98.3	-----
ETHANE.....	2.6	-----		2.1	-----	0.1	-----
PROPANE.....	0.6	-----		0.4	-----	0.0	-----
N-BUTANE.....	0.1	-----		0.1	-----	TRACE	-----
ISOBUTANE.....	0.2	-----		0.1	-----	0.0	-----
N-PENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
ISOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----		0.1	-----	TRACE	-----
NITROGEN.....	0.5	-----		0.3	-----	1.4	-----
OXYGEN.....	0.0	-----		0.0	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.8	-----		0.6	-----	TRACE	-----
HELIUM.....	TRACE	-----		TRACE	-----	0.01	-----
HEATING VALUE.....	1036	-----		1038	-----	998	-----
SPECIFIC GRAVITY.....	0.587	-----		0.583	-----	0.561	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1113

	INDEX SAMPLE 517 14210	INDEX SAMPLE 518 2168	INDEX SAMPLE 519 17369
STATE.....	MISSISSIPPI	MONTANA	MONTANA
COUNTY.....	WASHINGTON	BIG HORN	BLAINE
FIELD.....	GULF COAST AREA	HARDIN	BATTLE CREEK
LOCATION.....	2-30 IN. & 1-36 IN. LINES	T1S, R33E	6 IN. INLET
OWNER.....	MICHIGAN WISCONSIN PIPELINE	BIG HORN OIL & GAS DEV. CO.	MONTANA POWER CO.
SAMPLED.....	11/06/74	09/22/30	08/01/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	210	515	395
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	850	115	410
FLOW, MCFD.....	1300000	NOT GIVEN	625
COMPONENT, MOLE PCT			
METHANE.....	97.5	97.1	95.8
ETHANE.....	2.1	0.0	0.3
PROPANE.....	0.1	---	TRACE
N-BUTANE.....	0.0	---	0.0
ISOBUTANE.....	0.0	---	0.0
N-PENTANE.....	0.0	---	0.0
ISOPENTANE.....	0.0	---	0.0
CYCLOPENTANE.....	0.0	---	0.0
HEXANES PLUS.....	0.0	---	0.0
NITROGEN.....	0.3	2.7	3.7
OXYGEN.....	---	0.1	---
ARGON.....	TRACE	---	TRACE
HYDROGEN.....	0.0	---	0.0
HYDROGEN SULFIDE.....	0.0	---	0.0
CARBON DIOXIDE.....	0.0	0.1	TRACE
HELIUM.....	TRACE	0.06	0.08
HEATING VALUE.....	1028	984	976
SPECIFIC GRAVITY.....	0.567	0.567	0.570

	INDEX SAMPLE 520 2172	INDEX SAMPLE 521 17334	INDEX SAMPLE 522 17370
STATE.....	MONTANA	MONTANA	MONTANA
COUNTY.....	BLAINE	BLAINE	CHOUTEAU
FIELD.....	BOWES	TIGER RIDGE	BULLWACKER, LEROY, SAWTOOTH
LOCATION.....	CHINOOK	6 IN. INLET	10 IN. MAINLINE
OWNER.....	MONTANA GAS CORP.	MONTANA POWER CO.	MONTANA POWER CO.
SAMPLED.....	09/17/30	06/22/84	08/01/84
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	395	395	500
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	55	370	450
FLOW, MCFD.....	NOT GIVEN	1100	4000
COMPONENT, MOLE PCT			
METHANE.....	94.1	96.3	94.5
ETHANE.....	0.0	0.3	0.3
PROPANE.....	---	TRACE	TRACE
N-BUTANE.....	---	0.0	0.0
ISOBUTANE.....	---	0.0	0.0
N-PENTANE.....	---	0.0	0.0
ISOPENTANE.....	---	0.0	0.0
CYCLOPENTANE.....	---	0.0	0.0
HEXANES PLUS.....	---	0.0	0.0
NITROGEN.....	0.6	3.2	5.1
OXYGEN.....	0.1	0.0	0.0
ARGON.....	---	TRACE	TRACE
HYDROGEN.....	---	0.0	0.0
HYDROGEN SULFIDE.....	---	0.0	0.0
CARBON DIOXIDE.....	0.1	TRACE	0.0
HELIUM.....	0.10	0.08	0.07
HEATING VALUE.....	953	981	963
SPECIFIC GRAVITY.....	0.579	0.568	0.577

	INDEX SAMPLE 523 17368	INDEX SAMPLE 524 14463	INDEX SAMPLE 525 17331
STATE.....	MONTANA	MONTANA	MONTANA
COUNTY.....	DAWSON	DAWSON	DAWSON
FIELD.....	BOWDOIN & FT. PECK	BOWDOIN SYSTEM	WILLISTON BASIN-MONT., N. DAK
LOCATION.....	8 IN. BOWDOIN	8 IN. LINE	12 IN. WILLISTON BASIN INLET
OWNER.....	MONTANA-DAKOTA UTILITIES CO.	MONTANA-DAKOTA UTILITIES CO.	MONTANA-DAKOTA UTILITIES CO.
SAMPLED.....	08/02/84	09/09/75	06/21/84
FORMATION.....	NOT GIVEN	CRET-BOWDOIN & PHILLIPS	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	395	395	395
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	430	350	180
FLOW, MCFD.....	10000	10000	50000
COMPONENT, MOLE PCT			
METHANE.....	92.0	93.3	74.9
ETHANE.....	0.2	0.2	15.6
PROPANE.....	TRACE	TRACE	2.4
N-BUTANE.....	0.0	0.0	0.2
ISOBUTANE.....	0.0	0.0	0.1
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	TRACE
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	7.5	6.3	6.0
OXYGEN.....	TRACE	0.0	0.0
ARGON.....	TRACE	TRACE	0.1
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.7
HELIUM.....	0.07	0.07	0.03
HEATING VALUE.....	936	949	1111
SPECIFIC GRAVITY.....	0.586	0.582	0.693

	INDEX SAMPLE 526 17330	INDEX SAMPLE 527 9418	INDEX SAMPLE 528 14462
STATE.....	MONTANA	MONTANA	MONTANA
COUNTY.....	FALLON	FALLON	FALLON
FIELD.....	LITTLE KNIFE&NW NORTH DAKOTA	PLEVNA	TIOGA & BEAVER LODGE
LOCATION.....	16 IN. INLET	SEC. VARIOUS, T5N, R60E	16 IN. LINE
OWNER.....	MONTANA-DAKOTA UTILITIES CO.	FRANK A. WARNER	MONTANA-DAKOTA UTILITIES CO.
SAMPLED.....	06/20/84	06/22/64	09/09/75
FORMATION.....	NOT GIVEN	CRET-JUDITH RIVER	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	395	395	395
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	450	NOT GIVEN	350
FLOW, MCFD.....	75000	NOT GIVEN	6000
COMPONENT, MOLE PCT			
METHANE.....	72.1	94.4	82.6
ETHANE.....	13.5	0.2	10.1
PROPANE.....	1.2	0.0	1.0
N-BUTANE.....	0.1	0.0	TRACE
ISOBUTANE.....	0.1	0.0	TRACE
N-PENTANE.....	0.1	0.0	TRACE
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.1	0.0	TRACE
HEXANES PLUS.....	0.1	0.0	TRACE
NITROGEN.....	11.3	5.1	6.0
OXYGEN.....	0.1	TRACE	0.0
ARGON.....	0.1	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	TRACE	TRACE
HELIUM.....	0.04	0.09	0.09
HEATING VALUE.....	944	964	1044
SPECIFIC GRAVITY.....	0.720	0.576	0.638

* CALCULATED GROSS BTL PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	529 14461	INDEX SAMPLE	530 14465	INDEX SAMPLE	531 14464
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	FALLON			GLACIER		GLACIER	
FIELD.....	WYOMING, N & S MONTANA			CARWAY, ADEN & CUTBANK EXPORT		CUT BANK	
LOCATION.....	12 IN. LINE			20 IN. DISCH.-MAIN LINE NO.1		26 IN. INLET-MAIN LINE NO. 1	
OWNER.....	MONTANA-DAKOTA UTILITIES CO.			MONTANA POWER CO.		MONTANA POWER CO.	
SAMPLED.....	09/09/75			09/11/75		09/11/75	
FORMATION.....	NOT GIVEN			NOT GIVEN		NCT GIVEN	
GEOLOGIC PROVINCE CODE.....	395			500		500	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	300			559		212	
FLOW, MCFD.....	20000			110000		14400	
COMPONENT, MOLE PCT							
METHANE.....	94.4	-----		92.6	-----	88.2	-----
ETHANE.....	1.1	-----		2.4	-----	5.0	-----
PROPANE.....	0.2	-----		0.7	-----	0.4	-----
N-BUTANE.....	TRACE	-----		0.1	-----	0.1	-----
ISOBUTANE.....	0.1	-----		0.1	-----	0.1	-----
N-PENTANE.....	TRACE	-----		0.0	-----	0.0	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----		TRACE	-----	TRACE	-----
NITROGEN.....	1.6	-----		2.9	-----	2.6	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		1.0	-----	2.4	-----
HELIUM.....	0.02	-----		0.10	-----	0.07	-----
HEATING VALUE.....	1020	-----		1010	-----	1030	-----
SPECIFIC GRAVITY.....	0.581	-----		0.600	-----	0.632	-----
		INDEX SAMPLE	532 17338	INDEX SAMPLE	533 17339	INDEX SAMPLE	534 14466
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	GLACIER			GLACIER		GLACIER	
FIELD.....	CUT BANK			S. ALBERTA & N. MONTANA		VARIOUS FIELDS	
LOCATION.....	20 IN. INLET			16 IN. INLET		16 IN. INLET-MAIN LINE NO. 1	
OWNER.....	MONTANA POWER CO.			MONTANA POWER CO.		MONTANA POWER CO.	
SAMPLED.....	06/23/84			06/25/84		09/11/75	
FORMATION.....	NOT GIVEN			NOT GIVEN		NCT GIVEN	
GEOLOGIC PROVINCE CODE.....	500			500		500	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NCT GIVEN	
PRESSURE, PSIG.....	200			280		340	
FLOW, MCFD.....	14000			29000		28100	
COMPONENT, MOLE PCT							
METHANE.....	91.1	-----		93.4	-----	95.5	-----
ETHANE.....	2.9	-----		1.3	-----	0.6	-----
PROPANE.....	0.4	-----		0.5	-----	0.1	-----
N-BUTANE.....	0.1	-----		0.2	-----	TRACE	-----
ISOBUTANE.....	0.0	-----		0.1	-----	0.1	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.0	-----
ISOPENTANE.....	0.0	-----		TRACE	-----	TRACE	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----		0.1	-----	TRACE	-----
NITROGEN.....	3.9	-----		4.3	-----	3.2	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.5	-----		TRACE	-----	0.3	-----
HELIUM.....	0.13	-----		0.12	-----	0.11	-----
HEATING VALUE.....	989	-----		1002	-----	984	-----
SPECIFIC GRAVITY.....	0.605	-----		0.593	-----	0.575	-----
		INDEX SAMPLE	535 14467	INDEX SAMPLE	536 2265	INDEX SAMPLE	537 2180
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	GLACIER			LIBERTY		PHILLIPS	
FIELD.....	WATERTON IN CANADA			IMPERIAL & WHITLASH		BOWDOIN	
LOCATION.....	16 IN. INLET-MAIN LINE NO. 1			NOT GIVEN		T31N, R34E	
OWNER.....	MONTANA POWER CO.			CITIES SERVICE GAS CO.		BOWDOIN UTILITIES CO.	
SAMPLED.....	09/11/75			01/14/71		09/19/30	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	500			500		395	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	717			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	67300			NOT GIVEN		1000	
COMPONENT, MOLE PCT							
METHANE.....	91.9	-----		96.9	-----	96.2	-----
ETHANE.....	4.5	-----		1.5	-----	0.0	-----
PROPANE.....	1.4	-----		---	-----	---	-----
N-BUTANE.....	0.4	-----		---	-----	---	-----
ISOBUTANE.....	0.2	-----		---	-----	---	-----
N-PENTANE.....	TRACE	-----		---	-----	---	-----
ISOPENTANE.....	TRACE	-----		---	-----	---	-----
CYCLOPENTANE.....	TRACE	-----		---	-----	---	-----
HEXANES PLUS.....	TRACE	-----		---	-----	---	-----
NITROGEN.....	1.5	-----		0.7	-----	3.5	-----
OXYGEN.....	0.0	-----		0.1	-----	0.1	-----
ARGON.....	TRACE	-----		---	-----	---	-----
HYDROGEN.....	0.0	-----		---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	---	-----
CARBON DIOXIDE.....	0.0	-----		0.8	-----	0.2	-----
HELIUM.....	0.02	-----		0.07	-----	0.06	-----
HEATING VALUE.....	1068	-----		1008	-----	975	-----
SPECIFIC GRAVITY.....	0.605	-----		0.573	-----	0.571	-----
		INDEX SAMPLE	538 2183	INDEX SAMPLE	539 2196	INDEX SAMPLE	540 17337
STATE.....	MONTANA			MONTANA		MONTANA	
COUNTY.....	PHILLIPS			PONDERA		TOOLE	
FIELD.....	BOWDOIN DOME AREA			PONDERA		KEVIN SUNBURST, LEROY & CANADA	
LOCATION.....	T32N, R32E			SEC. 8, 9, 10, 15, 16, 17, T27N, R4W		6 IN. INLET	
OWNER.....	BOWDOIN UTILITIES CO.			MIDWEST REFINING CO.		MONTANA POWER CO.	
SAMPLED.....	09/29/30			10/10/30		06/25/84	
FORMATION.....	NOT GIVEN			MISS-MADISON		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	395			500		500	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	220			NOT GIVEN		280	
FLOW, MCFD.....	1000			NOT GIVEN		300	
COMPONENT, MOLE PCT							
METHANE.....	93.8	-----		65.6	-----	91.6	-----
ETHANE.....	0.0	-----		31.0	-----	1.1	-----
PROPANE.....	---	-----		---	-----	0.5	-----
N-BUTANE.....	---	-----		---	-----	0.3	-----
ISOBUTANE.....	---	-----		---	-----	0.1	-----
N-PENTANE.....	---	-----		---	-----	0.1	-----
ISOPENTANE.....	---	-----		---	-----	0.1	-----
CYCLOPENTANE.....	---	-----		---	-----	TRACE	-----
HEXANES PLUS.....	---	-----		---	-----	0.1	-----
NITROGEN.....	5.6	-----		2.4	-----	5.4	-----
OXYGEN.....	0.1	-----		0.1	-----	0.0	-----
ARGON.....	---	-----		---	-----	TRACE	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	---	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.9	-----	0.5	-----
HELIUM.....	0.07	-----		0.25	-----	0.18	-----
HEATING VALUE.....	950	-----		1220	-----	988	-----
SPECIFIC GRAVITY.....	0.582	-----		0.727	-----	0.604	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1116

INDEX 541 SAMPLE 17757		INDEX 542 SAMPLE 16009		INDEX 543 SAMPLE 16008	
STATE.....	NEBRASKA	NEBRASKA	NEBRASKA	NEBRASKA	NEBRASKA
COUNTY.....	DEUEL	DEUEL	DEUEL	DEUEL	DEUEL
FIELD.....	WYOMING FIELDS	WYOMING-PINE BLUFF AREA	WYOMING-PINE BLUFF AREA	HUNTSMAN & CASPER AREA	HUNTSMAN & CASPER AREA
LOCATION.....	10 IN. LINE	OUTLET	OUTLET	12 IN.	12 IN.
OWNER.....	KN ENERGY, INC.	KANSAS-NEBRASKA NATURAL GAS	KANSAS-NEBRASKA NATURAL GAS	KANSAS-NEBRASKA NATURAL GAS	KANSAS-NEBRASKA NATURAL GAS
SAMPLED.....	07/16/85	07/14/85	07/14/85	07/14/85	07/14/85
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	540	540	540	540	540
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	538	535	535	895	895
FLOW, MCFD.....	22000	27000	27000	100000	100000
COMPONENT, MOLE PCT					
METHANE.....	89.6	89.4	89.4	89.7	89.7
ETHANE.....	6.9	6.3	6.3	6.0	6.0
PROPANE.....	0.7	1.1	1.1	1.0	1.0
N-BUTANE.....	0.0	0.3	0.3	0.3	0.3
ISOBUTANE.....	0.0	0.2	0.2	0.1	0.1
N-PENTANE.....	0.0	0.1	0.1	0.1	0.1
ISOPENTANE.....	0.0	0.1	0.1	0.1	0.1
CYCLOPENTANE.....	0.0	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.0	0.1	0.1	0.1	0.1
NITROGEN.....	1.2	0.9	0.9	1.1	1.1
OXYGEN.....	0.0	0.0	0.0	0.1	0.1
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.5	1.5	1.5	1.4	1.4
HELIUM.....	0.02	0.02	0.02	0.02	0.02
HEATING VALUE.....	1049	1078	1078	1069	1069
SPECIFIC GRAVITY.....	0.615	0.629	0.629	0.625	0.625

INDEX 544 SAMPLE 17755		INDEX 545 SAMPLE 12065		INDEX 546 SAMPLE 16966	
STATE.....	NEBRASKA	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	DEUEL	CHAVES	CHAVES	CHAVES	CHAVES
FIELD.....	WYOMING & BIG SPGS. STORAGE	PANHANDLE & PERMIAN BASIN	PANHANDLE & PERMIAN BASIN	PECOS SLOPE	PECOS SLOPE
LOCATION.....	12 IN. & 16 IN. INLET	COMPOSITE	COMPOSITE	RED BLUFF	RED BLUFF
OWNER.....	KN ENERGY, INC.	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.
SAMPLED.....	07/16/85	09/29/69	09/29/69	05/31/83	05/31/83
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	PERM-ABO	PERM-ABO
GEOLOGIC PROVINCE CODE.....	540	430	430	430	430
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	930	850	850	400	400
FLOW, MCFD.....	135000	700000	700000	328	328
COMPONENT, MOLE PCT					
METHANE.....	81.3	90.4	90.4	84.6	84.6
ETHANE.....	6.6	4.7	4.7	4.7	4.7
PROPANE.....	0.7	1.2	1.2	1.8	1.8
N-BUTANE.....	0.1	0.3	0.3	0.7	0.7
ISOBUTANE.....	0.0	TRACE	TRACE	0.3	0.3
N-PENTANE.....	0.1	TRACE	TRACE	0.2	0.2
ISOPENTANE.....	0.0	0.2	0.2	0.3	0.3
CYCLOPENTANE.....	0.1	TRACE	TRACE	0.1	0.1
HEXANES PLUS.....	0.2	TRACE	TRACE	0.3	0.3
NITROGEN.....	7.7	1.6	1.6	6.1	6.1
OXYGEN.....	1.6	TRACE	TRACE	TRACE	TRACE
ARGON.....	0.1	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	0.0	0.0	0.3	0.3
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.4	1.3	1.3	0.1	0.1
HELIUM.....	0.02	0.04	0.04	0.46	0.46
HEATING VALUE.....	982	1050	1050	1063	1063
SPECIFIC GRAVITY.....	0.659	0.616	0.616	0.652	0.652

INDEX 547 SAMPLE 17415		INDEX 548 SAMPLE 17416		INDEX 549 SAMPLE 17417	
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	CHAVES	CHAVES	CHAVES	CHAVES	CHAVES
FIELD.....	PECOS SLOPE	PECOS SLOPE	PECOS SLOPE	PECOS SLOPE	PECOS SLOPE
LOCATION.....	24 IN.	24 IN. PANHANDLE LATERAL	24 IN. PANHANDLE LATERAL	24 IN.	24 IN.
OWNER.....	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.
SAMPLED.....	09/13/84	09/13/84	09/13/84	09/13/84	09/13/84
FORMATION.....	PERM-ABO	PERM-ABO	PERM-ABO	PERM-ABO	PERM-ABO
GEOLOGIC PROVINCE CODE.....	430	430	430	430	430
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	750	767	767	750	750
FLOW, MCFD.....	20000	16400	16400	117000	117000
COMPONENT, MOLE PCT					
METHANE.....	85.7	84.6	84.6	84.8	84.8
ETHANE.....	6.9	5.0	5.0	4.9	4.9
PROPANE.....	1.9	1.9	1.9	1.9	1.9
N-BUTANE.....	0.6	0.6	0.6	0.7	0.7
ISOBUTANE.....	0.4	0.4	0.4	0.4	0.4
N-PENTANE.....	0.2	0.3	0.3	0.3	0.3
ISOPENTANE.....	0.1	0.1	0.1	TRACE	TRACE
CYCLOPENTANE.....	0.1	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.3	0.3	0.3	0.3	0.3
NITROGEN.....	5.2	6.0	6.0	6.2	6.2
OXYGEN.....	0.0	TRACE	TRACE	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	0.1	0.1	TRACE	TRACE
HELIUM.....	0.54	0.45	0.45	0.46	0.46
HEATING VALUE.....	1071	1066	1066	1065	1065
SPECIFIC GRAVITY.....	0.649	0.653	0.653	0.653	0.653

INDEX 550 SAMPLE 17418		INDEX 551 SAMPLE 16123		INDEX 552 SAMPLE 12062	
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	CHAVES	CHAVES	CHAVES	CHAVES	CHAVES
FIELD.....	PECOS SLOPE	PERMIAN	PERMIAN	PERMIAN BASIN	PERMIAN BASIN
LOCATION.....	24 IN.	30 IN. OUTLET	30 IN. OUTLET	NOT GIVEN	NOT GIVEN
OWNER.....	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.
SAMPLED.....	09/14/84	10/23/80	10/23/80	09/29/69	09/29/69
FORMATION.....	PERM-ABO	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	430	430	430	430
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	750	1008	1008	800	800
FLOW, MCFD.....	20000	700000	700000	650000	650000
COMPONENT, MOLE PCT					
METHANE.....	88.1	94.1	94.1	85.2	85.2
ETHANE.....	2.4	2.8	2.8	8.9	8.9
PROPANE.....	0.5	0.7	0.7	1.7	1.7
N-BUTANE.....	0.2	0.2	0.2	0.0	0.0
ISOBUTANE.....	0.2	TRACE	TRACE	0.0	0.0
N-PENTANE.....	0.3	0.1	0.1	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0	0.0	0.0
CYCLOPENTANE.....	0.1	0.1	0.1	0.0	0.0
HEXANES PLUS.....	0.4	0.4	0.4	0.0	0.0
NITROGEN.....	0.4	0.0	0.0	3.6	3.6
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	TRACE	0.0	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.6	0.6	0.4	0.4
HELIUM.....	0.58	0.04	0.04	0.05	0.05
HEATING VALUE.....	1055	1057	1057	1067	1067
SPECIFIC GRAVITY.....	0.630	0.602	0.602	0.633	0.633

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE 553 14476	INDEX SAMPLE 554 14483	INDEX SAMPLE 555 16113
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	CHAVES	CHAVES	CHAVES
FIELD.....	PERMIAN BASIN	PERMIAN BASIN	PERMIAN BASIN
LOCATION.....	30 IN. N.	30 IN. MAIN LINE	30 IN.
OWNER.....	EL PASO NATURAL GAS CO.	TRANSWESTERN PIPELINE CO.	EL PASO NATURAL GAS CO.
SAMPLED.....	10/02/75	10/02/75	10/23/80
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	430	430
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	750	750	718
FLOW, MCFD.....	550000	638000	600000
COMPONENT, MOLE PCT			
METHANE.....	88.9	92.0	88.7
ETHANE.....	7.0	6.7	6.7
PROpane.....	0.9	0.9	0.9
N-BUTANE.....	0.1	0.2	0.1
ISOBUTANE.....	0.1	0.1	0.1
N-PENTANE.....	TRACE	TRACE	TRACE
ISOPENTANE.....	TRACE	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.1	0.1
NITROGEN.....	2.5	0.8	2.9
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	2.3	0.6
HELIUM.....	0.04	0.03	0.04
HEATING VALUE.....	1056	1038	1051
SPECIFIC GRAVITY.....	0.615	0.615	0.617

	INDEX SAMPLE 556 12064	INDEX SAMPLE 557 12063	INDEX SAMPLE 558 1386
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	CHAVES	CHAVES	EDDY
FIELD.....	PERMIAN BASIN & S.E. N.MEX.	TEXAS PANHANDLE	ARTESIA
LOCATION.....	NOT GIVEN	NOT GIVEN	SEC. ---, T18S, R27E
OWNER.....	TRANSWESTERN PIPELINE CO.	TRANSWESTERN PIPELINE CO.	PHILLIPS PETROLEUM CO.
SAMPLED.....	09/29/69	09/29/69	05/02/27
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	430	430
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	650	NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	540000	143000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	91.3	86.7	29.2
ETHANE.....	4.5	6.2	60.6
PROpane.....	0.8	2.5	---
N-BUTANE.....	0.2	0.4	---
ISOBUTANE.....	0.2	0.2	---
N-PENTANE.....	0.1	0.2	---
ISOPENTANE.....	0.0	0.1	---
CYCLOPENTANE.....	TRACE	0.1	---
HEXANES PLUS.....	0.1	0.1	---
NITROGEN.....	1.3	2.6	8.9
OXYGEN.....	0.0	0.1	1.1
ARGON.....	0.0	0.6	---
HYDROGEN.....	TRACE	0.1	---
HYDROGEN SULFIDE.....	0.0	0.0	---
CARBON DIOXIDE.....	1.6	0.6	0.2
HELIUM.....	0.03	0.08	0.04
HEATING VALUE.....	1042	1096	1382
SPECIFIC GRAVITY.....	0.611	0.646	0.899

	INDEX SAMPLE 559 1387	INDEX SAMPLE 560 2001	INDEX SAMPLE 561 2719
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	EDDY	EDDY	EDDY
FIELD.....	ARTESIA	ARTESIA	ARTESIA
LOCATION.....	SEC. ---, T18S, R27E	T18S, R28E	SEC. 3 & 10, T17S, R28E
OWNER.....	PHILLIPS PETROLEUM CO.	PHILLIPS PETROLEUM CO.	TIGNER, ETZ & KEYES
SAMPLED.....	05/05/27	06/03/30	07/23/36
FORMATION.....	NOT GIVEN	NOT GIVEN	---STRAY
GEOLOGIC PROVINCE CODE.....	430	430	430
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	30	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	45.0	40.3	50.4
ETHANE.....	44.6	52.9	15.7
PROpane.....	---	---	---
N-BUTANE.....	---	---	---
ISOBUTANE.....	---	---	---
N-PENTANE.....	---	---	---
ISOPENTANE.....	---	---	---
CYCLOPENTANE.....	---	---	---
HEXANES PLUS.....	---	---	---
NITROGEN.....	8.7	6.4	32.1
OXYGEN.....	1.4	0.3	0.4
ARGON.....	---	---	---
HYDROGEN.....	---	---	---
HYDROGEN SULFIDE.....	---	---	---
CARBON DIOXIDE.....	0.1	0.2	---
HELIUM.....	0.03	0.01	1.3
HEATING VALUE.....	1255	1356	792
SPECIFIC GRAVITY.....	0.822	0.847	0.779

	INDEX SAMPLE 562 1384	INDEX SAMPLE 563 1385	INDEX SAMPLE 564 2718
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	EDDY	EDDY	EDDY
FIELD.....	MALJAMAR	MALJAMAR	ROBINSON
LOCATION.....	SEC. 22NE, T17S, R31E	SEC. 22NE, T17S, R31E	SEC. 25, T16S, R31E
OWNER.....	SKELLY OIL CO.	SKELLY OIL CO.	HARRY LEONARD
SAMPLED.....	05/04/27	05/04/27	07/23/36
FORMATION.....	NOT GIVEN	NOT GIVEN	PERM-MALJAMAR
GEOLOGIC PROVINCE CODE.....	430	430	430
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	28.8	57.3	68.3
ETHANE.....	14.2	30.7	23.1
PROpane.....	---	---	---
N-BUTANE.....	---	---	---
ISOBUTANE.....	---	---	---
N-PENTANE.....	---	---	---
ISOPENTANE.....	---	---	---
CYCLOPENTANE.....	---	---	---
HEXANES PLUS.....	---	---	---
NITROGEN.....	56.0	10.7	7.3
OXYGEN.....	0.8	0.8	0.3
ARGON.....	---	---	---
HYDROGEN.....	---	---	---
HYDROGEN SULFIDE.....	---	---	---
CARBON DIOXIDE.....	0.2	0.5	0.9
HELIUM.....	0.09	0.09	0.09
HEATING VALUE.....	1146	1131	1106
SPECIFIC GRAVITY.....	0.862	0.760	0.709

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1117

	INDEX SAMPLE	565 6941	INDEX SAMPLE	566 2556	INDEX SAMPLE	567 2720
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA		LEA		LEA	
FIELD.....	GLADIOLA, BRONCO, BOUGH, ET		HORBS		JAL	
LOCATION.....	RESIDUE		RESIDUE FROM GASOLINE PLT.		6 IN.	
OWNER.....	SINCLAIR OIL & GAS CO.		SHELL GASOLINE CO.		PECOS VALLEY GAS CO.	
SAMPLED.....	02/04/59		10/29/52		07/23/36	
FORMATION.....	NOT GIVEN		PERM-HORBS		PERM-JAL	
GEOLOGIC PROVINCE CODE...	430		430		430	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	77.6	-----	50.6	-----	87.5	-----
ETHANE.....	12.0	-----	45.7	-----	10.0	-----
PROPANE.....	3.5	-----	---	-----	---	-----
N-BUTANE.....	0.5	-----	---	-----	---	-----
ISOBUTANE.....	0.3	-----	---	-----	---	-----
N-PENTANE.....	0.1	-----	---	-----	---	-----
ISOPENTANE.....	0.1	-----	---	-----	---	-----
CYCLOPENTANE.....	0.1	-----	---	-----	---	-----
HEXANES PLUS.....	0.1	-----	---	-----	---	-----
NITROGEN.....	5.1	-----	0.0	-----	0.5	-----
OXYGEN.....	TRACE	-----	0.7	-----	0.6	-----
ARGON.....	TRACE	-----	---	-----	---	-----
HYDROGEN.....	0.2	-----	---	-----	---	-----
HYDROGEN SULFIDE.....	0.0	-----	---	-----	---	-----
CARBON DIOXIDE.....	0.3	-----	3.0	-----	1.1	-----
HELIUM.....	0.12	-----	0.00	-----	0.03	-----
HEATING VALUE.....	1133	-----	1332	-----	1069	-----
SPECIFIC GRAVITY.....	0.589	-----	0.914	-----	0.620	-----

	INDEX SAMPLE	568 9220	INDEX SAMPLE	569 8300	INDEX SAMPLE	570 8301
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA		LEA		LEA	
FIELD.....	MESA		NOT GIVEN		NOT GIVEN	
LOCATION.....	SECT 16 & 17, T16S, R32E		26 IN. OUTLET		EUNICE PLANT INLET	
OWNER.....	SHELL OIL CO.		EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
SAMPLED.....	01/19/64		11/29/61		11/29/61	
FORMATION.....	PERM-QUEEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE...	430		430		430	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	500		815		530	
FLOW, MCFD.....	NOT GIVEN		380000		140000	
COMPONENT, MOLE PCT						
METHANE.....	36.4	-----	86.7	-----	89.9	-----
ETHANE.....	5.2	-----	8.0	-----	6.7	-----
PROPANE.....	0.2	-----	1.9	-----	0.7	-----
N-BUTANE.....	1.5	-----	0.1	-----	TRACE	-----
ISOBUTANE.....	0.3	-----	TRACE	-----	TRACE	-----
N-PENTANE.....	0.3	-----	TRACE	-----	TRACE	-----
ISOPENTANE.....	0.6	-----	0.1	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----	TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.3	-----	0.0	-----	TRACE	-----
NITROGEN.....	50.9	-----	3.9	-----	2.3	-----
OXYGEN.....	0.0	-----	TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----	TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----	0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----	TRACE	-----	TRACE	-----
HELIUM.....	0.10	-----	0.8	-----	0.02	-----
HEATING VALUE.....	679	-----	1066	-----	1049	-----
SPECIFIC GRAVITY.....	0.882	-----	0.624	-----	0.602	-----

	INDEX SAMPLE	571 8302	INDEX SAMPLE	572 8303	INDEX SAMPLE	573 12066
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	LEA		LEA		LEA	
FIELD.....	NOT GIVEN		NOT GIVEN		WEST TEXAS AREA	
LOCATION.....	MONUMENT PLANT OUTLET		SUCTION LINE		NOT GIVEN	
OWNER.....	EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.		TRANSWESTERN PIPELINE CO.	
SAMPLED.....	11/29/61		11/30/61		09/30/59	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE...	430		430		430	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	565		624		564	
FLOW, MCFD.....	113000		640000		550000	
COMPONENT, MOLE PCT						
METHANE.....	83.3	-----	87.0	-----	92.7	-----
ETHANE.....	5.8	-----	1.6	-----	3.8	-----
PROPANE.....	1.9	-----	1.3	-----	0.9	-----
N-BUTANE.....	0.1	-----	0.1	-----	0.0	-----
ISOBUTANE.....	0.1	-----	0.0	-----	0.0	-----
N-PENTANE.....	TRACE	-----	TRACE	-----	0.0	-----
ISOPENTANE.....	0.1	-----	0.1	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----	0.0	-----	0.0	-----
HEXANES PLUS.....	0.0	-----	0.0	-----	0.0	-----
NITROGEN.....	8.5	-----	3.7	-----	1.1	-----
OXYGEN.....	0.0	-----	TRACE	-----	0.0	-----
ARGON.....	0.0	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	0.2	-----	0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----	0.2	-----	1.5	-----
HELIUM.....	0.03	-----	0.05	-----	0.03	-----
HEATING VALUE.....	1009	-----	1059	-----	1031	-----
SPECIFIC GRAVITY.....	0.641	-----	0.626	-----	0.601	-----

	INDEX SAMPLE	574 12067	INDEX SAMPLE	575 14482	INDEX SAMPLE	576 6634
STATE.....	NEW MEXICO		NEW MEXICO		NEW MEXICO	
COUNTY.....	MCKINLEY		MCKINLEY		MCKINLEY	
FIELD.....	FOUR CORNERS AREA		FOUR CORNERS AREA		NOT GIVEN	
LOCATION.....	NOT GIVEN		18 & 20 IN.		34 IN. CHACO-BLANCO SUCTION	
OWNER.....	SOUTHERN UNION GAS CO.		SOUTHERN UNION GAS CO.		EL PASO NATURAL GAS CO.	
SAMPLED.....	10/02/69		10/01/75		06/11/58	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE...	580		580		580	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	373		300		NOT GIVEN	
FLOW, MCFD.....	86400		150000		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	87.2	-----	92.0	-----	89.9	-----
ETHANE.....	8.9	-----	6.1	-----	6.9	-----
PROPANE.....	0.0	-----	0.8	-----	2.0	-----
N-BUTANE.....	0.0	-----	0.1	-----	0.1	-----
ISOBUTANE.....	0.0	-----	0.1	-----	0.2	-----
N-PENTANE.....	0.0	-----	TRACE	-----	0.0	-----
ISOPENTANE.....	0.0	-----	TRACE	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----	TRACE	-----	0.0	-----
HEXANES PLUS.....	0.0	-----	TRACE	-----	0.0	-----
NITROGEN.....	0.0	-----	0.0	-----	TRACE	-----
OXYGEN.....	0.0	-----	TRACE	-----	0.1	-----
ARGON.....	TRACE	-----	TRACE	-----	TRACE	-----
HYDROGEN.....	0.1	-----	0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.8	-----	0.9	-----	0.8	-----
HELIUM.....	0.05	-----	0.03	-----	0.10	-----
HEATING VALUE.....	1082	-----	1058	-----	1096	-----
SPECIFIC GRAVITY.....	0.627	-----	0.602	-----	0.622	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 577 SAMPLE 6635			INDEX 578 SAMPLE 16109			INDEX 579 SAMPLE 12068		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	MCKINLEY		MCKINLEY			MCKINLEY		
FIELD.....	NOT GIVEN		04012 & JICARILLA			SAN JUAN BASIN		
LOCATION.....	MAINLINE DISCHARGE		OUTLET 20 IN.			GALLUP-B LINE		
OWNER.....	EL PASO NATURAL GAS CO.		SOUTHERN UNION GAS CO.			EL PASO NATURAL GAS CO.		
SAMPLED.....	06/-/58		10/24/80			10/03/59		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE...	580		NOT GIVEN			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		600			838		
FLOW, MCFD.....	NOT GIVEN		150000			300000		
COMPONENT, MOLE PCT								
METHANE.....	90.1		94.3			86.1		
ETHANE.....	6.6		3.6			7.9		
PROPANE.....	1.9		0.4			2.5		
N-BUTANE.....	0.1		0.1			0.2		
ISOBUTANE.....	0.2		TRACE			0.1		
N-PENTANE.....	0.1		TRACE			0.1		
ISOPENTANE.....	TRACE		0.1			TRACE		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		TRACE			0.1		
NITROGEN.....	0.1		0.4			1.9		
OXYGEN.....	0.1		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.8		0.3			0.9		
HELIUM.....	0.10		0.03			0.04		
HEATING VALUE.....	1095		1044			1103		
SPECIFIC GRAVITY.....	0.621		0.586			0.645		
INDEX 580 SAMPLE 12069			INDEX 581 SAMPLE 14474			INDEX 582 SAMPLE 16111		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	MCKINLEY		MCKINLEY			MCKINLEY		
FIELD.....	SAN JUAN BASIN		SAN JUAN BASIN			SAN JUAN BASIN		
LOCATION.....	GALLUP A LINE		34 IN. FROM CHACO			24 IN. GALLUP "B"		
OWNER.....	EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		
SAMPLED.....	10/03/59		09/30/75			10/27/80		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE...	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	888		600			560		
FLOW, MCFD.....	700000		843000			400000		
COMPONENT, MOLE PCT								
METHANE.....	85.6		89.1			89.1		
ETHANE.....	8.3		7.6			7.5		
PROPANE.....	2.3		0.7			0.5		
N-BUTANE.....	0.0		0.1			0.1		
ISOBUTANE.....	0.0		0.1			0.1		
N-PENTANE.....	0.0		TRACE			TRACE		
ISOPENTANE.....	0.0		TRACE			TRACE		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		TRACE			TRACE		
NITROGEN.....	0.1		0.5			0.5		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		1.0			0.0		
CARBON DIOXIDE.....	0.8		0.9			1.0		
HELIUM.....	0.03		0.03			0.02		
HEATING VALUE.....	1099		1090			1085		
SPECIFIC GRAVITY.....	0.636		0.623			0.622		
INDEX 583 SAMPLE 14475			INDEX 584 SAMPLE 8322			INDEX 585 SAMPLE 8327		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	MCKINLEY		SAN JUAN			SAN JUAN		
FIELD.....	SAN JUAN RIVER PLANT		ANETH, BOUNDARY BUTTE, ET AL			BALLARD, LINDRITH & BLANCO		
LOCATION.....	16 IN. GALLUP "B"		30 IN. INLET			30 IN. INLET		
OWNER.....	EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		
SAMPLED.....	09/30/75		12/04/61			12/05/61		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE...	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	756		775			257		
FLOW, MCFD.....	198000		85400			202500		
COMPONENT, MOLE PCT								
METHANE.....	88.4		77.3			85.1		
ETHANE.....	7.5		15.6			7.7		
PROPANE.....	1.0		3.8			1.4		
N-BUTANE.....	0.2		0.1			0.8		
ISOBUTANE.....	0.2		0.1			0.7		
N-PENTANE.....	TRACE		TRACE			TRACE		
ISOPENTANE.....	0.1		0.1			0.5		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		TRACE			0.1		
NITROGEN.....	0.7		0.5			1.4		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.3			0.4		
HELIUM.....	0.04		0.13			0.03		
HEATING VALUE.....	1099		1172			1158		
SPECIFIC GRAVITY.....	0.631		0.687			0.669		
INDEX 586 SAMPLE 4701			INDEX 587 SAMPLE 8321			INDEX 588 SAMPLE 8539		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BARKER CREEK		BARKER DOME & ALKALI GULCH			BASIN DAKOTA, BALLARD & ETC.		
LOCATION.....	24 IN.		24 IN.			10 & 12 IN.		
OWNER.....	SOUTHERN UNION GAS CO.		EL PASO NATURAL GAS CO.			SOUTHERN UNION GAS CO.		
SAMPLED.....	03/09/49		12/04/61			04/15/62		
FORMATION.....	NOT GIVEN		NOT GIVEN			CRET-PICTURED CLIFFS		
GEOLOGIC PROVINCE CODE...	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		25			425		
FLOW, MCFD.....	NOT GIVEN		25100			30000		
COMPONENT, MOLE PCT								
METHANE.....	95.3		86.5			85.9		
ETHANE.....	1.4		0.7			7.4		
PROPANE.....	0.5		0.6			3.3		
N-BUTANE.....	0.1		0.1			0.8		
ISOBUTANE.....	0.2		TRACE			0.7		
N-PENTANE.....	0.0		TRACE			0.1		
ISOPENTANE.....	0.0		TRACE			0.3		
CYCLOPENTANE.....	0.0		TRACE			TRACE		
HEXANES PLUS.....	0.0		TRACE			0.1		
NITROGEN.....	2.0		0.8			1.0		
OXYGEN.....	0.1		0.1			0.1		
ARGON.....	0.1		0.0			TRACE		
HYDROGEN.....	TRACE		0.1			0.0		
HYDROGEN SULFIDE.....	0.1		0.1			0.0		
CARBON DIOXIDE.....	0.1		10.8			0.3		
HELIUM.....	0.26		0.19			0.02		
HEATING VALUE.....	1013		913			1161		
SPECIFIC GRAVITY.....	0.581		0.676			0.665		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1119

INDEX 589 SAMPLE 17056			INDEX 590 SAMPLE 17149			INDEX 591 SAMPLE 17202		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BEAUTIFUL MOUNTAIN		BEAUTIFUL MOUNTAIN			BEAUTIFUL MOUNTAIN		
LOCATION.....	INLET COMPOSITE		NOT GIVEN			INLET		
OWNER.....	NAVAJO REFINED HELIUM CO. IN		NAVAJO REFINED HELIUM CO. IN			NAVAJO REFINED HELIUM CO. IN		
SAMPLED.....	05/78		12/78			02/29/84		
FORMATION.....	MISS---		MISS---			MISS---		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	437		NOT GIVEN			665		
FLOW, MCFD.....	1800		NOT GIVEN			2500		
COMPONENT, MOLE PCT								
METHANE.....	2.3		1.8			2.0		
ETHANE.....	0.2		0.2			0.2		
PROPANE.....	0.1		0.1			0.1		
N-BUTANE.....	0.1		0.1			0.1		
ISOBUTANE.....	TRACE		TRACE			0.1		
N-PENTANE.....	TRACE		0.1			0.0		
ISOPENTANE.....	TRACE		TRACE			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	90.0		90.0			90.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.9		0.9			0.8		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.6			0.5		
HELIUM.....	5.57		6.13			5.94		
HEATING VALUE.....	1203		1303			1180		
SPECIFIC GRAVITY.....	0.920		0.922			0.922		
INDEX 592 SAMPLE 17276			INDEX 593 SAMPLE 17363			INDEX 594 SAMPLE 17733		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BEAUTIFUL MOUNTAIN		BEAUTIFUL MOUNTAIN			BEAUTIFUL MOUNTAIN		
LOCATION.....	INLET GAS TO PLANT		INLET GAS TO PLANT			GAS WELL NO. 2-5		
OWNER.....	NAVAJO REFINED HELIUM CO. IN		NAVAJO REFINED HELIUM CO. IN			NAVAJO REFINED HELIUM CO. IN		
SAMPLED.....	04/18/84		07/23/84			07/01/85		
FORMATION.....	MISS---		MISS---			MISS---		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	640		530			680		
FLOW, MCFD.....	3000		2600			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	1.9		1.9			2.0		
ETHANE.....	0.2		0.2			0.2		
PROPANE.....	0.1		0.1			0.2		
N-BUTANE.....	0.1		0.1			0.2		
ISOBUTANE.....	TRACE		TRACE			0.1		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	TRACE		TRACE			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.1			0.3		
NITROGEN.....	89.9		89.9			89.4		
OXYGEN.....	TRACE		0.1			TRACE		
ARGON.....	0.8		0.9			0.9		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.6			0.7		
HELIUM.....	6.13		6.04			5.67		
HEATING VALUE.....	38		38			6.934		
SPECIFIC GRAVITY.....	0.920		0.922					
INDEX 595 SAMPLE 17734			INDEX 596 SAMPLE 8328			INDEX 597 SAMPLE 8326		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BEAUTIFUL MOUNTAIN		BLANCO			BLANCO		
LOCATION.....	GAS WELL NO. 2-5		16 IN. INLET			24 IN.		
OWNER.....	NAVAJO REFINED HELIUM CO. IN		EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		
SAMPLED.....	07/01/85		12/05/61			12/05/61		
FORMATION.....	PERM-ORGAN ROCK		NOT GIVEN			CRET-DAKOTA		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	60		39900			450		
FLOW, MCFD.....	NOT GIVEN					119400		
COMPONENT, MOLE PCT								
METHANE.....	3.6		76.5			82.9		
ETHANE.....	0.4		10.1			9.9		
PROPANE.....	0.2		7.5			3.5		
N-BUTANE.....	0.2		1.9			0.8		
ISOBUTANE.....	TRACE		0.9			0.6		
N-PENTANE.....	0.1		0.3			0.1		
ISOPENTANE.....	TRACE		0.4			0.3		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	90.2		1.4			0.9		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	0.8		TRACE			0.0		
HYDROGEN.....	TRACE		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.8		
HELIUM.....	4.12		0.13			0.10		
HEATING VALUE.....	70		1280			1178		
SPECIFIC GRAVITY.....	0.929		0.748			0.681		
INDEX 598 SAMPLE 8329			INDEX 599 SAMPLE 8330			INDEX 600 SAMPLE 8536		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	BLANCO		CHA CHA			CRANDALL & LA PLATA		
LOCATION.....	24 IN. COMPOSITE		4 IN.			12 IN.		
OWNER.....	EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.			SOUTHERN UNION GAS CO.		
SAMPLED.....	12/05/61		12/05/61			04/15/62		
FORMATION.....	CRET-DAKOTA		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		238			460		
FLOW, MCFD.....	117000		11100			18000		
COMPONENT, MOLE PCT								
METHANE.....	80.4		74.4			84.0		
ETHANE.....	11.4		11.6			9.0		
PROPANE.....	4.0		3.0			3.5		
N-BUTANE.....	0.9		2.2			0.9		
ISOBUTANE.....	0.7		0.9			0.6		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.4		0.6			0.3		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	8.4		0.6			0.6		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.1		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.6			0.0		
HELIUM.....	0.03		0.03			0.01		
HEATING VALUE.....	1203		1303			1180		
SPECIFIC GRAVITY.....	0.699		0.771			0.677		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 601			INDEX 602			INDEX 603		
SAMPLE 8540			SAMPLE 8512			SAMPLE 8537		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	FULCHER-KUTZ		HORSESHOE			KUTZ CANYON		
LOCATION.....	8 IN.		NOT GIVEN			6 & 8 IN.		
OWNER.....	SOUTHERN UNION GAS CO.		EL PASO NATURAL GAS CO.			SOUTHERN UNION GAS CO.		
SAMPLED.....	04/15/62		04/12/62			04/15/62		
FORMATION.....	NOT GIVEN		CRET-GALLUP			CRET-PICTURED CLIFFS		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	85		880			100		
FLOW, MCFD.....	2500		NOT GIVEN			7500		
COMPONENT, MOLE PCT								
METHANE.....	89.8	-----	79.4	-----		88.9	-----	
ETHANE.....	5.5	-----	19.3	-----		6.3	-----	
PROPANE.....	2.2	-----	4.3	-----		2.4	-----	
N-BUTANE.....	0.5	-----	0.0	-----		0.6	-----	
ISOBUTANE.....	0.4	-----	0.0	-----		0.5	-----	
N-PENTANE.....	0.1	-----	0.0	-----		0.1	-----	
ISOPENTANE.....	0.2	-----	0.0	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	58.0	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.0	-----		0.1	-----	
NITROGEN.....	0.6	-----	1.5	-----		0.5	-----	
OXYGEN.....	0.1	-----	0.1	-----		0.1	-----	
ARGON.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN.....	0.0	-----	3.0	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.5	-----	0.3	-----		0.4	-----	
HELIUM.....	0.01	-----	0.03	-----		0.02	-----	
HEATING VALUE.....	1114	-----	1211	-----		1131	-----	
SPECIFIC GRAVITY.....	0.633	-----	0.703	-----		0.642	-----	

INDEX 604			INDEX 605			INDEX 606		
SAMPLE 8538			SAMPLE 8320			SAMPLE 1517		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	KUTZ CANYON		NOT GIVEN			RATTLESNAKE		
LOCATION.....	6 & 8 10 IN.		HORSESHOE GALLUP			SHIPROCK		
OWNER.....	SOUTHERN UNION GAS CO.		EL PASO NATURAL GAS CO.			CONTINENTAL OIL CO.		
SAMPLED.....	04/15/62		12/04/61			10/13/27		
FORMATION.....	CRET-DAKOTA		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	580		NOT GIVEN			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	530		780			NOT GIVEN		
FLOW, MCFD.....	27500		2000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	82.0	-----	68.7	-----		0.0	-----	
ETHANE.....	10.4	-----	24.8	-----		13.5	-----	
PROPANE.....	4.0	-----	0.0	-----		75.5	-----	
N-BUTANE.....	0.9	-----	TRACE	-----		---	-----	
ISOBUTANE.....	0.6	-----	TRACE	-----		---	-----	
N-PENTANE.....	0.1	-----	0.0	-----		---	-----	
ISOPENTANE.....	0.3	-----	0.1	-----		---	-----	
CYCLOPENTANE.....	TRACE	-----	0.0	-----		---	-----	
HEXANES PLUS.....	0.1	-----	0.0	-----		---	-----	
NITROGEN.....	0.6	-----	1.1	-----		10.3	-----	
OXYGEN.....	TRACE	-----	0.1	-----		0.8	-----	
ARGON.....	0.0	-----	TRACE	-----		---	-----	
HYDROGEN.....	0.0	-----	0.0	-----		---	-----	
HYDROGEN SULFIDE.....	1.0	-----	0.0	-----		---	-----	
CARBON DIOXIDE.....	1.0	-----	0.3	-----		0.1	-----	
HELIUM.....	0.06	-----	0.99	-----		0.00	-----	
HEATING VALUE.....	1194	-----	TRACE	-----		2193	-----	
SPECIFIC GRAVITY.....	0.691	-----	0.723	-----		1.423	-----	

INDEX 607			INDEX 608			INDEX 609		
SAMPLE 8780			SAMPLE 8781			SAMPLE 8782		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	TABLE MESA		TABLE MESA			TABLE MESA		
LOCATION.....	PLANT INLET		PLANT INLET			PLANT INLET		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
SAMPLED.....	11/29/62		11/29/62			11/29/62		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	4000		4000			4000		
FLOW, MCFD.....	700		700			700		
COMPONENT, MOLE PCT								
METHANE.....	18.4	-----	18.3	-----		18.3	-----	
ETHANE.....	5.0	-----	5.0	-----		5.0	-----	
PROPANE.....	1.8	-----	1.8	-----		1.8	-----	
N-BUTANE.....	0.8	-----	0.8	-----		0.8	-----	
ISOBUTANE.....	0.4	-----	0.5	-----		0.4	-----	
N-PENTANE.....	0.3	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.2	-----	0.3	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.1	-----	
NITROGEN.....	68.3	-----	68.4	-----		68.5	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.7	-----	0.7	-----		0.7	-----	
HYDROGEN.....	0.1	-----	TRACE	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.4	-----	0.4	-----		0.3	-----	
HELIUM.....	5.46	-----	5.47	-----		5.42	-----	
HEATING VALUE.....	354	-----	356	-----		349	-----	
SPECIFIC GRAVITY.....	0.886	-----	0.888	-----		0.883	-----	

INDEX 610			INDEX 611			INDEX 612		
SAMPLE 8783			SAMPLE 8784			SAMPLE 8785		
STATE.....	NEW MEXICO		NEW MEXICO			NEW MEXICO		
COUNTY.....	SAN JUAN		SAN JUAN			SAN JUAN		
FIELD.....	TABLE MESA		TABLE MESA			TABLE MESA		
LOCATION.....	PLANT INLET		PLANT INLET			PLANT INLET		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
SAMPLED.....	11/29/62		11/29/62			11/29/62		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	580		580			580		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	4000		4000			4000		
FLOW, MCFD.....	700		700			700		
COMPONENT, MOLE PCT								
METHANE.....	18.3	-----	18.4	-----		18.4	-----	
ETHANE.....	3.1	-----	3.0	-----		3.0	-----	
PROPANE.....	1.7	-----	1.8	-----		1.9	-----	
N-BUTANE.....	0.7	-----	0.8	-----		0.7	-----	
ISOBUTANE.....	0.5	-----	0.4	-----		0.5	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.2	-----	0.2	-----		0.3	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.1	-----	
NITROGEN.....	68.3	-----	68.3	-----		68.3	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.7	-----	0.7	-----		0.7	-----	
HYDROGEN.....	TRACE	-----	0.1	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	5.4	-----	0.4	-----		0.3	-----	
HELIUM.....	5.51	-----	5.51	-----		5.52	-----	
HEATING VALUE.....	348	-----	350	-----		356	-----	
SPECIFIC GRAVITY.....	0.882	-----	0.883	-----		0.886	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1121

		INDEX SAMPLE 613 8787	INDEX SAMPLE 614 9843	INDEX SAMPLE 615 11988
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN
FIELD.....	TABLE MESA	TABLE MESA	TABLE MESA	TABLE MESA
LOCATION.....	PLANT INLET	PLANT INLET	PLANT INLET	NOT GIVEN
OWNER.....	U-S BUREAU OF MINES	U-S BUREAU OF MINES	U-S BUREAU OF MINES	CONTINENTAL OIL CO.
SAMPLED.....	11/29/62	04/15/65	05/07/69	05/07/69
FORMATION.....	NOT GIVEN	PENN-	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	580	580	580	580
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	4000	NOT GIVEN	NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	700	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	18.1	15.6	13.4	13.4
ETHANE.....	1.0	2.5	2.5	1.7
PROpane.....	1.9	1.4	1.7	1.7
N-BUTANE.....	0.8	0.5	0.8	0.8
ISOBUTANE.....	0.4	0.4	0.4	0.4
N-PENTANE.....	0.2	TRACE	0.4	0.4
ISOPENTANE.....	0.2	TRACE	0.2	0.2
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1	0.1
NITROGEN.....	68.5	73.3	73.6	73.6
OXYGEN.....	TRACE	0.0	0.0	0.0
ARGON.....	0.7	0.1	0.6	0.6
HYDROGEN.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.1	0.5	0.5
HELIUM.....	5.8	5.30	5.50	5.50
HEATING VALUE.....	149	279	266	266
SPECIFIC GRAVITY.....	0.586	0.586	0.586	0.586
		INDEX SAMPLE 616 11989	INDEX SAMPLE 617 9668	INDEX SAMPLE 618 8331
STATE.....	NEW MEXICO	NEW MEXICO	NEW MEXICO	NEW MEXICO
COUNTY.....	SAN JUAN	SAN JUAN	SAN JUAN	SAN JUAN
FIELD.....	TABLE MESA	TABLE MESA	TABLE MESA	TABLE MESA
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	CONTINENTAL OIL CO.	PAN AMERICAN PETROLEUM CORP.	PAN AMERICAN PETROLEUM CORP.	EL PASO NATURAL GAS CO.
SAMPLED.....	05/07/69	12/01/74	12/01/74	12/01/74
FORMATION.....	NOT GIVEN	PENN-D	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	580	580	580	580
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	100	NOT GIVEN	NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	13.3	70.3	73.3	73.3
ETHANE.....	2.5	17.7	13.2	13.2
PROpane.....	1.9	3.4	7.6	7.6
N-BUTANE.....	0.9	1.1	1.9	1.9
ISOBUTANE.....	0.5	1.2	0.8	0.8
N-PENTANE.....	0.5	0.1	0.2	0.2
ISOPENTANE.....	0.0	0.1	0.3	0.3
CYCLOPENTANE.....	0.1	TRACE	0.1	0.1
HEXANES PLUS.....	0.1	0.1	0.1	0.1
NITROGEN.....	73.1	1.4	1.6	1.6
OXYGEN.....	0.0	TRACE	TRACE	TRACE
ARGON.....	0.7	0.0	0.0	0.0
HYDROGEN.....	TRACE	0.0	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	1.3	0.5	0.5
HELIUM.....	5.3	0.02	0.05	0.05
HEATING VALUE.....	320	1286	1286	1286
SPECIFIC GRAVITY.....	0.916	0.766	0.765	0.765
		INDEX SAMPLE 619 12503	INDEX SAMPLE 620 366	INDEX SAMPLE 621 14829
STATE.....	NEW MEXICO	NEW YORK	NEW YORK	NEW YORK
COUNTY.....	UTE DOME	CATTARAUGUS	CATTARAUGUS	STUYVEN
FIELD.....	UTE DOME	SHERIDAN E	SHERIDAN E	THOMAS CORNERS
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	8 IN. AT CAMERON
OWNER.....	PAN AMERICAN PETROLEUM CORP.	HEARNY L	DOHERTY	COLUMBIA GAS TRANS. CORP.
SAMPLED.....	11/03/70	06/23/70	06/23/70	10/26/76
FORMATION.....	PENN-PARADOX	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	580	160	160	160
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	400	600	600
FLOW, MCFD.....	NOT GIVEN	6000	3000	3000
COMPONENT, MOLE PCT				
METHANE.....	72.9	81.2	93.0	93.0
ETHANE.....	0.5	14.8	5.6	5.6
PROpane.....	1.9	---	0.6	0.6
N-BUTANE.....	TRACE	---	0.1	0.1
ISOBUTANE.....	0.1	---	TRACE	TRACE
N-PENTANE.....	0.1	---	TRACE	TRACE
ISOPENTANE.....	0.1	---	0.0	0.0
CYCLOPENTANE.....	TRACE	---	0.0	0.0
HEXANES PLUS.....	0.1	---	0.1	0.1
NITROGEN.....	1.6	3.8	0.8	0.8
OXYGEN.....	0.0	0.2	0.0	0.0
ARGON.....	TRACE	---	TRACE	TRACE
HYDROGEN.....	TRACE	---	0.0	0.0
HYDROGEN SULFIDE.....	0.1	---	0.0	0.0
CARBON DIOXIDE.....	23.1	0.0	TRACE	TRACE
HELIUM.....	0.21	0.10	0.03	0.03
HEATING VALUE.....	772	1088	1067	1067
SPECIFIC GRAVITY.....	0.802	0.645	0.593	0.593
		INDEX SAMPLE 622 10566	INDEX SAMPLE 623 17367	INDEX SAMPLE 624 17329
STATE.....	NORTH DAKOTA	NORTH DAKOTA	NORTH DAKOTA	NORTH DAKOTA
COUNTY.....	BURKE	MCKENZIE	STARK	STARK
FIELD.....	RIVAL	ALBERTA, CANADA	LITTLE KNIFE	LITTLE KNIFE
LOCATION.....	RIVAL UNIT	42 N. INLET	8 IN. COMPOSITE	8 IN. COMPOSITE
OWNER.....	PAN AMERICAN PETROLEUM CORP.	NORTHERN PLAINS NAT. GAS CO.	MONTANA-DAKOTA UTILITIES CO.	MONTANA-DAKOTA UTILITIES CO.
SAMPLED.....	05/09/66	08/01/84	06/20/84	06/20/84
FORMATION.....	SS-RIVAL	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	395	395	395	395
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	800	530	530
FLOW, MCFD.....	NOT GIVEN	290000	40000	40000
COMPONENT, MOLE PCT				
METHANE.....	68.0	95.7	79.4	79.4
ETHANE.....	15.1	2.3	16.3	16.3
PROpane.....	6.7	0.1	1.8	1.8
N-BUTANE.....	2.4	0.0	0.2	0.2
ISOBUTANE.....	0.7	0.0	0.1	0.1
N-PENTANE.....	0.9	0.0	TRACE	TRACE
ISOPENTANE.....	0.6	0.0	0.0	0.0
CYCLOPENTANE.....	0.3	0.0	TRACE	TRACE
HEXANES PLUS.....	0.0	0.0	TRACE	TRACE
NITROGEN.....	1.7	1.9	1.7	1.7
OXYGEN.....	0.0	0.0	0.0	0.0
ARGON.....	0.0	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.2	0.0	0.0	0.0
CARBON DIOXIDE.....	0.6	TRACE	0.5	0.5
HELIUM.....	0.02	0.05	0.03	0.03
HEATING VALUE.....	1355	1013	1153	1153
SPECIFIC GRAVITY.....	0.831	0.575	0.670	0.670

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 625 SAMPLE 10494			INDEX 626 SAMPLE 14832			INDEX 627 SAMPLE 14831		
STATE.....	NORTH DAKOTA		OHIO			OHIO		
COUNTY.....	WILLIAMS		FAIRFIELD			HOLMES		
FIELD.....	CAPA		BUCKEYE LAKE AREA			HOLMES COUNTY GAS		
LOCATION.....	NOT GIVEN		6 IN. BIN, SUCTION			8 IN. DISCHARGE		
OWNER.....	AMERADA PETROLEUM CORP.		COLUMBIA GAS TRANS. CORP.			COLUMBIA GAS TRANS. CORP.		
SAMPLED.....	03/02/66		10/29/76			10/28/76		
FORMATION.....	MISS-MADISON		NOT GIVEN			SILU-CLINTON		
GEOLOGIC PROVINCE CODE.....	395		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		17			190		
FLOW, MCFD.....	NOT GIVEN		1200			7000		
COMPONENT, MOLE PCT								
METHANE.....	66.1		90.8			83.9		
ETHANE.....	16.8		3.9			6.6		
PROPANE.....	8.0		1.0			2.6		
N-BUTANE.....	2.1		0.4			0.6		
ISOBUTANE.....	1.1		0.2			0.3		
N-PENTANE.....	0.3		0.2			0.2		
ISOPENTANE.....	0.3		TRACE			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.3			0.1		
NITROGEN.....	2.0		2.6			5.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.1		0.0			0.0		
CARBON DIOXIDE.....	2.0		0.4			0.1		
HELIUM.....	0.02		0.08			0.18		
HEATING VALUE.....	1329		1064			1076		
SPECIFIC GRAVITY.....	0.818		0.620			0.654		

INDEX 628 SAMPLE 14830			INDEX 629 SAMPLE 14833			INDEX 630 SAMPLE 10462		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	MAHONING		MEIGS			MORROW		
FIELD.....	TRUMBULL		GALLIA, MEIGS & WASHINGTON			JOHNSVILLE		
LOCATION.....	10 IN. FW-341		10 IN. DISCHARGE			MT. GILEAD		
OWNER.....	COLUMBIA GAS TRANS. CORP.		COLUMBIA GAS TRANS. CORP.			MCWOOD CORP.		
SAMPLED.....	10/27/76		10/29/76			03/14/66		
FORMATION.....	SILU-CLINTON		MISS-BEREA			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	170		180			NOT GIVEN		
FLOW, MCFD.....	3000		4000			9000		
COMPONENT, MOLE PCT								
METHANE.....	91.5		81.1			75.6		
ETHANE.....	4.1		7.7			5.4		
PROPANE.....	1.1		4.5			1.3		
N-BUTANE.....	0.3		1.2			0.5		
ISOBUTANE.....	0.1		0.4			0.5		
N-PENTANE.....	TRACE		0.2			0.1		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	2.6		4.3			15.3		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.3		
HELIUM.....	0.09		0.18			0.61		
HEATING VALUE.....	1052		1156			953		
SPECIFIC GRAVITY.....	0.606		0.691			0.684		

INDEX 631 SAMPLE 10475			INDEX 632 SAMPLE 10463			INDEX 633 SAMPLE 10478		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	MORROW		MORROW			MORROW		
FIELD.....	JOHNSVILLE		NOT GIVEN			NOT GIVEN		
LOCATION.....	MT. GILEAD		MT. GILEAD			MT. GILEAD		
OWNER.....	MCWOOD CORP.		MCWOOD CORP.			MCWOOD CORP.		
SAMPLED.....	03/18/66		03/14/66			03/18/66		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.5		75.2			74.8		
ETHANE.....	5.3		15.6			16.5		
PROPANE.....	1.5		1.0			1.3		
N-BUTANE.....	0.6		TRACE			TRACE		
ISOBUTANE.....	0.4		TRACE			TRACE		
N-PENTANE.....	0.2		TRACE			TRACE		
ISOPENTANE.....	0.2		TRACE			TRACE		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	15.2		7.6			7.0		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.0		
HELIUM.....	0.64		0.17			0.19		
HEATING VALUE.....	964		1071			1092		
SPECIFIC GRAVITY.....	0.688		0.674			0.679		

INDEX 634 SAMPLE 16587			INDEX 635 SAMPLE 14842			INDEX 636 SAMPLE 10159		
STATE.....	OHIO		OHIO			OHIO		
COUNTY.....	TUSCARAWAS		TUSCARAWAS			WASHINGTON		
FIELD.....	EASTERN OHIO		GUERNSEY			BARLOW		
LOCATION.....	18 IN.		16 IN. SUCTION			BARLOW, OHIO		
OWNER.....	EAST OHIO GAS CO.		EAST OHIO GAS CO.			RIVER GAS CO.		
SAMPLED.....	07/21/82		10/28/76			09/16/65		
FORMATION.....	NOT GIVEN		SILU-CLINTON			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	NOT GIVEN		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	640		230			NOT GIVEN		
FLOW, MCFD.....	950		50000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	85.8		86.7			82.0		
ETHANE.....	6.2		5.9			9.7		
PROPANE.....	2.1		1.0			4.0		
N-BUTANE.....	0.6		0.5			0.8		
ISOBUTANE.....	0.4		0.3			0.3		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.1		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		0.1			0.1		
NITROGEN.....	2.4		0.1			2.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.1		
HELIUM.....	0.12		0.13			0.16		
HEATING VALUE.....	1192		1163			1163		
SPECIFIC GRAVITY.....	0.648		0.639			0.678		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	637 10160	INDEX SAMPLE	638 10541	INDEX SAMPLE	639 10537
STATE.....	OHIO			OHIO		OHIO	
COUNTY.....	WASHINGTON			WASHINGTON		WASHINGTON	
FIELD.....	BARLOW & WATERTOWN			BARLOW & WATERTOWN		BELPRE	
LOCATION.....	GEHART FARM			BARLOW		8 IN. RT 32	
OWNER.....	RIVER GAS CO.			RIVER GAS CO.		RIVER GAS CO.	
SAMPLED.....	09/15/65			04/19/66		04/15/66	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE...	160			160		160	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	87.6			81.4		87.7	
ETHANE.....	4.7			9.9		5.4	
PROPANE.....	1.9			4.2		2.0	
N-BUTANE.....	0.7			1.0		0.5	
ISOBUTANE.....	0.0			0.3		0.2	
N-PENTANE.....	0.0			0.2		0.2	
ISOPENTANE.....	0.0			0.2		TRACE	
CYCLOPENTANE.....	0.0			TRACE		0.1	
HEXANES PLUS.....	0.0			0.1		0.1	
NITROGEN.....	2.5			2.4		0.2	
OXYGEN.....	0.0			0.0		0.2	
ARGON.....	0.1			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.1		0.1	
HELIUM.....	0.40			0.16		0.31	
HEATING VALUE.....	1068			1074		1074	
SPECIFIC GRAVITY.....	0.618			0.655		0.632	
		INDEX SAMPLE	640 10535	INDEX SAMPLE	641 10536	INDEX SAMPLE	642 10539
STATE.....	OHIO			OHIO		OHIO	
COUNTY.....	WASHINGTON			WASHINGTON		WASHINGTON	
FIELD.....	LOWELL			LOWELL		LOWELL	
LOCATION.....	NOT GIVEN			RF 305 LINE		4 IN. LINE	
OWNER.....	RIVER GAS CO.			RIVER GAS CO.		RIVER GAS CO.	
SAMPLED.....	04/18/66			04/18/66		04/21/66	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE...	160			160		160	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	76.5			75.5		77.4	
ETHANE.....	11.7			11.9		11.4	
PROPANE.....	6.2			6.1		5.9	
N-BUTANE.....	1.5			1.6		1.5	
ISOBUTANE.....	0.6			0.6		0.4	
N-PENTANE.....	0.6			0.5		0.7	
ISOPENTANE.....	0.2			0.2		0.1	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.1			0.4		0.5	
NITROGEN.....	2.1			1.8		1.9	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	0.0			0.0		0.0	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.0			0.0		0.0	
HELIUM.....	0.1			0.10		0.12	
HEATING VALUE.....	1275			1281		1269	
SPECIFIC GRAVITY.....	0.742			0.743		0.736	
		INDEX SAMPLE	643 15494	INDEX SAMPLE	644 15500	INDEX SAMPLE	645 16813
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	ANADARKO BASIN			ANADARKO BASIN		ANADARKO BASIN	
LOCATION.....	A-24 IN. DISCHARGE			B-26 IN. DISCHARGE		A-24 IN. DISCHARGE	
OWNER.....	NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	11/13/78			11/13/78		03/14/83	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE...	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	450			750		135	
FLOW, MCFD.....	75000			237000		55000	
COMPONENT, MOLE PCT							
METHANE.....	84.1			88.8		84.9	
ETHANE.....	6.2			5.2		5.6	
PROPANE.....	1.9			2.0		1.6	
N-BUTANE.....	0.4			0.6		0.5	
ISOBUTANE.....	0.1			0.1		0.1	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.1			0.2		TRACE	
CYCLOPENTANE.....	TRACE			36.0		0.1	
HEXANES PLUS.....	0.1			0.2		6.3	
NITROGEN.....	6.4			2.0		TRACE	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.5		0.3	
HELIUM.....	0.24			0.13		0.23	
HEATING VALUE.....	1043			1103		1036	
SPECIFIC GRAVITY.....	0.645			0.640		0.641	
		INDEX SAMPLE	646 16814	INDEX SAMPLE	647 12862	INDEX SAMPLE	648 13315
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	BEAVER			BEAVER		BEAVER	
FIELD.....	ANADARKO BASIN			CAMRICK GAS AREA		ELMWOOD-CAMP CREEK AREA	
LOCATION.....	B-26 IN. DISCHARGE			NOT GIVEN		24 IN. A DISCHARGE	
OWNER.....	NORTHERN NATURAL GAS CO.			EXXON CO. U.S.A.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	03/14/83			06/22/71		07/24/72	
FORMATION.....	NOT GIVEN			PENN-MORROW		NOT GIVEN	
GEOLOGIC PROVINCE CODE...	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	670			690		460	
FLOW, MCFD.....	90000			NOT GIVEN		96000	
COMPONENT, MOLE PCT							
METHANE.....	87.5			78.5		85.5	
ETHANE.....	6.0			8.4		6.1	
PROPANE.....	2.7			7.0		5.0	
N-BUTANE.....	0.9			2.0		0.7	
ISOBUTANE.....	0.3			1.0		0.4	
N-PENTANE.....	0.2			0.7		0.2	
ISOPENTANE.....	0.2			0.2		0.1	
CYCLOPENTANE.....	0.1			0.2		0.1	
HEXANES PLUS.....	0.1			0.5		0.2	
NITROGEN.....	1.6			0.0		0.3	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.9			0.3		0.4	
HELIUM.....	0.06			0.04		0.15	
HEATING VALUE.....	1140			1300		1117	
SPECIFIC GRAVITY.....	0.655			0.751		0.662	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 649 SAMPLE 15316		INDEX 650 SAMPLE 15499		INDEX 651 SAMPLE 16816	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER
FIELD.....	HIGH PRESS GATHERING SYSTEM	KERMIT	KERMIT	KERMIT, TX AREA	KERMIT, TX AREA
LOCATION.....	26 IN. B DISCHARGE	DE-30 IN. DISCHARGE	DE-30 IN. DISCHARGE	DE-30 IN. DISCH.	DE-30 IN. DISCH.
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.
SAMPLED.....	07/24/72	11/13/78	03/14/83	03/14/83	03/14/83
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	760	960	960	960	960
FLOW, MCFD.....	230000	336000	336000	175000	175000
COMPONENT, MOLE PCT					
METHANE.....	88.0	91.7	91.7	83.7	83.7
ETHANE.....	5.6	3.2	3.2	3.6	3.6
PROPANE.....	2.4	0.7	0.7	0.9	0.9
N-BUTANE.....	0.5	0.1	0.1	0.2	0.2
ISOBUTANE.....	0.3	TRACE	TRACE	0.1	0.1
N-PENTANE.....	0.1	TRACE	TRACE	0.1	0.1
ISOPENTANE.....	0.1	TRACE	TRACE	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE	0.1	0.1
HEXANES PLUS.....	0.1	TRACE	TRACE	0.1	0.1
NITROGEN.....	2.2	3.1	3.1	8.2	8.2
OXYGEN.....	0.0	0.0	0.0	1.6	1.6
ARGON.....	TRACE	TRACE	TRACE	0.1	0.1
HYDROGEN.....	0.0	0.1	0.1	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.8	0.8	1.0	1.0
HELIUM.....	0.11	0.10	0.10	0.14	0.14
HEATING VALUE.....	1095	1012	1012	960	960
SPECIFIC GRAVITY.....	0.638	0.500	0.500	0.644	0.644

INDEX 652 SAMPLE 13318		INDEX 653 SAMPLE 6711		INDEX 654 SAMPLE 6712	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER
FIELD.....	NOT GIVEN	PANHANDLE	PANHANDLE	PANHANDLE & W TEXAS	PANHANDLE & W TEXAS
LOCATION.....	30 IN. DE DISCHARGE	24 IN. SKELLEYTOWN AREA	24 IN. SKELLEYTOWN AREA	30 IN. SUNRAY LINE	30 IN. SUNRAY LINE
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.
SAMPLED.....	07/24/72	07/17/58	07/17/58	07/17/58	07/17/58
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	360	360	360	360
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	890	300	300	850	850
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT					
METHANE.....	88.5	80.4	80.4	83.2	83.2
ETHANE.....	4.8	8.2	8.2	6.5	6.5
PROPANE.....	1.1	3.1	3.1	2.0	2.0
N-BUTANE.....	0.1	0.2	0.2	0.3	0.3
ISOBUTANE.....	0.1	0.3	0.3	0.1	0.1
N-PENTANE.....	TRACE	0.0	0.0	TRACE	TRACE
ISOPENTANE.....	TRACE	0.0	0.0	0.2	0.2
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	TRACE	0.1	0.1	0.1	0.1
NITROGEN.....	4.2	7.3	7.3	7.1	7.1
OXYGEN.....	0.0	TRACE	TRACE	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.1	0.1	0.1	0.2	0.2
HELIUM.....	0.04	0.30	0.30	0.30	0.30
HEATING VALUE.....	1018	1064	1064	1038	1038
SPECIFIC GRAVITY.....	0.620	0.656	0.656	0.649	0.649

INDEX 655 SAMPLE 15484		INDEX 656 SAMPLE 13319		INDEX 657 SAMPLE 16815	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	BEAVER	BEAVER	BEAVER	BEAVER	BEAVER
FIELD.....	PERMIAN BASIN	PERMIAN BASIN AREA	PERMIAN BASIN AREA	PERMIAN BASIN-WEST TX	PERMIAN BASIN-WEST TX
LOCATION.....	36 IN. DE DISCHARGE	36 IN. KERMIT SUCTION	36 IN. KERMIT SUCTION	C-30 IN. DISCH.	C-30 IN. DISCH.
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.
SAMPLED.....	11/13/78	07/24/72	07/24/72	03/14/83	03/14/83
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	NOT GIVEN	NOT GIVEN	360	360
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	830	720	720	655	655
FLOW, MCFD.....	508000	594000	594000	425000	425000
COMPONENT, MOLE PCT					
METHANE.....	88.7	95.4	95.4	91.7	91.7
ETHANE.....	4.7	1.4	1.4	3.4	3.4
PROPANE.....	1.1	0.1	0.1	0.8	0.8
N-BUTANE.....	0.2	0.1	0.1	0.2	0.2
ISOBUTANE.....	0.1	0.1	0.1	TRACE	TRACE
N-PENTANE.....	0.1	TRACE	TRACE	TRACE	TRACE
ISOPENTANE.....	TRACE	TRACE	TRACE	TRACE	TRACE
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	TRACE	TRACE	TRACE	TRACE
NITROGEN.....	4.4	0.0	0.0	2.4	2.4
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.1	0.0	0.0	0.2	0.2
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.3	2.2	2.2	1.0	1.0
HELIUM.....	0.17	0.02	0.02	0.13	0.13
HEATING VALUE.....	1031	1009	1009	1018	1018
SPECIFIC GRAVITY.....	0.617	0.591	0.591	0.599	0.599

INDEX 658 SAMPLE 13317		INDEX 659 SAMPLE 15426		INDEX 660 SAMPLE 15427	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	BEAVER	COMBOSITE	COMBOSITE	COMBOSITE	COMBOSITE
FIELD.....	RESIDUE FROM AMOCO PLANT	20 IN. DISCHARGE TO N	20 IN. DISCHARGE TO N	20 IN. DISCHARGE TO S	20 IN. DISCHARGE TO S
LOCATION.....	30 IN. C DISCHARGE	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.	COLORADO INTERSTATE GAS CO.
OWNER.....	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.
SAMPLED.....	07/24/72	10/17/78	10/17/78	10/17/78	10/17/78
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	435	435	435	435
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	800	700	700	400	400
FLOW, MCFD.....	598000	62000	62000	18300	18300
COMPONENT, MOLE PCT					
METHANE.....	84.8	77.2	77.2	75.1	75.1
ETHANE.....	6.8	6.9	6.9	6.4	6.4
PROPANE.....	2.1	2.4	2.4	2.4	2.4
N-BUTANE.....	0.4	0.3	0.3	0.4	0.4
ISOBUTANE.....	0.2	0.1	0.1	0.2	0.2
N-PENTANE.....	0.1	0.1	0.1	0.1	0.1
ISOPENTANE.....	0.1	TRACE	TRACE	0.1	0.1
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1	0.1	0.1
NITROGEN.....	4.8	12.3	12.3	14.7	14.7
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.1	0.1	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	0.4	0.4	0.4	0.4
HELIUM.....	0.06	0.10	0.10	0.11	0.11
HEATING VALUE.....	1069	991	991	972	972
SPECIFIC GRAVITY.....	0.649	0.677	0.677	0.690	0.690

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1125

INDEX 661 SAMPLE 13436			INDEX 662 SAMPLE 5479			INDEX 663 SAMPLE 5484		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES & PANHANDLE W		KEYES GAS AREA			KEYES GAS AREA		
LOCATION.....	20 IN. DISCHARGE		6 IN. LINE			12 IN. LINE		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	10/04/72		05/26/53			05/26/53		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	800		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	200000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.0	-----	62.8	-----		61.7	-----	
ETHANE.....	6.8	-----	3.3	-----		3.3	-----	
PROPANE.....	2.1	-----	1.8	-----		2.3	-----	
N-BUTANE.....	0.2	-----	0.5	-----		0.7	-----	
ISOBUTANE.....	0.1	-----	0.3	-----		0.3	-----	
N-PENTANE.....	0.1	-----	0.3	-----		0.3	-----	
ISOPENTANE.....	0.0	-----	0.1	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.1	-----	
NITROGEN.....	15.7	-----	28.6	-----		27.9	-----	
OXYGEN.....	0.0	-----	0.0	-----		TRACE	-----	
ARGON.....	0.1	-----	0.5	-----		0.1	-----	
HYDROGEN.....	0.0	-----	TRACE	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.2	-----	0.2	-----		0.8	-----	
HELIUM.....	0.54	-----	1.92	-----		2.14	-----	
HEATING VALUE.....	945	-----	791	-----		809	-----	
SPECIFIC GRAVITY.....	0.683	-----	0.724	-----		0.737	-----	
INDEX 664 SAMPLE 5776			INDEX 665 SAMPLE 5781			INDEX 666 SAMPLE 6390		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
LOCATION.....	LINE F-1		F-1 INLET			MAIN LINE SAMPLE		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	01/27/55		03/04/55			08/20/57		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		530			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	66.0	-----	64.8	-----		64.0	-----	
ETHANE.....	3.2	-----	3.1	-----		3.7	-----	
PROPANE.....	0.7	-----	1.3	-----		2.2	-----	
N-BUTANE.....	0.2	-----	0.6	-----		0.7	-----	
ISOBUTANE.....	0.3	-----	0.5	-----		0.4	-----	
N-PENTANE.....	0.2	-----	0.2	-----		0.2	-----	
ISOPENTANE.....	0.2	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		TRACE	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.2	-----	
NITROGEN.....	24.2	-----	25.8	-----		25.9	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.0	-----	
ARGON.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN.....	0.1	-----	0.1	-----		0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.8	-----	1.1	-----		0.6	-----	
HELIUM.....	2.03	-----	2.13	-----		1.95	-----	
HEATING VALUE.....	837	-----	805	-----		836	-----	
SPECIFIC GRAVITY.....	0.716	-----	0.719	-----		0.730	-----	
INDEX 667 SAMPLE 6439			INDEX 668 SAMPLE 6445			INDEX 669 SAMPLE 6624		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
LOCATION.....	OUTLET		MAIN LINE METER STA.			16 IN. INLET		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	11/06/57		11/26/57			06/7-758		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	550		555			NOT GIVEN		
FLOW, MCFD.....	50000		46000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	63.7	-----	65.5	-----		65.0	-----	
ETHANE.....	3.0	-----	3.0	-----		3.8	-----	
PROPANE.....	4.7	-----	2.3	-----		2.1	-----	
N-BUTANE.....	0.8	-----	0.5	-----		0.7	-----	
ISOBUTANE.....	0.0	-----	0.6	-----		0.5	-----	
N-PENTANE.....	0.0	-----	0.1	-----		0.2	-----	
ISOPENTANE.....	0.0	-----	0.2	-----		0.2	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.1	-----	0.1	-----		0.2	-----	
NITROGEN.....	25.2	-----	24.0	-----		24.7	-----	
OXYGEN.....	TRACE	-----	TRACE	-----		TRACE	-----	
ARGON.....	0.1	-----	0.0	-----		0.1	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.0	-----	0.7	-----		0.6	-----	
HELIUM.....	2.10	-----	2.10	-----		1.90	-----	
HEATING VALUE.....	862	-----	846	-----		853	-----	
SPECIFIC GRAVITY.....	0.730	-----	0.719	-----		0.728	-----	
INDEX 670 SAMPLE 8923			INDEX 671 SAMPLE 8924			INDEX 672 SAMPLE 15428		
STATE.....	OKLAHOMA		OKLAHOMA			OKLAHOMA		
COUNTY.....	CIMARRON		CIMARRON			CIMARRON		
FIELD.....	KEYES GAS AREA		KEYES GAS AREA			KEYES GAS AREA		
LOCATION.....	OUTLET		INLET			16 IN. INLET		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	04/05/63		04/05/63			10/17/78		
FORMATION.....	PENN-MORROW		PENN-MORROW			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	435		435			435		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	488		463			488		
FLOW, MCFD.....	500000		550000			28000		
COMPONENT, MOLE PCT								
METHANE.....	67.2	-----	64.9	-----		64.8	-----	
ETHANE.....	3.1	-----	3.0	-----		3.8	-----	
PROPANE.....	2.0	-----	1.8	-----		2.5	-----	
N-BUTANE.....	0.8	-----	0.7	-----		0.9	-----	
ISOBUTANE.....	0.3	-----	0.3	-----		0.5	-----	
N-PENTANE.....	0.2	-----	0.1	-----		0.3	-----	
ISOPENTANE.....	0.3	-----	0.3	-----		0.3	-----	
CYCLOPENTANE.....	TRACE	-----	TRACE	-----		0.1	-----	
HEXANES PLUS.....	0.2	-----	0.1	-----		0.2	-----	
NITROGEN.....	25.7	-----	25.7	-----		26.4	-----	
OXYGEN.....	0.0	-----	TRACE	-----		0.0	-----	
ARGON.....	0.1	-----	0.1	-----		0.1	-----	
HYDROGEN.....	0.0	-----	0.0	-----		TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----		0.0	-----	
CARBON DIOXIDE.....	0.1	-----	0.7	-----		TRACE	-----	
HELIUM.....	0.05	-----	2.17	-----		0.17	-----	
HEATING VALUE.....	857	-----	814	-----		876	-----	
SPECIFIC GRAVITY.....	0.729	-----	0.717	-----		0.747	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE 673 17034	INDEX SAMPLE 674 13307	INDEX SAMPLE 675 15503
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CHARRON		CREEK	CREEK
FIELD.....	KEYES GAS AREA		WESTERN OKLAHOMA	WESTERN OKLAHOMA
LOCATION.....	16 IN. INLET		24 IN. DISCHARGE	24 IN. DISCHARGE
OWNER.....	COLORADO INTERSTATE GAS CO.		OKLAHOMA NATURAL GAS CO.	OKLAHOMA NATURAL GAS CO.
SAMPLED.....	08/29/83		07/28/72	11/20/78
FORMATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	435		355	355
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	470		1180	540
FLOW, MCFD.....	17000		63000	250000
COMPONENT, MOLE PCT				
METHANE.....	62.8	-----	88.0	90.8
ETHANE.....	4.0	-----	7.6	5.1
PROPANE.....	2.6	-----	1.9	1.1
N-BUTANE.....	0.8	-----	0.1	0.2
ISOBUTANE.....	0.4	-----	0.1	0.1
N-PENTANE.....	0.2	-----	0.1	TRACE
ISOPENTANE.....	0.4	-----	0.0	TRACE
CYCLOPENTANE.....	TRACE	-----	TRACE	TRACE
HEXANES PLUS.....	0.1	-----	0.1	0.1
NITROGEN.....	25.7	-----	1.7	2.0
OXYGEN.....	0.0	-----	0.0	0.0
ARGON.....	0.1	-----	0.0	TRACE
HYDROGEN.....	0.2	-----	0.0	0.1
HYDROGEN SULFIDE.....	0.0	-----	0.0	0.0
CARBON DIOXIDE.....	0.9	-----	0.0	0.0
HELIUM.....	1.76	-----	3.04	0.05
HEATING VALUE.....	847	-----	1093	1055
SPECIFIC GRAVITY.....	0.740	-----	0.628	0.609

		INDEX SAMPLE 676 16836	INDEX SAMPLE 677 3906	INDEX SAMPLE 678 1512
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	CREEK		GRADY	GRADY
FIELD.....	WESTERN OKLAHOMA AREA		PAULS VALLEY	CHICKASHA
LOCATION.....	24 IN. DISCHARGE		SEC. 31, T4N, R1E	GUTHRIE LINE
OWNER.....	OKLAHOMA NATURAL GAS CO.		OTHA H. GRIMES	OKLAHOMA NATURAL GAS CO.
SAMPLED.....	03/21/83		06/13/44	10/11/77
FORMATION.....	NOT GIVEN		ORDO-BROMIDE & PENN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	355		NOT GIVEN	360
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	800		NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	400000		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	89.6	-----	38.7	83.5
ETHANE.....	5.8	-----	59.7	11.3
PROPANE.....	1.0	-----	---	---
N-BUTANE.....	0.2	-----	---	---
ISOBUTANE.....	TRACE	-----	---	---
N-PENTANE.....	TRACE	-----	---	---
ISOPENTANE.....	TRACE	-----	---	---
CYCLOPENTANE.....	TRACE	-----	---	---
HEXANES PLUS.....	0.1	-----	---	---
NITROGEN.....	2.3	-----	0.0	4.0
OXYGEN.....	0.0	-----	0.9	1.1
ARGON.....	TRACE	-----	---	---
HYDROGEN.....	0.2	-----	---	---
HYDROGEN SULFIDE.....	0.0	-----	---	---
CARBON DIOXIDE.....	0.6	-----	---	0.2
HELIUM.....	0.04	-----	0.02	0.05
HEATING VALUE.....	1050	-----	1862	1048
SPECIFIC GRAVITY.....	0.612	-----	0.862	0.635

		INDEX SAMPLE 679 8095	INDEX SAMPLE 680 15672	INDEX SAMPLE 681 17111
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	GRADY		KAY	KAY
FIELD.....	KNOX		CENTRAL OKLAHOMA	EDMOND, OKC & ENID OK AREA
LOCATION.....	SEC. 33, T3N, R5W		20 IN. OKLAHOMA CITY LINE	20 IN. OKC LINE
OWNER.....	BRITISH AMERICAN OIL PROD. C		CITIES SERVICE CO.	NORTHWEST CENTRAL PIPELINE C
SAMPLED.....	07/3/61		06/22/79	10/21/83
FORMATION.....	ORDO-BROMIDE		NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360		355	355
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	270		315	315
FLOW, MCFD.....	NOT GIVEN		180000	20000
COMPONENT, MOLE PCT				
METHANE.....	92.0	-----	92.0	90.8
ETHANE.....	5.0	-----	4.6	4.7
PROPANE.....	1.1	-----	0.9	1.1
N-BUTANE.....	TRACE	-----	0.2	0.3
ISOBUTANE.....	0.1	-----	0.1	0.1
N-PENTANE.....	TRACE	-----	0.1	0.1
ISOPENTANE.....	TRACE	-----	TRACE	TRACE
CYCLOPENTANE.....	TRACE	-----	TRACE	0.1
HEXANES PLUS.....	TRACE	-----	0.1	0.1
NITROGEN.....	0.1	-----	1.6	2.4
OXYGEN.....	TRACE	-----	0.0	0.0
ARGON.....	0.0	-----	TRACE	TRACE
HYDROGEN.....	0.0	-----	TRACE	0.1
HYDROGEN SULFIDE.....	0.0	-----	0.0	0.0
CARBON DIOXIDE.....	0.7	-----	0.4	0.3
HELIUM.....	0.02	-----	0.04	0.06
HEATING VALUE.....	1071	-----	1057	1060
SPECIFIC GRAVITY.....	0.604	-----	0.606	0.614

		INDEX SAMPLE 682 13256	INDEX SAMPLE 683 15674	INDEX SAMPLE 684 17113
STATE.....	OKLAHOMA		OKLAHOMA	OKLAHOMA
COUNTY.....	GUYNON-HUGOTON		GUYNON-HUGOTON	GUYNON-HUGOTON
FIELD.....	26 IN. GUYNON LINE		26 IN. GUYNON LINE	26 IN. GUYNON LINE
LOCATION.....	CITIES SERVICE GAS CO.		CITIES SERVICE CO.	NORTHWEST CENTRAL PIPELINE C
OWNER.....	PERM-CHASE GROUP		PERM-CHASE GROUP	NOT GIVEN
SAMPLED.....	06/09/72		06/22/79	10/21/83
FORMATION.....	PERM-CHASE GROUP		PERM-CHASE GROUP	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	355		355	355
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	630		863	508
FLOW, MCFD.....	330000		234000	29000
COMPONENT, MOLE PCT				
METHANE.....	85.2	-----	84.9	88.6
ETHANE.....	6.3	-----	6.0	5.9
PROPANE.....	1.6	-----	1.6	0.9
N-BUTANE.....	0.0	-----	0.1	0.0
ISOBUTANE.....	0.0	-----	TRACE	0.0
N-PENTANE.....	0.0	-----	0.1	0.1
ISOPENTANE.....	0.0	-----	0.1	0.0
CYCLOPENTANE.....	0.0	-----	0.1	TRACE
HEXANES PLUS.....	0.0	-----	0.1	TRACE
NITROGEN.....	6.4	-----	6.5	3.8
OXYGEN.....	0.0	-----	TRACE	0.0
ARGON.....	TRACE	-----	TRACE	TRACE
HYDROGEN.....	TRACE	-----	TRACE	0.0
HYDROGEN SULFIDE.....	0.0	-----	0.0	0.0
CARBON DIOXIDE.....	0.3	-----	0.3	0.4
HELIUM.....	0.23	-----	0.22	0.14
HEATING VALUE.....	1017	-----	1030	1034
SPECIFIC GRAVITY.....	0.630	-----	0.639	0.615

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1127

INDEX 685 SAMPLE 13622		INDEX 686 SAMPLE 13254		INDEX 687 SAMPLE 17112	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	KAY	KAY	KAY	KAY	
FIELD.....	NOT GIVEN	PANHANDLE W	PANHANDLE W	PANHANDLE W	
LOCATION.....	20 IN. INLET	W PANHANDLE LINE	W PANHANDLE LINE	26 IN. TRANSWESTERN LINE	
OWNER.....	CITIES SERVICE OIL CO.	CITIES SERVICE OIL CO.	CITIES SERVICE OIL CO.	NORTHWEST CENTRAL PIPELINE C	
SAMPLED.....	06/05/73	06/09/72	06/09/72	10/21/83	
FORMATION.....	NOT GIVEN	PERM-WICHITA-ALBANY	PERM-WICHITA-ALBANY	NOT GIVEN	
GEOLOGIC PROVINCE CODE	355	355	355	355	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
PRESSURE, PSIG.....	544	680	536	536	
FLOW, MCFD.....	131000	145000	29000	29000	
COMPONENT, MOLE PCT					
METHANE.....	90.9	86.7	89.4	89.4	
ETHANE.....	5.1	7.9	5.9	5.9	
PROPANE.....	0.8	2.2	1.5	1.5	
N-BUTANE.....	0.1	0.3	0.4	0.4	
ISOBUTANE.....	0.1	0.2	0.1	0.1	
N-PENTANE.....	TRACE	TRACE	0.1	0.1	
ISOPENTANE.....	TRACE	0.1	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	TRACE	0.1	0.1	0.1	
NITROGEN.....	1.6	1.6	1.7	1.7	
OXYGEN.....	0.0	TRACE	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.8	0.5	0.5	
HELIUM.....	0.06	0.05	0.06	0.06	
HEATING VALUE.....	1058	1103	1081	1081	
SPECIFIC GRAVITY.....	0.605	0.641	0.623	0.623	

INDEX 688 SAMPLE 15673		INDEX 689 SAMPLE 1927		INDEX 690 SAMPLE 1928	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	LOGAN	LOGAN	LOGAN	LOGAN	
FIELD.....	PANHANDLE, W & C OKLAHOMA	SEC. 5, T18N, R4W	SEC. 5, T18N, R4W	SEC. 5, T18N, R4W	
LOCATION.....	26 IN. FROM CANADIAN, TEXAS	J. S. COSDEN, INC.	J. S. COSDEN, INC.	J. S. COSDEN, INC.	
OWNER.....	CITIES SERVICE CO.	01/27/30	01/27/30	01/27/30	
SAMPLED.....	06/22/79	01/27/30	01/27/30	01/27/30	
FORMATION.....	PERM-WICHITA-ALBANY	ORDO-WILCOX	ORDO-WILCOX	ORDO-WILCOX	
GEOLOGIC PROVINCE CODE	355	355	355	355	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
PRESSURE, PSIG.....	563	1300	1300	1300	
FLOW, MCFD.....	163000	2990	2990	2990	
COMPONENT, MOLE PCT					
METHANE.....	89.5	36.0	61.2	61.2	
ETHANE.....	2.2	58.5	33.5	33.5	
PROPANE.....	1.7	---	---	---	
N-BUTANE.....	1.4	---	---	---	
ISOBUTANE.....	0.2	---	---	---	
N-PENTANE.....	0.1	---	---	---	
ISOPENTANE.....	0.1	---	---	---	
CYCLOPENTANE.....	TRACE	---	---	---	
HEXANES PLUS.....	0.1	---	---	---	
NITROGEN.....	1.5	5.3	5.0	5.0	
OXYGEN.....	TRACE	0.0	0.2	0.2	
ARGON.....	TRACE	---	---	---	
HYDROGEN.....	TRACE	---	---	---	
HYDROGEN SULFIDE.....	0.0	---	---	---	
CARBON DIOXIDE.....	0.9	0.2	0.2	0.2	
HELIUM.....	0.07	0.05	0.05	0.05	
HEATING VALUE.....	1071	1413	1220	1220	
SPECIFIC GRAVITY.....	0.626	0.868	0.745	0.745	

INDEX 691 SAMPLE 232		INDEX 692 SAMPLE 3310		INDEX 693 SAMPLE 325	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	NOWATA	OKFUSKEE	OKFUSKEE	OKFUSKEE	
FIELD.....	LUDOWICI-CELADON	MID-WEST AREA	MORGAN	MORGAN	
LOCATION.....	SEC. 16, T28N, R16E	SEC. 34, T12N, R9E	NOT GIVEN	NOT GIVEN	
OWNER.....	LUDOWICI-CELADON TILE CO.	DAVON OIL CO.	EAGLE Picher LEAD CO.	EAGLE Picher LEAD CO.	
SAMPLED.....	04/30/20	04/24/42	06/03/20	06/03/20	
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE	355	355	355	355	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
PRESSURE, PSIG.....	30	NOT GIVEN	145	145	
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	96.6	65.1	72.4	72.4	
ETHANE.....	2.0	29.4	9.9	9.9	
PROPANE.....	---	---	---	---	
N-BUTANE.....	---	---	---	---	
ISOBUTANE.....	---	---	---	---	
N-PENTANE.....	---	---	---	---	
ISOPENTANE.....	---	---	---	---	
CYCLOPENTANE.....	---	---	---	---	
HEXANES PLUS.....	---	---	---	---	
NITROGEN.....	0.6	4.9	15.9	15.9	
OXYGEN.....	0.7	0.3	1.6	1.6	
ARGON.....	---	---	---	---	
HYDROGEN.....	---	---	---	---	
HYDROGEN SULFIDE.....	---	---	---	---	
CARBON DIOXIDE.....	0.3	0.1	0.2	0.2	
HELIUM.....	0.09	0.16	0.06	0.06	
HEATING VALUE.....	1014	1186	911	911	
SPECIFIC GRAVITY.....	0.575	0.722	0.680	0.680	

INDEX 694 SAMPLE 1203		INDEX 695 SAMPLE 15006		INDEX 696 SAMPLE 15007	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	
COUNTY.....	OSAGE	OSAGE	OSAGE	OSAGE	
FIELD.....	BURBANK	DOGA	DOGA	DOGA	
LOCATION.....	T27N, R5E	NOT GIVEN	NOT GIVEN	NOT GIVEN	
OWNER.....	PHILLIPS PETROLEUM CO.	CEJA CORP.	CEJA CORP.	CEJA CORP.	
SAMPLED.....	11/12/25	05/12/77	05/12/77	05/12/77	
FORMATION.....	PENN-BURBANK	MISS-CHAT	MISS-CHAT	MISS-CHAT	
GEOLOGIC PROVINCE CODE	355	355	355	355	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
PRESSURE, PSIG.....	130	1300	1300	1300	
FLOW, MCFD.....	6000	NOT GIVEN	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	13.9	55.8	56.5	56.5	
ETHANE.....	83.0	11.5	11.0	11.0	
PROPANE.....	---	8.6	7.0	7.0	
N-BUTANE.....	---	0.2	2.9	2.9	
ISOBUTANE.....	---	1.4	0.9	0.9	
N-PENTANE.....	---	1.4	0.8	0.8	
ISOPENTANE.....	---	0.2	0.7	0.7	
CYCLOPENTANE.....	---	0.2	0.2	0.2	
HEXANES PLUS.....	---	0.8	0.5	0.5	
NITROGEN.....	1.4	14.0	18.9	18.9	
OXYGEN.....	0.1	0.0	0.0	0.0	
ARGON.....	---	TRACE	TRACE	TRACE	
HYDROGEN.....	---	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	---	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.7	0.4	0.3	0.3	
HELIUM.....	0.07	0.32	0.28	0.28	
HEATING VALUE.....	1628	1339	1177	1177	
SPECIFIC GRAVITY.....	0.884	0.916	0.861	0.861	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE	697 1754		INDEX SAMPLE	698 15260		INDEX SAMPLE	699 15259
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	PORTLAND		ROGERS		ROGERS		ROGERS	
FIELD.....	EARLSBORO		AMMONIA PLANT		NOT GIVEN		NOT GIVEN	
LOCATION.....	GASOLINE PLANT DISCHARGE		NOT GIVEN		OKLAHOMA NATURAL GAS CO.		OKLAHOMA NATURAL GAS CO.	
OWNER.....	MOBIL OIL CORP.		AGRICOL CHEMICAL CO.		AGRICOL CHEMICAL CO.		AGRICOL CHEMICAL CO.	
SAMPLED.....	04/24/29		04/13/78		04/13/78		04/13/78	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355		355		355		355	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	39.8		10.2		92.6			
ETHANE.....	48.7		0.0		4.2			
PROPANE.....	---		TRACE		0.8			
N-BUTANE.....	---		0.0		0.2			
ISOBUTANE.....	---		0.0		0.1			
N-PENTANE.....	---		0.0		0.0			
ISOPENTANE.....	---		0.0		TRACE			
CYCLOPENTANE.....	---		0.0		TRACE			
HEXANES PLUS.....	---		0.0		TRACE			
NITROGEN.....	10.6		20.4		1.5			
OXYGEN.....	0.5		TRACE		0.1			
ARGON.....	---		7.5		TRACE			
HYDROGEN.....	---		61.6		0.0			
HYDROGEN SULFIDE.....	---		9.6		0.0			
CARBON DIOXIDE.....	0.3		TRACE		0.5			
HELIUM.....	0.06		0.24		0.04			
HEATING VALUE.....	1276		303		1044			
SPECIFIC GRAVITY.....	0.844		0.400		0.599			

	INDEX SAMPLE	700 1758		INDEX SAMPLE	701 1759		INDEX SAMPLE	702 1761
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	SEMINOLE		SEMINOLE		SEMINOLE		SEMINOLE	
FIELD.....	BOWLEGS		LITTLE RIVER		MAUD		MAUD	
LOCATION.....	LOW COMPRESSOR DISCHARGE		PLANT INLET		PLANT DISCHARGE		PLANT DISCHARGE	
OWNER.....	SMALL OIL CO.		GYPSY OIL CO.		AMERADA HESS CORP.		AMERADA HESS CORP.	
SAMPLED.....	04/25/29		04/25/29		04/26/29		04/26/29	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355		355		355		355	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		8500			
COMPONENT, MOLE PCT								
METHANE.....	15.3		33.0		40.0			
ETHANE.....	74.0		54.3		49.1			
PROPANE.....	---		---		---			
N-BUTANE.....	---		---		---			
ISOBUTANE.....	---		---		---			
N-PENTANE.....	---		---		---			
ISOPENTANE.....	---		---		---			
CYCLOPENTANE.....	---		---		---			
HEXANES PLUS.....	---		---		---			
NITROGEN.....	10.5		12.1		10.1			
OXYGEN.....	0.2		0.3		0.5			
ARGON.....	---		---		---			
HYDROGEN.....	---		---		---			
HYDROGEN SULFIDE.....	---		---		---			
CARBON DIOXIDE.....	0.2		0.3		0.3			
HELIUM.....	TRACE		0.07		TRACE			
HEATING VALUE.....	1481		1307		1285			
SPECIFIC GRAVITY.....	0.968		0.878		0.845			

	INDEX SAMPLE	703 1760		INDEX SAMPLE	704 1763		INDEX SAMPLE	705 1764
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	SEMINOLE		SEMINOLE		SEMINOLE		SEMINOLE	
FIELD.....	MISSION		SEARIGHT		SEARIGHT		SEARIGHT	
LOCATION.....	PLANT INLET		PLANT DISCHARGE		PLANT DISCHARGE		PLANT DISCHARGE	
OWNER.....	GYPSY OIL CO.		CARTER OIL CO.		GYPSY OIL CO.		GYPSY OIL CO.	
SAMPLED.....	04/26/29		04/26/29		04/27/29		04/27/29	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355		355		355		355	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	1974		1100		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	46.2		16.5		30.3			
ETHANE.....	44.8		78.3		41.6			
PROPANE.....	---		---		---			
N-BUTANE.....	---		---		---			
ISOBUTANE.....	---		---		---			
N-PENTANE.....	---		---		---			
ISOPENTANE.....	---		---		---			
CYCLOPENTANE.....	---		---		---			
HEXANES PLUS.....	---		---		---			
NITROGEN.....	8.6		4.0		27.4			
OXYGEN.....	0.3		0.6		0.6			
ARGON.....	---		---		---			
HYDROGEN.....	---		---		---			
HYDROGEN SULFIDE.....	---		---		---			
CARBON DIOXIDE.....	0.2		0.6		0.2			
HELIUM.....	TRACE		TRACE		0.34			
HEATING VALUE.....	1271		1570		1052			
SPECIFIC GRAVITY.....	0.816		0.968		0.879			

	INDEX SAMPLE	706 1766		INDEX SAMPLE	707 3458		INDEX SAMPLE	708 1757
STATE.....	OKLAHOMA		OKLAHOMA		OKLAHOMA		OKLAHOMA	
COUNTY.....	SEMINOLE		SEMINOLE		SEMINOLE		SEMINOLE	
FIELD.....	SEARIGHT		SEARIGHT		SEARIGHT		SEMINOLE	
LOCATION.....	PLANT INLET		SEC. 11, T9N, R6E		PLANT DISCHARGE		PLANT DISCHARGE	
OWNER.....	CARTER OIL CO.		CARTER OIL CO.		UNION OIL CO. OF CALIF.		UNION OIL CO. OF CALIF.	
SAMPLED.....	04/27/29		05/27/29		04/24/29		04/24/29	
FORMATION.....	NOT GIVEN		DEV0-HUNTON & ORDO-WILCOX		DEV0-HUNTON		DEV0-HUNTON	
GEOLOGIC PROVINCE CODE.....	355		355		355		355	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT								
METHANE.....	47.7		93.8		9.3			
ETHANE.....	39.3		0.0		86.0			
PROPANE.....	---		---		---			
N-BUTANE.....	---		---		---			
ISOBUTANE.....	---		---		---			
N-PENTANE.....	---		---		---			
ISOPENTANE.....	---		---		---			
CYCLOPENTANE.....	---		---		---			
HEXANES PLUS.....	---		---		---			
NITROGEN.....	11.1		5.2		3.4			
OXYGEN.....	1.3		0.7		0.5			
ARGON.....	---		---		---			
HYDROGEN.....	---		---		---			
HYDROGEN SULFIDE.....	---		---		---			
CARBON DIOXIDE.....	0.6		0.2		0.8			
HELIUM.....	0.11		0.05		TRACE			
HEATING VALUE.....	1187		950		1635			
SPECIFIC GRAVITY.....	0.808		0.581		1.005			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1129

		INDEX SAMPLE	709 1762	INDEX SAMPLE	710 1767	INDEX SAMPLE	711 1755
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	SEMINOLE			SEMINOLE		SEMINOLE	
FIELD.....	SEMINOLE			SEMINOLE		ST. LOUIS	
LOCATION.....	PLANT DISCHARGE			PLANT INLET		PLANT DISCHARGE	
OWNER.....	GRISSE GASOLINE PLT.			CARTER OIL CO.		MOBIL OIL CORP.	
SAMPLED.....	04/26/29			04/27/29		04/24/29	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355			355		355	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	20000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	35.4			43.5		51.7	
ETHANE.....	55.2			45.1		38.3	
PROpane.....	---			---		---	
N-BUTANE.....	---			---		---	
ISOBUTANE.....	---			---		---	
N-PENTANE.....	---			---		---	
ISOPENTANE.....	---			---		---	
CYCLOPENTANE.....	---			---		---	
HEXANES PLUS.....	---			---		---	
NITROGEN.....	8.6			9.9		8.6	
OXYGEN.....	0.3			0.9		1.2	
ARGON.....	---			---		---	
HYDROGEN.....	---			---		---	
HYDROGEN SULFIDE.....	---			---		---	
CARBON DIOXIDE.....	0.5			0.6		0.2	
HELIUM.....	0.09			0.08		0.06	
HEATING VALUE.....	1348			1249		1210	
SPECIFIC GRAVITY.....	0.870			0.829		0.788	
		INDEX SAMPLE	712 1756	INDEX SAMPLE	713 5532	INDEX SAMPLE	714 5588
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	SEMINOLE			TEXAS		TEXAS	
FIELD.....	ST. LOUIS			GUYMON-HUGOTON		GUYMON-HUGOTON	
LOCATION.....	PLANT INLET			26 IN. OUTLET		12 IN. OUTLET	
OWNER.....	MOBIL OIL CORP.			CITIES SERVICE OIL CO.		HUGOTON-PLAINS GAS & OIL CO.	
SAMPLED.....	04/24/29			08/13/53		01/15/54	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	355			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	63.2			74.3		74.6	
ETHANE.....	24.6			7.0		4.1	
PROpane.....	---			3.8		2.3	
N-BUTANE.....	---			1.0		0.6	
ISOBUTANE.....	---			0.4		0.2	
N-PENTANE.....	---			0.3		0.2	
ISOPENTANE.....	---			0.2		TRACE	
CYCLOPENTANE.....	---			0.0		TRACE	
HEXANES PLUS.....	---			0.2		0.1	
NITROGEN.....	11.6			12.1		17.2	
OXYGEN.....	0.3			1.4		0.1	
ARGON.....	---			0.1		0.1	
HYDROGEN.....	---			0.0		TRACE	
HYDROGEN SULFIDE.....	---			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.0		0.0	
HELIUM.....	0.07			0.37		0.56	
HEATING VALUE.....	1081			1052		929	
SPECIFIC GRAVITY.....	0.729			0.709		0.687	
		INDEX SAMPLE	715 5707	INDEX SAMPLE	716 5708	INDEX SAMPLE	717 5749
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
LOCATION.....	PLANT INLET			PLANT OUTLET		OKLAHOMA 24 IN. LINE	
OWNER.....	DORCHESTER CORP.			DORCHESTER CORP.		HUGOTON-PLAINS GAS & OIL CO.	
SAMPLED.....	10/14/54			10/14/54		01/07/55	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	232			680		NOT GIVEN	
FLOW, MCFD.....	65000			50000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	76.0			78.0		75.8	
ETHANE.....	6.9			6.3		3.8	
PROpane.....	3.1			0.9		3.2	
N-BUTANE.....	0.9			0.3		0.9	
ISOBUTANE.....	0.6			0.0		0.5	
N-PENTANE.....	0.2			0.0		0.2	
ISOPENTANE.....	0.1			TRACE		0.2	
CYCLOPENTANE.....	TRACE			0.0		0.1	
HEXANES PLUS.....	0.1			TRACE		0.2	
NITROGEN.....	12.9			15.0		12.7	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			TRACE		0.0	
HELIUM.....	0.40			0.42		0.40	
HEATING VALUE.....	1030			960		1033	
SPECIFIC GRAVITY.....	0.697			0.659		0.702	
		INDEX SAMPLE	718 5750	INDEX SAMPLE	719 5752	INDEX SAMPLE	720 5753
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
LOCATION.....	OKLAHOMA 12 IN. LINE			SEC. 16, T6N, R19ECM		SEC. 15, T6N, R18ECM	
OWNER.....	HUGOTON-PLAINS GAS & OIL CO.			HUGOTON-PLAINS GAS & OIL CO.		HUGOTON-PLAINS GAS & OIL CO.	
SAMPLED.....	01/07/55			01/07/55		01/07/55	
FORMATION.....	NOT GIVEN			PERM-CHASE GROUP		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	75.2			75.1		75.3	
ETHANE.....	4.6			3.5		3.8	
PROpane.....	2.3			0.9		1.8	
N-BUTANE.....	0.7			0.2		0.5	
ISOBUTANE.....	0.4			TRACE		0.2	
N-PENTANE.....	0.1			0.0		0.1	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	0.1			0.0		0.1	
NITROGEN.....	15.7			20.3		17.2	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.1			TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			TRACE		TRACE	
HELIUM.....	0.50			0.70		0.60	
HEATING VALUE.....	959			840		915	
SPECIFIC GRAVITY.....	0.688			0.661		0.675	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	721 6713	INDEX SAMPLE	722 6714	INDEX SAMPLE	723 6716
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
LOCATION.....	12 IN. LINE			8 IN. LINE		26 IN. LINE	
OWNER.....	KANSAS-NEBRASKA NATURAL GAS			KANSAS-NEBRASKA NATURAL GAS		NATURAL GAS PIPELINE CO. OF	
SAMPLED.....	07/17/58			07/17/58		07/17/58	
FORMATION.....	PERM-CHASE GROUP	X		PERM-CHASE GROUP	X	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	780			780		670	
FLOW, MCFD.....	30000			10000		90000	
COMPONENT, MOLE PCT							
METHANE.....	86.6			74.8		71.8	
ETHANE.....	3.4			5.3		6.1	
PROpane.....	3.3			2.9		3.4	
N-BUTANE.....	0.9			0.8		1.0	
ISOBUTANE.....	0.9			0.4		0.6	
N-PENTANE.....	0.1			0.1		0.2	
ISOPENTANE.....	0.3			0.3		0.1	
CYCLOPENTANE.....	TRACE			0.1		0.1	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	2.3			14.6		15.5	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.0			0.1		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.1		0.5	
HELIUM.....	0.20			0.30		0.50	
HEATING VALUE.....	1129			994		1014	
SPECIFIC GRAVITY.....	0.657			0.700		0.724	
		INDEX SAMPLE	724 6717	INDEX SAMPLE	725 6718	INDEX SAMPLE	726 6723
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
LOCATION.....	20 IN. LINE			26 IN. LINE		12 IN. LINE	
OWNER.....	NATURAL GAS PIPELINE CO. OF			NATURAL GAS PIPELINE CO. OF		HUGOTON-PLAINS GAS & OIL CO.	
SAMPLED.....	07/17/58			07/17/58		07/16/58	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		260	
FLOW, MCFD.....	50000			40000		13000	
COMPONENT, MOLE PCT							
METHANE.....	68.5			76.0		77.9	
ETHANE.....	5.0			6.4		4.6	
PROpane.....	3.8			3.4		2.1	
N-BUTANE.....	1.1			1.0		0.7	
ISOBUTANE.....	0.6			0.6		0.3	
N-PENTANE.....	0.2			0.1		TRACE	
ISOPENTANE.....	0.3			0.3		0.5	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	18.7			11.9		13.3	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.1		0.1	
HELIUM.....	0.60			0.40		0.50	
HEATING VALUE.....	973			1067		978	
SPECIFIC GRAVITY.....	0.734			0.705		0.676	
		INDEX SAMPLE	727 6724	INDEX SAMPLE	728 6909	INDEX SAMPLE	729 7348
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
LOCATION.....	12 & 24 IN. LINES			12 & 24 IN. LINES		26 IN. DISCHARGE	
OWNER.....	HUGOTON-PLAINS GAS & OIL CO.			REPUBLIC NATURAL GAS CO.		CITIES SERVICE OIL CO.	
SAMPLED.....	07/16/58			12/17/58		01/22/60	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	260			NOT GIVEN		749	
FLOW, MCFD.....	55000			NOT GIVEN		165000	
COMPONENT, MOLE PCT							
METHANE.....	75.4			74.6		74.8	
ETHANE.....	6.6			6.4		6.4	
PROpane.....	3.0			3.9		3.5	
N-BUTANE.....	0.8			1.0		0.9	
ISOBUTANE.....	0.9			0.5		0.5	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.3			0.2		0.2	
CYCLOPENTANE.....	TRACE			0.2		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	13.7			11.8		12.7	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	TRACE			0.0		0.1	
HELIUM.....	0.40			0.30		0.40	
HEATING VALUE.....	1005			1057		1029	
SPECIFIC GRAVITY.....	0.694			0.714		0.701	
		INDEX SAMPLE	730 7349	INDEX SAMPLE	731 7351	INDEX SAMPLE	732 13230
STATE.....	OKLAHOMA			OKLAHOMA		OKLAHOMA	
COUNTY.....	TEXAS			TEXAS		TEXAS	
FIELD.....	GUYMON-HUGOTON			GUYMON-HUGOTON		GUYMON-HUGOTON	
LOCATION.....	20 IN. INLET			20 IN. INLET		NOT GIVEN	
OWNER.....	CITIES SERVICE OIL CO.			CITIES SERVICE OIL CO.		CITIES SERVICE OIL CO.	
SAMPLED.....	06/05/72			01/22/60		06/05/72	
FORMATION.....	NOT GIVEN			NOT GIVEN		PERM-CHASE GROUP	X
GEOLOGIC PROVINCE CODE.....	360			360		360	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	239			243		160	
FLOW, MCFD.....	8000			85000		11000	
COMPONENT, MOLE PCT							
METHANE.....	74.7			74.3		76.4	
ETHANE.....	6.4			6.4		5.6	
PROpane.....	3.4			3.5		2.8	
N-BUTANE.....	0.9			1.0		0.7	
ISOBUTANE.....	0.4			0.5		0.4	
N-PENTANE.....	0.1			0.2		0.2	
ISOPENTANE.....	0.3			0.2		0.2	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.1		0.1	
NITROGEN.....	12.9			13.0		13.5	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.2			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.4			0.1		TRACE	
HELIUM.....	0.40			0.40		0.43	
HEATING VALUE.....	1026			1031		1066	
SPECIFIC GRAVITY.....	0.701			0.705		0.689	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1181

INDEX 733 SAMPLE 15651		INDEX 734 SAMPLE 7350		INDEX 735 SAMPLE 17096	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA	OKLAHOMA
COUNTY.....	TEXAS	TEXAS	TEXAS	TEXAS	TEXAS
FIELD.....	GUYNON-HUGOTON	GUYNON-HUGOTON GAS AREA	GUYNON-HUGOTON GAS AREA	LIBERAL	LIBERAL
LOCATION.....	26 IN. MAINLINE	20 & 22 IN. LOOP FROM THE S	20 & 22 IN. LOOP FROM THE S	26 IN. MAINLINE DISCHARGE	26 IN. MAINLINE DISCHARGE
OWNER.....	CITIES SERVICE CO.	CITIES SERVICE GAS CO.	CITIES SERVICE GAS CO.	NORTHWEST CENTRAL PIPELINE C	NORTHWEST CENTRAL PIPELINE C
SAMPLED.....	06/18/79	01/22/60	01/22/60	10/17/83	10/17/83
FORMATION.....	PERM-CHASE GROUP	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	NOT GIVEN	NOT GIVEN	360	360
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	607	239	239	166	166
FLOW, MCFD.....	96000	30000	30000	8000	8000
COMPONENT, MOLE PCT					
METHANE.....	75.0	74.8	74.8	77.4	77.4
ETHANE.....	6.2	6.4	6.4	5.6	5.6
PROPANE.....	2.7	3.6	3.6	3.1	3.1
N-BUTANE.....	0.7	1.0	1.0	0.9	0.9
ISOBUTANE.....	0.4	0.6	0.6	0.5	0.5
N-PENTANE.....	0.2	0.2	0.2	0.2	0.2
ISOPENTANE.....	0.2	0.2	0.2	0.3	0.3
CYCLOPENTANE.....	TRACE	0.1	0.1	0.1	0.1
HEXANES PLUS.....	0.1	0.2	0.2	0.2	0.2
NITROGEN.....	14.0	12.4	12.4	11.2	11.2
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	TRACE	0.1	0.1	TRACE	TRACE
HYDROGEN.....	TRACE	0.1	0.1	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	0.1	0.1	0.1	0.1
HELIUM.....	0.45	0.40	0.40	0.33	0.33
HEATING VALUE.....	1000	1051	1051	1047	1047
SPECIFIC GRAVITY.....	0.695	0.711	0.711	0.696	0.696

INDEX 736 SAMPLE 6393		INDEX 737 SAMPLE 8084		INDEX 738 SAMPLE 14834	
STATE.....	OKLAHOMA	OKLAHOMA	OKLAHOMA	PENNSYLVANIA	PENNSYLVANIA
COUNTY.....	TEXAS	WOODS	WOODS	ARMSTRONG	ARMSTRONG
FIELD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	INDIANA, ARMSTRONG & CLARION	INDIANA, ARMSTRONG & CLARION
LOCATION.....	INLET OKLAHOMA	ALVA OKLAHOMA	ALVA OKLAHOMA	20 IN. DISCHARGE	20 IN. DISCHARGE
OWNER.....	CITIES SERVICE OIL CO.	CITIES SERVICE GAS CO.	CITIES SERVICE GAS CO.	PEOPLES NATURAL GAS CO.	PEOPLES NATURAL GAS CO.
SAMPLED.....	08/20/57	07/19/61	07/19/61	10/25/76	10/25/76
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	DEVO-BRADFORD	DEVO-BRADFORD
GEOLOGIC PROVINCE CODE.....	360	NOT GIVEN	NOT GIVEN	160	160
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	300	300	252	252
FLOW, MCFD.....	NOT GIVEN	100000	100000	25000	25000
COMPONENT, MOLE PCT					
METHANE.....	75.5	88.1	88.1	95.1	95.1
ETHANE.....	6.5	5.2	5.2	3.2	3.2
PROPANE.....	1.0	0.7	0.7	0.6	0.6
N-BUTANE.....	0.6	0.4	0.4	0.1	0.1
ISOBUTANE.....	0.2	0.2	0.2	0.1	0.1
N-PENTANE.....	0.1	0.1	0.1	TRACE	TRACE
ISOPENTANE.....	TRACE	0.1	0.1	TRACE	TRACE
CYCLOPENTANE.....	TRACE	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.2	0.2	0.1	0.1
NITROGEN.....	11.8	0.6	0.6	0.7	0.7
OXYGEN.....	TRACE	TRACE	TRACE	0.0	0.0
ARGON.....	TRACE	0.0	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	0.1	TRACE	TRACE
HELIUM.....	0.35	0.10	0.10	0.08	0.08
HEATING VALUE.....	1052	1104	1104	1048	1048
SPECIFIC GRAVITY.....	0.706	0.641	0.641	0.584	0.584

INDEX 739 SAMPLE 14841		INDEX 740 SAMPLE 16591		INDEX 741 SAMPLE 10378	
STATE.....	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA
COUNTY.....	ARMSTRONG	ARMSTRONG	ARMSTRONG	ELK	ELK
FIELD.....	COCHRAN MILLS, ETAL	WESTERN PENNSYLVANIA	WESTERN PENNSYLVANIA	ELK COUNTY	ELK COUNTY
LOCATION.....	8 IN. DISCHARGE	12 IN.	12 IN.	8 IN. LINE J.	8 IN. LINE J.
OWNER.....	EQUITABLE GAS CO.	PEOPLES NATURAL GAS CO.	PEOPLES NATURAL GAS CO.	PENNSYLVANIA GAS CO.	PENNSYLVANIA GAS CO.
SAMPLED.....	10/25/76	07/22/76	07/22/76	01/27/66	01/27/66
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	PENNKANE & DEVO-ELK	PENNKANE & DEVO-ELK
GEOLOGIC PROVINCE CODE.....	160	NOT GIVEN	NOT GIVEN	160	160
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	98	15000	15000	40	40
FLOW, MCFD.....	6000	15000	15000	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT					
METHANE.....	94.0	94.9	94.9	84.5	84.5
ETHANE.....	4.0	3.2	3.2	9.7	9.7
PROPANE.....	0.8	0.6	0.6	3.2	3.2
N-BUTANE.....	0.2	0.2	0.2	0.9	0.9
ISOBUTANE.....	0.1	0.1	0.1	0.1	0.1
N-PENTANE.....	0.1	0.1	0.1	0.2	0.2
ISOPENTANE.....	TRACE	TRACE	TRACE	0.2	0.2
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.1	0.1	0.1	0.2	0.2
NITROGEN.....	0.6	0.5	0.5	0.5	0.5
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.3	0.3	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	0.2	0.2
HELIUM.....	0.09	0.07	0.07	0.07	0.07
HEATING VALUE.....	1064	1055	1055	1181	1181
SPECIFIC GRAVITY.....	0.593	0.586	0.586	0.669	0.669

INDEX 742 SAMPLE 14827		INDEX 743 SAMPLE 14844		INDEX 744 SAMPLE 16592	
STATE.....	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA	PENNSYLVANIA
COUNTY.....	GREENE	INDIANA	INDIANA	INDIANA	INDIANA
FIELD.....	WAYNESBURG	INDIANA & JEFFERSON COUNTIES	INDIANA & JEFFERSON COUNTIES	ROCHESTER MILLS	ROCHESTER MILLS
LOCATION.....	10 IN. AT METER STA.	CONSOLIDATED GAS SUPPLY CORP	CONSOLIDATED GAS SUPPLY CORP	8 IN. DISCHARGE	8 IN. DISCHARGE
OWNER.....	COLUMBIA GAS TRANS. CORP.	CONSOLIDATED GAS SUPPLY CORP	CONSOLIDATED GAS SUPPLY CORP	CONSOLIDATED GAS SUPPLY CORP	CONSOLIDATED GAS SUPPLY CORP
SAMPLED.....	10/22/76	10/25/76	10/25/76	07/22/82	07/22/82
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	160	NOT GIVEN	NOT GIVEN	160	160
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	15	675	675	840	840
FLOW, MCFD.....	9	17000	17000	12000	12000
COMPONENT, MOLE PCT					
METHANE.....	86.8	95.7	95.7	95.1	95.1
ETHANE.....	6.8	3.0	3.0	3.1	3.1
PROPANE.....	0.3	0.4	0.4	0.5	0.5
N-BUTANE.....	0.7	0.1	0.1	0.2	0.2
ISOBUTANE.....	0.4	0.1	0.1	TRACE	TRACE
N-PENTANE.....	0.3	TRACE	TRACE	0.1	0.1
ISOPENTANE.....	0.2	TRACE	TRACE	0.0	0.0
CYCLOPENTANE.....	0.1	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.4	0.1	0.1	0.1	0.1
NITROGEN.....	0.9	0.9	0.9	0.5	0.5
OXYGEN.....	0.0	0.0	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	TRACE	TRACE	0.3	0.3
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	TRACE	TRACE	TRACE	TRACE
HELIUM.....	0.14	0.07	0.07	0.07	0.07
HEATING VALUE.....	1143	1045	1045	1049	1049
SPECIFIC GRAVITY.....	0.658	0.579	0.579	0.582	0.582

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	745 10474			INDEX SAMPLE	746 358			INDEX SAMPLE	747 359
STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA			STATE.....	PENNSYLVANIA		
COUNTY.....	MCKEAN			COUNTY.....	VENANGO			COUNTY.....	VENANGO		
FIELD.....	LUDELOW			FIELD.....	OIL CITY			FIELD.....	OIL CITY		
LOCATION.....	8 IN. LINE			LOCATION.....	PLANT INLET			LOCATION.....	PLANT INLET		
OWNER.....	PENNSYLVANIA GAS CO.			OWNER.....	UNITED NATURAL GAS CO.			OWNER.....	UNITED NATURAL GAS CO.		
SAMPLED.....	03/22/66			SAMPLED.....	06/15/20			SAMPLED.....	06/15/20		
FORMATION.....	DEVO-COOPER & BALLTOWN			FORMATION.....	DEVO-SPEECHLEY			FORMATION.....	DEVO-SPEECHLEY		
GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	160		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	10			PRESSURE, PSIG.....	40			PRESSURE, PSIG.....	40		
FLOW, MCFD.....	500			FLOW, MCFD.....	100000			FLOW, MCFD.....	100000		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	67.4			METHANE.....	66.0			METHANE.....	66.8		
ETHANE.....	14.6			ETHANE.....	28.3			ETHANE.....	28.6		
PROPANE.....	7.4			PROPANE.....	---			PROPANE.....	---		
N-BUTANE.....	2.8			N-BUTANE.....	---			N-BUTANE.....	---		
ISOBUTANE.....	1.2			ISOBUTANE.....	---			ISOBUTANE.....	---		
N-PENTANE.....	0.8			N-PENTANE.....	---			N-PENTANE.....	---		
ISOPENTANE.....	0.9			ISOPENTANE.....	---			ISOPENTANE.....	---		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	---			CYCLOPENTANE.....	---		
HEXANES PLUS.....	0.7			HEXANES PLUS.....	---			HEXANES PLUS.....	---		
NITROGEN.....	3.5			NITROGEN.....	4.4			NITROGEN.....	3.3		
OXYGEN.....	0.1			OXYGEN.....	1.1			OXYGEN.....	1.1		
ARGON.....	TRACE			ARGON.....	---			ARGON.....	---		
HYDROGEN.....	0.0			HYDROGEN.....	---			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.4			CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.1		
HELIUM.....	0.10			HELIUM.....	0.13			HELIUM.....	0.2		
HEATING VALUE.....	1384			HEATING VALUE.....	176			HEATING VALUE.....	189		
SPECIFIC GRAVITY.....	0.832			SPECIFIC GRAVITY.....	0.719			SPECIFIC GRAVITY.....	0.716		

		INDEX SAMPLE	748 1991			INDEX SAMPLE	749 14460			INDEX SAMPLE	750 17328
STATE.....	PENNSYLVANIA			STATE.....	SOUTH DAKOTA			STATE.....	SOUTH DAKOTA		
COUNTY.....	VENANGO			COUNTY.....	BUTTE			COUNTY.....	BUTTE		
FIELD.....	VENANGOLINE PLANT			FIELD.....	BELL CREEK, RECLUSE & UTE			FIELD.....	RECLUSE & JOE CREEK		
LOCATION.....	MCCALUMONT-CRAWFORD LINE			LOCATION.....	NOT GIVEN			LOCATION.....	8 IN. INLET		
OWNER.....	PEOPLES NATURAL GAS CO.			OWNER.....	MONTANA-DAKOTA UTILITIES CO.			OWNER.....	MONTANA-DAKOTA UTILITIES CO.		
SAMPLED.....	03/20/30			SAMPLED.....	09/09/75			SAMPLED.....	06/19/84		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160			GEOLOGIC PROVINCE CODE.....	395			GEOLOGIC PROVINCE CODE.....	395		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	400			PRESSURE, PSIG.....	400			PRESSURE, PSIG.....	630		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	15000			FLOW, MCFD.....	2500		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	84.8			METHANE.....	82.0			METHANE.....	82.1		
ETHANE.....	14.4			ETHANE.....	8.8			ETHANE.....	13.0		
PROPANE.....	---			PROPANE.....	0.5			PROPANE.....	2.7		
N-BUTANE.....	---			N-BUTANE.....	0.1			N-BUTANE.....	0.3		
ISOBUTANE.....	---			ISOBUTANE.....	TRACE			ISOBUTANE.....	0.2		
N-PENTANE.....	---			N-PENTANE.....	TRACE			N-PENTANE.....	TRACE		
ISOPENTANE.....	---			ISOPENTANE.....	0.0			ISOPENTANE.....	0.0		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	---			HEXANES PLUS.....	TRACE			HEXANES PLUS.....	TRACE		
NITROGEN.....	0.6			NITROGEN.....	6.8			NITROGEN.....	1.7		
OXYGEN.....	0.2			OXYGEN.....	1.0			OXYGEN.....	0.0		
ARGON.....	---			ARGON.....	0.1			ARGON.....	TRACE		
HYDROGEN.....	---			HYDROGEN.....	0.0			HYDROGEN.....	TRACE		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.2			CARBON DIOXIDE.....	0.7			CARBON DIOXIDE.....	TRACE		
HELIUM.....	0.12			HELIUM.....	0.04			HELIUM.....	0.02		
HEATING VALUE.....	1115			HEATING VALUE.....	1005			HEATING VALUE.....	1151		
SPECIFIC GRAVITY.....	0.631			SPECIFIC GRAVITY.....	0.646			SPECIFIC GRAVITY.....	0.660		

		INDEX SAMPLE	751 11918			INDEX SAMPLE	752 11915			INDEX SAMPLE	753 11916
STATE.....	TENNESSEE			STATE.....	TENNESSEE			STATE.....	TENNESSEE		
COUNTY.....	MACON			COUNTY.....	MACON			COUNTY.....	MACON		
FIELD.....	GULF COAST AREA			FIELD.....	GULF COAST AREA			FIELD.....	GULF COAST AREA		
LOCATION.....	2-30 IN. LINES			LOCATION.....	NO.100-30 IN. LINE			LOCATION.....	NO.200-30 IN. LINE		
OWNER.....	MICHIGAN WISCONSIN PIPELINE			OWNER.....	COLUMBIA GULF TRANS. CO.			OWNER.....	COLUMBIA GULF TRANS. CO.		
SAMPLED.....	06/04/69			SAMPLED.....	06/05/69			SAMPLED.....	06/05/69		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	250			GEOLOGIC PROVINCE CODE.....	300			GEOLOGIC PROVINCE CODE.....	300		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	840			PRESSURE, PSIG.....	700			PRESSURE, PSIG.....	700		
FLOW, MCFD.....	800000			FLOW, MCFD.....	500000			FLOW, MCFD.....	720000		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	94.4			METHANE.....	96.1			METHANE.....	96.2		
ETHANE.....	3.4			ETHANE.....	2.3			ETHANE.....	2.6		
PROPANE.....	0.7			PROPANE.....	0.2			PROPANE.....	0.3		
N-BUTANE.....	0.1			N-BUTANE.....	0.0			N-BUTANE.....	0.0		
ISOBUTANE.....	0.1			ISOBUTANE.....	0.0			ISOBUTANE.....	0.0		
N-PENTANE.....	0.1			N-PENTANE.....	0.0			N-PENTANE.....	0.0		
ISOPENTANE.....	TRACE			ISOPENTANE.....	0.0			ISOPENTANE.....	0.0		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.0			CYCLOPENTANE.....	0.0		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.0			HEXANES PLUS.....	0.0		
NITROGEN.....	0.5			NITROGEN.....	0.5			NITROGEN.....	0.6		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	0.0		
ARGON.....	TRACE			ARGON.....	TRACE			ARGON.....	TRACE		
HYDROGEN.....	0.0			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.5			CARBON DIOXIDE.....	0.9			CARBON DIOXIDE.....	0.3		
HELIUM.....	0.01			HELIUM.....	TRACE			HELIUM.....	TRACE		
HEATING VALUE.....	1051			HEATING VALUE.....	1020			HEATING VALUE.....	1029		
SPECIFIC GRAVITY.....	0.592			SPECIFIC GRAVITY.....	0.579			SPECIFIC GRAVITY.....	0.576		

		INDEX SAMPLE	754 11917			INDEX SAMPLE	755 11928			INDEX SAMPLE	756 2279
STATE.....	TENNESSEE			STATE.....	TENNESSEE			STATE.....	TEXAS		
COUNTY.....	SUMNER			COUNTY.....	WILSON			COUNTY.....	ANDERSON		
FIELD.....	GULF COAST AREA			FIELD.....	GULF COAST AREA			FIELD.....	BOGGY CREEK		
LOCATION.....	2-24, 30 & 36 IN. LINES			LOCATION.....	3-30 IN. LINES			LOCATION.....	RESTIDE GAS		
OWNER.....	TENNESSEE GAS PIPELINE CO.			OWNER.....	TEXAS EASTERN TRANS. CORP.			OWNER.....	HUMBLE OIL & REFINING CO.		
SAMPLED.....	06/05/69			SAMPLED.....	06/05/69			SAMPLED.....	02/09/31		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	300			GEOLOGIC PROVINCE CODE.....	NOT GIVEN			GEOLOGIC PROVINCE CODE.....	260		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	750			PRESSURE, PSIG.....	930			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	2400000			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	3000		
COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....				COMPONENT, MOLE PCT.....			
METHANE.....	94.4			METHANE.....	95.8			METHANE.....	81.6		
ETHANE.....	3.0			ETHANE.....	2.3			ETHANE.....	12.9		
PROPANE.....	1.1			PROPANE.....	0.2			PROPANE.....	---		
N-BUTANE.....	0.1			N-BUTANE.....	0.0			N-BUTANE.....	---		
ISOBUTANE.....	0.1			ISOBUTANE.....	0.0			ISOBUTANE.....	---		
N-PENTANE.....	0.1			N-PENTANE.....	0.0			N-PENTANE.....	---		
ISOPENTANE.....	0.0			ISOPENTANE.....	0.0			ISOPENTANE.....	---		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	0.0			CYCLOPENTANE.....	---		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	0.0			HEXANES PLUS.....	---		
NITROGEN.....	0.6			NITROGEN.....	0.7			NITROGEN.....	3.6		
OXYGEN.....	0.0			OXYGEN.....	0.0			OXYGEN.....	1.2		
ARGON.....	0.0			ARGON.....	0.0			ARGON.....	---		
HYDROGEN.....	0.0			HYDROGEN.....	0.0			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.5			CARBON DIOXIDE.....	0.7			CARBON DIOXIDE.....	0.7		
HELIUM.....	TRACE			HELIUM.....	TRACE			HELIUM.....	TRACE		
HEATING VALUE.....	1055			HEATING VALUE.....	1026			HEATING VALUE.....	1058		
SPECIFIC GRAVITY.....	0.595			SPECIFIC GRAVITY.....	0.582			SPECIFIC GRAVITY.....	0.647		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1188

INDEX 757 SAMPLE 15176		INDEX 758 SAMPLE 8166		INDEX 759 SAMPLE 10891	
STATE.....	TEXAS	TEXAS	BROWN	TEXAS	BROWN
COUNTY.....	BRAZORIA	BROWN	BROWNWOOD AREA	VARIOUS	VARIOUS
FIELD.....	OYSTER CREEK	NOT GIVEN	NOT GIVEN	PIPELINE	PIPELINE
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	GULF GAS CO.	GULF GAS CO.
OWNER.....	MILLARD OIL & GAS, INC.	LOVE STAR GAS CO.	LOVE STAR GAS CO.	NOT GIVEN	NOT GIVEN
SAMPLED.....	12/27/77	08/12/51	08/12/51	02/28/67	02/28/67
FORMATION.....	OLIG-FRIO	NOT GIVEN	NOT GIVEN	-COMINGLED	-COMINGLED
GEOLOGIC PROVINCE CODE.....	220	425	425	NOT GIVEN	NOT GIVEN
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	20	20	NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	2030	1200	1200	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT					
METHANE.....	95.7	77.3	69.9		
ETHANE.....	2.3	8.1	10.6		
PROPANE.....	0.7	3.2	6.1		
N-BUTANE.....	0.2	1.0	1.3		
ISOBUTANE.....	0.2	0.7	0.6		
N-PENTANE.....	0.1	0.1	0.1		
ISOPENTANE.....	0.1	0.4	0.7		
CYCLOPENTANE.....	TRACE	0.1	TRACE		
HEXANES PLUS.....	0.1	0.2	0.1		
NITROGEN.....	0.4	7.8	10.0		
OXYGEN.....	0.0	TRACE	0.0		
ARGON.....	TRACE	TRACE	TRACE		
HYDROGEN.....	0.0	0.0	0.0		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	0.2	0.4	0.3		
HELIUM.....	TRACE	0.27	0.22		
HEATING VALUE.....	1056	114	1160		
SPECIFIC GRAVITY.....	0.589	0.708	0.758		

INDEX 760 SAMPLE 7544		INDEX 761 SAMPLE 2846		INDEX 762 SAMPLE 5443	
STATE.....	TEXAS	TEXAS	CARSON	TEXAS	CARSON
COUNTY.....	CARSON	CARSON	PANHANDLE W	CARSON	PANHANDLE W
FIELD.....	BOBBIT	PANHANDLE W	NOT GIVEN	NOT GIVEN	NOT GIVEN
LOCATION.....	INLET LINE	12 IN. LINE-NE OF WHITE DEER	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	TEXAS GULF PRODUCING CO.	NORTHERN NATURAL GAS CO.	PANOMA CORP.	PANOMA CORP.	PANOMA CORP.
SAMPLED.....	05/11/60	09/20/40	04/16/53	04/16/53	04/16/53
FORMATION.....	NOT GIVEN	PERM-WICHITA-ALBANY	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	440	440	440	440
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT					
METHANE.....	59.6	69.5	80.5		
ETHANE.....	2.4	1.0	6.0		
PROPANE.....	0.5	---	3.4		
N-BUTANE.....	0.1	---	1.1		
ISOBUTANE.....	0.1	---	0.5		
N-PENTANE.....	0.0	---	0.2		
ISOPENTANE.....	TRACE	---	0.2		
CYCLOPENTANE.....	TRACE	---	0.1		
HEXANES PLUS.....	TRACE	---	0.2		
NITROGEN.....	34.7	10.4	7.2		
OXYGEN.....	0.2	0.4	TRACE		
ARGON.....	0.1	---	TRACE		
HYDROGEN.....	0.0	---	TRACE		
HYDROGEN SULFIDE.....	0.0	---	TRACE		
CARBON DIOXIDE.....	0.1	0.2	0.1		
HELIUM.....	2.10	0.46	0.22		
HEATING VALUE.....	666	1045	1101		
SPECIFIC GRAVITY.....	0.711	0.693	0.688		

INDEX 763 SAMPLE 5444		INDEX 764 SAMPLE 5445		INDEX 765 SAMPLE 5446	
STATE.....	TEXAS	TEXAS	CARSON	TEXAS	CARSON
COUNTY.....	CARSON	CARSON	PANHANDLE W	CARSON	PANHANDLE W
FIELD.....	PANHANDLE W	PANHANDLE W	NOT GIVEN	NOT GIVEN	NOT GIVEN
LOCATION.....	INLET	INLET	PANOMA CORP.	PANOMA CORP.	PANOMA CORP.
OWNER.....	PANOMA CORP.	PANOMA CORP.	NOT GIVEN	NOT GIVEN	NOT GIVEN
SAMPLED.....	04/16/53	04/16/53	04/16/53	04/16/53	04/16/53
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	440	440	440	440
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	102	169	290		
FLOW, MCFD.....	35000	NOT GIVEN	90000		
COMPONENT, MOLE PCT					
METHANE.....	80.7	76.6	79.6		
ETHANE.....	6.2	5.2	5.9		
PROPANE.....	3.7	3.4	3.4		
N-BUTANE.....	1.3	NOT GIVEN	1.1		
ISOBUTANE.....	0.6	0.5	0.5		
N-PENTANE.....	0.4	0.3	0.4		
ISOPENTANE.....	0.1	0.2	0.1		
CYCLOPENTANE.....	0.1	0.1	0.1		
HEXANES PLUS.....	0.2	0.3	0.2		
NITROGEN.....	6.3	11.8	8.1		
OXYGEN.....	TRACE	TRACE	TRACE		
ARGON.....	TRACE	TRACE	TRACE		
HYDROGEN.....	0.0	0.0	TRACE		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	0.0	0.0	0.1		
HELIUM.....	0.19	0.49	0.28		
HEATING VALUE.....	1133	1052	1098		
SPECIFIC GRAVITY.....	0.696	0.704	0.695		

INDEX 766 SAMPLE 5538		INDEX 767 SAMPLE 6501		INDEX 768 SAMPLE 6746	
STATE.....	TEXAS	TEXAS	CARSON	TEXAS	CARSON
COUNTY.....	CARSON	CARSON	PANHANDLE W	CARSON	PANHANDLE W
FIELD.....	PANHANDLE W	PANHANDLE W	NOT GIVEN	NOT GIVEN	NOT GIVEN
LOCATION.....	24 IN. OUTLET	NOT GIVEN	NOT GIVEN	24 IN. DISCHARGE	24 IN. DISCHARGE
OWNER.....	NORTHERN NATURAL GAS CO.	J. M. HUBER CORP.	NOT GIVEN	NORTHERN NATURAL GAS CO.	NORTHERN NATURAL GAS CO.
SAMPLED.....	08/12/53	02/07/58	07/22/58	07/22/58	07/22/58
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	440	440	440	440
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	15000	15000
COMPONENT, MOLE PCT					
METHANE.....	79.9	72.4	80.8		
ETHANE.....	6.7	4.8	6.4		
PROPANE.....	3.4	2.5	3.5		
N-BUTANE.....	0.3	0.7	1.1		
ISOBUTANE.....	0.2	0.4	0.7		
N-PENTANE.....	0.1	0.1	0.3		
ISOPENTANE.....	TRACE	0.2	0.4		
CYCLOPENTANE.....	0.0	0.1	0.1		
HEXANES PLUS.....	TRACE	0.3	0.3		
NITROGEN.....	8.9	16.7	6.2		
OXYGEN.....	TRACE	0.0	TRACE		
ARGON.....	TRACE	0.0	0.0		
HYDROGEN.....	0.0	0.0	0.0		
HYDROGEN SULFIDE.....	0.0	0.0	0.0		
CARBON DIOXIDE.....	0.2	0.6	0.1		
HELIUM.....	0.30	1.20	0.20		
HEATING VALUE.....	1039	948	1134		
SPECIFIC GRAVITY.....	0.669	0.703	0.697		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	769 6747	INDEX SAMPLE	770 6748	INDEX SAMPLE	771 6749
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	24 IN. DISCHARGE			20 IN. DISCHARGE		8 IN. LINE	
OWNER.....	NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		NORTHERN NATURAL GAS CO.	
SAMPLED.....	07/28/58			07/22/58		07/22/58	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	210			210		215	
FLOW, MCFD.....	16000			19000		4000	
COMPONENT, MOLE PCT							
METHANE.....	76.3	-----		81.6	-----	78.6	-----
ETHANE.....	5.4	-----		6.1	-----	6.8	-----
PROPANE.....	3.2	-----		3.4	-----	4.0	-----
N-BUTANE.....	1.1	-----		1.3	-----	1.5	-----
ISOBUTANE.....	0.6	-----		0.7	-----	0.8	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.3	-----
ISOPENTANE.....	0.4	-----		0.5	-----	0.5	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	0.3	-----
NITROGEN.....	12.0	-----		5.5	-----	6.5	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.1	-----	0.2	-----
HELIUM.....	0.50	-----		0.20	-----	0.20	-----
HEATING VALUE.....	1050	-----		1141	-----	1153	-----
SPECIFIC GRAVITY.....	0.705	-----		0.695	-----	0.715	-----
		INDEX SAMPLE	772 6750	INDEX SAMPLE	773 6751	INDEX SAMPLE	774 7133
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	20 IN. LINE			24 IN. DISCHARGE		NOT GIVEN	
OWNER.....	NORTHERN NATURAL GAS CO.			NORTHERN NATURAL GAS CO.		J. M. HUBER CORP.	
SAMPLED.....	07/22/58			07/22/58		06/25/59	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	215			425		NOT GIVEN	
FLOW, MCFD.....	73000			145000		NOT GIVEN	
COMPONENT, MOLE PCT						NOT GIVEN	
METHANE.....	79.3	-----		80.9	-----	77.1	-----
ETHANE.....	9.8	-----		8.3	-----	6.4	-----
PROPANE.....	4.0	-----		3.2	-----	3.7	-----
N-BUTANE.....	2.2	-----		2.0	-----	1.3	-----
ISOBUTANE.....	0.2	-----		0.1	-----	0.7	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.2	-----
ISOPENTANE.....	0.1	-----		0.2	-----	0.5	-----
CYCLOPENTANE.....	TRACE	-----		0.0	-----	0.1	-----
HEXANES PLUS.....	TRACE	-----		0.0	-----	0.3	-----
NITROGEN.....	5.8	-----		6.7	-----	8.8	-----
OXYGEN.....	0.2	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.3	-----
HELIUM.....	0.20	-----		0.20	-----	0.30	-----
HEATING VALUE.....	1100	-----		1070	-----	1109	-----
SPECIFIC GRAVITY.....	0.676	-----		0.664	-----	0.713	-----
		INDEX SAMPLE	775 7382	INDEX SAMPLE	776 7950	INDEX SAMPLE	777 7951
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	24 IN. LINE			SEC. 40, BLK. 4, I&GN SUR.		8 IN.	
OWNER.....	COLORADO INTERSTATE GAS CO.			CITIES SERVICE GAS CO.		CITIES SERVICE GAS CO.	
SAMPLED.....	02/09/60			05/08/61		05/08/61	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	4000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	76.7	-----		79.0	-----	75.4	-----
ETHANE.....	6.3	-----		6.2	-----	5.8	-----
PROPANE.....	3.6	-----		3.8	-----	3.2	-----
N-BUTANE.....	1.2	-----		1.2	-----	1.0	-----
ISOBUTANE.....	0.5	-----		0.7	-----	0.6	-----
N-PENTANE.....	0.2	-----		0.2	-----	0.2	-----
ISOPENTANE.....	0.3	-----		0.3	-----	0.1	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.1	-----
NITROGEN.....	10.0	-----		7.9	-----	12.2	-----
OXYGEN.....	0.0	-----		0.1	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	0.1	-----
HYDROGEN.....	0.1	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.2	-----		0.1	-----	0.5	-----
HELIUM.....	0.48	-----		0.30	-----	0.80	-----
HEATING VALUE.....	1076	-----		1119	-----	1023	-----
SPECIFIC GRAVITY.....	0.704	-----		0.702	-----	0.700	-----
		INDEX SAMPLE	778 7952	INDEX SAMPLE	779 7953	INDEX SAMPLE	780 8000
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	12 IN.			END OF LOOP 16 IN.		20 IN. MAINLINE	
OWNER.....	CITIES SERVICE GAS CO.			CITIES SERVICE GAS CO.		CITIES SERVICE GAS CO.	
SAMPLED.....	05/08/61			05/08/61		06/01/61	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		147	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	76.8	-----		77.5	-----	79.1	-----
ETHANE.....	5.3	-----		6.1	-----	6.3	-----
PROPANE.....	3.5	-----		3.3	-----	3.5	-----
N-BUTANE.....	1.2	-----		1.1	-----	1.2	-----
ISOBUTANE.....	0.7	-----		0.7	-----	0.7	-----
N-PENTANE.....	0.3	-----		0.2	-----	0.3	-----
ISOPENTANE.....	0.2	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	0.2	-----		0.2	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	0.2	-----
NITROGEN.....	9.8	-----		9.9	-----	8.1	-----
OXYGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
ARGON.....	0.1	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.3	-----		0.2	-----	0.1	-----
HELIUM.....	0.50	-----		0.60	-----	0.37	-----
HEATING VALUE.....	1081	-----		1068	-----	1101	-----
SPECIFIC GRAVITY.....	0.708	-----		0.698	-----	0.697	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1135

INDEX 781 SAMPLE 8001		INDEX 782 SAMPLE 8201		INDEX 783 SAMPLE 8202	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	26 IN. MAINLINE DRIP	LOCATION.....	NOT GIVEN	LOCATION.....	SEC. 72, BLK. 7, I&GN SUR.
OWNER.....	CITIES SERVICE GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	CONSOLIDATED GAS & EQUIP. CO
SAMPLED.....	06/01/61	SAMPLED.....	09/22/61	SAMPLED.....	09/22/61
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	147	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.7	METHANE.....	75.7	METHANE.....	61.9
ETHANE.....	6.1	ETHANE.....	5.1	ETHANE.....	5.6
PROPANE.....	3.5	PROPANE.....	2.9	PROPANE.....	4.1
N-BUTANE.....	1.1	N-BUTANE.....	1.1	N-BUTANE.....	1.3
ISOBUTANE.....	0.7	ISOBUTANE.....	0.6	ISOBUTANE.....	0.8
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	9.6	NITROGEN.....	12.9	NITROGEN.....	23.9
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.1	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.2
HELIUM.....	0.51	HELIUM.....	0.56	HELIUM.....	1.19
HEATING VALUE.....	1083	HEATING VALUE.....	1022	HEATING VALUE.....	948
SPECIFIC GRAVITY.....	0.704	SPECIFIC GRAVITY.....	0.703	SPECIFIC GRAVITY.....	0.772

INDEX 784 SAMPLE 8204		INDEX 785 SAMPLE 8206		INDEX 786 SAMPLE 8367	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN
OWNER.....	NATURAL GAS PIPELINE CO. OF	OWNER.....	CONSOLIDATED GAS & EQUIP. CO	OWNER.....	NORTHERN NATURAL GAS CO.
SAMPLED.....	09/22/61	SAMPLED.....	09/22/61	SAMPLED.....	01/17/62
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	62.5	METHANE.....	59.7	METHANE.....	75.9
ETHANE.....	3.4	ETHANE.....	8.0	ETHANE.....	4.9
PROPANE.....	3.4	PROPANE.....	6.7	PROPANE.....	3.1
N-BUTANE.....	0.7	N-BUTANE.....	1.2	N-BUTANE.....	1.1
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.6
N-PENTANE.....	0.2	N-PENTANE.....	0.5	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.3	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	28.5	NITROGEN.....	19.4	NITROGEN.....	13.0
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	1.42	HELIUM.....	0.97	HELIUM.....	0.57
HEATING VALUE.....	1079	HEATING VALUE.....	1029	HEATING VALUE.....	1029
SPECIFIC GRAVITY.....	0.734	SPECIFIC GRAVITY.....	0.819	SPECIFIC GRAVITY.....	0.703

INDEX 787 SAMPLE 8467		INDEX 788 SAMPLE 8472		INDEX 789 SAMPLE 8473	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	SEC. 63, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 63, BLK. 7, I&GN SUR.	LOCATION.....	SEC. 72, BLK. 7, I&GN SUR.
OWNER.....	CONSOLIDATED GAS & EQUIP. CO	OWNER.....	CONSOLIDATED GAS & EQUIP. CO	OWNER.....	CONSOLIDATED GAS & EQUIP. CO
SAMPLED.....	03/26/62	SAMPLED.....	03/26/62	SAMPLED.....	03/26/62
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	58.5	METHANE.....	61.5	METHANE.....	62.1
ETHANE.....	5.4	ETHANE.....	7.1	ETHANE.....	5.4
PROPANE.....	5.4	PROPANE.....	6.1	PROPANE.....	4.2
N-BUTANE.....	1.7	N-BUTANE.....	1.9	N-BUTANE.....	1.4
ISOBUTANE.....	0.9	ISOBUTANE.....	0.2	ISOBUTANE.....	0.7
N-PENTANE.....	0.4	N-PENTANE.....	0.2	N-PENTANE.....	0.4
ISOPENTANE.....	0.5	ISOPENTANE.....	0.4	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.5	HEXANES PLUS.....	0.3
NITROGEN.....	24.3	NITROGEN.....	18.6	NITROGEN.....	23.4
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1
HELIUM.....	1.23	HELIUM.....	0.92	HELIUM.....	1.17
HEATING VALUE.....	991	HEATING VALUE.....	1099	HEATING VALUE.....	961
SPECIFIC GRAVITY.....	0.802	SPECIFIC GRAVITY.....	0.811	SPECIFIC GRAVITY.....	0.773

INDEX 790 SAMPLE 8491		INDEX 791 SAMPLE 8492		INDEX 792 SAMPLE 8509	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CARSON	COUNTY.....	CARSON	COUNTY.....	CARSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN
OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	DORCHESTER GAS PROD. CO.
SAMPLED.....	04/11/62	SAMPLED.....	04/11/62	SAMPLED.....	04/11/62
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	74.2	METHANE.....	75.3	METHANE.....	78.3
ETHANE.....	5.5	ETHANE.....	5.2	ETHANE.....	6.1
PROPANE.....	3.9	PROPANE.....	3.3	PROPANE.....	3.9
N-BUTANE.....	1.5	N-BUTANE.....	0.1	N-BUTANE.....	1.8
ISOBUTANE.....	0.7	ISOBUTANE.....	0.5	ISOBUTANE.....	0.8
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.6
ISOPENTANE.....	0.5	ISOPENTANE.....	0.3	ISOPENTANE.....	0.8
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.6
NITROGEN.....	12.5	NITROGEN.....	13.1	NITROGEN.....	6.6
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	0.1	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.44	HELIUM.....	0.59	HELIUM.....	0.22
HEATING VALUE.....	1074	HEATING VALUE.....	1025	HEATING VALUE.....	1189
SPECIFIC GRAVITY.....	0.725	SPECIFIC GRAVITY.....	0.705	SPECIFIC GRAVITY.....	0.736

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	793 8511	INDEX SAMPLE	794 9232	INDEX SAMPLE	795 7949
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CARSON			CARSON		CARSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W/RED CAVE	
LOCATION.....	BORRITT & MAIDUK STAT.			INLET		16 IN. LINE	
OWNER.....	BORCHESTER GAS PROD. CO.			NATURAL GAS PIPELINE CO. OF		CITIES SERVICE GAS CO.	
SAMPLED.....	04/23/62			01/21/64		05/08/61	
FORMATION.....	NOT GIVEN			NOT GIVEN		PERM-RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	223			185		NOT GIVEN	
FLOW, MCFD.....	33700			6000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	77.7	-----		62.9	-----	78.5	-----
ETHANE.....	5.6	-----		4.0	-----	8.7	-----
PROPANE.....	3.4	-----		3.0	-----	3.6	-----
N-BUTANE.....	1.1	-----		1.2	-----	1.2	-----
ISOBUTANE.....	0.7	-----		0.3	-----	0.7	-----
N-PENTANE.....	0.2	-----		0.3	-----	0.3	-----
ISOPENTANE.....	0.4	-----		0.5	-----	0.5	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.3	-----	0.2	-----
NITROGEN.....	10.1	-----		25.9	-----	5.6	-----
OXYGEN.....	TRACE	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		TRACE	-----	0.2	-----
HELIUM.....	0.43	-----		1.40	-----	0.60	-----
HEATING VALUE.....	1076	-----		891	-----	1148	-----
SPECIFIC GRAVITY.....	0.703	-----		0.794	-----	0.703	-----

		INDEX SAMPLE	796 8306	INDEX SAMPLE	797 12444	INDEX SAMPLE	798 8158
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CASTRO			CHEROKEE		COKE	
FIELD.....	NOT GIVEN			TECULA		NOT GIVEN	
LOCATION.....	DIMMITT TO DUMAS			NOT GIVEN		DISCHARGE GAS	
OWNER.....	EL PASO NATURAL GAS CO.			ARCO LIA REFINING CO.		LONE STAR GAS CO.	
SAMPLED.....	11/30/61			10/14/70		08/11/61	
FORMATION.....	NOT GIVEN			CRET-EAGLE FORD		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	430			430		430	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	339			NOT GIVEN		635	
FLOW, MCFD.....	78000			NOT GIVEN		25000	
COMPONENT, MOLE PCT							
METHANE.....	78.3	-----		92.9	-----	70.9	-----
ETHANE.....	7.2	-----		2.6	-----	16.9	-----
PROPANE.....	1.2	-----		2.0	-----	5.2	-----
N-BUTANE.....	0.2	-----		0.3	-----	0.7	-----
ISOBUTANE.....	0.0	-----		0.2	-----	0.4	-----
N-PENTANE.....	TRACE	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.2	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	TRACE	-----		0.2	-----	TRACE	-----
NITROGEN.....	12.5	-----		2.2	-----	5.0	-----
OXYGEN.....	TRACE	-----		0.0	-----	TRACE	-----
ARGON.....	0.1	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.1	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.2	-----	0.5	-----
HELIUM.....	0.03	-----		0.03	-----	0.10	-----
HEATING VALUE.....	969	-----		1053	-----	1201	-----
SPECIFIC GRAVITY.....	0.661	-----		0.606	-----	0.735	-----

		INDEX SAMPLE	799 7985	INDEX SAMPLE	800 12631	INDEX SAMPLE	801 8165
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	COLEMAN			COLEMAN		COLEMAN	
FIELD.....	SANTA ANNA			SANTA ANNA		SANTA ANNA N	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	COLEMAN GAS CO.			LONE STAR PRODUCING CO.		LONE STAR GAS CO.	
SAMPLED.....	05/23/61			01/14/71		08/12/61	
FORMATION.....	PENN-MARBLE FALLS			PENN-MARBLE FALLS		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	425			425		425	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			310		125	
FLOW, MCFD.....	NOT GIVEN			2500		450	
COMPONENT, MOLE PCT							
METHANE.....	80.8	-----		79.5	-----	70.2	-----
ETHANE.....	5.9	-----		7.5	-----	7.9	-----
PROPANE.....	3.5	-----		2.8	-----	4.8	-----
N-BUTANE.....	0.2	-----		0.5	-----	1.3	-----
ISOBUTANE.....	0.3	-----		0.4	-----	1.0	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.1	-----
ISOPENTANE.....	0.1	-----		0.1	-----	0.4	-----
CYCLOPENTANE.....	0.1	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	TRACE	-----		0.1	-----	0.1	-----
NITROGEN.....	10.7	-----		8.4	-----	13.6	-----
OXYGEN.....	0.0	-----		0.0	-----	TRACE	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.40	-----		0.29	-----	0.47	-----
HEATING VALUE.....	984	-----		1056	-----	1090	-----
SPECIFIC GRAVITY.....	0.654	-----		0.673	-----	0.749	-----

		INDEX SAMPLE	802 11119	INDEX SAMPLE	803 11120	INDEX SAMPLE	804 11008
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	CONCHO			CONCHO		CONCHO	
FIELD.....	PAINT ROCK			PAINT ROCK		PAINT ROCK, SPECK & SPECK S	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	J-W OPERATING CO.			J-W OPERATING CO.		SUNRAY OX OIL CO.	
SAMPLED.....	05/18/67			05/18/67		06/20/67	
FORMATION.....	PENN-STRAWN			NOT GIVEN		PENN-STRAWN & CANYON	
GEOLOGIC PROVINCE CODE.....	410			410		410	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	680			600		448	
FLOW, MCFD.....	4000			2000		10400	
COMPONENT, MOLE PCT							
METHANE.....	75.3	-----		75.0	-----	77.2	-----
ETHANE.....	7.4	-----		7.4	-----	7.8	-----
PROPANE.....	3.8	-----		4.1	-----	2.9	-----
N-BUTANE.....	0.1	-----		0.1	-----	0.1	-----
ISOBUTANE.....	0.5	-----		0.6	-----	0.2	-----
N-PENTANE.....	0.2	-----		0.3	-----	0.0	-----
ISOPENTANE.....	0.3	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.2	-----		0.2	-----	TRACE	-----
NITROGEN.....	10.3	-----		10.2	-----	10.7	-----
OXYGEN.....	0.1	-----		0.1	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.1	-----
HYDROGEN.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.4	-----		0.6	-----	0.5	-----
HELIUM.....	0.35	-----		0.34	-----	0.36	-----
HEATING VALUE.....	1080	-----		1088	-----	1011	-----
SPECIFIC GRAVITY.....	0.713	-----		0.719	-----	0.678	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1137

INDEX 805 SAMPLE 11121		INDEX 806 SAMPLE 11122		INDEX 807 SAMPLE 2054	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CONCHO	COUNTY.....	CONCHO	COUNTY.....	CRANE
FIELD.....	SPECK N	FIELD.....	SPECK N	FIELD.....	CRANE
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	RESIDUE GAS
OWNER.....	SUNRAY OIL CO.	OWNER.....	SUNRAY OIL CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	09/18/67	SAMPLED.....	09/19/67	SAMPLED.....	06/17/30
FORMATION.....	PENN-STRAWN & CANYON	FORMATION.....	PENN-CANYON & STRAWN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	410	GEOLOGIC PROVINCE CODE.....	410	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	550	PRESSURE, PSIG.....	600	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	4000	FLOW, MCFD.....	1100	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	73.9	METHANE.....	69.0	METHANE.....	42.7
ETHANE.....	7.8	ETHANE.....	10.0	ETHANE.....	44.1
PROPANE.....	4.5	PROPANE.....	6.8	PROPANE.....	---
N-BUTANE.....	1.3	N-BUTANE.....	2.3	N-BUTANE.....	---
ISOBUTANE.....	0.8	ISOBUTANE.....	1.3	ISOBUTANE.....	---
N-PENTANE.....	0.3	N-PENTANE.....	0.9	N-PENTANE.....	---
ISOPENTANE.....	0.3	ISOPENTANE.....	0.4	ISOPENTANE.....	---
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.6	HEXANES PLUS.....	---
NITROGEN.....	10.1	NITROGEN.....	7.9	NITROGEN.....	4.0
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	0.3
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	8.9
HELIUM.....	0.31	HELIUM.....	0.22	HELIUM.....	0.00
HEATING VALUE.....	1117	HEATING VALUE.....	1270	HEATING VALUE.....	1223
SPECIFIC GRAVITY.....	0.733	SPECIFIC GRAVITY.....	0.806	SPECIFIC GRAVITY.....	0.878

INDEX 808 SAMPLE 8288		INDEX 809 SAMPLE 16116		INDEX 810 SAMPLE 14485	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CRANE	COUNTY.....	CRANE	COUNTY.....	CRANE
FIELD.....	PUCKETT & TERRELL	FIELD.....	WEST TEXAS AREA	FIELD.....	WEST TEXAS FIELDS
LOCATION.....	36 IN. LINE	LOCATION.....	36 IN. LINE	LOCATION.....	36 IN. LINE
OWNER.....	EL PASO NATURAL GAS CO.	OWNER.....	VALERO TRANSMISSION CO.	OWNER.....	COASTAL STATES GAS PROD. CO.
SAMPLED.....	11/28/61	SAMPLED.....	10/21/80	SAMPLED.....	10/07/75
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	780	PRESSURE, PSIG.....	925	PRESSURE, PSIG.....	875
FLOW, MCFD.....	104000	FLOW, MCFD.....	350000	FLOW, MCFD.....	410000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	87.2	METHANE.....	96.4	METHANE.....	95.7
ETHANE.....	1.5	ETHANE.....	0.2	ETHANE.....	1.6
PROPANE.....	0.6	PROPANE.....	0.2	PROPANE.....	0.2
N-BUTANE.....	0.1	N-BUTANE.....	0.1	N-BUTANE.....	TRACE
ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE
N-PENTANE.....	0.1	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	1.6	NITROGEN.....	0.8	NITROGEN.....	0.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	8.8	CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	1.7
HELIUM.....	0.03	HELIUM.....	0.02	HELIUM.....	0.02
HEATING VALUE.....	933	HEATING VALUE.....	1012	HEATING VALUE.....	1003
SPECIFIC GRAVITY.....	0.663	SPECIFIC GRAVITY.....	0.583	SPECIFIC GRAVITY.....	0.582

INDEX 811 SAMPLE 12773		INDEX 812 SAMPLE 12071		INDEX 813 SAMPLE 8150	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	CROCKETT	COUNTY.....	CULBERSON	COUNTY.....	EASTLAND
FIELD.....	OZONA	FIELD.....	WEST TEXAS	FIELD.....	NOT GIVEN
LOCATION.....	NOT GIVEN	LOCATION.....	PERMIAN BASIN	LOCATION.....	NOT GIVEN
OWNER.....	ATLANTIC RICHFIELD CO.	OWNER.....	EL PASO NATURAL GAS CO.	OWNER.....	EL PASO NATURAL GAS CO.
SAMPLED.....	04/20/71	SAMPLED.....	09/30/69	SAMPLED.....	08/10/61
FORMATION.....	PENN-CANYON	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	830	PRESSURE, PSIG.....	330
FLOW, MCFD.....	4500	FLOW, MCFD.....	1048000	FLOW, MCFD.....	9000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	78.5	METHANE.....	87.0	METHANE.....	73.8
ETHANE.....	10.5	ETHANE.....	7.6	ETHANE.....	13.0
PROPANE.....	5.8	PROPANE.....	1.7	PROPANE.....	5.7
N-BUTANE.....	1.6	N-BUTANE.....	0.3	N-BUTANE.....	0.6
ISOBUTANE.....	0.6	ISOBUTANE.....	0.0	ISOBUTANE.....	0.6
N-PENTANE.....	0.3	N-PENTANE.....	0.0	N-PENTANE.....	TRACE
ISOPENTANE.....	0.5	ISOPENTANE.....	0.0	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1
NITROGEN.....	1.5	NITROGEN.....	3.4	NITROGEN.....	5.6
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.4	CARBON DIOXIDE.....	0.4
HELIUM.....	0.04	HELIUM.....	0.03	HELIUM.....	0.10
HEATING VALUE.....	1256	HEATING VALUE.....	1072	HEATING VALUE.....	1178
SPECIFIC GRAVITY.....	0.732	SPECIFIC GRAVITY.....	0.628	SPECIFIC GRAVITY.....	0.725

INDEX 814 SAMPLE 8136		INDEX 815 SAMPLE 8291		INDEX 816 SAMPLE 8292	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	EASTLAND	COUNTY.....	ECTOR	COUNTY.....	ECTOR
FIELD.....	SIPE SPRINGS	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
LOCATION.....	INLET	LOCATION.....	12 IN. INLET	LOCATION.....	NOT GIVEN
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	EL PASO NATURAL GAS CO.	OWNER.....	EL PASO NATURAL GAS CO.
SAMPLED.....	08/09/61	SAMPLED.....	11/29/61	SAMPLED.....	11/29/61
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	410	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	522
FLOW, MCFD.....	7000	FLOW, MCFD.....	11000	FLOW, MCFD.....	147000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	72.4	METHANE.....	72.1	METHANE.....	84.0
ETHANE.....	13.3	ETHANE.....	20.0	ETHANE.....	11.1
PROPANE.....	1.7	PROPANE.....	0.0	PROPANE.....	0.9
N-BUTANE.....	1.7	N-BUTANE.....	0.1	N-BUTANE.....	TRACE
ISOBUTANE.....	0.8	ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE
N-PENTANE.....	0.3	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.3	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	0.0	NITROGEN.....	0.0	NITROGEN.....	0.0
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.10	HELIUM.....	0.04	HELIUM.....	0.05
HEATING VALUE.....	1266	HEATING VALUE.....	1119	HEATING VALUE.....	1074
SPECIFIC GRAVITY.....	0.761	SPECIFIC GRAVITY.....	0.692	SPECIFIC GRAVITY.....	0.631

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 817		INDEX 818		INDEX 819	
SAMPLE 8293		SAMPLE 2055		SAMPLE 7172	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	ECTOR	ECTOR	ECTOR	ECTOR	
FIELD.....	NOT GIVEN	PENWELL	14L	14L	
LOCATION.....	20 IN. LINE	SEC. 2, BLK. 35, UNIV. LAND	SEC. 17, BLK. 45, T&PRR SUR.	SEC. 17, BLK. 45, T&PRR SUR.	
OWNER.....	EL PASO NATURAL GAS CO.	LANDRETH PRODUCTION CORP.	SHELL OIL CO.	SHELL OIL CO.	
SAMPLED.....	11/29/61	06/17/30	08/11/59	08/11/59	
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	430	430	430	430	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
FLOW, MCFD.....	900	NOT GIVEN	60000	60000	
COMPONENT, MOLE PCT					
METHANE.....	83.9	36.2	78.5	78.5	
ETHANE.....	10.8	56.8	13.3	13.3	
PROPANE.....	2.0	---	3.3	3.3	
N-BUTANE.....	0.1	---	---	---	
ISOBUTANE.....	TRACE	---	TRACE	TRACE	
N-PENTANE.....	TRACE	---	0.0	0.0	
ISOPENTANE.....	0.0	---	0.2	0.2	
CYCLOPENTANE.....	0.0	---	TRACE	TRACE	
HEXANES PLUS.....	0.0	---	0.0	0.0	
NITROGEN.....	2.7	3.2	3.8	3.8	
OXYGEN.....	0.0	0.5	---	---	
ARGON.....	TRACE	---	TRACE	TRACE	
HYDROGEN.....	0.1	---	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	---	0.0	0.0	
CARBON DIOXIDE.....	0.2	3.3	0.8	0.8	
HELIUM.....	0.05	0.00	0.05	0.05	
HEATING VALUE.....	1103	1385	1127	1127	
SPECIFIC GRAVITY.....	0.643	0.884	0.680	0.680	

INDEX 820		INDEX 821		INDEX 822	
SAMPLE 14477		SAMPLE 16114		SAMPLE 16115	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	EL PASO	EL PASO	EL PASO	WAMA AREA S	
FIELD.....	PERMIAN BASIN	PERMIAN BASIN N	PERMIAN BASIN N	C LINE 30 IN.	
LOCATION.....	A & B LINE 26 TO 30 IN.	A & B LINES	A & B LINES	EL PASO NATURAL GAS CO.	
OWNER.....	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.	
SAMPLED.....	10/03/75	10/22/80	10/22/80	10/22/80	
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	465	465	465	465	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
PRESSURE, PSIG.....	550	552	812	812	
FLOW, MCFD.....	1150000	1179000	623000	623000	
COMPONENT, MOLE PCT					
METHANE.....	90.0	91.8	96.1	96.1	
ETHANE.....	6.3	4.8	1.4	1.4	
PROPANE.....	1.8	0.2	0.4	0.4	
N-BUTANE.....	0.1	0.1	0.1	0.1	
ISOBUTANE.....	0.1	TRACE	TRACE	TRACE	
N-PENTANE.....	0.0	TRACE	TRACE	TRACE	
ISOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	TRACE	0.1	0.1	0.1	
NITROGEN.....	2.0	1.7	0.6	0.6	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.2	1.2	1.2	
HELIUM.....	0.03	0.03	0.03	0.03	
HEATING VALUE.....	1068	1060	1017	1017	
SPECIFIC GRAVITY.....	0.612	0.605	0.583	0.583	

INDEX 823		INDEX 824		INDEX 825	
SAMPLE 12073		SAMPLE 14478		SAMPLE 8137	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	EL PASO	EL PASO	EL PASO	ERATH	
FIELD.....	WEST TEXAS & NEW MEXICO	WEST TEXAS PERMIAN BASIN	WEST TEXAS PERMIAN BASIN	SIDE SPRINGS	
LOCATION.....	NOT GIVEN	C LINE 30 IN.	C LINE 30 IN.	OUTLET	
OWNER.....	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.	EL PASO NATURAL GAS CO.	LONE STAR GAS CO.	
SAMPLED.....	10/01/69	10/03/75	10/03/75	08/09/61	
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	465	465	465	415	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
PRESSURE, PSIG.....	837	1040	410	410	
FLOW, MCFD.....	1000000	564000	18000	18000	
COMPONENT, MOLE PCT					
METHANE.....	87.0	95.4	83.2	83.2	
ETHANE.....	7.7	0.5	12.0	12.0	
PROPANE.....	1.6	0.5	0.3	0.3	
N-BUTANE.....	0.2	TRACE	0.1	0.1	
ISOBUTANE.....	0.0	0.1	0.1	0.1	
N-PENTANE.....	0.0	TRACE	TRACE	TRACE	
ISOPENTANE.....	0.0	0.0	0.1	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.9	2.8	2.8	
NITROGEN.....	3.2	0.0	0.0	0.0	
OXYGEN.....	0.0	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	0.0	0.0	
HYDROGEN.....	TRACE	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.2	0.2	
HELIUM.....	0.03	0.02	0.10	0.10	
HEATING VALUE.....	1077	1029	1103	1103	
SPECIFIC GRAVITY.....	0.629	0.582	0.644	0.644	

INDEX 826		INDEX 827		INDEX 828	
SAMPLE 8135		SAMPLE 8154		SAMPLE 2445	
STATE.....	TEXAS	TEXAS	TEXAS	TEXAS	
COUNTY.....	ERATH	FISHER	FORT BEND	FORT BEND	
FIELD.....	X-RAY	ROUND TOP	THOMPSON	THOMPSON	
LOCATION.....	INLET	OUTLET	NOT GIVEN	NOT GIVEN	
OWNER.....	PHILLIPS PETROLEUM CO.	CONTINENTAL OIL CO.	CULLEN & WEST & GULF PROD.	CULLEN & WEST & GULF PROD.	
SAMPLED.....	08/09/61	08/11/61	01/06/32	01/06/32	
FORMATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	415	430	220	220	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN	
PRESSURE, PSIG.....	420	380	NOT GIVEN	NOT GIVEN	
FLOW, MCFD.....	11000	4000	NOT GIVEN	NOT GIVEN	
COMPONENT, MOLE PCT					
METHANE.....	78.9	74.9	88.7	88.7	
ETHANE.....	11.5	12.8	9.2	9.2	
PROPANE.....	4.7	3.7	---	---	
N-BUTANE.....	1.2	0.5	---	---	
ISOBUTANE.....	0.7	0.2	---	---	
N-PENTANE.....	0.2	TRACE	---	---	
ISOPENTANE.....	0.3	0.1	---	---	
CYCLOPENTANE.....	TRACE	TRACE	---	---	
HEXANES PLUS.....	0.2	0.1	---	---	
NITROGEN.....	2.2	7.2	1.3	1.3	
OXYGEN.....	TRACE	TRACE	0.5	0.5	
ARGON.....	0.0	TRACE	---	---	
HYDROGEN.....	0.0	0.0	---	---	
HYDROGEN SULFIDE.....	0.0	0.0	---	---	
CARBON DIOXIDE.....	0.3	0.2	0.3	0.3	
HELIUM.....	0.10	0.20	0.00	0.00	
HEATING VALUE.....	1219	1117	1063	1063	
SPECIFIC GRAVITY.....	0.712	0.700	0.611	0.611	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1139

INDEX 829 SAMPLE 8290		INDEX 830 SAMPLE 8289		INDEX 831 SAMPLE 6197	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	GLASSCOCK	COUNTY.....	GLASSCOCK	COUNTY.....	GRAY
FIELD.....	NOT GIVEN	FIELD.....	SPRABERRY	FIELD.....	NOT GIVEN
LOCATION.....	14 IN. INLET	LOCATION.....	30 IN. LINE	LOCATION.....	20 IN. INLET
OWNER.....	EL PASO NATURAL GAS CO.	OWNER.....	EL PASO NATURAL GAS CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	11/29/61	SAMPLED.....	11/29/61	SAMPLED.....	12/29/55
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	630	PRESSURE, PSIG.....	750	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	79000	FLOW, MCFD.....	92000	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	93.2	METHANE.....	82.6	METHANE.....	76.9
ETHANE.....	1.9	ETHANE.....	10.3	ETHANE.....	5.9
PROPANE.....	1.3	PROPANE.....	1.3	PROPANE.....	4.3
N-BUTANE.....	0.1	N-BUTANE.....	0.1	N-BUTANE.....	1.7
ISOBUTANE.....	TRACE	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.0	N-PENTANE.....	0.4
ISOPENTANE.....	TRACE	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.2
NITROGEN.....	3.1	NITROGEN.....	3.1	NITROGEN.....	9.6
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.2	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.0
HELIUM.....	0.07	HELIUM.....	0.07	HELIUM.....	0.34
HEATING VALUE.....	1093	HEATING VALUE.....	1356	HEATING VALUE.....	1098
SPECIFIC GRAVITY.....	0.645	SPECIFIC GRAVITY.....	0.641	SPECIFIC GRAVITY.....	0.710

INDEX 832 SAMPLE 6198		INDEX 833 SAMPLE 6199		INDEX 834 SAMPLE 6201	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	GRAY	COUNTY.....	GRAY	COUNTY.....	GRAY
FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
LOCATION.....	20 IN. INLET	LOCATION.....	INLET	LOCATION.....	PIPELINE NO. 5
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	12/29/56	SAMPLED.....	12/29/56	SAMPLED.....	12/28/56
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	82.3	METHANE.....	76.0	METHANE.....	73.1
ETHANE.....	6.2	ETHANE.....	5.7	ETHANE.....	4.6
PROPANE.....	0.9	PROPANE.....	1.8	PROPANE.....	0.9
N-BUTANE.....	0.7	N-BUTANE.....	0.3	N-BUTANE.....	1.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.3	ISOBUTANE.....	0.0
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.0
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0	HEXANES PLUS.....	12.2	HEXANES PLUS.....	16.7
NITROGEN.....	6.7	NITROGEN.....	0.0	NITROGEN.....	6.0
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.2
HYDROGEN.....	0.0	HYDROGEN.....	0.2	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.6	HYDROGEN SULFIDE.....	0.5
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.40	CARBON DIOXIDE.....	0.61
HELIUM.....	0.19	HELIUM.....	0.34	HELIUM.....	9.59
HEATING VALUE.....	1071	HEATING VALUE.....	0.707	HEATING VALUE.....	0.707
SPECIFIC GRAVITY.....	0.671	SPECIFIC GRAVITY.....	0.707	SPECIFIC GRAVITY.....	0.707

INDEX 835 SAMPLE 6202		INDEX 836 SAMPLE 6203		INDEX 837 SAMPLE 8824	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	GRAY	COUNTY.....	GRAY	COUNTY.....	GRAY
FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN	FIELD.....	NOT GIVEN
LOCATION.....	PIPELINE NO. 6	LOCATION.....	PIPELINE NO. 7	LOCATION.....	NOT GIVEN
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	TRANSWESTERN PIPELINE CO.
SAMPLED.....	12/28/56	SAMPLED.....	01/02/57	SAMPLED.....	01/14/63
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	20000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	79.8	METHANE.....	84.9	METHANE.....	75.0
ETHANE.....	5.4	ETHANE.....	5.4	ETHANE.....	8.7
PROPANE.....	1.9	PROPANE.....	1.4	PROPANE.....	5.8
N-BUTANE.....	1.3	N-BUTANE.....	1.1	N-BUTANE.....	0.7
ISOBUTANE.....	1.0	ISOBUTANE.....	0.9	ISOBUTANE.....	0.8
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.1
ISOPENTANE.....	1.1	ISOPENTANE.....	0.8	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	TRACE
NITROGEN.....	7.7	NITROGEN.....	5.0	NITROGEN.....	7.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	1.0
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.2	HYDROGEN.....	0.2	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.1
HELIUM.....	0.21	HELIUM.....	0.14	HELIUM.....	0.09
HEATING VALUE.....	1100	HEATING VALUE.....	1084	HEATING VALUE.....	1121
SPECIFIC GRAVITY.....	0.701	SPECIFIC GRAVITY.....	0.660	SPECIFIC GRAVITY.....	0.718

INDEX 838 SAMPLE 2513		INDEX 839 SAMPLE 2601		INDEX 840 SAMPLE 2602	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	GRAY	COUNTY.....	GRAY	COUNTY.....	GRAY
FIELD.....	PANHANDLE	FIELD.....	PANHANDLE	FIELD.....	PANHANDLE
LOCATION.....	INLET	LOCATION.....	INLET	LOCATION.....	OUTLET
OWNER.....	TEXOMA NATURAL GAS CO.	OWNER.....	TEXOMA NATURAL GAS CO.	OWNER.....	TEXOMA NATURAL GAS CO.
SAMPLED.....	07/12/32	SAMPLED.....	01/19/33	SAMPLED.....	01/19/33
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	580
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	22500	FLOW, MCFD.....	60000
COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....		COMPONENT, MOLE PCT.....	
METHANE.....	71.2	METHANE.....	74.4	METHANE.....	78.0
ETHANE.....	21.4	ETHANE.....	17.1	ETHANE.....	13.0
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	6.8	NITROGEN.....	7.2	NITROGEN.....	7.9
OXYGEN.....	---	OXYGEN.....	0.7	OXYGEN.....	0.4
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.24	HELIUM.....	0.29	HELIUM.....	0.36
HEATING VALUE.....	105	HEATING VALUE.....	1060	HEATING VALUE.....	1023
SPECIFIC GRAVITY.....	0.691	SPECIFIC GRAVITY.....	0.674	SPECIFIC GRAVITY.....	0.655

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 841 SAMPLE 2637			INDEX 842 SAMPLE 6814			INDEX 843 SAMPLE 17095		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GRAY		GRAY			GRAY		
FIELD.....	PANHANDLE		PANHANDLE			PANHANDLE		
LOCATION.....	INLET		PAMPA COMPOSITE SAMPLE NO. 1			20 IN. LINE		
OWNER.....	TEKOMA NATURAL GAS CO.		PIONEER NATURAL GAS CO.			NORTHWEST CENTRAL PIPELINE C		
SAMPLED.....	07/22/33		--/--/58			10/17/83		
FORMATION.....	NOT GIVEN		PERM-WICHITA-ALBANY			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			273		
FLOW, MCFD.....	18000		NOT GIVEN			8500		
COMPONENT, MOLE PCT			NOT GIVEN					
METHANE.....	72.6		84.1			76.8		
ETHANE.....	19.9		5.9			7.1		
PROpane.....	---		3.0			4.9		
N-BUTANE.....	---		0.8			1.9		
ISOBUTANE.....	---		0.6			0.8		
N-PENTANE.....	---		0.2			0.4		
ISOPENTANE.....	---		0.1			0.5		
CYCLOPENTANE.....	---		0.1			0.1		
HEXANES PLUS.....	---		0.2			0.2		
NITROGEN.....	6.9		4.5			6.9		
OXYGEN.....	0.3		0.1			0.0		
ARGON.....	---		0.1			TRACE		
HYDROGEN.....	---		TRACE			TRACE		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.0		
HELIUM.....	0.26		0.10			0.25		
HEATING VALUE.....	1092		1118			1176		
SPECIFIC GRAVITY.....	0.683		0.672			0.731		
INDEX 844 SAMPLE 8348			INDEX 845 SAMPLE 13229			INDEX 846 SAMPLE 15650		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GRAY		GRAY			GRAY		
FIELD.....	PANHANDLE E		PANHANDLE E & W			PANHANDLE E & W		
LOCATION.....	20 IN. LINE		NOT GIVEN			20 IN. LINE		
OWNER.....	EL PASO NATURAL GAS CO.		CITIES SERVICE GAS CO.			CITIES SERVICE CO.		
SAMPLED.....	12/28/61		06/05/72			06/18/79		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	600		160			350		
FLOW, MCFD.....	28000		82000			44000		
COMPONENT, MOLE PCT								
METHANE.....	83.5		77.8			76.7		
ETHANE.....	6.2		6.2			6.4		
PROpane.....	2.4		4.0			4.3		
N-BUTANE.....	0.8		1.4			1.6		
ISOBUTANE.....	0.6		0.8			0.7		
N-PENTANE.....	0.4		0.8			0.9		
ISOPENTANE.....	0.7		0.3			0.3		
CYCLOPENTANE.....	0.0		0.1			TRACE		
HEXANES PLUS.....	0.0		0.3			0.1		
NITROGEN.....	7.4		8.3			8.8		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	---		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		TRACE			TRACE		
HELIUM.....	0.27		0.40			0.43		
HEATING VALUE.....	1060		1124			1116		
SPECIFIC GRAVITY.....	0.663		0.713			0.713		
INDEX 847 SAMPLE 5529			INDEX 848 SAMPLE 6200			INDEX 849 SAMPLE 6597		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GRAY		GRAY			GRAY		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	20 IN. OUTLET		PIPELINE NO. 4			SEC. 60, BLK. 3, H&GN SUR.		
OWNER.....	CITIES SERVICE GAS CO.		PHILLIPS PETROLEUM CO.			WILCOX OIL CO.		
SAMPLED.....	08/14/53		05/21/58			05/21/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	78.8		73.5			67.2		
ETHANE.....	6.4		5.3			11.1		
PROpane.....	3.4		1.9			9.8		
N-BUTANE.....	1.2		1.3			3.9		
ISOBUTANE.....	0.5		0.7			1.9		
N-PENTANE.....	0.3		0.0			0.8		
ISOPENTANE.....	0.1		0.9			1.3		
CYCLOPENTANE.....	0.1		0.6			0.2		
HEXANES PLUS.....	0.2		0.0			0.7		
NITROGEN.....	8.5		15.1			2.9		
OXYGEN.....	TRACE		0.0			TRACE		
ARGON.....	TRACE		0.0			0.0		
HYDROGEN.....	0.0		0.2			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.0		
HELIUM.....	0.38		0.47			0.10		
HEATING VALUE.....	1086		995			1463		
SPECIFIC GRAVITY.....	0.693		0.714			0.868		
INDEX 850 SAMPLE 6652			INDEX 851 SAMPLE 6654			INDEX 852 SAMPLE 6655		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	GRAY		GRAY			GRAY		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	20 IN. LINE		SEC. 94, BLK. 8-2, H&GN SUR.			20 IN. LINE		
OWNER.....	CONSOLIDATED GAS UTILITIES		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	06/27/58		06/27/58			06/02/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	57		135			131		
FLOW, MCFD.....	35000		20000			30000		
COMPONENT, MOLE PCT								
METHANE.....	80.5		78.0			79.5		
ETHANE.....	8.0		10.8			6.4		
PROpane.....	5.0		5.0			3.6		
N-BUTANE.....	1.3		0.0			1.0		
ISOBUTANE.....	0.7		0.1			0.6		
N-PENTANE.....	0.0		0.0			0.1		
ISOPENTANE.....	0.3		0.2			0.3		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	TRACE		0.0			0.2		
NITROGEN.....	5.5		1.8			8.0		
OXYGEN.....	0.1		0.3			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.0		
HELIUM.....	0.10		0.20			0.20		
HEATING VALUE.....	1149		1189			1098		
SPECIFIC GRAVITY.....	0.696		0.688			0.693		

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1141

STATE	TEXAS	INDEX SAMPLE	853 6656	TEXAS	INDEX SAMPLE	854 6658	TEXAS	INDEX SAMPLE	855 6659
COUNTY	GRAY			GRAY			GRAY		
FIELD	PANHANDLE W			PANHANDLE W			PANHANDLE W		
LOCATION	20 IN. LINE			16 IN. LINE			16 IN. LINE		
OWNER	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED	06/27/58			06/27/58			06/27/58		
FORMATION	NOT GIVEN			NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE	440			440			440		
DEPTH, FEET	NOT GIVEN			NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG	131			147			140		
FLOW, MCFD	45000			20000			15000		
COMPONENT, MOLE PCT									
METHANE	74.1	-----		70.9	-----		75.8	-----	
ETHANE	5.9	-----		4.8	-----		5.8	-----	
PROPANE	4.1	-----		3.4	-----		3.5	-----	
N-BUTANE	1.5	-----		1.0	-----		0.9	-----	
ISOBUTANE	0.9	-----		0.7	-----		0.7	-----	
N-PENTANE	0.3	-----		0.2	-----		0.2	-----	
ISOPENTANE	0.4	-----		0.2	-----		0.2	-----	
CYCLOPENTANE	0.1	-----		0.1	-----		0.1	-----	
HEXANES PLUS	0.3	-----		0.2	-----		0.2	-----	
NITROGEN	10.4	-----		17.9	-----		12.1	-----	
OXYGEN	TRACE	-----		TRACE	-----		TRACE	-----	
ARGON	TRACE	-----		TRACE	-----		TRACE	-----	
HYDROGEN	0.0	-----		0.0	-----		0.0	-----	
HYDROGEN SULFIDE	0.0	-----		0.0	-----		0.0	-----	
CARBON DIOXIDE	0.1	-----		TRACE	-----		0.1	-----	
HELIUM	0.30	-----		0.60	-----		0.40	-----	
HEATING VALUE	1124	-----		1081	-----		1048	-----	
SPECIFIC GRAVITY	0.736	-----		0.724	-----		0.706	-----	

STATE	TEXAS	INDEX SAMPLE	856 6660	TEXAS	INDEX SAMPLE	857 6743	TEXAS	INDEX SAMPLE	858 6745
COUNTY	GRAY			GRAY			GRAY		
FIELD	PANHANDLE W			PANHANDLE W			PANHANDLE W		
LOCATION	20 IN. LINE			W LINE			20 IN. DISCHARGE		
OWNER	PHILLIPS PETROLEUM CO.			EL PASO NATURAL GAS CO.			CITIES SERVICE GAS CO.		
SAMPLED	06/27/58			07/22/58			07/22/58		
FORMATION	NOT GIVEN			NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE	440			440			440		
DEPTH, FEET	NOT GIVEN			NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG	15000			190			NOT GIVEN		
FLOW, MCFD				56000			115000		
COMPONENT, MOLE PCT									
METHANE	82.1	-----		79.9	-----		79.3	-----	
ETHANE	5.4	-----		4.2	-----		6.2	-----	
PROPANE	3.1	-----		2.3	-----		3.3	-----	
N-BUTANE	0.8	-----		0.8	-----		1.1	-----	
ISOBUTANE	0.7	-----		0.7	-----		0.7	-----	
N-PENTANE	0.2	-----		0.1	-----		0.3	-----	
ISOPENTANE	0.2	-----		0.3	-----		0.1	-----	
CYCLOPENTANE	0.1	-----		0.1	-----		0.1	-----	
HEXANES PLUS	0.2	-----		0.1	-----		0.2	-----	
NITROGEN	6.0	-----		11.2	-----		8.1	-----	
OXYGEN	TRACE	-----		TRACE	-----		TRACE	-----	
ARGON	TRACE	-----		TRACE	-----		TRACE	-----	
HYDROGEN	0.0	-----		0.0	-----		0.0	-----	
HYDROGEN SULFIDE	0.0	-----		0.0	-----		0.0	-----	
CARBON DIOXIDE	0.1	-----		0.1	-----		0.1	-----	
HELIUM	0.20	-----		0.30	-----		0.40	-----	
HEATING VALUE	1108	-----		1016	-----		1092	-----	
SPECIFIC GRAVITY	0.680	-----		0.677	-----		0.692	-----	

STATE	TEXAS	INDEX SAMPLE	859 6904	TEXAS	INDEX SAMPLE	860 6911	TEXAS	INDEX SAMPLE	861 7347
COUNTY	GRAY			GRAY			GRAY		
FIELD	PANHANDLE W			PANHANDLE W			PANHANDLE W		
LOCATION	S SYSTEM 10 IN. BLOCKGATE			S SYSTEM 10 IN. BLOCKGATE			SEC. 30, BLK. 3, I&GN SUR.		
OWNER	CABOT CARBON CO.			CABOT CARBON CO.			CITIES SERVICE GAS CO.		
SAMPLED	12/10/58			12/10/58			01/20/60		
FORMATION	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY			NOT GIVEN		
GEOLOGIC PROVINCE CODE	440			440			440		
DEPTH, FEET	NOT GIVEN			NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG	NOT GIVEN			NOT GIVEN			151		
FLOW, MCFD	NOT GIVEN			NOT GIVEN			120100		
COMPONENT, MOLE PCT									
METHANE	66.9	-----		67.3	-----		78.6	-----	
ETHANE	6.6	-----		6.4	-----		6.1	-----	
PROPANE	4.5	-----		4.3	-----		3.3	-----	
N-BUTANE	1.2	-----		0.9	-----		1.0	-----	
ISOBUTANE	0.7	-----		0.9	-----		0.5	-----	
N-PENTANE	0.2	-----		0.2	-----		0.2	-----	
ISOPENTANE	0.3	-----		0.2	-----		0.3	-----	
CYCLOPENTANE	0.1	-----		0.1	-----		0.1	-----	
HEXANES PLUS	0.2	-----		0.2	-----		0.2	-----	
NITROGEN	18.5	-----		18.6	-----		9.0	-----	
OXYGEN	0.0	-----		0.1	-----		0.1	-----	
ARGON	TRACE	-----		TRACE	-----		TRACE	-----	
HYDROGEN	0.0	-----		0.0	-----		0.1	-----	
HYDROGEN SULFIDE	0.0	-----		0.0	-----		0.0	-----	
CARBON DIOXIDE	0.1	-----		0.1	-----		0.1	-----	
HELIUM	0.50	-----		0.50	-----		0.40	-----	
HEATING VALUE	1012	-----		1006	-----		1077	-----	
SPECIFIC GRAVITY	0.752	-----		0.749	-----		0.693	-----	

STATE	TEXAS	INDEX SAMPLE	862 8027	TEXAS	INDEX SAMPLE	863 8028	TEXAS	INDEX SAMPLE	864 8029
COUNTY	GRAY			GRAY			GRAY		
FIELD	PANHANDLE W			PANHANDLE W			PANHANDLE W		
LOCATION	SEC. 17, ROCKWELL CO. SCHOOL			SEC. 17, BLK. B-2, H&GN SUR.			SEC. 17, BLK. B-2, H&GN SUR.		
OWNER	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED	06/22/61			06/22/61			06/22/61		
FORMATION	NOT GIVEN			NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE	440			440			440		
DEPTH, FEET	NOT GIVEN			NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG	195			152			151		
FLOW, MCFD	3050			5550			1600		
COMPONENT, MOLE PCT									
METHANE	59.0	-----		66.3	-----		79.7	-----	
ETHANE	9.9	-----		9.3	-----		6.8	-----	
PROPANE	6.7	-----		5.9	-----		4.0	-----	
N-BUTANE	1.8	-----		1.5	-----		1.1	-----	
ISOBUTANE	1.3	-----		1.1	-----		0.8	-----	
N-PENTANE	0.4	-----		0.2	-----		0.2	-----	
ISOPENTANE	0.3	-----		0.3	-----		0.2	-----	
CYCLOPENTANE	0.1	-----		0.1	-----		TRACE	-----	
HEXANES PLUS	0.3	-----		0.1	-----		0.1	-----	
NITROGEN	19.7	-----		14.7	-----		6.7	-----	
OXYGEN	TRACE	-----		TRACE	-----		TRACE	-----	
ARGON	TRACE	-----		TRACE	-----		TRACE	-----	
HYDROGEN	0.0	-----		0.0	-----		0.1	-----	
HYDROGEN SULFIDE	0.0	-----		0.0	-----		0.0	-----	
CARBON DIOXIDE	0.1	-----		0.1	-----		0.1	-----	
HELIUM	0.40	-----		0.30	-----		0.20	-----	
HEATING VALUE	1102	-----		1119	-----		1120	-----	
SPECIFIC GRAVITY	0.821	-----		0.778	-----		0.694	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 865 SAMPLE 8030		INDEX 866 SAMPLE 8031		INDEX 867 SAMPLE 8032	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	GRAY	COUNTY.....	GRAY	COUNTY.....	GRAY
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	POINT NO. 4, 8 IN.	LOCATION.....	SEC. 108, BLK. B-2, H&GN SUR.	LOCATION.....	SEC. 168, BLK. B-2, H&GN SUR
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	06/22/61	SAMPLED.....	06/22/61	SAMPLED.....	06/22/61
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	138	PRESSURE, PSIG.....	137	PRESSURE, PSIG.....	138
FLOW, MCFD.....	3100	FLOW, MCFD.....	3800	FLOW, MCFD.....	1750
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	65.3	METHANE.....	66.4	METHANE.....	70.5
ETHANE.....	5.8	ETHANE.....	5.9	ETHANE.....	5.2
PROPANE.....	4.2	PROPANE.....	4.3	PROPANE.....	3.7
N-BUTANE.....	1.1	N-BUTANE.....	1.1	N-BUTANE.....	1.1
ISOBUTANE.....	0.8	ISOBUTANE.....	0.8	ISOBUTANE.....	0.8
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	21.6	NITROGEN.....	20.1	NITROGEN.....	17.3
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	TRACE	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.60	HELIUM.....	0.60	HELIUM.....	0.50
HEATING VALUE.....	961	HEATING VALUE.....	985	HEATING VALUE.....	1003
SPECIFIC GRAVITY.....	0.752	SPECIFIC GRAVITY.....	0.750	SPECIFIC GRAVITY.....	0.731
INDEX 868 SAMPLE 8033		INDEX 869 SAMPLE 8034		INDEX 870 SAMPLE 8035	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	GRAY	COUNTY.....	GRAY	COUNTY.....	GRAY
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	SEC. 199, BLK. B-2, H&GN SUR	LOCATION.....	SEC. 199, BLK. B-2, H&GN SUR	LOCATION.....	SEC. 189, BLK. B-2, H&GN SUR
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	06/22/61	SAMPLED.....	06/22/61	SAMPLED.....	06/22/61
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	137	PRESSURE, PSIG.....	135	PRESSURE, PSIG.....	133
FLOW, MCFD.....	9080	FLOW, MCFD.....	10000	FLOW, MCFD.....	14000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	70.5	METHANE.....	70.5	METHANE.....	72.4
ETHANE.....	4.9	ETHANE.....	4.3	ETHANE.....	3.4
PROPANE.....	4.3	PROPANE.....	4.3	PROPANE.....	3.4
N-BUTANE.....	1.1	N-BUTANE.....	1.1	N-BUTANE.....	1.1
ISOBUTANE.....	0.7	ISOBUTANE.....	0.7	ISOBUTANE.....	0.7
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.2	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	18.0	NITROGEN.....	18.0	NITROGEN.....	15.9
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.70	HELIUM.....	0.60	HELIUM.....	0.60
HEATING VALUE.....	986	HEATING VALUE.....	971	HEATING VALUE.....	998
SPECIFIC GRAVITY.....	0.730	SPECIFIC GRAVITY.....	0.723	SPECIFIC GRAVITY.....	0.717
INDEX 871 SAMPLE 9237		INDEX 872 SAMPLE 6653		INDEX 873 SAMPLE 6204	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	GRAY	COUNTY.....	GRAY	COUNTY.....	GRAY
FIELD.....	PANHANDLE W	FIELD.....	QUINDONO	FIELD.....	TAYLOR SE
LOCATION.....	GRAY CO. CHECK	LOCATION.....	SEC. 162, BLK. J, H&GN SUR.	LOCATION.....	PIPELINE NO. 8
OWNER.....	NATURAL GAS PIPELINE CO. OF	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	01/27/68	SAMPLED.....	06/27/68	SAMPLED.....	12/28/56
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	115	PRESSURE, PSIG.....	110	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	102700	FLOW, MCFD.....	15000	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.6	METHANE.....	78.0	METHANE.....	81.0
ETHANE.....	0.6	ETHANE.....	0.8	ETHANE.....	6.2
PROPANE.....	3.6	PROPANE.....	4.8	PROPANE.....	1.6
N-BUTANE.....	1.4	N-BUTANE.....	1.4	N-BUTANE.....	0.0
ISOBUTANE.....	0.3	ISOBUTANE.....	0.3	ISOBUTANE.....	1.8
N-PENTANE.....	0.2	N-PENTANE.....	0.3	N-PENTANE.....	0.0
ISOPENTANE.....	0.5	ISOPENTANE.....	0.4	ISOPENTANE.....	0.3
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.0
NITROGEN.....	8.2	NITROGEN.....	4.7	NITROGEN.....	8.2
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.5
HELIUM.....	0.40	HELIUM.....	0.10	HELIUM.....	0.21
HEATING VALUE.....	1113	HEATING VALUE.....	1199	HEATING VALUE.....	1047
SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.723	SPECIFIC GRAVITY.....	0.671
INDEX 874 SAMPLE 6974		INDEX 875 SAMPLE 8138		INDEX 876 SAMPLE 15421	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HALE	COUNTY.....	HAMILTON	COUNTY.....	HANSFORD
FIELD.....	ANTON-IRISH	FIELD.....	ENERGY, POTTSVILLE & ETC.	FIELD.....	CARTHAGE GAS AREA
LOCATION.....	NOT GIVEN	LOCATION.....	LINE K	LOCATION.....	24 IN. INLET
OWNER.....	PAN AMERICAN PETROLEUM CORP.	OWNER.....	LONG STAR GAS CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	02/16/59	SAMPLED.....	08/09/61	SAMPLED.....	10/17/78
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	340	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	1950	FLOW, MCFD.....	16900
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	68.1	METHANE.....	89.1	METHANE.....	70.3
ETHANE.....	7.6	ETHANE.....	4.5	ETHANE.....	6.8
PROPANE.....	4.3	PROPANE.....	0.8	PROPANE.....	4.8
N-BUTANE.....	1.0	N-BUTANE.....	0.4	N-BUTANE.....	1.5
ISOBUTANE.....	0.0	ISOBUTANE.....	0.4	ISOBUTANE.....	0.7
N-PENTANE.....	TRACE	N-PENTANE.....	TRACE	N-PENTANE.....	0.4
ISOPENTANE.....	0.6	ISOPENTANE.....	0.2	ISOPENTANE.....	0.4
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	15.0	NITROGEN.....	4.1	NITROGEN.....	14.0
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	TRACE	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	3.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.20	HELIUM.....	0.20	HELIUM.....	0.62
HEATING VALUE.....	949	HEATING VALUE.....	1045	HEATING VALUE.....	1081
SPECIFIC GRAVITY.....	0.753	SPECIFIC GRAVITY.....	0.622	SPECIFIC GRAVITY.....	0.748

* CALCULATED GROSS BTU PER CU FT., DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1143

INDEX 877 SAMPLE 17052		INDEX 878 SAMPLE 17055		INDEX 879 SAMPLE 15424	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	CARTHAGE, TX & GUYMON-HUGOTON	FIELD.....	CARTHAGE, TX & GUYMON-HUGOTON	FIELD.....	COMPOSITE
LOCATION.....	M.O.G. HERR 24 IN. LINE	LOCATION.....	24 IN. PLT. OUTLET	LOCATION.....	20 IN. DISCHARGE
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	09/09/83	SAMPLED.....	09/09/83	SAMPLED.....	10/17/78
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	208	PRESSURE, PSIG.....	200	PRESSURE, PSIG.....	350
FLOW, MCFD.....	96392	FLOW, MCFD.....	102404	FLOW, MCFD.....	80000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	70.4	METHANE.....	79.6	METHANE.....	84.1
ETHANE.....	6.8	ETHANE.....	6.7	ETHANE.....	5.6
PROPANE.....	4.3	PROPANE.....	2.0	PROPANE.....	1.3
N-BUTANE.....	1.4	N-BUTANE.....	0.2	N-BUTANE.....	0.0
ISOBUTANE.....	0.6	ISOBUTANE.....	TRACE	ISOBUTANE.....	0.0
N-PENTANE.....	0.2	N-PENTANE.....	TRACE	N-PENTANE.....	0.0
ISOPENTANE.....	0.6	ISOPENTANE.....	0.1	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.3	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.0
NITROGEN.....	14.3	NITROGEN.....	10.8	NITROGEN.....	8.6
OXYGEN.....	0.0	OXYGEN.....	0.1	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.3	HYDROGEN.....	0.3	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.66	HELIUM.....	0.09	HELIUM.....	0.20
HEATING VALUE.....	1072	HEATING VALUE.....	990	HEATING VALUE.....	986
SPECIFIC GRAVITY.....	0.746	SPECIFIC GRAVITY.....	0.658	SPECIFIC GRAVITY.....	0.632

INDEX 880 SAMPLE 15425		INDEX 881 SAMPLE 5696		INDEX 882 SAMPLE 5697	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	COMPOSITE	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
LOCATION.....	24 IN. DISCHARGE	LOCATION.....	LINE 6	LOCATION.....	LINE H
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	10/17/78	SAMPLED.....	10/12/54	SAMPLED.....	10/12/54
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	200	PRESSURE, PSIG.....	220	PRESSURE, PSIG.....	220
FLOW, MCFD.....	155000	FLOW, MCFD.....	20000	FLOW, MCFD.....	15000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	84.7	METHANE.....	74.9	METHANE.....	68.7
ETHANE.....	4.8	ETHANE.....	5.9	ETHANE.....	5.9
PROPANE.....	3.3	PROPANE.....	3.7	PROPANE.....	3.7
N-BUTANE.....	0.0	N-BUTANE.....	0.8	N-BUTANE.....	1.0
ISOBUTANE.....	0.0	ISOBUTANE.....	0.6	ISOBUTANE.....	0.6
N-PENTANE.....	0.0	N-PENTANE.....	0.3	N-PENTANE.....	0.3
ISOPENTANE.....	0.0	ISOPENTANE.....	0.1	ISOPENTANE.....	0.1
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	9.0	NITROGEN.....	13.5	NITROGEN.....	18.7
OXYGEN.....	0.0	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	TRACE	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.03	HELIUM.....	0.46	HELIUM.....	0.72
HEATING VALUE.....	978	HEATING VALUE.....	1017	HEATING VALUE.....	979
SPECIFIC GRAVITY.....	0.630	SPECIFIC GRAVITY.....	0.702	SPECIFIC GRAVITY.....	0.733

INDEX 883 SAMPLE 5699		INDEX 884 SAMPLE 6266		INDEX 885 SAMPLE 6268	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
LOCATION.....	LINE J	LOCATION.....	24 IN. NLET	LOCATION.....	LINE H
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	MICHIGAN WISCONSIN PIPELINE	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	10/12/54	SAMPLED.....	03/12/57	SAMPLED.....	03/12/57
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	40000	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	40000	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	71.9	METHANE.....	72.8	METHANE.....	68.7
ETHANE.....	6.0	ETHANE.....	6.8	ETHANE.....	6.2
PROPANE.....	3.6	PROPANE.....	3.4	PROPANE.....	3.6
N-BUTANE.....	1.0	N-BUTANE.....	0.5	N-BUTANE.....	1.1
ISOBUTANE.....	0.6	ISOBUTANE.....	0.6	ISOBUTANE.....	0.6
N-PENTANE.....	0.3	N-PENTANE.....	0.0	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	NOT 1	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	15.6	NITROGEN.....	15.3	NITROGEN.....	18.3
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.58	HELIUM.....	0.70	HELIUM.....	0.67
HEATING VALUE.....	1013	HEATING VALUE.....	979	HEATING VALUE.....	980
SPECIFIC GRAVITY.....	0.723	SPECIFIC GRAVITY.....	0.699	SPECIFIC GRAVITY.....	0.731

INDEX 886 SAMPLE 6269		INDEX 887 SAMPLE 6270		INDEX 888 SAMPLE 6271	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS	FIELD.....	HUGOTON, TEXAS
LOCATION.....	LINE J	LOCATION.....	LINE G	LOCATION.....	LINE G
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	03/12/57	SAMPLED.....	03/12/57	SAMPLED.....	03/12/57
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	71.3	METHANE.....	70.5	METHANE.....	75.1
ETHANE.....	6.3	ETHANE.....	6.7	ETHANE.....	6.4
PROPANE.....	3.6	PROPANE.....	3.9	PROPANE.....	3.5
N-BUTANE.....	1.1	N-BUTANE.....	1.2	N-BUTANE.....	1.0
ISOBUTANE.....	0.5	ISOBUTANE.....	0.6	ISOBUTANE.....	0.4
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.3	ISOPENTANE.....	0.3	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	15.7	NITROGEN.....	15.2	NITROGEN.....	12.5
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.63	HELIUM.....	0.77	HELIUM.....	0.45
HEATING VALUE.....	1014	HEATING VALUE.....	1028	HEATING VALUE.....	1037
SPECIFIC GRAVITY.....	0.725	SPECIFIC GRAVITY.....	0.731	SPECIFIC GRAVITY.....	0.702

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	889 6272	INDEX SAMPLE	890 6273	INDEX SAMPLE	891 6689
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	HANSFORD			HANSFORD		HANSFORD	
FIELD	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
LOCATION	LINES A-F			LINE L-1		16 IN. INLET	
OWNER	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
SAMPLED	03/12/57			07/03/58		07/03/58	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		150	
FLOW, MCFD	NOT GIVEN			NOT GIVEN		40000	
COMPONENT, MOLE PCT							
METHANE	75.5			70.5		76.1	
ETHANE	6.5			6.5		6.2	
PROPANE	3.5			3.8		3.4	
N-BUTANE	1.0			1.2		1.0	
ISOBUTANE	0.6			0.5		0.6	
N-PENTANE	0.2			0.2		0.1	
ISOPENTANE	0.2			0.3		0.3	
CYCLOPENTANE	0.1			TRACE		0.1	
HEXANES PLUS	0.2			0.2		0.2	
NITROGEN	11.8			15.9		11.7	
OXYGEN	0.0			TRACE		TRACE	
ARGON	TRACE			0.0		TRACE	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.1		0.1	
HELIUM	0.40			0.74		0.40	
HEATING VALUE	1059			1022		1050	
SPECIFIC GRAVITY	0.710			0.732		0.704	

		INDEX SAMPLE	892 6690	INDEX SAMPLE	893 6692	INDEX SAMPLE	894 6694
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	HANSFORD			HANSFORD		HANSFORD	
FIELD	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
LOCATION	PL. DISCHARGE			24 IN. G LINE		24 IN. G LINE	
OWNER	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
SAMPLED	07/03/58			07/03/58		07/03/58	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	200			380		210	
FLOW, MCFD	355000			75000		31000	
COMPONENT, MOLE PCT							
METHANE	73.1			75.5		75.5	
ETHANE	6.4			6.4		6.1	
PROPANE	3.6			3.4		3.4	
N-BUTANE	0.6			1.0		1.0	
ISOBUTANE	0.0			0.0		0.4	
N-PENTANE	0.0			0.1		0.1	
ISOPENTANE	0.1			0.3		0.4	
CYCLOPENTANE	TRACE			0.1		0.1	
HEXANES PLUS	0.0			0.1		0.1	
NITROGEN	14.9			12.0		12.5	
OXYGEN	0.0			TRACE		TRACE	
ARGON	0.1			TRACE		TRACE	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.1		0.1	
HELIUM	0.70			0.40		0.40	
HEATING VALUE	983			1048		1040	
SPECIFIC GRAVITY	0.698			0.705		0.705	

		INDEX SAMPLE	895 6698	INDEX SAMPLE	896 13742	INDEX SAMPLE	897 13419
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	HANSFORD			HANSFORD		HANSFORD	
FIELD	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS & OKLAHOMA	
LOCATION	16 IN. H LINE			PLANT INLET		INLET	
OWNER	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
SAMPLED	07/03/58			10/03/73		10/04/72	
FORMATION	NOT GIVEN			NOT GIVEN		PERM-CHASE GROUP	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	210			200		365	
FLOW, MCFD	11000			NOT GIVEN		200000	
COMPONENT, MOLE PCT							
METHANE	69.2			72.6		71.6	
ETHANE	5.9			6.5		7.0	
PROPANE	3.7			4.2		4.3	
N-BUTANE	1.1			1.2		1.3	
ISOBUTANE	0.6			0.6		0.6	
N-PENTANE	0.2			0.2		0.4	
ISOPENTANE	0.3			0.3		0.1	
CYCLOPENTANE	TRACE			TRACE		TRACE	
HEXANES PLUS	0.1			0.1		0.2	
NITROGEN	18.1			13.5		13.8	
OXYGEN	0.0			0.0		0.0	
ARGON	0.1			0.1		0.1	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			TRACE		0.1	
HELIUM	0.70			0.64		0.55	
HEATING VALUE	987			1048		1058	
SPECIFIC GRAVITY	0.733			0.721		0.732	

		INDEX SAMPLE	898 15423	INDEX SAMPLE	899 17033	INDEX SAMPLE	900 12129
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	HANSFORD			HANSFORD		HANSFORD	
FIELD	HUGOTON, TEXAS & OKLAHOMA			OK. & TX. PANHANDLE		PANHANDLE W	
LOCATION	20 IN. INLET			20 IN. PLT. OUTLET		INLET	
OWNER	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
SAMPLED	10/17/78			08/29/83		12/03/69	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	350			348		NOT GIVEN	
FLOW, MCFD	60000			32110		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	77.6			77.7		71.5	
ETHANE	7.1			7.0		6.3	
PROPANE	4.0			4.6		4.2	
N-BUTANE	1.2			0.1		1.1	
ISOBUTANE	0.5			0.1		0.6	
N-PENTANE	0.3			0.3		0.4	
ISOPENTANE	0.3			0.1		0.0	
CYCLOPENTANE	0.1			TRACE		0.1	
HEXANES PLUS	0.2			TRACE		0.1	
NITROGEN	7.5			10.7		14.7	
OXYGEN	0.0			0.0		TRACE	
ARGON	TRACE			0.1		0.1	
HYDROGEN	0.1			0.3		TRACE	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.1		0.2	
HELIUM	0.27			0.58		0.71	
HEATING VALUE	1135			1018		1035	
SPECIFIC GRAVITY	0.713			0.674		0.729	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1145

INDEX 901 SAMPLE 15422		INDEX 902 SAMPLE 17073		INDEX 903 SAMPLE 17053	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HANSFORD	COUNTY.....	HANSFORD	COUNTY.....	HANSFORD
FIELD.....	TEX. DEEP & GUYMON HUGOTON	FIELD.....	TEXAS & GUYMON HUGOTON	FIELD.....	TEXAS & GUYMON-HUGOTON
LOCATION.....	24 IN. INLET	LOCATION.....	A,B,C,D,E & F LINES	LOCATION.....	COMO, HAM & HOUGH LINES
OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	10/17/78	SAMPLED.....	09/27/83	SAMPLED.....	09/09/83
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360	GEOLOGIC PROVINCE CODE.....	360
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	200	PRESSURE, PSIG.....	120	PRESSURE, PSIG.....	210
FLOW, MCFD.....	42000	FLOW, MCFD.....	38000	FLOW, MCFD.....	34000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.6	METHANE.....	74.1	METHANE.....	80.0
ETHANE.....	8.1	ETHANE.....	5.7	ETHANE.....	8.2
PROPANE.....	4.7	PROPANE.....	3.9	PROPANE.....	5.4
N-BUTANE.....	1.2	N-BUTANE.....	1.3	N-BUTANE.....	1.7
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.6
N-PENTANE.....	0.3	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.3	ISOPENTANE.....	NOT GIVEN	ISOPENTANE.....	0.7
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	1.6	NITROGEN.....	11.8	NITROGEN.....	2.4
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.0	ARGON.....	0.1	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.3	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1
HELIUM.....	0.09	HELIUM.....	0.40	HELIUM.....	0.10
HEATING VALUE.....	1201	HEATING VALUE.....	1072	HEATING VALUE.....	1233
SPECIFIC GRAVITY.....	0.693	SPECIFIC GRAVITY.....	0.720	SPECIFIC GRAVITY.....	0.720

INDEX 904 SAMPLE 2071		INDEX 905 SAMPLE 2296		INDEX 906 SAMPLE 2378	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HARRIS	COUNTY.....	HARTLEY	COUNTY.....	HARTLEY
FIELD.....	PANHANDLE	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	INLET	LOCATION.....	INLET	LOCATION.....	CHANNING, TEXAS
OWNER.....	HUMBLE OIL & REFINING CO.	OWNER.....	CANADIAN RIVER GAS CO.	OWNER.....	CANADIAN RIVER GAS CO.
SAMPLED.....	06/19/30	SAMPLED.....	02/06/31	SAMPLED.....	08/28/31
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	220	GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	435
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	130	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	60	FLOW, MCFD.....	30
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.6	METHANE.....	63.1	METHANE.....	58.5
ETHANE.....	21.1	ETHANE.....	11.1	ETHANE.....	18.7
PROPANE.....	---	PROPANE.....	---	PROPANE.....	---
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	---
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	---
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	---
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	---
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	---
NITROGEN.....	0.5	NITROGEN.....	17.5	NITROGEN.....	21.3
OXYGEN.....	0.2	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	---	ARGON.....	---	ARGON.....	---
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	---
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.6	CARBON DIOXIDE.....	0.1
HELIUM.....	0.02	HELIUM.....	1.36	HELIUM.....	1.28
HEATING VALUE.....	1164	HEATING VALUE.....	902	HEATING VALUE.....	928
SPECIFIC GRAVITY.....	0.668	SPECIFIC GRAVITY.....	0.683	SPECIFIC GRAVITY.....	0.731

INDEX 907 SAMPLE 2597		INDEX 908 SAMPLE 2627		INDEX 909 SAMPLE 11854	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HARTLEY	COUNTY.....	HARTLEY	COUNTY.....	HARTLEY
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	NOT GIVEN	LOCATION.....	PIPELINE SAMPLE	LOCATION.....	SEC. 6, BLK. 2, G&M SUR.
OWNER.....	CANADIAN RIVER GAS CO.	OWNER.....	CANADIAN RIVER GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.
SAMPLED.....	1/22/53	SAMPLED.....	01/22/53	SAMPLED.....	05/05/69
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	PERM-WICHITA-ALBANY
GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	435
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	50	FLOW, MCFD.....	15	FLOW, MCFD.....	5000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	63.5	METHANE.....	62.8	METHANE.....	70.3
ETHANE.....	14.4	ETHANE.....	16.2	ETHANE.....	5.8
PROPANE.....	---	PROPANE.....	---	PROPANE.....	3.2
N-BUTANE.....	---	N-BUTANE.....	---	N-BUTANE.....	---
ISOBUTANE.....	---	ISOBUTANE.....	---	ISOBUTANE.....	0.3
N-PENTANE.....	---	N-PENTANE.....	---	N-PENTANE.....	0.3
ISOPENTANE.....	---	ISOPENTANE.....	---	ISOPENTANE.....	0.3
CYCLOPENTANE.....	---	CYCLOPENTANE.....	---	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	---	HEXANES PLUS.....	---	HEXANES PLUS.....	0.3
NITROGEN.....	20.0	NITROGEN.....	10.8	NITROGEN.....	16.4
OXYGEN.....	0.3	OXYGEN.....	0.3	OXYGEN.....	0.1
ARGON.....	---	ARGON.....	---	ARGON.....	0.1
HYDROGEN.....	---	HYDROGEN.....	---	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	---	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.9
HELIUM.....	1.27	HELIUM.....	1.18	HELIUM.....	0.87
HEATING VALUE.....	901	HEATING VALUE.....	926	HEATING VALUE.....	991
SPECIFIC GRAVITY.....	0.709	SPECIFIC GRAVITY.....	0.716	SPECIFIC GRAVITY.....	0.732

INDEX 910 SAMPLE 6980		INDEX 911 SAMPLE 6931		INDEX 912 SAMPLE 2063	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HOCKLEY	COUNTY.....	HOCKLEY	COUNTY.....	HOWARD
FIELD.....	LEVELLAND	FIELD.....	SLAUGHTER	FIELD.....	CHALK
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	PLANT RESIDUE
OWNER.....	PAN AMERICAN PETROLEUM CORP.	OWNER.....	PAN AMERICAN PETROLEUM CORP.	OWNER.....	MAGNOLIA PETROLEUM CO.
SAMPLED.....	03/05/59	SAMPLED.....	02/11/59	SAMPLED.....	06/14/30
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	70.1	METHANE.....	79.8	METHANE.....	50.6
ETHANE.....	12.2	ETHANE.....	9.1	ETHANE.....	26.3
PROPANE.....	0.9	PROPANE.....	1.4	PROPANE.....	---
N-BUTANE.....	0.0	N-BUTANE.....	0.0	N-BUTANE.....	---
ISOBUTANE.....	0.0	ISOBUTANE.....	0.0	ISOBUTANE.....	---
N-PENTANE.....	TRACE	N-PENTANE.....	0.0	N-PENTANE.....	---
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	---
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	---
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0	HEXANES PLUS.....	---
NITROGEN.....	16.4	NITROGEN.....	9.6	NITROGEN.....	21.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.9
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	---
HYDROGEN.....	0.1	HYDROGEN.....	TRACE	HYDROGEN.....	---
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	---
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.4
HELIUM.....	0.1	HELIUM.....	0.15	HELIUM.....	0.05
HEATING VALUE.....	952	HEATING VALUE.....	1008	HEATING VALUE.....	984
SPECIFIC GRAVITY.....	0.691	SPECIFIC GRAVITY.....	0.654	SPECIFIC GRAVITY.....	0.783

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	913 16811	INDEX SAMPLE	914 15485	INDEX SAMPLE	915 5352
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	ANADARKO BASIN			BUFFALO VALLEY, ET AL.		HENDERSON TRUST CO.	
LOCATION.....	30 IN. DISCHARGE			30 IN. DISCHARGE		PLANT RESIDUE	
OWNER.....	NATURAL GAS PIPELINE CO. OF			NATURAL GAS PIPELINE CO. OF		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	03/14/83			11/13/78		12/11/52	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	1646			485		NOT GIVEN	
FLOW, MCFD.....	218000			140000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	93.9	---	---	97.1	---	76.7	---
ETHANE.....	2.7	---	---	0.9	---	6.7	---
PROPANE.....	0.6	---	---	0.1	---	4.6	---
N-BUTANE.....	0.2	---	---	0.1	---	1.0	---
ISOBUTANE.....	TRACE	---	---	0.0	---	0.6	---
N-PENTANE.....	TRACE	---	---	TRACE	---	0.2	---
ISOPENTANE.....	TRACE	---	---	0.0	---	0.0	---
CYCLOPENTANE.....	TRACE	---	---	TRACE	---	TRACE	---
HEXANES PLUS.....	TRACE	---	---	0.1	---	0.1	---
NITROGEN.....	1.2	---	---	1.1	---	9.4	---
OXYGEN.....	0.0	---	---	0.0	---	0.1	---
ARGON.....	TRACE	---	---	TRACE	---	0.1	---
HYDROGEN.....	0.2	---	---	0.1	---	0.0	---
HYDROGEN SULFIDE.....	0.0	---	---	0.0	---	0.0	---
CARBON DIOXIDE.....	0.9	---	---	0.5	---	0.3	---
HELIUM.....	0.06	---	---	0.03	---	0.40	---
HEATING VALUE.....	1023	---	---	1011	---	1084	---
SPECIFIC GRAVITY.....	0.588	---	---	0.573	---	0.706	---
		INDEX SAMPLE	916 10953	INDEX SAMPLE	917 6527	INDEX SAMPLE	918 1794
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	NOT GIVEN			PANHANDLE		PANHANDLE W	
LOCATION.....	NOT GIVEN			STA. 900-3		RESIDUE GAS	
OWNER.....	HARCO PRODUCTION CO.			SHARROCK OIL & GAS CORP.		PHILLIPS PETROLEUM CO.	
SAMPLED.....	05/09/67			03/21/58		06/11/29	
FORMATION.....	PERM-WICHITA-ALBANY&RED CAVE			PERM-WICHITA-ALBANY		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	175			231		NOT GIVEN	
FLOW, MCFD.....	106000			43957		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	75.9	---	---	72.6	---	69.4	---
ETHANE.....	6.6	---	---	8.7	---	19.9	---
PROPANE.....	3.9	---	---	5.6	---	---	---
N-BUTANE.....	1.1	---	---	---	---	---	---
ISOBUTANE.....	0.8	---	---	1.0	---	---	---
N-PENTANE.....	0.3	---	---	0.4	---	---	---
ISOPENTANE.....	0.4	---	---	0.4	---	---	---
CYCLOPENTANE.....	0.1	---	---	0.1	---	---	---
HEXANES PLUS.....	0.2	---	---	0.3	---	---	---
NITROGEN.....	5.8	---	---	8.2	---	9.2	---
OXYGEN.....	0.0	---	---	TRACE	---	0.6	---
ARGON.....	TRACE	---	---	TRACE	---	---	---
HYDROGEN.....	0.1	---	---	0.0	---	---	---
HYDROGEN SULFIDE.....	0.0	---	---	TRACE	---	---	---
CARBON DIOXIDE.....	0.3	---	---	0.3	---	0.4	---
HELIUM.....	0.46	---	---	0.40	---	0.38	---
HEATING VALUE.....	1097	---	---	1191	---	1060	---
SPECIFIC GRAVITY.....	0.716	---	---	0.753	---	0.696	---
		INDEX SAMPLE	919 2456	INDEX SAMPLE	920 2511	INDEX SAMPLE	921 4381
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	NOT GIVEN			NOT GIVEN		BORGER, TEXAS	
OWNER.....	AMARILLO OIL CO.			AMARILLO NATURAL GAS CO.		J. N. HUBER CORP.	
SAMPLED.....	01/29/32			07/12/32		01/13/48	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	70			55		NOT GIVEN	
FLOW, MCFD.....	3500			3000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	73.8	---	---	66.3	---	70.6	---
ETHANE.....	17.6	---	---	22.8	---	20.7	---
PROPANE.....	---	---	---	---	---	---	---
N-BUTANE.....	---	---	---	---	---	---	---
ISOBUTANE.....	---	---	---	---	---	---	---
N-PENTANE.....	---	---	---	---	---	---	---
ISOPENTANE.....	---	---	---	---	---	---	---
CYCLOPENTANE.....	---	---	---	---	---	---	---
HEXANES PLUS.....	---	---	---	---	---	---	---
NITROGEN.....	1.5	---	---	10.1	---	7.8	---
OXYGEN.....	0.2	---	---	0.4	---	0.2	---
ARGON.....	---	---	---	---	---	---	---
HYDROGEN.....	---	---	---	---	---	---	---
HYDROGEN SULFIDE.....	---	---	---	---	---	---	---
CARBON DIOXIDE.....	0.5	---	---	0.0	---	0.3	---
HELIUM.....	0.38	---	---	0.40	---	0.41	---
HEATING VALUE.....	1063	---	---	1080	---	1086	---
SPECIFIC GRAVITY.....	0.677	---	---	0.709	---	0.691	---
		INDEX SAMPLE	922 4382	INDEX SAMPLE	923 4383	INDEX SAMPLE	924 5185
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	HUTCHINSON			HUTCHINSON		HUTCHINSON	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	BORGER, TEXAS			BORGER, TEXAS		FRITCH TEXAS	
OWNER.....	J. N. HUBER CORP.			J. N. HUBER CORP.		NATURAL GAS PIPELINE CO. OF	
SAMPLED.....	01/13/48			01/13/48		04/29/52	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		710	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		225000	
COMPONENT, MOLE PCT							
METHANE.....	69.9	---	---	70.9	---	79.6	---
ETHANE.....	22.3	---	---	19.6	---	5.7	---
PROPANE.....	---	---	---	---	---	3.6	---
N-BUTANE.....	---	---	---	---	---	0.6	---
ISOBUTANE.....	---	---	---	---	---	0.4	---
N-PENTANE.....	---	---	---	---	---	0.1	---
ISOPENTANE.....	---	---	---	---	---	0.1	---
CYCLOPENTANE.....	---	---	---	---	---	0.0	---
HEXANES PLUS.....	---	---	---	---	---	0.0	---
NITROGEN.....	7.0	---	---	8.6	---	9.3	---
OXYGEN.....	0.1	---	---	0.1	---	0.0	---
ARGON.....	---	---	---	---	---	0.0	---
HYDROGEN.....	---	---	---	---	---	0.0	---
HYDROGEN SULFIDE.....	---	---	---	---	---	0.2	---
CARBON DIOXIDE.....	0.3	---	---	0.3	---	0.44	---
HELIUM.....	0.37	---	---	0.53	---	1044	---
HEATING VALUE.....	1108	---	---	1069	---	1044	---
SPECIFIC GRAVITY.....	0.695	---	---	0.688	---	0.676	---

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1147

	INDEX SAMPLE	925 5186		INDEX SAMPLE	926 5534		INDEX SAMPLE	927 5536
STATE.....	TEXAS		TEXAS	HUTCHINSON		TEXAS	HUTCHINSON	
COUNTY.....	PANHANDLE W		HUTCHINSON	PANHANDLE W		HUTCHINSON	PANHANDLE W	
FIELD.....	NOT GIVEN		26 IN. LINE	NOT GIVEN		INLET GAS	NOT GIVEN	
LOCATION.....	WEST TEXAS GAS CO.		NATURAL GAS PIPELINE CO. OF			COLORADO INTERSTATE GAS CO.		
OWNER.....	08/14/53		08/14/53			08/14/53		
SAMPLED.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FORMATION.....	440		440			440		
GEOLOGIC PROVINCE CODE.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
DEPTH, FEET.....	375		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	40000		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....			NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.4		77.4			76.6		
ETHANE.....	5.4		7.2			6.5		
PROPANE.....	3.2		3.8			3.5		
N-BUTANE.....	0.5		0.7			1.1		
ISOBUTANE.....	0.3		0.3			0.5		
N-PENTANE.....	0.0		0.2			0.3		
ISOPENTANE.....	0.1		0.0			0.1		
CYCLOPENTANE.....	0.0		0.0			TRACE		
HEXANES PLUS.....	0.0		0.1			0.2		
NITROGEN.....	10.3		7.7			10.5		
OXYGEN.....	0.1		0.2			TRACE		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.2		
HELIUM.....	0.53		0.42			0.49		
HEATING VALUE.....	1015		1059			1065		
SPECIFIC GRAVITY.....	0.670		0.690			0.702		

	INDEX SAMPLE	928 5537		INDEX SAMPLE	929 6664		INDEX SAMPLE	930 6667
STATE.....	TEXAS		TEXAS	HUTCHINSON		TEXAS	HUTCHINSON	
COUNTY.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
FIELD.....	24 IN. OUTLET		22 IN. LINE			16 IN. LINE		
LOCATION.....	NATURAL GAS PIPELINE CO. OF		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
OWNER.....	08/14/53		06/19/58			06/19/58		
SAMPLED.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FORMATION.....	440		440			440		
GEOLOGIC PROVINCE CODE.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		160			160		
FLOW, MCFD.....	NOT GIVEN		70000			70000		
COMPONENT, MOLE PCT								
METHANE.....	78.4		76.7			80.7		
ETHANE.....	6.3		6.0			6.3		
PROPANE.....	3.6		3.3			3.3		
N-BUTANE.....	0.6		1.1			0.2		
ISOBUTANE.....	0.4		0.6			0.1		
N-PENTANE.....	0.1		0.1			0.0		
ISOPENTANE.....	0.0		0.5			0.1		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	TRACE		0.2			0.0		
NITROGEN.....	9.8		10.2			10.0		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.2			0.1		
HELIUM.....	0.37		0.40			0.50		
HEATING VALUE.....	1038		1061			994		
SPECIFIC GRAVITY.....	0.678		0.703			0.652		

	INDEX SAMPLE	931 6668		INDEX SAMPLE	932 6669		INDEX SAMPLE	933 6670
STATE.....	TEXAS		TEXAS	HUTCHINSON		TEXAS	HUTCHINSON	
COUNTY.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
FIELD.....	24 IN. LINE		12 IN. LINE			18 IN. LINE		
LOCATION.....	J. M. HUBER CORP.		J. M. HUBER CORP.			J. M. HUBER CORP.		
OWNER.....	07/01/58		07/01/58			07/01/58		
SAMPLED.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FORMATION.....	440		440			440		
GEOLOGIC PROVINCE CODE.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	59000		65			60		
FLOW, MCFD.....			6000			70000		
COMPONENT, MOLE PCT								
METHANE.....	74.0		78.3			75.7		
ETHANE.....	8.2		7.1			7.5		
PROPANE.....	5.1		3.6			4.9		
N-BUTANE.....	1.8		1.5			1.5		
ISOBUTANE.....	1.0		0.9			0.7		
N-PENTANE.....	0.4		0.3			0.1		
ISOPENTANE.....	0.5		0.3			0.4		
CYCLOPENTANE.....	0.1		0.0			0.0		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	7.7		8.3			8.5		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.4		0.0			0.2		
HELIUM.....	0.30		0.40			0.40		
HEATING VALUE.....	1182		1103			1129		
SPECIFIC GRAVITY.....	0.749		0.704			0.722		

	INDEX SAMPLE	934 6671		INDEX SAMPLE	935 6677		INDEX SAMPLE	936 6678
STATE.....	TEXAS		TEXAS	HUTCHINSON		TEXAS	HUTCHINSON	
COUNTY.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
FIELD.....	22 IN. LINE		24 IN. INLET			24 IN. LINE		
LOCATION.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
OWNER.....	07/01/58		07/01/58			07/01/58		
SAMPLED.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FORMATION.....	440		440			440		
GEOLOGIC PROVINCE CODE.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
DEPTH, FEET.....	160		110			110		
PRESSURE, PSIG.....	5500		5000			65000		
FLOW, MCFD.....								
COMPONENT, MOLE PCT								
METHANE.....	72.9		76.1			75.5		
ETHANE.....	4.6		7.0			7.0		
PROPANE.....	2.8		4.2			4.1		
N-BUTANE.....	0.8		1.4			1.4		
ISOBUTANE.....	0.3		0.8			0.8		
N-PENTANE.....	TRACE		0.5			0.2		
ISOPENTANE.....	0.4		0.1			0.4		
CYCLOPENTANE.....	0.0		0.1			0.1		
HEXANES PLUS.....	TRACE		0.2			0.2		
NITROGEN.....	16.7		8.7			9.4		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.3			0.3		
HELIUM.....	1.10		0.40			0.40		
HEATING VALUE.....	1137		1123			1110		
SPECIFIC GRAVITY.....	0.696		0.721			0.721		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	937 6680			INDEX SAMPLE	938 6681			INDEX SAMPLE	939 6682
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	HUTCHINSON			COUNTY.....	HUTCHINSON			COUNTY.....	HUTCHINSON		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
LOCATION.....	DISCHARGE			LOCATION.....	22 IN. LINE			LOCATION.....	22 IN. LINE		
OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.		
SAMPLED.....	07/01/58			SAMPLED.....	07/01/58			SAMPLED.....	07/01/58		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	95			PRESSURE, PSIG.....	90			PRESSURE, PSIG.....	85		
FLOW, MCFD.....	70000			FLOW, MCFD.....	40000			FLOW, MCFD.....	50000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	81.0	-----		METHANE.....	78.2	-----		METHANE.....	78.9	-----	
ETHANE.....	6.2	-----		ETHANE.....	8.3	-----		ETHANE.....	6.7	-----	
PROpane.....	2.0	-----		PROpane.....	3.9	-----		PROpane.....	3.5	-----	
N-BUTANE.....	0.3	-----		N-BUTANE.....	0.1	-----		N-BUTANE.....	1.1	-----	
ISOBUTANE.....	0.1	-----		ISOBUTANE.....	0.2	-----		ISOBUTANE.....	0.6	-----	
N-PENTANE.....	0.0	-----		N-PENTANE.....	0.0	-----		N-PENTANE.....	0.2	-----	
ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.3	-----	
CYCLOPENTANE.....	0.0	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.0	-----		HEXANES PLUS.....	0.0	-----		HEXANES PLUS.....	0.2	-----	
NITROGEN.....	9.6	-----		NITROGEN.....	8.4	-----		NITROGEN.....	8.2	-----	
OXYGEN.....	0.0	-----		OXYGEN.....	TRACE	-----		OXYGEN.....	TRACE	-----	
ARGON.....	TRACE	-----		ARGON.....	TRACE	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.0	-----		CARBON DIOXIDE.....	0.0	-----		CARBON DIOXIDE.....	0.1	-----	
HELIUM.....	0.40	-----		HELIUM.....	0.40	-----		HELIUM.....	0.20	-----	
HEATING VALUE.....	1005	-----		HEATING VALUE.....	1061	-----		HEATING VALUE.....	1103	-----	
SPECIFIC GRAVITY.....	0.657	-----		SPECIFIC GRAVITY.....	0.679	-----		SPECIFIC GRAVITY.....	0.699	-----	

		INDEX SAMPLE	940 6683			INDEX SAMPLE	941 6684			INDEX SAMPLE	942 6685
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	HUTCHINSON			COUNTY.....	HUTCHINSON			COUNTY.....	HUTCHINSON		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
LOCATION.....	20 IN. LINE			LOCATION.....	24 IN. LINE			LOCATION.....	24 IN. LINE		
OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.		
SAMPLED.....	07/01/58			SAMPLED.....	07/01/58			SAMPLED.....	07/01/58		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	90			PRESSURE, PSIG.....	105			PRESSURE, PSIG.....	105		
FLOW, MCFD.....	10000			FLOW, MCFD.....	35000			FLOW, MCFD.....	45000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	77.2	-----		METHANE.....	80.6	-----		METHANE.....	73.9	-----	
ETHANE.....	6.1	-----		ETHANE.....	6.6	-----		ETHANE.....	8.7	-----	
PROpane.....	3.8	-----		PROpane.....	5.6	-----		PROpane.....	5.9	-----	
N-BUTANE.....	1.5	-----		N-BUTANE.....	0.5	-----		N-BUTANE.....	1.6	-----	
ISOBUTANE.....	0.9	-----		ISOBUTANE.....	0.2	-----		ISOBUTANE.....	1.0	-----	
N-PENTANE.....	0.3	-----		N-PENTANE.....	0.0	-----		N-PENTANE.....	0.2	-----	
ISOPENTANE.....	0.7	-----		ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.6	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.3	-----		HEXANES PLUS.....	TRACE	-----		HEXANES PLUS.....	0.3	-----	
NITROGEN.....	8.4	-----		NITROGEN.....	8.4	-----		NITROGEN.....	7.7	-----	
OXYGEN.....	TRACE	-----		OXYGEN.....	0.0	-----		OXYGEN.....	TRACE	-----	
ARGON.....	TRACE	-----		ARGON.....	TRACE	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.4	-----		CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.3	-----	
HELIUM.....	0.40	-----		HELIUM.....	0.00	-----		HELIUM.....	0.40	-----	
HEATING VALUE.....	1120	-----		HEATING VALUE.....	1177	-----		HEATING VALUE.....	1184	-----	
SPECIFIC GRAVITY.....	0.718	-----		SPECIFIC GRAVITY.....	0.667	-----		SPECIFIC GRAVITY.....	0.749	-----	

		INDEX SAMPLE	943 6686			INDEX SAMPLE	944 7383			INDEX SAMPLE	945 7385
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	HUTCHINSON			COUNTY.....	HUTCHINSON			COUNTY.....	HUTCHINSON		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
LOCATION.....	DISCHARGE			LOCATION.....	16 IN. LINE			LOCATION.....	16 IN. LINE		
OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	COLORADO INTERSTATE GAS CO.		
SAMPLED.....	07/01/58			SAMPLED.....	02/09/60			SAMPLED.....	02/09/60		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	160			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	17000			FLOW, MCFD.....	19000			FLOW, MCFD.....	28000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	68.8	-----		METHANE.....	73.3	-----		METHANE.....	76.8	-----	
ETHANE.....	13.8	-----		ETHANE.....	8.1	-----		ETHANE.....	7.6	-----	
PROpane.....	8.2	-----		PROpane.....	5.1	-----		PROpane.....	4.5	-----	
N-BUTANE.....	1.0	-----		N-BUTANE.....	1.5	-----		N-BUTANE.....	0.8	-----	
ISOBUTANE.....	0.8	-----		ISOBUTANE.....	0.2	-----		ISOBUTANE.....	0.8	-----	
N-PENTANE.....	0.0	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	0.0	-----	
ISOPENTANE.....	0.1	-----		ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.1	-----	
CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.0	-----	
HEXANES PLUS.....	TRACE	-----		HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.0	-----	
NITROGEN.....	6.8	-----		NITROGEN.....	10.3	-----		NITROGEN.....	9.2	-----	
OXYGEN.....	0.1	-----		OXYGEN.....	TRACE	-----		OXYGEN.....	TRACE	-----	
ARGON.....	TRACE	-----		ARGON.....	TRACE	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.1	-----	
HELIUM.....	0.20	-----		HELIUM.....	0.00	-----		HELIUM.....	0.41	-----	
HEATING VALUE.....	1222	-----		HEATING VALUE.....	1108	-----		HEATING VALUE.....	1076	-----	
SPECIFIC GRAVITY.....	0.762	-----		SPECIFIC GRAVITY.....	0.726	-----		SPECIFIC GRAVITY.....	0.694	-----	

		INDEX SAMPLE	946 7386			INDEX SAMPLE	947 9234			INDEX SAMPLE	948 9236
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	HUTCHINSON			COUNTY.....	HUTCHINSON			COUNTY.....	HUTCHINSON		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
LOCATION.....	16 IN. LINE			LOCATION.....	RESIDUE FROM OUTLET			LOCATION.....	RESIDUE		
OWNER.....	COLORADO INTERSTATE GAS CO.			OWNER.....	NATURAL GAS PIPELINE CO. OF			OWNER.....	NATURAL GAS PIPELINE CO. OF		
SAMPLED.....	02/09/60			SAMPLED.....	01/27/64			SAMPLED.....	01/27/64		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	74000			FLOW, MCFD.....	150			FLOW, MCFD.....	150		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT	74300			COMPONENT, MOLE PCT	58800		
METHANE.....	72.8	-----		METHANE.....	78.2	-----		METHANE.....	80.9	-----	
ETHANE.....	6.2	-----		ETHANE.....	7.6	-----		ETHANE.....	6.8	-----	
PROpane.....	3.6	-----		PROpane.....	2.4	-----		PROpane.....	2.1	-----	
N-BUTANE.....	1.2	-----		N-BUTANE.....	0.1	-----		N-BUTANE.....	0.1	-----	
ISOBUTANE.....	0.6	-----		ISOBUTANE.....	0.1	-----		ISOBUTANE.....	0.1	-----	
N-PENTANE.....	0.2	-----		N-PENTANE.....	0.0	-----		N-PENTANE.....	0.0	-----	
ISOPENTANE.....	0.4	-----		ISOPENTANE.....	0.2	-----		ISOPENTANE.....	TRACE	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.0	-----		CYCLOPENTANE.....	0.0	-----	
HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.0	-----		HEXANES PLUS.....	0.0	-----	
NITROGEN.....	13.1	-----		NITROGEN.....	10.4	-----		NITROGEN.....	9.2	-----	
OXYGEN.....	0.9	-----		OXYGEN.....	0.1	-----		OXYGEN.....	0.1	-----	
ARGON.....	0.1	-----		ARGON.....	0.0	-----		ARGON.....	TRACE	-----	
HYDROGEN.....	0.1	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.0	-----		CARBON DIOXIDE.....	0.0	-----		CARBON DIOXIDE.....	0.2	-----	
HELIUM.....	0.47	-----		HELIUM.....	0.40	-----		HELIUM.....	0.50	-----	
HEATING VALUE.....	1043	-----		HEATING VALUE.....	1016	-----		HEATING VALUE.....	1003	-----	
SPECIFIC GRAVITY.....	0.727	-----		SPECIFIC GRAVITY.....	0.671	-----		SPECIFIC GRAVITY.....	0.651	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1149

INDEX 949 SAMPLE 13311		INDEX 950 SAMPLE 15495		INDEX 951 SAMPLE 16810	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	24 IN. DISCHARGE	LOCATION.....	24 IN. DISCHARGE	LOCATION.....	24 IN. DISCHARGE
OWNER.....	NATURAL GAS PIPELINE CO. OF	OWNER.....	NATURAL GAS PIPELINE CO. OF	OWNER.....	NATURAL GAS PIPELINE CO. OF
SAMPLED.....	07/24/72	SAMPLED.....	11/13/78	SAMPLED.....	03/14/83
FORMATION.....	PERM-WICHITA-ALBANY&RED CAVE	FORMATION.....	NOT GIVEN	FORMATION.....	PERM-WICHITA-ALBANY&RED CAVE
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	676	PRESSURE, PSIG.....	620	PRESSURE, PSIG.....	644
FLOW, MCFD.....	65800	FLOW, MCFD.....	120000	FLOW, MCFD.....	148000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.6	METHANE.....	75.9	METHANE.....	90.4
ETHANE.....	7.5	ETHANE.....	6.9	ETHANE.....	3.5
PROPANE.....	3.5	PROPANE.....	4.4	PROPANE.....	1.0
N-BUTANE.....	0.5	N-BUTANE.....	1.4	N-BUTANE.....	0.1
ISOBUTANE.....	0.4	ISOBUTANE.....	0.8	ISOBUTANE.....	0.3
N-PENTANE.....	0.1	N-PENTANE.....	0.4	N-PENTANE.....	0.0
ISOPENTANE.....	0.1	ISOPENTANE.....	0.7	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.0
NITROGEN.....	9.8	NITROGEN.....	7.9	NITROGEN.....	3.7
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.7
HELIUM.....	0.46	HELIUM.....	0.36	HELIUM.....	0.17
HEATING VALUE.....	1052	HEATING VALUE.....	1165	HEATING VALUE.....	1016
SPECIFIC GRAVITY.....	0.686	SPECIFIC GRAVITY.....	0.737	SPECIFIC GRAVITY.....	0.607

INDEX 952 SAMPLE 6663		INDEX 953 SAMPLE 6665		INDEX 954 SAMPLE 7555	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON
FIELD.....	PANHANDLE W & QUINDUNO	FIELD.....	PANHANDLE W & QUINDUNO	FIELD.....	PANHANDLE W & QUINDUNO
LOCATION.....	24 IN. LINE	LOCATION.....	24 IN. LINE	LOCATION.....	24 IN. INLET
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	NATURAL GAS PIPELINE CO. OF	OWNER.....	NATURAL GAS PIPELINE CO. OF
SAMPLED.....	06/19/58	SAMPLED.....	06/19/58	SAMPLED.....	05/18/60
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	700	PRESSURE, PSIG.....	160	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	200000	FLOW, MCFD.....	60000	FLOW, MCFD.....	68
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	79.2	METHANE.....	79.9	METHANE.....	79.0
ETHANE.....	6.1	ETHANE.....	6.4	ETHANE.....	6.9
PROPANE.....	2.2	PROPANE.....	3.5	PROPANE.....	3.8
N-BUTANE.....	0.6	N-BUTANE.....	1.2	N-BUTANE.....	0.6
ISOBUTANE.....	0.4	ISOBUTANE.....	0.7	ISOBUTANE.....	0.7
N-PENTANE.....	0.0	N-PENTANE.....	0.1	N-PENTANE.....	0.3
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.4
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	9.7	NITROGEN.....	6.9	NITROGEN.....	6.9
OXYGEN.....	TRACE	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2
HELIUM.....	0.40	HELIUM.....	0.30	HELIUM.....	0.30
HEATING VALUE.....	1034	HEATING VALUE.....	1123	HEATING VALUE.....	1130
SPECIFIC GRAVITY.....	0.676	SPECIFIC GRAVITY.....	0.700	SPECIFIC GRAVITY.....	0.705

INDEX 955 SAMPLE 7556		INDEX 956 SAMPLE 13312		INDEX 957 SAMPLE 14488	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	HUTCHINSON	COUNTY.....	HUTCHINSON	COUNTY.....	KIMBLE
FIELD.....	PANHANDLE W & QUINDUNO	FIELD.....	PANHANDLE W, ET AL.	FIELD.....	WEST TEXAS AREA
LOCATION.....	24 IN. COMPOSITE OUTLET	LOCATION.....	36 IN. DISCHARGE	LOCATION.....	36 IN.
OWNER.....	NATURAL GAS PIPELINE CO. OF	OWNER.....	NATURAL GAS PIPELINE CO. OF	OWNER.....	OASIS PIPE LINE CO.
SAMPLED.....	05/18/60	SAMPLED.....	07/24/72	SAMPLED.....	10/08/75
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	410
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	520	PRESSURE, PSIG.....	676	PRESSURE, PSIG.....	740
FLOW, MCFD.....	232	FLOW, MCFD.....	95300	FLOW, MCFD.....	800000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	80.0	METHANE.....	78.4	METHANE.....	94.5
ETHANE.....	7.0	ETHANE.....	7.0	ETHANE.....	2.8
PROPANE.....	7.2	PROPANE.....	7.6	PROPANE.....	0.9
N-BUTANE.....	0.7	N-BUTANE.....	0.4	N-BUTANE.....	0.2
ISOBUTANE.....	0.6	ISOBUTANE.....	0.4	ISOBUTANE.....	0.1
N-PENTANE.....	TRACE	N-PENTANE.....	0.1	N-PENTANE.....	0.1
ISOPENTANE.....	0.1	ISOPENTANE.....	0.1	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	TRACE
NITROGEN.....	7.4	NITROGEN.....	9.5	NITROGEN.....	0.7
OXYGEN.....	TRACE	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.7
HELIUM.....	0.30	HELIUM.....	0.33	HELIUM.....	0.03
HEATING VALUE.....	1080	HEATING VALUE.....	1043	HEATING VALUE.....	1050
SPECIFIC GRAVITY.....	0.679	SPECIFIC GRAVITY.....	0.678	SPECIFIC GRAVITY.....	0.596

INDEX 958 SAMPLE 16110		INDEX 959 SAMPLE 12070		INDEX 960 SAMPLE 14479	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	LAMB	COUNTY.....	LAMB	COUNTY.....	LAMB
FIELD.....	PERMIAN BASIN	FIELD.....	WEST TEXAS DELAWARE BASIN	FIELD.....	WEST TEXAS DELAWARE BASIN
LOCATION.....	24 IN. OUTLET	LOCATION.....	NOT GIVEN	LOCATION.....	24 IN.
OWNER.....	EL PASO NATURAL GAS CO.	OWNER.....	EL PASO NATURAL GAS CO.	OWNER.....	EL PASO NATURAL GAS CO.
SAMPLED.....	10/20/80	SAMPLED.....	09/29/69	SAMPLED.....	10/09/75
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	435	GEOLOGIC PROVINCE CODE.....	435
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	725	PRESSURE, PSIG.....	730	PRESSURE, PSIG.....	610
FLOW, MCFD.....	130000	FLOW, MCFD.....	500000	FLOW, MCFD.....	500000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	88.0	METHANE.....	84.5	METHANE.....	85.6
ETHANE.....	5.4	ETHANE.....	7.6	ETHANE.....	7.1
PROPANE.....	0.8	PROPANE.....	1.4	PROPANE.....	1.0
N-BUTANE.....	0.1	N-BUTANE.....	0.1	N-BUTANE.....	0.1
ISOBUTANE.....	TRACE	ISOBUTANE.....	0.0	ISOBUTANE.....	0.1
N-PENTANE.....	0.1	N-PENTANE.....	0.1	N-PENTANE.....	TRACE
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	4.4	NITROGEN.....	5.3	NITROGEN.....	4.0
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.0	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	1.9
HELIUM.....	0.05	HELIUM.....	0.06	HELIUM.....	0.05
HEATING VALUE.....	1025	HEATING VALUE.....	1041	HEATING VALUE.....	1027
SPECIFIC GRAVITY.....	0.625	SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.636

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 961			INDEX 962			INDEX 963		
SAMPLE 2020			SAMPLE 16121			SAMPLE 13947		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	LOVING		LYNN			MATAGORDA		
FIELD.....	WHEAT		WEST TEXAS PERMIAN BASIN			BRAZOS BLK. 445(G)		
LOCATION.....	PORTERVILLE, TX.		OUTLET			STATE TRACT 445-L		
OWNER.....	LOCKHART & CO.		PIONEER PRODUCTION CORP.			MONSANTO CO.		
SAMPLED.....	06/06/30		10/20/80			03/10/74		
FORMATION.....	NOT GIVEN		NOT GIVEN			MIOC-G SAND		
GEOLOGIC PROVINCE CODE.....	430		430			220		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		450			2500		
FLOW, MCFD.....	NOT GIVEN		70000			14000		
COMPONENT, MOLE PCT								
METHANE.....	81.0		93.6			95.9		
ETHANE.....	17.1		3.2			1.8		
PROPANE.....	---		0.7			0.5		
N-BUTANE.....	---		0.2			TRACE		
ISOBUTANE.....	---		TRACE			0.2		
N-PENTANE.....	---		0.0			0.0		
ISOPENTANE.....	---		0.0			0.1		
CYCLOPENTANE.....	---		TRACE			TRACE		
HEXANES PLUS.....	---		0.1			0.1		
NITROGEN.....	1.5		2.0			0.9		
OXYGEN.....	0.3		0.0			TRACE		
ARGON.....	---		TRACE			0.0		
HYDROGEN.....	---		0.0			0.1		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.0			0.3		
HELIUM.....	0.04		0.03			0.01		
HEATING VALUE.....	1027		1040			1033		
SPECIFIC GRAVITY.....	0.648		0.594			0.581		

INDEX 964			INDEX 965			INDEX 966		
SAMPLE 2066			SAMPLE 798			SAMPLE 15434		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MITCHELL		MONTAGUE			MOORE		
FIELD.....	WETBROOK		NOT GIVEN			COMPOSITE		
LOCATION.....	SEC. 11, BLK. 28, T&P SUR.		8 M. N. NOCONA			24 IN. INLET		
OWNER.....	MAGNOLIA PETROLEUM CO.		TEXAS OIL CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	06/18/30		03/22/23			10/20/78		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430		420			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		250			225		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			147000		
COMPONENT, MOLE PCT								
METHANE.....	39.0		51.7			72.3		
ETHANE.....	52.0		10.9			7.2		
PROPANE.....	---		---			5.1		
N-BUTANE.....	---		---			1.9		
ISOBUTANE.....	---		---			0.8		
N-PENTANE.....	---		---			0.4		
ISOPENTANE.....	---		---			0.5		
CYCLOPENTANE.....	---		---			0.1		
HEXANES PLUS.....	---		---			0.3		
NITROGEN.....	6.3		44.1			10.4		
OXYGEN.....	0.3		0.0			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		---			0.1		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	2.5		0.2			0.5		
HELIUM.....	0.27		1.01			0.50		
HEATING VALUE.....	1327		576			1143		
SPECIFIC GRAVITY.....	0.864		0.748			0.755		

INDEX 967			INDEX 968			INDEX 969		
SAMPLE 15435			SAMPLE 6526			SAMPLE 6693		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	COMPOSITE		HUGOTON, TEXAS			HUGOTON, TEXAS		
LOCATION.....	COMPRESSOR PLANT DISCHARGE		NOT GIVEN			SEC. 29, BLK. 2-T, T&NO SUR.		
OWNER.....	EL PASO NATURAL GAS CO.		SHAMROCK OIL & GAS CORP.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	10/20/78		03/21/58			07/03/58		
FORMATION.....	NOT GIVEN		PERM-CHASE GROUP			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	552		227			185		
FLOW, MCFD.....	429600		97525			105000		
COMPONENT, MOLE PCT								
METHANE.....	88.0		71.2			70.5		
ETHANE.....	4.7		6.4			6.7		
PROPANE.....	1.2		3.7			3.8		
N-BUTANE.....	0.2		1.2			1.2		
ISOBUTANE.....	0.1		0.6			0.7		
N-PENTANE.....	TRACE		0.1			0.2		
ISOPENTANE.....	0.0		0.3			0.4		
CYCLOPENTANE.....	TRACE		44.0			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	5.2		15.5			15.3		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		0.1			0.1		
HYDROGEN.....	0.1		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.2		
HELIUM.....	0.18		0.80			0.80		
HEATING VALUE.....	1022		1015			1037		
SPECIFIC GRAVITY.....	0.619		0.726			0.737		

INDEX 970			INDEX 971			INDEX 972		
SAMPLE 6964			SAMPLE 6965			SAMPLE 6966		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	HUGOTON, TEXAS		HUGOTON, TEXAS			HUGOTON, TEXAS		
LOCATION.....	INLET NO. D-3		TEXAS HUGOTON			D-3-29		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	02/16/59		02/16/59			02/16/59		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	69.6		72.3			70.6		
ETHANE.....	6.6		6.6			6.7		
PROPANE.....	4.3		4.1			4.1		
N-BUTANE.....	1.4		1.2			1.3		
ISOBUTANE.....	0.7		0.6			0.6		
N-PENTANE.....	0.3		0.2			0.3		
ISOPENTANE.....	0.3		0.2			0.3		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.4		0.2			0.3		
NITROGEN.....	15.2		11.6			14.7		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.80		0.70			0.70		
HEATING VALUE.....	1059		1049			1050		
SPECIFIC GRAVITY.....	0.750		0.725			0.739		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1161

INDEX 973 SAMPLE 5507			INDEX 974 SAMPLE 6907			INDEX 975 SAMPLE 13413		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
LOCATION.....	16 IN. DISCHARGE		SHAMROCK INLET			HELIUM PLANT SUPPLY LINE		
OWNER.....	KERR-MCCOY OIL IND., INC.		PANHANDLE EASTERN PIPELINE CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	07/02/53		01/99/59			10/05/72		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			200		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			300000		
COMPONENT, MOLE PCT								
METHANE.....	72.4		77.0			72.6		
ETHANE.....	7.0		8.1			7.3		
PROPANE.....	3.4		3.4			4.7		
N-BUTANE.....	0.4		0.2			1.5		
ISOBUTANE.....	0.3		0.1			0.7		
N-PENTANE.....	0.0		TRACE			0.4		
ISOPENTANE.....	0.0		0.2			0.2		
CYCLOPENTANE.....	TRACE		0.1			0.1		
HEXANES PLUS.....	TRACE		TRACE			0.1		
NITROGEN.....	15.5		10.0			11.3		
OXYGEN.....	TRACE		TRACE			11.0		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			TRACE		
HELIUM.....	0.74		0.40			0.54		
HEATING VALUE.....	971		1037			1091		
SPECIFIC GRAVITY.....	0.696		0.679			0.733		
INDEX 976 SAMPLE 13428			INDEX 977 SAMPLE 13781			INDEX 978 SAMPLE 3589		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	NOT GIVEN		NOT GIVEN			PANHANDLE		
LOCATION.....	30 IN. DISCHARGE		PLANT INLET			INLET		
OWNER.....	EL PASO NATURAL GAS CO.		PHILLIPS PETROLEUM CO.			TEXOMA NATURAL GAS CO.		
SAMPLED.....	10/05/72		10/26/73			07/30/42		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	550000		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	550000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	81.2		74.1			69.3		
ETHANE.....	1.7		4.9			18.8		
PROPANE.....	1.7		4.5			---		
N-BUTANE.....	0.0		1.3			---		
ISOBUTANE.....	0.2		0.7			---		
N-PENTANE.....	0.1		0.3			---		
ISOPENTANE.....	0.0		0.3			---		
CYCLOPENTANE.....	TRACE		0.2			---		
HEXANES PLUS.....	TRACE		0.2			---		
NITROGEN.....	8.8		11.0			10.6		
OXYGEN.....	0.0		0.0			0.4		
ARGON.....	TRACE		TRACE			---		
HYDROGEN.....	0.0		0.0			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	0.2		TRACE			0.4		
HELIUM.....	0.04		0.52			0.49		
HEATING VALUE.....	1014		1098			1039		
SPECIFIC GRAVITY.....	0.651		0.725			0.695		
INDEX 979 SAMPLE 3590			INDEX 980 SAMPLE 3592			INDEX 981 SAMPLE 6522		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE		PANHANDLE			PANHANDLE		
LOCATION.....	INLET		DISCHARGE			RESIDUE		
OWNER.....	TEXOMA NATURAL GAS CO.		TEXOMA NATURAL GAS CO.			SHAMROCK OIL & GAS CORP.		
SAMPLED.....	07/30/42		07/30/42			03/21/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			204		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			132242		
COMPONENT, MOLE PCT								
METHANE.....	71.0		69.6			76.0		
ETHANE.....	19.7		18.2			7.3		
PROPANE.....	---		---			3.5		
N-BUTANE.....	---		---			0.3		
ISOBUTANE.....	---		---			0.0		
N-PENTANE.....	---		---			0.0		
ISOPENTANE.....	---		---			0.9		
CYCLOPENTANE.....	---		---			---		
HEXANES PLUS.....	---		---			TRACE		
NITROGEN.....	8.2		11.2			10.9		
OXYGEN.....	0.5		0.5			0.0		
ARGON.....	---		---			0.1		
HYDROGEN.....	---		---			0.3		
HYDROGEN SULFIDE.....	---		---			0.0		
CARBON DIOXIDE.....	0.3		0.3			TRACE		
HELIUM.....	0.29		0.41			0.60		
HEATING VALUE.....	1072		1031			1045		
SPECIFIC GRAVITY.....	0.690		0.694			0.691		
INDEX 982 SAMPLE 6523			INDEX 983 SAMPLE 6524			INDEX 984 SAMPLE 6525		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE		PANHANDLE			PANHANDLE		
LOCATION.....	SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.			STA. 621 INLET		
OWNER.....	SHAMROCK OIL & GAS CORP.		SHAMROCK OIL & GAS CORP.			SHAMROCK OIL & GAS CORP.		
SAMPLED.....	03/21/58		03/21/58			03/21/58		
FORMATION.....	PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	217		231			218		
FLOW, MCFD.....	53625		80757			78555		
COMPONENT, MOLE PCT								
METHANE.....	75.4		75.0			75.1		
ETHANE.....	6.6		6.4			6.9		
PROPANE.....	1.6		4.5			4.1		
N-BUTANE.....	1.2		1.4			1.5		
ISOBUTANE.....	0.7		0.7			0.7		
N-PENTANE.....	0.3		0.3			0.2		
ISOPENTANE.....	0.2		0.4			0.4		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	10.5		9.2			10.0		
NITROGEN.....	TRACE		TRACE			0.0		
OXYGEN.....	TRACE		TRACE			0.1		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.1			TRACE		
CARBON DIOXIDE.....	0.6		0.4			0.4		
HELIUM.....	0.50		0.40			0.40		
HEATING VALUE.....	1075		1124			1105		
SPECIFIC GRAVITY.....	0.715		0.730			0.726		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	985 6530			INDEX SAMPLE	986 1974			INDEX SAMPLE	987 1975
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE			PANHANDLE W				PANHANDLE W			
LOCATION.....	NOT GIVEN			INLET				OUTLET			
OWNER.....	KERR-MCSEE OIL IND., INC.			CANADIAN RIVER GAS CO.				CANADIAN RIVER GAS CO.			
SAMPLED.....	03/21/58			02/06/30				02/06/30			
FORMATION.....	PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY	X			PERM-WICHITA-ALBANY	X		
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	170			NOT GIVEN				NOT GIVEN			
FLOW, MCFD.....	52000			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	71.1	-----		67.4	-----			77.7	-----		
ETHANE.....	6.6	-----		22.3	-----			12.5	-----		
PROPANE.....	3.8	-----		---	-----			---	-----		
N-BUTANE.....	1.2	-----		---	-----			---	-----		
ISOBUTANE.....	0.7	-----		---	-----			---	-----		
N-PENTANE.....	0.1	-----		---	-----			---	-----		
ISOPENTANE.....	0.3	-----		---	-----			---	-----		
CYCLOPENTANE.....	0.1	-----		---	-----			---	-----		
HEXANES PLUS.....	0.1	-----		---	-----			---	-----		
NITROGEN.....	15.0	-----		9.8	-----			9.4	-----		
OXYGEN.....	TRACE	-----		0.2	-----			0.2	-----		
ARGON.....	0.1	-----		---	-----			---	-----		
HYDROGEN.....	0.0	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	0.0	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.2	-----		0.3	-----			0.3	-----		
HELIUM.....	0.70	-----		0.00	-----			0.00	-----		
HEATING VALUE.....	1027	-----		1082	-----			1011	-----		
SPECIFIC GRAVITY.....	0.728	-----		0.709	-----			0.660	-----		
		INDEX SAMPLE	988 2847			INDEX SAMPLE	989 2849			INDEX SAMPLE	990 3591
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
LOCATION.....	FIELD LINE F-4			LINE F-4				INLET			
OWNER.....	CANADIAN RIVER GAS CO.			CANADIAN RIVER GAS CO.				TEXOMA NATURAL GAS CO.			
SAMPLED.....	09/19/40			09/19/40				07/30/42			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	4069			NOT GIVEN				NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			18107				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	67.0	-----		69.3	-----			68.1	-----		
ETHANE.....	16.1	-----		16.9	-----			20.0	-----		
PROPANE.....	---	-----		---	-----			---	-----		
N-BUTANE.....	---	-----		---	-----			---	-----		
ISOBUTANE.....	---	-----		---	-----			---	-----		
N-PENTANE.....	---	-----		---	-----			---	-----		
ISOPENTANE.....	---	-----		---	-----			---	-----		
CYCLOPENTANE.....	---	-----		---	-----			---	-----		
HEXANES PLUS.....	---	-----		---	-----			---	-----		
NITROGEN.....	15.2	-----		12.2	-----			10.8	-----		
OXYGEN.....	0.5	-----		0.4	-----			0.3	-----		
ARGON.....	---	-----		---	-----			---	-----		
HYDROGEN.....	---	-----		---	-----			---	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.2	-----		0.4	-----			0.4	-----		
HELIUM.....	0.98	-----		0.78	-----			0.43	-----		
HEATING VALUE.....	97	-----		105	-----			108	-----		
SPECIFIC GRAVITY.....	0.697	-----		0.691	-----			0.702	-----		
		INDEX SAMPLE	991 3593			INDEX SAMPLE	992 3813			INDEX SAMPLE	993 4708
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
LOCATION.....	DISCHARGE			OUTLET				OUTLET			
OWNER.....	TEXOMA NATURAL GAS CO.			CANADIAN RIVER GAS CO.				U.S. BUREAU OF MINES			
SAMPLED.....	08/19/42			7-700				08/99/49			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	72.0	-----		70.0	-----			73.7	-----		
ETHANE.....	16.6	-----		15.3	-----			5.3	-----		
PROPANE.....	---	-----		---	-----			3.1	-----		
N-BUTANE.....	---	-----		---	-----			0.8	-----		
ISOBUTANE.....	---	-----		---	-----			0.4	-----		
N-PENTANE.....	---	-----		---	-----			0.1	-----		
ISOPENTANE.....	---	-----		---	-----			0.2	-----		
CYCLOPENTANE.....	---	-----		---	-----			TRACE	-----		
HEXANES PLUS.....	---	-----		---	-----			0.2	-----		
NITROGEN.....	10.3	-----		13.7	-----			16.0	-----		
OXYGEN.....	0.4	-----		0.4	-----			TRACE	-----		
ARGON.....	---	-----		---	-----			0.1	-----		
HYDROGEN.....	---	-----		---	-----			0.0	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.2	-----		0.1	-----			0.0	-----		
HELIUM.....	0.53	-----		0.52	-----			0.13	-----		
HEATING VALUE.....	1027	-----		983	-----			984	-----		
SPECIFIC GRAVITY.....	0.681	-----		0.688	-----			0.707	-----		
		INDEX SAMPLE	994 4709			INDEX SAMPLE	995 5187			INDEX SAMPLE	996 5189
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
LOCATION.....	INLET			DISCHARGE				W SIDE CANADIAN RIVER			
OWNER.....	U.S. BUREAU OF MINES			COLORADO INTERSTATE GAS CO.				COLORADO INTERSTATE GAS CO.			
SAMPLED.....	04/25/52			04/25/52				04/25/52			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			375				175			
COMPONENT, MOLE PCT				153000				45000			
METHANE.....	72.0	-----		75.1	-----			77.4	-----		
ETHANE.....	5.2	-----		5.3	-----			5.8	-----		
PROPANE.....	3.1	-----		2.9	-----			3.6	-----		
N-BUTANE.....	0.9	-----		0.5	-----			0.9	-----		
ISOBUTANE.....	0.3	-----		0.3	-----			0.6	-----		
N-PENTANE.....	0.2	-----		0.1	-----			0.2	-----		
ISOPENTANE.....	0.0	-----		0.0	-----			0.2	-----		
CYCLOPENTANE.....	TRACE	-----		0.0	-----			0.0	-----		
HEXANES PLUS.....	0.2	-----		0.0	-----			0.1	-----		
NITROGEN.....	16.4	-----		14.6	-----			10.2	-----		
OXYGEN.....	0.1	-----		0.1	-----			0.1	-----		
ARGON.....	0.1	-----		0.1	-----			0.1	-----		
HYDROGEN.....	TRACE	-----		0.0	-----			0.0	-----		
HYDROGEN SULFIDE.....	---	-----		---	-----			---	-----		
CARBON DIOXIDE.....	0.4	-----		0.2	-----			0.3	-----		
HELIUM.....	1.00	-----		0.70	-----			0.50	-----		
HEATING VALUE.....	970	-----		966	-----			1054	-----		
SPECIFIC GRAVITY.....	0.711	-----		0.696	-----			0.696	-----		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1158

		INDEX SAMPLE	997 5190			INDEX SAMPLE	998 5191			INDEX SAMPLE	999 5192
STATE.....	TEXAS			TEXAS		TEXAS		TEXAS			
COUNTY.....	MOORE			MOORE		MOORE		MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W		PANHANDLE W			
LOCATION.....	NOT GIVEN			DISCHARGE		NOT GIVEN		PANHANDLE EASTERN PIPELINE C			
OWNER.....	NATURAL GAS PIPELINE CO. OF			COLORADO INTERSTATE GAS CO.		NOT GIVEN		NOT GIVEN			
SAMPLED.....	04/29/52			04/25/52		04/29/52		04/29/52			
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440		440		440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
PRESSURE, PSIG.....	680			NOT GIVEN		500		500			
FLOW, MCFD.....	230000			NOT GIVEN		23000		23000			
COMPONENT, MOLE PCT											
METHANE.....	78.0			77.7		78.5		78.5			
ETHANE.....	5.9			6.0		6.1		6.1			
PROPANE.....	3.7			3.8		3.5		3.5			
N-BUTANE.....	0.6			0.5		0.4		0.4			
ISOBUTANE.....	0.4			0.4		0.4		0.4			
N-PENTANE.....	0.1			0.1		0.0		0.0			
ISOPENTANE.....	0.0			0.0		0.0		0.0			
CYCLOPENTANE.....	0.0			0.0		0.0		0.0			
HEXANES PLUS.....	0.3			0.0		0.0		0.0			
NITROGEN.....	10.3			10.7		10.3		10.3			
OXYGEN.....	0.1			0.1		0.1		0.1			
ARGON.....	0.0			0.0		0.0		0.0			
HYDROGEN.....	0.0			0.0		0.0		0.0			
HYDROGEN SULFIDE.....	---			---		---		---			
CARBON DIOXIDE.....	0.4			0.2		0.2		0.2			
HELIUM.....	0.53			0.52		0.47		0.47			
HEATING VALUE.....	1030			1028		1022		1022			
SPECIFIC GRAVITY.....	0.683			0.682		0.675		0.675			

		INDEX SAMPLE	1000 5193			INDEX SAMPLE	1001 5210			INDEX SAMPLE	1002 5211
STATE.....	TEXAS			TEXAS		TEXAS		TEXAS			
COUNTY.....	MOORE			MOORE		MOORE		MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W		PANHANDLE W			
LOCATION.....	NOT GIVEN			PLANT INLET		DISCHARGE GAS		DISCHARGE GAS			
OWNER.....	EL PASO NATURAL GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			
SAMPLED.....	06/16/52			06/16/52		06/16/52		06/16/52			
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440		440		440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
PRESSURE, PSIG.....	700			NOT GIVEN		NOT GIVEN		NOT GIVEN			
FLOW, MCFD.....	140000			NOT GIVEN		NOT GIVEN		NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	76.5			76.8		76.8		76.8			
ETHANE.....	6.3			5.9		5.9		5.9			
PROPANE.....	3.5			3.5		3.8		3.8			
N-BUTANE.....	0.6			1.1		0.7		0.7			
ISOBUTANE.....	0.4			0.2		0.5		0.5			
N-PENTANE.....	0.0			0.3		0.0		0.0			
ISOPENTANE.....	0.1			0.2		TRACE		TRACE			
CYCLOPENTANE.....	0.0			TRACE		TRACE		TRACE			
HEXANES PLUS.....	0.0			TRACE		TRACE		TRACE			
NITROGEN.....	11.9			11.1		11.5		11.5			
OXYGEN.....	0.0			TRACE		0.1		0.1			
ARGON.....	0.0			0.1		0.0		0.0			
HYDROGEN.....	0.0			0.0		0.0		0.0			
HYDROGEN SULFIDE.....	---			---		---		---			
CARBON DIOXIDE.....	0.2			0.2		0.1		0.1			
HELIUM.....	0.54			0.54		0.54		0.54			
HEATING VALUE.....	1017			1042		1023		1023			
SPECIFIC GRAVITY.....	0.687			0.696		0.700		0.700			

		INDEX SAMPLE	1003 5262			INDEX SAMPLE	1004 5263			INDEX SAMPLE	1005 5485
STATE.....	TEXAS			TEXAS		TEXAS		TEXAS			
COUNTY.....	MOORE			MOORE		MOORE		MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W		PANHANDLE W			
LOCATION.....	INLET GAS			DISCHARGE GAS		DISCHARGE GAS		DISCHARGE GAS			
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			
SAMPLED.....	06/26/52			06/26/52		05/28/53		05/28/53			
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440		440		440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	76.1			76.6		77.4		77.4			
ETHANE.....	6.1			6.2		6.4		6.4			
PROPANE.....	3.0			0.8		3.5		3.5			
N-BUTANE.....	0.6			0.6		0.4		0.4			
ISOBUTANE.....	0.2			0.7		0.3		0.3			
N-PENTANE.....	0.0			0.0		0.1		0.1			
ISOPENTANE.....	0.3			TRACE		0.0		0.0			
CYCLOPENTANE.....	TRACE			TRACE		TRACE		TRACE			
HEXANES PLUS.....	0.1			0.0		0.1		0.1			
NITROGEN.....	10.1			10.3		11.0		11.0			
OXYGEN.....	0.1			0.1		TRACE		TRACE			
ARGON.....	0.0			0.0		0.1		0.1			
HYDROGEN.....	0.0			0.0		TRACE		TRACE			
HYDROGEN SULFIDE.....	---			---		---		---			
CARBON DIOXIDE.....	0.2			0.2		0.2		0.2			
HELIUM.....	0.53			0.50		0.52		0.52			
HEATING VALUE.....	1054			1029		1022		1022			
SPECIFIC GRAVITY.....	0.704			0.690		0.682		0.682			

		INDEX SAMPLE	1006 5503			INDEX SAMPLE	1007 5505			INDEX SAMPLE	1008 5530
STATE.....	TEXAS			TEXAS		TEXAS		TEXAS			
COUNTY.....	MOORE			MOORE		MOORE		MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W		PANHANDLE W			
LOCATION.....	22 IN. OUTLET			DISCHARGE		24 IN. DISCHARGE		24 IN. DISCHARGE			
OWNER.....	COLORADO INTERSTATE GAS CO.			EL PASO NATURAL GAS CO.		PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C			
SAMPLED.....	07/01/53			07/01/53		08/14/53		08/14/53			
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			NOT GIVEN		440		440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN		NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	73.3			77.2		76.8		76.8			
ETHANE.....	7.9			7.5		7.9		7.9			
PROPANE.....	3.0			3.3		3.7		3.7			
N-BUTANE.....	0.7			0.2		0.2		0.2			
ISOBUTANE.....	0.3			0.0		0.2		0.2			
N-PENTANE.....	0.2			0.0		TRACE		TRACE			
ISOPENTANE.....	0.0			0.0		0.1		0.1			
CYCLOPENTANE.....	0.0			0.0		0.0		0.0			
HEXANES PLUS.....	0.1			TRACE		TRACE		TRACE			
NITROGEN.....	15.3			11.2		10.3		10.3			
OXYGEN.....	0.1			TRACE		TRACE		TRACE			
ARGON.....	0.1			0.1		0.1		0.1			
HYDROGEN.....	0.0			0.0		0.1		0.1			
HYDROGEN SULFIDE.....	0.0			0.0		0.0		0.0			
CARBON DIOXIDE.....	0.0			0.0		0.0		0.0			
HELIUM.....	0.71			0.49		0.44		0.44			
HEATING VALUE.....	973			1009		1033		1033			
SPECIFIC GRAVITY.....	0.698			0.673		0.679		0.679			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 1009 SAMPLE 5543			INDEX 1010 SAMPLE 5544			INDEX 1011 SAMPLE 5548		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	22 S 24 IN. DISCHARGE		24 S 26 IN. DISCHARGE			22 IN. DISCHARGE		
OWNER.....	PANHANDLE EASTERN PIPELINE C		PANHANDLE EASTERN PIPELINE C			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	08/14/53		08/13/53			09/03/53		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	77.7		77.9			77.1		
ETHANE.....	6.9		7.1			6.3		
PROPANE.....	3.7		3.4			3.7		
N-BUTANE.....	0.6		0.5			0.3		
ISOBUTANE.....	0.3		0.2			0.4		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.0		0.1			0.0		
CYCLOPENTANE.....	0.0		0.0			0.0		
HEXANES PLUS.....	0.0		0.0			0.0		
NITROGEN.....	10.1		10.2			11.3		
OXYGEN.....	0.0		0.0			0.1		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.2		
HELIUM.....	0.46		0.42			0.53		
HEATING VALUE.....	1037		1032			1013		
SPECIFIC GRAVITY.....	0.679		0.678			0.681		
INDEX 1012 SAMPLE 5629			INDEX 1013 SAMPLE 5630			INDEX 1014 SAMPLE 5891		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	INLET		DISCHARGE			CHANNING FIELD		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	06/01/54		06/01/54			08/02/55		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	1.75		1.50			NOT GIVEN		
FLOW, MCFD.....	100000		100000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.1		75.2			72.8		
ETHANE.....	5.6		5.6			5.6		
PROPANE.....	3.3		2.9			3.2		
N-BUTANE.....	0.9		0.9			0.9		
ISOBUTANE.....	0.4		0.3			0.5		
N-PENTANE.....	0.2		0.1			0.2		
ISOPENTANE.....	0.6		TRACE			0.3		
CYCLOPENTANE.....	0.1		0.0			0.1		
HEXANES PLUS.....	0.1		TRACE			0.2		
NITROGEN.....	13.9		14.2			14.9		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		TRACE			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.3		
HELIUM.....	0.57		0.57			0.85		
HEATING VALUE.....	1023		979			1004		
SPECIFIC GRAVITY.....	0.713		0.689			0.713		
INDEX 1015 SAMPLE 5892			INDEX 1016 SAMPLE 5893			INDEX 1017 SAMPLE 5894		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	INLET		CHANNING LINE F4			INLET		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	08/02/55		08/02/55			08/02/55		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.3		71.9			72.5		
ETHANE.....	5.5		5.4			5.7		
PROPANE.....	3.0		3.0			3.1		
N-BUTANE.....	0.9		0.9			0.8		
ISOBUTANE.....	0.4		0.4			0.5		
N-PENTANE.....	0.2		0.1			0.1		
ISOPENTANE.....	0.3		0.3			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	15.5		16.2			15.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.2		0.2			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.4			0.2		
HELIUM.....	0.23		0.95			0.77		
HEATING VALUE.....	997		979			987		
SPECIFIC GRAVITY.....	0.711		0.713			0.708		
INDEX 1018 SAMPLE 5897			INDEX 1019 SAMPLE 5899			INDEX 1020 SAMPLE 5902		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	CHANNING AREA		CHANNING AREA			INLET		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			U.S. BUREAU OF MINES		
SAMPLED.....	08/02/55		08/02/55			08/05/55		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.7		74.0			72.1		
ETHANE.....	5.7		5.3			5.2		
PROPANE.....	3.1		3.6			3.0		
N-BUTANE.....	0.9		1.1			0.9		
ISOBUTANE.....	0.3		0.4			0.4		
N-PENTANE.....	0.2		0.3			0.1		
ISOPENTANE.....	0.3		0.3			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	15.3		12.3			16.2		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.2		0.2			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.6			0.3		
HELIUM.....	0.66		0.60			0.92		
HEATING VALUE.....	990		1047			972		
SPECIFIC GRAVITY.....	0.709		0.717			0.707		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1155

	INDEX SAMPLE	1021 5903		INDEX SAMPLE	1022 5908		INDEX SAMPLE	1023 5909
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	DISCHARGE		DISCHARGE			INLET		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
SAMPLED.....	08/05/55		06/06/55			06/06/55		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.2		74.2			73.1		
ETHANE.....	5.1		5.2			5.5		
PROPANE.....	3.0		2.8			2.7		
N-BUTANE.....	0.9		0.8			0.8		
ISOBUTANE.....	0.4		0.4			0.4		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.3		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	16.1		15.4			15.7		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.2		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.19		0.20			0.96		
HEATING VALUE.....	981		990			971		
SPECIFIC GRAVITY.....	0.707		0.706			0.699		

	INDEX SAMPLE	1024 5910		INDEX SAMPLE	1025 5911		INDEX SAMPLE	1026 5997
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	DISCHARGE		DISCHARGE			INLET		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
SAMPLED.....	07/12/55		07/12/55			07/13/56		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	74.0		72.2			72.1		
ETHANE.....	5.2		5.2			5.4		
PROPANE.....	0.0		0.0			2.9		
N-BUTANE.....	0.9		0.9			0.9		
ISOBUTANE.....	0.3		0.3			0.3		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.2		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	15.7		16.4			16.3		
OXYGEN.....	0.0		0.1			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.3		
HELIUM.....	0.23		0.97			1.00		
HEATING VALUE.....	987		966			978		
SPECIFIC GRAVITY.....	0.707		0.707			0.712		

	INDEX SAMPLE	1027 5998		INDEX SAMPLE	1028 6018		INDEX SAMPLE	1029 6019
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	DISCHARGE		DISCHARGE			INLET		
OWNER.....	U.S. BUREAU OF MINES		U.S. BUREAU OF MINES			U.S. BUREAU OF MINES		
SAMPLED.....	01/13/56		02/04/56			02/04/56		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	73.5		73.5			72.4		
ETHANE.....	5.4		5.2			5.2		
PROPANE.....	2.9		2.9			2.9		
N-BUTANE.....	0.9		0.9			0.9		
ISOBUTANE.....	0.3		0.3			0.2		
N-PENTANE.....	0.1		0.1			0.2		
ISOPENTANE.....	0.2		0.3			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.1			0.1		
NITROGEN.....	15.9		16.1			16.2		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.3		
HELIUM.....	0.14		0.15			0.98		
HEATING VALUE.....	992		987			970		
SPECIFIC GRAVITY.....	0.712		0.710			0.706		

	INDEX SAMPLE	1030 6528		INDEX SAMPLE	1031 6638		INDEX SAMPLE	1032 6639
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	DISCHARGE		26 IN. LINE			24 IN. LINE		
OWNER.....	SHAMROCK OIL & GAS CORP.		NATURAL GAS PIPELINE CO. OF			NATURAL GAS PIPELINE CO. OF		
SAMPLED.....	03/21/58		06/19/58			06/19/58		
FORMATION.....	PERM-WICHITA-ALBANY		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	201		325			180		
FLOW, MCFD.....	116859		90000			42000		
COMPONENT, MOLE PCT								
METHANE.....	75.5		87.0			77.1		
ETHANE.....	6.5		9.0			6.8		
PROPANE.....	3.2		1.4			3.9		
N-BUTANE.....	0.4		0.2			1.3		
ISOBUTANE.....	0.3		0.1			0.6		
N-PENTANE.....	TRACE		0.0			0.2		
ISOPENTANE.....	TRACE		0.1			0.5		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.1		0.1			0.2		
NITROGEN.....	13.2		1.8			8.7		
OXYGEN.....	0.1		TRACE			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.2		
HELIUM.....	0.60		0.10			0.40		
HEATING VALUE.....	997		1098			1108		
SPECIFIC GRAVITY.....	0.689		0.632			0.710		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE	1033 6641		INDEX SAMPLE	1034 6642		INDEX SAMPLE	1035 6672
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	24 IN. LINE		24 IN. LINE			SEC. 198, BLK. 44, H&TC SUR.		
OWNER.....	NATURAL GAS PIPELINE CO. OF		NATURAL GAS PIPELINE CO. OF			PHILLIPS PETROLEUM CO.		
SAMPLED.....	06/19/58		06/19/58			07/01/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	130		610			201		
FLOW, MCFD.....	25000		175000			145000		
COMPONENT, MOLE PCT								
METHANE.....	77.6		83.6			77.6		
ETHANE.....	7.5		8.3			6.7		
PROPANE.....	3.7		2.2			2.3		
N-BUTANE.....	0.3		0.3			TRACE		
ISOBUTANE.....	0.3		0.3			0.1		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.3		0.1			0.0		
CYCLOPENTANE.....	TRACE		TRACE			0.0		
HEXANES PLUS.....	0.1		TRACE			0.0		
NITROGEN.....	9.4		4.7			12.5		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.1		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.3			0.1		
HELIUM.....	0.40		0.20			0.60		
HEATING VALUE.....	1062		1077			969		
SPECIFIC GRAVITY.....	0.685		0.650			0.663		

	INDEX SAMPLE	1036 6673		INDEX SAMPLE	1037 6674		INDEX SAMPLE	1038 6675
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	24 IN. LINE		24 IN. MAKEIG LINE			30 IN. INLET		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	07/01/58		07/01/58			07/01/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	112		112			112		
FLOW, MCFD.....	30000		60000			85000		
COMPONENT, MOLE PCT								
METHANE.....	74.4		72.5			74.0		
ETHANE.....	6.5		6.6			6.7		
PROPANE.....	2.9		4.0			3.8		
N-BUTANE.....	0.9		1.2			1.4		
ISOBUTANE.....	1.0		0.7			0.8		
N-PENTANE.....	0.3		0.2			0.3		
ISOPENTANE.....	0.0		0.3			0.6		
CYCLOPENTANE.....	0.0		0.0			0.1		
HEXANES PLUS.....	0.1		0.1			0.3		
NITROGEN.....	TRACE		TRACE			10.7		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	TRACE		0.1			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.5		0.1			0.7		
HELIUM.....	0.60		0.70			0.50		
HEATING VALUE.....	1043		1047			1100		
SPECIFIC GRAVITY.....	0.711		0.724			0.735		

	INDEX SAMPLE	1039 6676		INDEX SAMPLE	1040 6679		INDEX SAMPLE	1041 6687
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	24 IN. INLET		24 IN. INLET			20 IN. DISCHARGE		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	07/01/58		07/01/58			07/01/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		110			480		
COMPONENT, MOLE PCT			65000			184000		
METHANE.....	75.2		73.8			77.9		
ETHANE.....	6.9		6.8			6.6		
PROPANE.....	1.1		1.1			3.5		
N-BUTANE.....	1.4		1.3			0.6		
ISOBUTANE.....	0.7		0.7			0.3		
N-PENTANE.....	0.3		0.3			0.0		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.2		0.2			0.0		
NITROGEN.....	10.1		11.5			10.2		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.2		
HELIUM.....	0.50		0.60			0.50		
HEATING VALUE.....	1102		1093			1037		
SPECIFIC GRAVITY.....	0.721		0.724			0.683		

	INDEX SAMPLE	1042 6756		INDEX SAMPLE	1043 6757		INDEX SAMPLE	1044 6759
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	SEC. 181, BLK. 44, H&TC SUR.		DISCHARGE			INLET		
OWNER.....	EL PASO NATURAL GAS CO.		NORTHERN NATURAL GAS CO.			SHAMROCK OIL & GAS CORP.		
SAMPLED.....	07/25/58		07/25/58			07/25/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	160		NOT GIVEN			190		
FLOW, MCFD.....	425000		125000			125000		
COMPONENT, MOLE PCT								
METHANE.....	85.6		83.5			73.7		
ETHANE.....	7.8		6.6			6.2		
PROPANE.....	1.4		1.8			2.9		
N-BUTANE.....	0.0		TRACE			0.4		
ISOBUTANE.....	0.1		TRACE			0.2		
N-PENTANE.....	0.0		0.0			0.0		
ISOPENTANE.....	0.1		TRACE			0.2		
CYCLOPENTANE.....	0.0		TRACE			0.0		
HEXANES PLUS.....	TRACE		TRACE			TRACE		
NITROGEN.....	4.7		7.5			15.6		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.10		0.20			0.70		
HEATING VALUE.....	1051		1014			962		
SPECIFIC GRAVITY.....	0.631		0.637			0.691		

• CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 • DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1167

		INDEX SAMPLE	1045 6969			INDEX SAMPLE	1046 7384			INDEX SAMPLE	1047 7436
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
LOCATION.....	MOORE CO. SOUR GAS SYSTEM			20 IN. DISCHARGE				20 IN. DISCHARGE			
OWNER.....	SINCLAIR OIL & GAS CO.			COLORADO INTERSTATE GAS CO.				SHAMROCK OIL & GAS CORP.			
SAMPLED.....	02/12/59			02/09/60				03/16/60			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			82000				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	77.0			77.2				72.2			
ETHANE.....	8.1			6.8				6.4			
PROPANE.....	3.3			4.0				2.8			
N-BUTANE.....	0.3			0.3				0.3			
ISOBUTANE.....	0.1			0.1				0.1			
N-PENTANE.....	TRACE			0.1				0.1			
ISOPENTANE.....	0.3			0.0				0.1			
CYCLOPENTANE.....	TRACE			0.0				TRACE			
HEXANES PLUS.....	TRACE			0.1				0.1			
NITROGEN.....	9.8			10.7				16.8			
OXYGEN.....	TRACE			TRACE				0.0			
ARGON.....	TRACE			0.1				0.1			
HYDROGEN.....	0.4			0.1				0.1			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.1				0.2			
HELIUM.....	0.40			0.54				0.80			
HEATING VALUE.....	1038			1031				946			
SPECIFIC GRAVITY.....	0.676			0.683				0.695			

		INDEX SAMPLE	1048 7438			INDEX SAMPLE	1049 7439			INDEX SAMPLE	1050 7440
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
LOCATION.....	NOT GIVEN			18 IN. INLET				22 IN. INLET			
OWNER.....	SHAMROCK OIL & GAS CORP.			SHAMROCK OIL & GAS CORP.				SHAMROCK OIL & GAS CORP.			
SAMPLED.....	03/16/60			03/16/60				03/16/60			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	77.2			76.7				74.5			
ETHANE.....	7.6			8.1				7.1			
PROPANE.....	4.0			2.9				2.1			
N-BUTANE.....	0.1			0.1				1.4			
ISOBUTANE.....	0.1			0.1				0.7			
N-PENTANE.....	TRACE			TRACE				0.4			
ISOPENTANE.....	0.2			0.3				0.3			
CYCLOPENTANE.....	TRACE			TRACE				0.1			
HEXANES PLUS.....	TRACE			TRACE				0.3			
NITROGEN.....	11.0			10.3				10.4			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.1			0.1				TRACE			
HYDROGEN.....	0.5			0.9				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			0.1				0.4			
HELIUM.....	0.50			0.40				0.40			
HEATING VALUE.....	1000			1015				1108			
SPECIFIC GRAVITY.....	0.666			0.668				0.731			

		INDEX SAMPLE	1051 7441			INDEX SAMPLE	1052 7442			INDEX SAMPLE	1053 7443
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
LOCATION.....	20 IN. DISCHARGE			20 IN. INLET				20 IN. DISCHARGE			
OWNER.....	SHAMROCK OIL & GAS CORP.			SHAMROCK OIL & GAS CORP.				SHAMROCK OIL & GAS CORP.			
SAMPLED.....	03/16/60			03/16/60				03/16/60			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	74.8			72.2				75.0			
ETHANE.....	4.3			6.0				7.6			
PROPANE.....	4.3			6.0				4.6			
N-BUTANE.....	1.5			1.9				1.4			
ISOBUTANE.....	0.3			0.9				0.8			
N-PENTANE.....	0.3			0.4				0.2			
ISOPENTANE.....	0.4			0.4				0.4			
CYCLOPENTANE.....	0.1			TRACE				0.1			
HEXANES PLUS.....	0.2			TRACE				0.2			
NITROGEN.....	9.8			8.0				9.1			
OXYGEN.....	0.0			TRACE				0.0			
ARGON.....	TRACE			TRACE				TRACE			
HYDROGEN.....	0.0			TRACE				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.3			0.2				0.3			
HELIUM.....	0.40			0.40				0.40			
HEATING VALUE.....	1120			1129				1129			
SPECIFIC GRAVITY.....	0.731			0.756				0.729			

		INDEX SAMPLE	1054 7444			INDEX SAMPLE	1055 7554			INDEX SAMPLE	1056 7738
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	MOORE			MOORE				MOORE			
FIELD.....	PANHANDLE W			PANHANDLE W				PANHANDLE W			
LOCATION.....	PLANT RESIDUE			SEC. 1, BLK. 1, T&RR SUR.				24 IN. LINE			
OWNER.....	SHAMROCK OIL & GAS CORP.			NATURAL GAS PIPELINE CO. OF				NATURAL GAS PIPELINE CO. OF			
SAMPLED.....	03/16/60			03/16/60				10/23/60			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	440			440				440			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			650				141			
FLOW, MCFD.....	NOT GIVEN			135				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	77.5			78.5				74.8			
ETHANE.....	8.3			6.9				7.7			
PROPANE.....	2.7			3.5				3.6			
N-BUTANE.....	0.1			0.1				0.8			
ISOBUTANE.....	0.0			0.4				0.5			
N-PENTANE.....	0.0			0.1				0.1			
ISOPENTANE.....	0.3			0.1				0.2			
CYCLOPENTANE.....	0.0			TRACE				TRACE			
HEXANES PLUS.....	0.0			0.1				0.1			
NITROGEN.....	9.5			9.2				11.2			
OXYGEN.....	TRACE			TRACE				TRACE			
ARGON.....	0.1			TRACE				0.1			
HYDROGEN.....	1.0			0.0				0.4			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.1			TRACE				0.1			
HELIUM.....	0.40			0.40				0.50			
HEATING VALUE.....	1023			1057				1052			
SPECIFIC GRAVITY.....	0.664			0.680				0.701			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 1057			INDEX 1058			INDEX 1059		
STATE	COUNTY	FIELD	STATE	COUNTY	FIELD	STATE	COUNTY	FIELD
TEXAS	MOORE	PANHANDLE W	TEXAS	MOORE	PANHANDLE W	TEXAS	MOORE	PANHANDLE W
LOCATION	NOT GIVEN		LOCATION	NOT GIVEN		LOCATION	NOT GIVEN	
OWNER	PUMPEL-STAVA OPERATOR		OWNER	NATURAL GAS PIPELINE CO. OF		OWNER	12 IN. F-45 LINE	
SAMPLED	01/29/64		SAMPLED	01/29/64		SAMPLED	04/24/64	
FORMATION	NOT GIVEN		FORMATION	NOT GIVEN		FORMATION	PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE	440		GEOLOGIC PROVINCE CODE	440		GEOLOGIC PROVINCE CODE	440	
DEPTH, FEET	NOT GIVEN		DEPTH, FEET	NOT GIVEN		DEPTH, FEET	NOT GIVEN	
PRESSURE, PSIG	160		PRESSURE, PSIG	150		PRESSURE, PSIG	176	
FLOW, MCFD	85900		FLOW, MCFD	68700		FLOW, MCFD	179	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE	76.8		METHANE	80.9		METHANE	74.0	
ETHANE	6.9		ETHANE	6.2		ETHANE	6.7	
PROPANE	4.0		PROPANE	2.6		PROPANE	4.0	
N-BUTANE	1.5		N-BUTANE	0.6		N-BUTANE	1.4	
ISOBUTANE	0.5		ISOBUTANE	0.2		ISOBUTANE	0.8	
N-PENTANE	0.4		N-PENTANE	0.1		N-PENTANE	0.3	
ISOPENTANE	0.4		ISOPENTANE	0.2		ISOPENTANE	0.1	
CYCLOPENTANE	0.1		CYCLOPENTANE	TRACE		CYCLOPENTANE	0.1	
HEXANES PLUS	0.3		HEXANES PLUS	TRACE		HEXANES PLUS	0.3	
NITROGEN	8.2		NITROGEN	8.6		NITROGEN	11.0	
OXYGEN	0.1		OXYGEN	TRACE		OXYGEN	0.2	
ARGON	TRACE		ARGON	TRACE		ARGON	TRACE	
HYDROGEN	0.0		HYDROGEN	0.0		HYDROGEN	0.0	
HYDROGEN SULFIDE	0.0		HYDROGEN SULFIDE	0.0		HYDROGEN SULFIDE	0.0	
CARBON DIOXIDE	0.3		CARBON DIOXIDE	0.1		CARBON DIOXIDE	0.2	
HELIUM	0.40		HELIUM	0.40		HELIUM	0.48	
HEATING VALUE	1130		HEATING VALUE	1043		HEATING VALUE	1101	
SPECIFIC GRAVITY	0.721		SPECIFIC GRAVITY	0.663		SPECIFIC GRAVITY	0.732	

INDEX 1060			INDEX 1061			INDEX 1062		
STATE	COUNTY	FIELD	STATE	COUNTY	FIELD	STATE	COUNTY	FIELD
TEXAS	MOORE	PANHANDLE W	TEXAS	MOORE	PANHANDLE W	TEXAS	MOORE	PANHANDLE W
LOCATION	22 IN. F-45 LINE		LOCATION	22 IN. F-45 LINE		LOCATION	INLET FROM LINE F-2-12	
OWNER	COLORADO INTERSTATE GAS CO.		OWNER	COLORADO INTERSTATE GAS CO.		OWNER	COLORADO INTERSTATE GAS CO.	
SAMPLED	04/24/64		SAMPLED	04/24/64		SAMPLED	02/17/65	
FORMATION	PERM-WICHITA-ALBANY		FORMATION	PERM-WICHITA-ALBANY & RED CAVE		FORMATION	PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE	440		GEOLOGIC PROVINCE CODE	440		GEOLOGIC PROVINCE CODE	440	
DEPTH, FEET	NOT GIVEN		DEPTH, FEET	NOT GIVEN		DEPTH, FEET	NOT GIVEN	
PRESSURE, PSIG	NOT GIVEN		PRESSURE, PSIG	NOT GIVEN		PRESSURE, PSIG	140	
FLOW, MCFD	NOT GIVEN		FLOW, MCFD	NOT GIVEN		FLOW, MCFD	NOT GIVEN	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE	75.7		METHANE	76.0		METHANE	75.2	
ETHANE	6.6		ETHANE	6.9		ETHANE	6.4	
PROPANE	3.9		PROPANE	3.7		PROPANE	4.0	
N-BUTANE	1.3		N-BUTANE	1.2		N-BUTANE	1.4	
ISOBUTANE	0.6		ISOBUTANE	0.5		ISOBUTANE	0.8	
N-PENTANE	0.2		N-PENTANE	0.2		N-PENTANE	0.3	
ISOPENTANE	0.4		ISOPENTANE	0.4		ISOPENTANE	0.3	
CYCLOPENTANE	0.1		CYCLOPENTANE	0.1		CYCLOPENTANE	0.1	
HEXANES PLUS	0.3		HEXANES PLUS	0.2		HEXANES PLUS	0.3	
NITROGEN	10.2		NITROGEN	10.1		NITROGEN	10.5	
OXYGEN	TRACE		OXYGEN	TRACE		OXYGEN	0.0	
ARGON	TRACE		ARGON	TRACE		ARGON	TRACE	
HYDROGEN	0.0		HYDROGEN	0.0		HYDROGEN	0.0	
HYDROGEN SULFIDE	0.0		HYDROGEN SULFIDE	0.0		HYDROGEN SULFIDE	0.0	
CARBON DIOXIDE	0.1		CARBON DIOXIDE	0.1		CARBON DIOXIDE	0.2	
HELIUM	0.32		HELIUM	0.50		HELIUM	0.33	
HEATING VALUE	1095		HEATING VALUE	1087		HEATING VALUE	1097	
SPECIFIC GRAVITY	0.716		SPECIFIC GRAVITY	0.710		SPECIFIC GRAVITY	0.724	

INDEX 1063			INDEX 1064			INDEX 1065		
STATE	COUNTY	FIELD	STATE	COUNTY	FIELD	STATE	COUNTY	FIELD
TEXAS	MOORE	PANHANDLE W	TEXAS	MOORE	PANHANDLE W	TEXAS	MOORE	PANHANDLE W
LOCATION	INLET LINE F-1-22		LOCATION	INLET LINE F-1-22		LOCATION	INLET FROM LINE F-2-12	
OWNER	COLORADO INTERSTATE GAS CO.		OWNER	COLORADO INTERSTATE GAS CO.		OWNER	PHILLIPS PETROLEUM CO.	
SAMPLED	02/17/65		SAMPLED	05/09/69		SAMPLED	11/24/69	
FORMATION	PERM-WICHITA-ALBANY		FORMATION	PERM-WICHITA-ALBANY & RED CAVE		FORMATION	PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE	440		GEOLOGIC PROVINCE CODE	440		GEOLOGIC PROVINCE CODE	440	
DEPTH, FEET	NOT GIVEN		DEPTH, FEET	NOT GIVEN		DEPTH, FEET	NOT GIVEN	
PRESSURE, PSIG	180		PRESSURE, PSIG	NOT GIVEN		PRESSURE, PSIG	NOT GIVEN	
FLOW, MCFD	NOT GIVEN		FLOW, MCFD	NOT GIVEN		FLOW, MCFD	NOT GIVEN	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE	75.2		METHANE	71.5		METHANE	73.2	
ETHANE	6.5		ETHANE	6.5		ETHANE	6.6	
PROPANE	3.7		PROPANE	3.6		PROPANE	4.9	
N-BUTANE	1.2		N-BUTANE	1.2		N-BUTANE	1.2	
ISOBUTANE	0.7		ISOBUTANE	0.4		ISOBUTANE	0.8	
N-PENTANE	0.3		N-PENTANE	0.4		N-PENTANE	0.4	
ISOPENTANE	0.3		ISOPENTANE	0.2		ISOPENTANE	0.3	
CYCLOPENTANE	0.1		CYCLOPENTANE	TRACE		CYCLOPENTANE	0.1	
HEXANES PLUS	0.2		HEXANES PLUS	0.2		HEXANES PLUS	0.3	
NITROGEN	10.9		NITROGEN	14.8		NITROGEN	11.5	
OXYGEN	TRACE		OXYGEN	0.1		OXYGEN	0.0	
ARGON	0.1		ARGON	0.1		ARGON	TRACE	
HYDROGEN	0.0		HYDROGEN	TRACE		HYDROGEN	TRACE	
HYDROGEN SULFIDE	0.0		HYDROGEN SULFIDE	0.0		HYDROGEN SULFIDE	0.0	
CARBON DIOXIDE	0.2		CARBON DIOXIDE	0.3		CARBON DIOXIDE	0.0	
HELIUM	0.60		HELIUM	0.79		HELIUM	0.59	
HEATING VALUE	1078		HEATING VALUE	1103		HEATING VALUE	1103	
SPECIFIC GRAVITY	0.716		SPECIFIC GRAVITY	0.726		SPECIFIC GRAVITY	0.734	

INDEX 1066			INDEX 1067			INDEX 1068		
STATE	COUNTY	FIELD	STATE	COUNTY	FIELD	STATE	COUNTY	FIELD
TEXAS	MOORE	PANHANDLE W	TEXAS	MOORE	PANHANDLE W	TEXAS	MOORE	PANHANDLE W
LOCATION	30 IN. LINE		LOCATION	22 IN. PLATEAU DISCHARGE		LOCATION	20 IN. FOURWAY STA. DISCH.	
OWNER	NATURAL GAS PIPELINE CO. OF		OWNER	COLORADO INTERSTATE GAS CO.		OWNER	COLORADO INTERSTATE GAS CO.	
SAMPLED	07/24/72		SAMPLED	07/24/72		SAMPLED	10/05/72	
FORMATION	PERM-WICHITA-ALBANY		FORMATION	PERM-WICHITA-ALBANY		FORMATION	PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE	440		GEOLOGIC PROVINCE CODE	440		GEOLOGIC PROVINCE CODE	440	
DEPTH, FEET	NOT GIVEN		DEPTH, FEET	NOT GIVEN		DEPTH, FEET	NOT GIVEN	
PRESSURE, PSIG	680		PRESSURE, PSIG	150		PRESSURE, PSIG	380	
FLOW, MCFD	156900		FLOW, MCFD	12000		FLOW, MCFD	100000	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE	79.4		METHANE	73.6		METHANE	76.4	
ETHANE	6.3		ETHANE	7.4		ETHANE	7.6	
PROPANE	3.4		PROPANE	3.2		PROPANE	2.4	
N-BUTANE	1.1		N-BUTANE	0.9		N-BUTANE	0.9	
ISOBUTANE	0.6		ISOBUTANE	0.0		ISOBUTANE	0.0	
N-PENTANE	0.2		N-PENTANE	0.0		N-PENTANE	0.0	
ISOPENTANE	TRACE		ISOPENTANE	0.0		ISOPENTANE	0.0	
CYCLOPENTANE	TRACE		CYCLOPENTANE	0.0		CYCLOPENTANE	0.0	
HEXANES PLUS	TRACE		HEXANES PLUS	0.0		HEXANES PLUS	0.0	
NITROGEN	8.2		NITROGEN	14.3		NITROGEN	12.7	
OXYGEN	0.0		OXYGEN	0.0		OXYGEN	0.0	
ARGON	TRACE		ARGON	0.1		ARGON	0.1	
HYDROGEN	0.0		HYDROGEN	0.0		HYDROGEN	0.0	
HYDROGEN SULFIDE	0.0		HYDROGEN SULFIDE	0.0		HYDROGEN SULFIDE	0.0	
CARBON DIOXIDE	0.2		CARBON DIOXIDE	0.2		CARBON DIOXIDE	0.2	
HELIUM	0.34		HELIUM	0.82		HELIUM	0.68	
HEATING VALUE	1071		HEATING VALUE	975		HEATING VALUE	972	
SPECIFIC GRAVITY	0.684		SPECIFIC GRAVITY	0.688		SPECIFIC GRAVITY	0.669	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1169

INDEX 1069 SAMPLE 13438		INDEX 1070 SAMPLE 15417		INDEX 1071 SAMPLE 15502	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MOORE	COUNTY.....	MOORE	COUNTY.....	MOORE
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	20 IN. DISCHARGE	LOCATION.....	22 IN. DISCHARGE	LOCATION.....	30 IN. DISCHARGE
OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	NATURAL GAS PIPELINE CO. OF
SAMPLED.....	10/05/72	SAMPLED.....	10/16/78	SAMPLED.....	11/13/78
FORMATION.....	PERM-WICHITA-ALBANY	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	780	PRESSURE, PSIG.....	400	PRESSURE, PSIG.....	650
FLOW, MCFD.....	125000	FLOW, MCFD.....	60000	FLOW, MCFD.....	150000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	77.1	METHANE.....	72.5	METHANE.....	79.5
ETHANE.....	7.6	ETHANE.....	7.6	ETHANE.....	6.2
PROPANE.....	2.3	PROPANE.....	4.8	PROPANE.....	2.9
N-BUTANE.....	0.0	N-BUTANE.....	1.5	N-BUTANE.....	0.7
ISOBUTANE.....	0.0	ISOBUTANE.....	0.7	ISOBUTANE.....	0.3
N-PENTANE.....	0.0	N-PENTANE.....	0.3	N-PENTANE.....	0.2
ISOPENTANE.....	0.0	ISOPENTANE.....	0.4	ISOPENTANE.....	0.2
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE </td
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	12.1	NITROGEN.....	11.0	NITROGEN.....	9.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	TRACE </td
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	TRACE	CARBON DIOXIDE.....	0.2
HELIUM.....	0.64	HELIUM.....	0.65	HELIUM.....	0.48
HEATING VALUE.....	1177	HEATING VALUE.....	1119	HEATING VALUE.....	1048
SPECIFIC GRAVITY.....	0.665	SPECIFIC GRAVITY.....	0.738	SPECIFIC GRAVITY.....	0.677

INDEX 1072 SAMPLE 16812		INDEX 1073 SAMPLE 17029		INDEX 1074 SAMPLE 17032	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MOORE	COUNTY.....	MOORE	COUNTY.....	MOORE
FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W	FIELD.....	PANHANDLE W
LOCATION.....	30 IN. DISCHARGE	LOCATION.....	20 IN. DISCHARGE	LOCATION.....	20 IN. INLET FROM WEST
OWNER.....	NATURAL GAS PIPELINE CO. OF	OWNER.....	COLORADO INTERSTATE GAS CO.	OWNER.....	DIAMOND SHAMROCK CORP.
SAMPLED.....	03/14/83	SAMPLED.....	08/29/83	SAMPLED.....	08/29/83
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	78000	PRESSURE, PSIG.....	65	PRESSURE, PSIG.....	225
FLOW, MCFD.....	78000	FLOW, MCFD.....	12070	FLOW, MCFD.....	70000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	80.2	METHANE.....	63.2	METHANE.....	68.9
ETHANE.....	5.1	ETHANE.....	7.4	ETHANE.....	8.4
PROPANE.....	2.9	PROPANE.....	5.0	PROPANE.....	6.8
N-BUTANE.....	1.3	N-BUTANE.....	2.0	N-BUTANE.....	2.7
ISOBUTANE.....	0.5	ISOBUTANE.....	0.7	ISOBUTANE.....	1.0
N-PENTANE.....	0.3	N-PENTANE.....	0.4	N-PENTANE.....	0.3
ISOPENTANE.....	0.5	ISOPENTANE.....	1.0	ISOPENTANE.....	0.9
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2	CYCLOPENTANE.....	TRACE </td
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.1
NITROGEN.....	8.2	NITROGEN.....	12.3	NITROGEN.....	9.3
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.1
ARGON.....	TRACE	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.2	HYDROGEN.....	0.3	HYDROGEN.....	0.3
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	0.7
HELIUM.....	0.38	HELIUM.....	0.68	HELIUM.....	0.57
HEATING VALUE.....	1084	HEATING VALUE.....	1138	HEATING VALUE.....	1207
SPECIFIC GRAVITY.....	0.689	SPECIFIC GRAVITY.....	0.773	SPECIFIC GRAVITY.....	0.790

INDEX 1075 SAMPLE 5385		INDEX 1076 SAMPLE 5506		INDEX 1077 SAMPLE 7437	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MOORE	COUNTY.....	MOORE	COUNTY.....	MOORE
FIELD.....	PANHANDLE W & HUGOTON, TEXAS	FIELD.....	PANHANDLE W & HUGOTON, TEXAS	FIELD.....	PANHANDLE W & HUGOTON, TEXAS
LOCATION.....	NOT GIVEN	LOCATION.....	16 IN. DISCHARGE	LOCATION.....	20 IN. INLET
OWNER.....	KERR-MCGEE CORP.	OWNER.....	NORTHERN NATURAL GAS CO.	OWNER.....	SHAMROCK OIL & GAS CORP.
SAMPLED.....	07/01/63	SAMPLED.....	07/01/63	SAMPLED.....	03/16/60
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	70.9	METHANE.....	72.4	METHANE.....	70.7
ETHANE.....	6.4	ETHANE.....	6.7	ETHANE.....	6.6
PROPANE.....	4.1	PROPANE.....	3.3	PROPANE.....	3.9
N-BUTANE.....	1.2	N-BUTANE.....	0.8	N-BUTANE.....	1.1
ISOBUTANE.....	0.4	ISOBUTANE.....	0.2	ISOBUTANE.....	0.6
N-PENTANE.....	0.3	N-PENTANE.....	0.1	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	0.1	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2
NITROGEN.....	15.4	NITROGEN.....	15.5	NITROGEN.....	15.3
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.2
ARGON.....	0.1	ARGON.....	0.1	ARGON.....	0.1
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	TRACE
HELIUM.....	0.73	HELIUM.....	0.70	HELIUM.....	0.70
HEATING VALUE.....	1020	HEATING VALUE.....	980	HEATING VALUE.....	1028
SPECIFIC GRAVITY.....	0.727	SPECIFIC GRAVITY.....	0.702	SPECIFIC GRAVITY.....	0.731

INDEX 1078 SAMPLE 17030		INDEX 1079 SAMPLE 17031		INDEX 1080 SAMPLE 17040	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	MOORE	COUNTY.....	TEXAS HUGOTON (SHERMAN CO.)	COUNTY.....	MOORE
FIELD.....	TEXAS HUGOTON (SHERMAN CO.)	FIELD.....	TEXAS HUGOTON (SHERMAN CO.)	FIELD.....	TEXAS HUGOTON (SHERMAN CO.)
LOCATION.....	DIAMOND SHAMROCK CORP.	LOCATION.....	DIAMOND SHAMROCK CORP.	LOCATION.....	DIAMOND SHAMROCK CORP.
OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	DIAMOND SHAMROCK CORP.	OWNER.....	PHILLIPS PETROLEUM CO.
SAMPLED.....	08/29/83	SAMPLED.....	08/29/83	SAMPLED.....	09/02/83
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440	GEOLOGIC PROVINCE CODE.....	440
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	225	PRESSURE, PSIG.....	225	PRESSURE, PSIG.....	200
FLOW, MCFD.....	46000	FLOW, MCFD.....	133000	FLOW, MCFD.....	94000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	69.1	METHANE.....	84.8	METHANE.....	70.0
ETHANE.....	8.8	ETHANE.....	7.8	ETHANE.....	7.0
PROPANE.....	4.3	PROPANE.....	3.5	PROPANE.....	4.9
N-BUTANE.....	1.3	N-BUTANE.....	1.1	N-BUTANE.....	1.9
ISOBUTANE.....	0.5	ISOBUTANE.....	0.4	ISOBUTANE.....	0.7
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.3
ISOPENTANE.....	0.5	ISOPENTANE.....	0.6	ISOPENTANE.....	0.8
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.2	HEXANES PLUS.....	0.2
NITROGEN.....	15.9	NITROGEN.....	1.1	NITROGEN.....	13.2
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	0.1	ARGON.....	TRACE	ARGON.....	0.1
HYDROGEN.....	0.3	HYDROGEN.....	0.3	HYDROGEN.....	0.3
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.2	CARBON DIOXIDE.....	0.9	CARBON DIOXIDE.....	0.1
HELIUM.....	0.75	HELIUM.....	11.07	HELIUM.....	0.61
HEATING VALUE.....	1034	HEATING VALUE.....	1171	HEATING VALUE.....	1111
SPECIFIC GRAVITY.....	0.741	SPECIFIC GRAVITY.....	0.680	SPECIFIC GRAVITY.....	0.759

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

	INDEX SAMPLE	1081 17041		INDEX SAMPLE	1082 17042		INDEX SAMPLE	1083 17043
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	MOORE		MOORE			MOORE		
FIELD.....	TEXAS PANHANDLE AREA		WESTERN OKLAHOMA AREA			ZUBECK		
LOCATION.....	14 IN. INLET DUMAS HELIUM PLT		20 IN. INLET			18 IN. INLET		
OWNER.....	EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		
SAMPLED.....	09/02/83		09/02/83			09/02/83		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	166		370			370		
FLOW, MCFD.....	66300		241700			167000		
COMPONENT, MOLE PCT								
METHANE.....	80.9		94.9			94.0		
ETHANE.....	5.5		2.6			2.0		
PROPANE.....	1.0		0.4			0.6		
N-BUTANE.....	TRACE		0.1			0.2		
ISOBUTANE.....	TRACE		0.0			0.1		
N-PENTANE.....	TRACE		0.0			TRACE		
ISOPENTANE.....	TRACE		0.1			0.1		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		0.3			0.1		
NITROGEN.....	11.8		0.3			1.1		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.1		TRACE			TRACE		
HYDROGEN.....	0.3		0.3			0.3		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		1.2			1.4		
HELIUM.....	0.41		0.03			0.04		
HEATING VALUE.....	945		1027			1024		
SPECIFIC GRAVITY.....	0.638		0.586			0.595		

	INDEX SAMPLE	1084 9594		INDEX SAMPLE	1085 4355		INDEX SAMPLE	1086 4358
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	NEWTON		NUECES			NUECES		
FIELD.....	QUICKSAND CREEK		LUBY			LUBY		
LOCATION.....	NOT GIVEN		INLET			OUTLET		
OWNER.....	OIL RESERVES CORP.		STANOLIND OIL & GAS CO.			SEABOARD OIL CO.		
SAMPLED.....	10/07/64		09/26/47			09/26/47		
FORMATION.....	EDGE-WILCOX		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	220		220			220		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	950		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	12000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	83.2		61.5			84.3		
ETHANE.....	8.2		36.9			15.2		
PROPANE.....	2.8		---			---		
N-BUTANE.....	0.7		---			---		
ISOBUTANE.....	1.2		---			---		
N-PENTANE.....	0.1		---			---		
ISOPENTANE.....	0.3		---			---		
CYCLOPENTANE.....	TRACE		---			---		
HEXANES PLUS.....	0.3		---			---		
NITROGEN.....	0.9		0.6			0.2		
OXYGEN.....	0.0		0.6			0.2		
ARGON.....	TRACE		---			---		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		---			---		
CARBON DIOXIDE.....	2.3		0.4			0.1		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1159		1284			1126		
SPECIFIC GRAVITY.....	0.693		0.747			0.633		

	INDEX SAMPLE	1087 7750		INDEX SAMPLE	1088 8127		INDEX SAMPLE	1089 8134
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	CHITREE		PALO PINTO			PALO PINTO		
FIELD.....	ANADARKO BASIN		BRAD AREA			DEATON		
LOCATION.....	NOT GIVEN		NEAR BRAD, TEXAS			SE OF GORDON, TEXAS		
OWNER.....	SHAMROCK OIL & GAS CORP.		LONE STAR GAS CO.			LONE STAR GAS CO.		
SAMPLED.....	1/01/60		08/08/61			08/09/61		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		425			425		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		300			280		
FLOW, MCFD.....	NOT GIVEN		4000			1200		
COMPONENT, MOLE PCT								
METHANE.....	90.2		78.9			80.0		
ETHANE.....	4.9		10.8			10.1		
PROPANE.....	2.0		4.1			3.9		
N-BUTANE.....	0.6		1.0			1.0		
ISOBUTANE.....	0.5		0.7			0.7		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.0		0.3			0.3		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	0.7		3.2			3.2		
OXYGEN.....	TRACE		---			---		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.7		0.3			0.3		
HELIUM.....	0.10		0.10			0.10		
HEATING VALUE.....	1104		1195			1181		
SPECIFIC GRAVITY.....	0.631		0.708			0.700		

	INDEX SAMPLE	1090 8125		INDEX SAMPLE	1091 8130		INDEX SAMPLE	1092 8131
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	PALO PINTO		PALO PINTO			PALO PINTO		
FIELD.....	ECHOLS		NOT GIVEN			NOT GIVEN		
LOCATION.....	NOT GIVEN		OUTLET			INLET		
OWNER.....	LONE STAR GAS CO.		LONE STAR GAS CO.			LONE STAR GAS CO.		
SAMPLED.....	08/08/61		08/08/61			08/08/61		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	425		425			425		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	330		280			240		
FLOW, MCFD.....	4200		40000			40000		
COMPONENT, MOLE PCT								
METHANE.....	79.1		77.7			73.5		
ETHANE.....	9.9		11.5			11.3		
PROPANE.....	1.0		0.2			0.9		
N-BUTANE.....	1.1		0.1			0.9		
ISOBUTANE.....	0.6		0.1			0.6		
N-PENTANE.....	0.2		TRACE			0.1		
ISOPENTANE.....	0.3		0.1			0.2		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	0.2		TRACE			0.1		
NITROGEN.....	4.2		6.1			7.0		
OXYGEN.....	TRACE		0.6			0.8		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		---			---		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.3		
HELIUM.....	0.10		0.10			0.10		
HEATING VALUE.....	1166		1087			1143		
SPECIFIC GRAVITY.....	0.701		0.678			0.725		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1161

INDEX 1093 SAMPLE 8132		INDEX 1094 SAMPLE 10887		INDEX 1095 SAMPLE 10888	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO	COUNTY.....	PALO PINTO
FIELD.....	NOT GIVEN	FIELD.....	VARIOUS	FIELD.....	VARIOUS
LOCATION.....	INLET LINE K	LOCATION.....	PIPELINE	LOCATION.....	NOT GIVEN
OWNER.....	LONE STAR GAS CO.	OWNER.....	SOUTHWESTERN GAS PIPELINE, I	OWNER.....	TEXAS PACIFIC OIL CO.
SAMPLED.....	08/08/61	SAMPLED.....	02/27/67	SAMPLED.....	02/29/67
FORMATION.....	NOT GIVEN	FORMATION.....	UNKN-COMINGLED	FORMATION.....	PENN-STRAWN & MARBLE FALLS
GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425	GEOLOGIC PROVINCE CODE.....	425
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	290	PRESSURE, PSIG.....	600	PRESSURE, PSIG.....	600
FLOW, MCFD.....	2000	FLOW, MCFD.....	6000	FLOW, MCFD.....	3000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	70.8	METHANE.....	78.4	METHANE.....	79.2
ETHANE.....	12.9	ETHANE.....	9.3	ETHANE.....	9.6
PROPANE.....	6.1	PROPANE.....	4.3	PROPANE.....	4.0
N-BUTANE.....	0.9	N-BUTANE.....	1.2	N-BUTANE.....	1.1
ISOBUTANE.....	0.5	ISOBUTANE.....	0.5	ISOBUTANE.....	0.4
N-PENTANE.....	0.1	N-PENTANE.....	0.2	N-PENTANE.....	0.1
ISOPENTANE.....	0.2	ISOPENTANE.....	0.4	ISOPENTANE.....	0.2
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	7.5	NITROGEN.....	5.1	NITROGEN.....	4.6
OXYGEN.....	0.5	OXYGEN.....	0.0	OXYGEN.....	0.4
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	TRACE	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.10	HELIUM.....	0.12	HELIUM.....	0.14
HEATING VALUE.....	1172	HEATING VALUE.....	1162	HEATING VALUE.....	1142
SPECIFIC GRAVITY.....	0.745	SPECIFIC GRAVITY.....	0.706	SPECIFIC GRAVITY.....	0.694

INDEX 1096 SAMPLE 8116		INDEX 1097 SAMPLE 8117		INDEX 1098 SAMPLE 8133	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PARKER	COUNTY.....	PARKER	COUNTY.....	PARKER
FIELD.....	BOONSVILLE	FIELD.....	BOONSVILLE	FIELD.....	BRAZOS
LOCATION.....	OUTLET	LOCATION.....	OUTLET	LOCATION.....	J. B. BRANNON SUR.
OWNER.....	LONE STAR GAS CO.	OWNER.....	LONE STAR GAS CO.	OWNER.....	LONE STAR GAS CO.
SAMPLED.....	08/07/61	SAMPLED.....	08/07/61	SAMPLED.....	08/09/61
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	420	GEOLOGIC PROVINCE CODE.....	420	GEOLOGIC PROVINCE CODE.....	420
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	390	PRESSURE, PSIG.....	390	PRESSURE, PSIG.....	260
FLOW, MCFD.....	145000	FLOW, MCFD.....	142700	FLOW, MCFD.....	4900
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	82.7	METHANE.....	87.0	METHANE.....	77.7
ETHANE.....	11.6	ETHANE.....	12.4	ETHANE.....	12.4
PROPANE.....	3.2	PROPANE.....	2.8	PROPANE.....	2.0
N-BUTANE.....	0.8	N-BUTANE.....	0.4	N-BUTANE.....	1.1
ISOBUTANE.....	0.6	ISOBUTANE.....	0.3	ISOBUTANE.....	0.7
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	0.2
ISOPENTANE.....	0.2	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.3
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.6	HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1
NITROGEN.....	0.0	NITROGEN.....	TRACE	NITROGEN.....	0.1
OXYGEN.....	0.1	OXYGEN.....	TRACE	OXYGEN.....	TRACE
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3	CARBON DIOXIDE.....	0.3
HELIUM.....	0.12	HELIUM.....	0.10	HELIUM.....	0.10
HEATING VALUE.....	1203	HEATING VALUE.....	1139	HEATING VALUE.....	1226
SPECIFIC GRAVITY.....	0.681	SPECIFIC GRAVITY.....	0.640	SPECIFIC GRAVITY.....	0.716

INDEX 1099 SAMPLE 16117		INDEX 1100 SAMPLE 12072		INDEX 1101 SAMPLE 14486	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PECOS	COUNTY.....	PECOS	COUNTY.....	PECOS
FIELD.....	30 IN.	FIELD.....	GOMEZ & GRAY RANCH	FIELD.....	GOMEZ & GRAY RANCH
LOCATION.....	30 IN.	LOCATION.....	NOT GIVEN	LOCATION.....	30 IN. LINE
OWNER.....	VALEDO TRANSMISSION CO.	OWNER.....	COASTAL STATES GAS PROD. CO.	OWNER.....	COASTAL STATES GAS PROD. CO.
SAMPLED.....	10/21/78	SAMPLED.....	10/21/78	SAMPLED.....	10/07/75
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	900	PRESSURE, PSIG.....	900	PRESSURE, PSIG.....	1040
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	235000	FLOW, MCFD.....	220000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	86.6	METHANE.....	96.4	METHANE.....	52.0
ETHANE.....	6.7	ETHANE.....	0.2	ETHANE.....	0.1
PROPANE.....	2.3	PROPANE.....	TRACE	PROPANE.....	TRACE
N-BUTANE.....	0.6	N-BUTANE.....	0.0	N-BUTANE.....	0.0
ISOBUTANE.....	0.3	ISOBUTANE.....	0.0	ISOBUTANE.....	0.0
N-PENTANE.....	0.1	N-PENTANE.....	0.0	N-PENTANE.....	0.0
ISOPENTANE.....	0.2	ISOPENTANE.....	0.0	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.0
NITROGEN.....	1.8	NITROGEN.....	0.3	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.1	HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.2	CARBON DIOXIDE.....	0.0	CARBON DIOXIDE.....	47.2
HELIUM.....	0.08	HELIUM.....	0.02	HELIUM.....	0.03
HEATING VALUE.....	1109	HEATING VALUE.....	980	HEATING VALUE.....	529
SPECIFIC GRAVITY.....	0.654	SPECIFIC GRAVITY.....	0.585	SPECIFIC GRAVITY.....	1.016

INDEX 1102 SAMPLE 14487		INDEX 1103 SAMPLE 16122		INDEX 1104 SAMPLE 14484	
STATE.....	TEXAS	STATE.....	TEXAS	STATE.....	TEXAS
COUNTY.....	PECOS	COUNTY.....	PECOS	COUNTY.....	PECOS
FIELD.....	GOMEZ & GRAY RANCH	FIELD.....	WEST TEXAS	FIELD.....	WEST TEXAS AREA
LOCATION.....	30 IN. AFTER PROCESSING	LOCATION.....	36 IN. OUTLET	LOCATION.....	36 IN. LINE
OWNER.....	LONE STAR GAS PROD. CO.	OWNER.....	LONE STAR GAS CO.	OWNER.....	LONE STAR GAS CO.
SAMPLED.....	10/07/75	SAMPLED.....	10/21/80	SAMPLED.....	10/06/75
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430	GEOLOGIC PROVINCE CODE.....	430
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	1010	PRESSURE, PSIG.....	700	PRESSURE, PSIG.....	760
FLOW, MCFD.....	97000	FLOW, MCFD.....	220000	FLOW, MCFD.....	260000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	96.3	METHANE.....	95.5	METHANE.....	96.6
ETHANE.....	0.1	ETHANE.....	2.0	ETHANE.....	1.4
PROPANE.....	TRACE	PROPANE.....	0.5	PROPANE.....	0.2
N-BUTANE.....	0.0	N-BUTANE.....	0.1	N-BUTANE.....	0.1
ISOBUTANE.....	0.0	ISOBUTANE.....	0.1	ISOBUTANE.....	0.1
N-PENTANE.....	0.0	N-PENTANE.....	TRACE	N-PENTANE.....	TRACE
ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE	ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.0	HEXANES PLUS.....	0.1	HEXANES PLUS.....	TRACE
NITROGEN.....	0.9	NITROGEN.....	0.0	NITROGEN.....	0.5
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	2.6	CARBON DIOXIDE.....	0.7	CARBON DIOXIDE.....	0.7
HELIUM.....	0.06	HELIUM.....	0.02	HELIUM.....	0.02
HEATING VALUE.....	977	HEATING VALUE.....	1058	HEATING VALUE.....	1016
SPECIFIC GRAVITY.....	0.584	SPECIFIC GRAVITY.....	0.587	SPECIFIC GRAVITY.....	0.577

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	1105 16118			INDEX SAMPLE	1106 2041			INDEX SAMPLE	1107 5635
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	PECCS			COUNTY.....	PECCS			COUNTY.....	POTTER		
FIELD.....	WEST TEXAS GAS			FIELD.....	YATES			FIELD.....	BUSH DOME		
LOCATION.....	OUTLET			LOCATION.....	NOT GIVEN			LOCATION.....	10 IN. PLANT RESIDUE		
OWNER.....	OASIS PIPE LINE CO.			OWNER.....	HUMBLE OIL & REFINING CO.			OWNER.....	U.S. BUREAU OF MINES		
SAMPLED.....	10/21/80			SAMPLED.....	06/13/30			SAMPLED.....	06/11/54		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	430			GEOLOGIC PROVINCE CODE.....	430			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	900			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	3A0000			FLOW, MCFD.....	22			FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	96.5			METHANE.....	75.2			METHANE.....	68.6		
ETHANE.....	1.3			ETHANE.....	17.9			ETHANE.....	3.8		
PROPANE.....	0.2			PROPANE.....	---			PROPANE.....	1.9		
N-BUTANE.....	0.1			N-BUTANE.....	---			N-BUTANE.....	0.6		
ISOBUTANE.....	TRACE			ISOBUTANE.....	---			ISOBUTANE.....	0.3		
N-PENTANE.....	TRACE			N-PENTANE.....	---			N-PENTANE.....	0.1		
ISOPENTANE.....	TRACE			ISOPENTANE.....	---			ISOPENTANE.....	0.1		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	---			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	0.1			HEXANES PLUS.....	---			HEXANES PLUS.....	0.1		
NITROGEN.....	0.6			NITROGEN.....	1.2			NITROGEN.....	24.0		
OXYGEN.....	0.0			OXYGEN.....	0.2			OXYGEN.....	TRACE		
ARGON.....	TRACE			ARGON.....	---			ARGON.....	0.1		
HYDROGEN.....	0.0			HYDROGEN.....	---			HYDROGEN.....	0.1		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	1.1			CARBON DIOXIDE.....	5.0			CARBON DIOXIDE.....	TRACE		
HELIUM.....	0.02			HELIUM.....	0.01			HELIUM.....	0.13		
HEATING VALUE.....	1015			HEATING VALUE.....	1083			HEATING VALUE.....	857		
SPECIFIC GRAVITY.....	0.579			SPECIFIC GRAVITY.....	0.695			SPECIFIC GRAVITY.....	0.710		

		INDEX SAMPLE	1108 5636			INDEX SAMPLE	1109 5661			INDEX SAMPLE	1110 5662
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	POTTER			COUNTY.....	POTTER			COUNTY.....	POTTER		
FIELD.....	BUSH DOME			FIELD.....	BUSH DOME			FIELD.....	BUSH DOME		
LOCATION.....	6 IN. PLANT INLET			LOCATION.....	10 IN. PLANT INLET			LOCATION.....	10 IN. PLANT RESIDUE		
OWNER.....	U.S. BUREAU OF MINES			OWNER.....	U.S. BUREAU OF MINES			OWNER.....	U.S. BUREAU OF MINES		
SAMPLED.....	06/11/54			SAMPLED.....	08/02/54			SAMPLED.....	08/02/54		
FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	66.0			METHANE.....	65.7			METHANE.....	68.3		
ETHANE.....	3.6			ETHANE.....	3.8			ETHANE.....	4.0		
PROPANE.....	0.9			PROPANE.....	1.6			PROPANE.....	1.6		
N-BUTANE.....	0.6			N-BUTANE.....	0.5			N-BUTANE.....	0.6		
ISOBUTANE.....	0.3			ISOBUTANE.....	0.3			ISOBUTANE.....	0.3		
N-PENTANE.....	0.1			N-PENTANE.....	0.1			N-PENTANE.....	0.1		
ISOPENTANE.....	0.2			ISOPENTANE.....	0.1			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	0.1			CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	TRACE		
HEXANES PLUS.....	24.5			HEXANES PLUS.....	25.1			HEXANES PLUS.....	24.5		
NITROGEN.....	TRACE			NITROGEN.....	TRACE			NITROGEN.....	0.0		
OXYGEN.....	0.1			OXYGEN.....	0.1			OXYGEN.....	0.1		
ARGON.....	0.1			ARGON.....	0.1			ARGON.....	0.0		
HYDROGEN.....	0.0			HYDROGEN.....	0.0			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	0.0		
CARBON DIOXIDE.....	0.6			CARBON DIOXIDE.....	0.6			CARBON DIOXIDE.....	0.1		
HELIUM.....	1.77			HELIUM.....	1.77			HELIUM.....	0.12		
HEATING VALUE.....	835			HEATING VALUE.....	816			HEATING VALUE.....	848		
SPECIFIC GRAVITY.....	0.715			SPECIFIC GRAVITY.....	0.709			SPECIFIC GRAVITY.....	0.712		

		INDEX SAMPLE	1111 5663			INDEX SAMPLE	1112 2078			INDEX SAMPLE	1113 2591
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	POTTER			COUNTY.....	POTTER			COUNTY.....	POTTER		
FIELD.....	BUSH DOME			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
LOCATION.....	10 IN. PLANT RESIDUE			LOCATION.....	DISCHARGE			LOCATION.....	LINE TO AMARILLO		
OWNER.....	U.S. BUREAU OF MINES			OWNER.....	CANADIAN RIVER GAS CO.			OWNER.....	AMARILLO OIL CO.		
SAMPLED.....	08/02/54			SAMPLED.....	06/27/30			SAMPLED.....	01/19/33		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	180		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	10000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	68.4			METHANE.....	69.0			METHANE.....	65.6		
ETHANE.....	8.0			ETHANE.....	19.5			ETHANE.....	19.8		
PROPANE.....	1.8			PROPANE.....	---			PROPANE.....	---		
N-BUTANE.....	0.5			N-BUTANE.....	---			N-BUTANE.....	---		
ISOBUTANE.....	0.3			ISOBUTANE.....	---			ISOBUTANE.....	---		
N-PENTANE.....	0.1			N-PENTANE.....	---			N-PENTANE.....	---		
ISOPENTANE.....	0.1			ISOPENTANE.....	---			ISOPENTANE.....	---		
CYCLOPENTANE.....	TRACE			CYCLOPENTANE.....	---			CYCLOPENTANE.....	---		
HEXANES PLUS.....	TRACE			HEXANES PLUS.....	---			HEXANES PLUS.....	---		
NITROGEN.....	24.4			NITROGEN.....	11.4			NITROGEN.....	12.8		
OXYGEN.....	0.0			OXYGEN.....	0.1			OXYGEN.....	0.9		
ARGON.....	0.1			ARGON.....	---			ARGON.....	---		
HYDROGEN.....	0.0			HYDROGEN.....	---			HYDROGEN.....	---		
HYDROGEN SULFIDE.....	0.0			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.5			CARBON DIOXIDE.....	0.3		
HELIUM.....	10.72			HELIUM.....	10.7			HELIUM.....	0.62		
HEATING VALUE.....	847			HEATING VALUE.....	1030			HEATING VALUE.....	1019		
SPECIFIC GRAVITY.....	0.710			SPECIFIC GRAVITY.....	0.696			SPECIFIC GRAVITY.....	0.711		

		INDEX SAMPLE	1114 2923			INDEX SAMPLE	1115 3272			INDEX SAMPLE	1116 5188
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	POTTER			COUNTY.....	POTTER			COUNTY.....	POTTER		
FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W			FIELD.....	PANHANDLE W		
LOCATION.....	S LINE			LOCATION.....	GATHERING LINE-BIV.A-25 & A2			LOCATION.....	NOT GIVEN		
OWNER.....	CANADIAN RIVER GAS CO.			OWNER.....	CANADIAN RIVER GAS CO.			OWNER.....	AMARILLO OIL CO.		
SAMPLED.....	10/14/41			SAMPLED.....	04/29/42			SAMPLED.....	04/25/52		
FORMATION.....	NOT GIVEN			FORMATION.....	PERM-WICHITA-ALBANY			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440			GEOLOGIC PROVINCE CODE.....	440		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	400		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	26000		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	65.3			METHANE.....	65.2			METHANE.....	75.9		
ETHANE.....	17.8			ETHANE.....	19.0			ETHANE.....	6.0		
PROPANE.....	---			PROPANE.....	---			PROPANE.....	3.3		
N-BUTANE.....	---			N-BUTANE.....	---			N-BUTANE.....	0.8		
ISOBUTANE.....	---			ISOBUTANE.....	---			ISOBUTANE.....	0.3		
N-PENTANE.....	---			N-PENTANE.....	---			N-PENTANE.....	0.2		
ISOPENTANE.....	---			ISOPENTANE.....	---			ISOPENTANE.....	0.2		
CYCLOPENTANE.....	---			CYCLOPENTANE.....	---			CYCLOPENTANE.....	0.0		
HEXANES PLUS.....	---			HEXANES PLUS.....	---			HEXANES PLUS.....	0.1		
NITROGEN.....	15.0			NITROGEN.....	14.5			NITROGEN.....	12.1		
OXYGEN.....	0.2			OXYGEN.....	0.4			OXYGEN.....	0.1		
ARGON.....	---			ARGON.....	---			ARGON.....	0.1		
HYDROGEN.....	---			HYDROGEN.....	---			HYDROGEN.....	0.0		
HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---			HYDROGEN SULFIDE.....	---		
CARBON DIOXIDE.....	0.7			CARBON DIOXIDE.....	0.1			CARBON DIOXIDE.....	0.2		
HELIUM.....	0.99			HELIUM.....	0.77			HELIUM.....	0.66		
HEATING VALUE.....	1080			HEATING VALUE.....	901			HEATING VALUE.....	1021		
SPECIFIC GRAVITY.....	0.708			SPECIFIC GRAVITY.....	0.708			SPECIFIC GRAVITY.....	0.694		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1168

		INDEX SAMPLE	1117 5502	INDEX SAMPLE	1118 5508	INDEX SAMPLE	1119 5625
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	DISCHARGE			DISCHARGE		INLET	
OWNER.....	AMARILLO OIL CO.			WEST TEXAS GAS CO.		AMARILLO OIL CO.	
SAMPLED.....	07/01/53			07/01/53		06/01/54	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		175	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		40000	
COMPONENT, MOLE PCT							
METHANE.....	75.6			73.3		77.6	
ETHANE.....	6.6			6.7		6.2	
PROPANE.....	3.2			TRACE		3.8	
N-BUTANE.....	0.8			0.6		1.1	
ISOBUTANE.....	0.3			0.9		0.6	
N-PENTANE.....	0.1			0.0		0.2	
ISOPENTANE.....	0.1			0.0		0.2	
CYCLOPENTANE.....	0.0			TRACE		TRACE	
HEXANES PLUS.....	TRACE			0.0		0.1	
NITROGEN.....	12.5			1.1		TRACE	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	0.1			0.1		TRACE	
HYDROGEN.....	0.1			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.2	
HELIUM.....	0.66			0.49		0.48	
HEATING VALUE.....	1013			985		1079	
SPECIFIC GRAVITY.....	0.691			0.670		0.697	

		INDEX SAMPLE	1120 5626	INDEX SAMPLE	1121 5627	INDEX SAMPLE	1122 5628
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	OUTLET			INLET		OUTLET	
OWNER.....	AMARILLO OIL CO.			AMARILLO OIL CO.		AMARILLO OIL CO.	
SAMPLED.....	06/01/54			05/01/54		06/01/54	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	390			160		325	
FLOW, MCFD.....	40000			45000		45000	
COMPONENT, MOLE PCT							
METHANE.....	78.8			76.6		76.5	
ETHANE.....	5.9			6.6		6.2	
PROPANE.....	3.2			3.3		3.4	
N-BUTANE.....	0.6			0.9		0.7	
ISOBUTANE.....	0.4			0.6		0.4	
N-PENTANE.....	0.1			0.2		0.1	
ISOPENTANE.....	0.0			0.1		0.0	
CYCLOPENTANE.....	0.0			0.1		TRACE	
HEXANES PLUS.....	TRACE			11.9		TRACE	
NITROGEN.....	10.0			0.0		TRACE	
OXYGEN.....	TRACE			0.0		TRACE	
ARGON.....	0.1			TRACE		0.1	
HYDROGEN.....	TRACE			0.0		TRACE	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.1	
HELIUM.....	0.33			0.54		0.68	
HEATING VALUE.....	1033			1062		1016	
SPECIFIC GRAVITY.....	0.678			0.701		0.686	

		INDEX SAMPLE	1123 5890	INDEX SAMPLE	1124 5895	INDEX SAMPLE	1125 5896
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	NO. F44-12			F-38, 16 IN. LINE AT TRIWAY		10 IN. F-4 LOOP	
OWNER.....	COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	08/02/55			08/02/55		08/02/55	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	72.4			72.1		71.8	
ETHANE.....	5.5			5.6		5.4	
PROPANE.....	3.2			3.0		3.0	
N-BUTANE.....	1.0			0.9		1.0	
ISOBUTANE.....	0.3			0.3		0.3	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.3			0.2		0.3	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.1	
NITROGEN.....	15.5			15.7		16.3	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	0.1			0.1		0.1	
HYDROGEN.....	0.2			0.2		0.2	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.5		0.3	
HELIUM.....	0.93			0.92		1.00	
HEATING VALUE.....	995			984		977	
SPECIFIC GRAVITY.....	0.712			0.713		0.711	

		INDEX SAMPLE	1126 5898	INDEX SAMPLE	1127 6758	INDEX SAMPLE	1128 6761
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	8 IN. F-17 LINE			16 IN. N LINE		24 IN. DISCHARGE	
OWNER.....	COLORADO INTERSTATE GAS CO.			AMARILLO OIL CO.		AMARILLO OIL CO.	
SAMPLED.....	03/02/55			07/23/58		07/23/58	
FORMATION.....	NOT GIVEN			PERM-WICHITA-ALBANY		PERM-WICHITA-ALBANY	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			145		350	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		32000	
COMPONENT, MOLE PCT							
METHANE.....	72.1			78.4		78.6	
ETHANE.....	5.7			6.1		6.3	
PROPANE.....	3.1			3.3		3.4	
N-BUTANE.....	0.9			1.0		0.8	
ISOBUTANE.....	0.4			0.6		0.3	
N-PENTANE.....	0.1			0.2		0.0	
ISOPENTANE.....	0.3			0.2		0.4	
CYCLOPENTANE.....	0.1			0.1		0.0	
HEXANES PLUS.....	0.2			0.2		0.0	
NITROGEN.....	15.7			0.1		9.4	
OXYGEN.....	0.0			TRACE		0.0	
ARGON.....	0.1			TRACE		0.1	
HYDROGEN.....	0.2			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.0		0.2	
HELIUM.....	0.95			0.40		0.50	
HEATING VALUE.....	987			1074		1051	
SPECIFIC GRAVITY.....	0.711			0.694		0.684	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	1129 6762	INDEX SAMPLE	1130 7340	INDEX SAMPLE	1131 7387
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	16 IN. W LINE			24 IN. LINE		16 IN. INLET	
OWNER.....	AMARILLO OIL CO.			PIONEER NATURAL GAS CO.		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	07/23/58			01/19/60		02/09/60	
FORMATION.....	PERM-WICHITA-ALBANY			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	85			400		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			30000		72000	
COMPONENT, MOLE PCT							
METHANE.....	77.4			75.1		75.1	
ETHANE.....	6.1			5.9		6.7	
PROPANE.....	3.3			2.8		3.5	
N-BUTANE.....	1.1			0.5		1.1	
ISOBUTANE.....	0.6			0.3		0.5	
N-PENTANE.....	0.1			0.1		0.2	
ISOPENTANE.....	0.4			0.2		0.3	
CYCLOPENTANE.....	TRACE			TRACE		0.1	
HEXANES PLUS.....	0.1			0.1		0.2	
NITROGEN.....	10.2			10.8		11.4	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		0.1	
HYDROGEN.....	0.0			0.1		0.1	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.2		0.1	
HELIUM.....	0.50			0.50		0.59	
HEATING VALUE.....	1063			1061		1061	
SPECIFIC GRAVITY.....	0.698			0.673		0.709	

		INDEX SAMPLE	1132 7688	INDEX SAMPLE	1133 7691	INDEX SAMPLE	1134 7692
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	INLET			INLET		INLET	
OWNER.....	PIONEER NATURAL GAS CO.			PIONEER NATURAL GAS CO.		PIONEER NATURAL GAS CO.	
SAMPLED.....	09/26/60			09/27/60		09/30/60	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	78.8			77.4		77.3	
ETHANE.....	6.2			6.2		6.5	
PROPANE.....	3.5			3.7		3.7	
N-BUTANE.....	1.2			1.2		1.3	
ISOBUTANE.....	0.6			0.8		0.7	
N-PENTANE.....	0.2			0.2		0.2	
ISOPENTANE.....	0.3			0.3		0.3	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.2		0.2	
NITROGEN.....	8.0			9.1		8.9	
OXYGEN.....	TRACE			TRACE		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	TRACE			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.3			0.3		0.2	
HELIUM.....	0.40			0.40		0.50	
HEATING VALUE.....	1100			1094		1098	
SPECIFIC GRAVITY.....	0.699			0.707		0.706	

		INDEX SAMPLE	1135 7686	INDEX SAMPLE	1136 7867	INDEX SAMPLE	1137 8103
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	INLET			INLET		INLET	
OWNER.....	PIONEER NATURAL GAS CO.			PIONEER NATURAL GAS CO.		PIONEER NATURAL GAS CO.	
SAMPLED.....	02/23/61			02/23/61		08/03/61	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	77.1			78.5		77.9	
ETHANE.....	6.5			6.7		6.8	
PROPANE.....	3.5			3.4		3.4	
N-BUTANE.....	1.1			1.0		0.9	
ISOBUTANE.....	0.6			0.6		0.6	
N-PENTANE.....	0.3			0.2		0.1	
ISOPENTANE.....	0.2			0.1		0.1	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			0.2		0.1	
NITROGEN.....	10.0			8.7		9.5	
OXYGEN.....	0.0			0.0		TRACE	
ARGON.....	TRACE			TRACE		TRACE	
HYDROGEN.....	0.0			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.2			0.1		0.2	
HELIUM.....	0.50			0.40		0.40	
HEATING VALUE.....	1072			1080		1063	
SPECIFIC GRAVITY.....	0.701			0.691		0.691	

		INDEX SAMPLE	1138 8186	INDEX SAMPLE	1139 9304	INDEX SAMPLE	1140 9309
STATE.....	TEXAS			TEXAS		TEXAS	
COUNTY.....	POTTER			POTTER		POTTER	
FIELD.....	PANHANDLE W			PANHANDLE W		PANHANDLE W	
LOCATION.....	INLET			INLET		16 IN. INLET	
OWNER.....	PIONEER NATURAL GAS CO.			COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.	
SAMPLED.....	08/05/61			04/24/64		04/24/64	
FORMATION.....	NOT GIVEN			PERM-WICHITA-ALBANY&RED CAVE		PERM-WICHITA-ALBANY&RED CAVE	
GEOLOGIC PROVINCE CODE.....	440			440		440	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			176		170	
FLOW, MCFD.....	NOT GIVEN			179		64	
COMPONENT, MOLE PCT							
METHANE.....	78.8			75.4		75.6	
ETHANE.....	7.0			6.9		7.0	
PROPANE.....	3.1			3.6		3.7	
N-BUTANE.....	0.9			1.3		1.2	
ISOBUTANE.....	0.5			0.8		0.6	
N-PENTANE.....	0.2			0.5		0.2	
ISOPENTANE.....	0.2			0.5		0.5	
CYCLOPENTANE.....	0.1			0.1		0.1	
HEXANES PLUS.....	0.2			0.3		0.2	
NITROGEN.....	10.7			10.1		10.4	
OXYGEN.....	TRACE			TRACE		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	TRACE			0.0		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.1			0.2		0.1	
HELIUM.....	0.30			0.50		0.54	
HEATING VALUE.....	1082			1102		1083	
SPECIFIC GRAVITY.....	0.692			0.721		0.712	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

INDEX 1141 SAMPLE 9735			INDEX 1142 SAMPLE 11849			INDEX 1143 SAMPLE 11850		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W		
LOCATION.....	INLET F-29-16		SEC. 24, BLK. 2, EL&RR SUR.			SEC. 37, BLK. 018, EL&RR SUR		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	02/17/65		05/09/69			05/09/69		
FORMATION.....	PERM-WICHITA-ALBANY&RED CAVE		PERM-WICHITA-ALBANY			PERM-WICHITA-ALBANY		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	166		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.5		71.4			71.4		
ETHANE.....	6.5		6.0			5.6		
PROPANE.....	5.2		3.8			3.5		
N-BUTANE.....	2.2		1.4			1.2		
ISOBUTANE.....	0.8		0.4			0.2		
N-PENTANE.....	0.3		0.5			0.5		
ISOPENTANE.....	0.6		0.1			0.1		
CYCLOPENTANE.....	0.1		0.1			0.0		
HEXANES PLUS.....	0.2		0.4			0.3		
NITROGEN.....	10.7		14.3			15.6		
OXYGEN.....	0.0		TRACE			0.1		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.3			0.4		
HELIUM.....	0.57		0.78			0.88		
HEATING VALUE.....	1013		1051			1013		
SPECIFIC GRAVITY.....	0.753		0.756			0.729		

INDEX 1144 SAMPLE 11851			INDEX 1145 SAMPLE 11852			INDEX 1146 SAMPLE 8584		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	POTTER		POTTER			POTTER		
FIELD.....	PANHANDLE W		PANHANDLE W			PANHANDLE W/RED CAVE		
LOCATION.....	SEC. 5, BLK. 018, D&P SUR.		SEC. 5, BLK. PMC, EL&RR SUR			COMPOSITE		
OWNER.....	COLORADO INTERSTATE GAS CO.		COLORADO INTERSTATE GAS CO.			ANADARKO PRODUCTION CO.		
SAMPLED.....	05/09/69		05/09/69			06/19/62		
FORMATION.....	PERM-WICHITA-ALBANY&RED CAVE		PERM-WICHITA-ALBANY&RED CAVE			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	440		440			440		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	71.2		71.6			75.0		
ETHANE.....	6.6		6.4			7.3		
PROPANE.....	3.8		3.2			3.7		
N-BUTANE.....	1.3		1.0			0.9		
ISOBUTANE.....	0.4		0.4			0.5		
N-PENTANE.....	0.4		0.4			0.1		
ISOPENTANE.....	0.2		0.3			0.2		
CYCLOPENTANE.....	0.1		0.1			TRACE		
HEXANES PLUS.....	0.3		0.2			0.1		
NITROGEN.....	14.3		14.9			10.2		
OXYGEN.....	0.3		0.1			0.5		
ARGON.....	0.1		0.1			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.3			0.1		
HELIUM.....	0.82		0.82			0.33		
HEATING VALUE.....	1041		1020			1062		
SPECIFIC GRAVITY.....	0.733		0.725			0.701		

INDEX 1147 SAMPLE 7422			INDEX 1148 SAMPLE 6640			INDEX 1149 SAMPLE 8160		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	RANDALL		ROBERTS			RUNNELS		
FIELD.....	PANHANDLE W		PUTWOUND			FORT CHADBOURNE		
LOCATION.....	CANYON, TEXAS		12 IN. LINE			NOT GIVEN		
OWNER.....	PIONEER NATURAL GAS CO.		NATURAL GAS PIPELINE CO. OF			LONE STAR GAS CO.		
SAMPLED.....	12/03/59		06/19/58			08/12/61		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	435		360			425		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	325		NOT GIVEN			450		
FLOW, MCFD.....	30000		20000			5300		
COMPONENT, MOLE PCT								
METHANE.....	79.5		79.0			70.9		
ETHANE.....	5.9		8.2			16.8		
PROPANE.....	2.7		4.2			5.7		
N-BUTANE.....	1.3		1.4			0.2		
ISOBUTANE.....	0.3		0.8			0.1		
N-PENTANE.....	TRACE		0.3			TRACE		
ISOPENTANE.....	0.1		0.5			0.0		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	TRACE		0.3			TRACE		
NITROGEN.....	10.2		4.9			5.8		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.2		
HELIUM.....	0.50		0.10			0.08		
HEATING VALUE.....	1006		1184			1184		
SPECIFIC GRAVITY.....	0.662		0.715			0.728		

INDEX 1150 SAMPLE 8159			INDEX 1151 SAMPLE 12545			INDEX 1152 SAMPLE 6935		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	RUNNELS		RUSK			SAN PATRICIO		
FIELD.....	WINTERS SW		PONE			WHITE POINT E		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	LONE STAR GAS CO.		LUMBER OIL & REFINING CO.			SINCLAIR OIL & GAS CO.		
SAMPLED.....	08/12/61		11/10/70			02/02/59		
FORMATION.....	NOT GIVEN		CRET-COMPOSITE			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	425		425			220		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	315		NOT GIVEN			37		
FLOW, MCFD.....	3000		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	72.5		89.2			90.1		
ETHANE.....	10.2		3.4			6.2		
PROPANE.....	4.9		1.9			2.6		
N-BUTANE.....	1.3		0.7			TRACE		
ISOBUTANE.....	0.7		0.9			TRACE		
N-PENTANE.....	0.2		0.0			0.0		
ISOPENTANE.....	0.2		0.0			0.1		
CYCLOPENTANE.....	TRACE		0.1			TRACE		
HEXANES PLUS.....	0.2		0.4			TRACE		
NITROGEN.....	9.3		2.2			0.5		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	0.0		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.3			0.2		
HELIUM.....	0.25		0.03			0.01		
HEATING VALUE.....	1143		1114			1096		
SPECIFIC GRAVITY.....	0.737		0.652			0.615		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	1153 6936	INDEX SAMPLE	1154 12712	INDEX SAMPLE	1155 8157
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	SCHLEICHER			SCHLEICHER		SCURRY	
FIELD	NOT GIVEN			PAGE		NOT GIVEN	
LOCATION	NOT GIVEN			NOT GIVEN		DISCHARGE	
OWNER	SINCLAIR OIL & GAS CO.			CITIES SERVICE OIL CO.		LONG STAR GAS CO.	
SAMPLED	02/05/59			03/12/71		08/11/61	
FORMATION	NOT GIVEN			PERIN-STRAWN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	430			430		430	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	NOT GIVEN			NOT GIVEN		460	
FLOW, MCFD	NOT GIVEN			NOT GIVEN		18700	
COMPONENT, MOLE PCT							
METHANE	79.3			77.2		70.5	
ETHANE	9.6			8.7		23.3	
PROPANE	2.4			4.5		1.0	
N-BUTANE	0.0			1.3		TRACE	
ISOBUTANE	0.0			0.7		TRACE	
N-PENTANE	0.0			0.2		TRACE	
ISOPENTANE	0.0			0.5		0.1	
CYCLOPENTANE	0.0			0.1		TRACE	
HEXANES PLUS	0.0			0.3		TRACE	
NITROGEN	8.2			5.7		4.2	
OXYGEN	TRACE			0.0		TRACE	
ARGON	TRACE			0.0		TRACE	
HYDROGEN	0.1			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.1			0.7		0.1	
HELIUM	0.20			0.12		0.05	
HEATING VALUE	1058			1173		1173	
SPECIFIC GRAVITY	0.659			0.726		0.702	

		INDEX SAMPLE	1156 8153	INDEX SAMPLE	1157 6529	INDEX SAMPLE	1158 5384
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	SHERKELFORD			SHERMAN		SHERMAN	
FIELD	WINDHAM			HUGOTON & PANHANDLE		HUGOTON, TEXAS	
LOCATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER	LONG STAR GAS CO.			KERR-MCGEE OIL IND., INC.		KERR-MCGEE CORP.	
SAMPLED	09/10/61			03/21/58		02/06/53	
FORMATION	NOT GIVEN			PERM-WICHITA-ALBANY		NOT GIVEN	
GEOLOGIC PROVINCE CODE	425			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	255			175		NOT GIVEN	
FLOW, MCFD	700			7000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE	64.6			70.6		70.6	
ETHANE	10.9			6.5		6.3	
PROPANE	8.3			4.0		4.1	
N-BUTANE	2.7			1.3		1.2	
ISOBUTANE	1.3			0.6		0.6	
N-PENTANE	0.5			0.2		0.4	
ISOPENTANE	0.6			0.3		0.1	
CYCLOPENTANE	0.1			0.1		0.1	
HEXANES PLUS	0.3			0.1		0.1	
NITROGEN	10.4			15.3		16.4	
OXYGEN	TRACE			TRACE		TRACE	
ARGON	0.0			0.0		0.1	
HYDROGEN	0.0			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	0.2			0.2		0.1	
HELIUM	0.20			0.80		0.74	
HEATING VALUE	1265			1030		1016	
SPECIFIC GRAVITY	0.827			0.733		0.734	

		INDEX SAMPLE	1159 5386	INDEX SAMPLE	1160 5698	INDEX SAMPLE	1161 5700
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	SHERMAN			SHERMAN		SHERMAN	
FIELD	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
LOCATION	NOT GIVEN			LINE K		LINE L	
OWNER	PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
SAMPLED	02/06/53			10/12/54		10/12/54	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	NOT GIVEN			255		255	
FLOW, MCFD	NOT GIVEN			40000		160000	
COMPONENT, MOLE PCT							
METHANE	70.4			70.4		70.4	
ETHANE	6.4			6.1		6.3	
PROPANE	4.1			3.1		4.1	
N-BUTANE	1.1			0.7		1.1	
ISOBUTANE	0.5			0.4		0.6	
N-PENTANE	0.3			0.2		0.2	
ISOPENTANE	0.1			0.1		0.2	
CYCLOPENTANE	0.1			TRACE		0.1	
HEXANES PLUS	0.1			0.1		0.1	
NITROGEN	14.8			14.1		15.3	
OXYGEN	TRACE			TRACE		0.0	
ARGON	0.1			0.1		0.1	
HYDROGEN	0.0			TRACE		TRACE	
HYDROGEN SULFIDE	0.0			0.1		0.0	
CARBON DIOXIDE	0.1			0.1		0.1	
HELIUM	0.74			0.78		0.75	
HEATING VALUE	1014			995		1016	
SPECIFIC GRAVITY	0.727			0.697		0.729	

		INDEX SAMPLE	1162 5701	INDEX SAMPLE	1163 6267	INDEX SAMPLE	1164 6688
STATE	TEXAS			TEXAS		TEXAS	
COUNTY	SHERMAN			SHERMAN		SHERMAN	
FIELD	HUGOTON, TEXAS			HUGOTON, TEXAS		HUGOTON, TEXAS	
LOCATION	LINE L-1			LINE K-1		LINE L	
OWNER	PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
SAMPLED	10/12/54			03/12/57		07/03/58	
FORMATION	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE	360			360		360	
DEPTH, FEET	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG	255			NOT GIVEN		196	
FLOW, MCFD	80000			NOT GIVEN		6200	
COMPONENT, MOLE PCT							
METHANE	70.5			74.1		69.8	
ETHANE	6.2			6.7		6.3	
PROPANE	3.9			3.5		3.9	
N-BUTANE	1.1			1.0		1.3	
ISOBUTANE	0.6			0.5		0.6	
N-PENTANE	0.3			0.2		0.1	
ISOPENTANE	0.2			0.3		0.5	
CYCLOPENTANE	0.1			TRACE		TRACE	
HEXANES PLUS	0.2			0.1		0.2	
NITROGEN	16.1			12.8		16.2	
OXYGEN	TRACE			0.0		TRACE	
ARGON	0.1			TRACE		0.1	
HYDROGEN	0.1			0.0		0.0	
HYDROGEN SULFIDE	0.0			0.0		0.0	
CARBON DIOXIDE	TRACE			0.1		0.2	
HELIUM	0.73			0.70		0.80	
HEATING VALUE	1019			1044		1021	
SPECIFIC GRAVITY	0.731			0.711		0.736	

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1167

INDEX 1165 SAMPLE 6691			INDEX 1166 SAMPLE 6695			INDEX 1167 SAMPLE 6696		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHERMAN		SHERMAN			SHERMAN		
FIELD.....	HUGOTON, TEXAS		HUGOTON, TEXAS			HUGOTON, TEXAS		
LOCATION.....	24 IN. L-1 LINE		24 IN. L-1 LINE			24 IN. L-1 LINE		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	07/03/58		07/03/58			07/03/58		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	600		175			240		
FLOW, MCFD.....	65000		51000			56000		
COMPONENT, MOLE PCT								
METHANE.....	69.8		72.4			73.9		
ETHANE.....	6.1		6.1			6.4		
PROPANE.....	4.1		3.5			3.5		
N-BUTANE.....	1.3		1.0			1.0		
ISOBUTANE.....	0.7		0.6			0.6		
N-PENTANE.....	0.3		0.2			0.1		
ISOPENTANE.....	0.3		0.2			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.2		0.1			0.2		
NITROGEN.....	15.6		14.7			13.1		
OXYGEN.....	0.0		0.0			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.1			0.1		
HELIUM.....	0.80		1.00			0.70		
HEATING VALUE.....	1041		1013			1039		
SPECIFIC GRAVITY.....	0.741		0.715			0.713		

INDEX 1168 SAMPLE 6697			INDEX 1169 SAMPLE 6699			INDEX 1170 SAMPLE 6942		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHERMAN		SHERMAN			SHERMAN		
FIELD.....	HUGOTON, TEXAS		HUGOTON, TEXAS			HUGOTON, TEXAS		
LOCATION.....	24 IN. L-1 LINE		24 IN. L-1 LINE			24 IN. L-1 LINE		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	07/03/58		07/03/58			02/16/59		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	175		175			NOT GIVEN		
FLOW, MCFD.....	112000		98000			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	70.4		70.6			74.7		
ETHANE.....	6.4		6.2			6.3		
PROPANE.....	4.0		3.9			3.6		
N-BUTANE.....	1.2		1.3			1.0		
ISOBUTANE.....	0.2		0.6			0.6		
N-PENTANE.....	0.2		0.2			0.1		
ISOPENTANE.....	0.3		0.3			0.3		
CYCLOPENTANE.....	0.1		0.1			0.1		
HEXANES PLUS.....	0.1		0.2			0.2		
NITROGEN.....	15.8		15.8			12.3		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.1		0.1			0.1		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.80		0.70			0.50		
HEATING VALUE.....	1026		1027			1048		
SPECIFIC GRAVITY.....	0.734		0.734			0.710		

INDEX 1171 SAMPLE 6943			INDEX 1172 SAMPLE 6944			INDEX 1173 SAMPLE 6945		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHERMAN		SHERMAN			SHERMAN		
FIELD.....	HUGOTON, TEXAS		HUGOTON, TEXAS			HUGOTON, TEXAS		
LOCATION.....	J-1 LINE		L-2 LINE			L-10 LINE		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	02/16/59		02/16/59			02/16/59		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	75.4		75.2			68.7		
ETHANE.....	6.4		6.5			6.3		
PROPANE.....	3.8		3.6			3.7		
N-BUTANE.....	1.0		0.9			0.9		
ISOBUTANE.....	0.5		0.5			0.6		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.1		0.2			0.1		
NITROGEN.....	12.0		10.6			18.2		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			0.1		
HYDROGEN.....	TRACE		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			TRACE		
HELIUM.....	0.40		0.50			1.00		
HEATING VALUE.....	1046		1046			982		
SPECIFIC GRAVITY.....	0.702		0.704			0.730		

INDEX 1174 SAMPLE 6946			INDEX 1175 SAMPLE 6947			INDEX 1176 SAMPLE 6948		
STATE.....	TEXAS		TEXAS			TEXAS		
COUNTY.....	SHERMAN		SHERMAN			SHERMAN		
FIELD.....	HUGOTON, TEXAS		HUGOTON, TEXAS			HUGOTON, TEXAS		
LOCATION.....	L-11 LINE		K-1 LINE			K-6 LINE		
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.			PHILLIPS PETROLEUM CO.		
SAMPLED.....	02/16/59		02/16/59			02/16/59		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360		360			360		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	70.2		75.6			71.8		
ETHANE.....	6.6		6.9			6.6		
PROPANE.....	4.1		3.6			3.8		
N-BUTANE.....	1.2		1.0			1.1		
ISOBUTANE.....	0.8		0.5			0.6		
N-PENTANE.....	0.4		0.3			0.3		
ISOPENTANE.....	0.1		0.2			0.2		
CYCLOPENTANE.....	0.3		0.1			0.1		
HEXANES PLUS.....	0.7		0.3			0.2		
NITROGEN.....	14.8		10.9			14.4		
OXYGEN.....	TRACE		TRACE			0.0		
ARGON.....	0.1		TRACE			0.1		
HYDROGEN.....	TRACE		TRACE			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.70		0.60			0.80		
HEATING VALUE.....	1072		1037			1037		
SPECIFIC GRAVITY.....	0.751		0.710			0.726		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	1177 6949			INDEX SAMPLE	1178 6950			INDEX SAMPLE	1179 6951
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	SHERMAN			COUNTY.....	SHERMAN			COUNTY.....	SHERMAN		
FIELD.....	HUGOTON, TEXAS			FIELD.....	HUGOTON, TEXAS			FIELD.....	HUGOTON, TEXAS		
LOCATION.....	K-12 LINE			LOCATION.....	L-16 LINE			LOCATION.....	L-16 LINE		
OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.		
SAMPLED.....	02/16/59			SAMPLED.....	02/16/59			SAMPLED.....	02/16/59		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	69.5	-----		METHANE.....	71.0	-----		METHANE.....	72.1	-----	
ETHANE.....	6.3	-----		ETHANE.....	6.7	-----		ETHANE.....	6.6	-----	
PROPANE.....	3.4	-----		PROPANE.....	3.7	-----		PROPANE.....	3.9	-----	
N-BUTANE.....	0.8	-----		N-BUTANE.....	0.8	-----		N-BUTANE.....	1.0	-----	
ISOBUTANE.....	0.5	-----		ISOBUTANE.....	0.5	-----		ISOBUTANE.....	0.5	-----	
N-PENTANE.....	0.1	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	0.2	-----	
ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.2	-----		ISOPENTANE.....	0.1	-----	
CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	TRACE	-----	
HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.1	-----	
NITROGEN.....	17.8	-----		NITROGEN.....	15.9	-----		NITROGEN.....	14.2	-----	
OXYGEN.....	TRACE	-----		OXYGEN.....	0.0	-----		OXYGEN.....	0.0	-----	
ARGON.....	0.1	-----		ARGON.....	0.1	-----		ARGON.....	0.1	-----	
HYDROGEN.....	0.0	-----		HYDROGEN.....	TRACE	-----		HYDROGEN.....	0.1	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.1	-----	
HELIUM.....	0.90	-----		HELIUM.....	0.90	-----		HELIUM.....	0.70	-----	
HEATING VALUE.....	967	-----		HEATING VALUE.....	1001	-----		HEATING VALUE.....	1019	-----	
SPECIFIC GRAVITY.....	0.718	-----		SPECIFIC GRAVITY.....	0.719	-----		SPECIFIC GRAVITY.....	0.715	-----	
		INDEX SAMPLE	1180 6952			INDEX SAMPLE	1181 6953			INDEX SAMPLE	1182 6954
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	SHERMAN			COUNTY.....	SHERMAN			COUNTY.....	SHERMAN		
FIELD.....	HUGOTON, TEXAS			FIELD.....	HUGOTON, TEXAS			FIELD.....	HUGOTON, TEXAS		
LOCATION.....	L LINE			LOCATION.....	O LINE			LOCATION.....	N LINE		
OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.		
SAMPLED.....	02/16/59			SAMPLED.....	02/16/59			SAMPLED.....	02/16/59		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	69.5	-----		METHANE.....	70.8	-----		METHANE.....	72.1	-----	
ETHANE.....	6.5	-----		ETHANE.....	6.2	-----		ETHANE.....	6.5	-----	
PROPANE.....	4.3	-----		PROPANE.....	3.9	-----		PROPANE.....	3.8	-----	
N-BUTANE.....	1.4	-----		N-BUTANE.....	1.1	-----		N-BUTANE.....	1.1	-----	
ISOBUTANE.....	0.7	-----		ISOBUTANE.....	0.6	-----		ISOBUTANE.....	0.6	-----	
N-PENTANE.....	0.3	-----		N-PENTANE.....	0.2	-----		N-PENTANE.....	0.2	-----	
ISOPENTANE.....	0.3	-----		ISOPENTANE.....	0.3	-----		ISOPENTANE.....	0.3	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	TRACE	-----	
HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.2	-----	
NITROGEN.....	15.6	-----		NITROGEN.....	15.6	-----		NITROGEN.....	14.2	-----	
OXYGEN.....	TRACE	-----		OXYGEN.....	0.1	-----		OXYGEN.....	TRACE	-----	
ARGON.....	0.1	-----		ARGON.....	0.1	-----		ARGON.....	0.1	-----	
HYDROGEN.....	TRACE	-----		HYDROGEN.....	0.1	-----		HYDROGEN.....	TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.0	-----		CARBON DIOXIDE.....	0.0	-----		CARBON DIOXIDE.....	0.1	-----	
HELIUM.....	0.80	-----		HELIUM.....	0.70	-----		HELIUM.....	0.80	-----	
HEATING VALUE.....	1043	-----		HEATING VALUE.....	1022	-----		HEATING VALUE.....	1034	-----	
SPECIFIC GRAVITY.....	0.744	-----		SPECIFIC GRAVITY.....	0.730	-----		SPECIFIC GRAVITY.....	0.722	-----	
		INDEX SAMPLE	1183 6955			INDEX SAMPLE	1184 6956			INDEX SAMPLE	1185 6957
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	SHERMAN			COUNTY.....	SHERMAN			COUNTY.....	SHERMAN		
FIELD.....	HUGOTON, TEXAS			FIELD.....	HUGOTON, TEXAS			FIELD.....	HUGOTON, TEXAS		
LOCATION.....	M LINE			LOCATION.....	J-MAIN LINE			LOCATION.....	J-17 LINE		
OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.		
SAMPLED.....	02/16/59			SAMPLED.....	02/16/59			SAMPLED.....	02/16/59		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	70.4	-----		METHANE.....	72.1	-----		METHANE.....	66.9	-----	
ETHANE.....	6.5	-----		ETHANE.....	6.2	-----		ETHANE.....	6.1	-----	
PROPANE.....	4.0	-----		PROPANE.....	3.7	-----		PROPANE.....	4.0	-----	
N-BUTANE.....	1.2	-----		N-BUTANE.....	1.1	-----		N-BUTANE.....	1.2	-----	
ISOBUTANE.....	0.6	-----		ISOBUTANE.....	0.6	-----		ISOBUTANE.....	0.6	-----	
N-PENTANE.....	0.1	-----		N-PENTANE.....	0.1	-----		N-PENTANE.....	0.2	-----	
ISOPENTANE.....	0.1	-----		ISOPENTANE.....	0.4	-----		ISOPENTANE.....	0.2	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	TRACE	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.1	-----		HEXANES PLUS.....	0.2	-----	
NITROGEN.....	15.5	-----		NITROGEN.....	15.6	-----		NITROGEN.....	19.4	-----	
OXYGEN.....	TRACE	-----		OXYGEN.....	TRACE	-----		OXYGEN.....	TRACE	-----	
ARGON.....	0.1	-----		ARGON.....	0.1	-----		ARGON.....	0.1	-----	
HYDROGEN.....	TRACE	-----		HYDROGEN.....	TRACE	-----		HYDROGEN.....	TRACE	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.2	-----		CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.1	-----	
HELIUM.....	0.80	-----		HELIUM.....	0.60	-----		HELIUM.....	0.90	-----	
HEATING VALUE.....	1025	-----		HEATING VALUE.....	1021	-----		HEATING VALUE.....	983	-----	
SPECIFIC GRAVITY.....	0.732	-----		SPECIFIC GRAVITY.....	0.721	-----		SPECIFIC GRAVITY.....	0.745	-----	
		INDEX SAMPLE	1186 6958			INDEX SAMPLE	1187 6959			INDEX SAMPLE	1188 6960
STATE.....	TEXAS			STATE.....	TEXAS			STATE.....	TEXAS		
COUNTY.....	SHERMAN			COUNTY.....	SHERMAN			COUNTY.....	SHERMAN		
FIELD.....	HUGOTON, TEXAS			FIELD.....	HUGOTON, TEXAS			FIELD.....	HUGOTON, TEXAS		
LOCATION.....	J LINE			LOCATION.....	J-17 LINE			LOCATION.....	TEXAS HUGOTON		
OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.			OWNER.....	PHILLIPS PETROLEUM CO.		
SAMPLED.....	02/16/59			SAMPLED.....	02/16/59			SAMPLED.....	02/16/59		
FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN			FORMATION.....	NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360			GEOLOGIC PROVINCE CODE.....	360		
DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN			DEPTH, FEET.....	NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN			PRESSURE, PSIG.....	NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN			FLOW, MCFD.....	NOT GIVEN		
COMPONENT, MOLE PCT				COMPONENT, MOLE PCT				COMPONENT, MOLE PCT			
METHANE.....	66.4	-----		METHANE.....	69.4	-----		METHANE.....	68.3	-----	
ETHANE.....	5.8	-----		ETHANE.....	6.4	-----		ETHANE.....	6.0	-----	
PROPANE.....	4.0	-----		PROPANE.....	4.1	-----		PROPANE.....	4.0	-----	
N-BUTANE.....	1.2	-----		N-BUTANE.....	1.4	-----		N-BUTANE.....	1.3	-----	
ISOBUTANE.....	0.6	-----		ISOBUTANE.....	0.8	-----		ISOBUTANE.....	0.7	-----	
N-PENTANE.....	0.2	-----		N-PENTANE.....	0.3	-----		N-PENTANE.....	0.3	-----	
ISOPENTANE.....	0.3	-----		ISOPENTANE.....	0.3	-----		ISOPENTANE.....	0.3	-----	
CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.1	-----		CYCLOPENTANE.....	0.1	-----	
HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.2	-----		HEXANES PLUS.....	0.2	-----	
NITROGEN.....	20.2	-----		NITROGEN.....	15.9	-----		NITROGEN.....	17.8	-----	
OXYGEN.....	TRACE	-----		OXYGEN.....	TRACE	-----		OXYGEN.....	0.0	-----	
ARGON.....	0.1	-----		ARGON.....	0.1	-----		ARGON.....	0.1	-----	
HYDROGEN.....	0.1	-----		HYDROGEN.....	0.0	-----		HYDROGEN.....	0.0	-----	
HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----		HYDROGEN SULFIDE.....	0.0	-----	
CARBON DIOXIDE.....	0.1	-----		CARBON DIOXIDE.....	0.2	-----		CARBON DIOXIDE.....	0.1	-----	
HELIUM.....	0.90	-----		HELIUM.....	0.80	-----		HELIUM.....	0.80	-----	
HEATING VALUE.....	977	-----		HEATING VALUE.....	1038	-----		HEATING VALUE.....	1010	-----	
SPECIFIC GRAVITY.....	0.749	-----		SPECIFIC GRAVITY.....	0.744	-----		SPECIFIC GRAVITY.....	0.745	-----	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1169

STATE	INDEX	1189	INDEX	1190	INDEX	1191
COUNTY	SAMPLE	6961	SAMPLE	6962	SAMPLE	6963
TEXAS	TEXAS		TEXAS		TEXAS	
COUNTY.....	SHERMAN		SHERMAN		SHERMAN	
FIELD.....	HUGOTON, TEXAS		HUGOTON, TEXAS		HUGOTON, TEXAS	
LOCATION.....	L-15 LINE		TEXAS HUGOTON		L-21 LINE	
OWNER.....	PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.		PHILLIPS PETROLEUM CO.	
SAMPLED.....	02/16/59		02/16/59		02/16/59	
FORMATION.....	NOT GIVEN		NOT GIVEN		PENN-TONKAWA	
GEOLOGIC PROVINCE CODE.....	360		360		360	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	69.8		66.1		68.4	
ETHANE.....	6.4		6.4		6.6	
PROPANE.....	4.3		5.3		4.3	
N-BUTANE.....	1.4		3.0		1.5	
ISOBUTANE.....	0.7		0.4		0.7	
N-PENTANE.....	0.3		1.4		0.5	
ISOPENTANE.....	0.4		0.0		0.1	
CYCLOPENTANE.....	0.1		0.3		0.1	
HEXANES PLUS.....	0.2		1.0		0.8	
NITROGEN.....	15.5		14.9		15.7	
OXYGEN.....	0.0		TRACE		0.0	
ARGON.....	0.1		0.1		0.1	
HYDROGEN.....	TRACE		0.1		0.2	
HYDROGEN SULFIDE.....	0.0		0.0		0.0	
CARBON DIOXIDE.....	0.1		0.2		0.3	
HELIUM.....	0.80		0.70		0.70	
HEATING VALUE.....	1048		1079		1079	
SPECIFIC GRAVITY.....	0.744		0.808		0.766	

STATE	INDEX	1192	INDEX	1193	INDEX	1194
COUNTY	SAMPLE	8144	SAMPLE	8170	SAMPLE	2052
TEXAS	TEXAS		TEXAS		TEXAS	
COUNTY.....	STEPHENS		SUTTON		UPTON	
FIELD.....	MANNING-CONNOR		MIERS		MCCANEY	
LOCATION.....	LONG STAR GAS CO.		NOT GIVEN		NOT GIVEN	
OWNER.....	NOT GIVEN		SHELL OIL CO.		HUMBLE OIL & REFINING CO.	
SAMPLED.....	08/10/61		08/10/61		06/16/30	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	425		430		430	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	275		360		18	
FLOW, MCFD.....	63		3400		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	71.0		81.9		28.7	
ETHANE.....	1.2		2.7		68.1	
PROPANE.....	6.7		2.7		---	
N-BUTANE.....	2.1		0.6		---	
ISOBUTANE.....	1.1		0.4		---	
N-PENTANE.....	0.5		TRACE		---	
ISOPENTANE.....	0.6		0.2		---	
CYCLOPENTANE.....	0.2		TRACE		---	
HEXANES PLUS.....	0.5		0.1		---	
NITROGEN.....	5.4		7.5		0.9	
OXYGEN.....	TRACE		TRACE		0.1	
ARGON.....	0.0		0.0		---	
HYDROGEN.....	0.0		0.0		---	
HYDROGEN SULFIDE.....	0.0		0.0		---	
CARBON DIOXIDE.....	0.6		0.9		2.2	
HELIUM.....	0.10		5.30		0.00	
HEATING VALUE.....	1282		1039		1511	
SPECIFIC GRAVITY.....	0.790		0.665		0.917	

STATE	INDEX	1195	INDEX	1196	INDEX	1197
COUNTY	SAMPLE	12727	SAMPLE	5509	SAMPLE	5510
TEXAS	TEXAS		TEXAS		TEXAS	
COUNTY.....	WHEELER		WHEELER		WHEELER	
FIELD.....	PANHANDLE E		PANHANDLE E		PANHANDLE E	
LOCATION.....	18 IN. DISCHARGE		18 IN. DISCHARGE		14 IN. DISCHARGE	
OWNER.....	ATLANTIC RICHFIELD CO.		LONG STAR GAS CO.		CONSOLIDATED GAS CO.	
SAMPLED.....	07/02/57		07/02/57		07/02/57	
FORMATION.....	DEVON		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	430		360		360	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT						
METHANE.....	75.5		82.0		80.2	
ETHANE.....	13.8		5.8		7.5	
PROPANE.....	5.6		4.1		3.7	
N-BUTANE.....	0.8		1.0		1.0	
ISOBUTANE.....	0.5		0.9		0.5	
N-PENTANE.....	0.5		0.7		0.1	
ISOPENTANE.....	0.0		0.4		0.1	
CYCLOPENTANE.....	0.1		0.1		TRACE	
HEXANES PLUS.....	0.3		0.5		0.1	
NITROGEN.....	1.3		3.5		6.4	
OXYGEN.....	0.0		TRACE		0.0	
ARGON.....	0.0		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.1	
CARBON DIOXIDE.....	0.7		0.0		0.17	
HELIUM.....	0.02		0.12		1107	
HEATING VALUE.....	1272		0.716		0.684	
SPECIFIC GRAVITY.....	0.743					

STATE	INDEX	1198	INDEX	1199	INDEX	1200
COUNTY	SAMPLE	6741	SAMPLE	6742	SAMPLE	7279
TEXAS	TEXAS		TEXAS		TEXAS	
COUNTY.....	WHEELER		WHEELER		WHEELER	
FIELD.....	PANHANDLE E		PANHANDLE E		PANHANDLE E	
LOCATION.....	16 IN. DISCHARGE		EAST LINE		2 TO 12 IN. LINES	
OWNER.....	LONG STAR GAS CO.		EL PASO NATURAL GAS CO.		UNITED PRODUCING CO., INC.	
SAMPLED.....	07/22/58		07/22/58		11/17/59	
FORMATION.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	360		NOT GIVEN		360	
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	270		190		280	
FLOW, MCFD.....	3000		56000		10500	
COMPONENT, MOLE PCT						
METHANE.....	82.8		88.2		89.4	
ETHANE.....	6.1		3.4		3.3	
PROPANE.....	4.1		0.5		1.7	
N-BUTANE.....	1.6		0.5		0.4	
ISOBUTANE.....	1.0		0.3		0.3	
N-PENTANE.....	0.4		0.1		0.1	
ISOPENTANE.....	0.6		0.2		0.3	
CYCLOPENTANE.....	0.1		TRACE		0.1	
HEXANES PLUS.....	0.4		0.1		0.1	
NITROGEN.....	2.8		3.9		3.9	
OXYGEN.....	TRACE		TRACE		0.1	
ARGON.....	TRACE		TRACE		TRACE	
HYDROGEN.....	0.0		0.0		0.0	
HYDROGEN SULFIDE.....	0.0		0.0		0.1	
CARBON DIOXIDE.....	0.1		0.20		0.10	
HELIUM.....	1.66		1.042		1.058	
HEATING VALUE.....	1209		0.631		0.627	
SPECIFIC GRAVITY.....	2.800					

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	1201 6744			INDEX SAMPLE	1202 2023			INDEX SAMPLE	1203 8294
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	WHEELER			WINKLER				WINKLER			
FIELD.....	PANHANDLE W			LLANO				NOT GIVEN			
LOCATION.....	SEC. 9, BLK. A-8, H&G SUR.			SEC. 1, BLK. C22, P.S.-L.				16 IN. LINE			
OWNER.....	CONSOLIDATED GAS UTILITIES			SHELL PETROLEUM CORP.				EL PASO NATURAL GAS CO.			
SAMPLED.....	07/22/58			06/10/30				11/29/61			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	360			430				430			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	310			68				73000			
FLOW, MCFD.....	30000										
COMPONENT, MOLE PCT											
METHANE.....	80.7			51.4				82.6			
ETHANE.....	8.0			44.0				12.5			
PROpane.....	4.8							0.8			
N-BUTANE.....	1.3							0.1			
ISOBUTANE.....	0.8							TRACE			
N-PENTANE.....	0.1							TRACE			
ISOPENTANE.....	0.2							0.0			
CYCLOPENTANE.....	TRACE							430			
HEXANES PLUS.....	0.1							0.0			
NITROGEN.....	3.9			4.0				3.4			
OXYGEN.....	0.1			0.0				0.0			
ARGON.....	TRACE							TRACE			
HYDROGEN.....	0.0							0.1			
HYDROGEN SULFIDE.....	0.0							TRACE			
CARBON DIOXIDE.....	0.1			0.5				0.4			
HELIUM.....	0.10			0.07				0.06			
HEATING VALUE.....	1174			1309				1085			
SPECIFIC GRAVITY.....	0.701			0.793				0.643			
		INDEX SAMPLE	1204 8295			INDEX SAMPLE	1205 8296			INDEX SAMPLE	1206 8297
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	WINKLER			WINKLER				WINKLER			
FIELD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
LOCATION.....	20 IN. LINE			20 IN. LINE				30 IN. LINE			
OWNER.....	EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.				EL PASO NATURAL GAS CO.			
SAMPLED.....	11/29/61			11/29/61				11/29/61			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	430			430				430			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			436				NOT GIVEN			
FLOW, MCFD.....	223000			144000				266000			
COMPONENT, MOLE PCT											
METHANE.....	91.1			88.0				83.6			
ETHANE.....	4.1			4.6				11.7			
PROpane.....	1.3			0.7				0.8			
N-BUTANE.....	0.3			0.1				TRACE			
ISOBUTANE.....	0.2			TRACE				TRACE			
N-PENTANE.....	0.2			TRACE				0.0			
ISOPENTANE.....	TRACE			TRACE				0.0			
CYCLOPENTANE.....	TRACE			TRACE				0.0			
HEXANES PLUS.....	0.1			TRACE				0.0			
NITROGEN.....	1.7			1.2				3.6			
OXYGEN.....	0.0			TRACE				0.0			
ARGON.....	TRACE			0.0				TRACE			
HYDROGEN.....	0.1			0.1				0.2			
HYDROGEN SULFIDE.....	43.0			0.0				0.0			
CARBON DIOXIDE.....	0.8			5.2				TRACE			
HELIUM.....	0.02			0.06				0.04			
HEATING VALUE.....	1061			1096				1078			
SPECIFIC GRAVITY.....	0.615			0.640				0.634			
		INDEX SAMPLE	1207 2026			INDEX SAMPLE	1208 8280			INDEX SAMPLE	1209 10892
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	WINKLER			WISE				WISE			
FIELD.....	O'BRIEN			NOT GIVEN				VARIOUS			
LOCATION.....	SEC. 27, BLK. 8-12, P.S.-L.			NOT GIVEN				PIPELINE			
OWNER.....	CONTINENTAL OIL CO.			CM&M GAS PRODUCTS PLANT, INC				SOUTHWESTERN GAS PIPELINE, I			
SAMPLED.....	06/10/30			11/24/61				02/27/67			
FORMATION.....	NOT GIVEN			PENN-BOONESVILLE BEND CONG.				UNKN-COMINGLED			
GEOLOGIC PROVINCE CODE.....	430			420				420			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			650				600			
FLOW, MCFD.....	NOT GIVEN			150000				7000			
COMPONENT, MOLE PCT											
METHANE.....	41.1			81.1				77.1			
ETHANE.....	28.0			8.5				10.0			
PROpane.....				1.0				0.9			
N-BUTANE.....				1.0				1.4			
ISOBUTANE.....				0.6				0.5			
N-PENTANE.....				0.2				0.2			
ISOPENTANE.....				0.4				0.4			
CYCLOPENTANE.....				TRACE				TRACE			
HEXANES PLUS.....				0.1				0.9			
NITROGEN.....	0.3			3.3				0.0			
OXYGEN.....	0.4			0.2				TRACE			
ARGON.....				TRACE				0.0			
HYDROGEN.....				TRACE				0.0			
HYDROGEN SULFIDE.....				0.0				0.0			
CARBON DIOXIDE.....	30.3			0.4				0.4			
HELIUM.....	0.00			0.12				0.11			
HEATING VALUE.....	918			1165				1208			
SPECIFIC GRAVITY.....	0.992			0.694				0.730			
		INDEX SAMPLE	1210 6775			INDEX SAMPLE	1211 8305			INDEX SAMPLE	1212 8304
STATE.....	TEXAS			TEXAS				TEXAS			
COUNTY.....	WISE & JACK			YOAKUM				YOAKUM			
FIELD.....	20 IN. LINE			NOT GIVEN				SPRABERRY			
LOCATION.....	NATURAL GAS PIPELINE CO. OF			30 IN. DISCHARGE				24 IN. DISCHARGE TO DIMITT			
OWNER.....				EL PASO NATURAL GAS CO.				EL PASO NATURAL GAS CO.			
SAMPLED.....	08/08/58			11/30/58				11/30/58			
FORMATION.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	420			430				430			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	645			833				517			
FLOW, MCFD.....	90000			625000				38000			
COMPONENT, MOLE PCT											
METHANE.....	86.3			86.9				87.8			
ETHANE.....	9.4			7.3				7.3			
PROpane.....	1.5			1.3				1.1			
N-BUTANE.....	0.1			1.1				0.1			
ISOBUTANE.....	0.1			TRACE				TRACE			
N-PENTANE.....	0.1			TRACE				TRACE			
ISOPENTANE.....	0.0			TRACE				TRACE			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	TRACE			0.0				0.0			
NITROGEN.....	1.9			3.8				0.2			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	0.0			0.0				0.0			
HYDROGEN.....	0.0			0.1				TRACE			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.9			0.3				0.3			
HELIUM.....	0.10			0.05				0.09			
HEATING VALUE.....	1093			1048				1052			
SPECIFIC GRAVITY.....	0.632			0.622				0.618			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1171

		INDEX SAMPLE	1213 7853	INDEX SAMPLE	1214 17760	INDEX SAMPLE	1215 16003
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	CARBON			CARBON		CARBON	
FIELD.....	CLARK CREEK			UNTA BASIN AREA		VERNAL & COLORADO	
LOCATION.....	NOT GIVEN			20 IN. DISC.		20 IN.	
OWNER.....	UTAH NATURAL GAS CO.			MOUNTAIN FUEL RESOURCES, INC		MOUNTAIN FUEL SUPPLY CO.	
SAMPLED.....	02/09/61			07/10/85		07/09/80	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	S75			S75		S75	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			600		421	
FLOW, MCFD.....	NOT GIVEN			70000		64000	
COMPONENT, MOLE PCT							
METHANE.....	97.4			89.2		89.5	
ETHANE.....	0.1			6.6		6.3	
PROPANE.....	0.1			1.8		1.3	
N-BUTANE.....	0.1			0.3		0.2	
ISOBUTANE.....	TRACE			0.3		0.1	
N-PENTANE.....	0.0			0.2		0.1	
ISOPENTANE.....	0.0			TRACE		0.1	
CYCLOPENTANE.....	TRACE			0.3		TRACE	
HEXANES PLUS.....	TRACE			0.5		0.1	
NITROGEN.....	1.6			0.6		1.7	
OXYGEN.....	0.0			0.0		0.0	
ARGON.....	TRACE			1.0		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	0.7			0.0		0.5	
HELIUM.....	0.04			0.01		0.07	
HEATING VALUE.....	991			1139		1077	
SPECIFIC GRAVITY.....	0.569			0.640		0.621	

		INDEX SAMPLE	1216 6968	INDEX SAMPLE	1217 8318	INDEX SAMPLE	1218 9621
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	ANETH			ANETH		LISBON	
LOCATION.....	NOT GIVEN			20 IN. INLET		LISBON UNIT WELL NO. C-93	
OWNER.....	EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		PURE OIL CO.	
SAMPLED.....	02/11/59			12/04/61		10/26/64	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	S85			S85		S85	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			977		2850	
FLOW, MCFD.....	NOT GIVEN			85200		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	68.0			78.7		37.7	
ETHANE.....	19.3			15.1		10.8	
PROPANE.....	1.7			0.1		8.9	
N-BUTANE.....	0.9			TRACE		1.7	
ISOBUTANE.....	0.2			TRACE		0.5	
N-PENTANE.....	0.2			TRACE		0.5	
ISOPENTANE.....	TRACE			TRACE		TRACE	
CYCLOPENTANE.....	TRACE			TRACE		TRACE	
HEXANES PLUS.....	0.1			TRACE		0.2	
NITROGEN.....	0.6			0.1		10.9	
OXYGEN.....	0.0			0.1		0.1	
ARGON.....	0.0			TRACE		TRACE	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.3	
CARBON DIOXIDE.....	0.2			0.1		27.8	
HELIUM.....	0.07			0.03		0.58	
HEATING VALUE.....	1366			1158		914	
SPECIFIC GRAVITY.....	0.788			0.674		1.061	

		INDEX SAMPLE	1219 8319	INDEX SAMPLE	1220 12074	INDEX SAMPLE	1221 14480
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SAN JUAN	
FIELD.....	NOT GIVEN			SAN JUAN BASIN		SAN JUAN BASIN	
LOCATION.....	5 IN. OUTLET			NO. 2 DISCHARGE		20 IN.	
OWNER.....	EL PASO NATURAL GAS CO.			EL PASO NATURAL GAS CO.		NORTHWEST PIPELINE CORP.	
SAMPLED.....	12/04/61			10/06/69		09/30/75	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	S85			S85		S85	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	924			624		NOT GIVEN	
FLOW, MCFD.....	2400			200000		185000	
COMPONENT, MOLE PCT							
METHANE.....	66.3			91.3		90.5	
ETHANE.....	0.6			4.7		6.3	
PROPANE.....	2.4			1.3		1.5	
N-BUTANE.....	0.7			0.0		TRACE	
ISOBUTANE.....	0.0			0.0		0.1	
N-PENTANE.....	0.1			0.0		TRACE	
ISOPENTANE.....	0.2			0.0		TRACE	
CYCLOPENTANE.....	TRACE			0.0		TRACE	
HEXANES PLUS.....	TRACE			0.0		TRACE	
NITROGEN.....	19.0			0.7		0.3	
OXYGEN.....	TRACE			0.1		0.0	
ARGON.....	0.1			0.1		TRACE	
HYDROGEN.....	0.1			0.1		0.0	
HYDROGEN SULFIDE.....	TRACE			0.0		0.0	
CARBON DIOXIDE.....	0.9			0.9		1.2	
HELIUM.....	0.98			10.01		0.02	
HEATING VALUE.....	867			1043		1072	
SPECIFIC GRAVITY.....	0.747			0.612		0.614	

		INDEX SAMPLE	1222 16119	INDEX SAMPLE	1223 6849	INDEX SAMPLE	1224 16004
STATE.....	UTAH			UTAH		UTAH	
COUNTY.....	SAN JUAN			SAN JUAN		SUMMIT	
FIELD.....	SAN JUAN BASIN			WHITE MESA		SW 40.0, NW COLO., & NE UTAH	
LOCATION.....	26 IN. OUTLET			NOT GIVEN		INLET	
OWNER.....	NORTHWEST PIPELINE CORP.			CORINENTAL OIL CO.		MOUNTAIN FUEL SUPPLY CO.	
SAMPLED.....	10/27/80			11/59/75		07/10/80	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	S85			S85		NOT GIVEN	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		570	
PRESSURE, PSIG.....	750			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	280000			NOT GIVEN		400	
COMPONENT, MOLE PCT						48000	
METHANE.....	90.2			64.1		83.6	
ETHANE.....	6.4			20.9		9.5	
PROPANE.....	1.1			10.3		1.3	
N-BUTANE.....	TRACE			2.2		0.3	
ISOBUTANE.....	TRACE			1.2		0.1	
N-PENTANE.....	TRACE			0.2		0.1	
ISOPENTANE.....	0.0			0.7		0.1	
CYCLOPENTANE.....	TRACE			0.1		TRACE	
HEXANES PLUS.....	TRACE			0.2		0.1	
NITROGEN.....	0.4			0.0		4.1	
OXYGEN.....	TRACE			TRACE		0.0	
ARGON.....	TRACE			0.0		TRACE	
HYDROGEN.....	0.0			TRACE		0.0	
HYDROGEN SULFIDE.....	0.0			0.0		0.0	
CARBON DIOXIDE.....	1.3			0.1		0.3	
HELIUM.....	0.01			TRACE		0.05	
HEATING VALUE.....	1067			1053		1053	
SPECIFIC GRAVITY.....	0.614			0.838		0.653	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

INDEX 1225 SAMPLE 17763			INDEX 1226 SAMPLE 6832			INDEX 1227 SAMPLE 9980		
STATE.....	UTAH		UTAH			VIRGINIA		
COUNTY.....	SUMMIT		UINTAH			RUSSELL		
FIELD.....	WY. CO. & UT. (OVERTHRUST)		RED WASH			COMPOSITE VIRGINIA GAS		
LOCATION.....	16 IN. DISC. TO OGDEN		COMPRESSOR INTAKE			12 IN. LINE		
OWNER.....	MOUNTAIN FUEL RESOURCES, INC		STANDARD OIL CO. OF CALIF.			KENTUCKY WEST VIRGINIA GAS C		
SAMPLED.....	07/10/85		10716/58			07/09/65		
FORMATION.....	NOT GIVEN		NOT GIVEN			DEVON-SHALE & MISS		
GEOLOGIC PROVINCE CODE.....	570		575			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	4900		NOT GIVEN			115		
FLOW, MCFD.....	49700		NOT GIVEN			1734		
COMPONENT, MOLE PCT								
METHANE.....	85.0		92.0			95.7		
ETHANE.....	9.3		2.0			2.5		
PROPANE.....	2.5		2.1			0.5		
N-BUTANE.....	0.2		0.9			0.1		
ISOBUTANE.....	0.2		0.5			0.1		
N-PENTANE.....	TRACE		0.2			0.1		
ISOPENTANE.....	TRACE		0.4			TRACE		
CYCLOPENTANE.....	TRACE		0.2			TRACE		
HEXANES PLUS.....	0.1		0.3			0.1		
NITROGEN.....	2.4		0.3			0.7		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.1		TRACE			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		1.0			TRACE		
HELIUM.....	0.02		TRACE			8.07		
HEATING VALUE.....	1111		1121			1043		
SPECIFIC GRAVITY.....	0.642		0.642			0.581		

INDEX 1228 SAMPLE 8373			INDEX 1229 SAMPLE 6915			INDEX 1230 SAMPLE 8412		
STATE.....	WASHINGTON		WASHINGTON			WASHINGTON		
COUNTY.....	SPokane		WHATCOM			WHATCOM		
FIELD.....	COUR DE LANE		CANADIAN FIELDS			DAWSON CREEK AREA, CANADA		
LOCATION.....	NOT GIVEN		26 IN. O. D.			NOT GIVEN		
OWNER.....	EL PASO NATURAL GAS CO.		PACIFIC NORTHWEST PIPELINE			EL PASO NATURAL GAS CO.		
SAMPLED.....	01/19/62		12/19/68			02/19/62		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	605		700			700		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		725			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		208381			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	87.4		90.5			91.8		
ETHANE.....	7.3		4.2			4.8		
PROPANE.....	2.3		0.9			1.3		
N-BUTANE.....	0.6		0.2			0.2		
ISOBUTANE.....	0.4		0.0			0.1		
N-PENTANE.....	TRACE		0.0			TRACE		
ISOPENTANE.....	0.2		0.0			0.1		
CYCLOPENTANE.....	TRACE		0.0			0.0		
HEXANES PLUS.....	TRACE		0.0			0.0		
NITROGEN.....	1.7		3.2			1.4		
OXYGEN.....	0.0		0.8			TRACE		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.1		TRACE			TRACE		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.0			0.0		
HELIUM.....	0.03		0.02			0.03		
HEATING VALUE.....	1118		1020			1064		
SPECIFIC GRAVITY.....	0.639		0.607			0.605		

INDEX 1231 SAMPLE 14837			INDEX 1232 SAMPLE 14838			INDEX 1233 SAMPLE 16588		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	BRAXTON		BRAXTON			BRAXTON		
FIELD.....	CENTRAL WEST VIRGINIA		CENTRAL WEST VIRGINIA			CENTRAL WEST VIRGINIA		
LOCATION.....	12 IN. DISCHARGE		12 IN. PLANT INLET			12 IN. INLET		
OWNER.....	EQUITABLE GAS CO.		EQUITABLE GAS CO.			EQUITABLE GAS CO.		
SAMPLED.....	10/21/76		10/21/76			07/21/82		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	44		48			45		
FLOW, MCFD.....	14000		14000			6000		
COMPONENT, MOLE PCT								
METHANE.....	83.8		84.7			86.5		
ETHANE.....	9.4		8.9			8.2		
PROPANE.....	3.5		3.2			2.7		
N-BUTANE.....	0.9		0.8			0.6		
ISOBUTANE.....	0.5		0.5			0.4		
N-PENTANE.....	0.1		0.2			0.2		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	0.1		TRACE			TRACE		
HEXANES PLUS.....	0.3		0.2			0.2		
NITROGEN.....	1.1		1.6			0.5		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	0.0		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			0.1		
HELIUM.....	0.08		0.11			0.06		
HEATING VALUE.....	1192		1172			1151		
SPECIFIC GRAVITY.....	0.679		0.667			0.649		

INDEX 1234 SAMPLE 16590			INDEX 1235 SAMPLE 14840			INDEX 1236 SAMPLE 14825		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	DODDRIDGE		DODDRIDGE			KANAWHA		
FIELD.....	PENNSBORO & LEESON		RITCHIE & DODDRIDGE CO.			CENTRAL WEST VIRGINIA		
LOCATION.....	12 IN. DISCH.		NOT GIVEN			12 IN. DISCHARGE		
OWNER.....	EQUITABLE GAS CO.		EQUITABLE GAS CO.			COLUMBIA GAS TRANS. CORP.		
SAMPLED.....	07/21/82		10/20/76			10/20/76		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	1252		4253			305		
FLOW, MCFD.....	13440		12000			30000		
COMPONENT, MOLE PCT								
METHANE.....	86.6		89.7			81.7		
ETHANE.....	1.1		0.0			10.0		
PROPANE.....	2.6		1.9			4.3		
N-BUTANE.....	0.6		0.5			1.3		
ISOBUTANE.....	0.4		0.3			0.7		
N-PENTANE.....	0.2		0.2			0.3		
ISOPENTANE.....	0.2		0.1			0.4		
CYCLOPENTANE.....	0.1		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.3		
NITROGEN.....	0.7		0.8			0.9		
OXYGEN.....	0.0		TRACE			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.1		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.2		0.0			0.1		
HELIUM.....	0.06		0.06			0.06		
HEATING VALUE.....	1155		1235			1235		
SPECIFIC GRAVITY.....	0.655		0.631			0.705		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1178

INDEX 1237 SAMPLE 14843			INDEX 1238 SAMPLE 16690			INDEX 1239 SAMPLE 12		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	KANAWHA		KANAWHA			LEWIS		
FIELD.....	CENTRAL WEST VIRGINIA		WEST VIRGINIA			KENNY STA.		
LOCATION.....	12 IN. DISCHARGE		WB-26 IN. OUTLET			NOT GIVEN		
OWNER.....	CONSOLIDATED GAS SUPPLY CORP		COLUMBIA GAS TRANS. CORP.			HOPE NATURAL GAS CO.		
SAMPLED.....	10/20/76		10/12/82			05/13/19		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	250		50			56		
FLOW, MCFD.....	3400		NOT GIVEN			43000		
COMPONENT, MOLE PCT								
METHANE.....	83.2		81.8			72.2		
ETHANE.....	9.9		10.0			25.8		
PROPANE.....	3.7		4.1			---		
N-BUTANE.....	0.0		1.2			---		
ISOBUTANE.....	0.6		0.6			---		
N-PENTANE.....	0.3		0.3			---		
ISOPENTANE.....	0.2		0.4			---		
CYCLOPENTANE.....	0.0		0.1			---		
HEXANES PLUS.....	0.3		0.3			---		
NITROGEN.....	0.7		0.9			0.6		
OXYGEN.....	0.0		0.0			1.1		
ARGON.....	0.0		TRACE			---		
HYDROGEN.....	0.0		0.2			---		
HYDROGEN SULFIDE.....	0.0		0.0			---		
CARBON DIOXIDE.....	TRACE		0.1			0.3		
HELIUM.....	0.04		0.05			TRACE		
HEATING VALUE.....	1211		1225			1194		
SPECIFIC GRAVITY.....	0.686		0.699			0.694		

INDEX 1240 SAMPLE 14826			INDEX 1241 SAMPLE 14839			INDEX 1242 SAMPLE 16589		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	LEWIS		LEWIS			LEWIS		
FIELD.....	LEWIS, UPSHUR & BARBOUR CO.		NOT GIVEN			UPSUR & VANDALIA CO.		
LOCATION.....	20 IN. DISCHARGE		12 IN. DISCHARGE			12 IN. DISCH.		
OWNER.....	COLUMBIA GAS TRANS. CORP.		EQUITABLE GAS CO.			EQUITABLE GAS CO.		
SAMPLED.....	10/21/76		10/21/76			07/19/82		
FORMATION.....	DEVO-BENSON		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	180		240			269		
FLOW, MCFD.....	5100		10000			10800		
COMPONENT, MOLE PCT								
METHANE.....	89.4		86.9			89.6		
ETHANE.....	6.9		7.9			6.5		
PROPANE.....	0.8		0.8			0.8		
N-BUTANE.....	0.4		0.6			0.4		
ISOBUTANE.....	0.2		0.4			0.3		
N-PENTANE.....	0.2		0.2			0.2		
ISOPENTANE.....	TRACE		0.2			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			0.1		
HEXANES PLUS.....	0.2		0.2			0.2		
NITROGEN.....	0.7		1.0			0.6		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		TRACE			0.0		
HYDROGEN.....	0.0		0.0			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		TRACE			TRACE		
HELIUM.....	0.06		0.08			0.07		
HEATING VALUE.....	1119		1150			1118		
SPECIFIC GRAVITY.....	0.629		0.652			0.627		

INDEX 1243 SAMPLE 17			INDEX 1244 SAMPLE 16750			INDEX 1245 SAMPLE 14824		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WEST VIRGINIA		
COUNTY.....	RITCHIE		SUMMERS			SUMMERS		
FIELD.....	CRAIG STATION		KENTUCKY, VIRGINIA, & W. VIR			KENTUCKY, VIRGINIA & W. VIRGINIA		
LOCATION.....	20 IN. DISCHARGE		20 IN. SUCTION			20 IN. SUCTION		
OWNER.....	HOPE NATURAL GAS CO.		COLUMBIA GAS TRANS. CORP.			COLUMBIA GAS TRANS. CORP.		
SAMPLED.....	05/13/19		01/10/83			10/20/76		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			160		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			63		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			210		
COMPONENT, MOLE PCT						90000		
METHANE.....	74.4		93.5			94.8		
ETHANE.....	24.8		4.1			4.6		
PROPANE.....	---		0.5			0.6		
N-BUTANE.....	---		0.2			0.2		
ISOBUTANE.....	---		TRACE			0.1		
N-PENTANE.....	---		0.1			0.0		
ISOPENTANE.....	---		TRACE			0.1		
CYCLOPENTANE.....	---		0.1			TRACE		
HEXANES PLUS.....	---		0.1			TRACE		
NITROGEN.....	0.0		0.8			0.6		
OXYGEN.....	0.6		0.0			0.0		
ARGON.....	---		---			TRACE		
HYDROGEN.....	---		0.5			TRACE		
HYDROGEN SULFIDE.....	---		0.0			0.0		
CARBON DIOXIDE.....	0.0		0.1			TRACE		
HELIUM.....	0.00		0.06			0.06		
HEATING VALUE.....	1198		1051			1055		
SPECIFIC GRAVITY.....	0.684		0.588			0.587		

INDEX 1246 SAMPLE 16644			INDEX 1247 SAMPLE 14823			INDEX 1248 SAMPLE 17771		
STATE.....	WEST VIRGINIA		WEST VIRGINIA			WYOMING		
COUNTY.....	WAYNE		WAYNE			ALBANY		
FIELD.....	KENTUCKY & W. VIR. FIELDS		KENTUCKY E. & WEST VIRGINIA			ELK BASIN & TABLE ROCK		
LOCATION.....	LINE P & BM-74, 20 IN.		24 IN. INLET GAS			22 & 24 IN. MAIN LINE		
OWNER.....	COLUMBIA GAS TRANS. CORP.		COLUMBIA GAS TRANS. CORP.			COLORADO INTERSTATE GAS CO.		
SAMPLED.....	09/08/82		10/19/76			07/25/83		
FORMATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
GEOLOGIC PROVINCE CODE.....	160		160			535		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	120		325			600		
FLOW, MCFD.....	63		125000			205000		
COMPONENT, MOLE PCT								
METHANE.....	93.6		79.9			88.6		
ETHANE.....	3.7		12.4			6.0		
PROPANE.....	0.6		4.7			0.8		
N-BUTANE.....	0.3		0.0			0.2		
ISOBUTANE.....	0.0		0.3			0.1		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.1		0.2			TRACE		
CYCLOPENTANE.....	TRACE		TRACE			TRACE		
HEXANES PLUS.....	TRACE		0.1			0.1		
NITROGEN.....	0.0		0.0			0.3		
OXYGEN.....	TRACE		0.0			0.0		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	0.4		0.1			0.1		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			1.8		
HELIUM.....	0.05		0.05			0.03		
HEATING VALUE.....	1046		1206			1046		
SPECIFIC GRAVITY.....	0.588		0.697			0.628		

* CALCULATED GROSS BTU PER CU FT. DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	1249 17769			INDEX SAMPLE	1250 17340			INDEX SAMPLE	1251 17341
STATE.....	WYOMING			WYOMING				WYOMING			
COUNTY.....	ALBANY			BIG HORN				BIG HORN			
FIELD.....	POWDER RIVER BASIN			12 IN. INLET				2 IN. LINE AFTER SCRUBBER			
LOCATION.....	16 IN. NORTH LINE			MONTANA-DAKOTA UTILITIES CO.				MONTANA-DAKOTA UTILITIES CO.			
OWNER.....	COLORADO INTERSTATE GAS CO.			06/27/84				06/27/84			
SAMPLED.....	07/15/85			NOT GIVEN				NOT GIVEN			
FORMATION.....	NOT GIVEN			520				520			
GEOLOGIC PROVINCE CODE.....	535			NOT GIVEN				NOT GIVEN			
DEPTH, FEET.....	NOT GIVEN			18000				NOT GIVEN			
PRESSURE, PSIG.....	780							477			
FLOW, MCFD.....	20000							NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	78.9			93.9				93.8			
ETHANE.....	13.2			3.7				3.7			
PROPANE.....	3.3			0.3				0.4			
N-BUTANE.....	0.6			0.1				0.1			
ISOBUTANE.....	0.2			TRACE				0.1			
N-PENTANE.....	0.1			TRACE				TRACE			
ISOPENTANE.....	0.1			TRACE				TRACE			
CYCLOPENTANE.....	TRACE			TRACE				TRACE			
HEXANES PLUS.....	0.1			0.4				0.5			
NITROGEN.....	1.1			0.0				0.0			
OXYGEN.....	0.0			TRACE				TRACE			
ARGON.....	TRACE			0.0				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			1.4				1.4			
CARBON DIOXIDE.....	2.3			2.01				0.01			
HELIUM.....	0.01			1033				1034			
HEATING VALUE.....	1162			0.594				0.595			
SPECIFIC GRAVITY.....	0.698										

		INDEX SAMPLE	1252 3045			INDEX SAMPLE	1253 17768			INDEX SAMPLE	1254 3065
STATE.....	WYOMING			WYOMING				WYOMING			
COUNTY.....	CARBON			CARBON				CARBON			
FIELD.....	BURNER HILL			ELK BASIN & SHOSHONE AREA				OIL SPRINGS			
LOCATION.....	SEC. 32, T27N, R89W			WIND RIVER LATERAL, 12 & 16				SEC. 263, T23N, R79W			
OWNER.....	OHIO OIL CO.			COLORADO INTERSTATE GAS CO.				OHIO OIL & CUNNINGHAM OIL CO			
SAMPLED.....	12/09/81			07/15/85				12/26/81			
FORMATION.....	CRET-SHANNON			NOT GIVEN				JURA-SUNDANCE			
GEOLOGIC PROVINCE CODE.....	535			535				535			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	387			500				1100			
FLOW, MCFD.....	2000			100000				2500			
COMPONENT, MOLE PCT											
METHANE.....	95.5			92.3				97.9			
ETHANE.....	4.3			4.7				0.1			
PROPANE.....	---			0.8				---			
N-BUTANE.....	---			0.2				---			
ISOBUTANE.....	---			0.1				---			
N-PENTANE.....	---			0.1				---			
ISOPENTANE.....	---			TRACE				---			
CYCLOPENTANE.....	---			---				---			
HEXANES PLUS.....	---			0.3				---			
NITROGEN.....	0.0			1.1				1.6			
OXYGEN.....	0.0			0.0				0.2			
ARGON.....	---			TRACE				---			
HYDROGEN.....	---			0.1				---			
HYDROGEN SULFIDE.....	---			0.0				---			
CARBON DIOXIDE.....	0.2			0.0				0.2			
HELIUM.....	0.03			0.01				0.03			
HEATING VALUE.....	1044			1074				994			
SPECIFIC GRAVITY.....	0.578			0.606				0.565			

		INDEX SAMPLE	1255 9417			INDEX SAMPLE	1256 17770			INDEX SAMPLE	1257 6976
STATE.....	WYOMING			WYOMING				WYOMING			
COUNTY.....	CARBON			CARBON				CARBON			
FIELD.....	ROCK RIVER			TARLE ROCK & WAMSUTTER				WERTZ			
LOCATION.....	PLANT INLET			WYOMING MAIN LINE, 22 & 24				NOT GIVEN			
OWNER.....	MARATHON OIL CO.			COLORADO INTERSTATE GAS CO.				SINCLAIR OIL & GAS CO.			
SAMPLED.....	06/29/84			07/15/85				02/17/85			
FORMATION.....	CRET-MUDDY, DAKOTA, & LAKOTA			NOT GIVEN				NOT GIVEN			
GEOLOGIC PROVINCE CODE.....	535			NOT GIVEN				535			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	100			600				NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			127000				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	66.1			87.6				37.5			
ETHANE.....	12.4			6.7				5.9			
PROPANE.....	11.4			0.9				5.2			
N-BUTANE.....	3.0			2.5				2.5			
ISOBUTANE.....	2.3			0.1				1.3			
N-PENTANE.....	1.0			TRACE				0.8			
ISOPENTANE.....	0.5			0.1				0.5			
CYCLOPENTANE.....	0.3			TRACE				0.1			
HEXANES PLUS.....	0.7			0.1				0.7			
NITROGEN.....	0.0			0.1				11.9			
OXYGEN.....	0.0			0.0				TRACE			
ARGON.....	TRACE			TRACE				0.1			
HYDROGEN.....	0.0			TRACE				TRACE			
HYDROGEN SULFIDE.....	0.0			1.8				TRACE			
CARBON DIOXIDE.....	0.3			1.8				32.9			
HELIUM.....	0.01			0.03				0.40			
HEATING VALUE.....	1475			1046				844			
SPECIFIC GRAVITY.....	0.873			0.631				1.105			

		INDEX SAMPLE	1258 9097			INDEX SAMPLE	1259 9124			INDEX SAMPLE	1260 9126
STATE.....	WYOMING			WYOMING				WYOMING			
COUNTY.....	FREMONT			JOHNSON				JOHNSON			
FIELD.....	HAPPY SPRINGS			SUSSEX				SUSSEX			
LOCATION.....	SEC. 9, T28N, R93W			SEC. 23, T42N, R78W				SEC. 16, T42N, R78W			
OWNER.....	SINCLAIR OIL & GAS CO.			CONTINENTAL OIL CO.				CONTINENTAL OIL CO.			
SAMPLED.....	09/99/63			10/12/63				10/12/63			
FORMATION.....	NOT GIVEN			10/12/63				CRET-SHANNON			
GEOLOGIC PROVINCE CODE.....	530			515				515			
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
PRESSURE, PSIG.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN				NOT GIVEN			
COMPONENT, MOLE PCT											
METHANE.....	68.6			66.6				71.5			
ETHANE.....	6.9			10.8				1.4			
PROPANE.....	9.6			12.6				9.4			
N-BUTANE.....	3.9			4.4				3.5			
ISOBUTANE.....	3.0			1.2				0.9			
N-PENTANE.....	0.8			0.8				0.6			
ISOPENTANE.....	1.3			1.0				0.9			
CYCLOPENTANE.....	0.3			0.2				0.1			
HEXANES PLUS.....	0.9			0.1				0.4			
NITROGEN.....	4.4			1.7				1.0			
OXYGEN.....	TRACE			0.0				0.0			
ARGON.....	0.0			0.0				0.0			
HYDROGEN.....	0.0			0.0				0.0			
HYDROGEN SULFIDE.....	0.0			0.0				0.0			
CARBON DIOXIDE.....	0.3			0.2				0.3			
HELIUM.....	0.04			0.12				0.00			
HEATING VALUE.....	1447			1479				1409			
SPECIFIC GRAVITY.....	0.879			0.879				0.820			

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1176

STATE	INDEX	1261	INDEX	1262	INDEX	1263
COUNTY	SAMPLE	9127	SAMPLE	9128	SAMPLE	9129
WYOMING	WYOMING		WYOMING		WYOMING	
JOHNSON	JOHNSON		JOHNSON		JOHNSON	
SUSSEX	SUSSEX		SUSSEX		SUSSEX	
TEST SYSTEM	TEST SYSTEM		TEST SYSTEM		TEST SYSTEM	
CONTINENTAL OIL CO.	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
10/13/63	10/13/63		10/21/63		12/31/63	
CRET-PARKMAN	CRET-PARKMAN		CRET-PARKMAN		CRET-PARKMAN	
515	515		515		515	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
76.3	76.3		73.3		55.3	
12.1	12.1		7.6		19.6	
6.0	6.0		9.3		15.4	
1.8	1.8		4.0		4.7	
0.7	0.7		1.4		1.7	
0.3	0.3		0.8		0.5	
0.6	0.6		1.1		1.5	
0.1	0.1		0.2		0.1	
0.3	0.3		0.7		0.5	
1.5	1.5		1.1		0.3	
TRACE	TRACE		TRACE		0.1	
0.0	0.0		TRACE		0.0	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.3	0.3		0.7		0.3	
0.03	0.03		0.01		0.01	
1287	1287		1417		1642	
0.748	0.748		0.831		0.960	

STATE	INDEX	1264	INDEX	1265	INDEX	1266
COUNTY	SAMPLE	9130	SAMPLE	9131	SAMPLE	9132
WYOMING	WYOMING		WYOMING		WYOMING	
JOHNSON	JOHNSON		JOHNSON		JOHNSON	
SUSSEX	SUSSEX		SUSSEX		SUSSEX	
SEC. 17, T42N, R78W	SEC. 17, T42N, R78W		SEC. 3, T41N, R78W		SEC. 26, T42N, R78W	
CONTINENTAL OIL CO.	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.		CONTINENTAL OIL CO.	
12/31/63	12/31/63		10/2/63		10/2/63	
CRET-LAKOTA	CRET-LAKOTA		CRET-SHANNON		CRET-SUSSEX	
515	515		515		515	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
60.4	60.4		74.3		61.6	
16.2	16.2		12.3		15.1	
12.3	12.3		6.7		14.1	
4.4	4.4		0.6		4.4	
0.8	0.8		0.4		0.7	
0.9	0.9		0.2		1.2	
0.1	0.1		0.4		0.5	
0.5	0.5		0.4		0.5	
2.3	2.3		1.6		0.6	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.01	0.01		0.01		0.01	
1519	1519		1332		1563	
0.909	0.909		0.775		0.914	

STATE	INDEX	1267	INDEX	1268	INDEX	1269
COUNTY	SAMPLE	9133	SAMPLE	9134	SAMPLE	17764
WYOMING	WYOMING		WYOMING		WYOMING	
JOHNSON	JOHNSON		JOHNSON		LINCOLN	
SUSSEX	SUSSEX		SUSSEX		SUSSEX	
SEC. 2, T41N, R78W	SEC. 2, T41N, R78W		SEC. 11, T41N, R78W		BIG PINEY & LA BARGE	
CONTINENTAL OIL CO.	CONTINENTAL OIL CO.		CONTINENTAL OIL CO.		30 IN. LINE	
12/31/63	12/31/63		12/31/63		NORTHWEST PIPELINE CORP.	
CRET-LAKOTA	CRET-LAKOTA		CRET-FRONTIER 2ND		07/11/85	
515	515		515		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		310	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		589	
NOT GIVEN	NOT GIVEN		NOT GIVEN		100000	
65.4	65.4		71.6		89.1	
15.7	15.7		8.9		5.6	
1.3	1.3		2.4		2.2	
2.8	2.8		0.7		0.6	
1.3	1.3		1.1		0.4	
0.4	0.4		0.5		0.1	
0.4	0.4		0.3		0.3	
0.1	0.1		0.1		0.2	
0.4	0.4		0.3		0.3	
0.7	0.7		0.8		0.8	
TRACE	TRACE		0.5		0.0	
0.0	0.0		0.1		0.0	
0.0	0.0		0.0		0.1	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.5	0.5		0.4		0.3	
0.02	0.02		0.03		0.01	
1434	1434		1297		1134	
0.847	0.847		0.798		0.644	

STATE	INDEX	1270	INDEX	1271	INDEX	1272
COUNTY	SAMPLE	16001	SAMPLE	16002	SAMPLE	17765
WYOMING	WYOMING		WYOMING		WYOMING	
LINCOLN	LINCOLN		LINCOLN		LINCOLN	
BIG PINEY-LABARGE AREA	BIG PINEY-LABARGE AREA		COLORADO, WYOMING, & UTAH		TOTAL SOUTH SYSTEM	
30 IN.	30 IN.		26 IN.		22 IN. DISC.	
NORTHWEST PIPELINE CORP.	NORTHWEST PIPELINE CORP.		NORTHWEST PIPELINE CORP.		NORTHWEST PIPELINE CORP.	
07/10/80	07/10/80		07/10/80		07/11/85	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
535	535		535		535	
NOT GIVEN	NOT GIVEN		NOT GIVEN		NOT GIVEN	
NOT GIVEN	NOT GIVEN		NOT GIVEN		636	
161000	161000		NOT GIVEN		62000	
90.7	90.7		91.5		85.5	
5.5	5.5		5.7		8.5	
2.0	2.0		0.8		0.8	
0.4	0.4		0.1		0.0	
0.3	0.3		0.1		0.0	
0.1	0.1		TRACE		0.0	
0.1	0.1		TRACE		0.0	
TRACE	TRACE		TRACE		0.0	
0.1	0.1		TRACE		0.0	
0.6	0.6		0.8		4.9	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		TRACE	
0.0	0.0		0.0		TRACE	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.0	0.0		0.0		0.0	
0.02	0.02		0.03		0.02	
1106	1106		1057		1039	
0.623	0.623		0.605		0.628	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

		INDEX SAMPLE	1273 16005	INDEX SAMPLE	1274 8998	INDEX SAMPLE	1275 8995
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	NATRONA			NATRONA		NATRONA	
FIELD.....	BEAVER CREEK & GRIEVE N			BROOKS RANCH		BURKE RANCH	
LOCATION.....	16 IN.			NOT GIVEN		NOT GIVEN	
OWNER.....	NORTHERN UTILITIES, INC.			ATLANTIC REFINING CO.		ATLANTIC REFINING CO.	
SAMPLED.....	07/11/80			05/31/63		05/31/63	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	530			530		530	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	2100			NOT GIVEN		NOT GIVEN	
FLOW, MCFD.....	10000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	89.5	-----		60.0	-----	46.4	-----
ETHANE.....	7.4	-----		13.7	-----	18.6	-----
PROPANE.....	0.3	-----		14.1	-----	21.8	-----
N-BUTANE.....	TRACE	-----		3.9	-----	6.5	-----
ISOBUTANE.....	0.0	-----		1.6	-----	2.8	-----
N-PENTANE.....	TRACE	-----		0.9	-----	0.8	-----
ISOPENTANE.....	TRACE	-----		0.7	-----	1.1	-----
CYCLOPENTANE.....	TRACE	-----		0.3	-----	0.2	-----
HEXANES PLUS.....	TRACE	-----		0.8	-----	0.5	-----
NITROGEN.....	0.6	-----		3.7	-----	3.3	-----
OXYGEN.....	0.0	-----		TRACE	-----	0.1	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	2.2	-----		0.3	-----	2.0	-----
HELIUM.....	0.01	-----		0.02	-----	0.02	-----
HEATING VALUE.....	1047	-----		1525	-----	1725	-----
SPECIFIC GRAVITY.....	0.618	-----		0.921	-----	1.073	-----

		INDEX SAMPLE	1276 16007	INDEX SAMPLE	1277 16006	INDEX SAMPLE	1278 17766
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	NATRONA			NATRONA		NATRONA	
FIELD.....	POWELL II & MCCULLOCK			WYOMING TO CASPER		WIND RIVER BASIN	
LOCATION.....	6 IN.			20 IN.		12 IN. PLANT INLET	
OWNER.....	NORTHERN UTILITIES, INC.			KANSAS-NEBRASKA NATURAL GAS		KN ENERGY, INC.	
SAMPLED.....	07/11/80			07/11/80		07/15/85	
FORMATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	530			530		530	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	200			375		805	
FLOW, MCFD.....	9000			40000		36300	
COMPONENT, MOLE PCT							
METHANE.....	70.1	-----		92.3	-----	90.7	-----
ETHANE.....	15.5	-----		3.9	-----	5.3	-----
PROPANE.....	2.6	-----		1.2	-----	1.2	-----
N-BUTANE.....	0.3	-----		0.3	-----	0.3	-----
ISOBUTANE.....	0.1	-----		0.2	-----	0.2	-----
N-PENTANE.....	TRACE	-----		0.1	-----	0.1	-----
ISOPENTANE.....	TRACE	-----		0.2	-----	0.1	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	0.1	-----
HEXANES PLUS.....	TRACE	-----		0.1	-----	0.2	-----
NITROGEN.....	7.7	-----		0.4	-----	0.6	-----
OXYGEN.....	1.9	-----		0.0	-----	0.0	-----
ARGON.....	0.1	-----		TRACE	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.1	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	1.5	-----		0.1	-----	1.2	-----
HELIUM.....	0.01	-----		0.01	-----	0.01	-----
HEATING VALUE.....	1069	-----		1078	-----	1085	-----
SPECIFIC GRAVITY.....	0.720	-----		0.617	-----	0.625	-----

		INDEX SAMPLE	1279 4514	INDEX SAMPLE	1280 8335	INDEX SAMPLE	1281 8337
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	NIOBRARA			SUBLETTE		SUBLETTE	
FIELD.....	LANCE CREEK			BIG PINEY		HOGSBACK	
LOCATION.....	SEC. 34, T36N, R65W			16 IN. OUTLET		BIG PINEY	
OWNER.....	CONTINENTAL OIL CO.			EL PASO NATURAL GAS CO.		EL PASO NATURAL GAS CO.	
SAMPLED.....	05/06/48			12/08/61		12/08/61	
FORMATION.....	PENN-			NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			200		750	
FLOW, MCFD.....	NOT GIVEN			70000		47000	
COMPONENT, MOLE PCT							
METHANE.....	60.5	-----		90.9	-----	91.9	-----
ETHANE.....	30.8	-----		4.6	-----	4.7	-----
PROPANE.....	---	-----		0.7	-----	1.4	-----
N-BUTANE.....	---	-----		0.4	-----	0.3	-----
ISOBUTANE.....	---	-----		0.6	-----	0.2	-----
N-PENTANE.....	---	-----		0.1	-----	TRACE	-----
ISOPENTANE.....	---	-----		0.2	-----	0.3	-----
CYCLOPENTANE.....	---	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	---	-----		0.1	-----	TRACE	-----
NITROGEN.....	7.8	-----		7.1	-----	0.9	-----
OXYGEN.....	0.1	-----		TRACE	-----	0.0	-----
ARGON.....	---	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	---	-----		0.1	-----	0.1	-----
HYDROGEN SULFIDE.....	---	-----		0.2	-----	0.0	-----
CARBON DIOXIDE.....	0.7	-----		0.0	-----	0.1	-----
HELIUM.....	0.10	-----		0.03	-----	TRACE	-----
HEATING VALUE.....	1165	-----		1103	-----	1081	-----
SPECIFIC GRAVITY.....	0.746	-----		0.626	-----	0.609	-----

		INDEX SAMPLE	1282 8336	INDEX SAMPLE	1283 2106	INDEX SAMPLE	1284 9570
STATE.....	WYOMING			WYOMING		WYOMING	
COUNTY.....	SUBLETTE			SWEETWATER		SWEETWATER	
FIELD.....	TIP TOP			LOST SOLDIER		LOST SOLDIER	
LOCATION.....	BIG PINEY			SEC. 3, T26N, R90W		SEC. 7, T26N, R89W	
OWNER.....	EL PASO NATURAL GAS CO.			PRAIRIE OIL & GAS CO.		SINCLAIR OIL & GAS CO.	
SAMPLED.....	12/08/61			09/04/30		09/21/64	
FORMATION.....	NOT GIVEN			CRET-DAKOTA		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	535			535		535	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	750			5		NOT GIVEN	
FLOW, MCFD.....	32000			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	91.4	-----		32.8	-----	31.9	-----
ETHANE.....	8.8	-----		13.3	-----	13.7	-----
PROPANE.....	1.5	-----		---	-----	13.9	-----
N-BUTANE.....	0.4	-----		---	-----	3.8	-----
ISOBUTANE.....	0.2	-----		---	-----	TRACE	-----
N-PENTANE.....	TRACE	-----		---	-----	1.5	-----
ISOPENTANE.....	0.2	-----		---	-----	TRACE	-----
CYCLOPENTANE.....	0.1	-----		---	-----	0.2	-----
HEXANES PLUS.....	0.1	-----		---	-----	0.8	-----
NITROGEN.....	1.0	-----		40.7	-----	12.3	-----
OXYGEN.....	TRACE	-----		0.1	-----	TRACE	-----
ARGON.....	0.1	-----		---	-----	TRACE	-----
HYDROGEN.....	---	-----		---	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		---	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		7.2	-----	29.3	-----
HELIUM.....	0.02	-----		0.00	-----	0.57	-----
HEATING VALUE.....	1089	-----		678	-----	1027	-----
SPECIFIC GRAVITY.....	0.615	-----		0.889	-----	1.166	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

1177

INDEX 1285 SAMPLE 9053		INDEX 1286 SAMPLE 17767		INDEX 1287 SAMPLE 17759	
STATE.....	WYOMING	WYOMING		WYOMING	
COUNTY.....	SWEETWATER	SWEETWATER		UINTA	
FIELD.....	PATRICK DRAW	WANSUTTER		CARTER CREEK	
LOCATION.....	NOT GIVEN	20 IN. LINE		CARTER CREEK 36 IN. LINE	
OWNER.....	TEXACO INC. & U-P. RAILROAD	NORTHWEST CENTRAL PIPELINE C		MOUNTAIN FUEL RESOURCES, INC	
SAMPLED.....	07/99/63	07/15/85		07/11/85	
FORMATION.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	535	535		535	
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN	710		813	
FLOW, MCFO.....	NOT GIVEN	88000		90000	
COMPONENT, MOLE PCT					
METHANE.....	83.9	84.8		86.0	
ETHANE.....	7.8	8.5		8.2	
PROPANE.....	3.3	3.2		2.7	
N-BUTANE.....	1.2	0.6		0.7	
ISOBUTANE.....	0.5	0.5		0.6	
N-PENTANE.....	0.2	0.1		0.2	
ISOPENTANE.....	0.5	0.1		0.5	
CYCLOPENTANE.....	0.1	TRACE		0.1	
HEXANES PLUS.....	0.3	TRACE		0.2	
NITROGEN.....	0.3	0.4		1.0	
OXYGEN.....	0.0	TRACE		0.0	
ARGON.....	0.0	TRACE		TRACE	
HYDROGEN.....	0.0	TRACE		TRACE	
HYDROGEN SULFIDE.....	0.0	0.0		0.0	
CARBON DIOXIDE.....	1.8	1.5		0.0	
HELIUM.....	TRACE	0.01		0.01	
HEATING VALUE.....	1162	1140		1167	
SPECIFIC GRAVITY.....	0.693	0.664		0.662	

INDEX 1288 SAMPLE 17761	
STATE.....	WYOMING
COUNTY.....	UINTA
FIELD.....	WHITNEY CANYON-CARTER CREEK
LOCATION.....	24 IN. LINE
OWNER.....	NATURAL GAS PIPELINE CO. OF
SAMPLED.....	07/11/85
FORMATION.....	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	535
DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	850
FLOW, MCFO.....	150000
COMPONENT, MOLE PCT	
METHANE.....	89.3
ETHANE.....	8.3
PROPANE.....	1.3
N-BUTANE.....	0.0
ISOBUTANE.....	0.0
N-PENTANE.....	0.0
ISOPENTANE.....	0.0
CYCLOPENTANE.....	0.0
HEXANES PLUS.....	0.0
NITROGEN.....	1.0
OXYGEN.....	0.0
ARGON.....	TRACE
HYDROGEN.....	TRACE
HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	TRACE
HELIUM.....	0.01
HEATING VALUE.....	1087
SPECIFIC GRAVITY.....	0.612

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

		INDEX SAMPLE 7811	INDEX SAMPLE 7814	INDEX SAMPLE 7815
COUNTRY.....	ARGENTINA	ARGENTINA	ARGENTINA	ARGENTINA
STATE OR PROVINCE.....	SALTA	SALTA	SALTA	SALTA
FIELD.....	CAMPO DURAN	CAMPO DURAN	CAMPO DURAN 6-	CAMPO DURAN
WELL NAME.....	CAMPO DURAN 26	CAMPO DURAN 6-	CAMPO DURAN 15	CAMPO DURAN 15
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC
COMPLETED.....	12/07/57	04/14/51	10/28/55	10/28/55
SAMPLED.....	04/08/60	04/08/60	04/08/60	04/08/60
FORMATION.....	CARB-TUPAMBI	CARB-TUPAMBI	CARB-TUPAMBI	CARB-TUPAMBI
GEOLOGIC PROVINCE CODE.....	000	000	000	000
DEPTH, FEET.....	12150	11303	11306	11306
WELLHEAD PRESSURE, PSIG.....	3325	3840	3881	3881
OPEN FLOW, MCFD.....	27181	29789	22592	22592
COMPONENT, MOLE PCT				
METHANE.....	85.7	85.0	87.2	87.2
ETHANE.....	6.8	6.8	6.1	6.1
PROPANE.....	3.2	3.3	2.0	2.0
N-BUTANE.....	1.0	1.1	0.7	0.7
ISOBUTANE.....	0.5	0.7	0.5	0.5
N-PENTANE.....	0.3	0.4	0.1	0.1
ISOPENTANE.....	0.3	0.4	0.3	0.3
CYCLOPENTANE.....	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.4	0.1	0.1
NITROGEN.....	0.8	0.9	2.0	2.0
OXYGEN.....	0.0	0.0	TRACE	TRACE
ARGON.....	0.0	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.0	1.0	0.9	0.9
HELIUM.....	0.03	0.03	0.03	0.03
HEATING VALUE.....	1163	1138	1107	1107
SPECIFIC GRAVITY.....	0.674	0.690	0.650	0.650
		INDEX SAMPLE 7820	INDEX SAMPLE 7816	INDEX SAMPLE 7817
COUNTRY.....	ARGENTINA	ARGENTINA	ARGENTINA	ARGENTINA
STATE OR PROVINCE.....	SALTA	SALTA	SALTA	SALTA
FIELD.....	CAMPO DURAN	MADRE JONES	MADRE JONES	MADRE JONES
WELL NAME.....	CAMPO DURAN 40	MADRE JONES 23	MADRE JONES 16	MADRE JONES 16
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC
COMPLETED.....	03/23/60	01/29/60	11/27/59	11/27/59
SAMPLED.....	04/08/60	04/08/60	04/08/60	04/08/60
FORMATION.....	-TUPA CREEK	-TUAPMBI	CARB-TUPAMBI	CARB-TUPAMBI
GEOLOGIC PROVINCE CODE.....	000	000	000	000
DEPTH, FEET.....	11943	11049	12973	12973
WELLHEAD PRESSURE, PSIG.....	3527	3705	3869	3869
OPEN FLOW, MCFD.....	2922	37328	24615	24615
COMPONENT, MOLE PCT				
METHANE.....	82.8	87.7	85.8	85.8
ETHANE.....	7.7	6.2	6.4	6.4
PROPANE.....	4.0	2.1	2.7	2.7
N-BUTANE.....	1.3	0.7	0.9	0.9
ISOBUTANE.....	0.7	0.5	0.6	0.6
N-PENTANE.....	0.3	0.1	0.2	0.2
ISOPENTANE.....	0.3	0.1	0.3	0.3
CYCLOPENTANE.....	TRACE	TRACE	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.2	0.2
NITROGEN.....	1.1	2.1	1.1	1.1
OXYGEN.....	0.0	0.0	TRACE	TRACE
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	TRACE	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.7	7.2	1.8	1.8
HELIUM.....	0.03	TRACE	0.03	0.03
HEATING VALUE.....	1184	1117	1136	1136
SPECIFIC GRAVITY.....	0.701	0.645	0.673	0.673
		INDEX SAMPLE 7818	INDEX SAMPLE 7819	INDEX SAMPLE 7809
COUNTRY.....	ARGENTINA	ARGENTINA	ARGENTINA	ARGENTINA
STATE OR PROVINCE.....	SALTA	SALTA	SALTA	SANTA CRUZ
FIELD.....	MADRE JONES	MADRE JONES	MADRE JONES	CANADON SECO
WELL NAME.....	MADRE JONES 17	MADRE JONES 4	MADRE JONES 4	CS 40
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC
COMPLETED.....	06/27/59	02/21/56	--/--/00	--/--/00
SAMPLED.....	04/08/60	04/08/60	--/--/60	--/--/60
FORMATION.....	CARB-TUPAMBI	CARB-TUPAMBI	-CHUBUTIANO	-CHUBUTIANO
GEOLOGIC PROVINCE CODE.....	000	000	000	000
DEPTH, FEET.....	13074	13012	5246	5246
WELLHEAD PRESSURE, PSIG.....	3442	3819	835	835
OPEN FLOW, MCFD.....	15221	27322	14	14
COMPONENT, MOLE PCT				
METHANE.....	85.9	81.4	90.1	90.1
ETHANE.....	6.4	7.4	5.5	5.5
PROPANE.....	3.1	4.4	1.7	1.7
N-BUTANE.....	0.9	1.6	0.5	0.5
ISOBUTANE.....	0.5	0.7	0.2	0.2
N-PENTANE.....	0.3	0.5	0.4	0.4
ISOPENTANE.....	0.3	0.4	0.1	0.1
CYCLOPENTANE.....	0.1	0.1	TRACE	TRACE
HEXANES PLUS.....	0.2	0.1	0.1	0.1
NITROGEN.....	0.7	1.2	1.0	1.0
OXYGEN.....	TRACE	TRACE	TRACE	TRACE
ARGON.....	TRACE	TRACE	0.0	0.0
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	1.5	1.6	0.1	0.1
HELIUM.....	0.03	0.03	0.20	0.20
HEATING VALUE.....	1152	1215	1104	1104
SPECIFIC GRAVITY.....	0.674	0.720	0.624	0.624
		INDEX SAMPLE 7812	INDEX SAMPLE 7813	INDEX SAMPLE 7810
COUNTRY.....	ARGENTINA	ARGENTINA	ARGENTINA	ARGENTINA
STATE OR PROVINCE.....	SANTA CRUZ	SANTA CRUZ	SANTA CRUZ	SANTA CRUZ
FIELD.....	CDON LEON	MESETA ESPINOZA	MESETA ESPINOZA	PICO TRUNCADO
WELL NAME.....	NOT GIVEN	ME 374	ME 374	PT 105
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC	YACIENTOS PETROLIFERO FISC
COMPLETED.....	--/--/00	--/--/00	--/--/00	--/--/00
SAMPLED.....	02/14/61	--/--/60	--/--/60	--/--/60
FORMATION.....	-CHUBUTIANO	-CHUBUTIANO	-CHUBUTIANO	-CHUBUTIANO
GEOLOGIC PROVINCE CODE.....	000	000	000	000
DEPTH, FEET.....	4182	4698	3107	3107
WELLHEAD PRESSURE, PSIG.....	75	74	45	45
OPEN FLOW, MCFD.....	159	177	18	18
COMPONENT, MOLE PCT				
METHANE.....	96.5	89.6	86.4	86.4
ETHANE.....	2.1	5.3	6.3	6.3
PROPANE.....	0.3	1.0	2.6	2.6
N-BUTANE.....	0.1	0.5	1.4	1.4
ISOBUTANE.....	0.2	0.4	0.9	0.9
N-PENTANE.....	TRACE	0.1	0.5	0.5
ISOPENTANE.....	0.1	0.1	0.3	0.3
CYCLOPENTANE.....	TRACE	0.1	TRACE	TRACE
HEXANES PLUS.....	0.1	0.2	0.2	0.2
NITROGEN.....	0.4	1.9	1.3	1.3
OXYGEN.....	0.0	TRACE	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0	0.0
CARBON DIOXIDE.....	TRACE	TRACE	0.2	0.2
HELIUM.....	0.01	0.02	0.01	0.01
HEATING VALUE.....	1042	1106	1177	1177
SPECIFIC GRAVITY.....	0.577	0.633	0.675	0.675

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

1179

		INDEX SAMPLE 14223	INDEX SAMPLE 10479	INDEX SAMPLE 10924
COUNTRY.....	AUSTRALIA		AUSTRALIA	AUSTRALIA
STATE OR PROVINCE.....	NORTH TERRITORY		NORTH TERRITORY	QUEENSLAND
FIELD.....	PALM VALLEY		MEREENIE	BONY CREEK
WELL NAME.....	PALM VALLEY NO. 2		EAST MEREENIE NO. 1	BONY CREEK NO. 4
LOCATION.....	LAT 24 00 DJS LONG132 38 47E		NOT GIVEN	26-44-26S, 148-57-20E
OWNER.....	MAGILLAN PETROLEUM PARTY LTD		EXXOL N.T. PARTY, LTD.	ASSOC. AUSTRALIAN OIL FIELDS
COMPLETED.....	02/02/70		08/04/64	11/18/63
SAMPLED.....	06/24/74		02/02/66	01/05/67
FORMATION.....	ORDO-PACOOTTA		ORDO-PACOOTTA	JURA-PRECIPICE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	6557		3550	4330
WELLHEAD PRESSURE, PSIG.....	2446		1530	1740
OPEN FLOW, MCFD.....	69700		60500	3650
COMPONENT, MOLE PCT				
METHANE.....	87.9	68.3	82.2	
ETHANE.....	7.8	8.9	5.5	
PROPANE.....	0.2	3.6	1.8	
N-BUTANE.....	0.2	1.2	0.1	
ISOBUTANE.....	0.2	0.5	1.0	
N-PENTANE.....	TRACE	0.8	TRACE	
ISOPENTANE.....	0.1	TRACE	0.5	
CYCLOPENTANE.....	TRACE	0.2	0.1	
HEXANES PLUS.....	0.1	0.9	0.2	
NITROGEN.....	2.3	10.3	7.5	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.0	0.0	0.6	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.0	0.2	
HELIUM.....	0.21	0.20	0.08	
HEATING VALUE.....	1084	1093	1054	
SPECIFIC GRAVITY.....	0.626	0.765	0.663	
		INDEX SAMPLE 10925	INDEX SAMPLE 10932	INDEX SAMPLE 10933
COUNTRY.....	AUSTRALIA		AUSTRALIA	AUSTRALIA
STATE OR PROVINCE.....	QUEENSLAND		QUEENSLAND	QUEENSLAND
FIELD.....	BONY CREEK		BONY CREEK	BONY CREEK
WELL NAME.....	BONY CREEK NO. 6		BONY CREEK NO. 10	BONY CREEK NO. 5
LOCATION.....	26-44-00S, 148-58-18E		26-44-51S, 148-59-14E	26-45-43S, 148-59-13E
OWNER.....	ASSOC. AUSTRALIAN OIL FIELDS		ASSOC. AUSTRALIAN OIL FIELDS	ASSOC. AUSTRALIAN OIL FIELDS
COMPLETED.....	01/14/66		05/27/64	11/28/63
SAMPLED.....	01/05/67		01/05/67	01/05/67
FORMATION.....	JURA-PRECIPICE		JURA-PRECIPICE	JURA-PRECIPICE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	4330		4320	4240
WELLHEAD PRESSURE, PSIG.....	1750		1740	1780
OPEN FLOW, MCFD.....	10600		3500	5300
COMPONENT, MOLE PCT				
METHANE.....	82.2	82.4	79.5	
ETHANE.....	5.7	5.6	5.3	
PROPANE.....	1.2	2.0	1.8	
N-BUTANE.....	TRACE	0.1	0.9	
ISOBUTANE.....	1.2	1.1	1.1	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.5	0.6	0.2	
CYCLOPENTANE.....	0.1	0.1	0.3	
HEXANES PLUS.....	0.2	0.1	10.1	
NITROGEN.....	7.5	7.4	0.0	
OXYGEN.....	0.0	0.0	0.1	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.5	0.5	
HELIUM.....	0.08	0.08	0.08	
HEATING VALUE.....	1065	1065	1049	
SPECIFIC GRAVITY.....	0.671	0.671	0.692	
		INDEX SAMPLE 10938	INDEX SAMPLE 10939	INDEX SAMPLE 10928
COUNTRY.....	AUSTRALIA		AUSTRALIA	AUSTRALIA
STATE OR PROVINCE.....	QUEENSLAND		QUEENSLAND	QUEENSLAND
FIELD.....	BONY CREEK		BONY CREEK	PICKANJINNIE
WELL NAME.....	BONY CREEK NO. 2		BONY CREEK NO. 13	PICKANJINNIE NO. 4
LOCATION.....	26-44-10S, 148-57-40E		26-44-34S, 148-56-29E	26-38-57S, 149-06-53E
OWNER.....	ASSOC. AUSTRALIAN OIL FIELDS		ASSOC. AUSTRALIAN OIL FIELDS	ASSOC. AUSTRALIAN OIL FIELDS
COMPLETED.....	04/29/63		07/18/64	08/15/64
SAMPLED.....	01/05/67		01/05/67	01/06/67
FORMATION.....	JURA-PRECIPICE		JURA-PRECIPICE	JURA-PRECIPICE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	4224		4255	4057
WELLHEAD PRESSURE, PSIG.....	1725		1725	1630
OPEN FLOW, MCFD.....	NOT GIVEN		9200	4400
COMPONENT, MOLE PCT				
METHANE.....	79.4	79.6	92.8	
ETHANE.....	5.6	6.3	1.1	
PROPANE.....	1.9	3.1	0.3	
N-BUTANE.....	0.1	0.8	0.1	
ISOBUTANE.....	0.1	0.5	0.1	
N-PENTANE.....	TRACE	0.1	0.0	
ISOPENTANE.....	0.4	0.6	0.3	
CYCLOPENTANE.....	0.1	0.1	0.1	
HEXANES PLUS.....	0.1	0.3	0.2	
NITROGEN.....	10.8	7.7	4.3	
OXYGEN.....	0.0	TRACE	0.0	
ARGON.....	0.1	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.3	0.2	
HELIUM.....	0.06	0.08	0.02	
HEATING VALUE.....	1020	1109	1018	
SPECIFIC GRAVITY.....	0.685	0.701	0.610	
		INDEX SAMPLE 10929	INDEX SAMPLE 10942	INDEX SAMPLE 10943
COUNTRY.....	AUSTRALIA		AUSTRALIA	AUSTRALIA
STATE OR PROVINCE.....	QUEENSLAND		QUEENSLAND	QUEENSLAND
FIELD.....	PICKANJINNIE		PICKANJINNIE	PICKANJINNIE
WELL NAME.....	PICKANJINNIE NO. 6		PICKANJINNIE NO. 1	PICKANJINNIE NO. 8
LOCATION.....	26-35-17S, 149-08-54E		26-35-42S, 149-07-18E	26-36-50S, 149-11-33E
OWNER.....	ASSOC. AUSTRALIAN OIL FIELDS		ASSOC. AUSTRALIAN OIL FIELDS	ASSOC. AUSTRALIAN OIL FIELDS
COMPLETED.....	09/22/64		08/04/64	10/23/64
SAMPLED.....	--/--/00		01/06/67	01/06/67
FORMATION.....	JURA-PRECIPICE		JURA-PRECIPICE	JURA-PRECIPICE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	4078		4009	4320
WELLHEAD PRESSURE, PSIG.....	1600		1620	1390
OPEN FLOW, MCFD.....	11800		6500	10800
COMPONENT, MOLE PCT				
METHANE.....	96.3	93.1	96.1	
ETHANE.....	1.5	0.5	1.0	
PROPANE.....	TRACE	0.4	0.0	
N-BUTANE.....	TRACE	0.1	0.1	
ISOBUTANE.....	0.1	0.1	0.1	
N-PENTANE.....	0.0	0.1	0.1	
ISOPENTANE.....	0.1	TRACE	TRACE	
CYCLOPENTANE.....	0.1	0.2	0.1	
HEXANES PLUS.....	0.2	0.1	0.1	
NITROGEN.....	2.3	3.6	2.0	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.2	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.0	0.3	
HELIUM.....	0.05	0.05	0.05	
HEATING VALUE.....	1007	1018	1011	
SPECIFIC GRAVITY.....	0.576	0.605	0.579	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

		INDEX SAMPLE 10940	INDEX SAMPLE 10941	INDEX SAMPLE 10926
COUNTRY.....	AUSTRALIA		AUSTRALIA	AUSTRALIA
STATE OR PROVINCE.....	QUEENSLAND		QUEENSLAND	QUEENSLAND
FIELD.....	PINE RIDGE		PINE RIDGE	RICHMOND
WELL NAME.....	PINE RIDGE NO. 1		PINE RIDGE NO. 6	RICHMOND NO. 7
LOCATION.....	26-29-35S, 148-01-02E		26-29-43S, 148-08-36E	26-41-54S, 148-52-43E
OWNER.....	ASSOC. AUSTRALIAN OIL FIELDS		ASSOC. AUSTRALIAN OIL FIELDS	ASSOC. AUSTRALIAN OIL FIELDS
COMPLETED.....	01/25/65		06/27/65	12/16/63
SAMPLED.....	01/06/67		01/06/67	01/04/67
FORMATION.....	JURA-PRECIPICE		JURA-PRECIPICE	JURA-PRECIPICE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	3414		3420	4076
WELLHEAD PRESSURE, PSIG.....	1310		1240	1650
OPEN FLOW, MCFD.....	5500		5500	11200
COMPONENT, MOLE PCT				
METHANE.....	95.2	92.9	83.8	
ETHANE.....	2.0	3.1	5.6	
PROpane.....	0.1	0.3	2.5	
N-BUTANE.....	0.1	0.1	0.5	
ISOBUTANE.....	0.1	0.1	0.9	
N-PENTANE.....	0.0	0.0	TRACE	
ISOPENTANE.....	0.2	0.2	0.6	
CYCLOPENTANE.....	TRACE	0.1	0.2	
HEXANES PLUS.....	TRACE	0.1	0.2	
NITROGEN.....	2.0	2.6	5.4	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	TRACE	TRACE	
HELIUM.....	0.05	0.05	0.04	
HEATING VALUE.....	1018	1042	1101	
SPECIFIC GRAVITY.....	0.582	0.600	0.670	
		INDEX SAMPLE 10927	INDEX SAMPLE 10930	INDEX SAMPLE 10931
COUNTRY.....	AUSTRALIA		AUSTRALIA	AUSTRALIA
STATE OR PROVINCE.....	QUEENSLAND		QUEENSLAND	QUEENSLAND
FIELD.....	RICHMOND		RICHMOND	RICHMOND
WELL NAME.....	RICHMOND NO. 11		RICHMOND NO. 18	APPLEGROVE NO. 1
LOCATION.....	26-41-44S, 148-51-12E		26-41-01S, 148-50-05E	26-40-55S, 148-51-06E
OWNER.....	ASSOC. AUSTRALIAN OIL FIELDS		ASSOC. AUSTRALIAN OIL FIELDS	ASSOC. AUSTRALIAN OIL FIELDS
COMPLETED.....	01/05/64		04/23/64	10/28/63
SAMPLED.....	01/04/67		01/04/67	01/04/67
FORMATION.....	JURA-PRECIPICE		JURA-PRECIPICE	JURA-PRECIPICE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	4036		3935	3932
WELLHEAD PRESSURE, PSIG.....	1650		1680	1685
OPEN FLOW, MCFD.....	1200		7900	2330
COMPONENT, MOLE PCT				
METHANE.....	85.6	92.2	86.2	
ETHANE.....	5.8	2.5	5.6	
PROpane.....	0.6	0.1	2.2	
N-BUTANE.....	0.5	0.1	0.1	
ISOBUTANE.....	1.1	0.0	0.9	
N-PENTANE.....	TRACE	0.0	0.0	
ISOPENTANE.....	0.5	0.0	0.4	
CYCLOPENTANE.....	0.2	0.0	0.2	
HEXANES PLUS.....	0.4	0.0	0.3	
NITROGEN.....	2.9	3.7	3.6	
OXYGEN.....	0.1	0.0	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.2	0.2	0.2	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.2	
HELIUM.....	0.04	0.07	0.06	
HEATING VALUE.....	1142	995	1105	
SPECIFIC GRAVITY.....	0.669	0.584	0.658	
		INDEX SAMPLE 10935	INDEX SAMPLE 10936	INDEX SAMPLE 10937
COUNTRY.....	AUSTRALIA		AUSTRALIA	AUSTRALIA
STATE OR PROVINCE.....	QUEENSLAND		QUEENSLAND	QUEENSLAND
FIELD.....	RICHMOND		RICHMOND	RICHMOND
WELL NAME.....	RICHMOND NO. 13		RICHMOND NO. 16	RICHMOND NO. 5
LOCATION.....	26-42-16S, 148-52-51E		26-41-13S, 148-51-35E	26-42-00S, 148-52-14E
OWNER.....	ASSOC. AUSTRALIAN OIL FIELDS		ASSOC. AUSTRALIAN OIL FIELDS	ASSOC. AUSTRALIAN OIL FIELDS
COMPLETED.....	03/01/64		04/03/64	11/24/63
SAMPLED.....	01/04/67		01/12/67	01/12/67
FORMATION.....	JURA-PRECIPICE		JURA-PRECIPICE	JURA-PRECIPICE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	4107		4018	4146
WELLHEAD PRESSURE, PSIG.....	1640		1655	1576
OPEN FLOW, MCFD.....	4400		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	84.0	87.1	84.3	
ETHANE.....	5.6	5.6	6.1	
PROpane.....	2.8	2.2	2.8	
N-BUTANE.....	0.7	0.3	0.7	
ISOBUTANE.....	1.1	0.8	0.7	
N-PENTANE.....	0.0	0.0	0.1	
ISOPENTANE.....	1.0	0.6	0.6	
CYCLOPENTANE.....	0.4	0.2	0.1	
HEXANES PLUS.....	0.7	0.3	0.2	
NITROGEN.....	3.1	2.7	4.1	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.3	0.2	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.2	
HELIUM.....	0.04	0.04	0.05	
HEATING VALUE.....	1179	1126	1134	
SPECIFIC GRAVITY.....	0.692	0.655	0.681	
		INDEX SAMPLE 12027	INDEX SAMPLE 10788	INDEX SAMPLE 10791
COUNTRY.....	AUSTRIA		BOLIVIA	BOLIVIA
STATE OR PROVINCE.....	HATZEN		SANTA CRUZ	SANTA CRUZ
FIELD.....	SCHOENKIRCHEN TIEF 32		COLPA	PALMAR
WELL NAME.....	SCHOENKIRCHEN N.O.		COLPA NO. 2	PALMAR NO. 5
LOCATION.....	SCHOENKIRCHEN N.O.		NOT GIVEN	NOT GIVEN
OWNER.....	MINERALOLVERWALTUNG AG		BOLIVIAN GULF OIL CO.	BOLIVIAN GULF OIL CO.
COMPLETED.....	07/18/69		03/20/66	01/05/65
SAMPLED.....	07/17/69		10/25/66	11/24/66
FORMATION.....	-KREIDE		-TARIJA L	-TAIKUATI
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	15850		8903	8670
WELLHEAD PRESSURE, PSIG.....	6120		NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	85.2	84.4	88.8	
ETHANE.....	0.8	6.7	5.4	
PROpane.....	0.2	1.4	2.9	
N-BUTANE.....	0.1	0.8	0.9	
ISOBUTANE.....	TRACE	0.7	0.2	
N-PENTANE.....	0.1	TRACE	0.2	
ISOPENTANE.....	0.1	0.3	0.1	
CYCLOPENTANE.....	TRACE	0.0	0.2	
HEXANES PLUS.....	1.2	0.5	0.9	
NITROGEN.....	0.0	0.0	0.1	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	TRACE	0.2	0.1	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	12.1	0.1	TRACE	
CARBON DIOXIDE.....	0.02	0.02	0.01	
HELIUM.....	896	1236	1140	
HEATING VALUE.....	0.689	0.701	0.645	
SPECIFIC GRAVITY.....				

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

INDEX SAMPLE 10792			INDEX SAMPLE 10793			INDEX SAMPLE 16042		
COUNTRY.....	BOLIVIA		BOLIVIA			BOLIVIA		
STATE OR PROVINCE.....	SANTA CRUZ		SANTA CRUZ			SANTA CRUZ		
FIELD.....	RIO GRANDE		RIO GRANDE			RIO GRANDE		
WELL NAME.....	RIO GRANDE No. 12		RIO GRANDE No. 12			No. 4-B		
LOCATION.....	NOT GIVEN		NOT GIVEN			ROBORE		
OWNER.....	BOLIVIAN GULF OIL CO.		BOLIVIAN GULF OIL CO.			OCCIDENTAL BOLIVIANA, INC.		
COMPLETED.....	11/01/63		11/01/63			01/26/77		
SAMPLED.....	11/24/66		11/24/66			07/24/80		
FORMATION.....	-TAIQUATI		-TAIQUATI			CARE-TUPAMBI		
GEOLOGIC PROVINCE CODE.....	000		000			000		
DEPTH, FEET.....	9195		8618			6477		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	85.4		89.0			82.4		
ETHANE.....	5.3		4.2			7.3		
PROPANE.....	3.4		1.0			1.6		
N-BUTANE.....	1.2		1.0			1.6		
ISOBUTANE.....	0.5		0.3			0.7		
N-PENTANE.....	0.6		0.3			0.4		
ISOPENTANE.....	0.5		0.3			0.4		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.8		0.3			0.3		
NITROGEN.....	1.9		1.5			2.2		
OXYGEN.....	0.1		0.0			0.0		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.0		TRACE			0.1		
HELIUM.....	0.31		0.01			0.02		
HEATING VALUE.....	1201		1136			1218		
SPECIFIC GRAVITY.....	0.693		0.652			0.707		
INDEX SAMPLE 16036			INDEX SAMPLE 16037			INDEX SAMPLE 16038		
COUNTRY.....	BOLIVIA		BOLIVIA			BOLIVIA		
STATE OR PROVINCE.....	SANTA CRUZ		SANTA CRUZ			SANTA CRUZ		
FIELD.....	TITA		TITA			TITA		
WELL NAME.....	TITA No. 1-T		TITA No. 12-T			TITA No. 3-UM		
LOCATION.....	ROBORE		ROBORE			ROBORE		
OWNER.....	OCCIDENTAL BOLIVIANA, INC.		OCCIDENTAL BOLIVIANA, INC.			OCCIDENTAL BOLIVIANA, INC.		
COMPLETED.....	08/17/75		10/14/77			01/30/78		
SAMPLED.....	07/24/80		07/24/80			07/24/80		
FORMATION.....	CARE-TUPAMBI		CARE-TUPAMBI			CARE-TUPAMBI		
GEOLOGIC PROVINCE CODE.....	000		000			000		
DEPTH, FEET.....	6592		6375			6423		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	83.4		70.0			81.6		
ETHANE.....	7.1		6.2			7.1		
PROPANE.....	4.3		4.1			4.2		
N-BUTANE.....	1.4		1.8			1.3		
ISOBUTANE.....	0.6		0.1			0.7		
N-PENTANE.....	0.4		0.7			0.3		
ISOPENTANE.....	0.4		0.8			0.3		
CYCLOPENTANE.....	0.1		0.3			0.1		
HEXANES PLUS.....	0.3		1.2			0.4		
NITROGEN.....	1.9		11.5			3.5		
OXYGEN.....	0.0		2.5			0.2		
ARGON.....	TRACE		0.1			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	TRACE		0.1			0.2		
HELIUM.....	0.03		0.02			0.02		
HEATING VALUE.....	1204		1151			1180		
SPECIFIC GRAVITY.....	0.695		0.793			0.703		
INDEX SAMPLE 16039			INDEX SAMPLE 16040			INDEX SAMPLE 16041		
COUNTRY.....	BOLIVIA		BOLIVIA			BOLIVIA		
STATE OR PROVINCE.....	SANTA CRUZ		SANTA CRUZ			SANTA CRUZ		
FIELD.....	TITA		TITA			TITA		
WELL NAME.....	TITA No. 13-T		TITA No. 7-B			TITA No. 6-M		
LOCATION.....	ROBORE		ROBORE			ROBORE		
OWNER.....	OCCIDENTAL BOLIVIANA, INC.		OCCIDENTAL BOLIVIANA, INC.			OCCIDENTAL BOLIVIANA, INC.		
COMPLETED.....	11/06/77		06/16/77			05/11/77		
SAMPLED.....	07/24/80		07/24/80			07/24/80		
FORMATION.....	CARE-TUPAMBI		CARE-TUPAMBI			CARE-TUPAMBI		
GEOLOGIC PROVINCE CODE.....	000		000			000		
DEPTH, FEET.....	6454		6434			6342		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	83.8		81.9			82.8		
ETHANE.....	4.2		4.6			7.4		
PROPANE.....	1.3		1.4			4.5		
N-BUTANE.....	0.6		0.8			1.4		
ISOBUTANE.....	0.3		0.3			0.6		
N-PENTANE.....	0.3		0.3			0.3		
ISOPENTANE.....	0.1		0.2			0.1		
CYCLOPENTANE.....	0.1		0.2			0.1		
HEXANES PLUS.....	1.9		2.2			0.3		
NITROGEN.....	0.0		0.0			2.2		
OXYGEN.....	TRACE		0.0			0.8		
ARGON.....	0.0		0.0			TRACE		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.1			0.1		
HELIUM.....	0.02		0.01			0.01		
HEATING VALUE.....	1196		1226			1200		
SPECIFIC GRAVITY.....	0.691		0.713			0.697		
INDEX SAMPLE 16043			INDEX SAMPLE 10790			INDEX SAMPLE 8883		
COUNTRY.....	BOLIVIA		BOLIVIA			CANADA		
STATE OR PROVINCE.....	SANTA CRUZ		SANTA CRUZ			ALBERTA		
FIELD.....	TITA		WILCAT			BLACK BUTTE		
WELL NAME.....	TITA No. 5-B		PENA No. 1			HOME CHG BLACK BUTTE		
LOCATION.....	ROBORE		NOT GIVEN			L. S. 10-7, T1, R8		
OWNER.....	OCCIDENTAL BOLIVIANA, INC.		BOLIVIAN GULF OIL CO.			CANADIAN MONTANA GAS CO., LTD		
COMPLETED.....	03/27/77		03/10/65			12/26/62		
SAMPLED.....	07/24/80		11/24/66			02/09/63		
FORMATION.....	CARE-TUPAMBI		DEVO-			-MANNVILLE		
GEOLOGIC PROVINCE CODE.....	000		000			000		
DEPTH, FEET.....	6498		11312			2679		
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	80.5		90.2			91.8		
ETHANE.....	8.4		3.7			2.3		
PROPANE.....	1.4		0.1			1.0		
N-BUTANE.....	1.6		0.7			0.4		
ISOBUTANE.....	0.8		0.4			TRACE		
N-PENTANE.....	0.4		0.4			TRACE		
ISOPENTANE.....	0.3		0.3			0.2		
CYCLOPENTANE.....	0.1		0.4			TRACE		
HEXANES PLUS.....	0.3		2.0			TRACE		
NITROGEN.....	2.2		2.5			3.9		
OXYGEN.....	0.0		0.0			0.0		
ARGON.....	TRACE		0.0			0.2		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.1		0.2			TRACE		
HELIUM.....	0.31		0.02			0.10		
HEATING VALUE.....	1236		1168			1019		
SPECIFIC GRAVITY.....	0.720		0.664			0.603		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

		INDEX SAMPLE 11025	INDEX SAMPLE 11180	INDEX SAMPLE 11183
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	CROSSFIELD		CROSSFIELD	CROSSFIELD
WELL NAME.....	CWNG 10-19-29-22		CWNG 6-16-21-16	DELHI-SOCONY COUNTLESS No. 1
LOCATION.....	LSD 10-19-29-22-W4M		LSD 6-16-21-16-W4M	LSD 7-8-21-16-W4M
OWNER.....	CANADIAN WESTERN NAT. GAS CO		CANADIAN DELHI OIL, LTD.	CANADIAN DELHI OIL, LTD.
COMPLETED.....	7/7/60		07/23/60	04/02/51
SAMPLED.....	07/04/67		06/20/67	06/20/67
FORMATION.....	-GLAUCONITE		CRET-COLORADO BASAL	CRET-BOW ISLAND
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	4765		3170	2870
WELLHEAD PRESSURE, PSIG.....	1110		826	752
OPEN FLOW, MCFD.....	13700		9000	1890
COMPONENT, MOLE PCT.....				
METHANE.....	85.1	91.3	91.4	
ETHANE.....	6.0	3.0	2.9	
PROpane.....	3.2	0.9	0.9	
N-BUTANE.....	0.8	0.3	0.2	
ISOBUTANE.....	0.9	0.2	0.2	
N-PENTANE.....	0.2	0.1	0.1	
ISOPENTANE.....	0.3	0.1	0.1	
CYCLOPENTANE.....	0.1	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.2	0.2	
NITROGEN.....	2.8	3.9	3.9	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	TRACE	TRACE	
HELIUM.....	0.05	0.06	0.06	
HEATING VALUE.....	116	1038	1029	
SPECIFIC GRAVITY.....	0.671	0.611	0.606	
		INDEX SAMPLE 11692	INDEX SAMPLE 11693	INDEX SAMPLE 11694
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	CROSSFIELD		CROSSFIELD	CROSSFIELD
WELL NAME.....	CROSS 10-35-25-29		CPR CALGARY 11-1-26-29	MOBIL CPR CROSS 2-2-26-29
LOCATION.....	LSD 10-35-25-29 W4M		LSD 11-1-26-29 W4M	LSD 2-2-26-29 W4M
OWNER.....	JEFFERSON LAKE PETROCHEMICAL		JEFFERSON LAKE PETROCHEMICAL	JEFFERSON LAKE PETROCHEMICAL
COMPLETED.....	10/21/66		05/06/60	07/15/62
SAMPLED.....	11/19/68		11/19/68	11/19/68
FORMATION.....	CRET-BLAINMORE		DEV0-CROSSFIELD	MISS-ELKTON
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	7304		8625	7312
WELLHEAD PRESSURE, PSIG.....	1772		2105	1902
OPEN FLOW, MCFD.....	5300		51000	71000
COMPONENT, MOLE PCT.....				
METHANE.....	83.7	62.3	83.8	
ETHANE.....	6.7	0.7	6.6	
PROpane.....	2.2	TRACE	2.1	
N-BUTANE.....	0.5	0.0	0.6	
ISOBUTANE.....	0.5	0.0	0.1	
N-PENTANE.....	0.3	0.0	0.3	
ISOPENTANE.....	0.1	0.0	0.1	
CYCLOPENTANE.....	0.1	0.0	0.1	
HEXANES PLUS.....	0.2	0.0	0.3	
NITROGEN.....	0.5	2.4	0.5	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.1	0.1	TRACE	
HYDROGEN SULFIDE.....	0.0	24.4	0.3	
CARBON DIOXIDE.....	5.2	10.1	4.9	
HELIUM.....	0.02	0.03	0.01	
HEATING VALUE.....	1090	800	1097	
SPECIFIC GRAVITY.....	0.692	0.821	0.694	
		INDEX SAMPLE 10997	INDEX SAMPLE 10998	INDEX SAMPLE 10999
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	FERRIER		FERRIER	GILBY
WELL NAME.....	FERRIER No. 8-28		FERRIER No. 8-28	GILBY
LOCATION.....	LSD 8-28-39-8-W5M		LSD 8-28-39-8-W5M	LSD 10-1-41-3-W5M
OWNER.....	SINCLAIR CANADA OIL CO.		SINCLAIR CANADA OIL CO.	CANADIAN HOMESTEAD OILS LTD.
COMPLETED.....	12/01/55		12/01/55	10/09/59
SAMPLED.....	06/08/67		06/08/67	06/08/67
FORMATION.....	CRET-VIKING		CRET-CARDIUM	PENN-ROWE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	8250		7230	7013
WELLHEAD PRESSURE, PSIG.....	2100		1700	NOT GIVEN
OPEN FLOW, MCFD.....	1000		750	7250
COMPONENT, MOLE PCT.....				
METHANE.....	83.2	84.8	76.5	
ETHANE.....	9.2	8.0	7.8	
PROpane.....	6.1	6.2	5.1	
N-BUTANE.....	1.0	0.7	0.8	
ISOBUTANE.....	0.3	0.3	0.5	
N-PENTANE.....	0.3	0.1	0.5	
ISOPENTANE.....	0.3	0.2	0.3	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.1	0.1	0.3	
NITROGEN.....	1.3	0.6	5.3	
OXYGEN.....	0.1	0.2	1.2	
ARGON.....	TRACE	TRACE	0.1	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.8	0.6	4.0	
HELIUM.....	0.0	0.01	0.02	
HEATING VALUE.....	1167	1137	1079	
SPECIFIC GRAVITY.....	0.678	0.662	0.732	
		INDEX SAMPLE 11000	INDEX SAMPLE 11001	INDEX SAMPLE 8362
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	GILBY		GILBY	HARMATTAN
WELL NAME.....	GILBY		GILBY	HARMATTAN No. 4-15
LOCATION.....	LSD 11-11-41-3-W5M		LSD 10-10-41-3-W5M	SEC. 15, T32, R4W5
OWNER.....	CANADIAN HOMESTEAD OILS LTD.		CANADIAN HOMESTEAD OILS LTD.	SHELL OIL CO.
COMPLETED.....	08/13/64		01/21/61	05/01/61
SAMPLED.....	06/07/67		06/07/67	11/7/61
FORMATION.....	JURA-A		UNKN-MANNVILLE A & JURA-D	DEV0
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	7040		7190	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	2664
OPEN FLOW, MCFD.....	5130		47000	98000
COMPONENT, MOLE PCT.....				
METHANE.....	81.0	77.6	77.9	
ETHANE.....	8.1	7.8	0.5	
PROpane.....	3.0	3.0	0.1	
N-BUTANE.....	0.8	0.9	TRACE	
ISOBUTANE.....	0.4	1.1	0.0	
N-PENTANE.....	0.1	0.5	0.0	
ISOPENTANE.....	0.3	0.2	0.0	
CYCLOPENTANE.....	TRACE	0.4	0.0	
HEXANES PLUS.....	0.2	1.7	0.0	
NITROGEN.....	1.3	0.0	0.1	
OXYGEN.....	0.2	0.0	0.1	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.1	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	12.1	
CARBON DIOXIDE.....	4.3	3.6	3.7	
HELIUM.....	0.02	0.01	0.21	
HEATING VALUE.....	1112	879	879	
SPECIFIC GRAVITY.....	0.702	0.783	0.690	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

1188

		INDEX SAMPLE 10987	INDEX SAMPLE 10989	INDEX SAMPLE 14455
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	KEYSTONE		KEYSTONE	LANAWAY
WELL NAME.....	6-34-48-4		CS IMPERIAL KEYSTONE	LANAWAY NO G-1
LOCATION.....	LSD 6-24-48-4-W5M		LSD 6-35-48-4-W5M	10-32-35-4 W5M
OWNER.....	CANADA-CITIES SERVICE		CANADA-CITIES SERVICE	AMOCO CANADA PET. CO.
COMPLETED.....	06/07/65		08/06/66	--/--/00
SAMPLED.....	05/30/67		05/30/67	06/05/75
FORMATION.....	CRET-BELLY RIVER		CRET-BLAIRMORE	CRET-
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	3130		5070	7996
WELLHEAD PRESSURE, PSIG.....	934		510	2959
OPEN FLOW, MCFD.....	8800		1260	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	95.6	85.2	79.2	
ETHANE.....	1.3	6.3	11.1	
PROPANE.....	1.1	3.1	4.9	
N-BUTANE.....	0.1	0.7	0.8	
ISOBUTANE.....	0.3	0.6	0.8	
N-PENTANE.....	TRACE	0.1	0.1	
ISOPENTANE.....	0.2	0.4	0.3	
CYCLOPENTANE.....	TRACE	0.1	0.1	
HEXANES PLUS.....	0.1	0.2	0.2	
NITROGEN.....	1.1	1.8	1.6	
OXYGEN.....	0.1	0.1	0.1	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	TRACE	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.3	0.9	
HELIUM.....	0.02	0.04	0.01	
HEATING VALUE.....	1047	1146	1213	
SPECIFIC GRAVITY.....	0.589	0.663	0.714	
		INDEX SAMPLE 8566	INDEX SAMPLE 14456	INDEX SAMPLE 10986
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	MINNEHIK-BUCK LAKE		NOT GIVEN	PADDLE RIVER
WELL NAME.....	HB MINIHK 10-8-45-5		ROW KY NORTH NO. 1	PADDLE RIVER
LOCATION.....	SEC. 8, T4S, R5W5M		7-14-33-20 W4M	LSD 6-1-37-9-W5M
OWNER.....	HUDSONS BAY OIL & GAS CO.		AMOCO CANADA PET. CO.	CANADA-CITIES SERVICE
COMPLETED.....	11/13/61		--/--/00	10/01/61
SAMPLED.....	05/12/62		07/24/75	05/29/67
FORMATION.....	MTS-PEKISKO		CRET-BASIL	JURA-
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	7090		4495	5351
WELLHEAD PRESSURE, PSIG.....	2450		1036	1470
OPEN FLOW, MCFD.....	23300		NOT GIVEN	23000
COMPONENT, MOLE PCT				
METHANE.....	84.8	86.4	84.4	
ETHANE.....	6.0	5.4	7.8	
PROPANE.....	6.2	5.3	3.1	
N-BUTANE.....	0.8	0.7	0.9	
ISOBUTANE.....	0.6	0.7	0.4	
N-PENTANE.....	0.3	0.2	0.2	
ISOPENTANE.....	0.2	0.2	0.2	
CYCLOPENTANE.....	0.1	TRACE	0.1	
HEXANES PLUS.....	0.1	1.1	0.2	
NITROGEN.....	0.5	1.9	0.8	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	3.1	TRACE	1.7	
HELIUM.....	0.02	0.04	0.03	
HEATING VALUE.....	1138	1145	1150	
SPECIFIC GRAVITY.....	0.688	0.658	0.677	
		INDEX SAMPLE 10990	INDEX SAMPLE 11785	INDEX SAMPLE 11786
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	PADDLE RIVER		PRINCESS	PRINCESS
WELL NAME.....	6-32-56-8		MURPHY PRINCESS 10-28	MURPHY PRINCESS NO. 6-34
LOCATION.....	LSD 6-32-56-8-W5M		LSD 10-28-19-10W4	LSD 6-34-19-10-W4
OWNER.....	CANADA-CITIES SERVICE		MURPHY OIL CO. LTD.	MURPHY OIL CO. LTD.
COMPLETED.....	05/05/67		--/--/00	--/--/00
SAMPLED.....	05/29/67		02/19/69	02/19/69
FORMATION.....	JURA-		CRET-WHITE SPECS 2ND	CRET-WHITE SPECS 2ND
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	4942		2000	2000
WELLHEAD PRESSURE, PSIG.....	1470		475	475
OPEN FLOW, MCFD.....	18500		2000	200
COMPONENT, MOLE PCT				
METHANE.....	84.5	95.7	91.4	
ETHANE.....	7.1	0.2	0.3	
PROPANE.....	2.9	TRACE	0.1	
N-BUTANE.....	0.8	0.0	0.0	
ISOBUTANE.....	0.4	0.0	0.0	
N-PENTANE.....	0.6	0.0	0.0	
ISOPENTANE.....	0.3	0.0	0.0	
CYCLOPENTANE.....	0.1	0.0	0.0	
HEXANES PLUS.....	0.2	0.0	0.0	
NITROGEN.....	1.1	3.8	0.0	
OXYGEN.....	TRACE	0.0	0.0	
ARGON.....	TRACE	TRACE	0.1	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	1.8	TRACE	TRACE	
HELIUM.....	0.04	0.08	0.18	
HEATING VALUE.....	1145	977	934	
SPECIFIC GRAVITY.....	0.678	0.572	0.590	
		INDEX SAMPLE 14457	INDEX SAMPLE 11279	INDEX SAMPLE 11280
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	RICINUS		SAVANNAH CREEK	SAVANNAH CREEK
WELL NAME.....	CARDIUM NO. 1		SAVANNAH CREEK NO. 3-A	SAVANNAH CREEK NO. 1
LOCATION.....	15-12-36-9 W5M		5-32-14-4-W5M	12-20-14-4-W5M
OWNER.....	AMOCO CANADA PET. CO.		HUSKY OIL CANADA LTD.	HUSKY OIL CANADA LTD.
COMPLETED.....	06/05/75		08/06/77	02/23/55
SAMPLED.....	06/05/75		02/07/68	02/07/68
FORMATION.....	CRET-		MISS-LIVINGSTONE	MISS-LIVINGSTONE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	8566		8838	7040
WELLHEAD PRESSURE, PSIG.....	2400		1475	1475
OPEN FLOW, MCFD.....	17607		5289	1099
COMPONENT, MOLE PCT				
METHANE.....	81.6	88.9	84.4	
ETHANE.....	8.7	1.0	0.9	
PROPANE.....	4.1	TRACE	0.9	
N-BUTANE.....	0.9	0.0	0.0	
ISOBUTANE.....	0.8	0.0	0.0	
N-PENTANE.....	0.2	0.0	0.0	
ISOPENTANE.....	0.5	0.0	0.0	
CYCLOPENTANE.....	0.1	0.0	0.0	
HEXANES PLUS.....	0.6	0.0	0.0	
NITROGEN.....	1.4	3.1	3.2	
OXYGEN.....	TRACE	0.2	0.0	
ARGON.....	TRACE	TRACE	0.1	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.1	
CARBON DIOXIDE.....	0.8	0.4	0.3	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1216	929	929	
SPECIFIC GRAVITY.....	0.709	0.623	0.646	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

		INDEX SAMPLE 11018	INDEX SAMPLE 11019	INDEX SAMPLE 8287
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	SAVANNAH CREEK		SAVANNAH CREEK	SHELL WATERTON
WELL NAME.....	SAVANNAH CREEK NO 3A		SAVANNAH CREEK NO. 1	SHELL WATERTON NO. 19
LOCATION.....	LSO 5-32-14-A-W5M		LSO 12-20-14-A-W5H	SEC. 11, T1P. 4, R11, W5H
OWNER.....	HUSKY OIL CANADA LTD.		HUSKY OIL CANADA LTD.	SHELL OIL CO. OF CANADA, LTD.
COMPLETED.....	08/06/57		06/--/52	11/--/61
SAMPLED.....	06/27/67		06/27/67	11/20/61
FORMATION.....	MISS-		MISS-	MISS-
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	828E		6401	12099
WELLHEAD PRESSURE, PSIG.....	1200		1200	2775
OPEN FLOW, MCFD.....	20000		40000	20000
COMPONENT, MOLE PCT				
METHANE.....	50.5		88.6	65.5
ETHANE.....	0.9		0.9	8.2
PROPANE.....	0.1		0.1	0.7
N-BUTANE.....	0.0		0.0	0.3
ISOBUTANE.....	0.0		0.0	0.1
N-PENTANE.....	0.0		0.0	TRACE
ISOPENTANE.....	0.0		0.0	0.2
CYCLOPENTANE.....	0.0		0.0	TRACE
HEXANES PLUS.....	0.0		0.0	TRACE
NITROGEN.....	0.6		0.4	2.1
OXYGEN.....	0.1		0.1	0.5
ARGON.....	TRACE		TRACE	TRACE
HYDROGEN.....	0.2		TRACE	0.1
HYDROGEN SULFIDE.....	7.1		7.3	17.4
CARBON DIOXIDE.....	0.5		0.5	0.8
HELIUM.....	0.01		0.01	0.02
HEATING VALUE.....	982		976	891
SPECIFIC GRAVITY.....	0.612		0.625	0.799
		INDEX SAMPLE 8410	INDEX SAMPLE 8264	INDEX SAMPLE 9187
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	SUNDRE		WAYNE	WILDCAT
WELL NAME.....	HB SUNDRE 14-14-34-5		HB CPOG WAYNE NO. 1	SINCLAIR MILLICENT NO. 10-5
LOCATION.....	SEC. 14, T34-R5-W5M		SEC. 31, T26, R19W4M	SEC. 5, T21, R13W
OWNER.....	HUDSONS BAY OIL & GAS CO.		HUDSONS BAY OIL & GAS, ET AL	SINCLAIR CANADA OIL CO.
COMPLETED.....	12/29/61		09/01/61	03/10/63
SAMPLED.....	02/15/62		10/31/61	10/--/63
FORMATION.....	MISS-ELKTON		CRET-BLAIRMORE BASAL	CRET-VIKING
GEOLOGIC PROVINCE CODE.....	00		00	000
DEPTH, FEET.....	8864		4748	2592
WELLHEAD PRESSURE, PSIG.....	1000		1000	935
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	1300
COMPONENT, MOLE PCT				
METHANE.....	87.7		86.3	92.2
ETHANE.....	6.0		3.6	2.8
PROPANE.....	1.6		1.8	1.3
N-BUTANE.....	0.3		0.7	0.3
ISOBUTANE.....	0.2		0.2	0.1
N-PENTANE.....	TRACE		0.2	TRACE
ISOPENTANE.....	0.2		0.1	0.2
CYCLOPENTANE.....	TRACE		TRACE	TRACE
HEXANES PLUS.....	0.1		0.2	TRACE
NITROGEN.....	0.5		2.2	2.6
OXYGEN.....	0.1		TRACE	0.0
ARGON.....	0.0		0.0	0.0
HYDROGEN.....	0.0		0.0	0.0
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	3.4		0.1	0.4
HELIUM.....	0.01		0.05	0.00
HEATING VALUE.....	1068		1135	1040
SPECIFIC GRAVITY.....	0.650		0.657	0.605
		INDEX SAMPLE 9188	INDEX SAMPLE 11002	INDEX SAMPLE 8675
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	WILDCAT		WILDCAT HILLS	WORSLEY
WELL NAME.....	SINCLAIR MILLICENT NO. 10-5		WILDCAT HILLS UNIT	WORSLEY NO. 14-19
LOCATION.....	SEC. 5, T21, R13W		10-6-27-W5H	SEC. 19, T87, R7W6H
OWNER.....	SINCLAIR CANADA OIL CO.		CANADIAN FINA OIL LTD.	SHELL OIL CO. OF CANADA, LTD
COMPLETED.....	03/10/63		10/17/66	09/07/59
SAMPLED.....	03/--/63		06/08/67	03/22/62
FORMATION.....	CRET-BLAIRMORE BASAL		MISS-TURNER VALLEY	DEVON-NOT GIVEN
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	3336		10051	7300
WELLHEAD PRESSURE, PSIG.....	4466		2650	2753
OPEN FLOW, MCFD.....	8600		19000	130000
COMPONENT, MOLE PCT				
METHANE.....	92.1		87.0	85.4
ETHANE.....	1.9		3.3	3.9
PROPANE.....	0.5		0.8	2.0
N-BUTANE.....	0.1		0.2	0.6
ISOBUTANE.....	0.3		0.3	0.4
N-PENTANE.....	0.1		TRACE	0.1
ISOPENTANE.....	TRACE		0.2	0.2
CYCLOPENTANE.....	TRACE		TRACE	TRACE
HEXANES PLUS.....	0.2		0.1	0.2
NITROGEN.....	3.8		1.3	6.0
OXYGEN.....	0.1		0.1	TRACE
ARGON.....	0.0		TRACE	0.1
HYDROGEN.....	0.0		TRACE	0.1
HYDROGEN SULFIDE.....	0.0		0.5	0.0
CARBON DIOXIDE.....	0.9		0.9	0.5
HELIUM.....	0.10		0.01	0.50
HEATING VALUE.....	1008		991	1044
SPECIFIC GRAVITY.....	0.606		0.660	0.647
		INDEX SAMPLE 11068	INDEX SAMPLE 11346	INDEX SAMPLE 11348
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		BR COLUMBIA	BR COLUMBIA
FIELD.....	WORSLEY		PARKLAND	PARKLAND
WELL NAME.....	WORSLEY 10-22-87-7		PACIFIC IMPERIAL PARKLAND	PACIFIC IMPERIAL PARKLAND
LOCATION.....	LSO 10-22-87-7-W6H		6-29-81-15-W6	10-28-81-15
OWNER.....	SHELL CANADA LTD.		PACIFIC PETROLEUMS, INC.	PACIFIC PETROLEUMS, INC.
COMPLETED.....	--/--/00		10/20/56	01/18/63
SAMPLED.....	08/06/67		01/23/68	01/23/68
FORMATION.....	DEVON		DEVON-WABAMUN	DEVON-WABAMUN
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	7443		10893	10680
WELLHEAD PRESSURE, PSIG.....	1800		2504	2952
OPEN FLOW, MCFD.....	NOT GIVEN		25700	11000
COMPONENT, MOLE PCT				
METHANE.....	85.2		92.5	92.3
ETHANE.....	1.9		0.9	0.5
PROPANE.....	2.0		0.1	0.1
N-BUTANE.....	0.6		0.0	0.0
ISOBUTANE.....	0.2		0.0	0.0
N-PENTANE.....	0.2		0.0	0.0
ISOPENTANE.....	0.3		0.0	0.0
CYCLOPENTANE.....	0.1		0.0	0.0
HEXANES PLUS.....	0.3		0.3	0.0
NITROGEN.....	6.1		2.3	2.1
OXYGEN.....	0.1		0.2	0.1
ARGON.....	0.1		0.1	TRACE
HYDROGEN.....	TRACE		0.0	0.0
HYDROGEN SULFIDE.....	0.0		0.0	0.0
CARBON DIOXIDE.....	0.5		4.2	4.5
HELIUM.....	0.52		0.24	4.30
HEATING VALUE.....	1056		947	947
SPECIFIC GRAVITY.....	0.657		0.609	0.609

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

1185

		INDEX SAMPLE	85 11349	INDEX SAMPLE	86 13287	INDEX SAMPLE	87 16924
COUNTRY.....	CANADA			CANADA		CANADA	
STATE OR PROVINCE.....	BR COLUMBIA			NW TERRITORY		NW TERRITORY	
FIELD.....	RIGEL			DRAKE POINT		WILDCAT	
WELL NAME.....	IMPERIAL ET AL. RIGEL			DRAKE POINT F-16		DOVE HUNT KENALODAK J-94	
LOCATION.....	6-27-88-18-W6			MELVILLE ISLAND		BEAUFORT SEA	
OWNER.....	IMPERIAL OIL LTD.			PANARCTIC OILS, LTD.		DOVE PETROLEUM LTD.	
COMPLETED.....	11/08/63			06/22/72		10/28/82	
SAMPLED.....	01/23/68			06/22/72		10/28/82	
FORMATION.....	CRET-DUNLEVY			JURA-		OLIG-KUGMALLIT	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	3400			NOT GIVEN		14731	
WELLHEAD PRESSURE, PSIG.....	902			NOT GIVEN		NOT GIVEN	
OPEN FLOW, MCFD.....	10800			NOT GIVEN		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	88.3	-----		97.4	-----	91.3	-----
ETHANE.....	6.3	-----		0.7	-----	1.7	-----
PROPANE.....	2.2	-----		TRACE	-----	1.0	-----
N-BUTANE.....	0.7	-----		TRACE	-----	0.9	-----
ISOBUTANE.....	0.2	-----		TRACE	-----	0.7	-----
N-PENTANE.....	0.2	-----		TRACE	-----	0.4	-----
ISOPENTANE.....	0.1	-----		TRACE	-----	1.1	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.3	-----
HEXANES PLUS.....	0.1	-----		TRACE	-----	0.6	-----
NITROGEN.....	1.0	-----		1.6	-----	0.4	-----
OXYGEN.....	0.2	-----		0.1	-----	TRACE	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.2	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.6	-----		0.1	-----	1.2	-----
HELIUM.....	TRACE	-----		0.02	-----	TRACE	-----
HEATING VALUE.....	1113	-----		0.999	-----	1142	-----
SPECIFIC GRAVITY.....	0.640	-----		0.565	-----	0.658	-----
		INDEX SAMPLE	88 11105	INDEX SAMPLE	89 11103	INDEX SAMPLE	90 11102
COUNTRY.....	CANADA			CANADA		CANADA	
STATE OR PROVINCE.....	ONTARIO			ONTARIO		ONTARIO	
FIELD.....	DOVER			GOBLES		NCROFOLK	
WELL NAME.....	AXJAS NO. 4			PARIS PETROLEUM NO. 2		ROBERTS NO. 29	
LOCATION.....	LOT 2, CONC. 4, DOVER E TWP.			LOT 18, CONC. 1 BLENHEIM TWP.		LOT 9, CHARLOTTEVILLE TWP.	
OWNER.....	UNION GAS CO. OF CANADA			RAYROCK MINES LTD.		CARL H. ROBERTS	
COMPLETED.....	06/05/29			04/20/60		03/27/67	
SAMPLED.....	09/05/67			09/05/67		09/06/67	
FORMATION.....	ORDO-TRENTON			CAMB-		THOROLD	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	2805	-----		2868	-----	1186	-----
WELLHEAD PRESSURE, PSIG.....	216	-----		840	-----	660	-----
OPEN FLOW, MCFD.....	5000	-----		1200	-----	114	-----
COMPONENT, MOLE PCT							
METHANE.....	89.6	-----		81.9	-----	83.0	-----
ETHANE.....	4.6	-----		6.7	-----	5.9	-----
PROPANE.....	1.4	-----		3.1	-----	1.7	-----
N-BUTANE.....	0.4	-----		0.8	-----	0.4	-----
ISOBUTANE.....	0.4	-----		0.4	-----	0.1	-----
N-PENTANE.....	TRACE	-----		0.2	-----	0.1	-----
ISOPENTANE.....	0.2	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.2	-----	0.1	-----
NITROGEN.....	3.1	-----		6.2	-----	8.1	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.1	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.1	-----	0.1	-----
HELIUM.....	0.14	-----		0.21	-----	0.36	-----
HEATING VALUE.....	1057	-----		1094	-----	1025	-----
SPECIFIC GRAVITY.....	0.617	-----		0.673	-----	0.650	-----
		INDEX SAMPLE	91 11101	INDEX SAMPLE	92 11104	INDEX SAMPLE	93 11100
COUNTRY.....	CANADA			CANADA		CANADA	
STATE OR PROVINCE.....	ONTARIO			ONTARIO		ONTARIO	
FIELD.....	TILBURY			VERSCHOYLE W		WILKES PORT	
WELL NAME.....	UNION TILBURY NO. 323			SUBED C. H. 1		IMPERIAL SOMBRA 14-14	
LOCATION.....	LOT 168, STR TILBURY E TWP.			LOT 21, CONC. 5, DEREHAM TWP.		LOT 14, CONC. 14, SOMBRA TWP.	
OWNER.....	UNION GAS CO. OF CANADA			AMURX OIL CO.		IMPERIAL OIL LTD.	
COMPLETED.....	01/25/54			12/08/66		07/02/65	
SAMPLED.....	09/05/67			09/06/67		09/05/67	
FORMATION.....	-GUELPH-SALINA			-GUELPH		-GUELPH	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	1257	-----		886	-----	2075	-----
WELLHEAD PRESSURE, PSIG.....	232	-----		440	-----	925	-----
OPEN FLOW, MCFD.....	80	-----		300	-----	13000	-----
COMPONENT, MOLE PCT							
METHANE.....	84.9	-----		73.3	-----	85.9	-----
ETHANE.....	2.7	-----		3.0	-----	5.0	-----
PROPANE.....	0.7	-----		0.1	-----	2.2	-----
N-BUTANE.....	0.4	-----		0.0	-----	0.6	-----
ISOBUTANE.....	0.4	-----		0.0	-----	0.9	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.1	-----
ISOPENTANE.....	0.3	-----		0.0	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.0	-----	0.1	-----
NITROGEN.....	3.9	-----		21.6	-----	4.5	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	0.0	-----		0.1	-----	TRACE	-----
HYDROGEN.....	0.3	-----		TRACE	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.1	-----		0.6	-----	0.1	-----
HELIUM.....	0.10	-----		1.26	-----	0.16	-----
HEATING VALUE.....	1107	-----		802	-----	1095	-----
SPECIFIC GRAVITY.....	0.656	-----		0.663	-----	0.650	-----
		INDEX SAMPLE	94 5979	INDEX SAMPLE	95 5980	INDEX SAMPLE	96 8962
COUNTRY.....	CANADA			CANADA		CANADA	
STATE OR PROVINCE.....	SASKATCHEWAN			SASKATCHEWAN		SASKATCHEWAN	
FIELD.....	HATTON			HATTON		KINDERSLEY	
WELL NAME.....	HERTER NO. 1-10			MOELLER NO. 1-10		KEWANEKE KINDERSLEY	
LOCATION.....	SEC. 21, T15, R28W			SEC. 26, T14, R28W		SEC. 5, T30, R25W3M	
OWNER.....	AMURX OIL CO.			AMURX OIL CO.		CANADIAN KEWANEKE LTD.	
COMPLETED.....	07/28/54			07/04/54		10/04/62	
SAMPLED.....	12/31/55			12/03/55		05/09/63	
FORMATION.....	-MEDICINE HAT			-MEDICINE HAT		-VICTORIA	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	1644	-----		1629	-----	838	-----
WELLHEAD PRESSURE, PSIG.....	600	-----		525	-----	300	-----
OPEN FLOW, MCFD.....	660	-----		1130	-----	8500	-----
COMPONENT, MOLE PCT							
METHANE.....	95.5	-----		95.3	-----	94.8	-----
ETHANE.....	0.3	-----		0.2	-----	0.0	-----
PROPANE.....	0.3	-----		0.2	-----	0.0	-----
N-BUTANE.....	0.0	-----		TRACE	-----	0.0	-----
ISOBUTANE.....	0.0	-----		TRACE	-----	0.0	-----
N-PENTANE.....	0.0	-----		TRACE	-----	0.0	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	0.0	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.0	-----
NITROGEN.....	3.8	-----		7.9	-----	4.9	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.0	-----
ARGON.....	TRACE	-----		0.0	-----	0.0	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.1	-----	0.3	-----
HELIUM.....	0.10	-----		0.0	-----	0.04	-----
HEATING VALUE.....	981	-----		979	-----	960	-----
SPECIFIC GRAVITY.....	0.574	-----		0.576	-----	0.578	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

		INDEX SAMPLE 8963	INDEX SAMPLE 8964	INDEX SAMPLE 10643
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	SASKATCHEWAN		SASKATCHEWAN	SASKATCHEWAN
FIELD.....	KINDERSLEY		KINDERSLEY	WILDCAT
WELL NAME.....	KEWANE KINDERSLEY		KEWANE KINDERSLEY	WOOD MTN. 10-3
LOCATION.....	SEC. 29, T29, R25W3		SEC. 32, T29, R25W3	10-3-5-8 W3M
OWNER.....	CANADIAN KEWANE LTD.		CANADIAN KEWANE LTD.	INTERNATL. HELIUM CO., LTD.
COMPLETED.....	08/26/62		10/05/62	01/01/62
SAMPLED.....	05/09/62		05/09/63	06/24/66
FORMATION.....	-VICTORIA		-VICTORIA	CAMB-DEADWOOD
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	770		733	8390
WELLHEAD PRESSURE, PSIG.....	300		300	2653
OPEN FLOW, MCFD.....	92000		39500	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	96.3	71.7	1.8	
ETHANE.....	0.1	0.0	0.0	
PROPANE.....	0.0	0.0	0.0	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	3.1	22.6	96.4	
OXYGEN.....	0.0	5.0	TRACE	
ARGON.....	TRACE	0.2	0.2	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.4	0.4	0.3	
HELIUM.....	0.10	0.03	1.20	
HEATING VALUE.....	977	726	18	
SPECIFIC GRAVITY.....	0.571	0.680	0.951	
		INDEX SAMPLE 10644	INDEX SAMPLE 10645	INDEX SAMPLE 10646
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	SASKATCHEWAN		SASKATCHEWAN	SASKATCHEWAN
FIELD.....	WILDCAT		WILDCAT	WILDCAT
WELL NAME.....	WOOD MTN.		WOOD MTN.	WOOD MTN. 10-3
LOCATION.....	12-10-5-8 W3M		NOT GIVEN	10-3-5-8 W3M
OWNER.....	INTERNATL. HELIUM CO., LTD.		INTERNATL. HELIUM CO., LTD.	INTERNATL. HELIUM CO., LTD.
COMPLETED.....	01/01/62		01/01/62	01/01/62
SAMPLED.....	06/24/66		06/24/66	06/24/66
FORMATION.....	CAMB-DEADWOOD		CAMB-DEADWOOD	CAMB-DEADWOOD
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	8418		8418	8390
WELLHEAD PRESSURE, PSIG.....	2653		2653	2653
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	1.7	1.7	1.8	
ETHANE.....	0.2	0.1	0.1	
PROPANE.....	0.0	0.0	0.0	
N-BUTANE.....	0.0	0.0	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	96.6	96.4	96.5	
OXYGEN.....	0.0	TRACE	0.1	
ARGON.....	0.2	0.2	0.2	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.3	0.3	0.1	
HELIUM.....	1.09	1.10	1.20	
HEATING VALUE.....	979	979	979	
SPECIFIC GRAVITY.....	0.950	0.950	0.950	
		INDEX SAMPLE 10647	INDEX SAMPLE 12022	INDEX SAMPLE 7547
COUNTRY.....	ETHIOPIA		IRAN	IRAQ
STATE OR PROVINCE.....	NOT GIVEN		KHORASAN	NOT GIVEN
FIELD.....	NOT GIVEN		KHANGIRAN	BAI HASSAN
WELL NAME.....	HILALA NO. 1		KHANGIRAN NO. 2	NO. 2
LOCATION.....	NOT GIVEN		SARAKHS-N.E. IRAN	NOT GIVEN
OWNER.....	TENNECO OIL CO.		NATIONAL IRANIAN GAS CO.	IRAQ PETROLEUM CO., LTD.
COMPLETED.....	--/--/70		09/13/69	09/10/48
SAMPLED.....	08/01/74		06/09/69	02/15/60
FORMATION.....	-GUMBORO		CRET-SHOORIJEH	-EUPHRATES LIMESTONE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	10470		9680	2634
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		4500	950
OPEN FLOW, MCFD.....	NOT GIVEN		16000	230000
COMPONENT, MOLE PCT				
METHANE.....	79.0	94.9	84.2	
ETHANE.....	6.0	0.1	3.4	
PROPANE.....	1.7	0.4	3.3	
N-BUTANE.....	0.3	0.2	0.9	
ISOBUTANE.....	0.4	0.1	0.0	
N-PENTANE.....	0.1	0.2	0.1	
ISOPENTANE.....	0.1	TRACE	0.4	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	TRACE	TRACE	0.2	
NITROGEN.....	10.2	2.0	0.3	
OXYGEN.....	1.4	0.2	TRACE	
ARGON.....	0.1	0.1	0.0	
HYDROGEN.....	0.0	0.1	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	0.0	0.2	
HELIUM.....	0.09	0.01	0.10	
HEATING VALUE.....	994	1026	1193	
SPECIFIC GRAVITY.....	0.675	0.592	0.675	
		INDEX SAMPLE 106	INDEX SAMPLE 107	INDEX SAMPLE 108
COUNTRY.....	IRAQ		IRAQ	ITALY
STATE OR PROVINCE.....	NOT GIVEN		NOT GIVEN	EMILIA
FIELD.....	JAMBUR		KIRKUK	MINERGIO
WELL NAME.....	JAMBUR NO. 8		KIRKUK NO. 59	NO. 27
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	IRAQ PETROLEUM CO., LTD.		IRAQ PETROLEUM CO., LTD.	AGIP S.P.A.
COMPLETED.....	05/10/56		08/23/44	--/--/66
SAMPLED.....	02/15/60		02/15/60	10/10/63
FORMATION.....	-EUPHRATES-SERIKAGNI		-KIRKUK MAIN LIMESTONE	PLIO-MEDIO SUPERIORE
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	5152		1004	4020
WELLHEAD PRESSURE, PSIG.....	2450		377	1675
OPEN FLOW, MCFD.....	48500		NOT GIVEN	21900
COMPONENT, MOLE PCT				
METHANE.....	86.3	83.8	99.3	
ETHANE.....	8.4	10.5	0.1	
PROPANE.....	3.0	0.1	0.0	
N-BUTANE.....	0.9	0.6	0.0	
ISOBUTANE.....	0.5	0.4	0.0	
N-PENTANE.....	0.2	0.1	0.0	
ISOPENTANE.....	0.2	0.2	0.0	
CYCLOPENTANE.....	TRACE	TRACE	0.0	
HEXANES PLUS.....	0.2	0.0	0.0	
NITROGEN.....	0.2	0.0	0.4	
OXYGEN.....	TRACE	TRACE	0.0	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.1	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	TRACE	0.0	
CARBON DIOXIDE.....	0.0	1.2	TRACE	
HELIUM.....	0.01	TRACE	TRACE	
HEATING VALUE.....	1177	1149	1010	
SPECIFIC GRAVITY.....	0.660	0.669	0.557	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

1187

		INDEX SAMPLE	109 9239	INDEX SAMPLE	110 9238	INDEX SAMPLE	111 11384
COUNTRY.....	ITALY			ITALY		MEXICO	
STATE OR PROVINCE.....	EMILIA			ROMAGNA		NOT GIVEN	
FIELD.....	SPIRITO			SARITONCELLO		CHILAPILLA	
WELL NAME.....	NO. 7			NO. 16		NO. 6-D	
LOCATION.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
OWNER.....	AGIP S.P.A.			AGIP S.P.A.		PETROLEOS MEXICANOS	
COMPLETED.....	7/760			7/760		07/19/63	
SAMPLED.....	10/10/53			09/10/63		02/23/68	
FORMATION.....	MIOC-SUPERIORE			PLIO-MEDIO SUPERIORE		-AMATE SUPERIOR ARENA B2	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	2730			3645		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	2020			1317		2595	
OPEN FLOW, MCFD.....	7760			6350		5845	
COMPONENT, MOLE PCT							
METHANE.....	96.8	-----	99.0	-----	86.2	-----	-----
ETHANE.....	1.3	-----	0.1	-----	6.1	-----	-----
PROPANE.....	0.5	-----	0.1	-----	2.7	-----	-----
N-BUTANE.....	0.2	-----	0.0	-----	1.2	-----	-----
ISOBUTANE.....	TRACE	-----	0.0	-----	1.0	-----	-----
N-PENTANE.....	TRACE	-----	0.0	-----	0.4	-----	-----
ISOPENTANE.....	0.2	-----	0.0	-----	0.7	-----	-----
CYCLOPENTANE.....	TRACE	-----	0.0	-----	0.4	-----	-----
HEXANES PLUS.....	TRACE	-----	0.0	-----	0.4	-----	-----
NITROGEN.....	0.8	-----	0.0	-----	0.4	-----	-----
OXYGEN.....	0.0	-----	0.0	-----	0.0	-----	-----
ARGON.....	TRACE	-----	TRACE	-----	0.0	-----	-----
HYDROGEN.....	0.0	-----	0.0	-----	0.0	-----	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	-----
CARBON DIOXIDE.....	5.1	-----	TRACE	-----	0.2	-----	-----
HELIUM.....	TRACE	-----	TRACE	-----	TRACE	-----	-----
HEATING VALUE.....	1032	-----	1007	-----	1235	-----	-----
SPECIFIC GRAVITY.....	0.576	-----	0.558	-----	0.700	-----	-----

		INDEX SAMPLE	112 11341	INDEX SAMPLE	113 11335	INDEX SAMPLE	114 11381
COUNTRY.....	MEXICO			MEXICO		MEXICO	
STATE OR PROVINCE.....	NUEVO LEON			NUEVO LEON		TABASCO	
FIELD.....	CULERRA			PAMORANA		CHILAPILLA	
WELL NAME.....	NO. 3-D			NO. 3-D		NO. 12-D	
LOCATION.....	NOT GIVEN			NOT GIVEN		CIUDAD PEMEX	
OWNER.....	PETROLEOS MEXICANOS			PETROLEOS MEXICANOS		PETROLEOS MEXICANOS	
COMPLETED.....	09/10/54			09/26/64		01/07/68	
SAMPLED.....	02/23/68			02/23/68		02/23/68	
FORMATION.....	-LC-MS-12			-EY-5		-AMATE SUPERIOR ARENA A1	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	4098			5300		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	2302			2619		2165	
OPEN FLOW, MCFD.....	11250			32000		1851	
COMPONENT, MOLE PCT							
METHANE.....	90.6	-----	86.8	-----	90.1	-----	-----
ETHANE.....	5.0	-----	7.4	-----	5.1	-----	-----
PROPANE.....	2.1	-----	3.0	-----	2.1	-----	-----
N-BUTANE.....	0.5	-----	0.7	-----	0.7	-----	-----
ISOBUTANE.....	0.6	-----	0.7	-----	0.7	-----	-----
N-PENTANE.....	0.2	-----	0.2	-----	0.2	-----	-----
ISOPENTANE.....	0.1	-----	0.3	-----	0.3	-----	-----
CYCLOPENTANE.....	TRACE	-----	0.1	-----	0.2	-----	-----
HEXANES PLUS.....	0.3	-----	0.3	-----	0.5	-----	-----
NITROGEN.....	0.2	-----	0.1	-----	0.1	-----	-----
OXYGEN.....	0.0	-----	0.0	-----	0.0	-----	-----
ARGON.....	TRACE	-----	0.0	-----	0.0	-----	-----
HYDROGEN.....	0.0	-----	TRACE	-----	TRACE	-----	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	-----
CARBON DIOXIDE.....	0.2	-----	0.3	-----	0.1	-----	-----
HELIUM.....	0.01	-----	0.01	-----	TRACE	-----	-----
HEATING VALUE.....	1127	-----	1177	-----	1157	-----	-----
SPECIFIC GRAVITY.....	0.632	-----	0.664	-----	0.647	-----	-----

		INDEX SAMPLE	115 11382	INDEX SAMPLE	116 11383	INDEX SAMPLE	117 11388
COUNTRY.....	MEXICO			MEXICO		MEXICO	
STATE OR PROVINCE.....	TABASCO			TABASCO		TABASCO	
FIELD.....	CHILAPILLA			CHILAPILLA		CINCO PRESIDENTES	
WELL NAME.....	NO. 6			NO. 31		NO. 180-1	
LOCATION.....	CIUDAD PEMEX			CIUDAD PEMEX		ZONA SUR	
OWNER.....	PETROLEOS MEXICANOS			PETROLEOS MEXICANOS		PETROLEOS MEXICANOS	
COMPLETED.....	06/04/59			07/03/64		10/09/64	
SAMPLED.....	02/23/68			02/23/68		02/28/68	
FORMATION.....	-AMATE SUPERIOR ARENA A2			-AMATE SUPERIOR ARENA B4		MIOC-ENCANTO	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		6642	
WELLHEAD PRESSURE, PSIG.....	3601			2377		1846	
OPEN FLOW, MCFD.....	3601			4705		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	80.0	-----	90.6	-----	79.9	-----	-----
ETHANE.....	5.0	-----	5.0	-----	10.6	-----	-----
PROPANE.....	1.9	-----	1.8	-----	4.8	-----	-----
N-BUTANE.....	0.9	-----	0.6	-----	1.2	-----	-----
ISOBUTANE.....	0.5	-----	0.6	-----	0.6	-----	-----
N-PENTANE.....	0.2	-----	0.1	-----	0.4	-----	-----
ISOPENTANE.....	0.4	-----	0.2	-----	0.2	-----	-----
CYCLOPENTANE.....	0.2	-----	0.2	-----	TRACE	-----	-----
HEXANES PLUS.....	0.4	-----	0.6	-----	0.2	-----	-----
NITROGEN.....	8.7	-----	0.0	-----	1.9	-----	-----
OXYGEN.....	0.9	-----	0.0	-----	0.0	-----	-----
ARGON.....	0.1	-----	TRACE	-----	TRACE	-----	-----
HYDROGEN.....	0.0	-----	TRACE	-----	0.0	-----	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.0	-----	-----
CARBON DIOXIDE.....	1.0	-----	0.3	-----	0.1	-----	-----
HELIUM.....	TRACE	-----	TRACE	-----	0.05	-----	-----
HEATING VALUE.....	1050	-----	1146	-----	1220	-----	-----
SPECIFIC GRAVITY.....	0.697	-----	0.642	-----	0.707	-----	-----

		INDEX SAMPLE	118 11387	INDEX SAMPLE	119 11379	INDEX SAMPLE	120 11380
COUNTRY.....	MEXICO			MEXICO		MEXICO	
STATE OR PROVINCE.....	TABASCO			TABASCO		TABASCO	
FIELD.....	CINCO PRESIDENTES			JOSE COLOMO		JOSE COLOMO	
WELL NAME.....	NO. 162-1			NO. 69		NO. 85	
LOCATION.....	ZONA SUR			CIUDAD PEMEX		CIUDAD PEMEX	
OWNER.....	PETROLEOS MEXICANOS			PETROLEOS MEXICANOS		PETROLEOS MEXICANOS	
COMPLETED.....	07/06/64			05/09/57		09/10/56	
SAMPLED.....	02/28/68			02/22/68		02/22/68	
FORMATION.....	MIOC-ENCANTO			-AMATE SUPERIOR ARENA F		-AMATE SUPERIOR ARENA E	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	8384			NOT GIVEN		NOT GIVEN	
WELLHEAD PRESSURE, PSIG.....	852			2605		2436	
OPEN FLOW, MCFD.....	NOT GIVEN			3306		6467	
COMPONENT, MOLE PCT							
METHANE.....	82.0	-----	87.1	-----	76.7	-----	-----
ETHANE.....	3.2	-----	2.8	-----	8.0	-----	-----
PROPANE.....	3.6	-----	2.8	-----	5.6	-----	-----
N-BUTANE.....	0.9	-----	1.0	-----	2.9	-----	-----
ISOBUTANE.....	0.3	-----	0.9	-----	2.2	-----	-----
N-PENTANE.....	0.2	-----	0.4	-----	1.0	-----	-----
ISOPENTANE.....	0.2	-----	0.7	-----	1.5	-----	-----
CYCLOPENTANE.....	TRACE	-----	0.3	-----	0.4	-----	-----
HEXANES PLUS.....	0.5	-----	0.7	-----	1.3	-----	-----
NITROGEN.....	2.8	-----	0.1	-----	0.3	-----	-----
OXYGEN.....	0.0	-----	0.0	-----	0.0	-----	-----
ARGON.....	TRACE	-----	TRACE	-----	0.0	-----	-----
HYDROGEN.....	0.5	-----	TRACE	-----	0.0	-----	-----
HYDROGEN SULFIDE.....	0.0	-----	0.0	-----	0.1	-----	-----
CARBON DIOXIDE.....	TRACE	-----	TRACE	-----	TRACE	-----	-----
HELIUM.....	0.02	-----	TRACE	-----	1426	-----	-----
HEATING VALUE.....	1153	-----	1217	-----	0.817	-----	-----
SPECIFIC GRAVITY.....	0.672	-----	0.688	-----		-----	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

		INDEX SAMPLE 11385	INDEX SAMPLE 11386	INDEX SAMPLE 11343
COUNTRY.....	MEXICO		MEXICO	MEXICO
STATE OR PROVINCE.....	TABASCO		TABASCO	TAMAULIPAS
FIELD.....	JOSE COLOMO		JOSE COLOMO	18 DE MARZO
WELL NAME.....	NO. 91		NO. 6	NO. 10
LOCATION.....	CUIDAD PEMEX		CUIDAD PEMEX	NOT GIVEN
OWNER.....	PETROLEOS MEXICANOS		PETROLEOS MEXICANOS	PETROLEOS MEXICANOS
COMPLETED.....	01/07/57		05/06/55	04/19/56
SAMPLED.....	02/22/58		02/22/68	02/28/68
FORMATION.....	-AMATE SUPERIOR ARENA A		-AMATE SUPERIOR ARENA D	-AM-2Y2A-BA
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	7016
WELLHEAD PRESSURE, PSIG.....	2528		2402	2670
OPEN FLOW, MCFD.....	7871		8342	26200
COMPONENT, MOLE PCT				
METHANE.....	87.8	89.5	94.9	
ETHANE.....	6.3	5.3	2.1	
PROPANE.....	2.3	2.0	0.3	
N-BUTANE.....	0.9	0.5	0.1	
ISOBUTANE.....	0.6	0.5	0.1	
N-PENTANE.....	0.2	0.2	0.1	
ISOPENTANE.....	0.4	0.9	0.0	
CYCLOPENTANE.....	0.3	0.1	TRACE	
HEXANES PLUS.....	0.7	0.6	0.1	
NITROGEN.....	0.3	0.4	1.7	
OXYGEN.....	0.0	0.0	0.3	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	TRACE	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.2	TRACE	0.2	
HELIUM.....	TRACE	TRACE	0.01	
HEATING VALUE.....	1185	1160	1023	
SPECIFIC GRAVITY.....	0.669	0.650	0.585	
		INDEX SAMPLE 11344	INDEX SAMPLE 11339	INDEX SAMPLE 11336
COUNTRY.....	MEXICO		MEXICO	MEXICO
STATE OR PROVINCE.....	TAMAULIPAS		TAMAULIPAS	TAMAULIPAS
FIELD.....	BRASIL		FRANCISCO CANO	LIMITAS
WELL NAME.....	NO. 7		NO. 36-7	NO. 111-C
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	PETROLEOS MEXICANOS		PETROLEOS MEXICANOS	PETROLEOS MEXICANOS
COMPLETED.....	04/13/52		03/07/55	03/07/61
SAMPLED.....	02/28/68		03/03/68	02/29/68
FORMATION.....	-FS-B-1		-FM-12	-L-1, 8B-N
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	6756	7190	4784	
WELLHEAD PRESSURE, PSIG.....	2033	1980	1593	
OPEN FLOW, MCFD.....	17200	20320	6200	
COMPONENT, MOLE PCT				
METHANE.....	85.5	96.0	95.6	
ETHANE.....	1.2	2.1	2.1	
PROPANE.....	0.3	0.4	0.4	
N-BUTANE.....	0.0	0.1	0.1	
ISOBUTANE.....	0.0	0.2	0.1	
N-PENTANE.....	0.0	0.2	0.2	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	TRACE	0.1	
HEXANES PLUS.....	0.0	0.2	0.2	
NITROGEN.....	10.5	0.6	1.2	
OXYGEN.....	2.3	0.1	0.0	
ARGON.....	0.1	TRACE	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE**.....	0.0	0.0	0.1	
CARBON DIOXIDE.....	TRACE	0.1	TRACE	
HELIUM.....	0.01	0.02	0.01	
HEATING VALUE.....	895	1049	1046	
SPECIFIC GRAVITY.....	0.620	0.586	0.587	
		INDEX SAMPLE 11342	INDEX SAMPLE 11338	INDEX SAMPLE 11340
COUNTRY.....	MEXICO		MEXICO	MEXICO
STATE OR PROVINCE.....	TAMAULIPAS		TAMAULIPAS	TAMAULIPAS
FIELD.....	MONTERREY		REYNOSA	REYNOSA
WELL NAME.....	NO. 12		NO. 92-C	NO. 17
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	PETROLEOS MEXICANOS		PETROLEOS MEXICANOS	PETROLEOS MEXICANOS
COMPLETED.....	07/16/62		08/26/55	06/22/60
SAMPLED.....	03/04/68		03/03/68	03/03/68
FORMATION.....	-FS-14		-FS-12	-FS-3
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	6326	6061	5796	
WELLHEAD PRESSURE, PSIG.....	2406	1758	1693	
OPEN FLOW, MCFD.....	6200	18000	16500	
COMPONENT, MOLE PCT				
METHANE.....	95.9	93.4	93.7	
ETHANE.....	2.2	3.7	3.4	
PROPANE.....	0.4	1.0	1.0	
N-BUTANE.....	0.3	0.4	0.2	
ISOBUTANE.....	0.1	0.3	0.2	
N-PENTANE.....	0.1	0.1	0.3	
ISOPENTANE.....	0.0	0.1	TRACE	
CYCLOPENTANE.....	TRACE	0.1	0.1	
HEXANES PLUS.....	0.2	0.1	0.1	
NITROGEN.....	0.8	0.5	0.6	
OXYGEN.....	0.0	0.1	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	TRACE	TRACE	
HELIUM.....	0.01	0.01	0.01	
HEATING VALUE.....	1049	1090	1081	
SPECIFIC GRAVITY.....	0.585	0.609	0.604	
		INDEX SAMPLE 11345	INDEX SAMPLE 11337	INDEX SAMPLE 10553
COUNTRY.....	MEXICO		MEXICO	NETHERLANDS
STATE OR PROVINCE.....	TAMAULIPAS		TAMAULIPAS	DE WILK
FIELD.....	REYNOSA		REYNOSA	DE WILK
WELL NAME.....	NO. 112		NO. 418-TC	DE WILK 11
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	PETROLEOS MEXICANOS		PETROLEOS MEXICANOS	ROYAL DUTCH PET. CO. & N.A.M
COMPLETED.....	05/31/66		01/29/66	11/28/60
SAMPLED.....	03/03/68		02/28/68	04/29/66
FORMATION.....	-FS-4		-FM-12	CRET-4 TRIA
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	5981	7605	3393	
WELLHEAD PRESSURE, PSIG.....	1882	2141	2043	
OPEN FLOW, MCFD.....	33900	5800	6350	
COMPONENT, MOLE PCT				
METHANE.....	93.3	96.7	90.0	
ETHANE.....	3.7	1.6	2.9	
PROPANE.....	0.6	0.2	0.9	
N-BUTANE.....	0.8	0.1	0.2	
ISOBUTANE.....	0.0	0.0	TRACE	
N-PENTANE.....	0.0	0.2	0.1	
ISOPENTANE.....	0.0	0.0	TRACE	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.2	0.2	0.2	
NITROGEN.....	0.6	0.9	5.6	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	TRACE	TRACE	0.0	
HYDROGEN.....	0.0	TRACE	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	TRACE	
HELIUM.....	0.01	0.0	0.05	
HEATING VALUE.....	1057	1056	1008	
SPECIFIC GRAVITY.....	0.608	0.579	0.610	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

1189

	INDEX SAMPLE 10641	INDEX SAMPLE 10642	INDEX SAMPLE 10637
COUNTRY.....	NETHERLANDS	NETHERLANDS	NETHERLANDS
STATE OR PROVINCE.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
FIELD.....	DE LIER	DE LIER	PNACKER
WELL NAME.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
LOCATION.....	BLK. STAT. 1	BLK. STAT. 1	ROYAL DUTCH PET. CO. & N.A.M.
OWNER.....	ROYAL DUTCH PET. CO. & N.A.M.	ROYAL DUTCH PET. CO. & N.A.M.	ROYAL DUTCH PET. CO. & N.A.M.
COMPLETED.....	05/01/66	05/01/66	05/01/66
SAMPLED.....	UNKN-ALBIAN	UNKN-BARREMIAN	UNKN-VALANGINIAN
FORMATION.....	000	000	000
GEOLOGIC PROVINCE CODE.....	4550	4900	5300
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	88.3	86.9	90.6
ETHANE.....	1.2	2.4	4.9
PROPANE.....	1.0	2.2	3.6
N-BUTANE.....	0.6	0.7	0.5
ISOBUTANE.....	0.4	0.4	0.2
N-PENTANE.....	0.2	0.2	0.2
ISOPENTANE.....	0.1	0.3	0.4
CYCLOPENTANE.....	TRACE	TRACE	0.1
HEXANES PLUS.....	0.2	0.2	0.2
NITROGEN.....	2.2	0.3	0.9
OXYGEN.....	0.4	0.3	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.4	0.1	0.4
HELIUM.....	0.03	0.02	0.04
HEATING VALUE.....	1091	1121	1106
SPECIFIC GRAVITY.....	0.640	0.650	0.630

	INDEX SAMPLE 10640	INDEX SAMPLE 10638	INDEX SAMPLE 10639
COUNTRY.....	NETHERLANDS	NETHERLANDS	NETHERLANDS
STATE OR PROVINCE.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
FIELD.....	RIDDERKERK/YSSSELMONDE	RYSWYK	WASSENAR
WELL NAME.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
LOCATION.....	BLK. STAT. 2	BLK. STAT. 1	LOOLAN
OWNER.....	ROYAL DUTCH PET. CO. & N.A.M.	ROYAL DUTCH PET. CO. & N.A.M.	ROYAL DUTCH PET. CO. & N.A.M.
COMPLETED.....	05/01/66	05/01/66	05/01/66
SAMPLED.....	UNKN-YSSSELMONDE MAINSAND	UNKN-VALANGINIAN	UNKN-VALANGINIAN
FORMATION.....	000	000	000
GEOLOGIC PROVINCE CODE.....	5000	4600	3800
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	94.8	92.0	96.2
ETHANE.....	1.5	3.4	1.3
PROPANE.....	0.1	1.3	0.1
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.3	0.0
N-PENTANE.....	0.0	0.2	0.0
ISOPENTANE.....	0.0	0.4	0.0
CYCLOPENTANE.....	0.0	0.1	0.0
HEXANES PLUS.....	0.0	0.3	0.0
NITROGEN.....	1.1	1.1	0.6
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.0	TRACE	TRACE
HYDROGEN.....	0.0	0.0	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.4	0.7
HELIUM.....	0.03	0.03	0.01
HEATING VALUE.....	992	1102	1000
SPECIFIC GRAVITY.....	0.590	0.630	0.580

	INDEX SAMPLE 10554	INDEX SAMPLE 11725	INDEX SAMPLE 11726
COUNTRY.....	NETHERLANDS	PAKISTAN	PAKISTAN
STATE OR PROVINCE.....	WANNERVEEN	WEST PAKISTAN	WEST PAKISTAN
FIELD.....	WANNERVEEN	MARI	MARI
WELL NAME.....	WANNERVEEN 1	MARI NO. 4	MARI NO. 5
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	ROYAL DUTCH PET. CO. & N.A.M.	ESSO STANDARD EASTERN, INC.	ESSO STANDARD EASTERN, INC.
COMPLETED.....	07/08/51	12/21/65	01/16/66
SAMPLED.....	04/29/66	11/25/68	11/25/68
FORMATION.....	CRG-NOT GIVEN	-KIRTHIR LIMESTONE L	-KIRTHIR LIMESTONE L
GEOLOGIC PROVINCE CODE.....	000	000	000
DEPTH, FEET.....	5008	2310	2330
WELLHEAD PRESSURE, PSIG.....	1928	1050	975
OPEN FLOW, MCFD.....	6000	7720	22360
COMPONENT, MOLE PCT			
METHANE.....	89.3	76.5	71.2
ETHANE.....	0.0	0.3	0.2
PROPANE.....	0.6	TRACE	TRACE
N-BUTANE.....	0.2	0.0	0.0
ISOBUTANE.....	0.1	0.0	0.0
N-PENTANE.....	0.1	0.0	0.0
ISOPENTANE.....	TRACE	0.0	0.0
CYCLOPENTANE.....	TRACE	0.0	0.0
HEXANES PLUS.....	0.2	0.0	0.0
NITROGEN.....	6.4	18.8	18.2
OXYGEN.....	0.0	0.0	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	TRACE	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.0	0.0
HELIUM.....	0.04	TRACE	TRACE
HEATING VALUE.....	993	780	725
SPECIFIC GRAVITY.....	0.614	0.675	0.730

	INDEX SAMPLE 11727	INDEX SAMPLE 11728	INDEX SAMPLE 11729
COUNTRY.....	PAKISTAN	PAKISTAN	PAKISTAN
STATE OR PROVINCE.....	WEST PAKISTAN	WEST PAKISTAN	WEST PAKISTAN
FIELD.....	MARI	MARI	MARI
WELL NAME.....	MARI NO. 6	MARI NO. 8	MARI NO. 9
LOCATION.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
OWNER.....	ESSO STANDARD EASTERN, INC.	ESSO STANDARD EASTERN, INC.	ESSO STANDARD EASTERN, INC.
COMPLETED.....	02/12/66	03/11/66	03/26/66
SAMPLED.....	11/25/68	11/25/68	11/25/68
FORMATION.....	-KIRTHIR LIMESTONE L	-KIRTHIR LIMESTONE L	-KIRTHIR LIMESTONE L
GEOLOGIC PROVINCE CODE.....	000	000	000
DEPTH, FEET.....	2340	2343	2360
WELLHEAD PRESSURE, PSIG.....	1050	990	1000
OPEN FLOW, MCFD.....	37970	34640	33360
COMPONENT, MOLE PCT			
METHANE.....	73.0	73.0	71.0
ETHANE.....	0.2	0.2	0.3
PROPANE.....	TRACE	TRACE	TRACE
N-BUTANE.....	0.0	0.0	0.0
ISOBUTANE.....	0.0	0.0	0.0
N-PENTANE.....	0.0	0.0	0.0
ISOPENTANE.....	0.0	0.0	0.0
CYCLOPENTANE.....	0.0	0.0	0.0
HEXANES PLUS.....	0.0	0.0	0.0
NITROGEN.....	22.0	18.6	17.5
OXYGEN.....	0.0	TRACE	0.0
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.1	TRACE	0.0
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	2.7	8.0	11.1
HELIUM.....	TRACE	TRACE	TRACE
HEATING VALUE.....	764	743	725
SPECIFIC GRAVITY.....	0.672	0.709	0.736

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

		INDEX SAMPLE 145 11561	INDEX SAMPLE 146 7615	INDEX SAMPLE 147 7616
COUNTRY.....	PERU		QATAR	QATAR
STATE OR PROVINCE.....	LIMA		NOT GIVEN	NOT GIVEN
FIELD.....	AGUAYTIA		DUKHAN	DUKHAN
WELL NAME.....	AGUAYTIA NO. 1		NO. DK. 54	NO. DK. 40
LOCATION.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
OWNER.....	MOBIL OIL CO. DEL PERU		QATAR PETROLEUM CO., LTD.	QATAR PETROLEUM CO., LTD.
COMPLETED.....	07/10/56		07/10/56	05/25/54
SAMPLED.....	05/20/68		01/13/60	01/13/60
FORMATION.....	-CUSHABATAY		-C LIMESTONE ARAB ZONE	-ARAEJ
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	8300		5300	5815
WELLHEAD PRESSURE, PSIG.....	1000		1240	2660
OPEN FLOW, MCFD.....	15000		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	82.5	74.4	79.2	
ETHANE.....	5.4	9.9	6.9	
PROPANE.....	2.5	1.7	2.4	
N-BUTANE.....	0.7	TRACE	0.3	
ISOBUTANE.....	0.9	0.8	1.7	
N-PENTANE.....	0.5	0.3	0.8	
ISOPENTANE.....	0.0	0.1	0.2	
CYCLOPENTANE.....	0.1	0.4	1.2	
HEXANES PLUS.....	0.6	0.4	0.0	
NITROGEN.....	0.9	TRACE	TRACE	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.1	0.7	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	7.2	2.9	
HELIUM.....	0.03	0.03	0.02	
HEATING VALUE.....	1125	1194	1294	
SPECIFIC GRAVITY.....	0.686	0.784	0.774	
		INDEX SAMPLE 148 7617	INDEX SAMPLE 149 7281	INDEX SAMPLE 150 13935
COUNTRY.....	QATAR		SOUTH AFRICA	TAIWAN
STATE OR PROVINCE.....	NOT GIVEN		ORANGE FREE ST	HSING CHU
FIELD.....	DUKHAN		O.F.S. GOLDFIELDS	CHINGTSAOHU
WELL NAME.....	NO. DK. 56		A. D. NO. 1	CTH-1 (S)
LOCATION.....	NOT GIVEN		NOT GIVEN	LAT 24 46 50 LONG120 59 19
OWNER.....	QATAR PETROLEUM CO., LTD.		VIRGINIA ORANGE F. S. GOLD M	CHINSE PETROLEUM CORP.
COMPLETED.....	11/18/56		00/--/00	05/03/69
SAMPLED.....	02/14/50		11/12/59	02/19/74
FORMATION.....	-D LIMESTONE ARAB ZONE		UNKN-VENTERSDORP LAVA	MIOC-YUTENGPING
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	5977	643		5363
WELLHEAD PRESSURE, PSIG.....	2300	50		1890
OPEN FLOW, MCFD.....	NOT GIVEN	1		NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	79.0	86.6	82.7	
ETHANE.....	10.5	0.2	5.8	
PROPANE.....	4.1	0.0	4.0	
N-BUTANE.....	1.2	0.0	0.9	
ISOBUTANE.....	0.2	0.0	1.1	
N-PENTANE.....	0.2	0.0	0.1	
ISOPENTANE.....	0.2	0.0	0.4	
CYCLOPENTANE.....	0.0	0.0	TRACE	
HEXANES PLUS.....	TRACE	0.0	0.1	
NITROGEN.....	0.0	9.9	0.8	
OXYGEN.....	TRACE	TRACE	0.0	
ARGON.....	TRACE	0.4	0.0	
HYDROGEN.....	0.2	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	TRACE	0.1	
HELIUM.....	0.02	2.91	TRACE	
HEATING VALUE.....	1159	881	1211	
SPECIFIC GRAVITY.....	0.715	0.588	0.690	
		INDEX SAMPLE 151 13936	INDEX SAMPLE 152 13940	INDEX SAMPLE 153 13937
COUNTRY.....	TAIWAN		TAIWAN	TAIWAN
STATE OR PROVINCE.....	HSING CHU		HSING CHU	MAOLI
FIELD.....	CHINGTSAOHU		CHINGTSAOHU	CHINSHUI
WELL NAME.....	CTH-1 (L)		CTH-12	CS-66
LOCATION.....	LAT 24 46 50 LONG120 59 19		LAT 24 47 26 LONG120 52 46	LAT 24 34 43 LONG120 51 21
OWNER.....	CHINESE PETROLEUM CORP.		CHINESE PETROLEUM CORP.	CHINESE PETROLEUM CORP.
COMPLETED.....	05/03/69		09/15/70	09/11/69
SAMPLED.....	02/19/74		02/19/74	02/22/74
FORMATION.....	MIOC-KUANTAOSHAN		MIOC-TALU	MIOC-CHUMUANGKENG
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	6396	12533		9768
WELLHEAD PRESSURE, PSIG.....	2220	3800		5100
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	86.6	83.0	88.2	
ETHANE.....	7.0	7.7	4.0	
PROPANE.....	2.8	0.2	2.2	
N-BUTANE.....	0.5	0.5	0.2	
ISOBUTANE.....	0.8	0.8	0.5	
N-PENTANE.....	0.1	0.1	0.1	
ISOPENTANE.....	0.3	0.3	0.2	
CYCLOPENTANE.....	TRACE	TRACE	0.1	
HEXANES PLUS.....	0.1	0.1	0.2	
NITROGEN.....	0.8	0.7	0.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	TRACE	0.0	0.0	
CARBON DIOXIDE.....	0.4	4.1	5.1	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1500	1117	1047	
SPECIFIC GRAVITY.....	0.656	0.694	0.662	
		INDEX SAMPLE 154 13938	INDEX SAMPLE 155 13943	INDEX SAMPLE 156 13944
COUNTRY.....	TAIWAN		TAIWAN	TAIWAN
STATE OR PROVINCE.....	MAOLI		MAOLI	MAOLI
FIELD.....	CHINSHUI		CHINSHUI	CHINSHUI
WELL NAME.....	CS-72 (L)		CS-74	CS-74
LOCATION.....	LAT 24 34 31 LONG120 50 58		LAT 24 33 33 LONG120 52 6	LAT 24 35 22 LONG120 51 07
OWNER.....	CHINESE PETROLEUM CORP.		CHINESE PETROLEUM CORP.	CHINESE PETROLEUM CORP.
COMPLETED.....	08/20/69		11/27/60	09/11/69
SAMPLED.....	02/22/74		02/22/74	02/22/74
FORMATION.....	MIOC-MUSHAN		MIOC-TALU	MIOC-WUCHINSHAN
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	13530	7633		14793
WELLHEAD PRESSURE, PSIG.....	6000	1220		6950
OPEN FLOW, MCFD.....	NOT GIVEN	NOT GIVEN		NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	83.0	89.9	82.0	
ETHANE.....	3.2	4.3	2.1	
PROPANE.....	1.0	1.3	0.5	
N-BUTANE.....	0.1	0.2	0.1	
ISOBUTANE.....	0.4	0.5	0.2	
N-PENTANE.....	TRACE	TRACE	TRACE	
ISOPENTANE.....	TRACE	TRACE	0.1	
CYCLOPENTANE.....	TRACE	TRACE	TRACE	
HEXANES PLUS.....	0.1	0.1	0.1	
NITROGEN.....	0.3	0.3	0.3	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	TRACE	
HYDROGEN.....	0.0	0.0	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	TRACE	
CARBON DIOXIDE.....	11.8	3.1	14.6	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	950	1000	901	
SPECIFIC GRAVITY.....	0.708	0.638	0.722	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

INDEX 157 SAMPLE 13941			INDEX 158 SAMPLE 13942			INDEX 159 SAMPLE 13939		
COUNTRY.....	TAIWAN		COUNTRY.....	TAIWAN		COUNTRY.....	TAIWAN	
STATE OR PROVINCE.....	MIAOLI		STATE OR PROVINCE.....	MIAOLI		STATE OR PROVINCE.....	MIAOLI	
FIELD.....	CHUHUANGKENG		FIELD.....	CHUHUANGKENG		FIELD.....	PAISHATUN	
WELL NAME.....	CHK-106		WELL NAME.....	CHK-110 (S)		WELL NAME.....	PSI-5 (S)	
LOCATION.....	LAT 24 28 05 LONG120 51 18		LOCATION.....	LAT 24 27 17 LONG120 50 43		LOCATION.....	LAT 24 37 13 LONG120 45 42	
OWNER.....	CHINESE PETROLEUM CORP.		OWNER.....	CHINESE PETROLEUM CORP.		OWNER.....	CHINESE PETROLEUM CORP.	
COMPLETED.....	04/29/62		COMPLETED.....	04/14/72		COMPLETED.....	12/18/71	
SAMPLED.....	02/20/74		SAMPLED.....	02/20/74		SAMPLED.....	02/18/74	
FORMATION.....	MIOC-MUSHAN		FORMATION.....	MIOC-WUCHIHSAN		FORMATION.....	MIOC-TALU	
GEOLOGIC PROVINCE CODE.....	000		GEOLOGIC PROVINCE CODE.....	000		GEOLOGIC PROVINCE CODE.....	000	
DEPTH, FEET.....	9889		DEPTH, FEET.....	10368		DEPTH, FEET.....	10762	
WELLHEAD PRESSURE, PSIG.....	3860		WELLHEAD PRESSURE, PSIG.....	4230		WELLHEAD PRESSURE, PSIG.....	3610	
OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	58.5	-----	METHANE.....	55.6	-----	METHANE.....	89.5	-----
ETHANE.....	2.0	-----	ETHANE.....	1.8	-----	ETHANE.....	4.9	-----
PROPANE.....	0.5	-----	PROPANE.....	0.5	-----	PROPANE.....	1.6	-----
N-BUTANE.....	0.1	-----	N-BUTANE.....	0.1	-----	N-BUTANE.....	0.3	-----
ISOBUTANE.....	0.2	-----	ISOBUTANE.....	0.2	-----	ISOBUTANE.....	0.0	-----
N-PENTANE.....	TRACE	-----	N-PENTANE.....	0.0	-----	N-PENTANE.....	0.1	-----
ISOPENTANE.....	0.1	-----	ISOPENTANE.....	0.1	-----	ISOPENTANE.....	0.2	-----
CYCLOPENTANE.....	TRACE	-----	CYCLOPENTANE.....	TRACE	-----	CYCLOPENTANE.....	TRACE	-----
HEXANES PLUS.....	0.1	-----	HEXANES PLUS.....	0.1	-----	HEXANES PLUS.....	0.1	-----
NITROGEN.....	1.2	-----	NITROGEN.....	1.0	-----	NITROGEN.....	0.3	-----
OXYGEN.....	0.0	-----	OXYGEN.....	0.0	-----	OXYGEN.....	0.0	-----
ARGON.....	0.0	-----	ARGON.....	0.0	-----	ARGON.....	0.0	-----
HYDROGEN.....	0.0	-----	HYDROGEN.....	0.0	-----	HYDROGEN.....	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----	HYDROGEN SULFIDE.....	0.0	-----	HYDROGEN SULFIDE.....	0.0	-----
CARBON DIOXIDE.....	37.4	-----	CARBON DIOXIDE.....	40.6	-----	CARBON DIOXIDE.....	2.4	-----
HELIUM.....	TRACE	-----	HELIUM.....	TRACE	-----	HELIUM.....	TRACE	-----
HEATING VALUE.....	661	-----	HEATING VALUE.....	628	-----	HEATING VALUE.....	1084	-----
SPECIFIC GRAVITY.....	0.948	-----	SPECIFIC GRAVITY.....	0.977	-----	SPECIFIC GRAVITY.....	0.641	-----

INDEX 160 SAMPLE 13945			INDEX 161 SAMPLE 13946			INDEX 162 SAMPLE 17575		
COUNTRY.....	TAIWAN		COUNTRY.....	TAIWAN		COUNTRY.....	THAILAND	
STATE OR PROVINCE.....	MIAOLI		STATE OR PROVINCE.....	TIEHCHENSHAN		STATE OR PROVINCE.....	KHORAT PLATEAU	
FIELD.....	TIEHCHENSHAN		FIELD.....	TCS-10		FIELD.....	NAM PHONG	
WELL NAME.....	TCS-10		WELL NAME.....	TCS-23(S)		WELL NAME.....	NAM PHONG NO. 2	
LOCATION.....	LAT 24 28 11 LONG120 40 33		LOCATION.....	LAT 24 26 40 LONG120 41 44		LOCATION.....	17M N OF KHON KAEN NE THAI	
OWNER.....	CHINESE PETROLEUM CORP.		OWNER.....	CHINESE PETROLEUM CORP.		OWNER.....	ESSO EXPLORATION	
COMPLETED.....	12/18/65		COMPLETED.....	02/09/69		COMPLETED.....	--/--/82	
SAMPLED.....	02/23/74		SAMPLED.....	02/23/74		SAMPLED.....	12/21/84	
FORMATION.....	MIOC-TALU		FORMATION.....	MIOC-TALU		FORMATION.....	PERM-LIMESTONE	
GEOLOGIC PROVINCE CODE.....	000		GEOLOGIC PROVINCE CODE.....	000		GEOLOGIC PROVINCE CODE.....	000	
DEPTH, FEET.....	9000		DEPTH, FEET.....	9161		DEPTH, FEET.....	10220	
WELLHEAD PRESSURE, PSIG.....	2830		WELLHEAD PRESSURE, PSIG.....	2850		WELLHEAD PRESSURE, PSIG.....	800	
OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	17000	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	85.4	-----	METHANE.....	88.4	-----	METHANE.....	95.6	-----
ETHANE.....	1.5	-----	ETHANE.....	1.8	-----	ETHANE.....	0.6	-----
PROPANE.....	1.8	-----	PROPANE.....	2.0	-----	PROPANE.....	0.1	-----
N-BUTANE.....	0.5	-----	N-BUTANE.....	0.5	-----	N-BUTANE.....	TRACE	-----
ISOBUTANE.....	0.6	-----	ISOBUTANE.....	0.6	-----	ISOBUTANE.....	0.0	-----
N-PENTANE.....	0.1	-----	N-PENTANE.....	TRACE	-----	N-PENTANE.....	0.1	-----
ISOPENTANE.....	0.3	-----	ISOPENTANE.....	0.4	-----	ISOPENTANE.....	0.0	-----
CYCLOPENTANE.....	TRACE	-----	CYCLOPENTANE.....	TRACE	-----	CYCLOPENTANE.....	TRACE	-----
HEXANES PLUS.....	0.1	-----	HEXANES PLUS.....	0.1	-----	HEXANES PLUS.....	0.1	-----
NITROGEN.....	3.1	-----	NITROGEN.....	0.4	-----	NITROGEN.....	1.9	-----
OXYGEN.....	0.7	-----	OXYGEN.....	0.0	-----	OXYGEN.....	0.0	-----
ARGON.....	TRACE	-----	ARGON.....	TRACE	-----	ARGON.....	TRACE	-----
HYDROGEN.....	TRACE	-----	HYDROGEN.....	TRACE	-----	HYDROGEN.....	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----	HYDROGEN SULFIDE.....	0.0	-----	HYDROGEN SULFIDE.....	0.0	-----
CARBON DIOXIDE.....	1.9	-----	CARBON DIOXIDE.....	1.9	-----	CARBON DIOXIDE.....	1.6	-----
HELIUM.....	TRACE	-----	HELIUM.....	TRACE	-----	HELIUM.....	0.04	-----
HEATING VALUE.....	1070	-----	HEATING VALUE.....	1107	-----	HEATING VALUE.....	991	-----
SPECIFIC GRAVITY.....	0.662	-----	SPECIFIC GRAVITY.....	0.649	-----	SPECIFIC GRAVITY.....	0.586	-----

INDEX 163 SAMPLE 14163			INDEX 164 SAMPLE 14164			INDEX 165 SAMPLE 14165		
COUNTRY.....	THAILAND		COUNTRY.....	THAILAND		COUNTRY.....	THAILAND	
STATE OR PROVINCE.....	NOT GIVEN		STATE OR PROVINCE.....	NOT GIVEN		STATE OR PROVINCE.....	NOT GIVEN	
FIELD.....	WILDCAT		FIELD.....	WILDCAT		FIELD.....	WILDCAT	
WELL NAME.....	UNION NO. 13-1		WELL NAME.....	UNION NO. 13-1		WELL NAME.....	UNION NO. 13-1	
LOCATION.....	GULF OF THAILAND		LOCATION.....	GULF OF THAILAND		LOCATION.....	GULF OF THAILAND	
OWNER.....	UNION OIL CO. OF CALIF.		OWNER.....	UNION OIL CO. OF CALIF.		OWNER.....	UNION OIL CO. OF CALIF.	
COMPLETED.....	05/18/74		COMPLETED.....	05/14/74		COMPLETED.....	05/12/74	
SAMPLED.....	--/--/03		SAMPLED.....	--/--/03		SAMPLED.....	--/--/02	
FORMATION.....	TERT-		FORMATION.....	TERT-		FORMATION.....	TERT-	
GEOLOGIC PROVINCE CODE.....	000		GEOLOGIC PROVINCE CODE.....	000		GEOLOGIC PROVINCE CODE.....	000	
DEPTH, FEET.....	5918		DEPTH, FEET.....	6892		DEPTH, FEET.....	7730	
WELLHEAD PRESSURE, PSIG.....	1765		WELLHEAD PRESSURE, PSIG.....	2076		WELLHEAD PRESSURE, PSIG.....	2123	
OPEN FLOW, MCFD.....	8080		OPEN FLOW, MCFD.....	9510		OPEN FLOW, MCFD.....	5900	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	67.0	-----	METHANE.....	67.3	-----	METHANE.....	67.4	-----
ETHANE.....	10.6	-----	ETHANE.....	10.4	-----	ETHANE.....	9.2	-----
PROPANE.....	6.1	-----	PROPANE.....	7.7	-----	PROPANE.....	4.2	-----
N-BUTANE.....	1.4	-----	N-BUTANE.....	1.2	-----	N-BUTANE.....	1.1	-----
ISOBUTANE.....	1.6	-----	ISOBUTANE.....	1.4	-----	ISOBUTANE.....	1.1	-----
N-PENTANE.....	0.3	-----	N-PENTANE.....	0.2	-----	N-PENTANE.....	0.2	-----
ISOPENTANE.....	0.5	-----	ISOPENTANE.....	0.6	-----	ISOPENTANE.....	0.4	-----
CYCLOPENTANE.....	0.1	-----	CYCLOPENTANE.....	0.1	-----	CYCLOPENTANE.....	0.1	-----
HEXANES PLUS.....	0.3	-----	HEXANES PLUS.....	0.2	-----	HEXANES PLUS.....	0.2	-----
NITROGEN.....	0.2	-----	NITROGEN.....	1.1	-----	NITROGEN.....	1.1	-----
OXYGEN.....	TRACE	-----	OXYGEN.....	0.1	-----	OXYGEN.....	TRACE	-----
ARGON.....	TRACE	-----	ARGON.....	0.0	-----	ARGON.....	TRACE	-----
HYDROGEN.....	0.0	-----	HYDROGEN.....	0.0	-----	HYDROGEN.....	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----	HYDROGEN SULFIDE.....	0.0	-----	HYDROGEN SULFIDE.....	0.0	-----
CARBON DIOXIDE.....	11.4	-----	CARBON DIOXIDE.....	11.9	-----	CARBON DIOXIDE.....	14.6	-----
HELIUM.....	TRACE	-----	HELIUM.....	TRACE	-----	HELIUM.....	TRACE	-----
HEATING VALUE.....	1185	-----	HEATING VALUE.....	1122	-----	HEATING VALUE.....	1072	-----
SPECIFIC GRAVITY.....	0.854	-----	SPECIFIC GRAVITY.....	0.845	-----	SPECIFIC GRAVITY.....	0.843	-----

INDEX 166 SAMPLE 14166			INDEX 167 SAMPLE 11150			INDEX 168 SAMPLE 11149		
COUNTRY.....	THAILAND		COUNTRY.....	UNITED KINGDOM		COUNTRY.....	UNITED KINGDOM	
STATE OR PROVINCE.....	NOT GIVEN		STATE OR PROVINCE.....	NORTH SEA		STATE OR PROVINCE.....	NORTH SEA	
FIELD.....	WILDCAT		FIELD.....	INDEFATIGABLE		FIELD.....	LEMAN	
WELL NAME.....	UNION NO. 13-1		WELL NAME.....	49/12-3		WELL NAME.....	49/21-4	
LOCATION.....	GULF OF THAILAND		LOCATION.....	NOT GIVEN		LOCATION.....	NOT GIVEN	
OWNER.....	UNION OIL CO. OF CALIF.		OWNER.....	AMOCO U. K. PETROLEUM LTD.		OWNER.....	AMOCO U. K. PETROLEUM LTD.	
COMPLETED.....	05/18/74		COMPLETED.....	05/25/67		COMPLETED.....	05/25/67	
SAMPLED.....	05/18/74		SAMPLED.....	08/11/67		SAMPLED.....	10/09/67	
FORMATION.....	TERT-		FORMATION.....	PERM-ROTIEGENDES		FORMATION.....	PERM-ROTIEGENDES	
GEOLOGIC PROVINCE CODE.....	000		GEOLOGIC PROVINCE CODE.....	000		GEOLOGIC PROVINCE CODE.....	000	
DEPTH, FEET.....	6740		DEPTH, FEET.....	8824		DEPTH, FEET.....	6547	
WELLHEAD PRESSURE, PSIG.....	2002		WELLHEAD PRESSURE, PSIG.....	3391		WELLHEAD PRESSURE, PSIG.....	2572	
OPEN FLOW, MCFD.....	5500		OPEN FLOW, MCFD.....	NOT GIVEN		OPEN FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT			COMPONENT, MOLE PCT			COMPONENT, MOLE PCT		
METHANE.....	67.4	-----	METHANE.....	91.2	-----	METHANE.....	93.1	-----
ETHANE.....	10.7	-----	ETHANE.....	3.6	-----	ETHANE.....	2.9	-----
PROPANE.....	6.1	-----	PROPANE.....	0.8	-----	PROPANE.....	0.4	-----
N-BUTANE.....	1.3	-----	N-BUTANE.....	0.2	-----	N-BUTANE.....	0.2	-----
ISOBUTANE.....	1.5	-----	ISOBUTANE.....	0.0	-----	ISOBUTANE.....	0.0	-----
N-PENTANE.....	0.2	-----	N-PENTANE.....	0.0	-----	N-PENTANE.....	0.0	-----
ISOPENTANE.....	0.5	-----	ISOPENTANE.....	0.0	-----	ISOPENTANE.....	0.0	-----
CYCLOPENTANE.....	0.1	-----	CYCLOPENTANE.....	0.0	-----	CYCLOPENTANE.....	0.0	-----
HEXANES PLUS.....	0.2	-----	HEXANES PLUS.....	0.0	-----	HEXANES PLUS.....	0.0	-----
NITROGEN.....	0.8	-----	NITROGEN.....	0.0	-----	NITROGEN.....	2.8	-----
OXYGEN.....	0.1	-----	OXYGEN.....	0.0	-----	OXYGEN.....	0.4	-----
ARGON.....	TRACE	-----	ARGON.....	TRACE	-----	ARGON.....	TRACE	-----
HYDROGEN.....	0.0	-----	HYDROGEN.....	0.0	-----	HYDROGEN.....	TRACE	-----
HYDROGEN SULFIDE.....	0.0	-----	HYDROGEN SULFIDE.....	0.0	-----	HYDROGEN SULFIDE.....	0.0	-----
CARBON DIOXIDE.....	11.2	-----	CARBON DIOXIDE.....	0.5	-----	CARBON DIOXIDE.....	0.1	-----
HELIUM.....	TRACE	-----	HELIUM.....	0.695	-----	HELIUM.....	0.02	-----
HEATING VALUE.....	1171	-----	HEATING VALUE.....	0.604	-----	HEATING VALUE.....	11.12	-----
SPECIFIC GRAVITY.....	0.845	-----	SPECIFIC GRAVITY.....	0.690	-----	SPECIFIC GRAVITY.....	0.590	-----

TABLE 3. - SAMPLES FROM GAS AND OIL WELLS IN FOREIGN COUNTRIES

		INDEX SAMPLE 11143	INDEX SAMPLE 10543	INDEX SAMPLE 10548
COUNTRY.....	UNITED KINGDOM		WEST GERMANY	WEST GERMANY
STATE OR PROVINCE.....	NORTH SEA		NIEDERSACHSEN	NIEDERSACHSEN
FIELD.....	WILCCAT		ANNAVEEN	APELDORN
WELL NAME.....	ARPET 48-29-5		ANNAVEEN T2	APELDORN T1
LOCATION.....	NOT GIVEN		WETTSCHBLATT NR. 3308	WETTSCHBLATT NR. 2310
OWNER.....	ATLANTIC OIL PRODUCING CO.		MOBIL OIL AG-WINTERSHALL AG	MOBIL OIL AG-DEUTSCHE ERDOL
COMPLETED.....	--/--/00		--/--/00	--/--/00
SAMPLED.....	09/20/67		03/15/66	03/14/66
FORMATION.....	PERM-ROTLIEGENDES		TRIA-BUNTSANDSTEIN	TRIA-BUNTSANDSTEIN
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	NOT GIVEN		2661	2350
WELLHEAD PRESSURE, PSIG.....	NOT GIVEN		2778	280
OPEN FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	94.7	58.0	25.5	
ETHANE.....	3.1	1.2	0.4	
PROPANE.....	0.7	0.4	0.1	
N-BUTANE.....	0.0	0.2	0.0	
ISOBUTANE.....	0.0	0.0	0.0	
N-PENTANE.....	0.0	0.0	0.0	
ISOPENTANE.....	0.0	0.0	0.0	
CYCLOPENTANE.....	0.0	0.0	0.0	
HEXANES PLUS.....	0.0	0.0	0.0	
NITROGEN.....	1.4	40.0	73.3	
OXYGEN.....	0.0	0.0	0.4	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	0.0	0.0	
HYDROGEN SULFIDE**.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.1	0.1	0.2	
HELIUM.....	0.03	0.10	0.12	
HEATING VALUE.....	1033	626	268	
SPECIFIC GRAVITY.....	0.583	0.733	0.864	

		INDEX SAMPLE 172 SAMPLE 10546
COUNTRY.....	WEST GERMANY	
STATE OR PROVINCE.....	NIEDERSACHSEN	
FIELD.....	FEHNDORF	
WELL NAME.....	FEHNDORF 2T	
LOCATION.....	WETTSCHBLATT NR. 2309	
OWNER.....	MOBIL OIL AG-DEUTSCHE ERDOL	
COMPLETED.....	--/--/00	
SAMPLED.....	03/15/66	
FORMATION.....	-OBERKARBON-STEFAN	
GEOLOGIC PROVINCE CODE.....	000	
DEPTH, FEET.....	3494	
WELLHEAD PRESSURE, PSIG.....	372	
OPEN FLOW, MCFD.....	NOT GIVEN	
COMPONENT, MOLE PCT		
METHANE.....	75.4	
ETHANE.....	0.4	
PROPANE.....	0.0	
N-BUTANE.....	0.0	
ISOBUTANE.....	0.0	
N-PENTANE.....	0.0	
ISOPENTANE.....	0.0	
CYCLOPENTANE.....	0.0	
HEXANES PLUS.....	0.0	
NITROGEN.....	20.3	
OXYGEN.....	0.0	
ARGON.....	0.0	
HYDROGEN.....	0.0	
HYDROGEN SULFIDE**.....	0.0	
CARBON DIOXIDE.....	3.8	
HELIUM.....	0.12	
HEATING VALUE.....	771	
SPECIFIC GRAVITY.....	0.677	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 4. - SAMPLES FROM PIPELINES IN FOREIGN COUNTRIES

1198

	INDEX SAMPLE 12085	INDEX SAMPLE 12086	INDEX SAMPLE 12468
COUNTRY.....	ARGENTINA	ARGENTINA	AUSTRALIA
STATE OR PROVINCE.....	SANTA CRUZ	SANTA CRUZ	NOT GIVEN
FIELD.....	CERRO REDONDO	CERRO REDONDO	MARLIN
LOCATION.....	EL CONDOR SATTERY NO. 1	EL CONDOR SATTERY NO. 2	NOT GIVEN
OWNER.....	YACIMIENTOS PETROLIFERO FISC	YACIMIENTOS PETROLIFERO FISC	ESSO STANDARD OIL LTD.
SAMPLED.....	05/23/69	05/15/69	06/26/70
FORMATION.....	-STRINGHILL	-STRINGHILL	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	000	000	000
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	2500	6000	1250
FLOW, MCFD.....	16000	12000	NOT GIVEN
COMPONENT, MOLE PCT			
METHANE.....	88.2	97.2	87.7
ETHANE.....	2.6	5.7	5.0
PROPANE.....	2.9	2.8	2.6
N-BUTANE.....	0.7	0.8	0.7
ISOBUTANE.....	0.6	0.6	0.6
N-PENTANE.....	0.2	0.3	0.4
ISOPENTANE.....	0.3	0.4	0.0
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.4	0.1
NITROGEN.....	1.4	1.5	0.5
OXYGEN.....	TRACE	0.0	0.0
ARGON.....	0.0	0.0	0.0
HYDROGEN.....	0.1	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.1	0.1	1.6
HELIUM.....	0.42	0.02	0.02
HEATING VALUE.....	1141	1155	1126
SPECIFIC GRAVITY.....	0.651	0.661	0.661

	INDEX SAMPLE 16045	INDEX SAMPLE 16044	INDEX SAMPLE 12146
COUNTRY.....	AUSTRALIA	AUSTRALIA	BANGLADESH
STATE OR PROVINCE.....	VICTORIA	VICTORIA	EAST PAKISTAN
FIELD.....	BARRACOUTA	MARLIN	TITAS
LOCATION.....	BASS STRAIT	BASS STRAIT	SAMPLED AT SCRUBBER
OWNER.....	ESSO/BHP	ESSO/BHP	PAKISTAN SHELL OIL CO., LTD.
SAMPLED.....	04/05/80	03/05/80	11/18/69
FORMATION.....	EOCE	EOCE	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	000	000	000
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	1510	1850	NOT GIVEN
FLOW, MCFD.....	260000	410000	4310
COMPONENT, MOLE PCT			
METHANE.....	85.7	80.7	96.5
ETHANE.....	5.9	7.3	1.8
PROPANE.....	3.0	4.9	0.4
N-BUTANE.....	0.6	1.4	0.1
ISOBUTANE.....	1.3	0.5	0.0
N-PENTANE.....	0.1	0.6	0.1
ISOPENTANE.....	0.5	0.8	TRACE
CYCLOPENTANE.....	0.3	0.2	TRACE
HEXANES PLUS.....	0.5	0.9	0.1
NITROGEN.....	1.6	0.5	0.5
OXYGEN.....	0.0	0.0	0.0
ARGON.....	0.0	0.0	TRACE
HYDROGEN.....	0.0	0.0	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	1.3	0.4
HELIUM.....	TRACE	TRACE	0.01
HEATING VALUE.....	1178	1280	1033
SPECIFIC GRAVITY.....	0.683	0.747	0.579

	INDEX SAMPLE 11026	INDEX SAMPLE 11013	INDEX SAMPLE 11012
COUNTRY.....	CANADA	CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA	ALBERTA	ALBERTA
FIELD.....	CARBON	CARBON CREEK	CARBON CREEK N
LOCATION.....	29-22-W4M	62-12-W5M	62-12-W5M
OWNER.....	WESTERN NAT. GAS CO	MOBIL OIL CANADA, LTD.	MOBIL OIL CANADA, LTD.
SAMPLED.....	07/04/67	06/02/67	06/02/67
FORMATION.....	-GLAUCONITE	DEVO-BEAVERHILL LAKE	DEVO-BEAVERHILL LAKE
GEOLOGIC PROVINCE CODE.....	000	000	000
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	1260	1360	500
FLOW, MCFD.....	5450	82525	10620
COMPONENT, MOLE PCT			
METHANE.....	85.0	71.7	67.0
ETHANE.....	6.7	11.1	15.5
PROPANE.....	1.2	1.2	1.2
N-BUTANE.....	0.8	1.2	1.7
ISOBUTANE.....	0.9	0.5	1.0
N-PENTANE.....	0.2	0.2	0.3
ISOPENTANE.....	0.2	0.3	0.3
CYCLOPENTANE.....	0.1	0.1	0.1
HEXANES PLUS.....	0.2	0.2	0.1
NITROGEN.....	0.4	0.5	0.5
OXYGEN.....	TRACE	1.3	0.2
ARGON.....	TRACE	0.1	TRACE
HYDROGEN.....	0.1	0.1	0.1
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.2	1.0	1.8
HELIUM.....	0.04	0.07	0.04
HEATING VALUE.....	1157	1134	1269
SPECIFIC GRAVITY.....	0.674	0.745	0.796

	INDEX SAMPLE 11208	INDEX SAMPLE 10992	INDEX SAMPLE 11209
COUNTRY.....	CANADA	CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA	ALBERTA	ALBERTA
FIELD.....	CARSTAIRS	CESSFORD	ELKTON S
LOCATION.....	30-22-W5M	24-12-W4M	NOT GIVEN
OWNER.....	HOME OIL CO. LTD.	CANEX GAS LTD.	HOME OIL CO. LTD.
SAMPLED.....	10/27/67	06/06/67	10/27/67
FORMATION.....	MISS-ELKTON	CRET-COLORADO	MISS-ELKTON
GEOLOGIC PROVINCE CODE.....	000	000	000
DEPTH, FEET.....	NOT GIVEN	NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	170000	18000	900
FLOW, MCFD.....			5000
COMPONENT, MOLE PCT			
METHANE.....	81.7	89.8	85.6
ETHANE.....	7.2	2.8	6.8
PROPANE.....	2.2	1.0	1.8
N-BUTANE.....	0.7	0.4	0.5
ISOBUTANE.....	0.5	0.3	0.4
N-PENTANE.....	0.3	0.1	0.1
ISOPENTANE.....	0.2	0.1	0.3
CYCLOPENTANE.....	0.1	TRACE	0.1
HEXANES PLUS.....	0.2	0.1	0.2
NITROGEN.....	1.3	4.6	0.5
OXYGEN.....	0.1	0.4	0.1
ARGON.....	TRACE	TRACE	TRACE
HYDROGEN.....	0.0	0.1	TRACE
HYDROGEN SULFIDE.....	0.0	0.0	0.0
CARBON DIOXIDE.....	0.5	TRACE	3.7
HELIUM.....	0.01	0.04	0.01
HEATING VALUE.....	1090	1028	1077
SPECIFIC GRAVITY.....	0.706	0.617	0.673

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 4. - SAMPLES FROM PIPELINES IN FOREIGN COUNTRIES

		INDEX SAMPLE	13 7213	INDEX SAMPLE	14 11021	INDEX SAMPLE	15 11038
COUNTRY.....	CANADA			CANADA		CANADA	
STATE OR PROVINCE.....	ALBERTA			ALBERTA		ALBERTA	
FIELD.....	ETZIKEM			FORT SASKATCHEWAN		HARMATTAN E	
LOCATION.....	NOT GIVEN			54-21-W4M		32-4-W5M	
OWNER.....	ASAMERA OIL CORP., LTD.			CANADIAN INDUSTRIAL GAS & OI		CANADIAN SUPERIOR OIL LTD.	
SAMPLED.....	07/23/59			07/04/67		07/13/67	
FORMATION.....	CRET-L			CRET-VIKING		MISS-TURNER VALLEY	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			450		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			16000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	91.1	-----		92.3	-----	81.3	-----
ETHANE.....	0.1	-----		0.6	-----	8.7	-----
PROpane.....	0.3	-----		0.6	-----	3.1	-----
N-BUTANE.....	0.0	-----		0.3	-----	0.8	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.6	-----
N-PENTANE.....	0.0	-----		0.0	-----	0.3	-----
ISOPENTANE.....	0.0	-----		0.0	-----	0.1	-----
CYCLOPENTANE.....	0.0	-----		0.0	-----	TRACE	-----
HEXANES PLUS.....	0.0	-----		0.0	-----	0.2	-----
NITROGEN.....	8.2	-----		4.3	-----	1.1	-----
OXYGEN.....	0.0	-----		0.0	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		0.0	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	0.0	-----		0.1	-----	3.7	-----
HELIUM.....	0.30	-----		0.09	-----	0.01	-----
HEATING VALUE.....	932	-----		1000	-----	1134	-----
SPECIFIC GRAVITY.....	0.590	-----		0.594	-----	0.702	-----
		INDEX SAMPLE	16 11040	INDEX SAMPLE	17 11039	INDEX SAMPLE	18 10988
COUNTRY.....	CANADA			CANADA		CANADA	
STATE OR PROVINCE.....	ALBERTA			ALBERTA		ALBERTA	
FIELD.....	HARMATTAN ELKTON			HARMATTAN LEDUC		KEYSTONE	
LOCATION.....	32-4-W5M			32-4-W5M		48-4-W5M	
OWNER.....	CANADIAN SUPERIOR OIL LTD.			CANADIAN SUPERIOR OIL LTD.		CANADA-CITIES SERVICE	
SAMPLED.....	07/13/67			07/17/67		05/30/67	
FORMATION.....	NOT GIVEN			HARMATTAN LEDUC		CRET-CARDIUM	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			1230		NOT GIVEN	
FLOW, MCFD.....	NOT GIVEN			NOT GIVEN		4700	
COMPONENT, MOLE PCT							
METHANE.....	81.5	-----		47.1	-----	86.2	-----
ETHANE.....	7.4	-----		1.5	-----	4.5	-----
PROpane.....	2.6	-----		0.0	-----	4.3	-----
N-BUTANE.....	0.9	-----		0.0	-----	1.5	-----
ISOBUTANE.....	0.0	-----		0.0	-----	0.7	-----
N-PENTANE.....	0.2	-----		0.0	-----	0.2	-----
ISOPENTANE.....	0.3	-----		0.0	-----	0.5	-----
CYCLOPENTANE.....	0.1	-----		0.0	-----	0.1	-----
HEXANES PLUS.....	0.2	-----		0.0	-----	0.2	-----
NITROGEN.....	0.9	-----		1.4	-----	1.4	-----
OXYGEN.....	0.1	-----		0.6	-----	0.0	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	TRACE	-----		0.0	-----	TRACE	-----
HYDROGEN SULFIDE.....	0.3	-----		45.4	-----	0.0	-----
CARBON DIOXIDE.....	4.9	-----		4.0	-----	0.3	-----
HELIUM.....	0.01	-----		0.05	-----	0.02	-----
HEATING VALUE.....	1114	-----		795	-----	1184	-----
SPECIFIC GRAVITY.....	0.710	-----		0.898	-----	0.682	-----
		INDEX SAMPLE	19 11182	INDEX SAMPLE	20 11023	INDEX SAMPLE	21 10995
COUNTRY.....	CANADA			CANADA		CANADA	
STATE OR PROVINCE.....	ALBERTA			ALBERTA		ALBERTA	
FIELD.....	MINNEHIK-BUCK LAKE			MORINVILLE		NOT GIVEN	
LOCATION.....	46-6-W5M			55-25-W4M		NOT GIVEN	
OWNER.....	CANADIAN DELHI OIL, LTD.			CANADIAN INDUSTRIAL GAS & OI		PACIFIC PETROLEUMS, INC.	
SAMPLED.....	06/07/67			07/04/67		06/07/67	
FORMATION.....	MISS-PEKISKO			-BASAL		NOT GIVEN	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	NOT GIVEN			425		NOT GIVEN	
FLOW, MCFD.....	65000			3000		NOT GIVEN	
COMPONENT, MOLE PCT							
METHANE.....	85.4	-----		86.0	-----	89.4	-----
ETHANE.....	6.8	-----		5.8	-----	4.9	-----
PROpane.....	2.4	-----		2.0	-----	1.3	-----
N-BUTANE.....	0.7	-----		0.0	-----	0.7	-----
ISOBUTANE.....	0.5	-----		0.3	-----	0.0	-----
N-PENTANE.....	0.2	-----		0.1	-----	0.0	-----
ISOPENTANE.....	0.2	-----		0.0	-----	0.0	-----
CYCLOPENTANE.....	TRACE	-----		TRACE	-----	0.0	-----
HEXANES PLUS.....	0.1	-----		0.1	-----	0.0	-----
NITROGEN.....	1.0	-----		2.4	-----	3.1	-----
OXYGEN.....	TRACE	-----		TRACE	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	0.1	-----
HYDROGEN.....	0.1	-----		TRACE	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		0.0	-----	0.0	-----
CARBON DIOXIDE.....	2.6	-----		2.6	-----	0.6	-----
HELIUM.....	0.01	-----		0.06	-----	0.06	-----
HEATING VALUE.....	1112	-----		1068	-----	1051	-----
SPECIFIC GRAVITY.....	0.669	-----		0.655	-----	0.621	-----
		INDEX SAMPLE	22 10996	INDEX SAMPLE	23 11252	INDEX SAMPLE	24 11197
COUNTRY.....	CANADA			CANADA		CANADA	
STATE OR PROVINCE.....	ALBERTA			ALBERTA		ALBERTA	
FIELD.....	OKOTOKS			OLDS		RETLAW	
LOCATION.....	21-28-W4M			NOT GIVEN		NOT GIVEN	
OWNER.....	TEXAS GULF SULPHUR CO., LTD.			AMERADA PETROLEUM CORP.		HOME OIL CO. LTD.	
SAMPLED.....	06/07/67			12/29/67		10/24/67	
FORMATION.....	NOT GIVEN			DEVO-CROSSFIELD		-GLAUCONITE	
GEOLOGIC PROVINCE CODE.....	000			000		000	
DEPTH, FEET.....	NOT GIVEN			NOT GIVEN		NOT GIVEN	
PRESSURE, PSIG.....	460			NOT GIVEN		700	
FLOW, MCFD.....	13500			52000		1500	
COMPONENT, MOLE PCT							
METHANE.....	94.5	-----		74.7	-----	79.9	-----
ETHANE.....	0.8	-----		5.7	-----	6.6	-----
PROpane.....	0.1	-----		2.0	-----	1.9	-----
N-BUTANE.....	0.1	-----		0.8	-----	0.5	-----
ISOBUTANE.....	TRACE	-----		0.3	-----	0.3	-----
N-PENTANE.....	0.1	-----		0.0	-----	0.1	-----
ISOPENTANE.....	TRACE	-----		0.1	-----	0.2	-----
CYCLOPENTANE.....	TRACE	-----		0.1	-----	TRACE	-----
HEXANES PLUS.....	0.1	-----		0.3	-----	0.2	-----
NITROGEN.....	3.9	-----		3.0	-----	4.8	-----
OXYGEN.....	0.1	-----		0.0	-----	0.1	-----
ARGON.....	TRACE	-----		TRACE	-----	TRACE	-----
HYDROGEN.....	0.0	-----		6.3	-----	0.0	-----
HYDROGEN SULFIDE.....	0.0	-----		5.3	-----	0.0	-----
CARBON DIOXIDE.....	TRACE	-----		0.04	-----	5.1	-----
HELIUM.....	0.04	-----		10.77	-----	0.16	-----
HEATING VALUE.....	987	-----		1047	-----	1029	-----
SPECIFIC GRAVITY.....	0.580	-----		0.747	-----	0.698	-----

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 4. - SAMPLES FROM PIPELINES IN FOREIGN COUNTRIES

1195

		INDEX SAMPLE 11198	INDEX SAMPLE 11003	INDEX SAMPLE 10993
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	RECLAVEN		SAMSON	SEDALIA
LOCATION.....	NOT GIVEN		NOT GIVEN	31-S-W4M
OWNER.....	HOME OIL CO. LTD.		CANADIAN FINA OIL LTD.	CANEX GAS LTD.
SAMPLED.....	10/24/67		05/29/67	06/08/67
FORMATION.....	CRET-BGM ISLAND		CRET-BASAL	CRET-VIKING
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	700		500	670
FLOW, MCFD.....	1000		1000	3800
COMPONENT, MOLE PCT				
METHANE.....	91.5	79.8	93.8	
ETHANE.....	1.0	0.9	0.2	
PROPANE.....	0.3	0.3	0.8	
N-BUTANE.....	0.0	0.2	0.4	
ISOBUTANE.....	0.0	0.1	0.1	
N-PENTANE.....	0.0	0.1	TRACE	
ISOPENTANE.....	0.0	0.2	0.2	
CYCLOPENTANE.....	0.0	TRACE	0.1	
HEXANES PLUS.....	0.0	0.1	0.1	
NITROGEN.....	6.3	4.6	3.2	
OXYGEN.....	0.0	0.1	0.0	
ARGON.....	TRACE	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	0.0	2.5	TRACE	
HELIUM.....	0.21	0.03	0.03	
HEATING VALUE.....	957	1097	1027	
SPECIFIC GRAVITY.....	0.594	0.698	0.597	

		INDEX SAMPLE 11022	INDEX SAMPLE 11024	INDEX SAMPLE 11020
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	ALBERTA
FIELD.....	ST. ALBERT BIG LAKE		WESTLOCK	WIMBORNE
LOCATION.....	NOT GIVEN		60-1-W5M	36-26-W4M
OWNER.....	CANADIAN INDUSTRIAL GAS & OI		CANADIAN INDUSTRIAL GAS & OI	MOBIL OIL CANADA, LTD.
SAMPLED.....	07/04/67		07/04/67	07/99/67
FORMATION.....	-OSTRACOD		CRET-VIKING	-D-3
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	500		700	850
FLOW, MCFD.....	15000		30000	23000
COMPONENT, MOLE PCT				
METHANE.....	58.7	92.5	79.8	
ETHANE.....	4.9	3.1	4.6	
PROPANE.....	0.0	1.1	2.5	
N-BUTANE.....	0.0	0.3	1.0	
ISOBUTANE.....	0.0	0.2	0.6	
N-PENTANE.....	0.0	TRACE	0.2	
ISOPENTANE.....	28.1	0.2	0.4	
CYCLOPENTANE.....	0.2	TRACE	0.1	
HEXANES PLUS.....	0.0	0.1	0.2	
NITROGEN.....	6.8	2.0	10.1	
OXYGEN.....	0.0	0.0	TRACE	
ARGON.....	0.0	TRACE	TRACE	
HYDROGEN.....	TRACE	TRACE	TRACE	
HYDROGEN SULFIDE.....	0.0	0.0	TRACE	
CARBON DIOXIDE.....	2.0	0.1	0.2	
HELIUM.....	0.04	0.06	0.12	
HEATING VALUE.....	1826	1097	1056	
SPECIFIC GRAVITY.....	1.170	0.605	0.691	

		INDEX SAMPLE 10994	INDEX SAMPLE 11028	INDEX SAMPLE 11332
COUNTRY.....	CANADA		CANADA	CANADA
STATE OR PROVINCE.....	ALBERTA		ALBERTA	BR COLUMBIA
FIELD.....	WOOD RIVER		MORSLEY	ALL IN B.C. EXCEPT FT. NELSON
LOCATION.....	PAYOA		87-7-W5M	NOT GIVEN
OWNER.....	CANEX GAS LTD.		SHELL CANADA LTD.	WEST COAST TRANSMISSION
SAMPLED.....	06/08/67		07/05/67	01/26/68
FORMATION.....	-QUARTZ BASAL		DEV0-	NOT GIVEN
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	800		650	NOT GIVEN
FLOW, MCFD.....	4500		16000	438000
COMPONENT, MOLE PCT				
METHANE.....	79.6	89.5	88.1	
ETHANE.....	1.0	1.9	5.2	
PROPANE.....	2.7	2.0	0.7	
N-BUTANE.....	0.6	0.3	0.7	
ISOBUTANE.....	0.4	0.4	0.3	
N-PENTANE.....	0.1	0.2	0.1	
ISOPENTANE.....	0.2	0.1	TRACE	
CYCLOPENTANE.....	TRACE	0.1	0.2	
HEXANES PLUS.....	0.0	6.0	0.6	
NITROGEN.....	3.5	TRACE	0.0	
OXYGEN.....	0.7	0.1	TRACE	
ARGON.....	TRACE	0.0	TRACE	
HYDROGEN.....	0.1	0.0	0.1	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	3.8	0.0	1.4	
HELIUM.....	0.02	0.53	0.02	
HEATING VALUE.....	1072	1049	1118	
SPECIFIC GRAVITY.....	0.698	0.651	0.649	

		INDEX SAMPLE 10706	INDEX SAMPLE 10707	INDEX SAMPLE 10709
COUNTRY.....	COLOMBIA		COLOMBIA	COLOMBIA
STATE OR PROVINCE.....	SANTANDER		SANTANDER	SANTANDER
FIELD.....	PAYOA		PAYOA	PAYOA
LOCATION.....	SANTANDER		SANTANDER	SANTANDER
OWNER.....	COLOMBIA CITIES SERVICE		COLOMBIA CITIES SERVICE	COLOMBIA CITIES SERVICE
SAMPLED.....	--/--/66		--/--/66	--/--/66
FORMATION.....	-LA PAZ		-LA PAZ	-LA PAZ
GEOLOGIC PROVINCE CODE.....	000		000	000
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN	NOT GIVEN
COMPONENT, MOLE PCT				
METHANE.....	84.5	84.4	84.3	
ETHANE.....	7.3	7.3	7.2	
PROPANE.....	4.5	4.4	4.3	
N-BUTANE.....	1.3	1.3	1.4	
ISOBUTANE.....	1.3	1.1	0.9	
N-PENTANE.....	0.2	0.4	0.6	
ISOPENTANE.....	0.2	0.3	0.2	
CYCLOPENTANE.....	0.2	0.1	0.2	
HEXANES PLUS.....	0.3	0.3	0.4	
NITROGEN.....	0.2	0.3	0.4	
OXYGEN.....	0.0	0.0	0.0	
ARGON.....	0.0	0.0	0.0	
HYDROGEN.....	0.0	0.0	0.0	
HYDROGEN SULFIDE.....	0.0	0.0	0.0	
CARBON DIOXIDE.....	TRACE	0.1	0.1	
HELIUM.....	TRACE	TRACE	TRACE	
HEATING VALUE.....	1236	1223	1235	
SPECIFIC GRAVITY.....	0.700	0.700	0.700	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 4. - SAMPLES FROM PIPELINES IN FOREIGN COUNTRIES

INDEX 37 SAMPLE 13302			INDEX 38 SAMPLE 13301			INDEX 39 SAMPLE 13303		
COUNTRY.....	INDONESIA		INDONESIA			INDONESIA		
STATE OR PROVINCE.....	JAVA SEA		JAVA SEA			JAVA SEA		
FIELD.....	ARDJUNA		ARDJUNA E			ARDJUNA E		
LOCATION.....	NOT GIVEN		SEPARATOR			E WELLS FLOW STAT.		
OWNER.....	ATLANTIC RICHFIELD IND., INC.		ATLANTIC RICHFIELD IND., INC.			ATLANTIC RICHFIELD IND., INC.		
SAMPLED.....	07/12/72		07/12/72			07/12/72		
FORMATION.....	MIOC-TJIBULAKAN		MIOC-TJIBULAKAN			MIOC-TJIBULAKAN		
GEOLOGIC PROVINCE CODE.....	000		000			000		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	59.1		62.6			50.7		
ETHANE.....	10.6		10.4			11.8		
PROPANE.....	18.3		12.9			22.4		
N-BUTANE.....	3.8		3.1			4.6		
ISOBUTANE.....	3.9		3.4			6.0		
N-PENTANE.....	1.0		0.3			2.1		
ISOPENTANE.....	0.1		1.0			0.0		
CYCLOPENTANE.....	0.1		0.1			0.3		
HEXANES PLUS.....	0.5		0.4			1.0		
NITROGEN.....	1.2		1.1			0.7		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		0.0			0.0		
HYDROGEN.....	0.0		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	1.3		1.3			0.4		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1593		1540			1815		
SPECIFIC GRAVITY.....	0.959		0.923			1.075		

INDEX 40 SAMPLE 13304			INDEX 41 SAMPLE 11114			INDEX 42 SAMPLE 11112		
COUNTRY.....	INDONESIA		MEXICO			MEXICO		
STATE OR PROVINCE.....	JAVA SEA		NUVO LEON			NUVO LEON		
FIELD.....	ARDJUNA E		CAMPO COMITAS			CAMPO CULEBRA		
LOCATION.....	ATLANTIC RICHFIELD IND., INC.		NOT GIVEN			NOT GIVEN		
OWNER.....	ATLANTIC RICHFIELD IND., INC.		PETROLEOS MEXICANOS			PETROLEOS MEXICANOS		
SAMPLED.....	07/12/72		07/13/67			07/13/67		
FORMATION.....	MIOC-TJIBULAKAN		-JM-1,2,4,5,10			-VARIOUS		
GEOLOGIC PROVINCE CODE.....	000		000			000		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		1180			876		
FLOW, MCFD.....	NOT GIVEN		50			17000		
COMPONENT, MOLE PCT								
METHANE.....	50.4		86.9			89.0		
ETHANE.....	11.9		6.7			5.1		
PROPANE.....	22.0		3.1			2.1		
N-BUTANE.....	2.1		0.2			0.5		
ISOBUTANE.....	0.1		1.0			0.6		
N-PENTANE.....	1.6		0.2			0.1		
ISOPENTANE.....	0.3		0.2			0.4		
CYCLOPENTANE.....	0.3		0.1			TRACE		
HEXANES PLUS.....	1.0		0.3			0.1		
NITROGEN.....	0.9		0.6			1.1		
OXYGEN.....	TRACE		TRACE			TRACE		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	0.0		TRACE			0.2		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.9		0.2			0.7		
HELIUM.....	0.01		TRACE			TRACE		
HEATING VALUE.....	1794		1177			1112		
SPECIFIC GRAVITY.....	1.072		0.667			0.642		

INDEX 43 SAMPLE 11111			INDEX 44 SAMPLE 11118			INDEX 45 SAMPLE 11109		
COUNTRY.....	MEXICO		MEXICO			MEXICO		
STATE OR PROVINCE.....	NUVO LEON		TAMAULIPAS			TAMAULIPAS		
FIELD.....	CAMPO CAMORANA		CAMPO 18 DE MARZO			CAMPO BRASIL		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	PETROLEOS MEXICANOS		PETROLEOS MEXICANOS			PETROLEOS MEXICANOS		
SAMPLED.....	09/13/67		09/10/67			09/10/67		
FORMATION.....	-EY-6,9,10		-AM-1,AM-2,Y2A,AM-3,Y4			-VARIOUS		
GEOLOGIC PROVINCE CODE.....	000		000			000		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	NOT GIVEN		1100			NOT GIVEN		
FLOW, MCFD.....	NOT GIVEN		29500			NOT GIVEN		
COMPONENT, MOLE PCT								
METHANE.....	86.9		95.3			93.6		
ETHANE.....	6.9		2.3			1.7		
PROPANE.....	2.7		0.4			0.3		
N-BUTANE.....	0.7		0.1			0.1		
ISOBUTANE.....	0.6		0.0			0.1		
N-PENTANE.....	0.2		0.0			TRACE		
ISOPENTANE.....	0.4		0.0			0.0		
CYCLOPENTANE.....	0.1		0.0			TRACE		
HEXANES PLUS.....	0.2		0.0			0.2		
NITROGEN.....	0.7		0.9			3.5		
OXYGEN.....	0.0		0.0			0.4		
ARGON.....	0.0		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.6		0.3			0.2		
HELIUM.....	TRACE		0.01			0.01		
HEATING VALUE.....	1157		1026			1003		
SPECIFIC GRAVITY.....	0.662		0.577			0.593		

INDEX 46 SAMPLE 11115			INDEX 47 SAMPLE 11117			INDEX 48 SAMPLE 11110		
COUNTRY.....	MEXICO		MEXICO			MEXICO		
STATE OR PROVINCE.....	TAMAULIPAS		TAMAULIPAS			TAMAULIPAS		
FIELD.....	CAMPO FCO. CAND.		CAMPO LONITAS			CAMPO MONTERREY		
LOCATION.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
OWNER.....	PETROLEOS MEXICANOS		PETROLEOS MEXICANOS			PETROLEOS MEXICANOS		
SAMPLED.....	09/11/67		09/03/67			09/11/67		
FORMATION.....	-A-1,2,3FS-4,5FM-6,7,11		-L-1,2,3,5,6,9,12,13,14			-FS-12,14,16A+20,21,FM-2		
GEOLOGIC PROVINCE CODE.....	000		000			000		
DEPTH, FEET.....	NOT GIVEN		NOT GIVEN			NOT GIVEN		
PRESSURE, PSIG.....	1100		1140			1100		
FLOW, MCFD.....	24600		6650			600		
COMPONENT, MOLE PCT								
METHANE.....	95.9		91.4			92.5		
ETHANE.....	2.3		1.0			4.4		
PROPANE.....	0.3		1.6			1.3		
N-BUTANE.....	0.2		0.5			0.4		
ISOBUTANE.....	TRACE		0.2			0.4		
N-PENTANE.....	0.1		0.2			0.1		
ISOPENTANE.....	0.0		0.2			0.2		
CYCLOPENTANE.....	0.2		0.1			0.1		
HEXANES PLUS.....	0.2		0.4			0.2		
NITROGEN.....	0.6		0.9			0.4		
OXYGEN.....	0.0		TRACE			TRACE		
ARGON.....	TRACE		TRACE			TRACE		
HYDROGEN.....	TRACE		0.0			0.0		
HYDROGEN SULFIDE.....	0.0		0.0			0.0		
CARBON DIOXIDE.....	0.3		0.2			0.1		
HELIUM.....	0.01		0.01			0.01		
HEATING VALUE.....	1042		1121			1103		
SPECIFIC GRAVITY.....	0.583		0.634			0.617		

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H₂S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 4. - SAMPLES FROM PIPELINES IN FOREIGN COUNTRIES

1197

INDEX SAMPLE 11113		INDEX SAMPLE 11116		INDEX SAMPLE 13954	
COUNTRY.....	MEXICO	COUNTRY.....	MEXICO	COUNTRY.....	NETHERLANDS
STATE OR PROVINCE.....	TAMAULIPAS	STATE OR PROVINCE.....	TAMAULIPAS	STATE OR PROVINCE.....	NOT GIVEN
FIELD.....	CAMPO REYNOSA	FIELD.....	CAMPO TREVINO	FIELD.....	BERGMEER
LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN	LOCATION.....	NOT GIVEN
OWNER.....	PETROLEOS MEXICANOS	OWNER.....	PETROLEOS MEXICANOS	OWNER.....	AMOCO NETHERLANDS PET. CO.
SAMPLED.....	09/08/67	SAMPLED.....	09/10/67	SAMPLED.....	02/28/74
FORMATION.....	-FS-2,3,4,5,6,7,8,9,11	FORMATION.....	-FS-4,FM-1,2,3,5,7,11,12	FORMATION.....	PERM-ROTLIEGENDES
GEOLOGIC PROVINCE CODE.....	000	GEOLOGIC PROVINCE CODE.....	000	GEOLOGIC PROVINCE CODE.....	000
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	1100	PRESSURE, PSIG.....	1150	PRESSURE, PSIG.....	2700
FLOW, MCFD.....	125100	FLOW, MCFD.....	50200	FLOW, MCFD.....	100000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.7	METHANE.....	96.3	METHANE.....	94.5
ETHANE.....	3.7	ETHANE.....	1.8	ETHANE.....	3.0
PROPANE.....	1.2	PROPANE.....	0.3	PROPANE.....	0.5
N-BUTANE.....	0.3	N-BUTANE.....	TRACE	N-BUTANE.....	0.1
ISOBUTANE.....	0.4	ISOBUTANE.....	0.2	ISOBUTANE.....	0.1
N-PENTANE.....	0.2	N-PENTANE.....	0.2	N-PENTANE.....	TRACE
ISOPENTANE.....	0.1	ISOPENTANE.....	0.0	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.3	HEXANES PLUS.....	0.2	HEXANES PLUS.....	1.1
NITROGEN.....	0.9	NITROGEN.....	0.9	NITROGEN.....	1.0
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.0	HYDROGEN.....	0.0	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.1	CARBON DIOXIDE.....	0.6
HELIUM.....	2.01	HELIUM.....	0.01	HELIUM.....	0.03
HEATING VALUE.....	1092	HEATING VALUE.....	1041	HEATING VALUE.....	1036
SPECIFIC GRAVITY.....	0.615	SPECIFIC GRAVITY.....	0.583	SPECIFIC GRAVITY.....	0.589

INDEX SAMPLE 13955		INDEX SAMPLE 14010		INDEX SAMPLE 12084	
COUNTRY.....	NETHERLANDS	COUNTRY.....	NORWAY	COUNTRY.....	PAKISTAN
STATE OR PROVINCE.....	NOT GIVEN	STATE OR PROVINCE.....	NORTH SEA	STATE OR PROVINCE.....	WEST PAKISTAN
FIELD.....	GROET	FIELD.....	EKOFISK	FIELD.....	CALHOUN DIST.
LOCATION.....	GROET	LOCATION.....	PHILLIPS GRP NORWAY EKOFISK	LOCATION.....	SIBI PLANT INLET
OWNER.....	AMOCO NETHERLANDS PET. CO.	OWNER.....	PHILLIPS PETROLEUM CO.	OWNER.....	PAKISTAN PETROLEUM, LTD.
SAMPLED.....	02/24/74	SAMPLED.....	02/17/74	SAMPLED.....	08/19/69
FORMATION.....	PERM-ROTLIEGENDES	FORMATION.....	PALE-DANIAN	FORMATION.....	-SUI MAIN LIMESTONE
GEOLOGIC PROVINCE CODE.....	000	GEOLOGIC PROVINCE CODE.....	000	GEOLOGIC PROVINCE CODE.....	000
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	2800	PRESSURE, PSIG.....	500	PRESSURE, PSIG.....	1765
FLOW, MCFD.....	60000	FLOW, MCFD.....	65000	FLOW, MCFD.....	160000
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	92.3	METHANE.....	83.2	METHANE.....	88.8
ETHANE.....	2.9	ETHANE.....	8.9	ETHANE.....	0.8
PROPANE.....	0.5	PROPANE.....	3.7	PROPANE.....	0.2
N-BUTANE.....	0.1	N-BUTANE.....	1.0	N-BUTANE.....	0.1
ISOBUTANE.....	0.1	ISOBUTANE.....	0.5	ISOBUTANE.....	0.0
N-PENTANE.....	TRACE	N-PENTANE.....	0.3	N-PENTANE.....	TRACE
ISOPENTANE.....	TRACE	ISOPENTANE.....	0.2	ISOPENTANE.....	0.1
CYCLOPENTANE.....	TRACE	CYCLOPENTANE.....	0.0	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	TRACE	HEXANES PLUS.....	0.1	HEXANES PLUS.....	0.1
NITROGEN.....	3.1	NITROGEN.....	0.5	NITROGEN.....	4.1
OXYGEN.....	0.0	OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	TRACE	ARGON.....	TRACE
HYDROGEN.....	TRACE	HYDROGEN.....	0.0	HYDROGEN.....	0.1
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	0.5	CARBON DIOXIDE.....	1.6	CARBON DIOXIDE.....	5.6
HELIUM.....	0.08	HELIUM.....	TRACE	HELIUM.....	0.01
HEATING VALUE.....	1007	HEATING VALUE.....	1175	HEATING VALUE.....	932
SPECIFIC GRAVITY.....	0.598	SPECIFIC GRAVITY.....	0.688	SPECIFIC GRAVITY.....	0.637

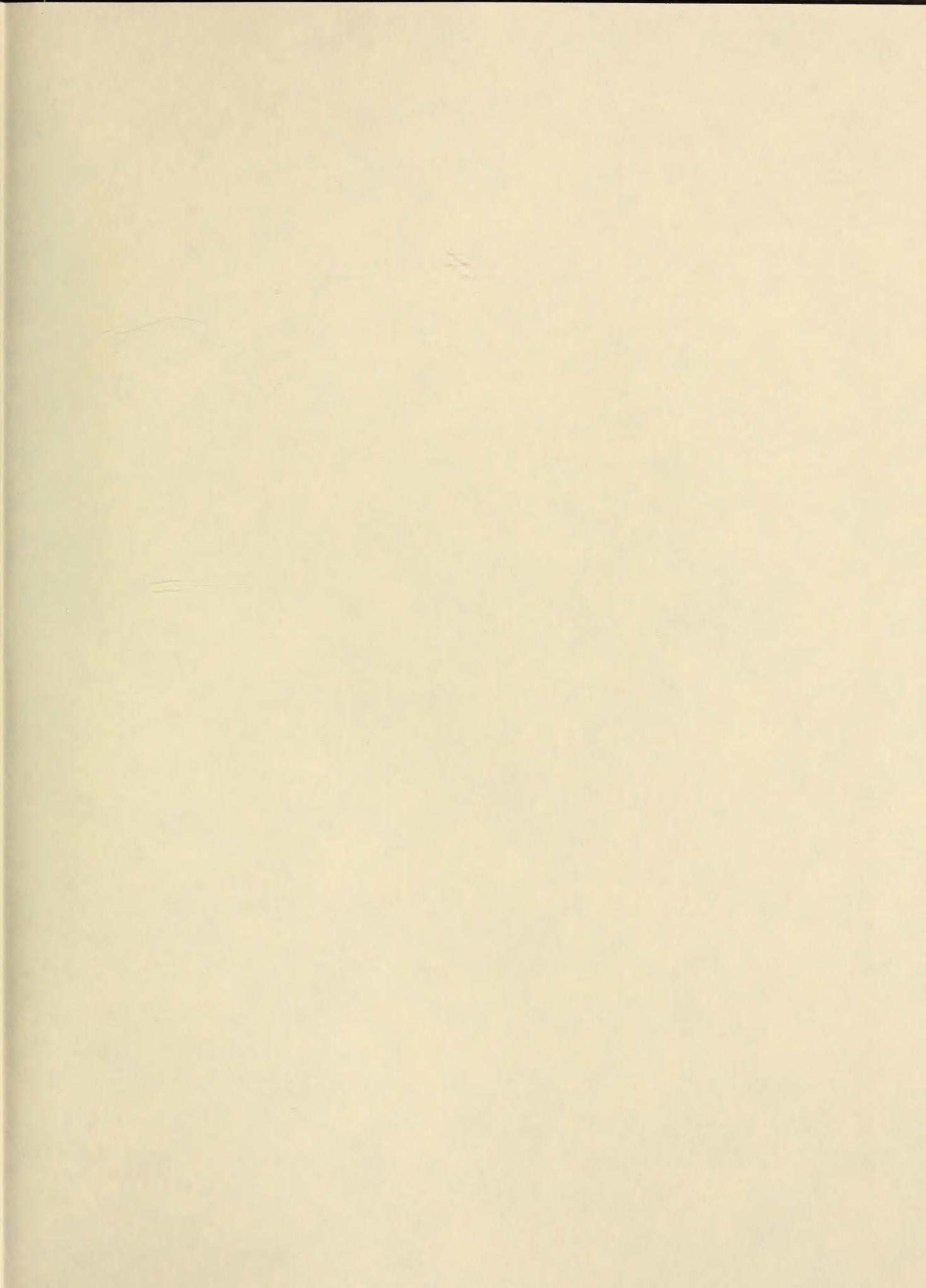
INDEX SAMPLE 11930		INDEX SAMPLE 11929		INDEX SAMPLE 16975	
COUNTRY.....	SAUDI ARABIA	COUNTRY.....	SAUDI ARABIA	COUNTRY.....	THAILAND
STATE OR PROVINCE.....	NOT GIVEN	STATE OR PROVINCE.....	NOT GIVEN	STATE OR PROVINCE.....	PHITSANULOK BSN
FIELD.....	SHEDDOW GOSP NO. 1	FIELD.....	UTMANYAH GOSP NO. 3	FIELD.....	SIRIKIT
LOCATION.....	HPPT D-11	LOCATION.....	HPPT D-1	LOCATION.....	LAN KRABU FLOW STA.
OWNER.....	PETROTHIN	OWNER.....	PETROTHIN	OWNER.....	THAI SHELL EXPL. & PROD. CO.
SAMPLED.....	04/28/69	SAMPLED.....	04/28/69	SAMPLED.....	05/18/83
FORMATION.....	NOT GIVEN	FORMATION.....	NOT GIVEN	FORMATION.....	UNKN-LAN-KRABU
GEOLOGIC PROVINCE CODE.....	000	GEOLOGIC PROVINCE CODE.....	000	GEOLOGIC PROVINCE CODE.....	000
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	55.6	METHANE.....	56.9	METHANE.....	45.0
ETHANE.....	16.9	ETHANE.....	16.9	ETHANE.....	23.8
PROPANE.....	2.5	PROPANE.....	2.4	PROPANE.....	17.9
N-BUTANE.....	0.8	N-BUTANE.....	0.9	N-BUTANE.....	4.7
ISOBUTANE.....	0.7	ISOBUTANE.....	0.8	ISOBUTANE.....	3.2
N-PENTANE.....	0.4	N-PENTANE.....	0.6	N-PENTANE.....	0.6
ISOPENTANE.....	0.4	ISOPENTANE.....	0.5	ISOPENTANE.....	0.5
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	0.2
HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.4	HEXANES PLUS.....	0.6
NITROGEN.....	0.2	NITROGEN.....	0.2	NITROGEN.....	0.6
OXYGEN.....	TRACE	OXYGEN.....	0.1	OXYGEN.....	0.1
ARGON.....	0.0	ARGON.....	0.0	ARGON.....	TRACE
HYDROGEN.....	0.3	HYDROGEN.....	TRACE	HYDROGEN.....	0.2
HYDROGEN SULFIDE.....	0.3	HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	10.2	CARBON DIOXIDE.....	8.5	CARBON DIOXIDE.....	0.8
HELIUM.....	0.0	HELIUM.....	0.0	HELIUM.....	TRACE
HEATING VALUE.....	1300	HEATING VALUE.....	1309	HEATING VALUE.....	1775
SPECIFIC GRAVITY.....	0.929	SPECIFIC GRAVITY.....	0.912	SPECIFIC GRAVITY.....	1.056

INDEX SAMPLE 16976		INDEX SAMPLE 13305	
COUNTRY.....	THAILAND	COUNTRY.....	UNITED KINGDOM
STATE OR PROVINCE.....	PHITSANULOK BSN	STATE OR PROVINCE.....	NORTH SEA
FIELD.....	SIRIKIT	FIELD.....	SOLE W
LOCATION.....	LAN KRABU FLOW STA.	LOCATION.....	NOT GIVEN
OWNER.....	THAI SHELL EXPL. & PROD. CO.	OWNER.....	BRITISH PETROLEUM OIL CO. LT
SAMPLED.....	05/18/83	SAMPLED.....	07/20/72
FORMATION.....	UNKN-LAN-KRABU	FORMATION.....	PERM-ROTLIEGENDES
GEOLOGIC PROVINCE CODE.....	000	GEOLOGIC PROVINCE CODE.....	000
DEPTH, FEET.....	NOT GIVEN	DEPTH, FEET.....	NOT GIVEN
PRESSURE, PSIG.....	NOT GIVEN	PRESSURE, PSIG.....	NOT GIVEN
FLOW, MCFD.....	NOT GIVEN	FLOW, MCFD.....	NOT GIVEN
COMPONENT, MOLE PCT		COMPONENT, MOLE PCT	
METHANE.....	58.4	METHANE.....	93.9
ETHANE.....	15.8	ETHANE.....	3.3
PROPANE.....	12.9	PROPANE.....	0.6
N-BUTANE.....	3.8	N-BUTANE.....	0.1
ISOBUTANE.....	2.7	ISOBUTANE.....	0.2
N-PENTANE.....	0.6	N-PENTANE.....	TRACE
ISOPENTANE.....	1.9	ISOPENTANE.....	TRACE
CYCLOPENTANE.....	0.1	CYCLOPENTANE.....	TRACE
HEXANES PLUS.....	0.6	HEXANES PLUS.....	0.1
NITROGEN.....	1.1	NITROGEN.....	1.2
OXYGEN.....	0.0	OXYGEN.....	0.0
ARGON.....	TRACE	ARGON.....	0.0
HYDROGEN.....	0.2	HYDROGEN.....	0.0
HYDROGEN SULFIDE.....	0.0	HYDROGEN SULFIDE.....	0.0
CARBON DIOXIDE.....	1.5	CARBON DIOXIDE.....	5.6
HELIUM.....	TRACE	HELIUM.....	0.03
HEATING VALUE.....	1578	HEATING VALUE.....	1041
SPECIFIC GRAVITY.....	0.950	SPECIFIC GRAVITY.....	0.593

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
 ** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE











LIBRARY OF CONGRESS



0 002 950 997 9